DEPARTMENT OF CITY PLANNING

APPEAL RECOMMENDATION REPORT

City Planning Commission

Date: May 14, 2020

Time: After 8:30 a.m.*

Place: In conformity with the Governor's Executive Order N-29-20 (March 17, 2020) and due to concerns over COVID-19, the CPC meeting will be conducted entirely telephonically by Zoom [https://zoom.us/].

The meeting's telephone number and access code access number will be provided no later than 72 hours before the meeting on the meeting agenda published at https://planning.lacity.org/about/commissions-boards-hearings and/or by contacting cpc@lacity.org

Public Hearing: Required
Appeal Status: Further Appealable to City Council
Expiration Date: May 15, 2020

Case No.: VTT-74602-1A
CEQA No.: ENV-2016-3693-MND
Related Cases: CPC-2016-3692-VZC-MCUP-SPR
Council No.: 10 – Wesson
Plan Area: Wilshire
Specific Plan: None
Certified NC: Wilshire Center-Koreatown
GPLU: Regional Center Commercial
Existing Zone: C4-2, P-2, PB-2
Proposed Zone: C4-2

Applicant: Central Plaza, LLC

Applicant Representative: Edgar Kalatian
Mayer Brown, LLP

Appellants: (1) Supporter's Alliance for Environmental Responsibility
(2) Katelyn Scanlan

Appellant Representatives: (1) Richard Drury
(2) Jennifer Wong

PROJECT LOCATION: 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, 666-678 South Irolo Street

PROPOSED PROJECT: Merger and re-subdivision of six subdivided lots and a non-subdivided remainder, into one ground lot and five airspace lots. Lot 1 consists of a master ground lot with approximately 316,438 square feet of lot area. Airspace Lot 2 consists of 640 apartment units with 32 units reserved for Moderate Income Households. Airspace Lot 3 is a commercial lot with an allocation of two commercial condominiums with 2,360 square feet of commercial space. Airspace Lot 4 consists of parking. Airspace Lot 5 consists of an existing five-story parking structure. Airspace Lot 6 is a commercial lot with an allocation of two commercial condominiums with 3,700 square feet of commercial space.

REQUEST: Appeals of the entire Advisory Agency's Determination as follows:

1. **FOUND**, pursuant to CEQA Guidelines Sections 15074(b), after consideration of the whole of the administrative record, including the Mitigated Negative Declaration, No. ENV-2016-3693-MND ("Mitigated Negative Declaration"), the Errata to the Mitigated Negative Declaration, dated March 2, 2020 and March 10, 2020, and all comments received, with the imposition of mitigation measures, there is no substantial evidence that the project will have a significant effect on the environment; **FOUND**, the Mitigated Negative Declaration reflects the independent judgment and analysis of the City; **FOUND** the mitigation measures have been made enforceable conditions on the project; and **ADOPTED** the Mitigated Negative Declaration, the Errata to the Mitigated Negative Declaration, dated March 2, 2020 and March 10, 2020, and the Mitigation Monitoring Program prepared for the Mitigated Negative Declaration.

2. **APPROVED**, in accordance with provisions of Section 17.03, 17.06, and 17.15 of the Los Angeles Municipal Code (LAMC), a Vesting Tentative Tract Map No. 74602 composed of six (6) lots, located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, for a maximum of one master ground lot and five airspace lots for a maximum of 640 apartment units and 4 commercial condominium units, as shown on revised map stamp-dated September 11, 2019, in the Wilshire Community Plan.

RECOMMENDATION:

1. **DENY** the appeals;

2. **FIND**, pursuant to CEQA Guidelines Section 15074(b), after consideration of the whole of the administrative record, including the Mitigated Negative Declaration, No. ENV-2016-3693-MND, the Errata to the Mitigated Negative Declaration, dated March 2, 2020 and March 10, 2020, and all comments received, with the imposition of mitigation measures, there is no substantial evidence that the project will have a significant effect on the environment; **FIND** the Mitigated Negative Declaration and the Errata to the Mitigated Negative Declaration, dated March 2, 2020 and March 10, 2020, reflect the independent judgment and analysis of the City; **FIND** the mitigation measures have been made enforceable conditions on the project; and **ADOPT** the Mitigated Negative Declaration, the Errata to the Mitigated Negative Declaration, dated March 2, 2020 and March 10, 2020, and the Mitigation Monitoring Program prepared for the Mitigated Negative Declaration;

3. **SUSTAIN** the Advisory Agency's Determination to approve Vesting Tentative Tract No. 74602;

4. **ADOPT** the Advisory Agency's Conditions of Approval and Findings; and

5. **ADOPT** the Technical Modification correcting the citation of the code sections as listed in the grant clause of the Advisory Agency's Determination.

VINCENT P. BERTONI, AICP

Advisory Agency

Jane Choi, AICP, Principal City Planner

Iris Wan, City Planner

ADVICE TO PUBLIC: *The exact time this report will be considered during the meeting is uncertain since there may be several other items on the agenda. Requirements for submission of materials can be found on the Department of City Planning website at https://planning.lacity.org/about/virtual-commission-instructions. If you challenge these agenda items in court, you may be limited to raising only those issues you or someone else raised at the public hearing agendized herein, or in written correspondence on these matters delivered to this agency at or prior to the public hearing. As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability, and upon request, will provide reasonable accommodation to ensure equal access to these programs, services and activities. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or other services may be provided upon request. To ensure availability of services, please make your request not later than seven working days prior to the meeting by calling the Commission Secretariat at (213) 978-1295.

TABLE OF CONTENTS

Background.....6

The Appeals/Staff Responses.....8

Technical Modification.....16

Staff Recommendation.....16

Exhibits:

A. Advisory Agency's Determination Letter (March 25, 2020)

B. Vesting Tentative Tract Map No. 74602 (September 11, 2019)

C. Appellant 1: Appeal Application and Justification

D. Appellant 2: Appeal Application and Justification

E. Applicant Responses to Appeals

F. Mitigated Negative Declaration

Appendix A.	Project Plans, Calliston RTKL, January 9, 2019
Appendix B.	Shade Study, Calliston RTKL, May 2017
Appendix C.	Air Quality and Greenhouse Gases Appendices, DKA Planning, August 2019
Appendix D.	Tree Report, Harmony Gardens, September 22, 2016
Appendix E-1.	Historic Resource Technical Report, Historic Resources Group, November 2018
Appendix E-2.	Archaeology response, South Central Coastal Information Center, July 20, 2017
Appendix F.	Energy Calculations, CAJA Environmental Services, September 2018
Appendix G-1.	Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018
Appendix G-2.	Soils Approval Letter, Los Angeles Department of Building and Safety December 24, 2018
Appendix G-3.	Paleontology response, Natural History Museum, July 20, 2017
Appendix H.	Phase I Environmental Site Assessment, IVI Assessment Services, October 22, 2014
Appendix I.	Noise Appendices, DKA Planning, September 2018

Appendix J-1. Los Angeles Unified School District response, July 12, 2017
Appendix J-2. Los Angeles Department of Recreation and Parks response, August 16, 2017
Appendix J-3. Los Angeles Public Library response, October 10, 2018
Appendix K-1. Transportation Impact Analysis, Fehr & Peers, September 2018
Appendix K-2. LADOT Assessment Letter, October 25, 2018
Appendix K-3. Traffic Study Technical Addendum, August 27, 2019
Appendix K-4. LADOT Assessment Letter, October 22, 2019
Appendix L-1. Los Angeles Bureau of Sanitation response, August 23, 2017
Appendix L-2. Los Angeles Department of Water and Power response, July 17, 2017
Appendix L-3. Water Supply Assessment, Los Angeles Department of Water and Power, July 18, 2017

Available on Department of City Planning Website
https://planning.lacity.org/odocument/823fc520-d985-4bc0-98a2-24d9817997c9/Pub_020620.htm

G. Mitigation Monitoring Program

H. Erratum (March 2, 2020)

I. Erratum (March 10, 2020)

APPEAL REPORT

BACKGROUND

Location and Setting

The subject site is an irregular shaped lot, consisting of 6 subdivided lots and a non-subdivided remainder, with approximately 320,534 square feet (7.3 acres) of lot area, pre-dedication, or 316,438 square feet (7.26 acres) of lot area, post-dedication. The site is a through lot, with frontages of approximately 398 feet along the south side of Wilshire Boulevard, 465 feet along the north side of 7th Street, 650 feet along the west side of Mariposa Avenue, and 405 feet along the east side of Irolo Street/Normandie Avenue.

The site is located within the Wilshire Community Plan area. The six westerly lots are zoned C4-2 and designated for Regional Center Commercial land uses. The non-subdivided piece of land (Lot NE ¼ Sec 25 T1S R14W[2] are zoned P-2, PB-2, C4-2, and designated for Regional Center Commercial land uses. The site is currently developed with four commercial office buildings with ground floor retail uses (the "Existing Office Buildings"), a three-story parking structure with 1,191 vehicular parking spaces, and a five-story parking structure with 707 vehicular parking spaces. The Existing Office Buildings contain approximately 760,456 feet of commercial uses. No residential units exist on the subject property. The Existing Office Buildings and five-story parking structure will remain and the three-story parking structure will be demolished as part of the proposed project.

There are 30 existing trees located in the public right-of-way, of which one is a protected species (*Quercus douglasii*, Blue Oak) and will not be removed. There are 29 trees located on the private portion of the project site, none of which are protected species.

Properties to the north across Wilshire Boulevard are zoned C4-2 and developed with the Wilshire Christian Oasis Church, Consulate General of Indonesia, and a mid-rise office building. Properties to the east across Mariposa Avenue are zoned C4-2, R5-2, and developed with a mid-rise office building, a three-level parking structure, 2-story residential buildings, and the Robert F. Kennedy Community Schools. Properties to the south across 7th Street are zoned R5-2 and developed with multi-family residential buildings. Properties to the west immediately adjacent to the project site are zoned R5-2, (T)(Q)C4-2, and developed with a 2-story commercial center with retail and restaurants, and 7-story multi-family residential building.

Project Summary

The project includes merger and re-subdivision of 6 existing lots and a non-subdivided remainder into one master ground lot and five airspace lots. Master Lot 1 consists of a ground lot; Airspace Lot 2 consists of 640 apartment units; Airspace Lot 3 consists of two commercial condominium units with 2,360 square feet of commercial space; Airspace Lot 4 consists of vehicular parking; Airspace Lot 5 is designated for the existing five-story parking structures; and Airspace Lot 6 consists of two

[2] NE ¼ Sec 25 T1S R14W is not a lot but a section per the California Township and Range map, i.e. a non-subdivided piece of land

commercial condominium units with 3,700 square feet of commercial space (Exhibit B). The project proposes the demolition of an existing three-story parking structure, for the construction of a 23-story residential tower and a 28-story residential tower, on top of a podium that is four stories above grade and two-stories subterranean. The project will provide 640 apartment units, of which 32 are set aside for restricted affordable units to Moderate Income Households, and 10,738 square feet of new commercial floor area. The project proposes 1,921 vehicular parking spaces, and 1,812 long-term and 28 short-term bicycle parking spaces. The project proposes to remove 19 street trees and 24 on-site trees. The project proposes to remove approximately 137,000 cubic yards of soil.

Appeals of Case No. VTT-74602

On March 25, 2020, the Advisory Agency adopted Mitigated Negative Declaration No. ENV-2016-3693-MND, the Errata to the Mitigated Negative Declaration, dated March 2, 2020 and March 10, 2020, and the Mitigation Monitoring Program, and approved Vesting Tentative Map No. 74602 composed of one master ground lot and five airspace lots for a maximum of 640 residential apartment units and 4 commercial condominium units (Exhibit A).

The Advisory Agency's Determination was subsequently appealed by two aggrieved parties on April 3, 2020 (Exhibit C) and April 6, 2020 (Exhibit D). The applicant submitted responses to the appeal on April 21, 2020 (Exhibit E).

Related Case No. CPC-2016-3692-VZC-MCUP-SPR

The applicant has filed a related Case No. CPC-2016-3692-VZC-MCUP-SPR requesting a Vesting Zone Change from P-2 and PB-2 to C4-2; a Master Conditional Use Permit to allow the sale and dispensing of full line of alcoholic beverages for on-site consumption at up to two establishments; and a Site Plan Review for a development that creates an increase of 50 or more dwelling units.

Mitigated Negative Declaration and Errata

Pursuant to the California Environmental Quality Act (CEQA), Mitigated Negative Declaration (MND) No. ENV-2016-3693-MND was prepared for the proposed project and circulated for 33 days from February 6, 2020 through March 9, 2020 (Exhibit F). The MND did identify potentially significant impacts in the category of transportation, and found that mitigation measures for the impacts would reduce impact levels to less than significant. The Mitigation Monitoring Program was also prepared for the MND (Exhibit G).

On March 2, 2020, an Erratum to the MND (Exhibit H) was prepared to address modifications to Section IX. Hazards and Hazardous Materials, pertaining to the methane buffer zone designation applicable to the site. The methane designation is correctly noted in the Preliminary Geotechnical Engineering Investigation, Geotechnologies Inc. (December 5, 2018), which was approved by the LADBS in Soils Approval Letter (included as Appendix G-2 to the MND). On March 10, 2020, an Erratum to the MND (Exhibit I) was prepared to address modifications to the designation to the proposed vehicular parking spaces. The designation of commercial and residential parking spaces was inadvertently swapped on the Cover page of the MND only. The MND document, including the

Project Description's Table A-5 (Vehicle Parking) has the correct designation. The total number of parking spaces remains correct. These changes in the Errata are minor corrections that are necessary due to an inadvertent typographical error. As such, the changes indicated do not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects that could result from the project or any changes to proposed mitigation measures. In accordance with CEQA Guidelines Section 15073.5, these changes do not represent "substantial revision". As such, no new circulation is necessary. Therefore, the Errata, dated March 2, 2020, and March 10, 2020, combined with the Draft IS/MND, including technical appendices and reports thereof, comprise the Final IS/MND.

THE APPEALS/STAFF RESPONSES

The subject Vesting Tentative Tract (VTT) map approval received two appeals: Supporter's Alliance for Environmental Responsibility ("Appellant 1") and Katelyn Scanlan ("Appellant 2"). Appellant 1 claimed that the Mitigated Negative Declaration (MND) as adopted by the Advisory Agency failed to comply with the California Environmental Quality Act (CEQA), and that the City must prepare an Environmental Impact Report (EIR). Appellant 2 claimed that the approval contained incomplete documents and raised concerns related to vehicular parking, construction impacts, and affordability of the residential units.

The appeals in their entirety are located in Exhibit C and Exhibit D. The following is a summary of the appeal points and staff responses to the appeal.

Appellant 1:

Appeal Point 1: ***The MND failed to adequately analyze environmental impacts of the project.***

Staff Response: The MND for the proposed project (Exhibit F) was prepared in accordance with State CEQA Statute and Guidelines and the City of Los Angeles CEQA Thresholds Guide. The MND follows Appendix G Environmental Checklist Form of the 2018 State CEQA Statute and Guidelines and provides analysis for each category in Appendix G, including aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural resources, utilities and service systems, and mandatory findings of significance. Additionally, the MND did identify potentially significant impacts in the category of transportation, and found that mitigation measures for the impacts would reduce impact levels to less than significant. The analysis for each category is based on technical studies that are included in the appendices, and supported with facts and substantial evidence that are cited throughout the MND.

To the contrary, the appellant's claim is unsubstantiated and inconsistent with the record of evidence contained in the MND. The appellant does not cite any

specific errors or inaccuracies in the MND. Furthermore, pursuant to Section 15064 of the State CEQA Statute and Guidelines, argument, speculation, unsubstantiated opinion or narrative, or evidence that is clearly inaccurate or erroneous, or evidence that is not credible, shall not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion support by facts. The appellant has not submitted any substantial evidence to support the claim that the project may have potentially significant impacts. Therefore, the Advisory Agency did not err or abuse his discretion in adopting the MND.

Appeal Point 2: ***The MND failed to propose all feasible mitigation measures and alternatives to reduce project impacts.***

Staff Response: Section XVII Transportation/Traffic in the MND (Exhibit F) requires the project to comply with Mitigation Measures TRAN-MM-1 (Construction Activity Near Schools) and TRAN-MM-2 (Safety Hazards) to reduce potentially significant impacts related to transportation and traffic. Both mitigation measures are included in the Advisory Agency's Determination Letter as Condition of Approval No. 25 (Exhibit A). Furthermore, the appellant has not submitted any supporting documents or evidence to substantiate their claim that the MND failed to propose all feasible mitigation measures and alternatives. Therefore, the Advisory Agency did not err or abuse his discretion in adopting the MND.

Appeal Point 3: ***The City must prepare an Environmental Impact Report (EIR) rather than an MND.***

Staff Response: The appellant provided assertions that the MND failed to adequately analyze environmental impacts of the project and failed to propose all feasible mitigation measures and alternatives to reduce project impacts. As such, the appellant argued that the City must prepare an EIR rather than an MND. The appellant does not provide substantial evidence or technical studies to support the assertions.

The appellant's assertion is unsubstantiated and inconsistent with the record of evidence contained in the adopted MND. The MND did identify potential impacts in the category of transportation, including construction impacts such as trucks and other equipment and operational changes to streets and sidewalks nearby the Robert F. Kenney Community Schools, as well as temporary impacts to pedestrian safety during construction of the project. As required per Condition of Approval No. 25 in the Advisory Agency's Determination Letter (Exhibit A), the project is required to comply with Mitigation Measures TRAN-MM-1 (Construction Activity Near Schools) and TRAN-MM-2 (Safety Hazards). Furthermore, as required per TRAN-PDF-1 (Construction Management Plan), the applicant shall develop a construction traffic management plan to be reviewed and approved by the Los Angeles Department of Transportation

(LADOT), in order to alleviate construction period impacts. With the imposition of these mitigation measures, the MND found that the impacts would be reduced to less than significant levels. The analysis of the MND was based on technical studies which were cited and included in the appendices of the MND. The appellant did not cite any specific purported errors or inaccuracies in the MND or provide any evidence that the project would result in a significant impact after mitigation, and therefore requires an EIR. Therefore, the Advisory Agency did not err or abuse his discretion in adopting the MND.

Appellant 2:

Appeal Point 1: ***The items submitted by the applicant were insufficient to warrant approval of the tract map.***

Staff Response: The appellant stated that items which must be satisfied were insufficient to warrant approval of the tract map. The appellant contended that the plot plan was incomplete, and that there was no documentation of where required on-site parking will be located and accessed. The appellant referred to page 3 in the Advisory Agency's Determination Letter (Exhibit A), which includes Condition No. 9.a through 9.k pertaining to requirements provided by the Department of Building and Safety, Zoning Division. These conditions require that the applicant provide revised documentations, including revised map and plot plans, prior to the recordation of the final map.

On the approved Vesting Tentative Tract Map stamp-dated September 11, 2019 (Exhibit B), it is noted that the vehicular parking for the project site will be located on Airspace Lots 4 and 5. This information is shown on pages 1, 3, 5 and 6 of the tentative map. The map also shows two vehicular driveways located along Mariposa Avenue. The two vehicular driveways along 7th Street are not clearly indicated on the map, but are shown on the project plans in Appendix A of the MND (Exhibit F). The approval of the Vesting Tentative Tract Map requires that the applicant satisfy all conditions listed in the Advisory Agency's Determination Letter (Exhibit A) prior to recordation of the final map, which includes submittal of revised map and plot plans

Appeal Point 2: ***Loss of vehicular parking spaces for the neighborhood.***

Staff Response: The existing three-story parking structure proposed to be demolished is not a City-owned public parking facility. It is a privately owned parking garage with approximately 1,191 spaces which provides vehicular parking for commercial tenants and visitors. As there are no existing residential uses on site, the parking garage does not provide for legally required residential parking on site. The demolition of the parking structure to construct a mixed-use development is consistent with the following objectives and policies of the Wilshire Community Plan as described below.

Objective 1-2: *Reduce vehicular trips and congestion by developing new housing in close proximity to regional and community commercial centers, subway stations and existing bus route stops.*

Policy 1-2.1: *Encourage higher density residential uses near major public transportation centers.*

Policy 1-4.3: *Encourage multiple family residential and mixed-use development in commercial zones.*

The site is located on the southeast corner of Wilshire Boulevard and Normandie Avenue, an intersection serviced by Metro Local lines 20 and 206, Metro Rapid line 720, and the Metro Purple Line Wilshire/Normandie Station. The site is also located approximately 0.4 miles west from the station located at Wilshire Boulevard and Vermont Avenue, serviced by Metro Local lines 51, 52, 201, 204, 351, Metro Rapid line 754, and DASH line Wilshire Center/Koreatown). The project's location in a transit rich corridor and in close proximity to employment, retail, and restaurants will promote the use of transit and pedestrian trips in lieu of vehicular trips. In addition, the proximity to public transit would provide alternative transportation options for residents and their guests to visit other regions, thereby contributing to the goal of reducing traffic congestion and improving air quality. Furthermore, the addition of 640 apartment units would help address the housing shortage in the City and provide higher density residential uses near Wilshire Boulevard, a major transit corridor.

Appeal Point 3: ***The affordable dwelling units provided are insufficient.***

Staff Response: On November 8, 2016, voters in the City of Los Angeles approved and passed Measure JJJ, the "Build Better LA Initiative". Among other provisions, the ballot initiative imposed minimum affordable housing requirements and labor regulations on any development project that results in 10 or more residential dwelling units, and requires a General Plan Amendment, Zone Change, and/or Height District Change that results in increased allowable residential floor area, density, height, or allows a residential use where previously not allowed. Measure JJJ became effective on December 13, 2016, following the Council's action to certify the election results. Additionally, pursuant to LAMC Section 11.5.11, developers seeking density incentives are no longer eligible for Zone Change, Height District Change or General Plan Amendments as part of their entitlement requests.

It should be noted that the proposed project includes a Vesting Zone Change, and that the Vesting Zone Change and the Vesting Tentative Map applications were deemed complete by the Department of City Planning on October 28, 2016, prior to the effective date of Measure JJJ regulations. Therefore, Measure JJJ is not applicable to this project. However, the applicant has volunteered to set aside

5% of the total number of units proposed as affordable units. Therefore, as required per Condition of Approval No. 22 in the Advisory Agency's Determination Letter (Exhibit A), the project shall make 32 units available to Moderate Income Households for rental as determined to be affordable to such households by the Los Angeles the Housing and Community Investment Department (HCIDLA), for a period of 55 years.

Appeal Point 4: ***The project will have impacts on air, noise, and traffic.***

Staff Response: The MND (Exhibit F) included Appendix C – Air Quality and Greenhouse Gases Appendices, prepared by DKA Planning, which provided data on estimated emissions for both construction and operation of the proposed project using the California Emissions Estimator Model (CalEEMod) program, as recommended by the South Coast Air Quality Management District (SCAQMD). As shown in Tables B.3-6 Estimated Daily Construction Daily Emissions (pounds/day) and B.3-7 Estimated Daily Operations Emissions (pounds/day) in Section III Air Quality of the MND (Exhibit F), neither of the construction or operational emissions generated by the proposed project would exceed the regional thresholds of significance set by the SCAQMD. As such, the project would have less than significant air quality impacts during construction and operation. Additionally, emissions from construction activities could have the potential to generate localized emissions that may expose sensitive receptors to harmful pollutant concentrations. However, as shown in Table B.3-6 and B.3-7 in the MND (Exhibit F), the project would not produce emissions that exceed the SCAQMD's recommended localized standards of significance. Therefore, localized air quality impacts from construction activities to the off-site sensitive receptors would be less than significant.

In regards to noise impacts, the MND included Appendix I – Noise Appendices, prepared by DKA Planning, analyzing any potential impacts of the proposed project. As shown in Table B.13-4 Construction Noise Levels, Table B.13-5 Existing + Project AM Peak Hour Mobile Source Noise Levels, and Table B.13-6 Existing + Project PM Peak Hour Mobile Source Noise Levels, no significant impacts were identified and estimated dBA did not exceed 75 dBA with implementation of the project. Tables B.13-7 and B.13-8 depicted estimated dBA in the future with project implementation in the a.m. and p.m. peak hours for mobile source noise levels. No significant impacts were identified and the estimated noise level did not exceed 75 dBA. Furthermore, the project is required to follow regulatory compliance measures per LAMC Section 112.05, which limits any noise levels from powered construction equipment to 75 dBA or below.

The MND also included Appendix K-1 - Transportation Impact Analysis, prepared by Fehr & Peers, identifying and evaluating potential traffic impacts of the proposed project. A Technical Addendum to the Transportation Impact Analysis was submitted (Appendix K-3 in the MND) due to changes made to the proposed

project. The original project involved the construction of 641 residential units and 18,454 square feet of retail space. The revised project description for the Technical Addendum provides for 640 residential units and 6,600 square feet of restaurant space. Per project plans shown in Appendix A of the MND, the project currently proposes 640 dwelling units, 5,200 square feet of restaurant space and 1,400 square feet of outdoor patio area. The Transportation Impact Analysis analyzed 6,600 square feet of restaurant space and provided a larger conservative approach which took into account the outdoor patio space associated with the restaurant use.

As shown in Table B.17-4 Trip Generation in Section XVII Transportation and Traffic of the MND (Exhibit F), the project is estimated to generate a net increase of 2,348 daily trips, including 153 net new trips in the a.m. peak hour and 202 net new trips in the p.m. peak hour. The Technical Addendum concluded that the project would not result in any significant impacts compared to existing conditions in either the a.m. or p.m. peak hours. In addition, the Transportation Impact Analysis analyzed the future with project conditions and the future without project conditions to assess the impacts of the project as compared to the future environment without the project, and concluded that the change in traffic flow generated by the project when compared to conditions without the project is not anticipated to result in a significant impact at any of the study intersections under future conditions. Furthermore, the Transportation Impact Analysis included a traffic signal warrant analysis for the unsignalized intersections of Mariposa Avenue and 7th Street to determine the need for the installation of a traffic signal or other traffic control devices, in accordance with the Los Angeles Department of Transportation (LADOT) Guidelines. The Transportation Impact Analysis found that a traffic signal is warranted during either or both the a.m. and p.m. peak hours during the existing plus project and future plus project scenarios for the intersection of Mariposa Avenue and 7th Street. Per LADOT Transportation Impact Study Guidelines (December, 2016), unsignalized intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device(s), but will not be included in the impact analysis. As required per Condition No. 10 in the Advisory Agency's Determination Letter (Exhibit A), the project is subject to any recommendations from the Department of Transportation. The Transportation Impact Analysis also included a freeway impact analysis that was prepared in accordance with the State-mandated Congestion Management Program (CMP) administered by the Los Angeles County Metropolitan Transportation Authority (MTA) and found that the project would not result in significant traffic impacts on any of the evaluated freeway mainline segments.

The Transportation Impact Analysis was reviewed and approved by LADOT as shown in Appendix K-4 – LADOT Assessment Letter of the MND (Exhibit F). The LADOT Letter confirms that the results of the Transportation Impact Analysis

accounted for other known development projects in evaluating potential cumulative impacts and adequately evaluated the project's traffic impacts on the surrounding community. The LADOT Letter also confirmed that no additional freeway analysis is required.

In addition, per the LADOT Letter, the project is required to submit a construction work site traffic control plan to LADOT for review and approval prior to the start of any construction work. The plan would show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. The project is also required to submit internal circulation schemes and driveway dimensions to LADOT for review and approval.

Lastly, the project is required to comply with Mitigation Measure TRAN-MM-1 (Construction Activity Near Schools) and TRAN-MM-2 (Safety Hazards), identified in Section XVII Transportation/Traffic of the MND (Exhibit F) and imposed as Condition of Approval No. 25 in the Advisory Agency's Determination Letter (Exhibit A). These mitigation measures require the installation of construction related traffic signs, covered walkways, temporary pedestrian protection facilities including K-Rails or scaffolding, and submittal of plans to LADOT for review and approval. As such, with implementation of the mitigation measures, the proposed project would have less than significant transportation and traffic impacts.

To the contrary, the appellant has not submitted detailed explanation or substantial evidence demonstrating how the project would have significant impacts on transportation and traffic. Therefore, the Advisory Agency did not err or abuse his discretion in adopting the MND.

Appeal Point 5: ***Height restrictions should be put in place for the new construction.***

Staff Response: The project site is located within Height District No. 2, which provides for unlimited height for the development in commercial zones. In conjunction with the tract map, the applicant has requested a Vesting Zone Change from PB-2 and P-2 to C4-2. As such, the proposed building height for the new construction would be permitted. Furthermore, in the recommendation report for concurrent Case No. CPC-2016-3692-VZC-MCUP-SPR, a new "D" Limitation is included to limit the maximum building height to 282 feet for the 23-story tower and 332 for the 28-story tower.

Appeal Point 6: ***Developer should commit to replace removed trees on a 2:1 basis to make up for the loss of shade on public sidewalks.***

Staff Response: Per project plans shown as Appendix A in the MND, the project proposes to remove nine street trees along Wilshire Boulevard and ten street trees along

Mariposa Avenue, for a total of 19 street trees to be removed. This information is also shown on page 1 of the approved Vesting Tentative Tract Map stamp-dated September 11, 2019. As required per Condition of Approval No. 20 in the Advisory Agency's Determination Letter (Exhibit A), parkway tree removals shall be planted at a 2:1 ratio. The project is required to provide street tree plantings according to current standards. Furthermore, removal or planting of any tree in the public right-of-way requires approval of the Board of Public Works. As such, the project will need to provide street trees at a ratio of 2:1 for each proposed removal.

Appeal Point 7: ***The proposed density is unsuitable for the site.***

Staff Response: The project site is currently developed with four commercial office buildings, a five-story parking structure with 707 vehicular parking spaces, and a three-story parking structure with 1,191 vehicular parking spaces. The existing office buildings contain approximately 760,456 square feet of commercial floor area. The project proposes to demolish the existing three-story parking structure, with the five-story parking structure and four office buildings to remain. There are no existing residential uses on site.

In conjunction with the requested tract map, the applicant has requested a Vesting Zone Change from PB-2 and P-2 to C4-2, for the construction of 640 residential apartment dwelling units, four commercial condominium units, and 10,738 square feet of commercial floor area. As proposed, the project would have a maximum FAR of 4.65:1, which is within the maximum FAR of 6:1 allowed on site.

Pursuant to LAMC Section 12.22 A.18 (a), any CR, C1, C1.5, C2, C4, or C5 Zone within an area designated as "Regional Center" or "Regional Commercial" is permitted R5 uses. The project site has an existing underlying land use designation of Regional Center Commercial, and with the requested Vesting Zone Change would rezone portions of the site from P-2 and PB-2 Zones to a C4-2 Zone. Developments at the R5 density requires a minimum of 200 square feet per dwelling unit. The project site has a lot area of 316,438 square feet post dedications. With the approval of the requested Vesting Zone Change, the maximum density permitted would be 1,582 dwelling units. The project proposes a total of 640 dwelling units, which is below the maximum density permitted. As such, the proposed density is suitable for the project site. Furthermore, as required per Condition of Approval No. 21.j in the Advisory Agency's Determination Letter (Exhibit A), in the event that Case No. CPC-2016-3692-VZC-MCUP-SPR is not approved, the applicant shall submit a tract map modification.

TECHNICAL MODIFICATION

The Advisory Agency's Determination Letter dated March 25, 2020 (Exhibit A) inadvertently contained typographical errors in the grant clause. The first paragraph of the grant clause cited LAMC Sections 17.51 and 17.53. The correct code sections are LAMC Sections 17.03, 17.06, and 17.15. All other Conditions of Approval and Findings in the original Determination Letter dated March 25, 2020 remain in force and effect.

STAFF RECOMMENDATION

Based on the aforementioned information, the Advisory Agency did not err or abuse his discretion. The MND adequately analyzed potential environmental impacts of the proposed project and imposed mitigation measures to reduce impacts to less than significant levels. In addition, the Errata to the MND, dated March 2, 2020, and March 20, 2020, incorporates minor modifications related to designation of methane zone and the vehicular parking proposed, which are not considered substantial revision pursuant to CEQA Guidelines Section 15073.5 and do not require new circulation of the MND. Therefore, staff recommends that the City Planning Commission deny the appeal; adopt the MND, the Errata to the MND, dated March 2, 2020, and March 10, 2020, and the Mitigation Monitoring Program prepared for the MND; adopt the technical modification to cite LAMC Sections 17.03, 17.06, and 17.15 in the grant clause, and sustain the Advisory Agency's decision to approve the Vesting Tentative Tract Map.

DEPARTMENT OF
CITY PLANNING

COMMISSION OFFICE
(213) 978-1300

CITY PLANNING COMMISSION

SAMANTHA MILLMAN
PRESIDENT

VAHID KHORSAND
VICE-PRESIDENT

DAVID H. J. AMBROZ
CAROLINE CHOE
HELEN LEUNG
KAREN MACK
MARC MITCHELL
VERONICA PADILLA-CAMPOS
DANA M. PERLMAN

CITY OF LOS ANGELES
CALIFORNIA

ERIC GARCETTI
MAYOR

EXHIBIT A
ADVISORY AGENCY'S DETERMINATION
VTT-74602

KEVIN J. KELLER, AICP
EXECUTIVE OFFICER

SHANA M.M. BONSTIN
DEPUTY DIRECTOR

TRICIA KEANE
DEPUTY DIRECTOR

ARTHI L. VARMA, AICP
DEPUTY DIRECTOR

LISA M. WEBBER, AICP
DEPUTY DIRECTOR

Decision Date: March 25, 2020

Appeal End Date: April 6, 2020

Central Plaza, LLC (O)(A)
3470 Wilshire Blvd., Ste. 700
Los Angeles, CA 90010

Edgar Khalatian (R)
Mayer Brown LLP
350 S. Grand Avenue, 25th Floor
Los Angeles, CA 90071

Re: VTT-74602
3432-3470 West Wilshire Boulevard
659-699 South Mariposa Avenue
3265-3287 West 7th Street
666-678 South Irolo Street
Wilshire Community Plan
Zone: P-2, PB-2, C4-2
D.M.: 132B193, 132B197
C.D.: 10 - Wesson
CEQA: ENV-2016-3693-MND
Legal Description: Lots FR 93, 94, 95, 96, 97, 98 of Wilshire Harvard Heights Tract, Lot PT NE ¼ SEC 25 T1S R14W

VESTING TENTATIVE TRACT MAP REPORT WITH CONDITIONS

In accordance with provisions of Section 17.51 and 17.53 of the Los Angeles Municipal Code (LAMC), the Advisory Agency adopts Mitigated Negative Declaration ENV-2016-3693-MND as the environmental clearance and the Mitigation Monitoring Program, and approves Vesting Tentative Tract Map No. VTT-74602 composed of six (6) lots, located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, for a maximum of **one master ground lot and five airspace lots** for a maximum of **640 apartment units and 4 commercial condominium units**, as shown on revised map stamp-dated September 11, 2019, in the Wilshire Community Plan. This unit density is based on the C4-2 Zone. (The subdivider is hereby advised that the LAMC may not permit this maximum approved density. Therefore, verification should be obtained from the Department of Building and Safety which will legally interpret the Zoning Code as it applies to this particular property.) The Advisory Agency's approval is subject to the following conditions:

NOTE on clearing conditions: When two or more **agencies** must clear a condition, subdivider should follow the sequence indicated in the condition. For the benefit of the applicant, subdivider shall maintain record of all conditions cleared, including all material supporting clearances and be prepared to present copies of the clearances to each reviewing agency as may be required by its staff at the time of its review.

BUREAU OF ENGINEERING - SPECIFIC CONDITIONS
Any questions regarding this report should be directed to Mr. Georgic Avanesian of the Land Development Section, located at 201 North Figueroa Street, Suite 290, or by calling (213) 808-8588.

1. That a 13-foot and a 3-foot wide strips of land be dedicated along 7th Street adjoining the tract to complete a 43-foot wide half right-of-way in accordance with **Avenue II** of the **LA Mobility Plan** including a 15-foot by 15-foot minimum property line cut corner at the intersection with Mariposa Avenue.

2. That a 15-foot by 15-foot minimum property line cut corners be dedicated at the Wilshire Boulevard intersections with Mariposa Avenue and Normandie Avenue adjoining the tract.

3. That the subdivider make a request to the Central District Office of the Bureau of Engineering to determine the capacity of existing sewers in this area.

4. That a set of drawings for airspace lots be submitted to the City Engineer showing the followings:

    a. Plan view at different elevations.

    b. Isometric views.

    c. Elevation views.

    d. Section cuts at all locations where air space lot boundaries change.

5. That the owners of the property record an agreement satisfactory to the City Engineer stating that they will grant the necessary private easements for ingress and egress purposes to serve proposed airspace lots to use upon the sale of the respective lots and they will maintain the private easements free and clear of obstructions and in safe conditions for use at all times.

6. That a Covenant and Agreement be recorded advising all future owners and builders that prior to issuance of a building permit, a Notice of **Acknowledgment of Easement** must be recorded and an application to do work in any drainage and sewer easements and to construct over the existing drainage facilities must be submitted to the City Engineer for approval.

7. That all the proposed tract map boundary lines be properly established in accordance with Section 17.07.D of the Los Angeles Municipal Code prior to the recordation of the final map satisfactory to the City Engineer (survey Division).

DEPARTMENT OF BUILDING AND SAFETY, GRADING DIVISION
Grading Division approvals are conducted at 221 North Figueroa Street, 12th Floor suite 1200. The approval of this Tract Map shall not be construed as having been based upon a geological investigation such as will authorize the issuance of the building permit of the subject property. Such permits will be issued only at such time as the Department of Building and Safety has received such topographic maps and geological reports as it deems necessary to justify the issuance of such building permits.

8. The applicant shall comply with any requirements with the Department of Building and Safety, Grading Division for recordation of the final map and issuance of any permit.

DEPARTMENT OF BUILDING AND SAFETY, ZONING DIVISION
An appointment is required for the issuance of a clearance letter from the Department of Building and Safety. The applicant is asked to contact Eric Wong at (213) 482-6876 to schedule an appointment

9. That prior to recordation of the final map, the Department of Building and Safety, Zoning Division shall certify that no Building or Zoning Code violations exist on the subject site. In addition, the following items shall be satisfied:

    a. Provide copy of building records, plot plan, and certificate of occupancy of all existing structures to remain to verify the last legal use and the number of parking spaces required and provided on each site.

    b. Obtain permits for the demolition or removal for existing buildings to be demolished or a building permit (alteration) for removal of portion of existing building. Provide copies of the demolition permits and / or building permits and signed inspection cards to show completion of the demolition work.

    c. The submitted Map dimensions do not agree with ZIMAS. Revise the Map to address the discrepancy or obtain approval from Department of City Planning.

    d. Provide a copy of affidavit AFF-91-1945807-MB, AFF-5912 and AFF-67530. Show compliance with all the conditions/requirements of the above affidavit(s) as applicable. Termination of above affidavit(s) may be required after the Map has been recorded. Obtain approval from the Department, on the termination form, prior to recording.

    e. Provide a copy of ZA case ZA-1997-756-RV-PA4. Show compliance with all the conditions/requirements of the ZA case as applicable.

    f. Provide a copy of DIR case DIR-1997-756-RV-PA3-1A. Show compliance with all the conditions/requirements of the DIR case as applicable.

    g. Provide a copy of CPC case CPC-2016-3692-VZC-MCUP-SPR. Show compliance with all the conditions/requirements of the CPC case as applicable.

    h. Zone Change must be recorded prior to obtaining Zoning clearance.

    i. Obtain Bureau of Engineering approval for the proposed street merger.

    j. Show all street dedication(s) as required by Bureau of Engineering and provide net lot area after all dedication. “Area” requirements shall be re-checked as per net lot area after street dedication. Front, side and rear yard requirements shall be required to comply with current code as measured from new property lines after dedication(s).

    k. The submitted plot plan is not complete. Clearly show on the Site Plan, all existing buildings to remain. Provide a plot plan drawn to scale that accurately dimensions all: property lines, street frontages, lot areas, building sizes and required yards on the site. Indicate the number of stories, height, permitted use, all required parking and the type of construction for all buildings on the site.

l. Required parking spaces are required to remain on the site. Show location of all parking spaces and access driveways. Provide copy of the finaled building permit for the maintenance of parking on site and relocation of driveway.

m. Provide and record a Covenant and Agreement (affidavit) regarding Maintenance of Building on Air Space Lots. Provide Metes and Bounds to establish and identify the boundaries of the parcel with the correct legal description.

Notes:

There is a 5 ft. Building Line along Wilshire Boulevard on this Subdivision.

This property is located in Transit Priority Area in the City of Los Angeles, ZI-2452.

This property is located in MTA Project, ZI-1117.

This property is located in Wilshire / Koreatown Community Redevelopment Area.

This property is located in a Flood Zone.

This property is located in a Fire District 1 Zone.

This property is located in a Methane Buffer Zone.

The submitted Map may not comply with the number of parking spaces required by Section 12.21 A 4 (a) based on number of habitable rooms in each unit. If there are insufficient numbers of parking spaces, obtain approval from the Department of City Planning.

The submitted Map may not comply with the number of guest parking spaces required by the Advisory Agency.

The existing or proposed building plans have not been checked for and shall comply with Building and Zoning Code requirements. With the exception of revised health or safety standards, the subdivider shall have a vested right to proceed with the proposed development in substantial compliance with the ordinances, policies, and standards in effect at the time the subdivision application was deemed complete. Plan check will be required before any construction, occupancy or change of use.

If the proposed development does not comply with the current Zoning Code, all zoning violations shall be indicated on the Map.

DEPARTMENT OF TRANSPORTATION

10. That the project be subject to any recommendations from the Department of Transportation.

FIRE DEPARTMENT

The applicant is further advised that all subsequent contact regarding these conditions must be with the Hydrant and Access Unit. This would include clarification, verification of condition compliance and plans or building permit applications, etc., and shall be accomplished ***BY APPOINTMENT ONLY****, in order to assure that you receive service with a minimum amount of waiting please call* ***(213) 482-6543****. You should advise any consultant representing you of this*

requirement as well.

11. That prior to the recordation of the final map, a suitable arrangement shall be made satisfactory to the Fire Department, binding the subdivider and all successors to the following:

    a. Submittal of plot plans for Fire Department review and approval prior to recordation of Tract Map Action.

    b. Access for Fire Department apparatus and personnel to and into all structures shall be required.

    c. Address identification. New and existing buildings shall have approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property.

    d. One or more Knox Boxes will be required to be installed for LAFD access to project. Location and number to be determined by LAFD Field Inspector. (Refer to FPB Req # 75).

    e. The entrance to a Residential lobby must be within 50 feet of the desired street address curb face.

    f. The entrance or exit of all ground dwelling units shall not be more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

    g. Where above ground floors are used for residential purposes, the access requirement shall be interpreted as being the horizontal travel distance from the street, driveway, alley, or designated fire lane to the main entrance of individual units.

    h. No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

    2014 CITY OF LOS ANGELES FIRE CODE, SECTION 503.1.4 (EXCEPTION)

        a. When this exception is applied to a fully fire sprinklered residential building equipped with a wet standpipe outlet inside an exit stairway with at least a 2 hour rating the distance from the wet standpipe outlet in the stairway to the entry door of any dwelling unit or guest room shall not exceed 150 feet of horizontal travel AND the distance from the edge of the roadway of an improved street or approved fire lane to the door into the same exit stairway directly from outside the building shall not exceed 150 feet of horizontal travel.

        b. It is the intent of this policy that in no case will the maximum travel distance exceed 150 feet inside the structure and 150 feet outside the structure. The term “horizontal travel” refers to the actual path of travel to be taken by a person responding to an emergency in the building.

        c. This policy does not apply to single-family dwellings or to non-residential buildings

    Building designs for multi-storied residential buildings shall incorporate at least one access stairwell off the main lobby of the building; But, in no case greater than 150ft horizontal

travel distance from the edge of the public street, Private Street or Fire Lane. This stairwell shall extend onto the roof.

Entrance to the main lobby shall be located off the address side of the building.

Any required Fire Annunciator panel or Fire Control Room shall be located within 20ft visual line of site of the main entrance stairwell or to the satisfaction of the Fire Department.

Adequate off-site public and on-site private fire hydrants may be required. Their number and location to be determined after the Fire Department's review of the plot plan.

The Fire Department may require additional roof access via parapet access roof ladders where buildings exceed 28 feet in height, and when overhead wires or other obstructions block aerial ladder access.

Recently, the Los Angeles Fire Department (LAFD) modified Fire Prevention Bureau (FPB) Requirement 10. Helicopter landing facilities are still required on all High-Rise buildings in the City. However, FPB's Requirement 10 has been revised to provide two new alternatives to a full FAA-approved helicopter landing facilities.

Each standpipe in a new high-rise building shall be provided with two remotely located FDC's for each zone in compliance with NFPA 14-2013, Section 7.12.2.

FPB #105
5101.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

LOS ANGELES UNIFIED SCHOOL DISTRICT (LAUSD)

12. That prior to the issuance of any demolition or grading permit or any other permit allowing site preparation and/or construction activities on the site, satisfactory arrangements shall be made with the Los Angeles Unified School District, implementing the measures for demolition and construction contained in the LAUSD letter dated March 9, 2020, attached to the Tract file. The project site is located on the pedestrian and bus routes for students attending Robert F. Kennedy Academy Community Schools. Therefore, the applicant shall make timely contact for coordination to safeguard pedestrians/ motorists with the LAUSD Transportation Branch, phone no. 213-580-2950 or (213)580-2900, and the principals or designees of name of schools. (This condition may be cleared by a written communication from the LAUSD Transportation Branch attesting to the required coordination and/or the principals of the above referenced schools and to the satisfaction of the Advisory Agency).

DEPARTMENT OF WATER AND POWER

13. Satisfactory arrangements shall be made with the Los Angeles Department of Water and Power (LADWP) for compliance with LADWP's Water System Rules and requirements. Upon compliance with these conditions and requirements, LADWP's Water Services Organization will forward the necessary clearances to the Bureau of Engineering. (This condition shall be deemed cleared at the time the City Engineer clears Condition No. S-1.(c).)

BUREAU OF STREET LIGHTING – SPECIFIC CONDITIONS

Street Lighting clearance for this Street Light Maintenance Assessment District condition is conducted at 1149 S. Broadway Suite 200. Street Lighting improvement condition clearance will be conducted at the Bureau of Engineering District office, see condition S-3. (c).

14. If new street light(s) are required, then prior to the recordation of the final map or issuance of the Certificate of Occupancy (C of O), street lighting improvement plans shall be submitted for review and the owner shall provide a good faith effort via a ballot process for the formation or annexation of the property within the boundary of the development into a Street Lighting Maintenance Assessment District.

BUREAU OF SANITATION

15. Wastewater Collection Systems Division of the Bureau of Sanitation has inspected the sewer/storm drain lines serving the subject tract and found that there are easements contained within the project site, as stated in the memo dated October 21, 2019. Any proposed development in close proximity to the easements must secure Department of Public Works approval. Upon compliance with its conditions and requirements, the Bureau of Sanitation, Wastewater Collection Systems Division will forward the necessary clearances to the Bureau of Engineering. (This condition shall be deemed cleared at the time the City Engineer clears Condition No. S-1. (d).)

INFORMATION TECHNOLOGY AGENCY

16. To assure that cable television facilities will be installed in the same manner as other required improvements, please email cabletv.ita@lacity.org that provides an automated response with the instructions on how to obtain the Cable TV clearance. The automated response also provides the email address of three people in case the applicant/owner has any additional questions.

DEPARTMENT OF RECREATION AND PARKS

17. That the Quimby Fee be based on the C4 Zone.

URBAN FORESTRY DIVISION AND THE DEPARTMENT OF CITY PLANNING

18. Prior to the issuance of a grading permit, the applicant shall submit a tree report and landscape plan prepared by a Municipal Code-designated tree expert as designated by LAMC Ordinance No. 177,404, for approval by the City Planning Department and the Urban Forestry Division of the Bureau of Street Services.

19. Plant Street trees and remove any existing trees within dedicated streets or proposed dedicated streets are required by the Urban Forestry Division of the Bureau of Street Services.

20. Parkway tree removals shall be planted at a 2:1 ratio. All street tree plantings shall be brought up to current standards. When the City has previously been paid for tree planting, the subdivider or contractor shall notify the Urban Forestry Division at (213) 847-3077 upon completion of construction to expedite tree planting.

    Note: Removal or planting of any tree in the public right-of-way requires approval of the Board of Public Works. Contact Urban Forestry Division at: (213) 847-3077 for permit information. CEQA document must address parkway tree removals.

DEPARTMENT OF CITY PLANNING - SITE SPECIFIC CONDITIONS

Clearances may be conducted at the Figueroa, Valley, or West Los Angeles Development Services Centers. To clear conditions, an appointment is required, which can be requested at planning.lacity.org.

21. Prior to the recordation of the final map, the subdivider shall prepare and execute a Covenant and Agreement (Planning Department General Form CP-6770) in a manner satisfactory to the Planning Department, binding the subdivider and all successors to the following:

    a. Limit the proposed developments to one (1) master ground lot and five (5) airspace lots.

    b. Limit the proposed development to a maximum of 640 apartment units and 4 commercial condominium units.

    c. A Certificate of Occupancy (temporary or final) for the building(s) in Vesting Tentative Tract No. 74602 shall not be issued until after the final map has been recorded.

    d. Off-street parking for residential and commercial uses shall comply with the requirements of Case No. CPC-2016-3692-VZC-MCUP-SPR. In the event that Case No. CPC-2016-3692-VZC-MCUP-SPR is not approved, the Project shall comply with LAMC Section 12.21 A.4.

    e. Directions to guest parking spaces shall be clearly posted. Tandem parking spaces shall not be used for guest parking.

       In addition, prior to issuance of a building permit, a parking plan showing off-street parking spaces, as required by the Advisory Agency, be submitted for review and approval by the Department of City Planning (221 North Figueroa Street, Suite 1350).

    f. That a solar access report shall be submitted to the satisfaction of the Advisory Agency prior to obtaining a grading permit.

    g. That the subdivider consider the use of natural gas and/or solar energy and consult with the Department of Water and Power and Southern California Gas Company regarding feasible energy conservation measures.

    h. Recycling bins shall be provided at appropriate locations to promote recycling of paper, metal, glass, and other recyclable material.

    i. The Applicant shall install shielded lighting to reduce any potential illumination affecting adjacent properties.

    j. Prior to the issuance of the building permit or the recordation of the final map, a copy of CPC-2016-3692-VZC-MCUP-SPR shall be submitted to the satisfaction of the Advisory Agency. In the event that CPC-2016-3692-VZC-MCUP-SPR is not approved, the subdivider shall submit a tract map modification.

22. Prior to the recordation of the final map, the owner shall execute a covenant to the satisfaction of the Los Angeles Housing and Community Investment Department

(HCIDLA) to make 32 units of the development available for rental solely to moderate income households, at a rental price determined to be affordable to moderate income households by HCIDLA, for a period of 55 years. Said units shall be comparable in size, number of bedrooms, distribution, and amenities to the non-income-restricted units in the development.

23. INDEMNIFICATION AND REIMBURSEMENT OF LITIGATION COSTS.

Applicant shall do all of the following:

(i) Defend, indemnify and hold harmless the City from any and all actions against the City relating to or arising out of, in whole or in part, the City's processing and approval of this entitlement, including but not limited to, an action to attack, challenge, set aside, void or otherwise modify or annul the approval of the entitlement, the environmental review of the entitlement, or the approval of subsequent permit decisions, or to claim personal property damage, including from inverse condemnation or any other constitutional claim.

(ii) Reimburse the City for any and all costs incurred in defense of an action related to or arising out of, in whole or in part, the City's processing and approval of the entitlement, including but not limited to payment of all court costs and attorney's fees, costs of any judgments or awards against the City (including an award of attorney's fees), damages, and/or settlement costs.

(iii) Submit an initial deposit for the City's litigation costs to the City within 10 days' notice of the City tendering defense to the Applicant and requesting a deposit. The initial deposit shall be in an amount set by the City Attorney's Office, in its sole discretion, based on the nature and scope of action, but in no event shall the initial deposit be less than $50,000. The City's failure to notice or collect the deposit does not relieve the Applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (ii).

(iv) Submit supplemental deposits upon notice by the City. Supplemental deposits may be required in an increased amount from the initial deposit if found necessary by the City to protect the City's interests. The City's failure to notice or collect the deposit does not relieve the Applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (ii).

(v) If the City determines it necessary to protect the City's interest, execute an indemnity and reimbursement agreement with the City under terms consistent with the requirements of this condition.

The City shall notify the applicant within a reasonable period of time of its receipt of any action and the City shall cooperate in the defense. If the City fails to notify the applicant of any claim, action, or proceeding in a reasonable time, of if the City fails to reasonably cooperate in the defense, the applicant shall not thereafter be responsible to defend, indemnify or hold harmless the City.

The City shall have the sole right to choose its counsel, including the City Attorney's office or outside counsel. At its sole discretion, the City may participate at its own expense in the defense of any action, but such participation shall not relieve the applicant of any obligation imposed by this condition. In the event the Applicant fails to comply with this condition, in whole or in part, the City may withdraw its defense of the action, void its

approval of the entitlement, or take any other action. The City retains the right to make all decisions with respect to its representations in any legal proceeding, including its inherent right to abandon or settle litigation.

For purposes of this condition, the following definitions apply:

"City" shall be defined to include the City, its agents, officers, boards, commissions, committees, employees, and volunteers.

"Action" shall be defined to include suits, proceedings (including those held under alternative dispute resolution procedures), claims, or lawsuits. Action includes actions, as defined herein, alleging failure to comply with any federal, state or local law.

Nothing in the definitions included in this paragraph are intended to limit the rights of the City or the obligations of the Applicant otherwise created by this condition.

DEPARTMENT OF CITY PLANNING-ENVIRONMENTAL MITIGATION MEASURES

24. That prior to recordation of the final map, the subdivider shall prepare and execute a Covenant and Agreement (Planning Department General Form CP-6770 and Exhibit CP-6770. M) in a manner satisfactory to the Planning Department requiring the subdivider to identify (a) mitigation monitor(s) who shall provide periodic status reports on the implementation of mitigation items required by Mitigation **Condition No. 25** of the Tract's approval satisfactory to the Advisory Agency. The mitigation monitor(s) shall be identified as to their areas of responsibility, and phase of intervention (pre-construction, construction, postconstruction/maintenance) to ensure continued implementation of the above mentioned mitigation items.

25. Prior to the recordation of the final map, the subdivider will prepare and execute a Covenant and Agreement (Planning Department General Form CP-6770) in a manner satisfactory to the Planning Department, binding the subdivider and all successors to the following:

The Mitigation Monitoring Program ("MMP") has been prepared pursuant to Public Resources Code Section 21081.6, which requires a Lead Agency to adopt a "reporting and monitoring program for changes to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." In addition, Section 15097(a) of the State CEQA Guidelines requires that:

> *In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.*

The City of Los Angeles is the Lead Agency for the project and therefore is responsible for administering and implementing the MMP. Where appropriate, the project's Draft and Final EIRs identified mitigation measures and project design features to avoid or to mitigate potential impacts identified to a level where no significant impact on the

environment would occur, or impacts would be reduced to the extent feasible. This MMP is designed to monitor implementation of the project's mitigation measures as well as its project design features.

As shown on the following pages, each required mitigation measure and proposed project design feature for the project is listed and categorized by impact area, with an accompanying identification of the following:

- **Enforcement Agency**: The agency with the power to enforce the Mitigation Measure/Project Design Feature.
- **Monitoring Agency**: The agency to which reports involving feasibility, compliance, implementation and development are made.
- **Monitoring Phase**: The phase of the project during which the Mitigation Measure/Project Design Feature shall be monitored.
- **Monitoring Frequency**: The frequency at which the Mitigation Measure/Project Design Feature shall be monitored.
- **Action Indicating Compliance**: The action by which the Enforcement or Monitoring Agency indicates that compliance with the required Mitigation Measure/Project Design Feature has been implemented.

The project's MMP will be in place throughout all phases of the project. The project applicant will be responsible for implementing all mitigation measures unless otherwise noted. The applicant shall also be obligated to provide a certification report to the appropriate monitoring agency and the appropriate enforcement agency that compliance with the required mitigation measure or project design feature has been implemented. The City's existing planning, engineering, review, and inspection processes will be used as the basic foundation for the MMP procedures and will also serve to provide the documentation for the reporting program. The certification report shall be submitted to the Major Project's Section at the Los Angeles Department of City Planning. Each report will be submitted to the Major Project's Section annually following completion/implementation of the applicable mitigation measures and project design features and shall include sufficient information and documentation (such as building or demolition permits) to reasonably determine whether the intent of the measure has been satisfied. The City, in conjunction with the applicant, shall assure that project construction and operation occurs in accordance with the MMP

After review and approval of the final MMP by the City, minor changes and modifications to the MMP are permitted, but can only be made by the applicant subject to the approval by the City. The City, in conjunction with any appropriate agencies or departments, will determine the adequacy of any proposed changes or modification. The flexibility is necessary due to the nature of the MMP, the need to protect the environment in the most efficient manner, and the need to reflect changes in regulatory conditions, such as but not limited to changes to building code requirements. No changes will be permitted unless the MMP continues to satisfy the requirements of CEQA, as determined by the City.

MITIGATION MEASURES

TRANSPORTATION

TRAN-MM-1 Construction Activity Near Schools

The developer shall maintain ongoing contact with administrators of RFK Community Schools. The administrators shall be contacted when demolition, grading and construction

activity begin on the project site so that students and their parents will know when such activities are to occur. The developer shall obtain school walk and bus routes to the schools from either the administrators or from LAUSD's Transportation Branch (323) 342-1400 and guarantee that safe and convenient pedestrian and bus routes to the school are maintained.

- **Impact Area:** Transportation
- **Enforcement Agency:** City of Los Angeles Department of Transportation
- **Monitoring Agency:** City of Los Angeles Department of Transportation
- **Monitoring Phase:** Pre-construction; construction
- **Monitoring Frequency:** Once at Project plan check prior to issuance of grading or building permit; once during field inspection
- **Action Indicating Compliance:** Plan approval and issuance of grading permit; field inspection sign-off

TRAN-MM-2 Safety Hazards

- The developer shall install appropriate construction related traffic signs around the project site to ensure pedestrian and vehicle safety.

- The Applicant shall plan construction and construction staging as to maintain pedestrian access on adjacent sidewalks throughout all construction phases. This requires the applicant to maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding) from work space and vehicular traffic, and overhead protection, due to sidewalk closure or blockage, at all times.

- Temporary pedestrian facilities shall be adjacent to the project site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility.

- Covered walkways shall be provided where pedestrians are exposed to potential injury from falling objects.

- Applicant shall keep sidewalk open during construction until only when it is absolutely required to close or block sidewalk for construction and/or construction staging. Sidewalk shall be reopened as soon as reasonably feasible taking construction and construction staging into account.

- **Impact Area:** Transportation
- **Enforcement Agency:** City of Los Angeles Department of Transportation
- **Monitoring Agency:** City of Los Angeles Department of Transportation
- **Monitoring Phase:** Pre-construction; construction
- **Monitoring Frequency:** Once at Project plan check prior to issuance of grading or building permit; once during field inspection
- **Action Indicating Compliance:** Plan approval and issuance of grading permit; field inspection sign-off

PROJECT DESIGN FEATURES

TRAN-PDF-1 Construction Management Plan

A Construction Traffic Management Plan will be developed by the contractor and approved

by the City of Los Angeles to alleviate construction period impacts, which may include but is not limited to the following measures:

- Provide off-site truck staging in a legal area furnished by the construction truck contractor. Anticipated truck access to the project site will be off Mariposa Avenue and 7th Street.

- Schedule deliveries and pick-ups of construction materials during non-peak travel periods to the extent possible and coordinate to reduce the potential of trucks waiting to load or unload for protracted periods.

- As parking lane and/or sidewalk closures are anticipated along 7th Street, worksite traffic control plan(s), approved by the City of Los Angeles, should be implemented to route vehicular traffic, bicyclists, and pedestrians around any such closures.

- Establish requirements for loading/unloading and storage of materials on the project site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses and residences.

- Ensure that access will remain unobstructed for land uses in proximity to the project site during project construction.

- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses and residences.

A Construction Worker Parking Plan will also be developed by the contractor and approved by the City of Los Angeles to ensure that the parking location requirements for construction workers will be strictly enforced. These could include but are not limited to the following measures:

- During construction activities when construction worker parking cannot be accommodated on the project site, the plan shall identify alternate parking location(s) for construction workers and the method of transportation to and from the project site (if beyond walking distance) for approval by the City 30 days prior to commencement of construction.

- Provide all construction contractors with written information on where their workers and their subcontractors are permitted to park, and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets.

- **Impact Area:** Transportation
- **Enforcement Agency:** City of Los Angeles Department of Transportation
- **Monitoring Agency:** City of Los Angeles Department of Transportation
- **Monitoring Phase:** Pre-construction; construction
- **Monitoring Frequency:** Once at Project plan check prior to issuance of grading or building permit; once during field inspection
- **Action Indicating Compliance:** Plan approval and issuance of grading permit; field inspection sign-off

DEPARTMENT OF CITY PLANNING - STANDARD COMMERCIAL CONDOMINIUM CONDITIONS

CC-1. That a landscape plan, prepared by a licensed landscape architect, be submitted to and approved by the Advisory Agency in accordance with CP-6730 prior to obtaining any permit. The landscape plan shall identify tree replacement on a 1:1 basis by a minimum of 24-inch box trees for the unavoidable loss of desirable trees on the site. Failure to comply with this condition as written shall require the filing of a modification to this tract map in order to clear the condition.

In the event the subdivider decides not to request a permit before the recordation of the final map, the following statement shall appear on the plan and be recorded as a covenant and agreement satisfactory to the Advisory Agency guaranteeing that:

a. The planting and irrigation system shall be completed by the developer/builder prior to the close of escrow of 50 percent of the units of the project or phase.
b. Sixty days after landscape and irrigation installation, the landscape professional shall submit to the homeowners/property owners association a Certificate of Substantial Completion (Sec. 12.40 G LAMC.)

c. The developer/builder shall maintain the landscaping and irrigation for 60 days after completion of the landscape and irrigation installation.

d. The developer/builder shall guarantee all trees and irrigation for a period of six months and all other plants for a period of 60 days after landscape and irrigation installation.

CC-2. In order to expedite the development, the applicant may apply for a building permit for a commercial/industrial building. However, prior to issuance of a building permit for a commercial/industrial building, the registered civil engineer, architect or licensed land surveyor shall certify in a letter to the Advisory Agency that all applicable tract conditions affecting the physical design of the building and/or site, have been included into the building plans. Such letter is sufficient to clear this condition. In addition, all of the applicable tract conditions shall be stated in full on the building plans and a copy of the plans shall be reviewed and approved by the Advisory Agency prior to submittal to the Department of Building and Safety for a building permit.

OR

If a building permit for a commercial/industrial building will not be requested, the project civil engineer, architect or licensed land surveyor must certify in a letter to the Advisory Agency that the applicant will not request a permit for a commercial/industrial building and intends to acquire a building permit for a condominium building(s). Such letter is sufficient to clear this condition.

BUREAU OF ENGINEERING - STANDARD CONDITIONS

S-1. (a) That the sewerage facilities charge be deposited prior to recordation of the final map over all of the tract in conformance with Section 64.11.2 of the Los Angeles Municipal Code (LAMC).

(b) That survey boundary monuments be established in the field in a manner satisfactory to the City Engineer and located within the California Coordinate

System prior to recordation of the final map. Any alternative measure approved by the City Engineer would require prior submission of complete field notes in support of the boundary survey.

(c) That satisfactory arrangements be made with both the Water System and the Power System of the Department of Water and Power with respect to water mains, fire hydrants, service connections and public utility easements.

(d) That any necessary sewer, street, drainage and street lighting easements be dedicated. In the event it is necessary to obtain off-site easements by separate instruments, records of the Bureau of Right-of-Way and Land shall verify that such easements have been obtained. The above requirements do not apply to easements of off-site sewers to be provided by the City.

(e) That drainage matters be taken care of satisfactory to the City Engineer.

(f) That satisfactory street, sewer and drainage plans and profiles as required, together with a lot grading plan of the tract and any necessary topography of adjoining areas be submitted to the City Engineer.

(g) That any required slope easements be dedicated by the final map.

(h) That each lot in the tract complies with the width and area requirements of the Zoning Ordinance.

(i) That 1-foot future streets and/or alleys be shown along the outside of incomplete public dedications and across the termini of all dedications abutting unsubdivided property. The 1-foot dedications on the map shall include a restriction against their use of access purposes until such time as they are accepted for public use.

(j) That any 1-foot future street and/or alley adjoining the tract be dedicated for public use by the tract, or that a suitable resolution of acceptance be transmitted to the City Council with the final map.

(k) That no public street grade exceeds 15%.

(l) That any necessary additional street dedications be provided to comply with the Americans with Disabilities Act (ADA) of 1990.

S-2. That the following provisions be accomplished in conformity with the improvements constructed herein:

(a) Survey monuments shall be placed and permanently referenced to the satisfaction of the City Engineer. A set of approved field notes shall be furnished, or such work shall be suitably guaranteed, except where the setting of boundary monuments requires that other procedures be followed.

(b) Make satisfactory arrangements with the Department of Traffic with respect to street name, warning, regulatory and guide signs.

(c) All grading done on private property outside the tract boundaries in connection with public improvements shall be performed within dedicated slope easements or by grants of satisfactory rights of entry by the affected property owners.

(d) All improvements within public streets, private streets, alleys and easements shall be constructed under permit in conformity with plans and specifications approved by the Bureau of Engineering.

(e) Any required bonded sewer fees shall be paid prior to recordation of the final map.

S-3. That the following improvements are either constructed prior to recordation of the final map or that the construction is suitably guaranteed:

(a) Construct on-site sewers to serve the tract as determined by the City Engineer.

(b) Construct any necessary drainage facilities.

(c) Install street lighting facilities to serve the tract as required by the Bureau of Street Lighting.

(1) No street lighting improvements if no street widening per Bureau of Engineering improvement conditions. Otherwise, relocate and upgrade street lights; four (4) on Irolo Street, four (4) on Wilshire Boulevard, four (4) on Mariposa Avenue, and three (3) on 7th Street.

Notes:

The quantity of street lights identified may be modified slightly during the plan check process based on illumination calculations and equipment selection.

Conditions set: 1) in compliance with a Specific Plan, 2) by LADOT, or 3) by other legal instrument excluding the Bureau of Engineering condition S-3 (i), requiring an improvement that will change the geometrics of the public roadway or driveway apron may require additional or the reconstruction of street lighting improvements as part of that condition.

(d) Plant street trees and remove any existing trees within dedicated streets or proposed dedicated streets as required by the Street Tree Division of the Bureau of Street Maintenance. All street tree plantings shall be brought up to current standards. When the City has previously been paid for tree planting, the subdivider or contractor shall notify the Urban Forestry Division (213) 847-3077) upon completion of construction to expedite tree planting.

(e) Repair or replace any off-grade or broken curb, gutter and sidewalk satisfactory to the City Engineer.

(f) Construct access ramps for the handicapped as required by the City Engineer.

(g) Close any unused driveways satisfactory to the City Engineer.

(h) Construct any necessary additional street improvements to comply with the 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design.

(i) That the following improvements are either constructed prior to recordation of the final map or that the construction is suitably guaranteed:

(1) Improve 7th Street being dedicated and adjoining the subdivision by the construction of additional concrete sidewalks to complete a full-width sidewalk with tree wells including any necessary removal and reconstruction of the existing improvements.

(2) That structural plans be submitted for review and approval for any new proposed structures above the existing buildings to remain to determine additional surcharge loads over the existing sewer and drainage system satisfactory to the City Engineer.

(3) That structure plans be submitted for review and approval for any new structures at the vicinity of the existing sewer and drainage easements to determine any surcharge load and necessary distances from easements all satisfactory to the City Engineer.

(4) Construct additional concrete sidewalks at all newly dedicated cut corner areas.

NOTES:

The Advisory Agency approval is the maximum number of units permitted under the tract map action. However the existing or proposed zoning may not permit this number of units. This Vesting map does not constitute approval of any variations from the Municipal Code, unless approved specifically for this project under separate conditions.

Any removal of the existing street trees shall require Board of Public Works approval.

Satisfactory arrangements shall be made with the Los Angeles Department of Water and Power, Power System, to pay for removal, relocation, replacement or adjustment of power facilities due to this development. The subdivider must make arrangements for the underground installation of all new utility lines in conformance with Section 17.05-N of the Los Angeles Municipal Code (LAMC).

The final map must be recorded within 36 months of this approval, unless a time extension is granted before the end of such period.

The Advisory Agency hereby finds that this tract conforms to the California Water Code, as required by the Subdivision Map Act.

The subdivider should consult the Department of Water and Power to obtain energy saving design features which can be incorporated into the final building plans for the subject development. As part of the Total Energy Management Program of the Department of Water and Power, this no-cost consultation service will be provided to the subdivider upon his request.

FINDINGS OF FACT (CEQA)

The Deputy Advisory Agency found, pursuant to CEQA Guidelines Section 15074(b), after consideration of the whole of the administrative record, including Mitigated Negative Declaration (MND), Case No. ENV-2016-3693-MND, as circulated on February 6, 2020, the Errata to the Mitigated Negative Declaration, dated March 2, 2020 and March 10, 2020, and all comments received, with the imposition of mitigation measures, there is no substantial evidence that the project will have a significant effect on the environment; found the MND reflects the independent

judgement and analysis of the City; found the mitigation measures have been made enforceable conditions on the project; and adopted the MND and the Mitigation Monitoring Program prepared for the MND.
The proposed project as identified in the project description, may cause potentially significant impacts on the environment without mitigation. The environmental analysis (ENV-2016-3693-MND) concludes that the project would not result in significant impacts and no further environmental analysis is necessary.

The Department of City Planning issued Mitigated Negative Declaration No. ENV-2016-3693-MND on February 6, 2020. The Department found that potential negative impact would occur from the project's implementation due to:

Transportation/Traffic

The Deputy Advisory Agency, adopts Mitigated Negative Declaration No. ENV-2016-3693-MND, reflects the independent judgment of the lead agency and determined that this project would not have a significant effect upon the environment provided the potential impacts identified above are mitigated to a less than significant level through implementation of **Condition Nos. 24 and 25** of the Tract's approval. Other identified potential impacts not mitigated by these conditions are mandatorily subject to existing City ordinances, (Sewer Ordinance, Grading Ordinance, Flood Plain Management Specific Plan, Xeriscape Ordinance, etc.) which are specifically intended to mitigate such potential impacts on all projects.

In accordance with Section 21081.6 of the Public Resources Code (AB3180), the Deputy Advisory Agency has assured that the above identified mitigation measures will be implemented by requiring reporting and monitoring as specified in **Condition No. 25.**

FINDINGS OF FACT (SUBDIVISION MAP ACT)

In connection with the approval of (Vesting) Tentative Tract Map No. VTT-74602 the Advisory Agency of the City of Los Angeles, pursuant to Sections 66473.1, 66474.60, .61 and .63 of the State of California Government Code (the Subdivision Map Act), makes the prescribed findings as follows:

(a) THE PROPOSED MAP WILL BE/IS CONSISTENT WITH APPLICABLE GENERAL AND SPECIFIC PLANS.

The Land Use Element of the General Plan consists of the 35 Community Plans within the City of Los Angeles. The Community Plans establish goals, objectives, and policies for future developments at a neighborhood level. Additionally, through the Land Use Map, the Community Plan designates parcels with a land use designation and zone. The Land Use Element is further implemented through the Los Angeles Municipal Code (LAMC). The zoning regulations contained within the LAMC regulates, but is not limited to, the maximum permitted density, height, parking, and the subdivision of land.

The subdivision of land is regulated pursuant to Article 7 of the LAMC. Pursuant to LAMC Section 17.05 C., tract maps are to be designed in conformance with the tract map regulations to ensure compliance with the various elements of the General Plan, including the Zoning Code. Additionally, the maps are to be designed in conformance with the Street Standards established pursuant to LAMC Section 17.05 B. The project site is located within the Wilshire Community Plan area, which designates the site with Regional Center Commercial land use designation. The land use designation lists the CR, C1.5, C2, C4, P, PB, RAS3, RAS4, R3, R4, and R5 Zones as the corresponding zones. The project site

is zoned P-2, PB-2 and C4-2, which is consistent with the land use designation. The site also located in the Transit Priority Area (ZI-2452), Los Angeles State Enterprise Zone (ZI-2374), and the Wilshire Center/Koreatown Redevelopment Project Area (ZI-2488).

The project site consists of 6 subdivided lots and a non-subdivided remainder, with approximately 320,534 square feet (7.3 acres) of lot area. The net lot area after dedication is 316,438 square feet or 7.26 acres, which would permit a maximum of 791 dwelling units. As shown on the Vesting Tentative Tract Map stamp-dated September 11, 2019, the project proposes to subdivide the project site into one master ground lot and five airspace lots, for a maximum of 640 apartment units and 4 commercial condominium units. In conjunction with the proposed subdivision, the applicant has requested a Vesting Zone Change from PB-2 and P-2 to C4-2. The tract map is approved contingent upon the approval and adoption of the Vesting Zone Change. In the event that the incidental case is disapproved or modified, the applicant would be required to submit a revised tract map that is consistent with the determination of Case No. CPC-2016-3692-VZC-MCUP-SPR.

Pursuant to LAMC Section 17.06 B. A, a Vesting Tentative Tract Map must be prepared by or under the direction of a licensed land surveyor or registered civil engineer. The Vesting Tentative Tract Map indicates that VTT-74602 was prepared by Andrew Jefferson Willrodt, a registered professional engineer No. C49881, of Fuscoe Engineering, and contains information regarding the boundaries of the project site, as well as the abutting public rights-of-way, hillside contours for hillside properties, location of existing buildings, existing and proposed dedication, and improvements of the tract map. The Vesting Tentative Tract Map indicates the map number, notes, legal description, contact information for the owner, applicant, and engineer, as well as other pertinent information as required by LAMC Section 17.06 B. Therefore, the proposed map demonstrates compliance with LAMC Sections 17.05 C, 17.06 B, and is consistent with the applicable General Plan.

(b) THE DESIGN OR IMPROVEMENT OF THE PROPOSED SUBDIVISION IS CONSISTENT WITH APPLICABLE GENERAL AND SPECIFIC PLANS.

For purposes of a subdivision, design and improvement is defined by Section 66408 and 66409 of the Subdivision Map Act and LAMC Section 17.02. Design refers to the configuration and layout of the proposed lots in addition to the proposed site plan layout. Pursuant to Section 66427(a) of the Subdivision Map Act, the location of the buildings is not considered as part of the approval or disapproval of the map by the Advisory Agency. Easements and/or access and “improvements” refers to the infrastructure facilities serving the subdivision. LAMC Section 17.05 enumerates the design standards for a tract map and requires that each map be designed in conformance with the Street Design Standards and in conformance with the General Plan. As indicated in Finding (a), LAMC Section 17.05 C requires that the tract map be designed in conformance with the zoning regulations of the project site. The site’s existing Regional Center Commercial land use designation would permit the construction of the proposed mixed-use development for 640 apartment units, four commercial condominium units, and 10,738 square feet of commercial uses. The applicant has requested a Vesting Zone Change, Case No. CPC-2016-3692-VZC-MCUP-SPR, in conjunction with the requested tract map. The requested Vesting Zone Change would change the existing PB-2 and P-2 zones to C4-2. As discussed in Finding No. (a), the tract map is approved with the condition that the map is in compliance with the approvals of Case No. CPC-2016-3692-VZC-MCUP-SPR. As such, the proposed density and uses would be consistent with the proposed land use designation, zone, and height district.

The tract map was distributed to and reviewed by the various city agencies of the Subdivision Committee that have the authority to make dedication, and/or improvement recommendations. The Bureau of Engineering reviewed the tract map for compliance with the Street Design Standards. The Bureau of Engineering has recommended dedication and/or improvements to the public right-of-way along 7th, Wilshire Boulevard, Mariposa Avenue, and Normandie Avenue, consistent with the standards of the Mobility Element.

In addition, the Bureau of Engineering has recommended the construction of the necessary on-site mainline sewers and all necessary street improvements will be made to comply with the Americans with Disabilities Act (ADA) of 2010. In conjunction with the street improvements, the Bureau of Street Lighting has required for relocation and upgrade of four street lights on Irolo Street, four street lights on Wilshire Boulevard, four street lights on Mariposa Avenue, and three street lights on 7th Street, in the event that street widening are required per Bureau of Engineering improvement conditions. As conditioned, the design and improvements of the proposed subdivision are consistent with the applicable General Plan.

(c) THE SITE IS PHYSICALLY SUITABLE FOR THE TYPE OF DEVELOPMENT.

The subject site is an irregular shaped lot, consisting of 6 subdivided lots and a non-subdivided remainder, with approximately 320,534 square feet (7.3 acres) of lot area. The net lot area after dedication is 316,438 square feet or 7.26 acres. The site is located within the Wilshire Community Plan area, zoned C4-2, PB-2, and P-2, with a land use designation of Regional Center Commercial uses. The site also located in the Transit Priority Area (ZI-2452), Los Angeles State Enterprise Zone (ZI-2374), and the Wilshire Center/Koreatown Redevelopment Project Area (ZI-2488).

The project site is located approximately 0.17 kilometers from the Puente Hills Blind Thrust Fault, but is not located within the Alquist-Priolo Fault Zone. The site is not located within a designated landslide, liquefaction, tsunami, high fire hazard severity zone, hillside area, or BOE Special Grading Area. The site is located within a methane buffer zone and will be required to comply with all applicable regulations as it pertains to development within a methane zone. Prior to the issuance of any permits, the project would be required to be reviewed and approved by the Department of Building and Safety and the Fire Department. The site is not subject to the Specific Plan for the Management of Flood Hazards (floodways, floodplains, mud prone areas, coastal high-hazard and flood-related erosion hazard areas).

The site is bound by Wilshire Boulevard to the north, Mariposa Avenue to the east, Irolo Street to the west, and 7th Street to the south. The site is currently developed with four commercial office buildings with ground floor retail components. The existing office buildings contain approximately 760,456 square feet of commercial floor area. Three of these office buildings front Wilshire Boulevard and one fronts Irolo Street. The site is also maintained by two parking structure: a 5-story parking structure with vehicular access off 7th Street and a 3-story parking structure with vehicular access of Mariposa Avenue. The 5-story parking structure contains 1,191 vehicular parking spaces and the 3-story parking structure contains 707 vehicular parking spaces. The four existing office buildings and 5-story parking structure would remain as part of the project, while the 3-story parking structure is proposed to be demolished. There are no existing residential units on site.

The mixed-use development proposes to construct two commercial kiosks, a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. The project will provide a total of 1,921

vehicular parking spaces (714 residential and 500 commercial spaces, with 707 existing spaces to remain). The project will also provide 500 residential and 1,340 commercial bicycle parking spaces.

There are 30 existing trees located in the public right-of-way, of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees are proposed to be removed and replaced. There are 29 trees located on the private portion of the project site, none of which are protected species, and 24 are proposed to be removed. The project will remove approximately 137,000 cubic yards of soil.
The tract map has been approved contingent upon the satisfaction of the Department of Building and Safety, Grading Division prior to the recordation of the map and issuance of any permits. Therefore, the site will be physically suitable for the proposed type of development.

(d) THE SITE IS PHYSICALLY SUITABLE FOR THE PROPOSED DENSITY OF DEVELOPMENT.

Properties to the north across Wilshire Boulevard are zoned C4-2 and developed with the Wilshire Christian Oasis Church, Consulate General of Indonesia, and a mid-rise office building. Properties to the east across Mariposa Avenue are zoned C4-2, R5-2, and developed with a mid-rise office building, a three-level parking structure, 2-story residential buildings, and the Robert F. Kennedy Community Schools. Properties to the south across 7th Street are zoned R5-2 and developed with multi-family residential buildings. Properties to the west immediately adjacent to the project site are zoned R5-2, (T)(Q)C4-2, and developed with a 2-story commercial center with retail and restaurants, and 7-story multi-family residential building.

The site is currently developed with four commercial office buildings with ground floor retail components. The existing office buildings contain approximately 760,456 square feet of commercial floor area. Three of these office buildings front Wilshire Boulevard and one fronts Irolo Street. The site is also maintained by two parking structure: a 5-story parking structure with vehicular access off 7th Street and a 3-story parking structure with vehicular access of Mariposa Avenue. The 5-story parking structure contains 1,191 vehicular parking spaces and the 3-story parking structure contains 707 vehicular parking spaces. The four existing office buildings and 5-story parking structure would remain as part of the project, while the 3-story parking structure is proposed to be demolished. There are no existing residential units on site.

In conjunction with the requested tract map, the applicant has requested a Vesting Zone Change from PB-2 and P-2 to C4-2, for the construction of 640 residential apartment dwelling units, four commercial condominium units, and 10,738 square feet of commercial floor area. As proposed, the project would have a maximum FAR of 4.65:1, which is within the maximum FAR of 6:1 allowed on site. The project would be comprised of a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. As Height District No. 2 does not have a maximum height limitation for C Zone, the proposed height would be consistent with the requested zone. The tract has been approved contingent upon the satisfaction of the Department of Building and Safety, Grading Division prior to the recordation of the map and issuance of any permits.

(e) THE DESIGN OF THE SUBDIVISION OR THE PROPOSED IMPROVEMENTS ARE NOT LIKELY TO CAUSE SUBSTANTIAL ENVIRONMENTAL DAMAGE OR SUBSTANTIALLY AND AVOIDABLY INJURE FISH OR WILDLIFE OR THEIR HABITAT.

The project site is currently developed with four commercial office buildings with ground floor retail components. The existing office buildings contain approximately 760,456 square feet of commercial floor area. Three of these office buildings front Wilshire Boulevard and one fronts Irolo Street. The site is also maintained by two parking structure: a 5-story parking structure with vehicular access off 7th Street and a 3-story parking structure with vehicular access of Mariposa Avenue. There are 30 existing trees located in the public right-of-way, of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees are proposed to be removed and replaced. There are 29 trees located on the private portion of the project site, none of which are protected species, and 24 are proposed to be removed. The project proposes to remove approximately 137,000 cubic yards of soil.

The surrounding area is presently developed with a mix of commercial and residential uses. Neither the project site nor the surrounding area provides a natural habitat for fish or wildlife. On February 6, 2020, the City Planning Department issued Mitigated Negative Declaration No. ENV-2016-3693-MND, which determined that the project would not result in significant impacts relating to biological resources. As such, the proposed project will not cause substantial environmental damage or injury to wildlife or their habitat.

(f) THE DESIGN OF THE SUBDIVISION OR TYPE OF IMPROVEMENTS IS NOT LIKELY TO CAUSE SERIOUS PUBLIC HEALTH PROBLEMS.

There appears to be no potential public health problems caused by the design or improvement of the proposed subdivision.

The development is required to be connected to the City's sanitary sewer system, where the sewage will be directed to the LA Hyperion Treatment Plant, which has been upgraded to meet Statewide ocean discharge standards. The Bureau of Engineering has reported that the proposed subdivision does not violate the existing California Water Code because the subdivision will be connected to the public sewer system and will have only a minor incremental impact on the quality of the effluent from the Hyperion Treatment Plant.

(g) THE DESIGN OF THE SUBDIVISION OR THE TYPE OF IMPROVEMENTS WILL NOT CONFLICT WITH EASEMENTS, ACQUIRED BY THE PUBLIC AT LARGE, FOR ACCESS THROUGH OR USE OF PROPERTY WITHIN THE PROPOSED SUBDIVISION.

As required by LAMC Section 12.03, the project site has a minimum of 20 feet of frontage along Wilshire Boulevard, Mariposa Avenue, and 7th Street. The three existing office buildings would remain to occupy the street frontage along Wilshire Boulevard. Proposed mixed-use buildings above the 4-story podium will maintain approximately 374 feet of frontage along Mariposa Avenue and approximately 235 feet of frontage along 7th Street. The project site consists of 6 subdivided lots and a non-subdivided remainder, as identified as Lot Nos. 93, 94, 95, 96, 97, 98, and NE ¼ Sec 25 T1S R14W, and is identified by the Assessor Parcel No. 5094-002-011, 013, 015, 017, 019, 020. Bureau of Sanitation has inspected the sewer lines serving the subject tract and found easement(s) within the property. As conditioned, the proposed development must secure Department of Public Works approval. Necessary easements for utilities will be acquired by the City prior to the recordation of the proposed tract map.

Therefore, the design of the subdivision and the proposed improvements would not conflict with easements acquired by the public at large for access through or use of the property within the proposed subdivision.

(h) THE DESIGN OF THE PROPOSED SUBDIVISION SHALL PROVIDE, TO THE EXTENT FEASIBLE, FOR FUTURE PASSIVE OR NATURAL HEATING OR COOLING OPPORTUNITIES IN THE SUBDIVISION. (REF. SECTION 66473.1)

In assessing the feasibility of passive or natural heating or cooling opportunities in the proposed subdivision design, the applicant has prepared and submitted materials which consider the local climate, contours, configuration of the parcel(s) to be subdivided and other design and improvement requirements.

Providing for passive or natural heating or cooling opportunities will not result in reducing allowable densities or the percentage of a lot which may be occupied by a building or structure under applicable planning and zoning in effect at the time the tentative map was filed.

The lot layout of the subdivision has taken into consideration the maximizing of the north/south orientation.

The topography of the site has been considered in the maximization of passive or natural heating and cooling opportunities.

In addition, prior to obtaining a building permit, the subdivider shall consider building construction techniques, such as overhanging eaves, location of windows, insulation, exhaust fans; planting of trees for shade purposes and the height of the buildings on the site in relation to adjacent development.

These findings shall apply to both the tentative and final maps for Vesting Tentative Tract No VTT-74602.

VINCENT P. BERTONI, AICP
Advisory Agency

KEVIN GOLDEN
Deputy Advisory Agency

KG:CTL:IW

Note: If you wish to file an appeal, it must be filed within 10 calendar days from the decision date as noted in this letter. For an appeal to be valid to the City Planning Commission or Area Planning Commission, it must be accepted as complete by the City Planning Department and appeal fees paid, prior to expiration of the above 10-day time limit. Such appeal must be submitted on Master Appeal Form No. CP-7769 at the Department's Public Offices, located at:

Figueroa Plaza 201 North Figueroa Street, 4th Floor Los Angeles, CA 90012 (213) 482-7077	Marvin Braude San Fernando Valley Constituent Service Center 6262 Van Nuys Boulevard, Room 251 Van Nuys, CA 91401 (818) 374-5050	West Los Angeles Development Services Center 1828 Sawtelle Boulevard, 2nd Floor Los Angeles, CA 90025 (310) 231-2912

Forms are also available on-line at http://cityplanning.lacity.org

The time in which a party may seek judicial review of this determination is governed by California Code of Civil Procedure Section 1094.6. Under that provision, a petitioner may seek judicial review of any decision of the City pursuant to California Code of Civil Procedure Section 1094.5, only if the petition for writ of mandate pursuant to that section is filed no later than the 90th day following the date on which the City's decision becomes final.

VTT-74602-1A

EXHIBIT B

VESTING TENTATIVE TRACT MAP 74602
VTT-74602

REVISED VESTING TENTATIVE TRACT MAP NO. 74602

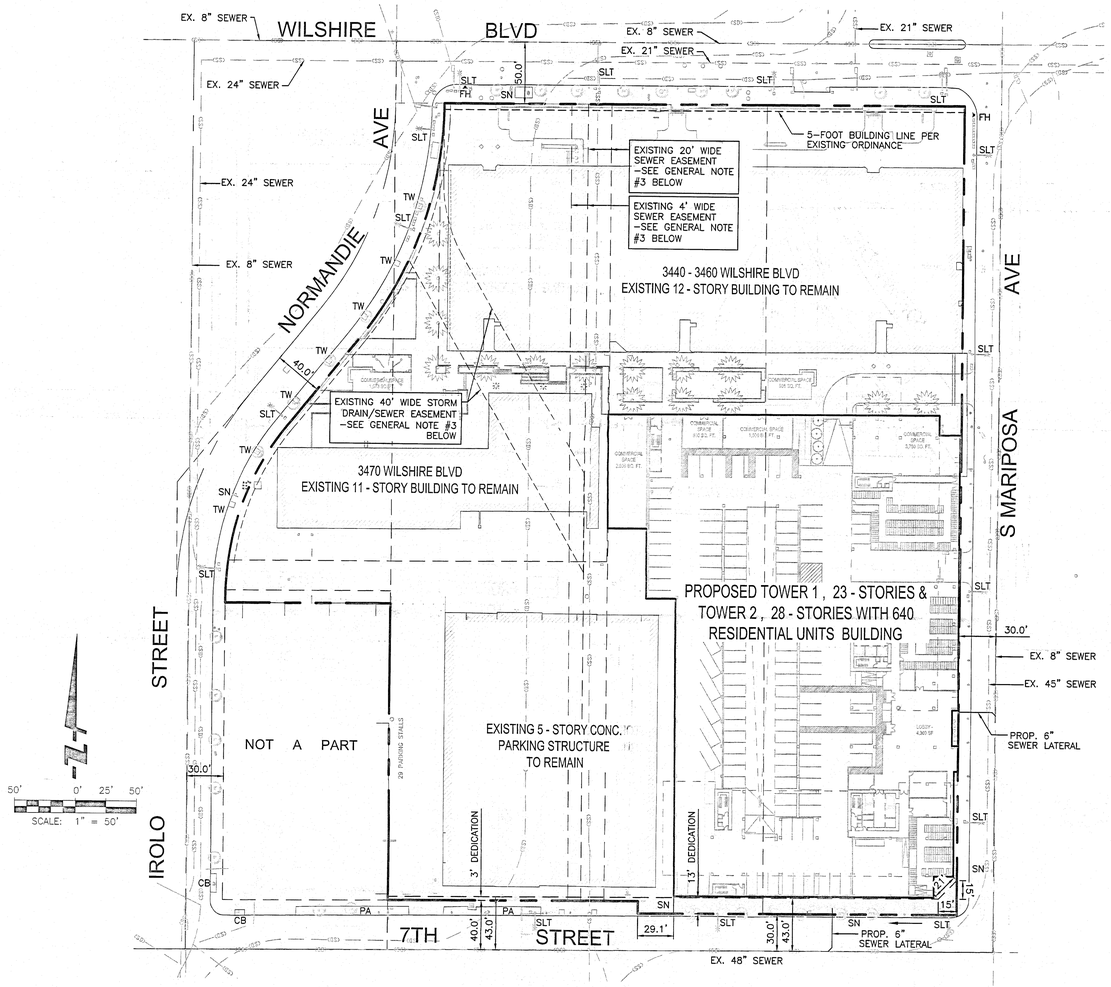
FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

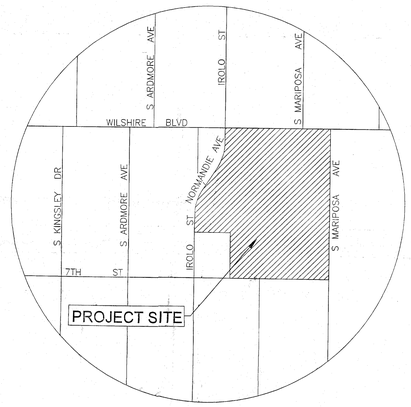
3440 WILSHIRE

TRACT MAP
SEP 11 2019
REVISED MAP ☐ EXTENSION OF TIME
☐ FINAL MAP UNIT ☐ MODIFIED
DEPUTY ADVISORY AGENCY

SHEET INDEX

TITLE SHEET..... 1
TOPO SURVEY SHEET..... 2
2D AIRSPACE DIAGRAMS..... 3–5
3D AIRSPACE DIAGRAMS..... 6
EXISTING TREE DISPOSITION SHEET..... 7





VICINITY MAP

PROJECT ADDRESS

3432, 3434, 3438, 3440, 3442, 3444, 3446, 3448, 3450, 3452, 3452½, 3454, 3454½, 3458, 3458½, 3458⅔, 3460, AND 3470 WEST WILSHIRE BLVD, LOS ANGELES, CA 90010
666, 668, 670, 674, AND 678 SOUTH IROLO STREET, LOS ANGELES, CA 90010
3265, 3281, AND 3287 WEST 7TH STREET, LOS ANGELES, CA 90010
659, 661, 667, AND 699 SOUTH MARIPOSA AVENUE, LOS ANGELES, CA 90010

ASSESSOR'S PARCEL MAP INFORMATION

APN: 5094–002–011, 013, 015, 017, 019, 020

SUBDIVIDER

CENTRAL PLAZA, LLC
C/O EDGAR KHALATIAN, MAYER BROWN LLP
350 SOUTH GRAND AVENUE, 25TH FLOOR LOS ANGELES, CA 90071
PHONE: (213) 229–9548

CIVIL ENGINEER

FUSCOE ENGINEERING
600 WILSHIRE SUITE 1470
LOS ANGELES, CA 90017
TEL: (213) 988–8802
FAX: (213) 988–8803
CONTACT: ANDREW WILLRODT, PE #C49881

PROJECT DESCRIPTION

THE PROJECT WOULD INCLUDE: THE RETENTION OF TWO EXISTING OFFICE BUILDINGS COMPRISED OF A 12–STORY TRI–TOWER PODIUM BUILDING ADDRESSED AS 3440–3460 WILSHIRE BLVD. AND AN 11–STORY BUILDING ADDRESSED AS 3470 WILSHIRE BLVD.; THE RETENTION OF AN EXISTING 5–STORY PARKING GARAGE STRUCTURE ADDRESSED AS 3287 W. 7TH STREET; AS WELL AS THE DEMOLITION OF A 3–STORY PARKING GARAGE STRUCTURE ADDRESSED AS 3265 W. 7TH STREET TO BE REPLACED WITH A NEW DUAL TOWER PODIUM BUILDING INCLUDING A NEW 23–STORY MIXED–USE TOWER AND NEW 28–STORY MIXED–USE TOWER ALL ABOVE 4–STORY ABOVE GRADE PODIUM STRUCTURE WITH TWO SUBTERRANEAN PARKING LEVELS.

PARKING

THE PROJECT WOULD PROVIDE PARKING CONSISTENT WITH LAMC SECTIONS 12.21–A.4 AND 12.21–A.16.

BUILDING HEIGHTS

TOWER 1 : 23–STORIES, 282 FEET IN HEIGHT BUILDING
TOWER 2 : 28–STORIES, 332 FEET IN HEIGHT BUILDING

SITE AREA SUMMARY

SITE AREA (GROSS):	320,534 (SF)	7.36 (AC)
SITE AREA (NET AFTER DEDICATION):	316,420 (SF)	7.26 (AC)

TREE NOTES:

THERE ARE 30 TREES IN THE PUBLIC RIGHT–OF–WAY (SIDEWALK OR CALLED A STREET TREE), OF WHICH ONE (1) IS A PROTECTED SPECIES AND WILL NOT BE REMOVED. OF THE 29 NON–PROTECTED STREET TREES, 19 TREES WOULD BE REMOVED AND REPLACED. THERE ARE 29 TREES ON THE PRIVATE PORTION OF THE PROJECT SITE, NONE OF WHICH ARE PROTECTED SPECIES. OF THESE, 24 WOULD BE REMOVED.

PROPOSED LOTS

LOT 1: GROUND (MASTER) LOT	316,420 (SF)
LOT 2: RESIDENTIAL (APARTMENTS) (AIRSPACE)	UP TO 640 RESIDENTIAL UNITS
LOT 3: COMMERCIAL LOT WITH AN ALLOCATION OF 2 COMMERCIAL CONDOMINIUMS (RETAIL) (AIRSPACE)	UP TO 2,360 (SF) OF COMMERCIAL SPACE
LOT 4: PARKING (RESIDENTIAL, COMMERCIAL, OFFICE AND BIKE) (AIRSPACE)	
LOT 5: EXISTING PARKING STRUCTURE (AIRSPACE)	
LOT 6: COMMERCIAL LOT WITH AN ALLOCATION OF 2 COMMERCIAL CONDOMINIUMS (RETAIL) (AIRSPACE)	UP TO 3,700 (SF) OF COMMERCIAL SPACE

RIGHT-OF- WAY DEDICATION:

PROPOSED 13' & VARIABLE WIDTH RIGHT–OF–WAY DEDICATION ALONG 7TH STREET (4114 SF)

GENERAL NOTES

1. THE SUBJECT PROPERTY WILL BE SERVED BY PUBLIC WATER, SEWER LINES AND STORM DRAIN(DRAINAGE) DIRECTLY ADJACENT TO THE PROPERTY.
2. ALL BOUNDARY MONUMENTS ARE TO BE SET WITHIN 24 MONTHS AFTER FINAL MAP RECORDATION, OR MONUMENTS WILL BE BONDED FOR.
3. ALL EXISTING BUILDINGS TO REMAIN OVER THE EXISTING STORM DRAIN AND/OR SEWER EASEMENT FEATURE AS DEPICTED HEREON AND NO NEW BUILDING STRUCTURES ARE PROPOSED OVER EXISTING EASEMENT. OWNER/APPLICANT ACKNOWLEDGES NO NEW BUILDING STRUCTURE OF ANY KIND MAY BE BUILT OVER AND ABOVE THE EXISTING STORM DRAIN AND/OR SEWER EASEMENT WITHOUT CITY CONSENT AND APPROVAL.

BASIS OF BEARINGS

THE BEARING OF N 89°39'30" E ALONG THE CENTERLINE OF WILSHIRE BOULEVARD PER TRACT NO. 7502 IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA. WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY.

LAND USE

REGIONAL CENTER COMMERCIAL

ZONING

EXISTING:	C4–2,PB–2 AND P–2
PROPOSED:	C4–2

BENCH MARK

CITY OF LOS ANGELES BENCHMARK NO: 12–09351
WIRE SPK N CURB WILSHIRE BLVD; 17FT W/O NORMANDIE AVE; E END CB
ELEVATION=222.304 FEET (NAVD 1988 DATUM) (ADJ. 2000)

GRADING

THE PROPOSED SITE IS A CUT SITE AND WILL REQUIRE APPROXIMATELY 137,000 CY OF EXPORTED MATERIAL. NOTE THAT THIS VALUE IS BASED ON PRELIMINARY DESIGN OF THE PROJECT AND WILL CHANGE AS DESIGN DEVELOPMENT PROGRESSES. AN EXCAVATION PLAN SHALL BE REQUIRED FOR SUBMITTAL TO OBTAIN A GRADING PERMIT AND HAUL ROUTE PERMIT FROM THE CITY OF LOS ANGELES.

LEGEND

	CENTERLINE
	EXISTING PROPERTY LINE
	LOT LINE
(SS)	EXISTING SEWER
SS	NEW SEWER LATERAL
(SD)	EXISTING STORM DRAIN
CB	CATCH BASIN
TW	TREE WELL
SLT	STREET LIGHT
SN	SIGN
WM	WATER METER
FH	FIRE HYDRANT
SMH	SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
PA	PLANTER AREA

LEGAL DESCRIPTION

SEE SHEET 2 OF 7 FOR LEGAL DESCRIPTIONS

CONCURRENT ENTITLEMENT CASE NUMBERS

1. CPC–2016–3692–VZC–MCUP–SPR
2. ENV–2016–3693–EAF

SPECIAL PLANNING AREAS

1. PROJECT IS PARTIALLY LOCATED WITHIN FLOOD ZONE "AH" AND ZONE "X" PER FEMA FLOOD MAP 06037C1616G EFFECTIVE ON 12/21/2018.
2. PROJECT IS NOT LOCATED WITHIN A TSUNAMI INUNDATION ZONE.
3. PROJECT IS NOT LOCATED WITHIN A HIGH WIND VELOCITY AREA.
4. PROJECT IS NOT LOCATED WITHIN THE HILLSIDE ORDINANCE AREA.
5. PROJECT IS NOT LOCATED WITHIN THE HILLSIDE GRADING AREA.
6. PROJECT IS NOT LOCATED WITHIN THE COASTAL ZONE.
7. PROJECT IS LOCATED WITHIN A METHANE BUFFER ZONE.
8. PROJECT IS LOCATED WITHIN THE WILSHIRE CENTER/KOREATOWN REDEVELOPMENT PROJECT CRA ZONE.
9. PROJECT IS NOT LOCATED WITHIN A LIQUEFACTION ZONE.

NO.	REVISIONS	APP'D.	DATE
1	REVISION FOR RESUBMITTAL TO THE CITY		8.19.19

PREPARED FOR:
CENTRAL PLAZA, LLC
C/O EDGAR KHALATIAN, MAYER BROWN LLP
350 SOUTH GRAND AVENUE, 25TH FLOOR
LOS ANGELES, CA 90071
PHONE: (213) 229-9548

FUSCOE ENGINEERING
600 Wilshire Blvd., Suite 1470, Los Angeles, California 90017
tel 213.988.8802 ◦ fax 213.988.8803 ◦ www.fuscoe.com

REGISTERED PROFESSIONAL ENGINEER ANDREW DEFENDIS WILLRODT No.C49881 CIVIL STATE OF CALIFORNIA

Name — Date: AUG 15, 2019

REVISED VESTING TENTATIVE TRACT MAP NO. 74602 FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

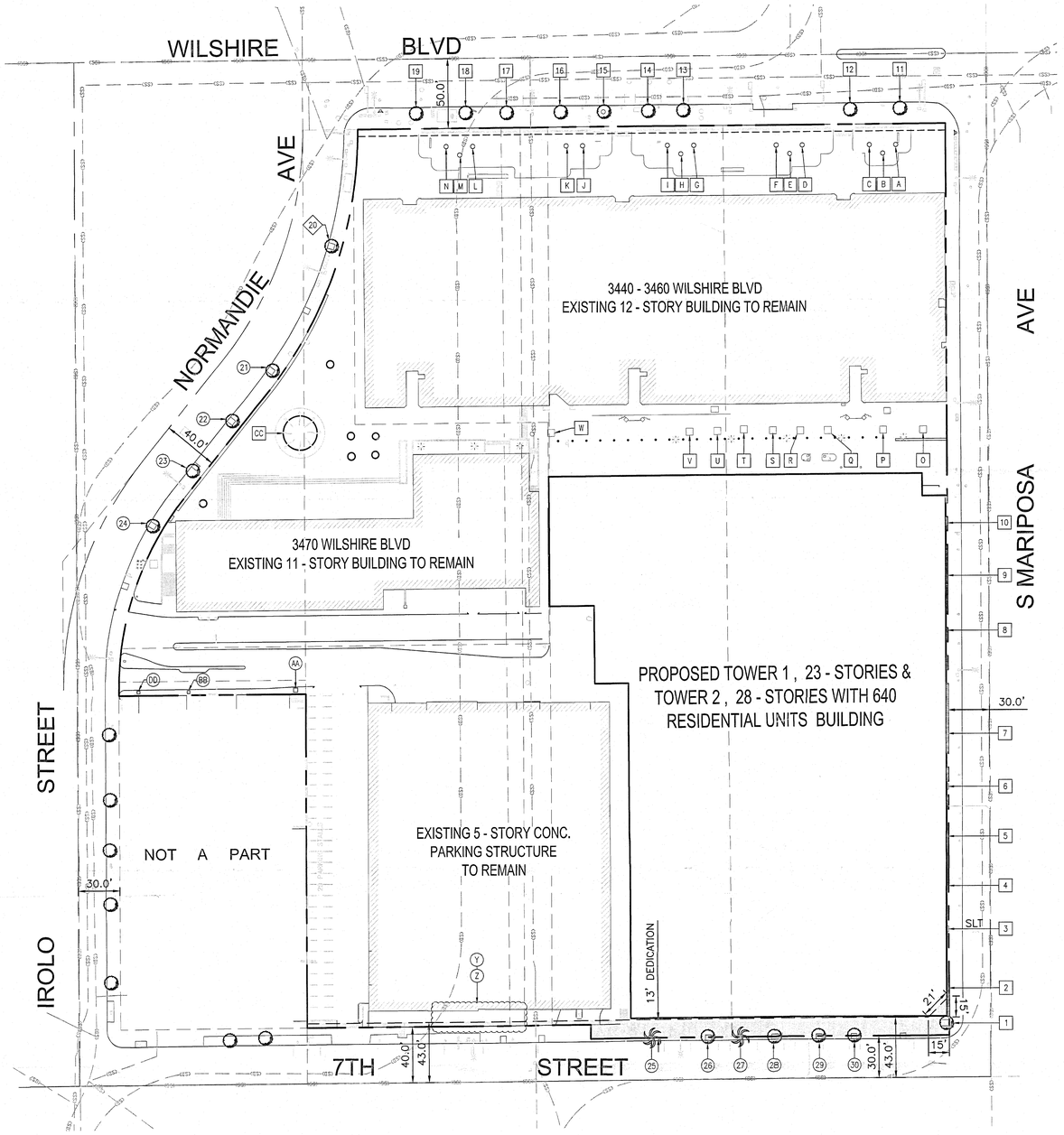
DRAWN:	AF
DESIGN:	GH
CHECKED:	AW
SCALE:	AS SHOWN
JOB NO.:	1470.006
DATE:	08/15/19

SHEET 1 OF 7

F:\PROJECTS\1470\006\PLANS\ENTITLEMENTS\TENTATIVE TRACT MAP\1470-006TM01TS.DWG (08-15-19 9:34:57AM) Plotted by: Alex Flores

REVISED VESTING TENTATIVE TRACT MAP NO. 74602

FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
3440 WILSHIRE



LEGEND

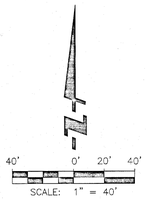
	CENTERLINE
	EXISTING PROPERTY LINE
	LOT LINE
(SS)	EXISTING SEWER
SS	NEW SEWER LATERAL
(SD)	EXISTING STORM DRAIN
CB	CATCH BASIN
TW	TREE WELL
SLT	STREET LIGHT
SN	SIGN
WM	WATER METER
FH	FIRE HYDRANT
SMH	SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
PA	PLANTER AREA
1	UNPROTECTED TREE TO REMAIN
1	UNPROTECTED TREE TO BE REMOVED
1	PROTECTED TREE TO REMAIN

TREE NOTES:

THERE ARE 30 TREES IN THE PUBLIC RIGHT-OF-WAY (SIDEWALK OR CALLED A STREET TREE), OF WHICH ONE (1) IS A PROTECTED SPECIES AND WILL NOT BE REMOVED. OF THE 29 NON-PROTECTED STREET TREES, 19 TREES WOULD BE REMOVED AND REPLACED. THERE ARE 29 TREES ON THE PRIVATE PORTION OF THE PROJECT SITE, NONE OF WHICH ARE PROTECTED SPECIES. OF THESE, 24 WOULD BE REMOVED. **SEE TREE REPORT FOR FURTHER DETAILS.**

ADDITIONAL NOTES:

** TREE LOCATIONS SHOWN HEREON ARE APPROXIMATE. REFER TO AERIAL SURVEY FOR PRECISE LOCATIONS.



NO.	REVISIONS	APP'D.	DATE
1	REVISION FOR RESUBMITTAL TO THE CITY		6.19.19

PREPARED FOR:

CENTRAL PLAZA, LLC
C/O EDGAR KHALATIAN, MAYER BROWN LLP
350 SOUTH GRAND AVENUE, 25TH FLOOR
LOS ANGELES, CA 90071
PHONE: (213) 229-9548

FUSCOE ENGINEERING
600 Wilshire Blvd., Suite 1470, Los Angeles, California 90017
tel 213.988.8802 • fax 213.988.8803 • www.fuscoe.com

Name — Date: AUG 15, 2019

REGISTERED PROFESSIONAL ENGINEER — ANDREW JEFFERSON WILLIAMS — No.C49881 — CIVIL — STATE OF CALIFORNIA

REVISED VESTING TENTATIVE TRACT MAP NO. 74602 FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

DRAWN:	AF
DESIGN:	GH
CHECKED:	AW
SCALE:	AS SHOWN
JOB NO.:	1470.006
DATE:	08/15/19

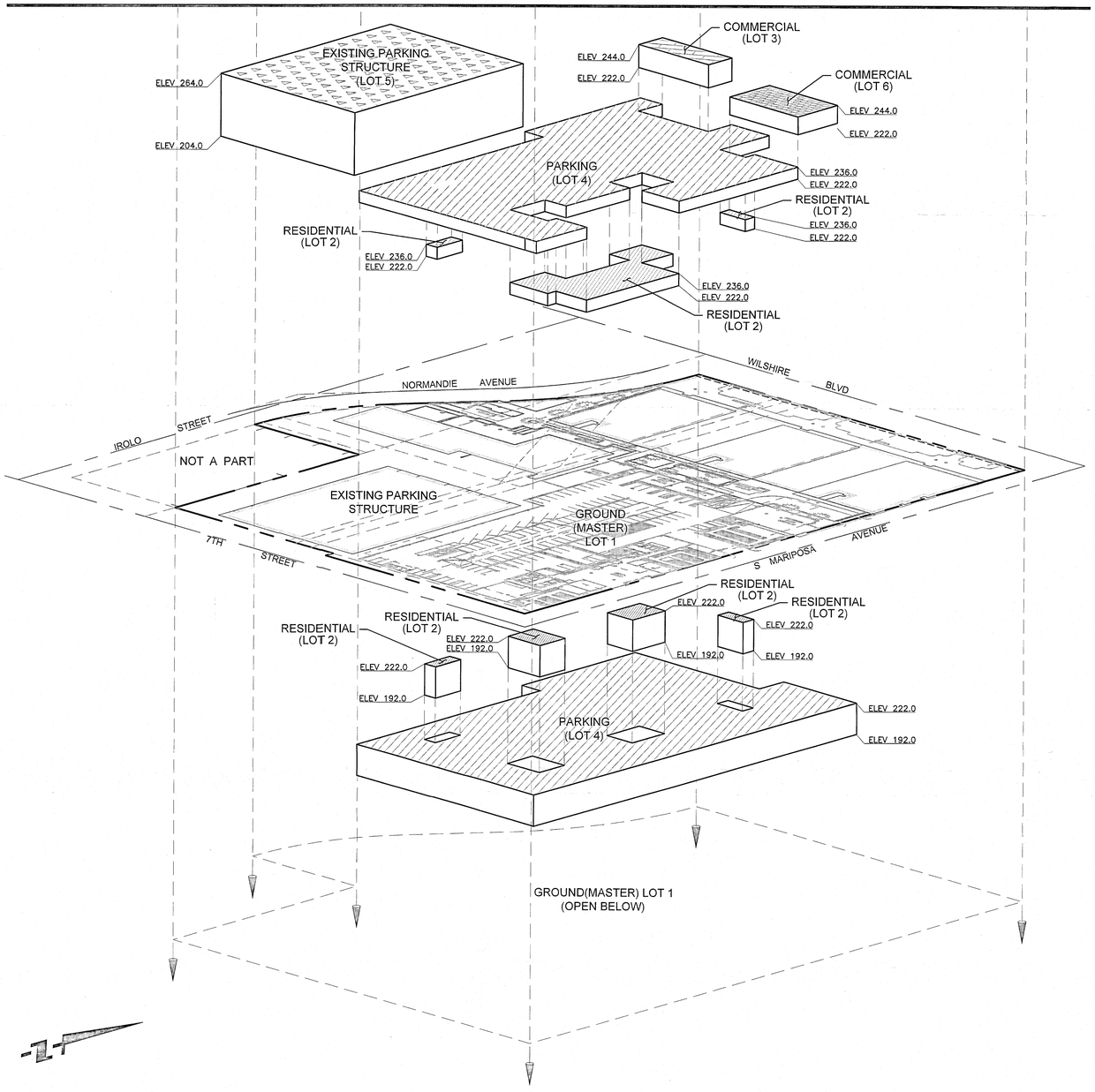
SHEET 7 OF 7

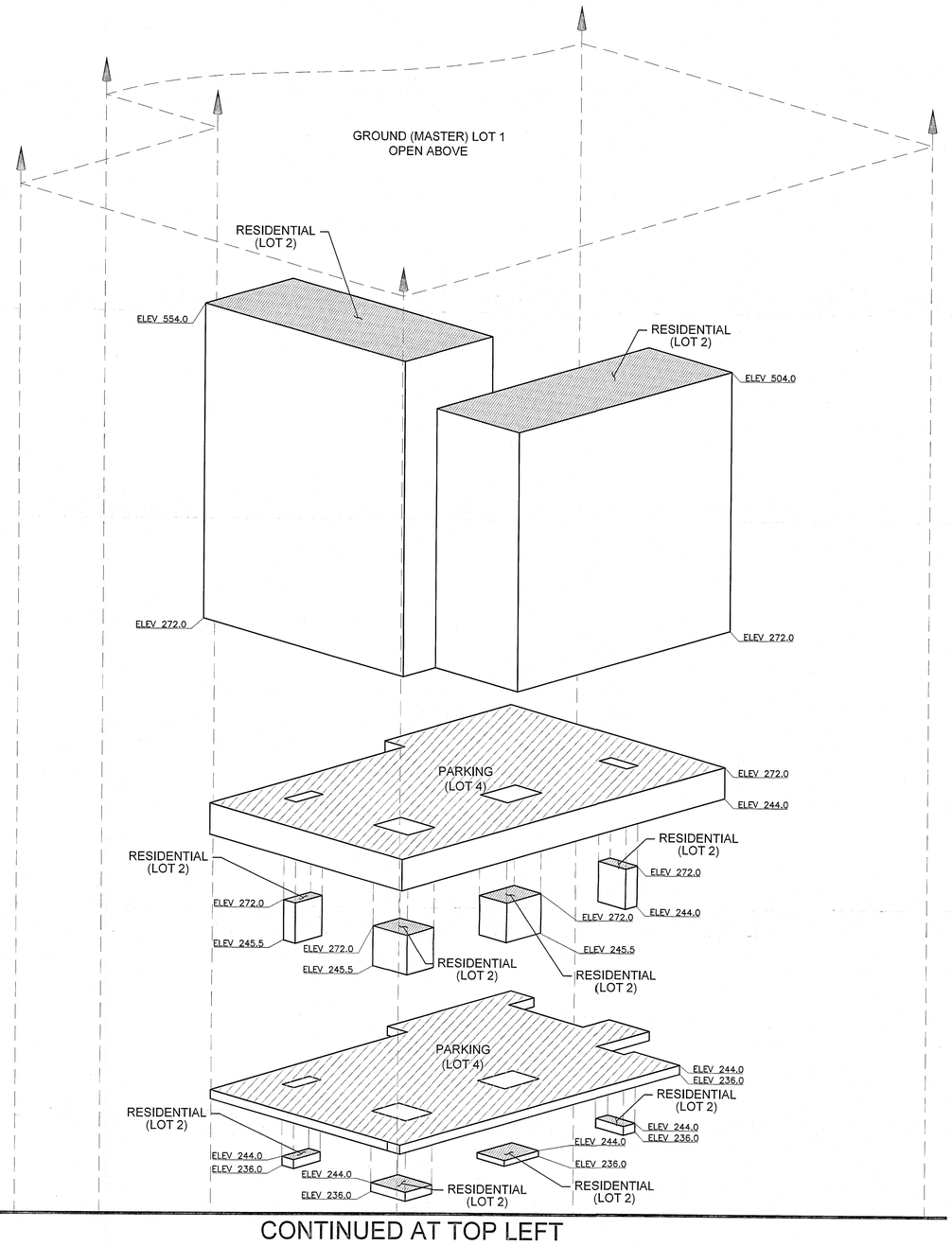
F:\PROJECTS\1470\006\PLANS\ENTITLEMENTS\TENTATIVE TRACT MAP\1470-006TM08DET.DWG (08-15-19 9:36:13AM) Plotted by: Alex Flores

REVISED VESTING TENTATIVE TRACT MAP NO. 74602

FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
3440 WILSHIRE

CONTINUED AT BOTTOM RIGHT





CONTINUED AT TOP LEFT

LEGEND

- LOT 1: GROUND (MASTER) LOT
- LOT 2: RESIDENTIAL (APARTMENTS)
- LOT 3: COMMERCIAL (RETAIL)
- LOT 4: PARKING (RESIDENTIAL, COMMERCIAL, OFFICE AND BIKE)
- LOT 5: EXISTING PARKING STRUCTURE
- LOT 6: COMMERCIAL (RETAIL)

NO.	REVISIONS	APP'D.	DATE
1	REVISION FOR RESUBMITTAL TO THE CITY		6.19.19

PREPARED FOR:

CENTRAL PLAZA, LLC
C/O EDGAR KHALATIAN, MAYER BROWN LLP
350 SOUTH GRAND AVENUE, 25TH FLOOR
LOS ANGELES, CA 90071
PHONE: (213) 229-9548

FUSCOE ENGINEERING
600 Wilshire Blvd., Suite 1470, Los Angeles, California 90017
tel 213.988.8802 ◦ fax 213.988.8803 ◦ www.fuscoe.com

Name: [signature] Date: AUG 15, 2019

REGISTERED PROFESSIONAL ENGINEER ANDREW JEFFERSON WILDCOOT No.C49881 CIVIL STATE OF CALIFORNIA

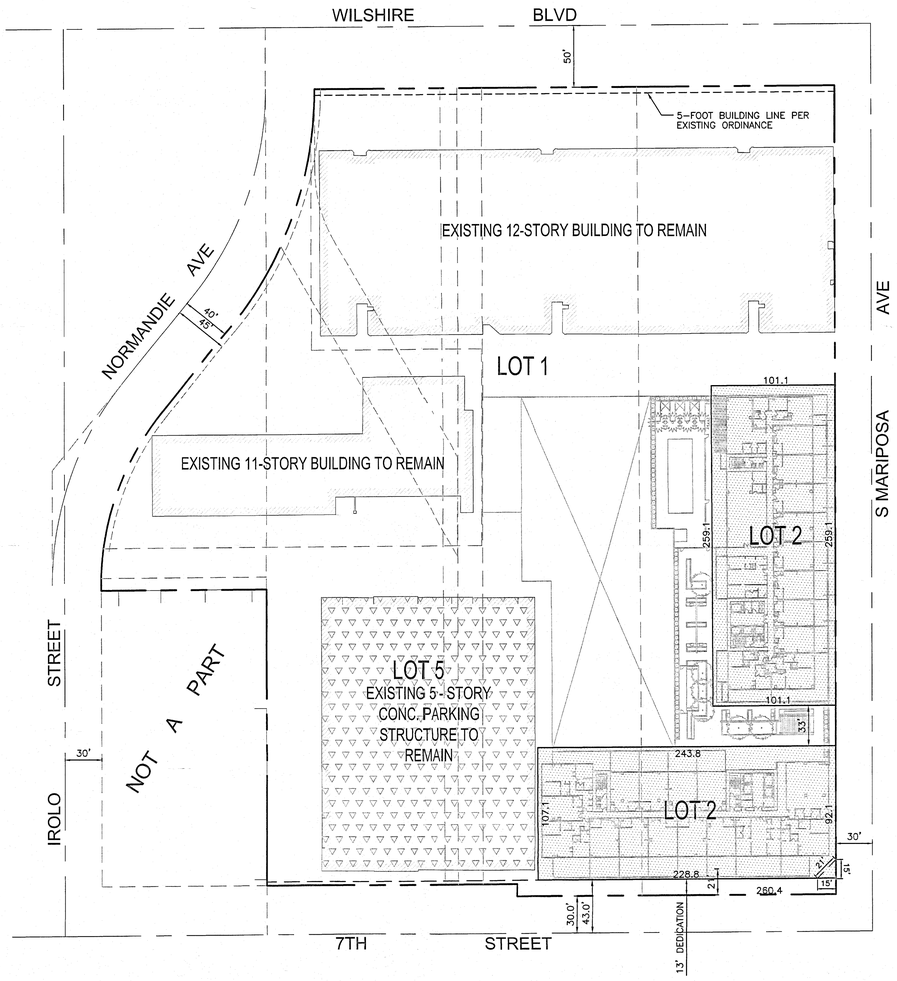
REVISED VESTING TENTATIVE TRACT MAP NO. 74602 FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

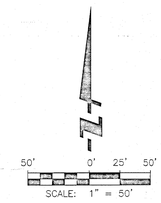
DRAWN:	AF
DESIGN:	GH
CHECKED:	AW
SCALE:	AS SHOWN
JOB NO.:	1470.006
DATE:	08/15/19

F:\PROJECTS\1470\006\PLANS\ENTITLEMENTS\TENTATIVE TRACT MAP\1470-006TM07DET.DWG (08-15-19 9:35:57AM) Plotted by: Alex Flores

REVISED VESTING TENTATIVE TRACT MAP NO. 74602

FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
3440 WILSHIRE





LEVEL 6-28

LEGEND

- LOT 1: GROUND (MASTER) LOT
- LOT 2: RESIDENTIAL (APARTMENTS)
- LOT 3: COMMERCIAL (RETAIL)
- LOT 4: PARKING (RESIDENTIAL, COMMERCIAL, OFFICE AND BIKE)
- LOT 5: EXISTING PARKING STRUCTURE
- LOT 6: COMMERCIAL (RETAIL)

NO.	REVISIONS	APP'D.	DATE
1	REVISION FOR RESUBMITTAL TO THE CITY		6.19.19

PREPARED FOR:

CENTRAL PLAZA, LLC
C/O EDGAR KHALATIAN, MAYER BROWN LLP
350 SOUTH GRAND AVENUE, 25TH FLOOR
LOS ANGELES, CA 90071
PHONE: (213) 229-9548

FUSCOE ENGINEERING
600 Wilshire Blvd., Suite 1470, Los Angeles, California 90017
tel 213.988.8802 ◦ fax 213.988.8803 ◦ www.fuscoe.com
Name
Aug 15, 2019
Date

REGISTERED PROFESSIONAL ENGINEER — ANDREW JEFFERSON WILLSON — No.C49881 — CIVIL — STATE OF CALIFORNIA

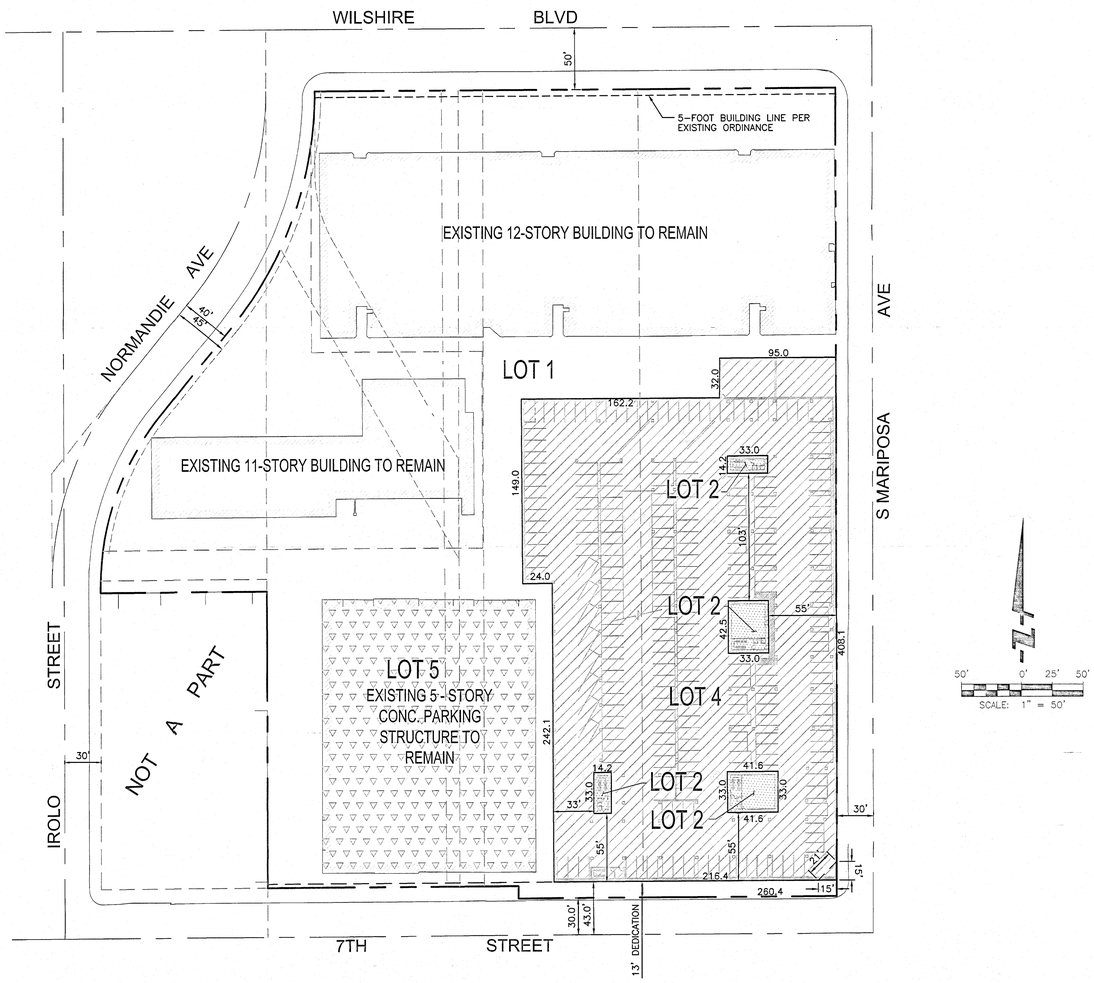
REVISED VESTING TENTATIVE TRACT MAP NO. 74602 FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

DRAWN:	AF
DESIGN:	GH
CHECKED:	AW
SCALE:	AS SHOWN
JOB NO.:	1470.006
DATE:	08/15/19

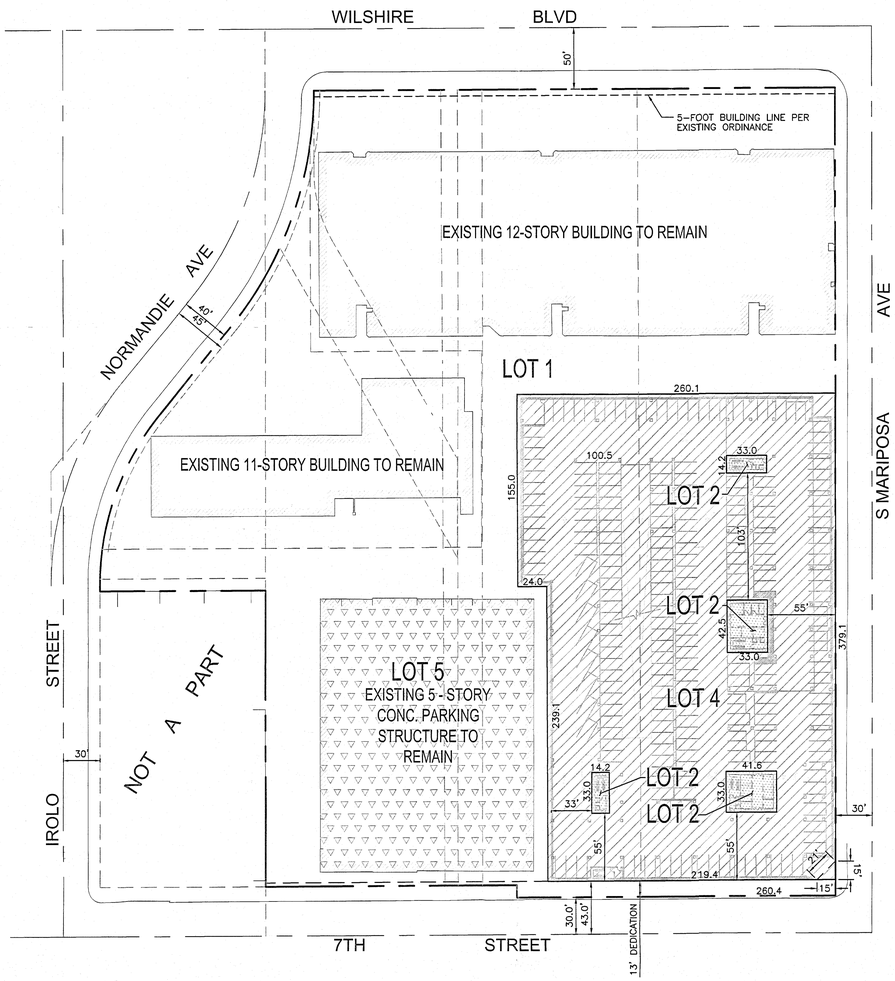
F:\PROJECTS\1470\006\PLANS\ENTITLEMENTS\TENTATIVE TRACT MAP\1470-006TM06DET.DWG (08-15-19 9:35:42AM) Plotted by: Alex Flores

REVISED VESTING TENTATIVE TRACT MAP NO. 74602

FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
3440 WILSHIRE



LEVEL B1 AND B2



LEVEL 2-4

LEGEND

- LOT 1: GROUND (MASTER) LOT
- LOT 2: RESIDENTIAL (APARTMENTS)
- LOT 3: COMMERCIAL (RETAIL)
- LOT 4: PARKING (RESIDENTIAL, COMMERCIAL, OFFICE AND BIKE)
- LOT 5: EXISTING PARKING STRUCTURE
- LOT 6: COMMERCIAL (RETAIL)

NO.	REVISIONS	APP'D.	DATE
1	REVISION FOR RESUBMITTAL TO THE CITY		6.19.19

PREPARED FOR:

CENTRAL PLAZA, LLC
C/O EDGAR KHALATIAN, MAYER BROWN LLP
350 SOUTH GRAND AVENUE, 25TH FLOOR
LOS ANGELES, CA 90071
PHONE: (213) 229-9548

FUSCOE ENGINEERING
600 Wilshire Blvd., Suite 1470, Los Angeles, California 90017
tel 213.988.8802 ◦ fax 213.988.8803 ◦ www.fuscoe.com

REGISTERED PROFESSIONAL ENGINEER — ANDREW JEFFERSON WILLIAMS — No.C49881 — CIVIL — STATE OF CALIFORNIA

Name Date Aug 15, 2019

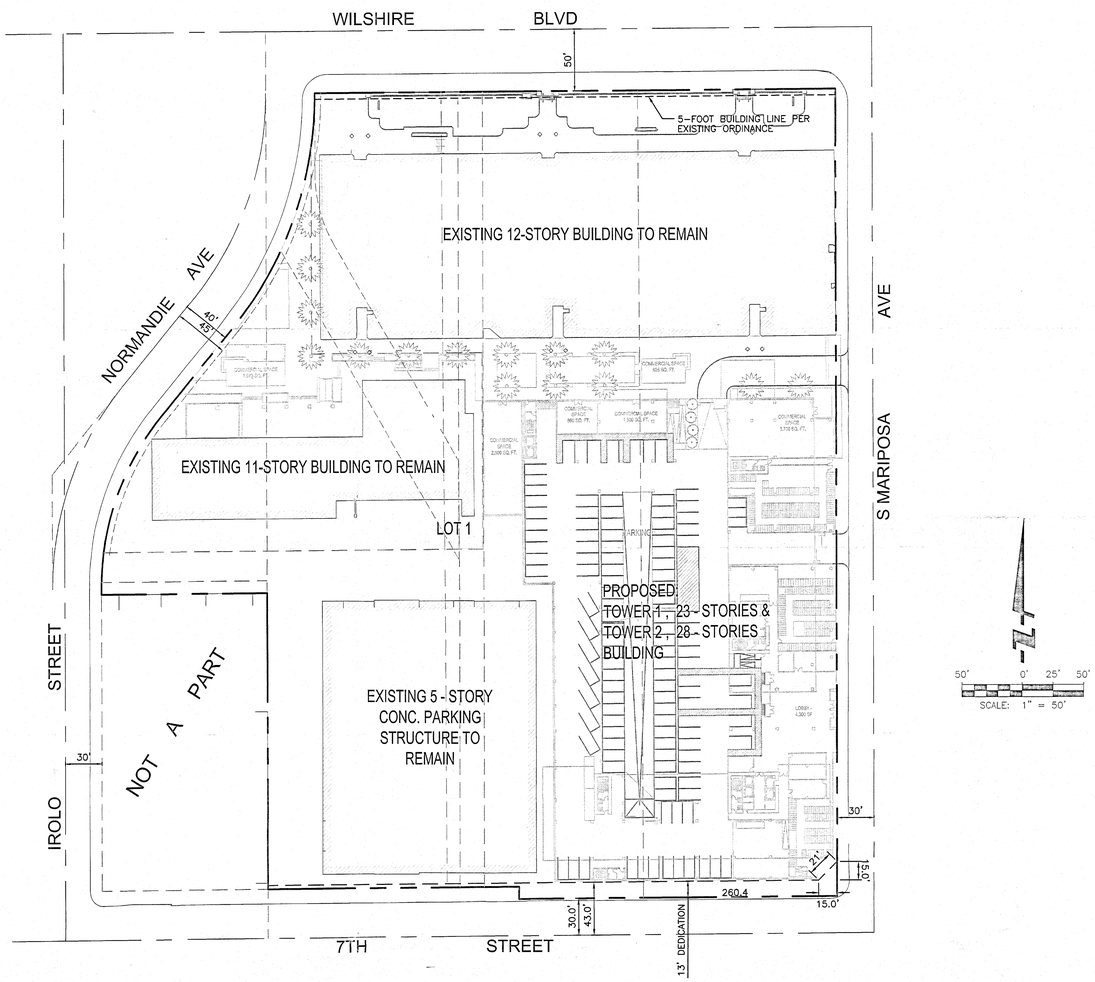
REVISED VESTING TENTATIVE TRACT MAP NO. 74602 FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

DRAWN:	AF
DESIGN:	GH
CHECKED:	AW
SCALE:	AS SHOWN
JOB NO.:	1470.006
DATE:	08/15/19

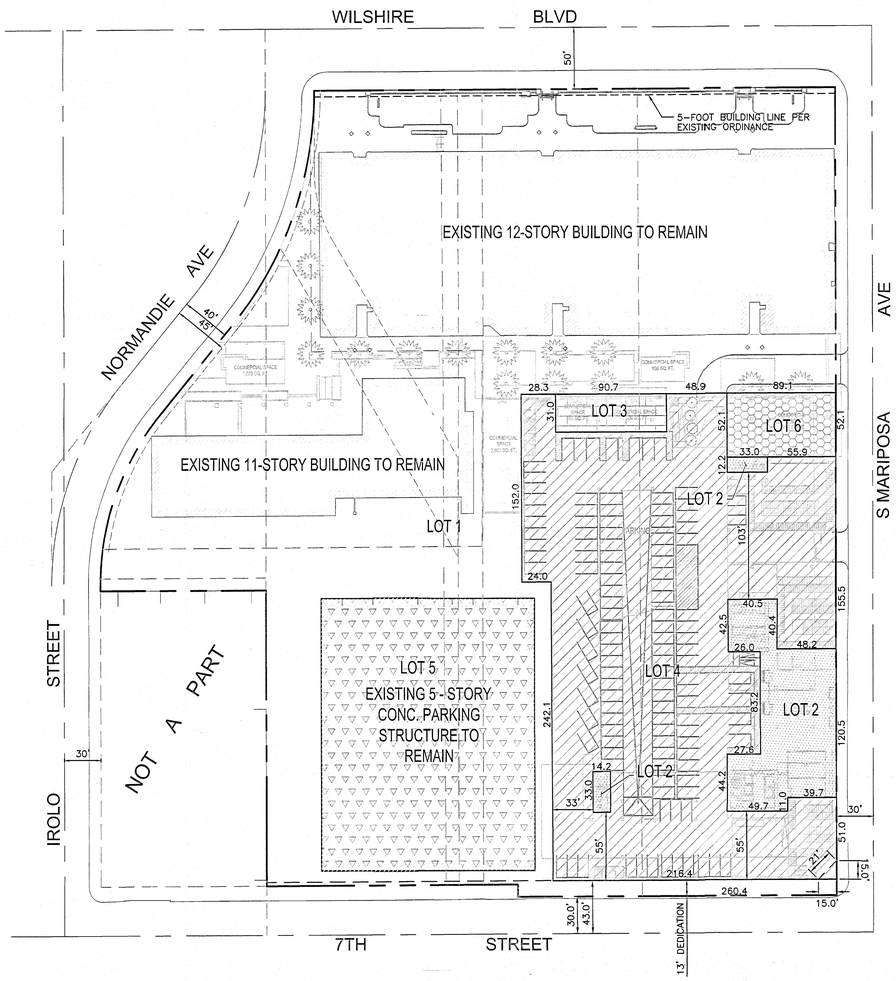
SHEET 4 OF 7

REVISED VESTING TENTATIVE TRACT MAP NO. 74602

FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
3440 WILSHIRE



GROUND (MASTER) LOT 1



LEVEL 1

LEGEND

- LOT 1: GROUND (MASTER) LOT
- LOT 2: RESIDENTIAL (APARTMENTS)
- LOT 3: COMMERCIAL (RETAIL)
- LOT 4: PARKING (RESIDENTIAL, COMMERCIAL, OFFICE AND BIKE)
- LOT 5: EXISTING PARKING STRUCTURE
- LOT 6: COMMERCIAL (RETAIL)

NO.	REVISIONS	APP'D.	DATE
1	REVISION FOR RESUBMITTAL TO THE CITY		6.19.19

PREPARED FOR:

CENTRAL PLAZA, LLC
C/O EDGAR KHALATIAN, MAYER BROWN LLP
350 SOUTH GRAND AVENUE, 25TH FLOOR
LOS ANGELES, CA 90071
PHONE: (213) 229-9548

FUSCOE ENGINEERING
600 Wilshire Blvd., Suite 1470, Los Angeles, California 90017
tel 213.988.8802 ◦ fax 213.988.8803 ◦ www.fuscoe.com

REGISTERED PROFESSIONAL ENGINEER ANDREW JEFFERSON WILLIAMS No.C49881 CIVIL STATE OF CALIFORNIA

Name Date Aug 15 2019

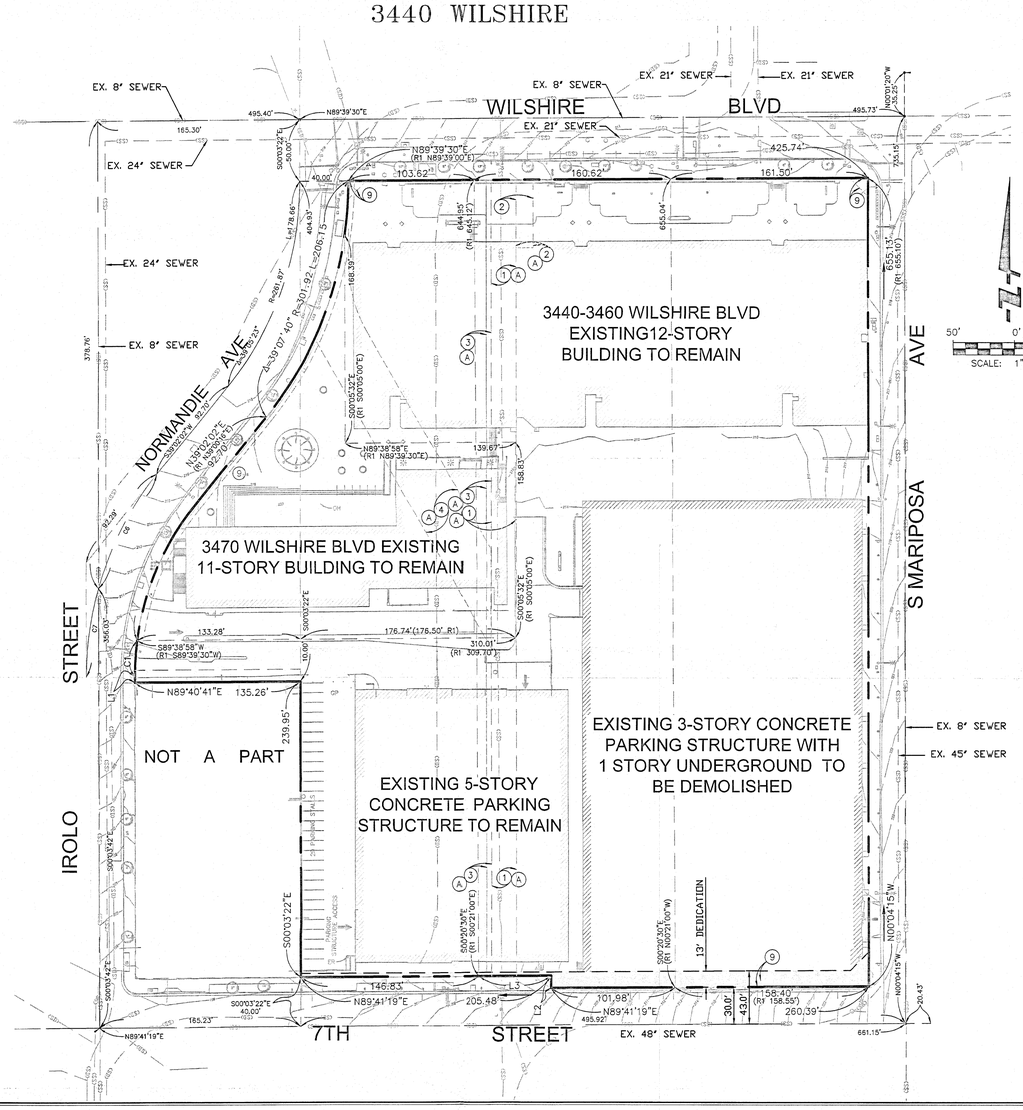
REVISED VESTING TENTATIVE TRACT MAP NO. 74602 FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

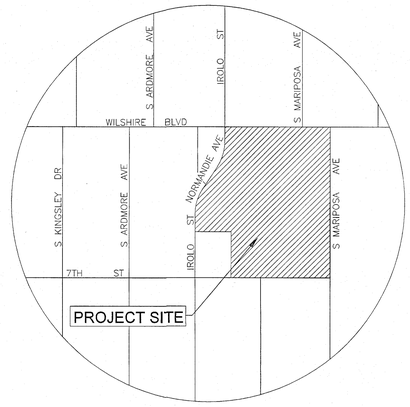
DRAWN:	AF
DESIGN:	GH
CHECKED:	AW
SCALE:	AS SHOWN
JOB NO.:	1470.006
DATE:	08/15/19

SHEET 3 OF 7

REVISED VESTING TENTATIVE TRACT MAP NO. 74602

FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA
3440 WILSHIRE





VICINITY MAP

BASIS OF BEARINGS

THE BEARING OF N 89°39'30" E ALONG THE CENTERLINE OF WILSHIRE BOULEVARD PER TRACT NO. 7502 IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA. WAS USED AS THE BASIS OF BEARINGS FOR THIS SURVEY.

ITEMS CORRESPONDING TO SCHEDULE "B"

BY: FIRST AMERICAN TITLE COMPANY
777 SOUTH FIGUEROA STREET, SUITE 400
LOS ANGELES, CA 90017
(213) 271-1744

COMMITMENT NO.: NCS-- 691162- LA2
TITLE OFFICER – LIZ THYMIUS
DATED: SEPTEMBER 04, 2014

THE FOLLOWING ITEMS ARE FOUND IN SAID COMMITMENT AND ARE REFERENCED ON THIS MAP. COVENANTS AND AGREEMENTS LISTED HEREON CONTAIN NUMEROUS ITEMS THAT AFFECT THE SUBJECT PROPERTY, CONTENTS SHOULD BE REVIEWED TO DISCERN SPECIFICS

(1) AN EASEMENT FOR SEWERS RECORDED DECEMBER 6. 1910 IN BOOK 4354 PAGE 310 OF DEEDS. THIS ITEM AFFECTS THE SUBJECT PROPERTY AND PLOTTED HEREON.

(2) AN EASEMENT FOR SEWERS RECORDED DECEMBER 2, 1914 IN BOOK 5915 PAGE 311 OF DEEDS. THIS ITEM AFFECTS THE SUBJECT PROPERTY AND IS PLOTTED HEREON.

(3) AN EASEMENT FOR SANITARY SEWERS RECORDED SEPTEMBER 2. 1925 IN BOOK 5190 PAGE-17 OF OFFICIAL RECORDS. THIS ITEM AFFECTS THE SUBJECT PR OPERTY AND IS PLOTTED HEREON.

(4) AN EASEMENT FOR STORM DRAINS, SANITARY SEWERS RECORDED JULY 14, 1926 IN BOOK 5689 PAGE 271, OFFICIAL RECORDS AND AS AMENDED BY DEED RECORDED JULY 19, 1951 IN BOOK 36800 PAGE 339 OFFICIAL RECORDS. THIS ITEM AFFECTS THE SUBJECT PROPERTY AND IS PLOTTED HEREON.

(9) AN OFFER OF DEDICATION FOR PUBLIC STREET AND INCIDENTAL PURPOSES, RECORDED DECEMBER 14, 1965 AS INSTRUMENT NO. 3897 IN BOOK D-3146 PAGE 243 OF OFFICIAL RECORDS. APRIL 5. 1966 AS INSTRUMENT NO. 3966 IN BOOK D-3262 PAGE 103, OF OFFICIAL RECORDS. THIS ITEM AFFECTS THE SUBJECT PROPERTY AND IS PLOTTED HEREON.

STATEMENT OF ENCROACHMENTS

(A) BUILDING LIES OVER SCHEDULE "B" ITEM NUMBERS 1, 2, 3 AND 4

LEGEND

CENTERLINE
EXISTING PROPERTY LINE
LOT LINE

FIELD BOUNDARY SURVEY CONTENT
TITLE INFORMATION, LEGAL DESCRIPTION, TITLE EXCEPTIONS AND SURVEYOR'S NOTES ARE SOURCED PER
JRN CIVIL ENGINEERING
DATED 08/26/14

LEGAL DESCRIPTION

THE LAND REFERRED TO IN THIS COMMITMENT IS SITUATED IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1:

THOSE PORTIONS OF LOTS 94 THROUGH 98 INCLUSIVE OF WILSHIRE HARVARD HEIGHTS, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY AND THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN SAID CITY, COUNTY AND STATE, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS A WHOLE AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF THE .RESUBDIVISION OF LOTS 99, 100 AND 101 OF WILSHIRE HARVARD HEIGHTS., AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 43.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH 0 DEGREES 05 MINUTES 00 SECONDS EAST 168.39 FEET; THENCE NORTH 89 DEGREES 39 MINUTES 30 SECONDS EAST 139.67 FEET; THENCE SOUTH 0 DEGREES 05 MINUTES 00 SECONDS EAST 158.83 FEET; THENCE SOUTH 89 DEGREES 39 MINUTES 30 SECONDS WEST 309.70 FEET TO A POINT IN THE SOUTHEAST LINE OF NORMANDY AVENUE, AS DESCRIBED IN THE DEED RECORDED IN BOOK 43314 PAGE 434, OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, SAID POINT BEING A CURVE CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 220.00 FEET, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS NORTH 82 DEGREES 24 MINUTES 33 SECONDS WEST; THENCE NORTHEASTERLY ALONG SAID CURVE 120.62 FEET; THENCE TANGENT TO SAID CURVE, NORTH 39 DEGREES 00 MINUTES 16 SECONDS EAST 92.68 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 301.92 FEET; THENCE NORTHEASTERLY ALONG SAID CURVE, 48.79 FEET TO THE EASTERLY LINE OF SAID LOT "B"; THENCE NORTH 0 DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE, 150.00 FEET TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD; THENCE ALONG SAID BOULEVARD, NORTH 89 DEGREES 39 MINUTES 30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING.

PARCEL 2:

THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET WIDE, WITH THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE; THENCE WESTERLY ALONG SAID SOUTHERLY LINE, 161.50 FEET; THENCE SOUTHERLY AT RIGHT ANGLES TO SAID SOUTHERLY LINE, 655.04 FEET, MORE OR LESS, TO THE NORTHERLY LINE OF SEVENTH STREET, 60 FEET WIDE; THENCE EASTERLY ALONG SAID SEVENTH STREET, 158.55 FEET, MORE OR LESS, TO THE POINT OF INTERSECTION OF THE NORTHERLY LINE OF SEVENTH STREET THE WESTERLY LINE OF MARIPOSA AVENUE; THENCE NORTHERLY ALONG THE SAID MARIPOSA AVENUE, 655.10 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PARCEL 3:

THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, DISTANT SOUTH 89 DEGREES 39 MINUTES 00 SECONDS WEST THEREON 161.50 FEET FROM THE INTERSECTION OF SAID SOUTHERLY LINE WITH THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET WIDE; THENCE SOUTH 89 DEGREES 39 MINUTES 00 SECONDS WEST, ALONG SAID SOUTHERLY LINE, 160.625 FEET; THENCE AT RIGHT ANGLES, SOUTH 0 DEGREES 21 MINUTES 00 SECONDS EAST 645.12 FEET, MORE OR LESS, TO THE NORTHERLY LINE OF SEVENTH STREET; THENCE EASTERLY ALONG SAID SEVENTH STREET TO A LINE DRAWN AT RIGHT ANGLES FROM THE SOUTHERLY LINE OF SAID WILSHIRE BOULEVARD THAT PASSES THROUGH THE POINT OF BEGINNING; THENCE NORTH 0 DEGREES 21 MINUTES 00 SECONDS WEST, ALONG SAID LINE, 655.04 FEET, MORE OR LESS, TO THE POINT OF BEGINNING. EXCEPT THAT PORTION THEREOF, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF THE .RESUBDIVISION OF LOTS 99, 100 AND 101 OF WILSHIRE HARVARD HEIGHTS., AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 43.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH 0 DEGREES 05 MINUTES 00 SECONDS EAST 168.39 FEET; THENCE NORTH 89 DEGREES 39 MINUTES 30 SECONDS EAST 139.67 FEET; THENCE SOUTH 0 DEGREES 05 MINUTES 00 SECONDS EAST 158.83 FEET; THENCE SOUTH 89 DEGREES 39 MINUTES 30 SECONDS WEST 176.50, MORE OR LESS, TO THE POINT IN THE EASTERLY LINE OF SAID WILSHIRE HARVARD HEIGHTS; THENCE NORTH 0 DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD; THENCE ALONG SAID BOULEVARD, NORTH 89 DEGREES 39 MINUTES 30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING.

PARCEL 4:

THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS: BEGINNING A.T A POINT IN THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, DISTANT SOUTH 89 DEGREES 49 MINS 00 SECONDS WEST, THEREON 322.125 FEET FROM THE INTERSECTION OF SAID SOUTHERLY LINE WITH THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET WIDE; THENCE SOUTH 0 DEGREES 21 MINUTES 00 SECONDS EAST 645.12 FEET TO THE NORTH LINE OF SEVENTH STREET; THENCE ALONG SAID SEVENTH STREET, SOUTH 89 DEGREES 40 MINUTES 00 SECONDS WEST, TO THE EAST LINE OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS; THENCE NORTH 0 DEGREES 05 MINUTES 05 SECONDS WEST, ALONG SAID LINE 644.97 FEET, MORE OR LESS, TO THE SOUTHERLY LINE OF SAID WILSHIRE BOULEVARD; THENCE NORTH 89 DEGREES 39 MINUTES 00 SECONDS EAST, ALONG SAID SOUTHERLY LINE, 143.455 FEET, MORE OR LESS, TO THE POINT OF BEGINNING. , EXCEPT THAT PORTION THEREOF DESCRIBED AS FOLLOWS:

BEGINNING A.T THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF THE .RESUBDIVISION OF LOTS 99, 100 AND 101 OF WILSHIRE HARVARD HEIGHTS., AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 43.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH 0 DEGREES 05 MINUTES 00 SECONDS EAST 168.39 FEET; THENCE NORTH 89 DEGREES 39 MINUTES 30 SECONDS EAST 139.67 FEET; THENCE SOUTH 0 DEGREES 05 MINUTES 00 SECONDS EAST 158.83 FEET; THENCE SOUTH 89 DEGREES 39 MINUTES 30 SECONDS WEST 178.50 FEET, MORE OR LESS, TO THE POINT IN THE EASTERLY LINE OF SAID WILSHIRE HARVARD HEIGHTS; THENCE NORTH 0 DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD; THENCE ALONG SAID BOULEVARD, NORTH 89 DEGREES 39 MINUTES 30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING.

PARCEL 5:

THOSE PORTIONS OF LOTS 93 AND 94 OF WILSHIRE HARVARD HEIGHTS, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, (SAID SOUTHERLY LINE BEING THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF THE .RESUBDIVISION OF LOTS 99, 100 AND 101 OF WILSHIRE HARVARD HEIGHTS., AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 205.97 FEET; THENCE TANGENT TO SAID CURVE, SOUTH 39 DEGREES 00 MINUTES 16 SECONDS WEST 92.68 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 220.00 FEET; THENCE SOUTHERLY ALONG SAID CURVE, 120.62 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 89 DEGREES 39 MINUTES 30 SECONDS EAST 133.28 FEET TO THE EAST LINE OF SAID LOT 94; THENCE ALONG THE EAST LINES OF SAID LOTS, SOUTH 0 DEGREES 05 MINUTES 00 SECONDS EAST 34.17 FEET TO THE SOUTH LINE OF THE NORTH 10 FEET OF SAID LOT 93; THENCE ALONG SAID SOUTH LINE, SOUTH 89 DEGREES 39 MINUTES 30 SECONDS WEST 135.25 FEET TO THE WEST LINE OF SAID LOT 93; THENCE ALONG SAID WEST LINE, NORTH 0 DEGREES 05 MINUTES 00 SECONDS WEST 4.80 FEET TO THE INTERSECTION OF SAID LINE WITH THE SOUTHERLY CONTINUATION OF THE CURVE HEREIN DESCRIBED HAVING A RADIUS OF 220.00 FEET; THENCE NORTHERLY ALONG SAID CURVE, 29.47 FEET TO THE TRUE POINT OF BEGINNING.

NO.	REVISIONS	APP'D.	DATE
1	REVISION FOR RESUBMITTAL TO THE CITY		6.19.19

PREPARED FOR:

CENTRAL PLAZA, LLC
C/O EDGAR KHALATIAN, MAYER BROWN LLP
350 SOUTH GRAND AVENUE, 25TH FLOOR
LOS ANGELES, CA 90071
PHONE: (213) 229-9548

FUSCOE ENGINEERING
600 Wilshire Blvd., Suite 1470, Los Angeles, California 90017
tel 213.988.8802 ○ fax 213.988.8803 ○ www.fuscoe.com

REGISTERED PROFESSIONAL ENGINEER — ANDREW JEFFERSON WILLARD — No. C49881 — CIVIL — STATE OF CALIFORNIA

Name

AUG 15, 2019
Date

REVISED VESTING TENTATIVE TRACT MAP NO. 74602 FOR LOT MERGER, AIRSPACE SUBDIVISION & CONDOMINIUM PURPOSES
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

DRAWN:	AF
DESIGN:	GH
CHECKED:	AW
SCALE:	AS SHOWN
JOB NO.:	1470.006
DATE:	08/15/19
SHEET	2 OF 7

F:\PROJECTS\1470\006\PLANS\ENTITLEMENTS\TENTATIVE TRACT MAP\1470-006TM02EX.DWG (08-15-19 9:35:13AM) Plotted by: Alex Flores

VTT-74602-1A

EXHIBIT C

APPELLANT 1: APPEAL APPLICATION

APPLICATIONS:

APPEAL APPLICATION

Instructions and Checklist

Related Code Section: Refer to the City Planning case determination to identify the Zone Code section for the entitlement and the appeal procedure.

Purpose: This application is for the appeal of Department of City Planning determinations authorized by the Los Angeles Municipal Code (LAMC).

A. APPELLATE BODY/CASE INFORMATION

1. APPELLATE BODY

☐ Area Planning Commission ☑ City Planning Commission ☐ City Council ☐ Director of Planning
☐ Zoning Administrator

Regarding Case Number: VTT-74602

Project Address: 3432-3470 W Wilshire Blvd,659-699 S Mariposa Ave,3265-3287 W 7th Street, 666-678 S Irolo St

Final Date to Appeal: 04/06/2020

2. APPELLANT

Appellant Identity: (check all that apply)
☐ Representative ☐ Property Owner
☐ Applicant ☐ Operator of the Use/Site

☑ Person, other than the Applicant, Owner or Operator claiming to be aggrieved

☐ Person affected by the determination made by the **Department of Building and Safety**

☐ Representative ☐ Owner ☐ Aggrieved Party
☐ Applicant ☐ Operator

3. APPELLANT INFORMATION

Appellant's Name: Supporter's Alliance for Environmental Responsibility

Company/Organization:

Mailing Address: 4399 Santa Anita Ave, Ste 2005

City: El Monte State: CA Zip: 91731

Telephone: (510) 836-4200 E-mail: richard@lozeaudrury.com

a. Is the appeal being filed on your behalf or on behalf of another party, organization or company?

☑ Self ☐ Other:

b. Is the appeal being filed to support the original applicant's position? ☐ Yes ☑ No

4. REPRESENTATIVE/AGENT INFORMATION

Representative/Agent name (if applicable): Richard Drury

Company: Lozeau Drury LLP

Mailing Address: 1939 Harrison Street, Suite 150

City: Oakland State: CA Zip: 94612

Telephone: (510) 836-4200 E-mail: richard@lozeaudrury.com

5. JUSTIFICATION/REASON FOR APPEAL

a. Is the entire decision, or only parts of it being appealed? ☑ Entire ☐ Part

b. Are specific conditions of approval being appealed? ☑ Yes ☐ No

If Yes, list the condition number(s) here: All

Attach a separate sheet providing your reasons for the appeal. Your reason must state:

- ☑ The reason for the appeal
- ☑ How you are aggrieved by the decision
- ☑ Specifically the points at issue
- ☑ Why you believe the decision-maker erred or abused their discretion

6. APPLICANT'S AFFIDAVIT

I certify that the statements contained in this application are complete and true:

Appellant Signature: Date: Apr. 2, 2020

GENERAL APPEAL FILING REQUIREMENTS

B. ***ALL CASES REQUIRE THE FOLLOWING ITEMS - SEE THE ADDITIONAL INSTRUCTIONS FOR SPECIFIC CASE TYPES***

1. Appeal Documents

a. Three (3) sets - The following documents are required for each appeal filed (1 original and 2 duplicates) Each case being appealed is required to provide three (3) sets of the listed documents.

- ☐ Appeal Application (form CP-7769)
- ☐ Justification/Reason for Appeal
- ☐ Copies of Original Determination Letter

b. Electronic Copy

- ☐ Provide an electronic copy of your appeal documents on a flash drive (planning staff will upload materials during filing and return the flash drive to you) or a CD (which will remain in the file). The following items must be saved as individual PDFs and labeled accordingly (e.g. "Appeal Form.pdf", "Justification/Reason Statement.pdf", or "Original Determination Letter.pdf" etc.). No file should exceed 9.8 MB in size.

c. Appeal Fee

- ☐ Original Applicant - A fee equal to 85% of the original application fee, provide a copy of the original application receipt(s) to calculate the fee per LAMC Section 19.01B 1.
- ☐ Aggrieved Party - The fee charged shall be in accordance with the LAMC Section 19.01B 1.

d. Notice Requirement

- ☐ Mailing List - All appeals require noticing per the applicable LAMC section(s). Original Applicants must provide noticing per the LAMC
- ☐ Mailing Fee - The appeal notice mailing fee is paid by the project applicant, payment is made to the City Planning's mailing contractor (BTC), a copy of the receipt must be submitted as proof of payment.

Justification/Reason for Appeal

3440 Wilshire Project

Vesting Tentative Tract No. 74602 (CEQA Case No. ENV-2016-3693-MND)

3440-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3281-3287 West 7th Street, and 666-678 South Irolo Street

REASON FOR THE APPEAL: The Mitigated Negative Declaration ("MND") prepared for the 3440 Wilshire Project aka VTT-74602 & ENV-2016-3693-MND ("Project") fails to comply with the California Environmental Quality Act ("CEQA").

SPECIFICALLY THE POINTS IN ISSUE: The MND fails to adequately analyze environmental impacts of the Project, including inconsistency with municipal code, indoor air quality, emissions, human health risks, greenhouse gases, and transportation and traffic. It also fails to propose all feasible mitigation measures and alternatives to reduce Project impacts. As such, the City must prepare an environmental impact report ("EIR") rather than an MND.

HOW YOU ARE AGGREIVED BY THE DECISION: Members of appellant Supporters Alliance for Environmental Responsibility ("SAFER") live and/or work in the vicinity of the proposed Project. They breathe the air, suffer traffic congestion, and will suffer other environmental impacts of the Project unless it is properly mitigated.

WHY YOU BELIEVE THE DECISION-MAKER ERRED OR ABUSED THEIR DISCRETION: The Advisory Agency adopted the MND, adopted the Mitigation Monitoring Program (MMP), and approved Vesting Tentative Tract Map No. VTT-74602 for the Project despite the fact that the MND fails to comply with CEQA, and the project fails to comply with the municipal code.

Applicant Copy
Office: Downtown
Application Invoice No: 64177

6800164177

City of Los Angeles
Department of City Planning

LA DBS
DEPARTMENT OF BUILDING AND SAFETY

LA Department of Building and Safety
LA ADIM 109007510 4/3/2020 3:00:55 PM

PLAN & LAND USE $106.80
DEV SERV CENTER SURCH-PLANNING $2.67

Sub Total: $109.47

Receipt #: 0109170970

City Planning Request

NOTICE: The staff of the Planning Department will analyze your request and accord your application, regardless of whether or not you obtain the services

This filing fee is required by Chapter 1, Article 9,

Applicant: CENTRAL PLAZA, LLC - KHALATIAN, EDGAR (B:213-2299548)
Representative: SAME AS APPLICANT
Project Address: 3265 W 7TH ST, 90005

NOTES:

VTT-74602-1A			
Item	Fee	%	Charged Fee
Appeal by Aggrieved Parties Other than the Original Applicant *	$89.00	100%	$89.00
		Case Total	$89.00

Item	Charged Fee
*Fees Subject to Surcharges	$89.00
Fees Not Subject to Surcharges	$0.00
Plan & Land Use Fees Total	$89.00
Expediting Fee	$0.00
Development Services Center Surcharge (3%)	$2.67
City Planning Systems Development Surcharge (6%)	$5.34
Operating Surcharge (7%)	$6.23
General Plan Maintenance Surcharge (7%)	$6.23
Grand Total	$109.47
Total Invoice	$109.47
Total Overpayment Amount	$0.00
Total Paid(this amount must equal the sum of all checks)	$109.47

LA Department of Building and Safety
LA ADIM 109007510 4/3/2020 3:00:55 PM

PLAN & LAND USE $106.80
DEV SERV CENTER SURCH-PLANNING $2.67

Sub Total: $109.47

Receipt #: 0109170970

Council District: 10
Plan Area: Wilshire
Processed by REASER, RICHARD on 04/03/2020

Signature: _____

 QR Code is a registered trademark of Denso Wave, Incorporated

VTT-74602-1A

EXHIBIT D

APPELLANT 2 : APPEAL APPLICATION

APPLICATIONS:

APPEAL APPLICATION

Related Code Section: Refer to the City Planning case determination to identify the Zone Code section for the entitlement and the appeal procedure.

Purpose: This application is for the appeal of Department of City Planning determinations authorized by the Los Angeles Municipal Code (LAMC).

A. APPELLATE BODY/CASE INFORMATION

1. APPELLATE BODY

☐ Area Planning Commission ☑ City Planning Commission ☐ City Council ☐ Director of Planning
☐ Zoning Administrator

Regarding Case Number: VTT-74602

Project Address: 3432-3470 W. Wilshire Blvd., 659-699 S. Mariposa Ave, 3265-3287 W. 7th, 666-678 Irolo

Final Date to Appeal: 04/06/2020

2. APPELLANT

Appellant Identity: (check all that apply)
☐ Representative ☐ Property Owner
☐ Applicant ☐ Operator of the Use/Site

☑ Person, other than the Applicant, Owner or Operator claiming to be aggrieved
See below

☐ Person affected by the determination made by the **Department of Building and Safety**

☐ Representative ☐ Owner ☐ Aggrieved Party
☐ Applicant ☐ Operator

3. APPELLANT INFORMATION

Appellant's Name: Katelyn Scanlan

Company/Organization:

Mailing Address: 715 S. Normandie Avenue, Apt 426

City: Los Angeles State: CA Zip: 90005

Telephone: (814) 558-8882 E-mail: katelynrscanlan@gmail.com

a. Is the appeal being filed on your behalf or on behalf of another party, organization or company?

☐ Self ☑ Other: Signees of Change.org petition

b. Is the appeal being filed to support the original applicant's position? ☐ Yes ☑ No

4. REPRESENTATIVE/AGENT INFORMATION

Representative/Agent name (if applicable): Jennifer Wong

Company: _____

Mailing Address: 715 S. Normandie Ave, Apt 203

City: Los Angeles State: CA Zip: 90005

Telephone: (323) 207-5366 E-mail: jwocognac@gmail.com

5. JUSTIFICATION/REASON FOR APPEAL

a. Is the entire decision, or only parts of it being appealed? ☑ Entire ☐ Part

b. Are specific conditions of approval being appealed? ☑ Yes ☐ No

If Yes, list the condition number(s) here: 9k-I (p3), 22 (p8), TRAN-MM-1&2 (p11), CC-1 (p14), Fact Findings

Attach a separate sheet providing your reasons for the appeal. Your reason must state:

- ☐ The reason for the appeal
- ☐ How you are aggrieved by the decision
- ☐ Specifically the points at issue
- ☐ Why you believe the decision-maker erred or abused their discretion

6. APPLICANT'S AFFIDAVIT

I certify that the statements contained in this application are complete and true:

Appellant Signature: [signature] Date: Apr. 6, 2020

GENERAL APPEAL FILING REQUIREMENTS

B. ***ALL CASES REQUIRE THE FOLLOWING ITEMS - SEE THE ADDITIONAL INSTRUCTIONS FOR SPECIFIC CASE TYPES***

1. Appeal Documents

a. Three (3) sets - The following documents are required for each appeal filed (1 original and 2 duplicates) Each case being appealed is required to provide three (3) sets of the listed documents.

- ☑ Appeal Application (form CP-7769)
- ☑ Justification/Reason for Appeal
- ☑ Copies of Original Determination Letter

b. Electronic Copy

- ☑ Provide an electronic copy of your appeal documents on a flash drive (planning staff will upload materials during filing and return the flash drive to you) or a CD (which will remain in the file). The following items must be saved as individual PDFs and labeled accordingly (e.g. "Appeal Form.pdf", "Justification/Reason Statement.pdf", or "Original Determination Letter.pdf" etc.). No file should exceed 9.8 MB in size.

c. Appeal Fee

- ☑ Original Applicant - A fee equal to 85% of the original application fee, provide a copy of the original application receipt(s) to calculate the fee per LAMC Section 19.01B 1.
- ☐ Aggrieved Party - The fee charged shall be in accordance with the LAMC Section 19.01B 1.

N/A

d. Notice Requirement

- ☐ Mailing List - All appeals require noticing per the applicable LAMC section(s). Original Applicants must provide noticing per the LAMC
- ☐ Mailing Fee - The appeal notice mailing fee is paid by the project applicant, payment is made to the City Planning's mailing contractor (BTC), a copy of the receipt must be submitted as proof of payment.

SPECIFIC CASE TYPES - APPEAL FILING INFORMATION

C. DENSITY BONUS / TRANSIT ORIENTED COMMUNITES (TOC)

NA

1. Density Bonus/TOC
Appeal procedures for Density Bonus/TOC per LAMC Section 12.22.A 25 (g) f.

NOTE:
- Density Bonus/TOC cases, only the *on menu or additional incentives* items can be appealed.

- Appeals of Density Bonus/TOC cases can only be filed by adjacent owners or tenants (must have documentation), and always only appealable to the Citywide Planning Commission.

☐ Provide documentation to confirm adjacent owner or tenant status, i.e., a lease agreement, rent receipt, utility bill, property tax bill, ZIMAS, drivers license, bill statement etc.

D. WAIVER OF DEDICATION AND OR IMPROVEMENT

Appeal procedure for Waiver of Dedication or Improvement per LAMC Section 12.37 I.

NA

NOTE:
- Waivers for By-Right Projects, can only be appealed by the owner.

- When a Waiver is on appeal and is part of a master land use application request or subdivider's statement for a project, the applicant may appeal pursuant to the procedures that governs the entitlement.

E. TENTATIVE TRACT/VESTING

1. Tentative Tract/Vesting - Appeal procedure for Tentative Tract / Vesting application per LAMC Section 17.54 A.

NOTE: Appeals to the City Council from a determination on a Tentative Tract (TT or VTT) by the Area or City Planning Commission must be filed within 10 days of the date of the written determination of said Commission.

☐ Provide a copy of the written determination letter from Commission.

F. BUILDING AND SAFETY DETERMINATION

☐ **1.** Appeal of the *Department of Building and Safety* determination, per LAMC 12.26 K 1, an appellant is considered the **Original Applicant** and must provide noticing and pay mailing fees.

NA

a. Appeal Fee
☐ Original Applicant - The fee charged shall be in accordance with LAMC Section 19.01B 2, as stated in the Building and Safety determination letter, plus all surcharges. (the fee specified in Table 4-A, Section 98.0403.2 of the City of Los Angeles Building Code)

b. Notice Requirement
☐ Mailing Fee - The applicant must pay mailing fees to City Planning's mailing contractor (BTC) and submit a copy of receipt as proof of payment.

☐ **2.** Appeal of the *Director of City Planning* determination per LAMC Section 12.26 K 6, an applicant or any other aggrieved person may file an appeal, and is appealable to the Area Planning Commission or Citywide Planning Commission as noted in the determination.

NA

a. Appeal Fee
☐ Original Applicant - The fee charged shall be in accordance with the LAMC Section 19.01 B 1 a.

b. Notice Requirement
☐ Mailing List - The appeal notification requirements per LAMC Section 12.26 K 7 apply.
☐ Mailing Fees - The appeal notice mailing fee is made to City Planning's mailing contractor (BTC), a copy of receipt must be submitted as proof of payment.

G. NUISANCE ABATEMENT

NA

1. **Nuisance Abatement -** Appeal procedure for Nuisance Abatement per LAMC Section 12.27.1 C 4

NOTE:
- Nuisance Abatement is only appealable to the City Council.

a. Appeal Fee

☐ Aggrieved Party the fee charged shall be in accordance with the LAMC Section 19.01 B 1.

2. **Plan Approval/Compliance Review**
Appeal procedure for Nuisance Abatement Plan Approval/Compliance Review per LAMC Section 12.27.1 C 4.

a. Appeal Fee

☐ Compliance Review - The fee charged shall be in accordance with the LAMC Section 19.01 B.
☐ Modification - The fee shall be in accordance with the LAMC Section 19.01 B.

NOTES

A Certified Neighborhood Council (CNC) or a person identified as a member of a CNC or as representing the CNC may not file an appeal on behalf of the Neighborhood Council; persons affiliated with a CNC may only file as an individual on behalf of self.

***Please note** that the appellate body must act on your appeal within a time period specified in the Section(s) of the Los Angeles Municipal Code (LAMC) pertaining to the type of appeal being filed. The Department of City Planning will make its best efforts to have appeals scheduled prior to the appellate body's last day to act in order to provide due process to the appellant. If the appellate body is unable to come to a consensus or is unable to hear and consider the appeal prior to the last day to act, the appeal is automatically deemed denied, and the original decision will stand. The last day to act as defined in the LAMC may only be extended if formally agreed upon by the applicant.*

Appeal recieved 4/6/2020 w/ Check 0217 dated 3/24

This Section for City Planning Staff Use Only		
Base Fee: $89	Reviewed & Accepted by (DSC Planner): Anna M. Vidal	Date: 4/7/2020
Receipt No:	Deemed Complete by (Project Planner):	Date:
☐ Determination authority notified	☐ Original receipt and BTC receipt (if original applicant)	

JUSTIFICATION/REASON FOR APPEAL
04/06/20

On behalf of concerned residents of Koreatown, neighbors of the project site, our supporters, and over 200 signees of our online petition, we are submitting our appeal of VTT-74602's approval issued on March 25, 2020. We are appealing on a number of grounds, primarily focused on weak, unenforceable language, no allocations for true 'affordable' housing, and a number of concerns related to public health and the developer's disruptive role in the community.

We believe the items which must be satisfied are insufficient to warrant approval of the Tract. Notable among our concerns is the submitted plot plan is not complete (see Page 3), nor documentation of where required on-site parking is to be and how it is to be accessed; having these two sets of documentation left incomplete seems like an embarrassingly basic failing on the part of the original applicant. It remains unclear to us if or how monthly resident parking will be maintained throughout the construction process, which raises grave concerns among community members who rely on the parking structure for reliable and safe access to their vehicle, not to mention local businesses that utilize the garage as a resource for themselves and their patrons.

The condition set by HCIDLA regarding 'affordable' housing is worryingly insufficient and is a major concern in the community. A mere 32 units are allocated for moderate income households but what is defined as 'moderate' income is determined looking at all of Los Angeles County, to the detriment of our neighborhood and its local economy. In fact, the cutoff for 'moderate' income housing is nearly twice the median income of the area, which shows the disturbing disparity between proposed new housing, the neighborhood the development is invading, and the people who need housing the most. There is also no indication additional infrastructure funding will be provided to handle the urban densification this project will bring. Simply put, what is defined as 'affordable' does not match the reality of the proposed development site and would send the clear message that the City's short-sighted 'goal' of providing more housing comes at the expense of the greater public good.

With regards to TRAN-MM-1, 'ongoing contact' with RFK Community Schools administrators is simply not enough to ensure safety of students; these bus and walking routes will be contaminated over years of construction and with new pandemic risks, weakened immune systems in the young in a dense urban environment is a huge risk factor. How far would students have to walk out of their way to avoid adverse effects of long-term exposure? Would that route put them in harms' way or make their journey more difficult? We hold the impact to the route these children take goes beyond what is currently defined as the project site.

Furthermore, the definition of the site as-is works in clear favor of the office buildings facing Wilshire; this definition, however, does not fit the reality of the site conditions and how the site is used and viewed. Incorporating the tall buildings facing Irolo and Wilshire into consideration does the other half of the site a great disservice and completely ignores the urban and architectural context of said half. It is more lucrative and convenient for the developer to apply the same ethical and design considerations that come with building high-density urban mixed-use high rises in already densified contexts to two low-lying parking structures adjacent to a number of historic residential structures and a verdant sprawling public school complex. The site should instead be viewed only as the area which will be undergoing demolition and/or structural changes; this does not apply to the four large towers facing Irolo and Wilshire, which are appropriate in volume and massing for the immediate urban commercial context. On the other side of the block, however, the context is entirely different - and, as it stands - all the more precious as a historic district.

As the context is so vastly different from one side of the currently defined 'site' to the other, unfair parallels are drawn, leading the Advisory Agency to conclude the proposed building heights are consistent with the requested zone; we do not dispute the compatibility of the proposed project height with the zone requirements itself but with the fact the site is eligible for C Zone which does not restrict height. To better preserve and protect the architectural and cultural heritage, character, and experience of our neighborhood for residents, visitors, and LA's iconic film industry, we hold height restrictions should be put in place for new construction at the very least. (See Page 21, Item (d).)

Truck access is planned to be off Mariposa Avenue and 7th Street. While this is probably the most efficient for business, it risks being disastrous for residents and those who work in the

area, severely disrupting our ability to live our lives healthily and further our careers due to continued noise and air pollution. We are also concerned about how local businesses and emergency services will be impacted by the construction. Jamison has a poor record of responsible management of completed properties including but not limited to repeated break-ins, nuisance trash, human waste, and sexual assault. Furthermore, emergency services often use 7th, Normandie, and Mariposa as routes around the busy Irolo intersection to better reach those in need; additional trucks clogging the intersection of Normandie and 7th risk significant delay to emergency services and an unnecessary loss of life.

While the report indicates that there 'appears to be no potential public health problems caused by the design or improvement of the proposed subdivision' (Page 22), we hold the mere appearance is simply not enough and more must be done to evaluate the impact such construction and subsequent densification will have on public health in the short- and long-term. In particular, for alternate bus and pedestrian routes to the RFK Community Schools, what might be deemed as acceptable route replacements may in fact be insufficient in our post COVID-19 environment; respiratory health is especially at risk and thus should be more rigorously protected; pedestrian routes, bus routes, and ventilation/air flow conditions around the site should be given higher priority to ensure cleaner air for residents, workers, and visitors, especially those most at risk. The pandemic appears to generally work in multiple waves; as a long-term global and local health concern, such an ongoing crisis should be taken into account going forward and as such current health and environmental protections should be reviewed to better protect the community and bolster its collective resiliency to infection. Even if the current pandemic subsides by the time construction is slated to begin, it is not unlikely another such public health crisis could threaten a neighborhood dangerously densified by the proposed project. In a more immediate context there has been a seismic shift in how businesses, schools, and society function and those changes have adversely impacted the community's ability to organize, protect themselves, and advocate for their well-being in the face of such looming developments. To compound the matter, Jamison has not responded to repeated citizen and resident requests for better disaster preparedness. Unsafe practices such as failure to wear face masks and a worrying lack of social distancing have been observed at current worksites as recently as Friday April 3rd.

Overall, we feel as though the language used in many of the notes (primarily on Page 17, starting 'The subdivider should consult the Department of Water and Power…' and Page 23, Item (h) is toothless; it seems clear, for instance, 'energy saving design features' *can* be incorporated but are not required to be included. That is simply not enough. Los Angeles residents deserve new buildings built to higher standards fit for and proportional to their role as a major world city; part of the City assuming that role is taking on collective responsibility for the global environment and all who live in it. As a show of good faith, we recommend that the developer, at the very least, commit to replace removed trees on a 2:1 basis to make up for the loss of precious shade on public sidewalks.

With the City's collective environmental responsibility in mind, for the design of the proposed subdivision to merely provide for *future* passive or natural heating or cooling opportunities is wholly insufficient; the applicant has only been asked to *consider* the local climate and related context of the site. (Please see Condition 21 and Page 23 for referenced passive language and suggested 'green' initiatives.) Given Jamison's problematic, combative, and volatile history with residents seeking to protect natural resources in the past (such as Liberty Park), mere *consideration* of such climatic factors such as building orientation, massing, passive heating and cooling, as well as other 'green' building decisions gives too much credit to a developer who has clearly demonstrated to only have their own interests at heart at best, and - at worst - show clear contempt for residents who voice their concerns.

If the site is erroneously viewed as being one which interacts with and serves almost exclusively the Irolo and Wilshire-facing portions of the site, one could consider it being suitable for the type of development proposed. However, the reality of the site is one of contradiction and contention between the densified high-rise urban commercial environment on one end and a rich, diverse, and historically and architecturally significant low-rise residential neighborhood on the other. To that end, the proposed density of development is wholly unsuitable for the site as it should be defined, especially given the paltry concession of a mere 5% reserved for future tenants with moderate incomes. Grouping relatively quiet, neutral parking garages with high-rise high-use commercial buildings makes such a major urban intervention seem less disruptive, when in reality its insertion into our neighborhood will be destructive culturally, financially, and environmentally, both in the short- and long-term. While providing insulting lip-service to the City's goal of housing its people, developments such as these serve to only widen the gap

between working-class Angeleños and the privileged few who can afford unconscionably high rents while forcing out residents whose hard work, love, and support have enriched and built our community into one worth protecting from gentrification, blind modernization, and further commercialization.

For these reasons and more, we hereby submit the above appeal.

Note:

The referenced Change.org petition noted in the Appeal Application can be found at bit.ly/stop3440

VTT-74602-1A

EXHIBIT E

APPLICANT RESPONSE TO APPEAL

CAJA Environmental Services, LL

15350 Sherman Way, Suite 315
Van Nuys, CA 91406
Phone 310-469-6700

April 21, 2020

Los Angeles Department of City Planning
200 N. Spring Street, Los Angeles, CA 90012

Responses to Appeal on the 3440 Wilshire Project (Project)

Introduction

The City of Los Angeles (City) prepared a Mitigated Negative Declaration (MND) – ENV-2016-3693-MND – and Related Case No. VTT-74602 for a new mixed-use development pursuant to the California Environmental Quality Act of 1970 (Pub. Res. Code § 21000 *et seq.*) (CEQA), CEQA Guidelines[1] and the City's environmental review procedures.

The Project is located at 3440-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3281-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90010 (Project Site)

The Project consists of (i) 640 apartment units (441 studio units and 199 2-bedroom units); (ii) 10,738 square feet of commercial floor area (5,538 square feet of retail area and 5,200 square feet of restaurant area [3,700 square feet with 138 indoor and outdoor patio seats of high-turnover restaurant and 1,500 square feet with 68 indoor and outdoor patio seats of fast-food restaurant]); and, (iii) 1,921 vehicle parking spaces (the Project).

The MND was released by the City for public review on February 6, 2020 for a 30-day review period ending on March 9, 2020.

A Deputy Advisory Agency Hearing was conducted on March 11, 2020.

A Letter of Determination (LOD) was issued on March 25, 2020. The appeal period ended on April 6, 2020.

List of Appeals

The City received the following written appeals related to the Project:

- Supporter's Alliance for Environmental Responsibility (SAFER) on April 2, 2020
- Katelyn Scanlan on April 6, 2020

1 Reference to CEQA Guidelines in the Response to Comments shall mean 14 C.C.R. § 15000 *et seq.*

Responses to the appeal are provided below. The individual comments within the Appeal will be provided and identified as **"X-#"**. The individual responses within the Appeal will be identified as **Response to "X-#**".

Conclusion

In summary, based on our technical review, the Appeal does not raise any new CEQA issues and do not require any change to any conclusion identified in the MND. The Appeal does not provide substantial evidence or a fair argument that further review under CEQA is required, or that the Project may have a significant environmental impact. As analyzed in the MND, the whole of the record supports the conclusion that the Project would result in impacts below a level of significance.

Seth Wulkan
Project Manager
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315, Van Nuys, CA 91406
Seth@ceqa-nepa.com
310-469-6704 (direct)
310-469-6700 (office)

CAJA is an environmental consulting firm that specializes in environmental planning, research, and documentation for public and private sector clients. For over 33 years, CAJA and its predecessor company Christopher A. Joseph & Associates have offered a broad range of environmental consulting services with a particular emphasis on CEQA and NEPA documentation.

Seth Wulkan has over 13 years of experience and is responsible for all aspects of preparation of environmental review documents. He began his career with CAJA in 2007. Mr. Wulkan is proficient in drafting all sections of environmental review documents; incorporating technical reports into documents; and personally corresponding with public and private sector clients. Mr. Wulkan regularly participates in team strategy meetings from the beginning of the environmental review process through the final project hearings. Mr. Wulkan graduated with college honors from UCLA and completed a Certificate Program in Sustainability at UCLA Extension.

Appeal SAFER

Supporter's Alliance for Environmental Responsibility (SAFER)
4399 Santa Anita Avenue, Suite 2005, El Monte, CA 91731
April 2, 2020

SAFER-1

REASON FOR THE APPEAL: The Mitigated Negative Declaration ("MND") prepared for the 3440 Wilshire Project aka VTT-74602 & ENV-2016-3693-MND ("Project") fails to comply with the California Environmental Quality Act ("CEQA").

SPECIFICALLY THE POINTS IN ISSUE: The MND fails to adequately analyze environmental impacts of the Project, including inconsistency with municipal code, indoor air quality, emissions, human health risks, greenhouse gases, and transportation and traffic. It also fails to propose all feasible mitigation measures and alternatives to reduce Project impacts. As such, the City must prepare an environmental impact report ("EIR") rather than an MND.

HOW YOU ARE AGGREIVED BY THE DECISION: Members of appellant Supporters Alliance for Environmental Responsibility ("SAFER") live and/or work in the vicinity of the proposed Project. They breathe the air, suffer traffic congestion, and will suffer other environmental impacts of the Project unless it is properly mitigated.

WHY YOU BELIEVE THE DECISION-MAKER ERRED OR ABUSED THEIR DISCRETION: The Advisory Agency adopted the MND, adopted the Mitigation Monitoring Program (MMP), and approved Vesting Tentative Tract Map No. VTT-74602 for the Project despite the fact that the MND fails to comply with CEQA, and the project fails to comply with the municipal code.

Response to SAFER-1

The comment does not state a specific concern or question regarding the adequacy of the MND in identifying and analyzing the environmental impacts of the Project, nor does the comment identify any physical environmental impacts caused by the Project. This comment is noted for the administrative record and will be forwarded to the decision-makers for review and consideration.

Appeal Scanlan

Katelyn Scanlan
715 S. Normandie Street #426, Los Angeles, CA 90005
April 6, 2020

Scanlan-1

On behalf of concerned residents of Koreatown, neighbors of the project site, our supporters, and over 200 signees of our online petition, we are submitting our appeal of VTT-7 4602's approval issued on March 25, 2020. We are appealing on a number of grounds, primarily focused on weak, unenforceable language, no allocations for true 'affordable' housing, and a number of concerns related to public health and the developer's disruptive role in the community.

Response to Scanlan-1

This comment provides an introduction. The comment does not state a specific concern or question regarding the adequacy of the MND in identifying and analyzing the environmental impacts of the Project, nor does the comment identify any physical environmental impacts caused by the Project. This comment is noted for the administrative record and will be forwarded to the decision-makers for review and consideration.

Scanlan-2

We believe the items which must be satisfied are insufficient to warrant approval of the Tract. Notable among our concerns is the submitted plot plan is not complete (see Page 3), nor documentation of where required on-site parking is to be and how it is to be accessed; having these two sets of documentation left incomplete seems like an embarrassingly basic failing on the part of the original applicant. It remains unclear to us if or how monthly resident parking will be maintained throughout the construction process, which raises grave concerns among community members who rely on the parking structure for reliable and safe access to their vehicle, not to mention local businesses that utilize the garage as a resource for themselves and their patrons.

Response to Scanlan-2

The Plans are included as Appendix A to the MND and provide the details to determine whether a significant impact will occur under CEQA.

Page A-10 of the MND provide details on the access, circulation, and parking for the Project.

The comment regarding parking is unsubstantiated opinion. The Project has no control on whether the commenter's own building or residence provides adequate parking or whether the commenter parks his or her vehicle on the street. The Project also has no control on where or how businesses that are not a part of the Project provides required parking spaces to themselves and patrons. Under Public Resources Code [PRC] Section 21082.2(c), "[a]rgument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."

Scanlan-3

The condition set by HCIDLA regarding 'affordable' housing is worryingly insufficient and is a major concern in the community. A mere 32 units are allocated for moderate income households but what is defined as 'moderate' income is determined looking at all of Los Angeles County, to the detriment of our neighborhood and· its local economy. In fact, the cutoff for 'moderate' income housing is nearly twice the median income of the area, which shows the disturbing disparity between proposed new housing, the neighborhood the development is invading, and the people who need housing the most. There is also no indication additional infrastructure funding will be provided to handle the urban densification this project will bring. Simply put, what is defined as 'affordable' does not match the reality of the proposed development site and would send the clear message that the City's short-sighted 'goal' of providing more housing comes at the expense of the greater public good.

Response to Scanlan-3

Although the Project is not required to provide any affordable housing, it includes 5% (32 units) of its total units as affordable (considered Moderate Income, using the State's level of affordability and Los Angeles Housing Community Investment Department's schedule of rents for Moderate Income units)

A discussion of affordable units is not a CEQA environmental issue.

Per Government Code Section 65995.5-7, LAUSD has imposed developer fees for commercial/industrial and residential space. The Project would pay these fees.

LAMC provides for payment of park fees, depending on the nature of the development:

- Pursuant to Section 17.12-A or 17.58 of the Los Angeles Municipal Code, the applicant shall pay the applicable Parks and Recreation Fee for the construction of dwelling units with a subdivision.

- Pursuant to Section 21.10 of the Los Angeles Municipal Code, the applicant shall pay the Dwelling Unit Construction Tax for construction of apartment buildings.

- Pursuant to Section 12.33 of the Los Angeles Municipal Code, the applicant shall pay the applicable fees for the construction of dwelling units if using a zone change.

The comment does not state a specific concern or question regarding the adequacy of the MND in identifying and analyzing the environmental impacts of the Project, nor does the comment identify any physical environmental impacts caused by the Project. This comment is noted for the administrative record and will be forwarded to the decision-makers for review and consideration.

Scanlan-4

With regards to TRAN-MM-1, 'ongoing contact' with RFK Community Schools administrators is simply not enough to ensure safety of students; these bus and walking routes will be contaminated over years of construction and with new pandemic risks, weakened immune systems in the young in a dense urban environment is a huge risk factor. How far would students

have to walk out of their way to avoid adverse effects of long-term exposure? Would that route put them in harms' way or make their journey more difficult? We hold the impact to the route these children take goes beyond what is currently defined as the project site.

Response to Scanlan-4

The Project's Mitigation Monitoring Report (MMP) as stated in the Letter of Determination, includes monitoring and enforcement by LADOT for TRAN-MM-1. RFK Community School already has a Pedestrian Route Map, which delineates the preferred pathways, crossings, and crossing guards around the immediate area. It is beyond the scope of CEQA to estimate pandemic risks and weakened immune systems of persons in a dense urban environment.

LAUSD (in their March 9, 2020 comment letter to the Project) requested that the Project contractors maintain ongoing communication with LAUSD school administrators when existing pedestrian routes may be impacted. TRAN-MM-1 is a standard measure for projects near schools and provides similar language already.

The comment regarding which route would be more dangerous or difficult is unsubstantiated opinion. The Project has no control on the school's pedestrian routes. Under Public Resources Code [PRC] Section 21082.2(c), "[a]rgument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."

Scanlan-5

Furthermore, the definition of the site as-is works in clear favor of the office buildings facing Wilshire; this definition, however, does not fit the reality of the site conditions and how the site is used and viewed. Incorporating the tall buildings facing Irolo and Wilshire into consideration does the other half of the site a great disservice and completely ignores the urban and architectural context of said half. It is more lucrative and convenient for the developer to apply the same ethical and design considerations that come with building high-density urban mixed-use high rises in already densified contexts to two low-lying parking structures adjacent to a number of historic residential structures and a verdant sprawling public school complex. The site should instead be viewed only as the area which will be undergoing demolition and/or structural changes; this does not apply to the four large towers facing Irolo and Wilshire, which are appropriate in volume and massing for the immediate urban commercial context. On the other side of the block, however, the context is entirely different -and, as it stands -all the more precious as a historic district.

As the context is so vastly different from one side of the currently defined 'site' to the other, unfair parallels are drawn, leading the Advisory Agency to conclude the proposed building heights are consistent with the requested zone; we do not dispute the compatibility of the proposed project height with the zone requirements itself but with the fact the site is eligible for C Zone which does not restrict height. To better preserve and protect the architectural and cultural heritage, character, and experience of our neighborhood for residents, visitors, and LA's iconic film industry, we hold height restrictions should be put in place for new construction at the very least. (See Page 21, Item (d).)

Response to Scanlan-5

The definition of the Project Site, which includes the existing office buildings on Wilshire is accurate. The Site shares a common owner. The Project's proposed floor area and parking utilize the existing parking structures and office buildings.

As analyzed in the Project's Historic Resources Technical Report (Appendix E-1 of the MND), the Project would be constructed north of and outside the historic district, and would not materially alter any district contributor, or the configuration and spatial relationships that characterize the historic district. Ultimately, the district is best understood from within its boundaries where the collection of 1920s apartment building can be directly experienced and understood. Thus, after construction of the Project the historic district's contributors will remain unaltered and fully discernible, and collectively will continue to convey their association with early 20th century residential development in Los Angeles. According to National Park Service guidance, "to retain historic integrity a property will always possess several, and usually most, of the (seven) aspects" of integrity. After the Project is constructed the historic district will fully retain integrity of location, design, materials, workmanship, feeling and association. Integrity of setting would be partially altered by the Project. Therefore, all but one of the relevant aspects of integrity will be unaffected by the Project, so that the historic integrity of the historic district will be retained. While the Project will partially alter the setting of the district, this alteration will not materially impair the district such that it can no longer convey its historic significance. After construction of the Project, the historic district will remain intact, and eligible for historic designation.

The commenter suggests that the Project would be inconsistent if the existing site only included low-rise parking structures adjacent to low-rise residential structures. This is false and ignores the reality that the Site in its entirety includes high-rise buildings. In addition, nearby uses are of similar size and density. For instance, 691 Irolo Street is a 21-story residential building. Thus, there is already a high-rise structure adjacent to the residential community to the south of 7th Street.

Finally, the commenter agrees that the Project's C2 zoning and Height District 2 does not restrict height. Therefore, the Project's height is not inconsistent with the zoning on the Site, nor the realities of the surrounding area.

Scanlan-6

Truck access is planned to be off Mariposa Avenue and 7th Street. While this is probably the most efficient for business, it risks being disastrous for residents and those who work in the area, severely disrupting our ability to live our lives healthily and further our careers due to continued noise and air pollution. We are also concerned about how local businesses and emergency services will be impacted by the construction. Jamison has a poor record of responsible management of completed properties including but not limited to repeated break-ins, nuisance trash, human waste, and sexual assault. Furthermore, emergency services often use 7th, Normandie, and Mariposa as routes around the busy Irolo intersection to better reach those in need; additional trucks clogging the intersection of Normandie and 7th risk significant delay to emergency services and an unnecessary loss of life.

Response to Scanlan-6

Currently, loading access is off 7th Street, with delivery trucks and garbage trucks utilizing this street. This would continue to occur with the Project.

Allegations of crimes and nuisances should be directed to the LAPD.

As noted in TRAN-PDF-1, a Construction Management Plan would be implemented. It requires The Project to coordinate with the City and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses and residences.

The specific routes for emergency services is determined by the LAFD and LAPD.

As noted on page B-203 of the MND, appropriate construction traffic control measures (e.g., detour signage, delineators, etc.) would also be implemented, as necessary, to ensure emergency access to the Project Site and traffic flow is maintained on adjacent right-of-ways. Furthermore, the drivers of emergency vehicles normally have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. As construction activities are temporary in nature and emergency vehicles have a variety of options for dealing with traffic, such as using their sirens to clear a path of travel and/or driving in opposing traffic lanes, construction of the Project would not impact LAFD services to the extent that there would be a need for new or expanded fire facilities in order to maintain acceptable service ratios, response times, or other performance objectives during construction of the Project.

The comment does not state a specific concern or question regarding the adequacy of the MND in identifying and analyzing the environmental impacts of the Project, nor does the comment identify any physical environmental impacts caused by the Project. This comment is noted for the administrative record and will be forwarded to the decision-makers for review and consideration.

Scanlan-7

While the report indicates that there 'appears to be no potential public health problems caused by the design or improvement of the proposed subdivision' (Page 22}, we hold the mere appearance is simply not enough and more must be done to evaluate the impact such construction and subsequent densification will have on public health in the short-and long-term. In particular, for alternate bus and pedestrian routes to the RFK Community Schools, what might be deemed as acceptable route replacements may in fact be insufficient in our post COVID-19 environment; respiratory health is especially at risk and thus should be more rigorously protected; pedestrian routes, bus routes, and ventilation/air flow conditions around the site should be given higher priority to ensure cleaner air for residents, workers, and visitors, especially those most at risk. The pandemic appears to generally work in multiple waves; as a long-term global and local health concern, such an ongoing crisis should be taken into account going forward and as such current health and environmental protections should be reviewed to better protect the community and bolster its collective resiliency to infection. Even if the current pandemic subsides by the time construction is slated to begin, it is not unlikely another such public health crisis could threaten a neighborhood dangerously densified by the proposed project. In a more immediate context there has been a seismic shift in how businesses, schools, and society function and those changes have adversely impacted the community's ability to organize, protect themselves, and advocate for their well-being in the face of such looming developments. To compound the matter, Jamison has not responded to repeated citizen and resident requests for better disaster preparedness.

Unsafe practices such as failure to wear face masks and a worrying lack of social distancing have been observed at current worksites as recently as Friday April 3rd.

Response to Scanlan-7

The comment regarding which route would be more dangerous or difficult is unsubstantiated opinion. The Project has no control on the school's pedestrian routes. Under Public Resources Code [PRC] Section 21082.2(c), "[a]rgument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."

The Los Angeles Department of Building and Safety has issued guidance regarding safety at construction sites. As long as this guidance (and any subsequent ones) are in force, all construction sites must comply. Failure to comply may result in withheld inspections or shutting down the construction site until corrected. The general contractor is required to abide by all applicable laws, regulations, and guidelines. The applicant does not serve as general contractor and the commenter has not provided specific construction site addresses of potential noncompliance.

The comment does not state a specific concern or question regarding the adequacy of the MND in identifying and analyzing the environmental impacts of the Project, nor does the comment identify any physical environmental impacts caused by the Project. This comment is noted for the administrative record and will be forwarded to the decision-makers for review and consideration.

Scanlan-8

Overall, we feel as though the language used in many of the notes (primarily on Page 17, starting 'The subdivider should consult the Department of Water and Power .. .' and Page 23, Item (h) is toothless; it seems clear, for instance, 'energy saving design features' can be incorporated but are not required to be included. That is simply not enough. Los Angeles residents deserve new buildings built to higher standards fit for and proportional to their role as a major world city; part of the City assuming that role is taking on collective responsibility for the global environment and all who live in it. As a show of good faith, we recommend that the developer, at the very least, commit to replace removed trees on a 2:1 basis to make up for the loss of precious shade on public sidewalks.

Response to Scanlan-8

The MND evaluates the estimated energy demand from the Project and demonstrates that the Project would not create an impact due to wasteful, inefficient, or unnecessary consumption of energy resources. The Project would comply with the 2019 California Green Building Standards (effective January 1, 2020), and the 2020 Los Angeles Green Building Code (effective January 1, 2020).

As noted on page B-52, any tree removal will comply with the City's Tree Replacement Program through the Urban Forestry Division. Removed trees would be replaced on a 2:1 ratio.

Scanlan-9

With the City's collective environmental responsibility in mind, for the design of the proposed subdivision to merely provide for future passive or natural heating or cooling opportunities is wholly insufficient; the applicant has only been asked to consider the local climate and related context of the site. (Please see Condition 21 and Page 23 for referenced passive language and suggested 'green' initiatives.) Given Jamison's problematic, combative, and volatile history with residents seeking to protect natural resources in the past (such as Liberty Park), mere consideration of such climatic factors such as building orientation, massing, passive heating and cooling, as well as other 'green' building decisions gives too much credit to a developer who has clearly demonstrated to only have their own interests at heart at best, and -at worst –show clear contempt for residents who voice their concerns.

If the site is erroneously viewed as being one which interacts with and serves almost exclusively the Irolo and Wilshire-facing portions of the site, one could consider it being suitable for the type of development proposed. However, the reality of the site is one of contradiction and contention between the densified high-rise urban commercial environment on one end and a rich, diverse, and historically and architecturally significant low-rise residential neighborhood on the other. To that end, the proposed density of development is wholly unsuitable for the site as it should be defined, especially given the paltry concession of a mere 5% reserved for future tenants with moderate incomes. Grouping relatively quiet, neutral parking garages with high-rise high-use commercial buildings makes such a major urban intervention seem less disruptive, when in reality its insertion into our neighborhood will be destructive culturally, financially, and environmentally, both in the short-and long-term. While providing insulting lip-service to the City's goal of housing its people, developments such as these serve to only widen the gap between working-class Angelenos and the privileged few who can afford unconscionably high rents while forcing out residents whose hard work, love, and support have enriched and built our community into one worth protecting from gentrification, blind modernization, and further commercialization.

Response to Scanlan-9

The proposed new buildings would be as close as 450 feet from Metro D Line's Wilshire/Normandie Station. Therefore, an infill dense, mixed-use development is most appropriate for overall climate benefits such as reduced single-occupancy vehicle usage and modern construction and operation efficiency requirements.

The comment regarding the destruction culturally financially, and environmentally of the neighborhood is unsubstantiated opinion. Under Public Resources Code [PRC] Section 21082.2(c), "[a]rgument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."

Scanlan-10

For these reasons and more, we hereby submit the above appeal.

Note: The referenced Change.org petition noted in the Appeal Application can be found at bit.ly/stop3440

Response to Scanlan-10

This comment provides a conclusion. The petition has not been provided as an attachment to the comment letter.

The comment does not state a specific concern or question regarding the adequacy of the MND in identifying and analyzing the environmental impacts of the Project, nor does the comment identify any physical environmental impacts caused by the Project. This comment is noted for the administrative record and will be forwarded to the decision-makers for review and consideration.

EXHIBIT F

MITIGATED NEGATIVE DECLARATION
ENV-2016-3693-MND

CITY OF LOS ANGELES
DEPARTMENT OF CITY PLANNING
CITY HALL 200 NORTH SPRING STREET LOS ANGELES CA 90012

Mitigated Negative Declaration

3440 Wilshire Project

Case Number: ENV-2016-3693-MND
CPC-2016-3692-VZC-MCUP-SPR
Vesting Tentative Tract No. 74602

DOCUMENT FILED
City Clerk's Office
No: 20-0004
Certified by D. Smith
Date: 2-4-20

Project Location: 3440-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3281-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90010

Community Plan Area: Wilshire

Council District: 10—Wesson

Project Description: The Project Site is located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90005/90010 in the Wilshire Community Plan. The Site is zoned C4-2, PB-2, and P-2. Height District 2 regulates permitted floor area ratio (FAR) but does not prescribe a height limit. Tower 1 will be 23 stories (282 feet). Tower 2 will be 28 stories (332 feet). The proposed zone change for the P and PB zones to C4 would match the balance of the Site.

The Site currently consists of 6 subdivided lots and a non-subdivided remainder. The Project is requesting a Vesting Tentative Tract to merge the existing lots and re-subdivide the Site into 6 lots: 1) ground (master) lot with a lot area of 316,438 square feet; 2) residential (apartment) (airspace) with up to 640 residential units in up to 701,315 square feet of floor area; 3) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 2,360 square feet of commercial space; 4) parking (residential, commercial, office, and bike) (airspace); 5) existing 5-story parking structure (airspace); and 6) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 3,700 square feet of commercial space.

The Project Site lot area is 320,534 square feet (or 7.3 acres) and the Project Site lot area less dedication is 316,438 square feet (7.26 acres). The allowable FAR is 6:1 (1,898,520 square feet). The existing office floor area of 760,456 square feet would remain. The Project would include an additional 712,053 square feet (10,738 square feet commercial and 701,315 square feet residential). The total proposed FAR would be 4.65:1.

The Project Site is currently developed with the following uses: Four commercial office buildings with ground floor retail uses that front West Wilshire Boulevard and South Irolo Street (Existing Office Buildings). The Existing Office Buildings contain approximately 760,456 feet of commercial uses. Three-story parking structure along Mariposa to the corner with 7th Street (3 levels above grade levels and 1 level below grade). The existing three-story parking structure contains approximately 1,191 vehicle parking spaces. There is one vehicle driveway (providing entrance and exit) on the eastern boundary along Mariposa, just north of 7th Street Normandie Avenue. There is also access to the structure from internal private roadways within the Site, which is provided from Irolo Street. Five-level parking structure along 7th Street (5 levels above grade levels and 2 levels below grade). The five-story parking structure contains approximately 707 vehicle parking spaces. There is one vehicle driveway (providing entrance and exit) on the southern boundary along 7th Street at the T-

Mitigated Negative Declaration

intersection with Normandie Avenue and one driveway (providing entrance and exit) along 7th Street, just south of the 3440 Wilshire building.

The mixed-use project will include**:** (i) 640 apartment units (441 studio units and 199 2-bedroom units); (ii) 10,738 square feet of commercial floor area (5,538 square feet of retail area and 5,200 square feet of restaurant area [3,700 square feet with 138 indoor and outdoor patio seats of high-turnover restaurant and 1,500 square feet with 68 indoor and outdoor patio seats of fast-food restaurant]); (iii) 1,921 vehicle parking spaces (consisting of 500 residential and 714 commercial spaces and 707 existing spaces to remain**)**.

The Project would involve demolishing the existing three-story parking structure, constructing two commercial kiosks (one 1,073 square foot, 16 foot in height kiosk along Irolo Street and one 805 square foot, 16 foot in height kiosk along the pedestrian space between the existing buildings and proposed building, just off Mariposa Avenue), and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. The Project provides 500 residential (23 short-term and 477 long-term) and 1,340 commercial (5 short-term and 1,335 long-term) bicycle parking spaces, which complies with the requirements of the Bicycle Parking Ordinance.

There are 30 trees in the public right-of-way (sidewalk or called a street tree), of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees would be removed and replaced. There are 29 trees on the private portion of the Project Site, none of which are protected species. Of these, 24 would be removed.

The amount of soils removed or exported would be 137,000 cubic yards.

The Project will require approval of the following discretionary actions: 1) Pursuant to Section 12.32.Q of the Los Angeles Municipal Code (the "**LAMC**"), a **Vesting Zone Change** for the Property from P and PB to C4; 2) Pursuant to Section 16.05 of the LAMC, **Site Plan Review** for a development that results in an increase of 50 or more dwelling units and/or guest rooms; 3) Pursuant to Section 12.24.W.1 of the LAMC, a **Master Conditional Use Permit** for the sale or dispensing of alcoholic beverages for onsite consumption; 4) Pursuant to LAMC 17.15 of the LAMC, a **Vesting Tentative Tract Map** to merge the existing lots and re-subdivide the Property as follows: 1) ground (master) lot with a lot area of 316,438 square feet; 2) residential (apartment) (airspace) with up to 640 residential units in up to 701,315 square feet of floor area; 3) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 2,360 square feet of commercial space; 4) parking (residential, commercial, office, and bike) (airspace); 5) existing 5-story parking structure (airspace); and 6) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 3,700 square feet of commercial space. 5) Any additional actions as may be deemed necessary or desirable, including but not limited to, grading, excavation, haul route, and building permits.

PREPARED FOR:	**PREPARED BY:**	**APPLICANT:**
The City of Los Angeles Department of City Planning	CAJA Environmental Services 15350 Sherman Way, Suite 315, Van Nuys, CA 91406	Central Plaza, LLC 3450 Wilshire Blvd. Suite 1200-115, Los Angeles, CA 90010

January 2020

MITIGATED NEGATIVE DECLARATION

Table of Contents

Page

Environmental Checklist **IS-1**

Attachment A, Project Description **A-1**
1. Environmental Setting A-1
2. Project Description A-7

Attachment B, Explanation of Checklist Determinations **B-1**
I. Aesthetics B-1
II. Agriculture and Forestry Resources B-12
III. Air Quality B-14
IV. Biological Resources B-50
V. Cultural Resources B-54
VI. Energy B-61
VII. Geology and Soils B-82
VIII. Greenhouse Gas Emissions B-89
IX. Hazards and Hazardous Materials B-140
X. Hydrology and Water Quality B-156
XI. Land Use and Planning B-165
XII. Mineral Resources B-178
XIII. Noise B-180
XIV. Population and Housing B-197
XV. Public Services B-201
XVI. Recreation B-214
XVII. Transportation B-215
XVIII. Tribal Cultural Resources B-244
XIX. Utilities and Service Systems B-247
XX. Wildfire B-260
XXI. Mandatory Findings of Significance B-261

List of Figures
1 Regional Map A-3
2 Aerial Map A-4

Appendices

A Plans, Callison RTKL, January 9, 2019

B Shade Study, Callison RTKL, May 2017

C Air Quality and Greenhouse Gases Appendices, DKA Planning, August 2019

D Tree Report, Harmony Gardens, September 22, 2016

E-1 Historic Resource Technical Report, Historic Resources Group, November 2018

E-2 Archaeology response, South Central Coastal Information Center, July 20, 2017

F Energy Calculations, CAJA Environmental Services, September 2018

G-1 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018

G-2 Soils Approval Letter, Los Angeles Department of Building and Safety December 24, 2018

G-3 Paleontology response, Natural History Museum, July 20, 2017

H Phase I Environmental Site Assessment, IVI Assessment Services, October 22, 2014

I Noise Appendices, DKA Planning, September 2018

J-1 Los Angeles Unified School District response, July 12, 2017

J-2 Los Angeles Department of Recreation and Parks response, August 16, 2017

J-3 Los Angeles Public Library response, October 10, 2018

K-1 Transportation Impact Analysis, Fehr & Peers, September 2018

K-2 LADOT Assessment Letter, October 25, 2018

K-3 Traffic Study Technical Addendum, August 27, 2019

K-4 LADOT Assessment Letter, October 22, 2019

L-1 Los Angeles Bureau of Sanitation response, August 23, 2017

L-2 Los Angeles Department of Water and Power response, July 17, 2017

L-3 Water Supply Assessment, Los Angeles Department of Water and Power, July 18, 2017

CITY OF LOS ANGELES

OFFICE OF THE CITY CLERK
ROOM 395, CITY HALL
LOS ANGELES, CALIFORNIA 90012

CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY
AND APPENDIX G CHECKLIST

LEAD CITY AGENCY	COUNCIL DISTRICT	DATE
City of Los Angeles Department of City Planning	10 - Wesson	January 2020

RESPONSIBLE AGENCIES

PROJECT TITLE / CASE NO.	RELATED CASES
3440 Wilshire Project / ENV-2016-3693-EAF	CPC-2016-3692-VZC-MCUP-SPR VTT-74602

PROJECT LOCATION

3440 Wilshire Boulevard, Los Angeles, California, 90010

APPLICANT NAME AND ADDRESS	PHONE NUMBER
Central Plaza, LLC 3450 Wilshire Boulevard, Suite 1200-115, Los Angeles, CA 90010	(213) 788-3307

PROJECT DESCRIPTION:

(For additional detail, see Attachment A).

ENVIRONMENTAL SETTING:

(For additional detail, see Attachment A).

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Yes, May 25, 2017

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture and Forestry Resources	☐ Hazards & Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology / Water Quality	☒ Transportation
☐ Biological Resources	☐ Land Use / Planning	☐ Tribal Cultural Resources
☐ Cultural Resources	☐ Mineral Resources	☐ Utilities / Service Systems
☐ Energy	☐ Noise	☐ Wildfire
☐ Geology / Soils	☐ Population / Housing	☐ Mandatory Findings of Significance

DETERMINATION (to be completed by Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

IRIS WAN	CITY PLANNER
PRINTED NAME	TITLE
Iris Wan	(213) 978-1397
SIGNATURE	TELEPHONE NUMBER

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less that significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as described in (5) below, may be cross referenced).

5) Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analysis Used. Identify and state where they are available for review.

    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated

7) Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.

9) The explanation of each issue should identify:

    a) The significance criteria or threshold, if any, used to evaluate each question; and

    b) The mitigation measure identified, if any, to reduce the impact to less than significance.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS					
Except as provided in Public Resources Code Section 21099, would the project:					
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
II. AGRICULTURE AND FOREST RESOURCES					
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III. AIR QUALITY					
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒
IV. BIOLOGICAL RESOURCES					
Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES					
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☒	☐
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☒	☐
c.	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐
VI. ENERGY					
Would the project:					
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐
VII. GEOLOGY AND SOILS					

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i.	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, caused in whole or in part by the project's exacerbation of the existing environmental conditions? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii.	Strong seismic ground shaking caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☐	☐	☒	☐
iii.	Seismic-related ground failure, including liquefaction, caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☐	☐	☐	☒
iv.	Landslides, caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☐	☐	☐	☒
b.	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c.	Be located on a geologic unit that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☐	☐	☒	☐
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property caused in whole or in part by the project's exacerbation of the existing environmental conditions?	☐	☐	☐	☒
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
VIII. GREENHOUSE GAS EMISSIONS					
Would the project:					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
IX. HAZARDS AND HAZARDOUS MATERIALS					
Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment caused in whole or in part from the project's exacerbation of existing environmental conditions?	☐	☐	☒	☐
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒
X. HYDROLOGY AND WATER QUALITY					
Would the project:					
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i.	result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii.	substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☐	☒
iii.	create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv.	impede or redirect flood flows?	☐	☐	☒	☐
d.	In flood hazard, tsunami, or seiches zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐
XI. LAND USE AND PLANNING					
Would the project:					
a.	Physically divide an established community?	☐	☐	☒	☐
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES					
Would the project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
XIII. NOISE					
Would the project result in:					
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b.	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIV. POPULATION AND HOUSING					
Would the project:					
a.	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XV. PUBLIC SERVICES					
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a.	Fire protection?	☐	☐	☒	☐
b.	Police protection?	☐	☐	☒	☐
c.	Schools?	☐	☐	☒	☐
d.	Parks?	☐	☐	☒	☐
e.	Other public facilities?	☐	☐	☒	☐
XVI. RECREATION					
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐
XVII. TRANSPORTATION					
Would the project:					
a.	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b.	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c.	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
d.	Result in inadequate emergency access?	☐	☐	☒	☐
XVIII. TRIBAL CULTURAL RESOURCES.					
a.	Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i.	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
ii.	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐
XIX. UTILITIES AND SERVICE SYSTEMS					
Would the project:					
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐
XX. WILDFIRE					
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b.	Due to slope, prevailing winds, or other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c.	Require the installation or maintenance of associate infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.					
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b.	Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

MITIGATED NEGATIVE DECLARATION

Attachment A – Project Description

This section is based on the following item, which is included as Appendix A to this MND:

A Plans, Callison RTKL, January 9, 2019.

1. Environmental Setting

a) Project Location

The Project Site is located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90005/90010 in the Wilshire Community Plan (Project Site or Site). The Project Site is bounded on the north by Wilshire Boulevard, on the west by Irolo Street, on the south by 7th Street, and on the east by Mariposa Avenue.

The Project Site is approximately 1.65 miles north of the Santa Monica (I-10) Freeway, approximately 1.3 miles south of the Hollywood (US-101) Freeway, and approximately 2.1 miles west of the Harbor (I-110) Freeway. Wilshire and Irolo Street (south)/Normandie Avenue (north) provide local access.

See **Figure 1, Regional Map**, for the location of the Project within the context of the City.

See **Figure 2, Aerial Map**, for an aerial view of the Project Site and the immediate surrounding area.

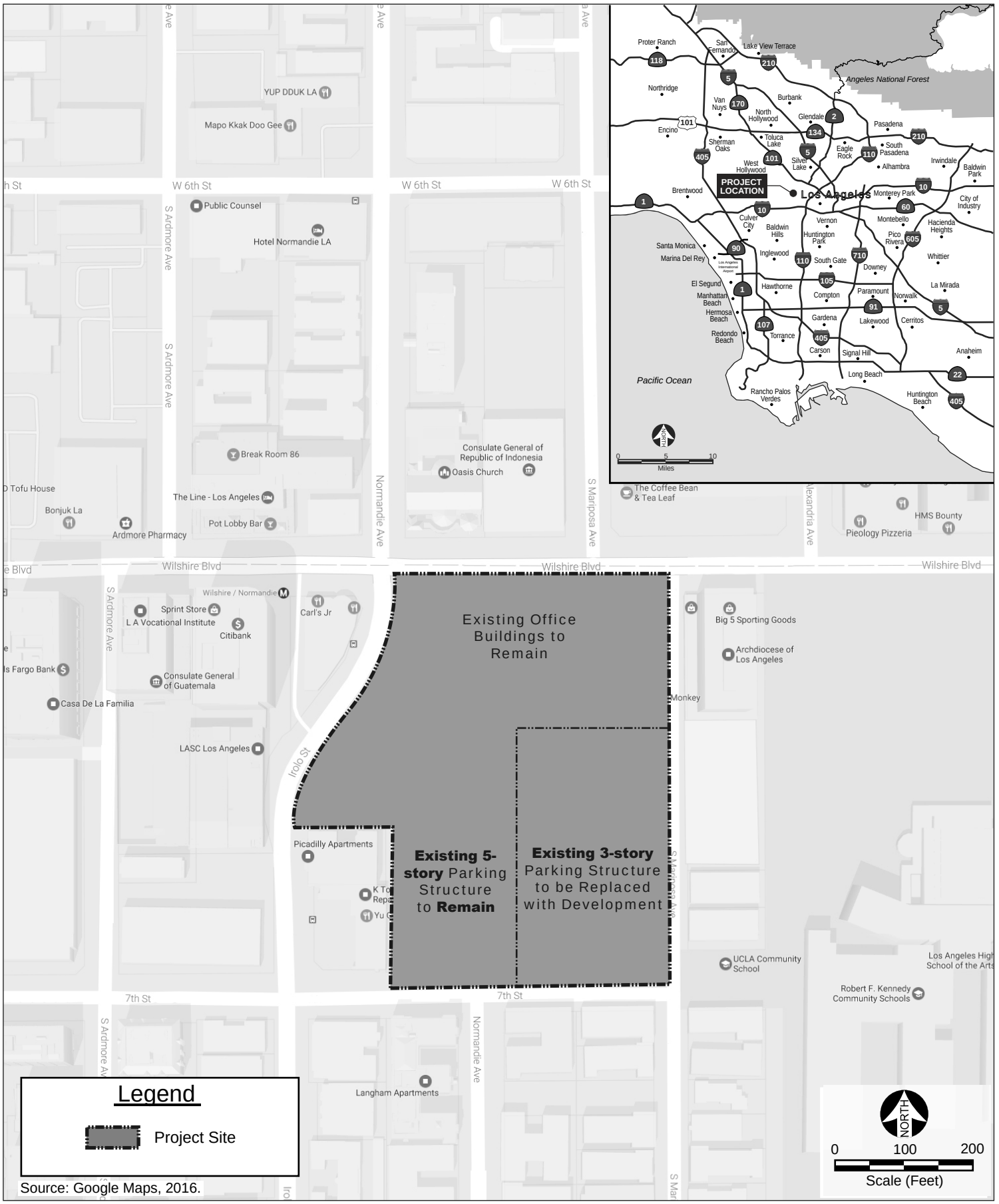
The Project Site is approximately 3 miles west of the Downtown Los Angeles and approximately 11 miles east of the Pacific Ocean. The Project Site is located within the Wilshire Community Plan (Community Plan) and Koreatown area of Los Angeles. The majority of the Community Plan consists of gently sloping plains and includes about 8,954 acres (about 14 square miles), which is approximately 3 percent of the total land in the City of Los Angeles. The Community Plan is often referred to as the Mid-City section of Los Angeles. The eastern edge of the approximately 2.5-mile wide by 6-mile long plan area is about 6 miles west of Downtown Los Angeles, while the western edge abuts the City of Beverly Hills. The Community Plan is bounded by Melrose Avenue and Rosewood Avenue to the north; 18th Street, Venice Boulevard and Pico Boulevard to the south; Hoover Street to the east; and the Cities of West Hollywood and Beverly Hills to the west.

The Community Plan area is surrounded by the City of Los Angeles community plan areas of Hollywood to the north; South Central Los Angeles and West Adams Leimert-Baldwin Hills to the south; Silver Lake-Echo Park and Westlake to the east; and West Los Angeles to the west. The plan area is generally southwest of the Hollywood Freeway (U.S. 101), which is oriented northwest-southeast across the northeast corner of the Plan Area at Vermont and Rosewood

Avenues. The Hollywood Freeway is the only freeway within the Community Plan area. The Harbor Freeway (I-110) is located one mile to the east; the Santa Monica Freeway (I-10) is located one mile to the south; and the San Diego Freeway (I-405) is approximately five miles to the west of the Community Plan boundaries.

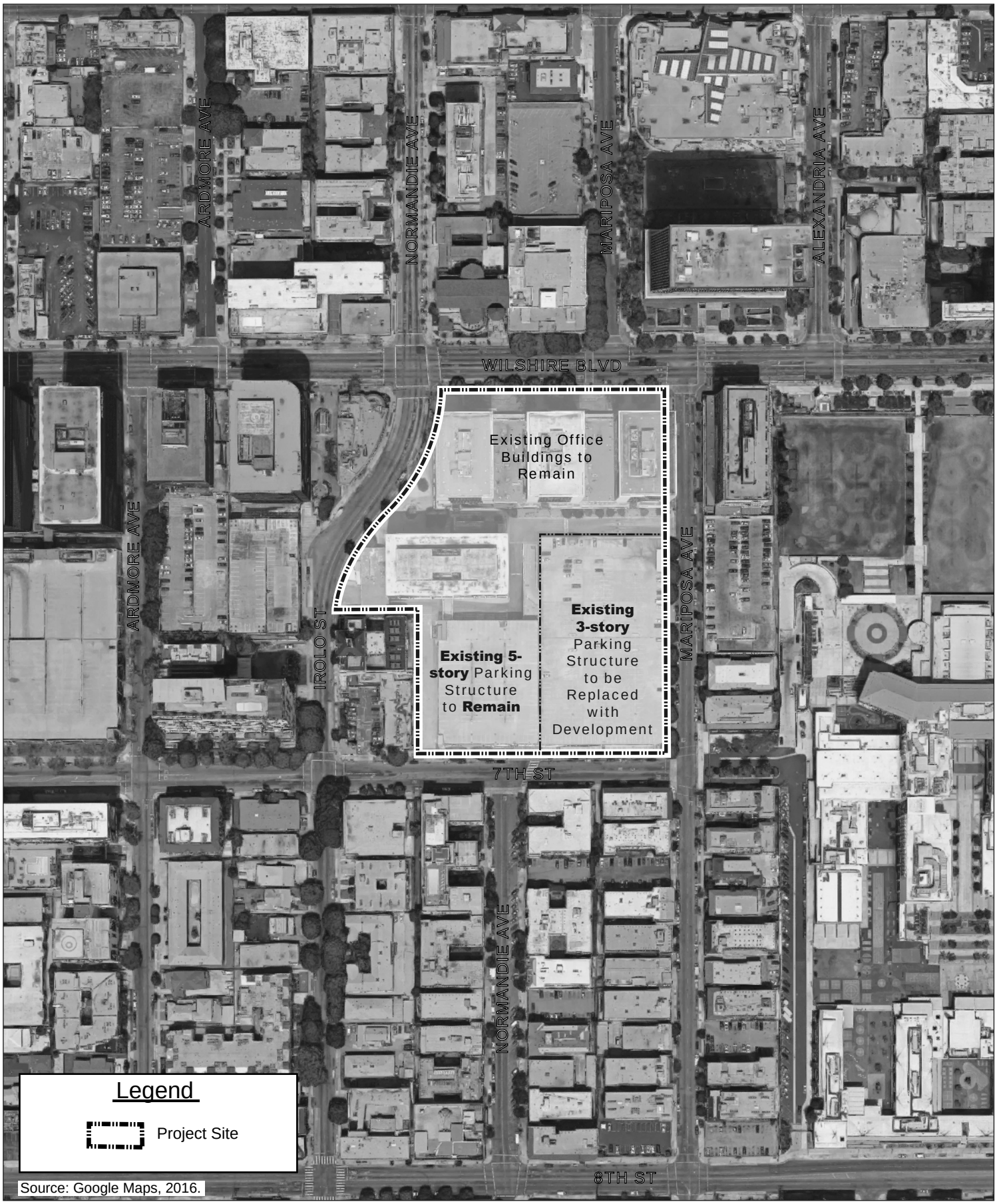
The Metro Red and Purple subway lines also serves the Community Plan, running along portions of Wilshire Boulevard and Vermont Avenue. The Community Plan Area has a pattern of low to medium density residential uses interspersed with areas of higher density residential uses. Long narrow corridors of commercial activity can be found along major boulevards including Wilshire, Pico, La Cienega, Western and Vermont. The Community Plan area east of Western Avenue contains large concentrations of higher-density residential neighborhoods surrounding the regional commercial area known as Wilshire Center. The street pattern in the Community Plan area is primarily a grid. Most of the street network is oriented on primary compass points with few exceptions. Notably, south of Wilshire Boulevard and west of Wilton Place, the street grid shifts uniformly towards a northeast/southwest alignment, while east/west streets shift somewhat to a northwest/southeast orientation. Wilshire Boulevard between Hoover Street and Western Avenue includes a substantial number of high and mid-rise buildings, generally with minimal setbacks or setbacks that increase the sidewalk width along the boulevard and some with ground floor shops and services. This highly urbanized section of the boulevard experiences considerable pedestrian activity and is supported by Metro Purple Line subway service. The Wilshire Center Regional Commercial Center is approximately 100 acres in size and includes the Project Site. It includes a dense collection of high-rise office buildings, large hotels, regional shopping complexes, churches, entertainment centers, and both high-rise and low-rise apartment buildings.[1]

1 Wilshire Community Plan: http://cityplanning.lacity.org/complan/pdf/wilcptxt.pdf



CAJA Environmental Services, LLC

Figure 1
Regional Map



CAJA Environmental Services, LLC

Figure 2
Aerial Map

b) Existing Conditions

The Project Site is currently developed with the following uses:

- Four commercial office buildings with ground floor retail uses that front West Wilshire Boulevard and South Irolo Street (Existing Office Buildings). The Existing Office Buildings contain approximately 760,456 feet of commercial uses.

- Three-story parking structure along Mariposa to the corner with 7th Street (3 levels above grade levels and 1 level below grade). The existing three-story parking structure contains approximately 1,191 vehicle parking spaces. There is one vehicle driveway (providing entrance and exit) on the eastern boundary along Mariposa, just north of 7th Street Normandie Avenue. There is also access to the structure from internal private roadways within the Site, which is provided from Irolo Street.

- Five-level parking structure along 7th Street (5 levels above grade levels and 2 levels below grade). The five-story parking structure contains approximately 707 vehicle parking spaces. There is one vehicle driveway (providing entrance and exit) on the southern boundary along 7th Street at the T-intersection with Normandie Avenue and one driveway (providing entrance and exit) along 7th Street, just south of the 3440 Wilshire building.

No residential units exist on the Project Site.

See **Table A-1, Existing Uses**, for the list of uses and their status after the Project.

Table A-1
Existing Uses

Address	Use	Size	Building	Status
3440, 3450 3460, 3470 Wilshire	Office and Retail	760,456 sf	Three 12 story and one 11 story buildings	To Remain
7th Street	Parking	707 spaces	5 stories (5 levels above grade levels and 2 levels below grade)	To Remain
Mariposa Avenue	Parking	1,191 spaces	3 stories (3 levels above grade levels and 1 level below grade)	To Be Removed
Plans, Callison RTKL, January 9, 2020.				

c) Planning and Zoning

The Project Site's assessor parcel number (APN), zoning, and land use designation are listed on **Table A-2, Project Site**.

The Site currently consists of 6 subdivided lots and a non-subdivided remainder.[2] The Project is requesting a Vesting Tentative Tract to merge the existing lots and re-subdivide the Site into 6

[2] The 6 lots are labeled 93, 94, 95, 96, 97, and 98. NE ¼ SEC 25 T1S R14W is not a lot but a section per the California Township and Range map, i.e. a non-subdivided piece of land.

lots:[3]

1) ground (master) lot with a lot area of 316,438 square feet;

2) residential (apartment) (airspace) with up to 640 residential units in up to 701,315 square feet of floor area;

3) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 2,360 square feet of commercial space;

4) parking (residential, commercial, office, and bike) (airspace);

5) existing 5-story parking structure (airspace); and

6) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 3,700 square feet of commercial space.

The Project Site is subject to the following zoning information (ZI):

- ZI-1940 Wilshire Center / Koreatown Redevelopment Project
- ZI-1117 MTA Project
- ZI-2410 Metro Westside Subway Extension Project
- ZI-2374 Los Angeles State Enterprise Zone
- ZI-2458 Transit Priority Area in the City of Los Angeles

Table A-2
Project Site

Lots	Address	APN	Zone	General Plan Land Use	Size (sf)
NE ¼ Sec25 T1S R14W[1]	3432-3442 W. Wilshire Boulevard, 659-669 S. Mariposa Avenue, 3265 W. 7th Street	5094-002-011, -013, -015, -017, -019, -020	C4-2 PB-2	Regional Center Commercial	103,873.7
	3440-3470 W. Wilshire Boulevard, 3281-3287 W. 7th Street		C4-2 PB-2 P-2		192,435.9
93	None		C4-2		1,352.4
94	678 S. Irolo Street				6,633.4
95	674 S. Irolo Street				5,425.3
96	670 S. Irolo Street				4,760.4
97	666-668 S. Irolo Street				2,834.4
98	None				880.5

[1] NE ¼ SEC 25 T1S R14W is not a lot but a section per the California Township and Range map, i.e. a non-subdivided piece of land.
Source: Zone Information & Map Access System (ZIMAS): http://zimas.lacity.org, July 2019.

3 VTTM No. 74602, August 15, 2019.

d) Public Transit

LA County Metro Lines 20, 206, and Rapid 720 serve the Project Site at Irolo and Wilshire. Metro Purple Line subway has a station stop at Wilshire and Normandie, approximately 450 feet northwest of the Project Site.

e) Surrounding Land Uses

The land uses within the general vicinity of the Project Site are characterized by a mix of low- to medium-intensity residential, commercial, and mid-rise office buildings, which vary widely in building style and period of construction.

North: Properties to the north across Wilshire Boulevard are designated with Regional Center Commercial and are zoned C4-2. Uses include the Wilshire Christian Oasis Church (634 Normandie), Consulate General of Indonesia (3457 Wilshire), and a mid-rise office building (3435 Wilshire).

East: Properties to the east across Mariposa Avenue are designated with Regional Center Commercial land uses and are zoned C4-2 and R5-2. Uses include a mid-rise office building (3424 Wilshire), 3-level parking structure (684 Mariposa), two-story multi-family residential building (662 Mariposa), and 2-story multi-family residential building (688 Mariposa), and the UCLA Lab School (700 Mariposa).

South: Properties to the south across 7th Street are designated with Regional Center Commercial land uses and are zoned R5-2. Uses include several multi-family residential buildings (5-story building on 701 Mariposa, 5-story building on 706 Normandie, 7-story building on 715 Normandie, and 3-story building on 700 Irolo).

West: Properties to the west immediately adjacent to the Project Site are designated with Regional Center Commercial and land uses and are zoned R5-2 and (T)(Q)C4-2. Uses include a 2-story commercial center with retail and restaurants (698 Irolo) and 7-story Picadilly Apartments multi-family residential building (682 Irolo).

2. Project Description

a) Project Overview

The mixed-use project will include:

(i) 640 apartment units (441 studio units and 199 2-bedroom units) with 5% (32 units) affordable (considered Moderate Income, using the State's level of affordability and Los Angeles Housing Community Investment Department's schedule of rents for Moderate Income units)

(ii) 10,738 square feet of commercial floor area (5,538 square feet of retail area and 5,200 square feet of restaurant area [3,700 square feet with a total of 138 indoor and outdoor patio seats of high-turnover restaurant and 1,500 square feet with a total of 68 indoor and outdoor patio seats of fast-food restaurant])[4]

(iii) 1,921 vehicle parking spaces

The Project would involve demolishing the existing three-story parking structure, constructing two commercial kiosks (one 1,073 square foot, 16 foot in height kiosk along Irolo Street and one 805 square foot, 16 foot in height kiosk along the pedestrian space between the existing buildings and proposed building, just off Mariposa Avenue), and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean.

The 23-story mixed-use building will include 279 apartment units, rooftop amenities, and commercial space (Tower 1) located on the east portion of the Site, fronting Mariposa.

The 28-story mixed-use building will include 361 apartment units, rooftop amenities, and commercial space (Tower 2) located on the south portion of the Site, fronting 7th.

Tower 1 and Tower 2 will share a podium with amenity space and four stories of above-grade and two stories of below-grade parking (Podium).

Building plans for each level, elevations, and renderings are shown in **Appendix A** to this MND. See **Table A-3, Project Summary.**

Table A-3
Project Summary

Use	Quantity	Size (sf)
Residential	640 units	701,315
Commercial		10,738
Total		**712,053**
Plans, Callison RTKL, January 9, 2020.		

(1) Floor Area and Density

The Project Site lot area is 320,534 square feet (or 7.3 acres) and the Project Site lot area less dedication is 316,438 square feet (7.26 acres).[5] The allowable floor area ratio (FAR) is 6:1 (1,898,520 square feet).

The existing office floor area of 760,456 square feet would remain. The Project would include an additional 712,053 square feet (10,738 square feet commercial and 701,315 square feet

4 In addition, 900 square feet of patio space is associated with the high turnover restaurant and 500 square feet of patio space is associated with the fast-food restaurant. This is not counted for floor area. However, for a conservative analysis, the traffic study and air quality modeling take into account this additional space.

5 Plans, Callison RTKL, January 9, 2020.

residential). The total proposed FAR would be 4.65:1.

(2) Height

Height District 2 regulates permitted FAR but does not prescribe a height limit.

Tower 1 will be 23 stories (282 feet).

Tower 2 will be 28 stories (332 feet).

b) Design and Architecture

The Project would appear as an integrated structure (common podium and deck) with two towers, with articulation and variation created by the massing of individual components. Parking spaces within the building, ground level commercial uses and residential units located within the building have been integrated into the overall architectural theme of the Project to create a modern appearance. Overall variation in building appearance is created with the use of various materials and massing of the ground level uses, the placement of residential units along the perimeter of the Podium, the landscaped ground floor, and the transition of the first floor commercial to upper level residential.

The Project is similar in size and scale to multi-story structures in the vicinity of the Project Site. The Existing Office Buildings at 3440 Wilshire (within the Project Site) has three 12-story buildings and one 11-story building. 3424 Wilshire (100 feet east of the Site) is a 13-story office building. 3435 Wilshire (450 feet north) is a 28-story office building. 691 Irolo (450 feet west of the proposed building footprint) is a 21-story residential building. 3530 Wilshire (375 feet from the proposed building footprint) is an 18-story office building.

The above-grade parking levels in the podium would be enclosed and mechanically ventilated. The shielding of the structure would consist of the following materials:

- Metal panels and glass fiber reinforced concrete on the interior-facing side (pedestrian walkway); and
- Frosted glass (100% opaque) on the street-facing sides (Mariposa and 7th).

c) Open Space

Table A-4, Open Space, provides the amount of required and provided open space.

The Project may provide up to 25% of total required open space as indoor open space, per LAMC Section 12.22 G.2(a)(4). This, 25% of 68,975 square feet would be 17,243 square feet of indoor common open space.

The Project would provide 17,835 square feet common indoor open space, which meets the requirement of 17,243 square feet, and provides an additional 592 square feet more than the maximum that qualifies.

Table A-4
Open Space

Use	Amount (units)	Rate	Total (sf)
Amount Required			
Units < 3 habitable rooms	441	100 sf / unit	44,100
Units = 3 habitable rooms	199	125 sf / unit	24,875
Units > 3 habitable rooms	0	175 sf / unit	0
		Total Required	**68,975**
		Total Indoor Space (maximum 25% qualifies)	**17,243**
Amount Provided			
Outdoor Open Space			
Level 5 Amenity Deck			17,882
Roof			8,000
Private Balcony	517	50 sf / unit	25,850
		Total Outdoor Provided	**51,732**
Indoor Open Space			
Level 1 Lobby			4,475
Level 5 Gym and Amenity Lounges			4,785
Roof Level Amenity			8,575
		Total Indoor Provided	**17,835**
		Total Provided	**69,567**
		Total In Excess	**592**

In square feet. Per LAMC Section 12.21 G.2.
When calculating open space under the Planning Code, kitchens are not considered a habitable room. (LAMC definition of Room, Habitable, at Sec. 12.21.)
LAMC 12.22 G.2(a)(4), limiting indoor common space to 25% of the required open space total: Recreation rooms at least 600 square feet in area for a development of 16 or more dwelling units, or at least 400 square feet in area for a development of fewer than 16 dwelling units, may qualify as common open space, but shall not qualify for more than 25 percent of the total required usable open space.
Plans, Callison RTKL, January 9, 2020.

d) Access, Circulation, and Parking

(1) Access and Circulation

The Project Site currently has five vehicular driveways that provide access to the existing uses on the Site:

- Two full access driveways are located on Mariposa Avenue.
- Two full access driveways are located on 7th Street.
- One full access driveway is located on Irolo Street.

With the Project, the southern driveway on Mariposa Avenue (just north of 7th Street) will be closed permanently (it serves only the 3-story parking structure that is proposed to be removed), leaving the Project Site with four driveways to service the property. The residents will primarily use the Mariposa Avenue driveway and eastern 7th Street driveway, but all other land uses on the Project Site will have access to use each of the driveways, similar to the existing Site access.

Inbound and outbound vehicular access will be provided by two 2-way driveways on Mariposa Boulevard:

- Northern driveway between the existing office and new building would provide access to commercial parking. This is an existing driveway that will remain

- Southern driveway along the new building would provide access to residential parking. This will be a new driveway.

Commercial loading area will be located on south boundary of the Project Site, with vehicular entrance along 7th Street.

The loading areas for the Project uses will be located in the new parking structure on Level 1 and will be accessible from the Mariposa Avenue driveway.

(2) Vehicle Parking

Table A-5, Vehicle Parking, provides the amount of required and provided parking.

Table A-5
Vehicle Parking

Use	Amount (size)	Rate	Total spaces
Amount Required			
Residential < 3 habitable rooms	441 units	1 per unit	441
Residential = 3 habitable rooms	0 units	1.5 per unit	0
Residential > 3 habitable rooms	199 units	2 per unit	398
		Subtotal	**839**
		Bicycle Reduction (15% Residential)	-125
		Total Residential Required	**714**
New Commercial	10,738 sf	1 per 500 sf	21
Existing Commercial to remain	760,456 sf	1 per 500 sf	1,521
		Subtotal	**1,542**
		Bicycle Reduction (21.7% Commercial)[1]	-335
		Total Existing Commercial Required	**1,207**
		Total Required	**1,921**
Amount Provided			
		New Construction (714 residential and 500 commercial spaces)	**1,214**
		Existing Construction	**707**
		New Construction	**1,921**

[1] Maximum reduction allowed is 30%.
Per LAMC Section 12.21 A.4.P.1 and LA Bicycle Parking Ordinance.
Under the Planning Code, kitchens must be counted as a habitable room when calculating automobile parking. (LAMC definition of Room, Habitable at Sec. 12.03.)
Plans, Callison RTKL, January 9, 2020.

(3) Bicycle Parking

LAMC Section 12.21 A.16(a)(2) requires new projects to provide bicycle parking spaces. Short term bicycle parking shall consist of bicycle racks that support the bicycle frame at two points. Long term bicycle parking shall be secured from the general public and enclosed on all sides and protect bicycles from inclement weather.

Table A-6, Bicycle Parking, provides the amount of required and provided parking.

As permitted by the Los Angeles Municipal Code, the Project would reduce the required vehicular parking by providing the requisite amount of bike parking at a ratio of 4:1. The residential portion is reducing is vehicle parking by 125 spaces, and providing 500 (125 x 4) bicycle parking spaces as replacement. The commercial portion is reducing its vehicle parking by 2 spaces (new commercial) and 333 spaces (existing commercial) and providing 8 (2 x 4) and 1,332 (333 x 4) bicycle parking spaces as replacement, respectively. Additionally, the Project is required to provide 258 residential bicycle parking and 10 commercial bicycle parking spaces. Therefore, the Project would provide the following:

- residential bike parking: 500 spaces (23 short-term and 477 long-term)
- commercial bike parking: 1,340 parking (5 short-term and 1,335 long-term)

Table A-6
Bicycle Parking

	Rate	Required	Provided
Residential			
Short-term			
1-25	1 space / 10 units	2.5	2
26-100	1 space / 15 units	5	5
101-200	1 space / 20 units	5	5
201+	1 space / 40 units	11	11
Subtotal Residential Short-term		**23**	**23**
Long-Term			
1-25	1 space / unit	25	25
26-100	1 space / 1.5 units	50	50
101-200	1 space / 2 units	50	50
201+	1 space / 4 units	110	110
Subtotal Residential Long-term		**235**	**235**
Residential auto replacement (125 x 4)		**500**	**500 (23 + 477)**
		Total Residential	**500**
Commercial			
Short-term			
	1 space / 2,000 sf	5	5
Long-Term			
	1 space / 2,000 sf	5	5
Existing Commercial auto replacement (333 x 4)			**1,332**
Proposed Commercial auto replacement (2 x 4)			**8**
		Total Commercial	**1,340 (5 + 1,335)**
Total Bicycle Provided			**1,840 (28 + 1,812)**
Per LAMC Section 12.21.A.4.P.1 and LAMC Section 12.21 A. 16 (a)(1)(i). Plans, Callison RTKL, January 9, 2020.			

e) Landscaping

There are 30 trees in the public right-of-way (sidewalk or called a street tree), of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees would be removed and replaced. There are 29 trees on the private portion of the Project Site, none of

which are protected species. Of these, 24 would be removed.[6] See **Table A-7, Trees**.

Table A-7
Trees

Trees	Existing Trees		To Be Removed		To Remain	
	Non-Protected	Protected	Non-Protected	Protected	Non-Protected	Protected
Public Right-of-way	29	1	19	0	10	1
On-Site	29	0	24	0	5	0
Tree Report, Harmony Gardens, Inc., September 22, 2016.						

Any tree removal will comply with the City's Tree Replacement Program (Urban Forestry Division, Bureau of Street Services for the street tree).

The Project is required to provide 160 trees onsite (per 0.25 trees per dwelling unit). The Project would meet this requirement.

f) Lighting and Signage

Project Site signage would include building identification, wayfinding, and security markings. Commercial and residential signage would be similar to other signage in the Project vicinity and no off-site signage is proposed.

Exterior lighting would be shielded to reduce glare and eliminate light being cast into the night sky. Security lighting would be integrated into the overall architectural and landscape themes for the Project.

The Project would also comply with LAMC lighting regulations that include approval of street lighting plans by the Bureau of Street Lighting; limited light intensity from signage to no more than three foot-candles above ambient lighting; and limited exterior lighting to no more than two foot-candles of lighting intensity or direct glare onto specified sensitive uses.

g) Site Security

The Project would provide an extensive security program to ensure the safety of its residents, commercial operations and visitors. Security features to assist in crime prevention efforts and to reduce the demand for police protection services would include secured building access/design to residential areas; lighting of building entryways and plaza areas; staff training in safety and sound security policies; and possible video surveillance. The security program would include controlling access; monitoring entrances and exits of buildings; monitoring fire/life/safety systems.

h) Sustainability Features

The Project will comply with the 2017 Los Angeles Green Building Code (LAGBC),[7] which builds

6 Tree Report, Harmony Gardens, Inc., September 22, 2016.

upon and sets higher standards than those in the 2016 California Green Building Standards Code (CalGreen, effective January 1, 2017).[8]

Further considerations regarding energy efficiency and sustainability include native plants and drip/subsurface irrigation systems, individual metering or sub metering for water use, leak detection systems, and provisions for electric vehicle charging.

The Project's infill location would promote the concentration of development in an urban location with extensive infrastructure and access to public transit facilities. The Project's proximity to public transportation would reduce vehicle miles traveled for residents and visitors. The Project would also promote bicycle transportation by replacing some of the required vehicle parking with bicycle parking spaces pursuant to LAMC section 12.21 A.4.

i) CEQA Guidelines Appendix F

In accordance with CEQA Guidelines Appendix F, the Mitigated Negative Declaration (MND) provides further information as to energy conservation, energy implications, and the energy-consuming equipment and processes that would be used during Project construction and operation. Design features of the Project, energy supplies that would serve the Project, and total estimated daily vehicle trips that would be generated by the Project will also be analyzed. In addition, while development of the Project would not be anticipated to cause the wasteful, inefficient, and unnecessary consumption of energy and would be consistent with the intent of Appendix F of the CEQA Guidelines, further analysis of the Project's consistency with Appendix F will also be provided in the MND.

j) Anticipated Construction Schedule

The estimated construction schedule is shown in **Table A-8, Construction Schedule**. Construction of the Project is anticipated to begin in January 2022 and will be constructed in two phases:

- Phase I –Tower 1 construction with parking under tower (January 2022– January 2024)
- Phase II –Tower 2 construction with parking under tower (June 2024 – January 2026)

The Project could be completed in 2026.[9]

Demolition will remove an existing 3-story parking garage (266,571 square feet).

The amount of soils removed or exported would be 137,000 cubic yards (cy).[10]

It is anticipated that the demolition and construction debris will be transported to the Sunshine Canyon Landfill in Sylmar. The estimated route is 30 miles and will generally include: Wilshire Boulevard to Rampart, to the US-101 North.

7 LA Department of Building and Safety: http://ladbs.org/forms-publications/forms/green-building

8 California Building Codes: http://www.bsc.ca.gov/Codes.aspx

9 Page 4, Transportation Impact Analysis, Fehr & Peers, August 2018.

10 Client provided information, June 2017.

The soil export will go to the Irwindale Pit. The estimated route is 30 miles and will generally include: Wilshire Boulevard to Rampart, to the US-101 South. The routes avoids residential neighborhoods, and uses the largest capacity roads and nearest direct route to the freeway.

Table A-8
Construction Schedule

Phase	Tower 1		Tower 2	
	Scheduled	Length	Scheduled	Length
Demolition	Jan 2022 – March 2022	2 months	Under Tower 1	
Site Prep	Within demolition		Under Tower 1	
Grading	March 2022 – June 2022	3 months	Under Tower 1	
Construction	June 2022 – January 2024	19 months	June 2024 – January 2026	19 months
Architectural Coatings	August 2023 – January 2024	5 months	August 2025 – January 2026	5 months
Construction schedule, including start, end, and duration dates are estimates only. Client provided information, September 2018.				

k) Requested Permits and Approvals

The Project will require approval of the following discretionary actions:[11]

1. Pursuant to Section 12.32.Q of the LAMC, a **Vesting Zone Change** for the Property from P-2 and PB-2 to C4-2

2. Pursuant to Section 16.05 of the LAMC, **Site Plan Review** for a development that results in an increase of 50 or more dwelling units and/or guest rooms

3. Pursuant to Section 12.24.W.1 of the LAMC, a **Master Conditional Use Permit** for the sale or dispensing of alcoholic beverages for onsite consumption

4. Pursuant to LAMC 17.15 of the LAMC, a **Vesting Tentative Tract Map** to merge the existing 6 lots and re-subdivide the Property as follows:

   1) ground (master) lot with a lot area of 316,438 square feet;

   2) residential (apartment) (airspace) with up to 640 residential units in up to 701,315 square feet of floor area;

   3) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 2,360 square feet of commercial space;

   4) parking (residential, commercial, office, and bike) (airspace);

   5) existing 5-story parking structure (airspace); and

   6) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 3,700 square feet of commercial space.

11 Project representative, November 2016.

5. Any additional actions as may be deemed necessary or desirable, including but not limited to, grading, excavation, haul route, and building permits

Pursuant to various sections of the LAMC, the Applicant would request approvals and permits from the Building and Safety Department (and other municipal agencies) for Project construction activities including, but not limited to the following: demolition, excavation, shoring, grading, foundation, building and tenant improvements.

This MND is intended to be the primary reference document in the formulation and implementation of a mitigation monitoring program for the Project. This MND is also intended to cover all federal, State, regional and/or local government discretionary approvals that may be required to develop the Project, whether or not they are explicitly listed above.

MITIGATED NEGATIVE DECLARATION

Attachment B – Explanation of Checklist Determination

I. Aesthetics

The section is based in part on the following items, included as Appendix B of this MND:

B Shade Study, Callison RTKL, May 2017.

In September 2013, Governor Jerry Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. Among other provisions, SB 743 adds Public Resources Code (PRC) Section 21099, which provides that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." PRC Section 21099 defines a "transit priority area" as an area within 0.5 mile of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." PRC Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." PRC Section 21099 defines an infill site as a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses. This state law supersedes the aesthetic impact thresholds in the 2006 L.A. CEQA Thresholds Guide, including those established for aesthetics, obstruction of views, shading, and nighttime illumination.

The City has issued Zoning Information File 2452 (ZI 2452) regarding aesthetic and parking impacts for specified projects located in a transit priority area. ZI 2452 summarizes the provisions of SB 743 and specifies that visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impacts as defined in the City's CEQA Thresholds Guide shall not be considered an impact for infill projects within transit priority areas. Under ZI 2452, a project shall be considered within a transit priority area if all parcels within the project site have no more than 25 percent of their area farther than one-half mile from a major transit stop and if not, more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from a major transit stop. ZI 2452 also includes a map showing the transit priority areas in the City.

The Project contains multiple uses, including residential, commercial and retail.[1] The Project Site is an infill site, which is defined in pertinent part as a lot located within an urban area that has been previously developed.[2] As described in the Project Description, the Project Site is currently developed with office buildings and parking structures. The Project Site is within a transit priority area, which is defined in pertinent part as an area within one-half mile of an existing major transit stop.[3] The Project Site is within approximately 450 feet east of the Metro Purple Line Wilshire and Normandie Station, (which is a major transit stop) and Metro Line 20. See **Table B.1-1, Transit Priority Analysis**.

Therefore, pursuant to SB 743 and ZI 2452, the Project's aesthetic impacts shall not be considered a significant impact on the environment as a matter of law.[4] Nevertheless, notwithstanding the mandate imposed by SB 743 and ZI 2452, the following aesthetics analysis is provided for informational purposes only.

Table B.1-1
Transit Priority Analysis

Line	Direction	# Trips	Total Trips	Average Frequency	Qualifies?
Metro Purple Line	Eastbound	Every 10 minutes	Every 10 minutes		Yes
		Every 10 minutes	Every 10 minutes		
	Westbound	Every 10 minutes	Every 10 minutes		
		Every 10 minutes	Every 10 minutes		
Metro 20	Eastbound	14 AM Peak Hours trips	36	11.66 minutes	Yes
		22 PM Peak Hours trips			
	Westbound	18 AM Peak Hours trips	38	11.05 minutes	
		20 PM Peak Hours trips			
Peak Periods are considered to be between 6:00 to 9:00 AM (180 minutes) and 3:00 to 7:00 PM (240 minutes) for a total of 420 minutes. Bus routes must have a service frequency of 15 minutes or less for the entire duration of the peak hour periods. To determine the eligibility of the bus line, the average number of minutes per trip for each direction is calculated separately. If one or both directions fail to meet the 15 minute frequency limit, the entire bus line is ineligible for a Major Transit Stop designation. The total number of trips from the point of origin during peak hours (Monday to Friday) is used. A trip is included if its median time falls within the peak hour. To calculate the median time, the time at trip origin is subtracted from the time at arrival at final station, divided by two, and then added to origin time. The total peak hour time (420 minutes) is then divide by the number of trips for the average number of minutes per trip. CAJA Environmental Services, September 2018.					

1 LAMC Section 12.03.

2 California Public Resources Code Section 21099(a)(4)

3 California Public Resources Code Section 21099(a)(7) and PRC Section 21155: a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

4 ZI 2452 states that "A project shall be considered to be within a TPA if all parcels within the project have no more than 25 percent of their area farther than one-half mile from the major transit stop and if not more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from the major transit stop."

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact.

A significant impact would occur if a project introduced incompatible scenic elements within a field of view containing a scenic vista or substantially block views of an existing scenic vista. The Project Site is in a relatively flat area of Wilshire Center along a commercial corridor (Wilshire) and adjacent to residential uses (south of 7th Street). Other north/south streets are densely populated with multifamily residential neighborhoods. The existing visual character of the surrounding locale is highly urban and the Project Site is not located within or along a designated scenic highway, corridor, or parkway. The Project Site is located within a densely developed urban area. Views in the vicinity of the Project Site are largely constrained by the existing structures on the Project Site and structures on adjacent parcels.

No scenic or natural setting views are visible due to the dense urban uses. In addition, CEQA is only concerned with public views with broad access by persons in general, not private views that will affect particular persons.[5] Urban features that may contribute to a valued aesthetic character or image include: structures of architectural or historic significance or visual prominence; public plazas, art or gardens; heritage oaks or other trees or plants protected by the City; consistent design elements (such as setbacks, massing, height, and signage) along a street or district; pedestrian amenities; landscaped medians or park areas; etc. There are no tall features on the Project Site from which scenic vistas may be obtained or which make up part of the scenic landscape of the surrounding community.

At the street level, views in all directions are largely constrained by structures on adjacent parcels. Wilshire provides the major east-west view corridor. From the public sidewalks, there are views of the mid-rise buildings along Wilshire. Views north and south are unremarkable showing the existing urban environment. These views would not be substantially affected by the Project buildings which would be comparable in height and size as the existing office buildings at the Project Site and the adjacent mid-rise buildings at 3420 Wilshire and 3435 Wilshire.

There are 12-story buildings at the Project Site, as well as a 13-story building at 3420 Wilshire and 30-story building at 3435 Wilshire, all located within one block of the Project Site. The approximate height of the proposed buildings (23-story and 28-story buildings) would be similar to other structures in the area, but there are no height restrictions. Height District 2 regulates permitted FAR but does not prescribe a height limit. No designated scenic vistas in the local area would be impeded by the construction, and the Project will not substantially block any

5 Obstruction of a few private views in a project's immediate vicinity is not generally regarded as a significant environmental impact. (See *Ocean View Estates Homeowners Assn., Inc. v. Montecito Water Dist*.,(2004) 116 Cal.App.4th 396, . 402 [that a project affects "only a few private views" suggests that its impact is insignificant]; *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 447, 492-493 (as modified in 120 Cal.App.4th 590a) [distinguishing public and private views; "[u]nder CEQA, the question is whether a project will affect the environment of persons in general, not whether a project will affect particular persons"].

scenic vistas. **As per ZI No. 2452 and SB 743, aesthetic impacts "shall not be considered significant impacts on the environment."**

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway?

No Impact.

A significant impact would occur only if scenic resources would be damaged or removed by a project, such as a tree, rock outcropping, or historic building within a designated scenic highway. There are no identified scenic resources such as rock outcroppings located on-site. The Project Site is not located within or along a designated scenic highway, corridor, or parkway. The Pacific Coast Highway (State Route 1) is an "Eligible State Scenic Highway – Not Officially Designated", and is approximately 10 miles west of the Project Site. [6] State Route 1 is not visible from the Project Site. The Project Site is not within a scenic highway.[7]

There are 30 trees (street trees) in the public right-of-way (sidewalk, of which one is a protected species and will not be removed. A map is included in the Tree Report, included as an appendix to this MND. Of the 29 non-protected street trees, 19 trees would be removed. There are 29 trees on the Project Site, none of which are protected species. Of these, 24 would be removed.[8] All removed trees will be replaced in accordance with the requirements of the LAMC.

Analysis of the potential impacts to historical resources has found that the Project will insert substantial new construction on land that was currently occupied by a three-story parking structure. The proposed new construction, however, will not result in substantial adverse changes that reduces the integrity or significance of historic resources either adjacent to or in the near vicinity of the Project Site.[9] The parking area is not a historic resource. Therefore, the Project would result in a less than significant impact under CEQA. **As per ZI No. 2452 and SB 743, aesthetic impacts "shall not be considered significant impacts on the environment."**

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact.

The Project Site is located in an urbanized area.

6 California Scenic Highway Mapping Systems: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm
7 http://planning.lacity.org/documents/policy/mobilityplnmemo.PDF
8 Tree Report, Harmony Gardens, Inc., September 22, 2016.
9 Historic Resources Technical Report, Historic Resources Group, November 2018.

The Project Site is approximately 3 miles west of the Downtown Los Angeles and approximately 11 miles east of the Pacific Ocean. The Project Site is located within the Wilshire Community Plan (Community Plan) and Koreatown area of Los Angeles. The majority of the Community Plan consists of gently sloping plains and includes about 8,954 acres (about 14 square miles), which is approximately 3 percent of the total land in the City of Los Angeles. The Community Plan is often referred to as the Mid-City section of Los Angeles. The eastern edge of the approximately 2.5-mile wide by 6-mile long plan area is about 6 miles west of Downtown Los Angeles, while the western edge abuts the City of Beverly Hills. The Community Plan area is bounded by Melrose Avenue and Rosewood Avenue to the north; 18th Street, Venice Boulevard and Pico Boulevard to the south; Hoover Street to the east; and the Cities of West Hollywood and Beverly Hills to the west. The Community Plan area is surrounded by the City of Los Angeles community plan areas of Hollywood to the north; South Central Los Angeles and West Adams Leimert-Baldwin Hills to the south; Silverlake-Echo Park and Westlake to the east; and West Los Angeles to the west. The Community Plan area is generally southwest of the Hollywood Freeway (U.S. 101), which is oriented northwest-southeast across the northeast corner of the Plan Area at Vermont and Rosewood Avenues. The Hollywood Freeway is the only freeway within the Wilshire plan area. The Harbor Freeway (I-110) is located one mile to the east; the Santa Monica Freeway (I-10) is located one mile to the south; and the San Diego Freeway (I-405) is approximately five miles to the west of the Community Plan boundaries.

The Community Plan has a pattern of low to medium density residential uses interspersed with areas of higher density residential uses. Long narrow corridors of commercial activity can be found along major boulevards including Wilshire, Pico, La Cienega, Western and Vermont. The Community Plan area east of Western Avenue contains large concentrations of higher-density residential neighborhoods surrounding the regional commercial area known as Wilshire Center Regional Commercial Center. The street pattern in the Wilshire area is primarily a grid. Most of the street network is oriented on primary compass points with few exceptions. Notably, south of Wilshire Boulevard and west of Wilton Place, the street grid shifts uniformly towards a northeast/southwest alignment, while east/west streets shift somewhat to a northwest/southeast orientation. Wilshire Boulevard between Hoover Street and Western Avenue includes a substantial number of high and mid-rise buildings, generally with minimal setbacks or setbacks that increase the sidewalk width along the boulevard and some with ground floor shops and services. This highly urbanized section of the boulevard experiences considerable pedestrian activity and is supported by Metro Purple Line subway service. The Wilshire Center Regional Commercial Center is approximately 100 acres in size. It includes a dense collection of high-rise office buildings, large hotels, regional shopping complexes, churches, entertainment centers, and both high-rise and low-rise apartment buildings.[10]

Compatibility with Character of Surrounding Community

10 Wilshire Community Plan: http://cityplanning.lacity.org/complan/pdf/wilcptxt.pdf

The Project will create a mixed-use residential and commercial development in the Wilshire Center area, which has multiple commercial uses, office uses, and restaurants. The Project retains the passive visual open space aesthetic of the existing Project Site by including pedestrian passageways and connections within the interior of the Project Site, including a large open space corridor between the Existing Office Buildings and the new buildings. The Project features ground floor retail designed to activate Mariposa and enhance the overall pedestrian experience. The Project has uses that would be similar to those already found in the area to provide additional synergy with patrons, customers, and visitors throughout the day and night. The residential use will respond directly to the market demand for high-quality accommodations. The Project will promote use of the currently under-utilized parcel (a parking structure), generating customer opportunities for the existing businesses in the area. The Project will be compatible with and complementary to the surrounding community because it would combine uses already found in the immediate area within the same parcel in physically separated buildings connected through pedestrian walkways. The Community Plan designates the area as Regional Center Commercial, which serves as a transition between the commercial corridor (Wilshire) and residential uses (south of the Project Site). A mixed-use development in a contemporary, visually integrated building would contribute to the characteristics of Wilshire Boulevard as a walkable, mixed-use urban district near the Metro Purple Line.

Architectural Style and Design

The Project Site is located in an urbanized and fully developed portion of the City. The built environment is characterized by a variety of architectural styles, age of buildings, type of developments, and size. The area is not a collection of buildings unified by size, scale, or design. Buildings in the area range in height with some along Wilshire Boulevard at 12-30 stories; have a wide variety of uses, including but not limited to stores, hotels, theaters, apartment buildings, banks and other financial institutions, social clubs, restaurants, and retail businesses; and have an eclectic assortment of architectural styles which extends from the vernacular to the highly ornamental. The area is characterized by a wide variety of building types and architectural styles, such as contemporary glass and steel structures for recently built residential mixed used towers, Moderne styles used for professional buildings and retail stores, Period Revival styles such as the Spanish Colonial Revival used for restaurants and hotels, and Exotic Revival styles used for theaters. Exterior cladding generally consists of stone, or a less substantial material meant to simulate stone such as terra cotta or scored plaster. The smaller buildings are typically of masonry construction and sheathed in stucco.

The Existing Office Buildings on the northern half of the Project Site would be retained and two new contemporary residential towers would be built in place of the existing three-story parking structure. The Project design would resemble contemporary modern styles with vertical elements, large glass facades, and multiple balconies. A space between the Tower 1 and Tower 2 would allow views into the central portion of the Project Site. The building layout, new building compositions, and material choice allow the existing office building to maintain its identity while integrating it into the overall new design of the Project Site. The Project will enhance the

surrounding streetscape by incorporating a new modern design across what is currently a parking structure. Therefore, the Project would not degrade the existing visual character or quality of the Project Site and its surroundings and impacts would be less than significant.

Other visual and aesthetic considerations

There will be landscaping around the Project Site at the ground floor level, on the podium deck (Level 5), and the roof of both towers. The Project would be landscaped according to LAMC Section 12.40 and 12.41.

During construction, construction walls and barriers would be erected to protect the Project Site from vandalism, which have the potential to attract unauthorized bills and postings. The Project shall comply with LAMC Section 91.6205, which regulates signage on construction barriers.

During operation, the Project would be maintained in a safe and sanitary condition and good repair, and free from debris, rubbish, garbage, trash, overgrown vegetation or other similar material, pursuant to LAMC Section 91.8104.

Overall, while the Project would change the visual character of the Project Site, the height of the proposed buildings, design, massing, and scale would be compatible with the existing urban uses that set the aesthetic character of the vicinity. Based on the analysis above, the Project would not substantially degrade the existing visual character or quality of the Project Site or surrounding vicinity.

Based on the above, the Project would not conflict with applicable zoning and other regulations governing scenic quality. As per ZI No. 2452 and SB 743, aesthetic impacts "shall not be considered significant impacts on the environment."

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact.

A significant impact may occur if a project were to introduce new sources of light or glare on or from the Project Site which would be incompatible with the area surrounding the Project Site, or which pose a safety hazard to motorists utilizing adjacent streets or freeways. The Project Site and surrounding area are highly urbanized and contain numerous sources of nighttime lighting, including streetlights, security lighting, illuminated signage, indoor building illumination (light emanating from the interior of structures that passes through windows), and automobile headlights. In addition, glare is a common phenomenon in the Southern California area due mainly to the occurrence of a high number of days per year with direct sunlight and the highly urbanized nature of the region, which results in a large concentration of potentially reflective surfaces. Potentially reflective surfaces introduced by the Project include new windows at the Project Site and automobiles traveling and parked on streets in the vicinity of the Project Site.

As per ZI No. 2452 and SB 743, aesthetic impacts "shall not be considered significant impacts on the environment."

Light

The surrounding area is illuminated by freestanding streetlights and lighting from the surrounding residential and commercial uses. Vehicle headlights from traffic on Wilshire Boulevard contribute to overall ambient lighting levels. The Project would create additional sources of illumination. The Site currently contains an existing office building with window illumination. There is existing security lighting as well.

The Project would construct two buildings and interior lighting through windows would increase as compared to the existing setting. Also the residential nature of the Project would create additional lighting into the night hours. The Project will provide illumination at street level for security. All security lighting on the upper levels will be shielded and focused on the Project Site and directed away from the neighboring land uses to the maximum extent feasible and consistent with safety requirements. In addition to increasing the ambient "glow" presently associated with urban settings and with this part of the City, Project-related light sources could potentially spill over and illuminate off-site vantages including adjacent streets and land uses.

The Project will include architectural features and facades with a low level of reflectivity. The ground floor commercial area will have low reflectivity to allow greater visual access into the building and appeal to a pedestrian aesthetic. Upper floor windows will be less visible to the pedestrian environment and will be suitably shielded to prevent visual trespass and allow privacy to the residential spaces. The parking levels will have a crash shield wall that will also shield headlights. As such, the Project will not result in a substantial amount of light that would adversely affect the day or night-time views in the Project vicinity. Though the Project will increase ambient light levels in the vicinity, the increase will not be substantial because the Project Site is located in an urbanized location in Wilshire Center Regional Commercial Center that is already illuminated at night, and the Project's lighting levels would be compatible with surrounding uses. Exterior lighting will be designed to confine illumination to the Project Site and off-site areas that do not include light-sensitive uses as required by the LAMC. This would ensue that lighting would be installed to minimize light trespass to off-site uses. **As per ZI No. 2452 and SB 743, aesthetic impacts "shall not be considered significant impacts on the environment."**

Glare

Urban glare is largely a daytime phenomenon occurring when sunlight is reflected off the surfaces of buildings or objects. Excessive glare not only restricts visibility, but also increases the ambient heat reflectivity in a given area. Potential reflective surfaces in the Project vicinity include automobiles traveling and parked on streets in the vicinity of the Project Site, exterior building windows, and surfaces of brightly painted buildings in the project vicinity. Glare from

building facades include those that are largely or entirely comprised of highly reflective glass or mirror-like material from which the sun reflects at a low angle in the periods following sunrise and prior to sunset.

The Project includes an increase in window and building surfaces in comparison to the existing uses. This increase in surfaces will have the potential to reflect light onto adjacent roadways and land uses. However, the Project will limit reflective surface areas and the reflectivity of architectural materials used. The Project will not be an all-glass façade but instead will have facades that are broken up by the various articulation and balconies. The parking structure is wrapped and contained within the building, to provide a shield so that light from vehicles and building lighting does not project upwards. Glass that will be incorporated into the facades of the building will either be of low-reflectivity or accompanied by a non-glare coating as required by the Los Angeles Building Code. The Project will not result in a new source of substantial glare. The LAMC and Building Code would ensure that the building will not create substantial glare. Impacts as a result of glare generated by the Project will be less than significant. **In accordance with SB 743 and ZI 2452, impacts would not be considered significant.**

Shade/Shadow

The issue of shade and shadow pertains to the blockage of direct sunlight by Project buildings, which may affect adjacent properties. Shading is an important environmental issue because the users or occupants of certain land uses have some reasonable expectations for direct sunlight and warmth from the sun. These land uses are termed “shadow-sensitive.” Shadow lengths are dependent on the height and size of the building from which they are cast and the angle of the sun. The angle of the sun varies with respect to the rotation of the earth (i.e. time of day) and elliptical orbit (i.e. change in seasons). The longest shadows are cast during the winter months and the shortest shadows are cast during the summer months.

Winter and Summer Solstice

“Solstice” is defined as either of the two points on the ecliptic (i.e., the path of the earth around the sun) that lie midway between the equinoxes (separated from them by an angular distance of 90°). At the solstices, the sun’s apparent position on the celestial sphere reaches its greatest distance above or below the celestial equator, about 23 1/2° of the arc. At winter solstice, about December 22, the sun is overhead at noon at the Tropic of Capricorn; this marks the beginning of winter in the Northern Hemisphere. At the time of summer solstice, about June 22, the sun is directly overhead at noon at the Tropic of Cancer. In the Northern Hemisphere, the longest day and shortest night of the year occur on this date, marking the beginning of summer. Measuring shadow lengths for the winter and summer solstices represents the extremes of the shadow patterns that occur throughout the year. Shadows cast on the summer solstice are the shortest shadows during the year, becoming progressively longer until winter solstice when the shadows are the longest they are all year.

Screening Criteria

Would the project include light-blocking structures in excess of 60 feet in height above the ground elevation that would be located within a distance of three times the height of the proposed structure to a shadow-sensitive use on the north, northwest or northeast?

Thresholds of Significance

A project impact would normally be considered significant if shadow-sensitive uses would be shaded by project-related structures for more than three hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 AM and 5:00 PM Pacific Daylight Time (between early April and late October).

Sensitive Uses

Sensitive uses include: routinely useable outdoor spaces associated with residential, recreational, or institutional (e.g., schools, convalescent homes) land uses; commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors. These uses are considered sensitive because sunlight is important to function, physical comfort, or commerce.

Sensitive uses in the area (to the northwest north, and northeast of the Project Site) include outdoor fields of the UCLA Community School to the northeast across Mariposa.

Shadow Analysis

The Project would be taller than 60 feet in height above the ground and would be located nearby shadow-sensitive uses. Shadows in the vicinity would be created by the proposed uses and the current adjacent uses.

The difference between the shadow coverage created by existing uses on adjacent uses, as compared with the Project uses determines whether the net change of the buildings on the Project Site create a significant impact. CEQA is concerned with the Project's impact on the environment, or the net change due to the Project. Environmental analyses net out the existing uses and take into account the surrounding existing uses that already are creating shadow impacts.

Summer Solstice

Appendix B contains the summer shadows figure, which projects the amount of shadow coverage at a specific location between 9 AM and 5 PM. The shadows cover the nearby school field at 2 PM. The Project would not create a shadow for more than 4 hours from 9 AM to 5 PM during the summer on a sensitive receptor. Moreover, **as per ZI No. 2452 and SB 743,**

aesthetic impacts "shall not be considered significant impacts on the environment." Therefore, impacts during summer solstice would be less than significant.

Winter Solstice

Appendix B contains the winter shadows figure, which projects the amount of shadow coverage at a specific location between 9 AM and 3 PM. The shadows cover the nearby school field at 2 PM. The Project would not create a shadow for more than 3 hours from 9 AM to 3 PM during the winter on a sensitive receptor. Therefore, impacts during summer solstice would be less than significant. **Additionally, as per ZI No. 2452 and SB 743, aesthetic impacts "shall not be considered significant impacts on the environment."**

II. Agriculture And Forestry Resources

a) Would the project convert prime farmland, unique farmland, or farmland of statewide importance (farmland), as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California resources agency, to non-agricultural use?

No Impact.

A significant impact may occur if a project were to result in the conversion of State-designated agricultural land from agricultural use to another non-agricultural use. The California Department of Conservation, Division of Land Protection, lists Prime Farmland, Unique Farmland, and Farmland of Statewide Importance under the general category of "Important Farmland" in California. The Project Site is zoned C4-2, PB-2 and P-2, and the General Plan land use designation for the Site is Regional Center Commercial. The Project Site is developed with buildings and parking structures. The Project Site is designated Urban and Built-up Land and is not included in the Prime Farmland, Unique Farmland, or Farmland of Statewide Importance category.[11] **Therefore, the Project has no impact on the conversion of farmland to non-agricultural uses.**

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act Contract?

No Impact.

A significant impact may occur if a project were to result in the conversion of land zoned for agricultural use or under a Williamson Act Contract from agricultural use to non-agricultural use. The Williamson Act of 1965 allows local governments to enter into contract agreements with local landowners with the purpose of trying to limit specific parcels of land to agricultural or other related open space use.[12] The Project Site will not result in the conversion of land zoned for agricultural use to non-agricultural use since it is zoned C4-2, PB-2 and P-2. Further, the Project will not result in the conversion of land under a Williamson Act Contract from agricultural use to non-agricultural use because the Project Site is not subject to a Williamson Act contract. **Therefore, no impact with respect to land zoned for agricultural use or under a Williamson Act Contract will occur.**

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as

11 State of California Department of Conservation, Farmland Mapping and Monitoring Program, Los Angeles County Important Farmland 2016, Map, website: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/los16.pdf, June 12, 2018.

12 State of California Department of Conservation, Williamson Act Program, website: http://www.conservation.ca.gov/dlrp/lca/Pages/index.aspx, accessed June 12, 2018.

defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact.

Neither the Project Site nor surrounding parcels are zoned for forest land or timberland. **No impact related to forest land or timberland will occur.**

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact.

The Project Site is developed with office buildings and parking structures and completely surrounded by urban uses and infrastructure, and is not forest land. **No impact related to the loss of forest land or conversion of forest land will occur.**

e) Would the project involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact.

A significant impact may occur if a project involves changes to the existing environment that could result in the conversion of farmland to another non-agricultural use or conversion of forest land to non-forest use. The Project Site is in an area of the City that is highly urbanized. Neither the Project Site nor surrounding parcels are utilized for agricultural uses or forest land and such uses are not in proximity to the Project Site. **No impact related to conversion of farmland to a non-agricultural use or conversion of forest land to non-forest use will occur.**

III. Air Quality

The section is based in part on the following item, included as Appendix C of this MND:

C Air Quality and Greenhouse Gases Appendices, DKA Planning, August 2019.

Regulatory Framework

Federal

Clean Air Act

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments in 1990. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of some portions of the CAA (e.g., certain mobile source and other requirements). Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies. In California, the CCAA is administered by CARB at the state level and by the air quality management districts and air pollution control districts at the regional and local levels.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the National Ambient Air Quality Standard (NAAQS). These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA which are most applicable to the Project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

NAAQS have been established for seven major air pollutants: CO (carbon monoxide), NO2 (nitrogen dioxide), O3 (ozone), PM2.5 (particulate matter, 2.5 microns), PM10 (particulate matter, 10 microns), SO2 (sulfur dioxide), and Pb (lead).

The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. Title I provisions are implemented for the purpose of attaining NAAQS. The federal standards are summarized in **Table B.3-1**. USEPA has classified the Los Angeles County portion of the South Coast Air Basin (Basin) as a nonattainment area for O3, PM2.5, and Pb.

CAA Title II pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline and automobile pollution control devices are examples of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

Table B.3-1
State and National Ambient Air Quality Standards and Attainment Status for LA County

Pollutant	Averaging Period	California		Federal	
		Standards	Attainment Status	Standards	Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Non-attainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	N/A[1]	0.070 ppm (137 µg/m^3)	Non-attainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Non-attainment	150 µg/m^3	Maintenance
	Annual Arithmetic Mean	20 µg/m^3	Non-attainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Non-attainment
	Annual Arithmetic Mean	12 µg/m^3	Non-attainment	12 µg/m^3	Non-attainment
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Maintenance
	8-hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Maintenance
Nitrogen Dioxide (NO_2)	1-hour	0.18 ppm (338 µg/m^3)	Attainment	100 ppb (188 µg/m^3)	Maintenance
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Attainment	53 ppb (100 µg/m^3)	Maintenance
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm (655 µg/m^3)	Attainment	75 ppb (196 µg/m^3)	Attainment
	24-hour	0.04 ppm (105 µg/m^3)	Attainment	--	--
Lead (Pb)	30-day average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	0.15 µg/m^3	Non-attainment
Visibility Reducing Particles	8-hour	Extinction of 0.07 per kilometer	N/A	No Federal Standards	
Sulfates	24-hour	25 µg/m^3	Attainment	No Federal Standards	
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm (42 µg/m^3)	Unclassified	No Federal Standards	
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	N/A	No Federal Standards	

[1]N/A = not available
Source: CARB, Ambient Air Quality Standards, and attainment status, 2018 (www.arb.ca.gov/desig/adm/adm.htm).

The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet stricter emission standards established by CARB. USEPA adopted multiple tiers of emission standards to reduce emissions from non-road diesel engines (e.g., diesel-powered construction equipment) by integrating engine and fuel controls as a system to gain the greatest emission reductions. The first federal standards (Tier 1) for new non-road (or off-road) diesel engines were adopted in 1994 for engines over 50 horsepower, to be phased-in from 1996 to 2000. On August 27, 1998, USEPA introduced Tier 1 standards for equipment under 37 kW (50 horsepower) and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. The Tier 1 through 3 standards were met through advanced engine design, with no or only limited use of exhaust gas after-treatment (oxidation catalysts). Tier 3 standards for NOX and hydrocarbon are similar in stringency to the 2004 standards for highway engines. However, Tier 3 standards for particulate matter were never adopted. On May 11, 2004, USEPA signed the final rule introducing Tier 4 emission standards, which were phased-in between 2008 and 2015. The Tier 4 standards require that emissions of particulate matter and NOX be further reduced by about 90 percent. Such emission reductions are achieved through the use of control technologies—including advanced exhaust gas after-treatment.

State

California Clean Air Act

In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). In California, CCAA is administered by CARB at the state level and by the air quality management districts and air pollution control districts at the regional and local levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting the state requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The State standards are summarized in **Table B.3-1**.

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS thresholds have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the non-desert Los Angeles County portion of the Basin is designated as a nonattainment area for O3, PM10, and PM2.5.

Toxic Air Contaminant Identification and Control Act

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. CARB's statewide comprehensive air toxics program was established in the early 1980s. The Toxic Air Contaminant Identification and Control Act created California's program to reduce exposure to air toxics. Under the Toxic Air Contaminant Identification and Control Act, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In selecting substances for review, CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions, manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community" [Health and Safety Code Section 39666(f)].

The Toxic Air Contaminant Identification and Control Act also requires CARB to use available information gathered from the Air Toxics "Hot Spots" Information and Assessment Act program to include in the prioritization of compounds. CARB identified particulate emissions from diesel-fueled engines (diesel PM) TACs in August 1998. Following the identification process, CARB was required by law to determine if there is a need for further control, which led to the risk management phase of the program. For the risk management phase, CARB formed the Diesel Advisory Committee to assist in the development of a risk management guidance document and a risk reduction plan. With the assistance of the Diesel Advisory Committee and its subcommittees, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines. The Board approved these documents on September 28, 2000, paving the way for the next step in the regulatory process: the control measure phase. During the control measure phase, specific Statewide regulations designed to further reduce diesel PM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce diesel PM emissions. The State does not regulate other odors.

California Air Toxics Program

The California Air Toxics Program was established in 1983, when the California Legislature adopted Assembly Bill (AB) 1807 to establish a two-step process of risk identification and risk

management to address potential health effects from exposure to toxic substances in the air.[13] In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or "listed," as a TAC in California. Since inception of the program, a number of such substances have been listed, including benzene, chloroform, formaldehyde, and particulate emissions from diesel-fueled engines, among others.[14] In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants as TACs.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of airborne toxic control measures (ATCMs), both for mobile and stationary sources. In 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In addition to limiting exhaust from idling trucks, CARB adopted regulations on July 26, 2007, for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles to reduce emissions by installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission-controlled models. Implementation is staggered based on fleet size, with the largest operators beginning compliance in 2014.[15]

Assembly Bill 2588 Air Toxics "Hot Spots" Program

The AB 1807 program is supplemented by the AB 2588 Air Toxics "Hot Spots" program, which was established by the California Legislature in 1987. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

Air Quality and Land Use Handbook: A Community Health Perspective

The *Air Quality and Land Use Handbook: A Community Health Perspective* provides important air quality information about certain types of facilities (e.g., freeways, refineries, rail yards, ports, etc.) that should be considered when siting sensitive land uses such as residences.[16] CARB provides recommended site distances from certain types of facilities when considering siting

13 CARB, California Air Toxics Program, www.arb.ca.gov/toxics/toxics.htm, last reviewed by CARB September 24, 2015.
14 CARB, Toxic Air Contaminant Identification List, www.arb.ca.gov/toxics/id/taclist.htm, last reviewed by CARB July 18, 2011.
15 CARB, In-Use Off-Road Diesel-Fueled Fleets Regulation, www.arb.ca.gov/msprog/ordiesel/ordiesel.htm, last reviewed by CARB July 28, 2016.
16 CARB, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.

new sensitive land uses. The recommendations are advisory and should not be interpreted as defined "buffer zones." If a project is within the siting distance, CARB recommends further analysis. Where possible, CARB recommends a minimum separation between new sensitive land uses and existing sources.

Air Quality and Land Use Handbook

CARB published the *Air Quality and Land Use Handbook* (CARB Handbook) on April 28, 2005, to serve as a general guide for considering health effects associated with siting sensitive receptors proximate to sources of TAC emissions.[17] The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by the state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in CCR Title 13 states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) used during construction shall be limited to five minutes at any location. In addition, Section 93115 in CCR Title 17 states that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Regional

South Coast Air Quality Management District

17 In November 2012, the Los Angeles City Planning Commission (CPC) issued an advisory notice (Zoning Information 2427) regarding the siting of sensitive land uses within 1,000 feet of freeways. The CPC deemed 1,000 feet to be a conservative distance to evaluate projects that house populations considered to be more at-risk from the negative effects of air pollution caused by freeway proximity. The CPC advised that applicants of projects requiring discretionary approval, located within 1,000 feet of a freeway and contemplating residential units and other sensitive uses (e.g., hospitals, schools, retirement homes, etc.) perform a Health Risk Assessment (HRA). The Project Site is not within 1,000 feet of a freeway and, therefore, would not be subject to this notice and warrant the preparation of an HRA.

The South Coast Air Quality Management District (SCAQMD) was created in 1977 to coordinate air quality planning efforts throughout Southern California. SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain the CAAQS and NAAQS in the district. SCAQMD has jurisdiction over an area of 10,743 square miles consisting of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin portion of SCAQMD's jurisdiction covers an area of 6,745 square miles. The Basin includes all of Orange County and the non-desert portions of Los Angeles (including the Project Area), Riverside, and San Bernardino counties. The Basin is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east; and the San Diego County line to the south.

Programs that were developed by SCAQMD to attain and maintain the CAAQS and NAAQS include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases. All projects in the SCAQMD jurisdiction are subject to SCAQMD rules and regulations, including, but not limited to the following:

- Rule 401 Visible Emissions – This rule prohibits an air discharge that results in a plume that is as dark or darker than what is designated as No. 1 Ringelmann Chart by the United States Bureau of Mines for an aggregate of three minutes in any one hour.

- Rule 402 Nuisance – This rule prohibits the discharge of "such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of people or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property."

- Rule 403 Fugitive Dust – This rule requires that future projects reduce the amount of particulate matter entrained in the ambient air as a result of fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions from any active operation, open storage pile, or disturbed surface area.

Air Quality Management Plan

The 2016 Air Quality Management Plan (AQMP) was adopted in April 2017 and represents the most updated regional blueprint for achieving federal air quality standards. The 2016 AQMP adapts previously conducted regional air quality analyses to account for the recent unexpected drought conditions, and presents a revised approach to demonstrated attainment of the 2006 24-hour PM2.5 NAAQS for the Basin. Additionally, the 2016 AQMP relied upon a

comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures to evaluate strategies for reducing NOX emissions sufficiently to meet the upcoming ozone deadline standards.

Multiple Air Toxics Exposure Study IV

To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study IV (MATES-IV). The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which the SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-IV found that the cancer risk in the region from carcinogenic air pollutants ranges from about 320 to 480 in a million. About 90 percent of the risk is attributed to emissions associated with mobile sources, with the remainder attributed to toxics emitted from stationary sources, which include large industrial operations, such as refineries and metal processing facilities, as well as smaller businesses such as gas stations and chrome plating. The results indicate that diesel PM is the major contributor to air toxics risk, accounting on average for about 68 percent of the total risk.

Southern California Associate of Governments

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements, including the Transportation Conformity Rule and other applicable federal, state, and air district laws and regulations. As the federally designated Metropolitan Planning Organization (MPO) for the six-county Southern California region, SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. In addition, SCAG is a co-producer, with the SCAQMD, of the transportation strategy and transportation control measure sections of the AQMP for the Air Basin.

SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy on April 7, 2016.[18,19] The 2016–2040 RTP/SCS reaffirms the land use policies that were incorporated into SCAG's prior 2012–2035 RTP/SCS. These foundational policies, which guided the development of the plan's land use strategies, include the following:

- Identify regional strategic areas for infill and investment;

18 SCAG, Final 2016–2040 RTP/SCS.

19 CARB, Executive Order G-16-066, SCAG 2016 SCS ARB Acceptance of GHG Quantification Determination, June 2016.

- Structure the plan on a three-tiered system of centers development;[20]
- Develop "Complete Communities";
- Develop nodes on a corridor;
- Plan for additional housing and jobs near transit;
- Plan for changing demand in types of housing;
- Continue to protect stable, existing single-family areas;
- Ensure adequate access to open space and preservation of habitat; and
- Incorporate local input and feedback on future growth.

The 2016–2040 RTP/SCS recognizes that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the region make choices that sustain existing resources and expand efficiency, mobility, and accessibility for people across the region. In particular, the 2016–2040 RTP/SCS draws a closer connection between where people live and work, and it offers a blueprint for how Southern California can grow more sustainably. The 2016–2040 RTP/SCS also includes strategies focused on compact infill development and economic growth by building the infrastructure the region needs to promote the smooth flow of goods and easier access to jobs, services, educational facilities, healthcare and more.

The 2016–2040 RTP/SCS states that the SCAG region was home to about 18.3 million people in 2012 and included approximately 5.9 million homes and 7.4 million jobs.[21] By 2040, the integrated growth forecast projects these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. High Quality Transit Areas (HQTAs) will account for 3 percent of regional total land but are projected to accommodate 46 percent and 55 percent of future household and employment growth respectively between 2012 and 2040.[22] The 2016–2040 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region's HQTAs. HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and

20 Complete language: "Identify strategic centers based on a three-tiered system of existing, planned and potential relative to transportation infrastructure. This strategy more effectively integrates land use planning and transportation investment." A more detailed description of these strategies and policies can be found on pp. 90–92 of the SCAG 2008 Regional Transportation Plan, adopted in May 2008.

21 The SCAG 2016–2040 RTP/SCS is based on year 2012 demographic data with growth forecasts developed for 2020, 2035, and 2040.

22 Defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors located within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.

housing affordability. As discussed further below, the Project Site is located within the Los Angeles Mid-City-West Side Communities HQTA.

Local

City of Los Angeles General Plan Air Quality Element

The Air Quality Element of the City's General Plan was adopted on November 24, 1992, and sets forth the goals, objectives, and policies, which guide the City in the implementation of its air quality improvement programs and strategies. The Air Quality Element acknowledges the interrelationships among transportation and land use planning in meeting the City's mobility and air quality goals.

Clean Up Green Up Ordinance

The City of Los Angeles adopted a Clean Up Green Up Ordinance (Ordinance Number 184,245) on April 13, 2016, which among other provisions, includes provisions related to ventilation system filter efficiency in mechanically ventilated buildings. This ordinance added Sections 95.314.3 and 99.04.504.6 to the Los Angeles Municipal Code (LAMC) and amended Section 99.05.504.5.3 to implement building standards and requirements to address cumulative health impacts resulting from incompatible land use patterns.

California Environmental Quality Act

In accordance with CEQA requirements, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation. The City uses the SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information for the environmental review of plans and development proposals within its jurisdiction.

Pollutants and Effects

State and Federal Criteria Pollutants

Air quality is defined by ambient air concentrations of seven specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. These specific pollutants, known as "criteria air pollutants," are defined as pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include carbon monoxide (CO), ground-level ozone (O3), nitrogen oxides (NOX), sulfur oxides (SOX), particulate matter ten microns or less in diameter (PM10), particulate matter 2.5 microns or less in diameter (PM2.5),

and lead (Pb). The following descriptions of each criteria air pollutant and their health effects are based on information provided by the SCAQMD.[23]

Carbon Monoxide (CO). CO is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Ozone (O_3). O_3 is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of O_3 irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

Nitrogen Dioxide (NO_2). NO_2 is a byproduct of fuel combustion and major sources include power plants, large industrial facilities, and motor vehicles. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), which reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}. Nitrogen oxides irritate the nose and throat, and increase one's susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO_X is as a precursor to the formation of ozone.

Sulfur Dioxide (SO_2). Sulfur oxides (SO_X) are compounds of sulfur and oxygen molecules. SO_2 is the pre- dominant form found in the lower atmosphere and is a product of burning sulfur or burning materials that contain sulfur. Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Particulate Matter (PM_{10} and $PM_{2.5}$). The human body naturally prevents the entry of larger particles into the body. However, small particles, with an aerodynamic diameter equal to or less than 10 microns (PM_{10}), and even smaller particles with an aerodynamic diameter equal to or

23 SCAQMD, Final Program Environmental Impact Report for the 2012 AQMP, December 7, 2012.

less than 2.5 microns ($PM_{2.5}$), can enter the body and become trapped in the nose, throat, and upper respiratory tract. These small particulates can potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates can become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Lead (Pb). Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

State-only Criteria Pollutants

Visibility-Reducing Particles. Deterioration of visibility is one of the most obvious manifestations of air pollution and plays a major role in the public's perception of air quality. Visibility reduction from air pollution is often due to the presence of sulfur and NOX, as well as PM.

Sulfates (SO_X). Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide (H_2S). H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the state standard could result in exposure to a very disagreeable odor.

Vinyl Chloride. Vinyl chloride is a colorless, flammable gas at ambient temperature and pressure. It is also highly toxic and is classified as a known carcinogen by the American Conference of Governmental Industrial Hygienists and the International Agency for Research on Cancer. At room temperature, vinyl chloride is a gas with a sickly-sweet odor that is easily condensed. However, it is stored at cooler temperatures as a liquid. Due to the hazardous nature of vinyl chloride to human health, there are no end products that use vinyl chloride in its monomer form. Vinyl chloride is a chemical intermediate, not a final product. It is an important

industrial chemical chiefly used to produce polyvinyl chloride (PVC). The process involves vinyl chloride liquid fed to polymerization reactors where it is converted from a monomer to a polymer PVC. The final product of the polymerization process is PVC in either a flake or pellet form. Billions of pounds of PVC are sold on the global market each year. From its flake or pellet form, PVC is sold to companies that heat and mold the PVC into end products such as PVC pipe and bottles. Vinyl chloride emissions are historically associated primarily with landfills.

Toxic Air Contaminants

TACs refer to a diverse group of "non-criteria" air pollutants that can affect human health but have not had ambient air quality standards established for them. This is not because they are fundamentally different from the pollutants discussed above but because their effects tend to be local rather than regional. TACs are classified as carcinogenic and noncarcinogenic, where carcinogenic TACs can cause cancer and noncarcinogenic TAC can cause acute and chronic impacts to different target organ systems (e.g., eyes, respiratory, reproductive, developmental, nervous, and cardiovascular).

The California Air Resources Board (CARB) and the Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a TAC in California. A complete list of these substances is maintained on CARB's website.[24]

Diesel particulate matter (DPM), which is emitted in the exhaust from diesel engines, was listed by the state as a TAC in 1998. DPM has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. DPM consists of fine particles (fine particles have a diameter less than 2.5 micrometer (μm)), including a subgroup of ultrafine particles (ultrafine particles have a diameter less than 0.1 μm). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to DPM may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. DPM levels and resultant potential health effects may be higher in close proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, DPM exposure may lead to the following adverse health effects: (1) aggravated asthma; (2) chronic bronchitis; (3) increased respiratory and cardiovascular hospitalizations; (4) decreased lung function in children; (5) lung cancer; and (6) premature deaths for people with heart or lung disease.[25,26]

Volatile Organic Compounds

24 CARB, Toxic Air Contaminant Identification List, www.arb.ca.gov/toxics/id/taclist.htm, last reviewed by CARB July 18, 2011.

25 CARB, Overview: Diesel Exhaust and Health, www.arb.ca.gov/research/diesel/diesel-health.htm, last reviewed by CARB April 12, 2016.

26 CARB, Fact Sheet: Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, March 2008.

VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the state as toxic air contaminants. While there are no specific VOC ambient air quality standards, VOC is a prime component (along with NO_X) of the photochemical processes by which such criteria pollutants as ozone, nitrogen dioxide, and certain fine particles are formed. They are, thus, regulated as "precursors" to the formation of those criteria pollutants.

Project Site

The Project Site is located within the South Coast Air Basin (the Basin); named so because of its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. The 6,745-square-mile Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. It is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east; and the San Diego County line to the south. Ambient pollution concentrations recorded in Los Angeles County portion of the Basin are among the highest in the four counties comprising the Basin. USEPA has classified Los Angeles County as nonattainment areas for O_3, PM10, PM2.5, and lead. This classification denotes that the Basin does not meet the NAAQS for these pollutants. In addition, under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The air quality within the Basin is primarily influenced by a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, industry, and meteorology.

Air pollutant emissions are generated in the local vicinity by stationary and area-wide sources, such as commercial activity, space and water heating, landscaping maintenance, consumer products, and mobile sources primarily consisting of automobile traffic.

Air Pollution Climatology[27]

The topography and climate of Southern California combine to make the Basin an area of high air pollution potential. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cooler surface layer which inhibits the pollutants from dispersing upward. Light winds during the summer further limit ventilation. Additionally, abundant sunlight triggers photochemical reactions which produce O3 and the majority of particulate matter.

Air Monitoring Data

The SCAQMD monitors air quality conditions at 38 source receptor areas (SRA) throughout the Basin. The Project Site is located in SCAQMD's Central Los Angeles receptor area. Historical data from the area was used to characterize existing conditions in the vicinity of the Project

27 AQMD, Final Program Environmental Impact Report for the 2012 AQMP, December 7, 2012.

area. **Table B.3-2** shows pollutant levels, State and Federal standards, and the number of exceedances recorded in the area from 2016 through 2018. The one-hour State standard for O_3 was exceeded ten times during this three-year period, the daily State standard for PM_{10} was exceeded 90 times while the daily federal standard for $PM_{2.5}$ was exceeded ten times. CO and NO_2 levels did not exceed the CAAQS from 201 through 2018 for 1-hour (and 8-hour for CO).

Table B.3-2
Ambient Air Quality Data

Pollutants and State and Federal Standards	Maximum Concentrations and Frequencies of Exceedance Standards		
	2016	2017	2018
Ozone (O_3)			
Maximum 1-hour Concentration (ppm)	0.103	0.116	0.098
Days > 0.09 ppm (State 1-hour standard)	2	6	2
Days > 0.070 ppm (Federal 8-hour standard)	4	14	4
Carbon Dioxide (CO_2)			
Maximum 1-hour Concentration (ppm)	1.9	1.9	2.0
Days > 20 ppm (State 1-hour standard)	0	0	0
Maximum 8-hour Concentration (ppm)	1.4	1.6	1.7
Days > 9.0 ppm (State 8-hour standard)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour Concentration (ppm)	0.0647	0.0647	0.0701
Days > 0.18 ppm (State 1-hour standard)	0	0	0
PM_{10}			
Maximum 24-hour Concentration (µg/m^3)	67	96	81
Days > 50 µg/m^3 (State 24-hour standard)	18	41	31
$PM_{2.5}$			
Maximum 24-hour Concentration (µg/m^3)	44.4	49.2	43.8
Days > 35 µg/m^3 (Federal 24-hour standard)	2	5	3
Sulfer Dioxide (SO_2)			
Maximum 24-hour Concentration (ppb)	13.4	3.4	17.9
Days > 0.04 ppm (State 24-hour standard)	0	0	0

ppm = parts by volume per million of air.
µg/m^3 = micrograms per cubic meter.
N/A = not available at this monitoring station.
Source: SCAQMD annual monitoring data (http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year) accessed August 23, 2019.

Existing Health Risk in the Surrounding Area

Based on the MATES-IV model, the calculated cancer risk in the Project area is approximately 1,554 in a million.[28] The cancer risk in this area is predominately related to nearby sources of diesel particulate (e.g., US-101 and I-10 freeways). In general, the risk at the Project Site is comparable with other urbanized areas in Los Angeles.

The Office of Environmental Health Hazard Assessment, on behalf of CalEPA, provides a screening tool called CalEnviroScreen that can be used to help identify California communities disproportionately burdened by multiple sources of pollution. According to CalEnviroScreen, the Project Site is located in the 75th-80th percentile, which means the Project Site is worse than average in comparison to other communities within California.[29]

Potential sources of TACs within the Project Site vicinity were identified using SCAQMD's Facility Information Database (FIND) search and site reconnaissance to identify potential non-permitted air toxic emitting sources (e.g., freeways, diesel trucks idling at warehouse distribution facilities in excess of 100 trucks per day). Based on this information, no substantial sources (e.g., gasoline stations, dry cleaners, warehouse distribution) of TAC emissions within the Project Site vicinity were identified, and therefore the location of the proposed residential uses would be consistent with the recommended siting distances (e.g., no sensitive receptors within 500 feet of a freeway) provided in the CARB guidance documents discussed above.

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following groups who are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive receptors within 500 feet of the Project Site include but are not limited to the following:

- Multi-family residences, 800 block of South Mariposa Avenue; 60 feet east of the Project Site.
- Mariposa Apartments; 701 South Mariposa Avenue; 70 feet south of the Project Site.
- Robert F. Kennedy Community Schools, Los Angeles High School of the Arts, 701 South Catalina Street; 250 feet east of the Project Site.

28 SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-IV), MATES IV Interactive Carcinogenicity Map, 2015, www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b , accessed September 8, 2018.

29 Office of Environmental Health Hazard Assessment, CalEnviroScreen 3.0 MAP, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30, accessed September 8, 2018.

- New Open World Academy, 3201 West 8th Street; 540 feet southeast of the Project Site.

Existing Project Site Emissions

The Project Site is developed with approximately 760,456 feet of commercial uses, a three-story parking structure with 1,191 vehicle parking spaces, and a five-story parking structure with 707 vehicle parking spaces. Because the three-story parking structure that would be demolished as part of the Project supports the commercial uses on the Project Site that will remain, the structure does not generate any anthropogenic emissions of its own. As a result, there are assumed to be no air quality emissions from the existing portion of the Project Site that would be removed with construction of the Project.

Methodology

The air quality analysis conducted for the Project is consistent with the methods described in the SCAQMD CEQA Air Quality Handbook (1993 edition), as well as the updates to the CEQA Air Quality Handbook, as provided on the SCAQMD website. The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod, version 2016.3.2) as a tool for quantifying emissions of air pollutants that will be generated by constructing and operating development projects. The analyses focuses on the potential change in air quality conditions due to Project implementation. Air pollutant emissions would result from both construction and operation of the Project. Specific methodologies used to evaluate these emissions are discussed below.

Construction

Sources of air pollutant emissions associated with construction activities include heavy-duty off-road diesel equipment and vehicular traffic to and from the Project construction site. Project-specific information was provided describing the schedule of construction activities and the equipment inventory required from the Applicant. The CalEEMod model provides default values for daily equipment usage rates and worker trip lengths, as well as emission factors for heavy-duty equipment, passenger vehicles, and haul trucks that have been derived by the CARB. Maximum daily emissions were quantified for each construction activity based on the number of equipment and daily hours of use, in addition to vehicle trips to and from the Project Site.

The SCAQMD recommends that air pollutant emissions be assessed for both regional scale and localized impacts. The regional emissions analysis includes both on-site and off-site sources of emissions, while the localized emissions analysis focuses only on sources of emissions that would be located on the Project Site.

Localized impacts were analyzed in accordance with the SCAQMD Localized Significance Threshold (LST) methodology.[30] The localized effects from on-site portion of daily emissions

30 SCAQMD, Final Localized Significance Methodology, revised July 2008.

were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's localized significance thresholds (LST) methodology, which uses on-site mass emission look-up tables and Project-specific modeling, where appropriate.[31] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X, CO, PM_{10}, and $PM_{2.5}$. SCAQMD does not provide an LST for SO_2 since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant. Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD LST for VOCs. Due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. SCAQMD provides LST mass rate look-up tables for projects with active construction areas that are less than or equal to 5 acres. If the project exceeds the LST look-up values, then the SCAQMD recommends that project-specific air quality modeling must be performed. Please refer to **Threshold b** below, for the analysis of localized impacts from on-site construction activities. In accordance with SCAQMD guidance, maximum daily emissions of NOX, CO, PM10, and $PM_{2.5}$ from on-site sources during each construction activity were compared to LST values for a 2-acre site having sensitive receptors within 25 meters (82 feet).[32] This represents the active area of the Project Site and nearby sensitive receptors.

The Basin is divided into 38 SRAs, each with its own set of maximum allowable LST values for on-site emissions sources during construction and operations based on locally monitored air quality. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST values.

The significance criteria and analysis methodologies in the SCAQMD's CEQA Air Quality Handbook were used in evaluating impacts in the context of the CEQA significance criteria listed below. The SCAQMD LSTs for NO_2, CO, and PM_{10} were initially published in June 2003 and revised in July 2008.[33] The LSTs for $PM_{2.5}$ were established in October 2006.[34] Updated LSTs were published on the SCAQMD website on October 21, 2009.[35] **Table B.3-3** presents the significance criteria for both construction and operational emissions.

31 SCAQMD, LST Methodology Appendix C-Mass Rate LST Look-Up Table, October 2009.
32 SCAQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, 2008.
33 SCAQMD, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, 2008.
34 SCAQMD, Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, October 2006.
35 SCAQMD, Final Localized Significance Threshold Methodology Appendix C – Mass Rate LST Look-Up Tables, October 21, 2009.

Table B.3-3
SCAQMD Construction Emissions Thresholds

Criteria Pollutant	Construction Emissions		Operation Emissions
	Regional	Localized /a/	
Volatile Organic Compounds (VOC)	75	--	55
Nitrogen Oxides (NO_X)	100	108	55
Carbon Monoxide (CO)	550	1,048	550
Sulfur Oxides (SO_X)	150	--	150
Respirable Particulates (PM_{10})	150	8	150
Fine Particulates ($PM_{2.5}$)	55	5	55

In pounds per day
/a/ Localized significance thresholds assumed a 2-acre and 25-meter (82-foot) receptor distance, which is the second smallest Project Site and shortest distance used for analysis in the LST guidance document. The SCAQMD has not developed LST values for VOC or SO_X.
Source: SCAQMD.

Operations

CalEEMod also generates estimates of daily and annual emissions of air pollutants resulting from future operation of a project. Operational emissions of air pollutants are produced by mobile sources (vehicular travel) and stationary sources (utilities demand). The Project Site is serviced by the Los Angeles Department of Water and Power (LADWP), for which CalEEMod has derived default emissions factors for electricity and natural gas usage that are applied to the size and land use type of the Project in question. CalEEMod also generates estimated operational emissions associated water use, wastewater generation, and solid waste disposal.

Similar to construction, SCAQMD's CalEEMod software was used for the evaluation of Project emissions during operation. CalEEMod was used to calculate on-road fugitive dust, architectural coatings, landscape equipment, energy use, mobile source, and stationary source emissions. To determine if a significant air quality impact would occur, the net increase in regional and local operational emissions generated by the Project was compared against the SCAQMD's significance thresholds.[36] Details describing the operational emissions of the Project can be found in **Appendix C**.

Toxic Air Contaminants Impacts (Construction and Operations)

Potential TAC impacts are evaluated by conducting a qualitative analysis consistent with the CARB Handbook followed by a more detailed analysis (i.e., dispersion modeling), as necessary. The qualitative analysis consists of reviewing the Project to identify any new or modified TAC emissions sources. If the qualitative evaluation does not rule out significant impacts from a new source, or modification of an existing TAC emissions source, a more detailed analysis is conducted.

36 SCAQMD, SCAQMD Air Quality Significance Thresholds, revised March 2015. SCAQMD based these thresholds, in part on the federal Clean Air Act and, to enable defining "significant" for CEQA purposes, defined the setting as the South Coast Air Basin. (See SCAQMD, CEQA Air Quality Handbook, April 1993, pp. 6-1-6-2.).

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact.

The Project would comply with the 2017 Los Angeles Green Building Code (LAGBC),[37] which builds upon and sets higher standards than those in the 2016 California Green Building Standards Code (CalGreen, effective January 1, 2017).[38]

Further energy efficiency and sustainability features would include native plants and drip/subsurface irrigation systems, individual metering or sub metering for water use, leak detection systems, and provisions for electric vehicle charging.

The Project's infill location would promote the concentration of development in an urban location with extensive infrastructure and access to public transit facilities. The Project's proximity to public transportation would reduce vehicle miles traveled for residents and visitors. The Project would also promote bicycle transportation by replacing some of the required vehicle parking with bicycle parking spaces pursuant to LAMC section 12.21 A.4.

SCAQMD CEQA Air Quality Handbook Policy Analysis and SCAG 2016-2040 RTP/SCS

The following analysis addresses the Project's consistency with applicable SCAQMD and SCAG policies, including the SCAQMD's 2016 AQMP and growth projections within the SCAG 2016–2040 RTP/SCS. In accordance with the procedures established in the SCAQMD's *CEQA Air Quality Handbook*, the following criteria are required to be addressed in order to determine the Project's consistency with applicable SCAQMD and SCAG policies:

- Would the project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations; or
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- Would the project exceed the assumptions utilized in preparing the AQMP?
  - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
  - Does the Project include air quality mitigation measures; or
  - To what extent is Project development consistent with the AQMP land use policies?

37 LA Department of Building and Safety: http://ladbs.org/forms-publications/forms/green-building
38 California Building Codes: http://www.bsc.ca.gov/Codes.aspx

With respect to the first criterion, as discussed below, localized concentrations of NO_2 as NO_X, CO, PM_{10}, and $PM_{2.5}$ have been analyzed for the Project. SO_2 emissions would be negligible during construction and long-term operations, and, therefore, would not have the potential to cause or affect a violation of the SO_2 ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. Due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

Particulate matter is the primary pollutant of concern during construction activities, and, therefore, the Project's PM_{10} and $PM_{2.5}$ emissions during construction were analyzed in order to: (1) ascertain potential effects on localized concentrations; and (2) determine if there is a potential for such emissions to cause or affect a violation of the ambient air quality standards for PM_{10} and $PM_{2.5}$. As demonstrated in the analysis below (see **Table B.3-6** later in this section), the increases in PM_{10} and $PM_{2.5}$ emissions during construction would not exceed the SCAQMD-recommended significance thresholds at sensitive receptors in proximity to the Project Site.

Additionally, the Project's maximum potential NO_X and CO daily emissions during construction were analyzed to ascertain potential effects on localized concentrations and to determine if there is a potential for such emissions to cause or affect a violation of an applicable ambient air quality standard. As shown in **Table B.3-6** NO_X and CO would not exceed the SCAQMD-recommended localized significance thresholds. Therefore, Project construction would not result in a significant impact with regard to localized air quality.

Because the Project would not introduce any substantial stationary sources of emissions, CO is the preferred benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations.[39] As indicated under Threshold (d), no intersections would require a CO hotspot analysis, and impacts would be less than significant. Therefore, the Project would not increase the frequency or severity of an existing CO violation or cause or contribute to new CO violations.

As discussed below, an analysis of potential localized operational impacts from on-site activities was conducted. As demonstrated in the analysis below (see **Table B.3-7** later in this section), localized NO_2 as NO_X, CO, PM_{10}, and $PM_{2.5}$ operational impacts would be less than significant. Therefore, the Project would not increase the frequency or severity of an existing violation or cause or contribute to new violations for these pollutants. As the Project would not exceed any of the state and federal standards, the Project would also not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP.

With respect to the determination of consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2016–2040 RTP/SCS regarding population, housing, and growth trends. Determining whether

39 SCAQMD, CEQA Air Quality Handbook, Chapter 12, Assessing Consistency with Applicable Regional Plans, 1993.

or not a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with applicable population, housing, and employment growth projections; (2) project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis with respect to each of these three criteria.

- Is the project consistent with the population, housing, and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP, in part, if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2016 AQMP, two sources of data form the basis for the projections of air pollutant emissions: the City of Los Angeles General Plan and SCAG's RTP. As discussed in **Section B.11, Land Use**, of this MND, the General Plan serves as a comprehensive, long-term plan for future development of the City.

The 2016–2040 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. According to the California Department of Finance, the population for the City of Los Angeles in 2017 was approximately 4,041,707 persons. In 2040, the City of Los Angeles is anticipated to have a population of approximately 4,609,400 persons. Based on a household size factor of 2.43 persons per household in the City in 2017, the Project is estimated to generate a residential population of 1,555 persons at full buildout, which would represent approximately 0.27 percent of the population growth forecasted by SCAG in the City of Los Angeles between 2017 and 2040.

Development of the Project also would result in approximately 50 employment positions on-site. According to the 2016–2040 RTP/SCS, the employment forecast for the City of Los Angeles in 2012 was approximately 1,696,400 employees. In 2040, the City of Los Angeles is anticipated to have approximately 2,169,100 employees. Thus, the Project's estimated 50 employees would constitute approximately 0.009 percent of the employment growth forecasted between 2012 and 2040. Because the Project's resulting residential and employment growth would fall well within the growth forecasts for the City and similar projections form the basis of the 2016 AQMP, it can be concluded that the Project would be consistent with the projections in the AQMP. Please refer to **Section B.11, Land Use**, of this MND, for additional discussion regarding the Project's consistency with the 2016–2040 RTP/SCS.

- Does the project implement feasible air quality mitigation measures?

As discussed below under Thresholds (b), (c), and (d), the Project would not result in any significant air quality impacts and therefore would not require mitigation. In addition, the Project would comply with all applicable regulatory standards as required by SCAQMD. Furthermore,

with compliance with the regulatory requirements identified above and in **Section B.8, Greenhouse Gas Emissions**, no significant air quality impacts would occur. As such, the Project meets this AQMP consistency criterion.

- To what extent is project development consistent with the land use policies set forth in the AQMP?

With regard to land use developments such as the Project, the AQMP's air quality policies focus on the reduction of vehicle trips and vehicle miles traveled (VMT). As discussed in **Section B.11, Land Use**, of this MND, the Project would serve to implement a number of land use policies of the City of Los Angeles, SCAQMD, and SCAG.

The Project would be designed and constructed to support and promote environmental sustainability. The Project represents an infill development within an existing urbanized area that would *concentrate new* residential, office, and retail commercial uses within an HQTA.

"Green" principles are incorporated throughout the Project to comply with the City of Los Angeles Green Building Code and the California Green Building Standards Code (CALGreen) through energy conservation, water conservation, and waste reduction features.

The air quality plan applicable to the Project area is the 2016 AQMP. The 2016 AQMP is the SCAQMD plan for improving regional air quality in the Basin. The 2016 AQMP is the current management plan for continued progression toward clean air and compliance with State and Federal requirements. It includes a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on- and off-road mobile sources and area sources. The 2016 AQMP also incorporates current scientific information and meteorological air quality models. It also updates the federally approved 8-hour O_3 control plan with new commitments for short-term NO_X and VOC reductions.

The 2016 AQMP also includes short-term control measures related to facility modernization, energy efficiency, good management practices, market incentives, and emissions growth management.

As demonstrated in the following analyses, the Project would not result in significant regional emissions. The 2016 AQMP adapts previously conducted regional air quality analyses to account for the recent unexpected drought conditions, and presents a revised approach to demonstrated attainment of the 2006 24-hour $PM_{2.5}$ NAAQS for the Basin. Directly applicable to the Project, the 2016 AQMP proposes robust NO_X reductions from commercial cooking and residential and commercial appliances, as well as commercial space heating. The Project would be required to comply with all new and existing regulatory measures set forth by the SCAQMD. Implementation of the Project would not interfere with air pollution control measures listed in the 2016 AQMP.

The Project Site is classified as "Regional Center Commercial" in the General Plan Framework and the Community Plan, a zoning classification that conditionally allows residential uses and allows retail uses by right. As such, the RTP/SCS' assumptions about growth in the City accommodate housing, population, and job growth on this Project Site. As a result, the Project would be consistent with the growth assumptions in the City's General Plan. Because the AQMP accommodates growth forecasts from local General Plans, the emissions associated with this Project are accounted for and mitigated in the region's air quality attainment plans. The air quality impacts of development on the Project Site are accommodated in the region's emissions inventory for the 2016 RTP/SCS and 2016 AQMP. **Therefore, the Project would result in less-than significant impacts related to consistency with the AQMP.**

City of Los Angeles Policies

The Project would offer convenient access to public transit and opportunities for walking and biking, thereby facilitating a reduction in VMT, in addition to bicycle parking. In addition, the Project would be consistent with the existing land use pattern in the vicinity that concentrates urban density along major arterials and near transit options. The Project also includes primary entrances for pedestrians and bicyclists that would be safe, easily accessible, and a short distance from transit stops.

The Project would be consistent with applicable policies of the Air Quality Element. The Project would implement sustainability features that would reduce vehicular trips, reduce VMT, and encourage use of alternative modes of transportation.

The City's General Plan Air Quality Element identifies 30 policies with specific strategies for advancing the City's clean air goals. As illustrated in **Table B.3-4**, the Project is consistent with the applicable policies in the Air Quality Element. **Therefore, the Project would result in less-than significant impacts related to consistency with the Air Quality Element.**

Table B.3-4
Project Consistency With City Of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
Policy 1.3.1. Minimize particulate emissions from construction sites.	**Consistent.** The Project would minimize particulate emissions during construction through best practices and/or SCAQMD rules.
Policy 1.3.2. Minimize particulate emissions from unpaved roads and parking lots associated with vehicular traffic.	**Consistent.** The Project would minimize particulate emissions from unpaved facilities through best practices and/or SCAQMD rules.
Policy 2.1.1. Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to reduce vehicle trips and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	**Consistent.** The Project would be located near Downtown Los Angeles, an urban area with significant infrastructure to provide alternative transportation modes, including proximity to Metro bus routes (e.g., 20, 206, 481, Rapid 720) and Metro Rail Purple Line service. Employers in the retail uses could offer other demand management programs.
Policy 2.1.2. Facilitate and encourage the use of	**Consistent.** The Applicant would encourage the

Table B.3-4
Project Consistency With City Of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
telecommunications (i.e., telecommuting) in both the public and private sectors, in order to reduce work trips.	property management company to promote telecommunications for future tenants and resident.
Policy 2.2.1. Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.	**Consistent.** The Applicant would encourage the property management company to promote telecommunications for future tenants and resident.
Policy 2.2.2. Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	**Consistent.** Where appropriate, the Project may include parking management practices in the future to reduce single-occupancy vehicle trips. The provision of bicycle parking spaces could reduce demand for single occupancy vehicle travel.
Policy 2.2.3. Minimize the use of single-occupant vehicles associated with special events or in areas and times of high levels of pedestrian activities.	**Not Applicable.** The Project would not include facilities for special events.
Policy 3.2.1. Manage traffic congestion during peak hours.	**Consistent.** The Project would have no traffic impacts at the 14 study intersections.
Policy 4.1.1. Coordinate with all appropriate regional agencies on the implementation of strategies for the integration of land use, transportation, and air quality policies.	**Consistent.** The Project is being entitled through the City of Los Angeles, which coordinates with SCAG, Metro, and other regional agencies on the coordination of land use, air quality, and transportation policies.
Policy 4.1.2. Ensure that project level review and approval of land use development remains at the local level.	**Consistent.** The Project would be entitled and environmentally cleared at the local level.
Policy 4.2.1. Revise the City's General Plan/Community Plans to achieve a more compact, efficient urban form and to promote more transit-oriented development and mixed-use development.	**Not Applicable.** This policy calls for City updates to its General Plan.
Policy 4.2.2. Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	**Consistent.** The Project would be infill development that would provide residents with proximate access to jobs, shopping, and other uses. The Project's commercial uses would serve Project residents and the others in the vicinity, thereby reducing vehicle miles traveled that would otherwise be required to travel to similar uses elsewhere in the community.
Policy 4.2.3. Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**Consistent.** The Project would be located in an urban area with significant infrastructure to facilitate alternative transportation modes, including close proximity to bus routes and rail service operating by Metro.
Policy 4.2.4. Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	**Consistent.** The Project's air quality impacts are analyzed in this document.
Policy 4.2.5. Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	**Consistent.** The Project would be located in an urban area with significant infrastructure to facilities alternative transportation modes, including close proximity to Metro bus routes (e.g., 20, 206, 481, Rapid 720) and Metro Rail Purple Line service. Employers in the retail uses could offer other demand management programs.
Policy 4.3.1. Revise the City's General	**Not Applicable.** This policy calls for City updates to its

Table B.3-4
Project Consistency With City Of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
Plan/Community Plans to ensure that new or relocated sensitive receptors are located to minimize significant health risks posed by air pollution sources.	General Plan.
Policy 4.3.2. Revise the City's General Plan/Community Plans to ensure that new or relocated major air pollution sources are located to minimize significant health risks to sensitive receptors.	**Not Applicable.** This policy calls for City updates to its General Plan.
Policy 5.1.1. Make improvements in Harbor and airport operations and facilities in order to reduce air emissions.	**Not Applicable.** This policy calls for cleaner operations of the City's water port and airport facilities.
Policy 5.1.2. Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.	**Not Applicable.** This policy calls for cleaner operations of the City's buildings and operations.
Policy 5.1.3. Have the Department of Water and Power make improvements at its in-basin power plants in order to reduce air emissions.	**Not Applicable.** This policy calls for cleaner operations of the City's Water and Power energy plants.
Policy 5.1.4. Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.	**Not Applicable.** This policy calls for City facilities to reduce solid waste and energy consumption.
Policy 5.2.1. Reduce emissions from its own vehicles by continuing scheduled maintenance, inspection and vehicle replacement programs; by adhering to the State of California's emissions testing and monitoring programs; by using alternative fuel vehicles wherever feasible, in accordance with regulatory agencies and City Council policies.	**Not Applicable.** This policy calls for the City to gradually reduce the fleet emissions inventory from its vehicles through use of alternative fuels, improved maintenance practices, and related operational improvements.
Policy 5.3.1. Support the development and use of equipment powered by electric of low-emitting fuels.	**Consistent.** The Project would be designed to meet the applicable requirements of the States Green Building Standards Code and the City of Los Angeles' Green Building Code. The Project would also provide electric vehicle charging spaces.
Policy 6.1.1. Raise awareness through public-information and education programs of the actions that individuals can take to reduce air emissions.	**Not Applicable.** This policy calls for the City to promote clean air awareness through its public awareness programs.
Source: DKA Planning, 2018.	

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact.

Construction

Construction-related emissions were estimated using the South Coast Air Quality Management District's (SCAQMD's) CalEEMod 2016.3.2 model using assumptions from the Project's developer, including the Project's construction schedule of 48 months. While the phasing of Project construction is yet to be determined, this analysis conservatively assumes construction of the entire Project Site at once and compares total emissions against the SCAQMD's significance thresholds (assumes activities across the subset of the property to be redeveloped with the Project, (2.3 acres). **Table B.3-5** summarizes the estimated construction schedule that was modeled for air quality impacts.

Table B.3-5
Estimated Construction Schedule

Phase	Duration	Notes
Demolition	Month 1	Demolition of 266,571 square-foot parking garage hauled to off-site location 30 miles away
Site Preparation	Month 2	
Grading	Months 3-5	137,000 cubic yards of soil export hauled to off-site location 30 miles away
Building Construction	Months 6-48	
Architectural Coatings	Months 38-48	
Source: DKA Planning, 2019.		

The Project would be required to comply with the following regulations, as applicable:

- SCAQMD Rule 403 would reduce the amount of particulate matter entrained in ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

- SCAQMD Rule 1113 limits the VOC content of architectural coatings.

- SCAQMD Rule 1138 requires the use of catalytic oxidizer controls for any restaurant that includes chain-driven charbroilers.

- SCAQMD Rule 1174 controls VOC emissions from barbecue charcoal.

- SCAQMD Rule 402 states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

- In accordance with Section 2485 in Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (with gross vehicle weight over 10,000 pounds) during construction would be limited to five minutes at any location.

- In accordance with Section 93115 in Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines would meet specific fuel and fuel additive requirements and emissions standards.

Regional Emissions

Construction activity has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the Project Site. Fugitive dust emissions would primarily result from grading activities. NOX emissions would primarily result from the use of construction equipment and truck trips. During the building finishing phase, paving and the application of architectural coatings (e.g., paints) would potentially release VOCs (regulated by SCAQMD Rule 1113). The assessment of construction air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

As stated above, it is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying water and/or soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce regional $PM_{2.5}$ and PM_{10} emissions associated with construction activities by approximately 61 percent.

This analysis also assumes a single-trip haul distance of up to 30 miles to the Sunshine Canyon Landfill in Sylmar for demolition and construction debris, and up to 30 miles to the Manning Pit Landfill in Irwindale for exported soils. However, closer locations may be determined feasible, which would result in lower emissions for the Project.

As shown in **Table B.3-6,** the construction of the Project will produce VOC, NO_X, CO, SO_X, PM_{10} and $PM_{2.5}$ emissions that do not exceed the SCAQMD's regional thresholds. As a result, construction of the Project would not contribute substantially to an existing violation of air quality standards for regional pollutants (e.g., ozone). **This impact is less than significant.**

Table B.3-6
Estimated Daily Construction Daily Emissions - Unmitigated

	Daily Emissions (Pounds Per Day)					
Construction Phase Year	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
2022	5	96	40	<1	11	4
2023	4	26	33	<1	3	1
2024	3	24	32	<1	2	1
2025	25	28	36	<1	3	1
Maximum Regional Total	**25**	**96**	**40**	**<1**	**11**	**4**

Table B.3-6
Estimated Daily Construction Daily Emissions - Unmitigated

Regional Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Maximum Localized Total	**25**	**27**	**26**	**<1**	**9**	**2**
Localized Threshold	**N/A**	**108**	**1,048**	**N/A**	**8**	**5**
Exceed Threshold?	**N/A**	**No**	**No**	**N/A**	**No**	**No**

The construction dates are used for the modeling of air quality emissions in the CalEEMod software. If construction activities commence later than what is assumed in the environmental analysis, the actual emissions would be lower than analyzed because of the increasing penetration of newer equipment with lower certified emission levels. Assumes implementation of SCAQMD Rule 403 (Fugitive Dust Emissions)
Source: DKA Planning, 2019 based on CalEEMod 2016.3.2 model runs. LST analyses based on 2-acre site with 25-meter distances to receptors in Central LA source receptor area.

Localized Emissions

In addition to maximum daily regional emissions, maximum localized (onsite) emissions were quantified for each construction activity. The localized construction air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look-up tables provided by the SCAQMD were used to determine localized construction emissions thresholds for the Project.[40] LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are based on the most recent background ambient air quality monitoring data (2016–2018) for the Project area.

Maximum on-site daily construction emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ were calculated using CalEEMod and compared to the applicable SCAQMD LSTs for the Central LA SRA based on construction site acreage that is less than or equal to 2 acres. Potential impacts were evaluated at the closest off-site sensitive receptor, which is the multi-family residences located on the 800 block of South Mariposa Avenue, about 60 feet east of the Project Site across the street. The closest receptor distance on the SCAQMD mass rate LST look-up tables is 25 meters.

As shown in **Table B.3-6,** above**,** the Project would produce emissions that do not exceed the SCAQMD's recommended localized standards of significance for NO_2 and CO during the construction phase. Similarly, construction activities would not produce PM_{10} and $PM_{2.5}$ emissions that exceed localized thresholds recommended by the SCAQMD.

These estimates assume the use of Best Available Control Measures (BACM) that address fugitive dust emissions of PM_{10} and $PM_{2.5}$ through SCAQMD Rule 403. This would include watering portions of the Project Site that are disturbed during grading activities and minimizing tracking of dirt onto local streets. **Therefore, construction impacts on localized air quality are considered less than significant.**

40 SCAQMD, LST Methodology Appendix C-Mass Rate LST Look-up Table, revised October 2009.

Operation

Operational emissions of criteria pollutants would come from area sources and mobile sources. Area sources include natural gas for space heating and water heating, gasoline-powered landscaping and maintenance equipment, consumer products such as household cleaners, and architectural coatings for routine maintenance.

The Project will also produce long-term air quality impacts to the region primarily from motor vehicles that access the Project Site. The Project could add up to 2,348 net vehicle trips on a peak weekday at the start of operations in 2026.[41] The air quality analysis conservatively accounts for all daily trips as new emissions. CalEEMod program generates estimates of emissions from energy use based on the land use type and size.

As shown in **Table B.3-7**, the Project would not exceed the SCAQMD's regional or localized significance thresholds. The Project operational impacts on long-term air pollution would be considered less than significant. **Therefore, the operational impacts of the Project on regional and localized air quality are less than significant.**

Table B.3-7
Estimated Daily Operations Emissions - Unmitigated

	Daily Emissions (Pounds Per Day)					
Emissions Source	**VOC**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	17	1	53	<1	<1	<1
Energy Sources	<1	2	1	<1	<1	<1
Mobile Sources	3	15	48	<1	19	5
Net Regional Total	**21**	**18**	**102**	**<1**	**19**	**5**
Regional Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Net Localized Total	**17**	**3**	**54**	**<1**	**<1**	**<1**
Localized Significance Threshold	**N/A**	**108**	**1,048**	**N/A**	**2**	**2**
Exceed Threshold?	**N/A**	**No**	**No**	**N/A**	**No**	**No**
Source: DKA Planning, 2019 based on CalEEMod 2016.3.2 model runs. LST analyses based on 2-acre site with 25-meter distances to receptors in Central LA source receptor area.						

Cumulative Analysis

Construction

A project's construction impacts could be considered cumulative considerable if it substantially contributes to cumulative air quality violations when considering other projects that may undertake concurrent construction activities.

41 Fehr & Peers. "Technical Addendum to 3400 Wilshire Boulevard Draft Transportation Analysis", August 2019.

Construction of the Project would not contribute significantly to cumulative emissions of any non-attainment regional pollutants. For regional ozone precursors, the Project would not exceed SCAQMD mass emission thresholds for ozone precursors during construction. Similarly, regional emissions of PM_{10} and $PM_{2.5}$ would not exceed mass thresholds established by the SCAQMD. **Therefore, construction emissions impact on regional criteria pollutant emissions would be considered less than significant.**

When considering local impacts, cumulative construction emissions are considered when projects are within close proximity of each other that could result in larger impacts on local sensitive receptors. Construction of the Project itself would not produce cumulative considerable emissions of localized nonattainment pollutants PM_{10} and $PM_{2.5}$, as the anticipated emissions would not exceed LST thresholds set by the SCAQMD. **Therefore, construction emissions impact on localized criteria pollutant emissions would be considered less than significant.**

There are 134 Related Projects in the general vicinity of the Project Site that were identified by the Project's traffic study.[42] Of these, only one project is located in the direct vicinity of the Project Site (i.e., within 500 feet):

- No. 123 – 3377 West Wilshire Boulevard, approximately 500 feet northeast of the Site. 11,971 square feet of restaurants.

If this Related Project were to undertake construction concurrently with the Project, localized CO, $PM_{2.5}$, PM_{10}, and NO_2 concentrations would be further increased. However, the application of LST thresholds to this project would help ensure that it does not produce localized hotspots of CO, $PM_{2.5}$, PM_{10}, and NO_2. This and any Related Projects that would exceed LST thresholds (after mitigation) could perform dispersion modeling to confirm whether health-based air quality standards would be violated. The SCAQMD's LST thresholds recognize the influence of a receptor's proximity, setting mass emissions thresholds for PM_{10} and $PM_{2.5}$ that generally double with every doubling of distance.

There is an existing regional cumulative impact associated with O_3, NO_2, PM_{10}, and $PM_{2.5}$ because the Basin is designated as a State and/or federal nonattainment air basin for these pollutants. However, an individual Project can emit these pollutants without significantly contributing to this cumulative impact depending on the magnitude of emissions. As discussed above, construction and operational emissions Project would not exceed any applicable SCAQMD thresholds of significance.

With respect to the Project's construction-related air quality emissions and cumulative Air Basin-wide conditions, the SCAQMD has developed strategies (e.g., SCAQMD Rule 403) to reduce criteria pollutant emissions outlined in the AQMP pursuant to Federal CAA mandates. As stated

42 Fehr & Peers. "3400 Wilshire Boulevard Draft Transportation Analysis", September 2018.

above, the Project would comply with applicable regulatory requirements, including the SCAQMD Rule 403 requirements. Per SCAQMD rules and mandates as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, all construction projects Air Basin-wide would comply with these same regulatory requirements and would implement all feasible mitigation measures when significant impacts are identified.

According to the SCAQMD, individual projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. As shown in **Table B.3-6,** Project construction daily emissions would not exceed any of the SCAQMD's regional or localized thresholds. **Therefore, the Project's contribution to cumulative construction-related regional or localized emissions would not be cumulatively considerable and, thus, would be less than significant.**

Operation

As for cumulative operational impacts, the proposed land use will not produce cumulatively considerable emissions of nonattainment pollutants at the regional or local level. The Project would not include major sources of combustion or fugitive dust. As a result, its localized emissions of PM_{10} and $PM_{2.5}$ would be minimal. Likewise, existing land uses in the area include land uses that do not produce substantial emissions of localized nonattainment pollutants. As shown in **Table B.3-7**, Project operation daily emissions would not exceed any of the SCAQMD's regional or localized thresholds. Because the Project's air quality impacts would not exceed the SCAQMD's operational thresholds of significance. **Therefore, the Project's contribution to cumulative operation-related regional or localized emissions would not be cumulatively considerable and, thus, would be less than significant.**

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact.

There are several existing sensitive receptors within 500 feet of the Project Site, including but not limited to:

- Multi-family residences, 800 block of South Mariposa Avenue; 60 feet east of the Project Site.
- Mariposa Apartments; 701 South Mariposa Avenue; 70 feet south of the Project Site.
- Robert F. Kennedy Community Schools, Los Angeles High School of the Arts, 701 South Catalina Street; 250 feet east of the Project Site.
- New Open World Academy, 3201 West 8th Street; 540 feet southeast of the Project Site.

Construction

Construction of the Project could expose sensitive receptors to substantial pollutant concentrations if maximum daily emissions of regulated pollutants generated by sources located on and/or near the Project Site exceeded the applicable LST values presented in **Table B.3-3**, or if construction activities generated significant emissions of TACs that could result in carcinogenic risks or non-carcinogenic hazards exceeding the SCAQMD Air Quality Significance Thresholds of 10 excess cancers per million or non-carcinogenic Hazard Index greater than 1.0, respectively. As discussed above, the LST values were derived by the SCAQMD for the criteria pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$ to prevent the occurrence of concentrations exceeding the air quality standards at sensitive receptor locations based on proximity and construction site size.

As shown in **Table B.3-6**, during construction of the Project, maximum daily localized unmitigated emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ from sources on the Project Site would remain below each of the respective LST values. Unmitigated maximum daily localized emissions would not exceed any of the localized standards for receptors that are generally within 25 meters of the Project's construction activities. Therefore, based on SCAQMD guidance, localized emissions of criteria pollutants would not have the potential to expose sensitive receptors to substantial concentrations that would present a public health concern.

The primary TAC that would be generated by construction activities is diesel PM, which would be released from the exhaust stacks of construction equipment. The construction emissions modeling conservatively assumed that all equipment present on the Project Site would be operating simultaneously and continuously throughout most of the day, while in all likelihood this would rarely be the case. Average daily emissions of diesel PM (DPM) would be less than one pound per day throughout the course of Project construction (as compared to the significance criteria and shown in **Table B.3-7**). Therefore, the magnitude of daily DPM emissions, would not be sufficient to result in substantial pollutant concentrations at off-site residential locations nearby.

Furthermore, according to SCAQMD methodology, health risks from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 30-year period will contract cancer based on the use of standard risk-assessment methodology. The entire duration of construction activities associated with implementation of the Project is anticipated to be approximately 48 months, and the magnitude of daily diesel PM emissions will vary over this time period. No residual emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period, construction TAC emissions would result in a less-than significant impact. **Therefore, construction of the Project would not expose sensitive receptors to substantial diesel PM concentrations, and this impact would be less than significant.**

Operation

The Project Site would be developed with land uses that are not typically associated with TAC emissions. Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes (e.g., chrome plating, electrical manufacturing, petroleum refinery). The Project would not include these types of potential industrial manufacturing process sources. It is expected that quantities of hazardous TACs generated on-site (e.g., cleaning solvents, paints, landscape pesticides, etc.) for the types of proposed land uses would be below thresholds warranting further study under California Accidental Release Program.

When considering potential air quality impacts under CEQA, consideration is given to the location of sensitive receptors within close proximity of land uses that emit TACs. CARB has published and adopted the Air Quality and Land Use Handbook: A Community Health Perspective, which provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities).[43]

The SCAQMD adopted similar recommendations in its Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning.[44] Together, the CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources and the addition of new TAC sources in proximity to existing sensitive land uses.

The primary sources of potential air toxics associated with Project operations include DPM from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets) and to a lesser extent facility operations (e.g., natural gas fired boilers). However, these activities, and the land uses associated with the Project, are not considered land uses that generate substantial TAC emissions. It should be noted that the SCAQMD recommends that health risk assessments (HRAs) be conducted for substantial individual sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.[45] Based on this guidance, the Project would not include these types of land uses and is not considered to be a substantial source of DPM warranting a refined HRA since daily truck trips to the Project Site would not exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. In addition, the CARB-mandated ATCM limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than 5 minutes at any given time, which would further limit diesel particulate emissions.

As the Project would not contain substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, the Project would not result in the exposure of off-site sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of

43 CARB, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.
44 SCAQMD, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005.
45 SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, 2002.

10 in one million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.

The Project would generate long-term emissions on-site from area and energy sources that would generate negligible pollutant concentrations of CO, NO_2, $PM_{2.5}$, or PM_{10} at nearby sensitive receptors. While long-term operations of the Project would generate traffic that produces off-site emissions, these would not result in exceedances of CO air quality standards at roadways in the area due to three key factors. First, CO hotspots are extremely rare and only occur in the presence of unusual atmospheric conditions and extremely cold conditions, neither of which applies to this Project area. Second, auto-related emissions of CO continue to decline because of advances in fuel combustion technology in the vehicle fleet. Finally, the Project would not contribute to the levels of congestion that would be needed to produce the amount of emissions needed to trigger a potential CO hotspot.[46]

Finally, the Project would not result in any substantial emissions of TACs during the construction or operations phase. During the construction phase, the primary air quality impacts would be associated with the combustion of diesel fuels, which produce exhaust-related particulate matter that is considered a toxic air contaminant by CARB based on chronic exposure to these emissions.[47] However, construction activities would not produce chronic, long-term exposure to diesel particulate matter. During long-term project operations, the Project does not include typical sources of acutely and chronically hazardous TACs such as industrial manufacturing processes and automotive repair facilities. As a result, the Project would not create substantial concentrations of TACs.

In addition, the SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[48] The Project would not generate a substantial number of truck trips since it would not be a truck stop or distribution center). Based on the limited activity of TAC sources, the Project would not warrant the need for a health risk assessment associated with on-site activities. **Therefore, Project impacts would be less than significant.**

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact.

Odors are usually associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as

46 Caltrans, Transportation Project-Level Carbon Monoxide Protocol, updated October 13, 2010.

47 California Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust. www. http://oehha.ca.gov/public_info/facts/dieselfacts.html

48 SCAQMD, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.

well as sewage treatment facilities and landfills. The Project will introduce additional commercial and residential uses to the area but would not result in activities that create objectionable odors. It would not include any land uses typically associated with unpleasant odors and local nuisances (e.g., rendering facilities, dry cleaners). The Related Projects are similar mixed-use residential and commercial buildings. There is no manufacturing uses proposed near the Project Site. SCAQMD regulations that govern nuisances (i.e. Rule 402, Nuisances) would regulate any occasional odors associated with construction and on-site uses, such as the proposed restaurant uses.

Based on the above, the Project would not result in other emissions affecting a substantial number of people during either construction or operation of the Project, and no impact would occur.

IV. BIOLOGICAL RESOURCES

The section is based in part on the following item, included as Appendix D of this MND:

D Tree Report, Harmony Gardens, September 22, 2016.

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulation, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact.

A significant impact would occur if a project were to remove or modify habitat for any species identified or designated as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife[49] (CDFW) or the U.S. Fish and Wildlife Service (USFWS).

The Project Site is located in an urbanized area of the City. The Project Site is primarily covered with buildings and parking structures. There are no City or County significant ecological areas on the Project Site.[50] The Project will result in the removal of vegetation and trees around the Project Site and excavation of the ground for subterranean parking. There are no protected trees on-site and the protected tree on the City's right-of-way will not be removed. All removal and replacement will comply with City regulatory requirements.

Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). **The Project would comply with the regulations of the CDFW[51] and USFWS.[52] Therefore, no impact would occur.**

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact.

49 Effective January 1, 2013, the California Department of Fish and Game changed its name to the California Department of Fish and Wildlife: http://www.dfg.ca.gov/about/namechange.html.
50 Navigate LA, Significant Ecological Areas layer: http://navigatela.lacity.org/navigatela/.
51 http://www.leginfo.ca.gov/.html/fgc_table_of_contents.html
52 https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php

A significant impact would occur if riparian habitat or any other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS were to be adversely modified without adequate mitigation. No riparian or other sensitive habitat areas are located on or adjacent to the Project Site.[53] **Therefore, no impact to riparian habitat or sensitive natural community will occur.**

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact.

A significant impact would occur if federally protected wetlands, as defined by Section 404 of the Clean Water Act, would be modified or removed by a project without adequate mitigation. The Project Site is located in an urbanized area of the City. No federally protected wetlands (e.g., estuarine and marine deepwater, estuarine and marine, freshwater pond, lake, riverine) occur on or in the immediate vicinity of the Project Site. The nearest wetland habitat is at MacArthur Park Lake classified as Freshwater Pond and located approximately 1.45 miles from the Project Site.[54] **Therefore, the Project will not result in the direct removal, filling, or hydrological interruption of a federally protected wetland as defined by Section 404 of the Clean Water Act. No impact to federally protected wetlands will occur.**

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact.

A significant impact would occur if a project would interfere with or remove access to a migratory wildlife corridor or impede the use of wildlife nursery sites. Due to the existing urban development on the Project Site and in the adjacent surroundings, the Project Site does not function as a corridor for the movement of native or migratory animals. No native wildlife nurseries are located in the project area. **Therefore, no impacts to migratory wildlife corridors or native wildlife nursery site will occur.**

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact.

53 U. S. Fish & Wildlife Service, National Wetlands Inventory, Riparian Layer: http://www.fws.gov/wetlands/Data/Mapper.html, August 29, 2019.

54 U. S. Fish & Wildlife Service, National Wetlands Inventory, Wetlands Layer: http://www.fws.gov/wetlands/Data/Mapper.html, accessed August 29, 2019.

A project-related significant adverse effect could occur if a project would be inconsistent with local regulations pertaining to biological resources. Local ordinances protecting biological resources applicable to this Project are limited to the City of Los Angeles Native Tree Preservation Ordinance, which protects certain trees (including Valley Oak and California Live Oak, Southern California Black Walnut, Western Sycamore, and California Bay).[55]

There are 30 trees in the public right-of-way (sidewalk or called a street tree), of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees would be removed. There are 29 trees on the Project Site, none of which are protected species. Of these, 24 would be removed.[56] See **Table B.4-1, Trees**.

Table B.4-1

Trees

Trees	Existing Trees		To Be Removed		To Remain	
	Non-Protected	Protected	Non-Protected	Protected	Non-Protected	Protected
Public Right-of-way	29	1	19	0	10	1
On-Site	29	0	24	0	5	0
Tree Report, Harmony Gardens, Inc., September 22, 2016.						

Any tree removal will comply with the City's Tree Replacement Program (Urban Forestry Division, Bureau of Street Services for the street tree). LAMC 12.21.G requires trees on-site based on number of units and non-protected trees have to be replaced at 2:1. This would result in more trees on the Site than the current number. Additional regulatory requirements are listed below:

- Prior to the issuance of any permit, a plot plan shall be prepared indicating the location, size, type, and general condition of all existing trees on the site and within the adjacent public right(s)-of-way.

- All significant (8-inch or greater trunk diameter, or cumulative trunk diameter if multi-trunked, as measured 54 inches above the ground) non-protected trees on the Project Site proposed for removal shall be replaced at a 2:1 ratio with a minimum 24-inch box tree. Net, new trees, located within the parkway of the adjacent public right(s)-of-way, may be counted toward replacement tree requirements.

- Removal or planting of any tree in the public right-of-way requires approval of the Board of Public Works. All trees in the public right-of-way shall be provided per the current standards

55 City of Los Angeles, Ordinance No. 177404: http://cityplanning.lacity.org/Code_Studies/Other/ProtectedTreeOrd.pdf.
56 Tree Report, Harmony Gardens, Inc., September 22, 2016.

of the Urban Forestry Division of the Department of Public Works, Bureau of Street Services.

The Project would not impact any protected trees. **Therefore, no impact would occur.**

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact.

A significant impact would occur if a project is inconsistent with mapping or policies in any conservation plans of the types cited. The Project Site is located in an urbanized area of the City. Due to the existing urban development on the Project Site and in the adjacent surroundings, there are no known locally designated natural communities on the Project Site. There are no City or county significant ecological areas.[57] The Project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State habitat conservation plan. **No impact with respect to Habitat or Natural Community Conservation Plans will occur.**

57 Navigate LA, Significant Ecological Areas layer: http://navigatela.lacity.org/navigatela/.

V. CULTURAL RESOURCES

The section is based in part on the following items, included as Appendix E of this MND:

E-1 Historic Resource Technical Report, Historic Resources Group, November 2018.

E-2 Archaeology response, South Central Coastal Information Center, July 20, 2017.

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less Than Significant Impact.

State CEQA Guidelines Section 15064.5 defines a historical resource as: 1) a resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources; 2) a resource listed in a local register of historical resources or identified as significant in a historical resource survey meeting certain state guidelines; or 3) an object, building, structure, site, area, place, record or manuscript which a lead agency determines to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided that the lead agency's determination is supported by substantial evidence in light of the whole record. A project-related significant adverse effect would occur if a project were to adversely affect a historical resource meeting one of the above definitions.

Potential Impacts to Historic Resources on the Project Site

The Project proposes substantial new construction to be located south of and immediately adjacent to 3440-60 Wilshire Boulevard, which is considered a historic resource for the purposes of CEQA. The Project would add two commercial kiosks (one along Irolo Street and one along Mariposa Avenue), and construct a 23-story mixed-use building and a 28-story mixed-use building on top of a four-story podium. The Project would require demolishing an existing three-story parking structure. The existing three-story parking structure was constructed in 1967-68 and is not considered a historical resource for the purposes of CEQA. No other existing buildings, including 3440-60 Wilshire Boulevard, will be demolished or altered by the Project. The proposed new construction will alter the immediate surroundings of 3440-60 Wilshire Boulevard by inserting new buildings in an area currently occupied by a parking structure and the insertion of two commercial kiosks. As noted above, CEQA defines "substantial adverse change" as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." The significance of an historical resource is materially impaired when a project "demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, the California Register of Historical Resources…or a local register

of historical resources." For the new construction associated with the Project to be considered a substantial adverse change, it must be shown that the integrity and/or significance of the 3440-60 Wilshire Boulevard would be materially impaired by the proposed adjacent new construction.

The proposed new buildings will be located at the rear and to the east of the Project Site where it will not interfere with or detract from any public view of the primary northern façade of 3440-60 Wilshire Boulevard, or the building's east-facing and west-facing façades. Set behind a landscaped plaza, 3440-60 Wilshire Boulevard was designed with an orientation towards Wilshire Boulevard and it is from Wilshire Boulevard where the building's original massing, configuration and its important architectural features are best perceived and experienced. Similarly, the east- and west-facing facades are primarily experienced from Irolo Street and Mariposa Avenue where they intersect with Wilshire Boulevard. The proposed new towers will be over twice the height of 3440-60 Wilshire Boulevard but the disparity in scale alone does not constitute a significant impact as defined by CEQA. Again, the threshold of "substantial adverse change" is the determining factor when analyzing potential impacts. Because they will be over twice the height of 3440-60 Wilshire Boulevard, the proposed new towers will intermittently block views to 3440-60 Wilshire Boulevard from the south. Although a secondary, rear façade, the south-facing façade of 3440-60 Wilshire Boulevard continues the stone cladding and glass curtain wall treatment of the three other facades. Even so, much of the 3440-60 Wilshire Boulevard rear southern facade will remain visible from several vantages due to the siting of the proposed new construction to the southern and eastern portions of the Project Site.

The ability of a historical resource to convey its significance is called historic integrity. Historic integrity is defined as the "authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic period."[58] The National Park Service identifies seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association.

The Project will not involve any relocation, demolition or alteration of 3440-60 Wilshire Boulevard. Therefore, new construction associated with the Project will not affect integrity of location, design, materials, workmanship, feeling or association. All the existing physical elements will continue to convey the historic significance of the property after implementation of the Project.

The Project will insert substantial new construction on what is currently structured parking which will affect integrity of setting. According to National Park Service guidance, "to retain historic integrity a property will always possess several, and usually most, of the (seven) aspects" of integrity.[59] After implementation of the Project, all but one of the relevant aspects of integrity for 3440-60 Wilshire Boulevard will be unaffected and, therefore, its historic integrity will be retained. Despite some alteration to its surroundings, 3440-60 Wilshire Boulevard will continue

[58] National Register Bulletin 16A. How to Complete the National Register Registration Form. Washington D.C.: National Park Service, U.S. Department of the Interior, 1997. (3)

[59] National Register Bulletin 15, 44.

to convey its historic significance after Project construction and will not be materially impaired. The original configuration and orientation of the building will remain discernible after construction and the primary north-facing facade will remain unobstructed.

For these reasons, the significance and integrity of the 3440-60 Wilshire Boulevard will remain intact and the building will retain its eligibility for listing in the National Register of Historic Places and the California Register of Historical Resources.

Potential Impacts to Historic Resources Adjacent to the Project Site

The Project will construct two new high-rise buildings on a site currently occupied by three-story parking structure. The addition of these new buildings will alter the surroundings of adjacent and nearby historic resources. Any alteration of the surroundings of nearby historical resources that adversely affect the integrity of those historical resources can potentially constitute a substantial adverse change in that resource. An analysis of the alteration to the immediate surroundings of each of the potentially affected historical resources using the seven aspects of historic integrity is provided below.

682 Irolo Street (Piccadilly Apartments)

The Piccadilly Apartments at 682 Irolo Street has been identified as eligible for listing in the National Register through survey evaluation and is treated here as an historical resource for the purposes of CEQA. The Piccadilly Apartments is located adjacent to the Project Site at the southwest corner of the Project Site facing Irolo Street. The proposed new towers will be substantially larger than the Piccadilly Apartments but, again, the disparity in scale alone does not constitute a significant impact as defined by CEQA. The proposed new buildings will be located at the eastern portion of the Project Site, separated from the Piccadilly Apartments by an existing five-story parking structure. At this location, the proposed new construction will not interfere with or detract from any public view of the primary west-facing façade of the Piccadilly Apartments. The Piccadilly Apartment building was designed with an orientation towards Irolo Street and it is from Irolo Street where the building's original massing, configuration and its important architectural features are perceived and experienced. In contrast, the north-, south- and west-facing facades are treated in a much simpler and utilitarian manner, largely devoid of articulation and architectural detailing. The north-, south- and west-facing facades are clearly secondary, and were designed in anticipation of possible new construction on the adjacent parcels. Even so, the majority of the Piccadilly Apartments' secondary facades will also remain largely visible from most vantage points due to the new podium and towers to the southern and eastern portions of the Project Site.

The Project will not physically impact the Piccadilly Apartments building in any way. The immediate surroundings of the Piccadilly Apartments will not be significantly altered by the Project given the distance between it and the new construction. The Project will not affect the

integrity of location, design, materials, workmanship, feeling, association, or setting of the Piccadilly Apartments.

After Project construction, the Piccadilly Apartments will remain unchanged and the building will continue to convey its historic significance. Therefore, the Project will not adversely affect the Piccadilly Apartments in a manner that would materially impair its significance as a historical resource.

Normandie-Mariposa Multi-Family Residential Historic District (Normandie Avenue and Mariposa Avenue between 7th Street and 8th Street)

A grouping of early 20th century apartment buildings located on Normandie Avenue and Mariposa Avenue between 7th Street and 8th Street was previously identified as a historic district determined eligible for listing in the National Register through Section 106 process and is listed in the California Register. The historic district is considered an historical resource for the purposes of CEQA. The historic district is significant as a physical document of the explosive population growth in Los Angeles during the 1920s, and reflects the increased density of residential neighborhoods to meet demand for housing during that time. The District contains an unusually intact collection of multi-story apartment buildings typical of the 1920s. The historic district is located south of the Project Site across 7th Street. New construction associated with the Project will be substantially larger than the contributing buildings to the historic district which are all between four and six stories in height. This disparity in scale alone, however, does not constitute a significant impact as defined by CEQA. The Project, would not affect the integrity of location, design, materials, or workmanship of any District contributors. All the contributing buildings would remain intact in their current locations, and would not be materially altered by the Project. Therefore, integrity of feeling would also remain unaffected because all the existing physical elements that characterize the historic district would continue to convey the district's historic significance after construction of the Project. Because the district would retain integrity of location, design, materials, workmanship, and feeling, it would continue to reflect the development of multi-family housing in Los Angeles during the 1920s. Therefore, integrity of association would also remain unaffected by the Project.

The only aspect of the district's integrity that is potentially affected by the Project is setting. Because the Project will add substantial mass and height to an area currently occupied by a three-story parking structure, the Project will change the physical environment immediately north of the historic district.

The area surrounding the historic district has been substantially altered since original construction of the historic district contributing buildings, particularly to the north toward Wilshire Boulevard, through successive demolitions and new construction. The historic district, largely constructed in the 1920s, pre-dates by decades the existing development on the Project Site, which was developed during the 1950s and 60s. Alteration to the north of the historic district has been the existing condition since the mid-20th century. The blocks adjoining Wilshire Boulevard

have largely contained a mix of uses, including commercial uses, since the second decade of the 20th century and although individual buildings have changed, the mix of uses has remained.

The Project would be constructed north of and outside the historic district, and would not materially alter any district contributor, or the configuration and spatial relationships that characterize the historic district. Ultimately, the district is best understood from within its boundaries where the collection of 1920s apartment building can be directly experienced and understood. Thus, after construction of the Project the historic district's contributors will remain unaltered and fully discernible, and collectively will continue to convey their association with early 20th century residential development in Los Angeles. According to National Park Service guidance, "to retain historic integrity a property will always possess several, and usually most, of the (seven) aspects" of integrity. After the Project is constructed the historic district will fully retain integrity of location, design, materials, workmanship, feeling and association. Integrity of setting would be partially altered by the Project. Therefore, all but one of the relevant aspects of integrity will be unaffected by the Project, so that the historic integrity of the historic district will be retained. While the Project will partially alter the setting of the district, this alteration will not materially impair the district such that it can no longer convey its historic significance. After construction of the Project, the historic district will remain intact, and eligible for historic designation. Therefore, the Project will not result in a significant impact to the Normandie-Mariposa Multi-Family Residential Historic District.

3424-30 Wilshire Boulevard (IBM Building)

The IBM Building at 3424-30 Wilshire Boulevard has been previously found eligible for listing in the California Register through survey evaluation and is treated here as an historical resource for the purposes of CEQA. The Project will not involve relocation, demolition or alteration of the IBM Building; therefore, the Project will not affect integrity of location, design, materials, workmanship, feeling or association. The only aspect of integrity that is potentially relevant here is setting. The IBM Building is located on the southeast corner of Wilshire Boulevard and Mariposa Avenue, separated from the Project Site by Mariposa Avenue. Located north and east of the proposed new construction associated with the Project, the immediate surroundings of the property will not be significantly altered by the Project given the distance between the two properties. The Project will not substantially affect integrity of setting of the IBM Building.

After Project construction, the IBM Building will remain unchanged and the building will continue to convey its historic significance. Therefore, the Project will not adversely affect the IBM Building in a manner that would materially impair its significance as a historical resource.

Analytical Summary

Analysis of potential impacts to historical resources reveals that the Project will alter the setting and surroundings of historical resources located on the Project Site and in the near vicinity, but that the alteration will not substantially reduce the integrity or significance of those resources.

The following analysis uses the thresholds provided in the City of Los Angeles CEQA Thresholds Guide.

1. Would the Project involve the demolition of a significant resource?

> The Project does not propose the demolition of any significant resources on the Project Site or in the surrounding area.

2. Would the Project involve relocation that does not maintain the integrity of a significant resource?

> The Project does not involve the relocation of any significant resources on the Project Site or in the surrounding area.

3. Would the Project involve conversion, rehabilitation or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings?

> The Project does not include conversion, rehabilitation or alteration of any significant resource located on the Project Site or in the near vicinity of the Project Site.

4. Would the Project involve construction that reduces the integrity or significance of important resources on the site or in the vicinity?

> The Project does not include construction that reduces the integrity or significance of important resources on the Project Site or in the vicinity.

Analysis of the potential impacts to historical resources has found that the Project will insert substantial new construction on land that was currently occupied by a three-story parking structure. The proposed new construction, however, will not result in substantial adverse changes that reduces the integrity or significance of historic resources either adjacent to or in the near vicinity of the Project Site. T**herefore, the Project would result in a less than significant impact.**

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant Impact.

The Project Site is located in an urbanized area and has been previously disturbed by past development activities and contains existing buildings and parking structures that provides subterranean levels. The Project would require excavation for subterranean parking levels, utility and foundation work, and grading. There is a possibility of encountering a resource.

If archaeological resources are discovered during excavation, grading, or construction activities, work will cease in the area of the find until a qualified archaeologist has evaluated the find in accordance with Federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. Personnel of the Project will not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the Project Site. The found deposits would be treated in accordance with Federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. **Therefore, impacts would be less than significant.**

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact.

The Project Site, located in an urbanized area, has been previously disturbed by past development activities and contains Existing Buildings and parking structures that each provide one subterranean level. The Project would require excavation for two subterranean parking levels, utility and foundation work, and grading. No known traditional burial sites have been identified on the Project Site.

If human remains are encountered unexpectedly during construction demolition and/or grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code (PRC) Section 5097.98. In the event that human remains are discovered during excavation activities, work will stop immediately and the County Coroner will be contacted. If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC would immediately notify the person it believes to be the most likely descendent of the deceased Native American. The most likely descendent has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods. If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC. **Therefore, impacts would be less than significant.**

VI. ENERGY

The section is based in part on the following item, included as Appendix F of this MND:

F Energy Calculations, CAJA Environmental Services, September 2018.

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

Regulatory Framework

Federal Regulations

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.[60]

State Building Energy Efficiency Standards

The Building Energy Efficiency Standards (Title 24 Part 6) were first adopted in 1976 and have been updated periodically since then as directed by statute. The Standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. Public Resources Code Sections 25402 subdivisions (a)-(b) and 25402.1 emphasize the importance of building design and construction flexibility by requiring the Energy Commission to establish performance standards, in the form of an "energy budget" in terms of the energy consumption per square foot of floor space. For this reason, the Standards include both a prescriptive option, allowing builders to comply by using methods known to be efficient, and a performance option, allowing builders complete freedom in their designs provided the building achieves the same overall efficiency as an equivalent building using the prescriptive option. Reference Appendices are adopted along with the Standards that contain data and other information that helps builders comply with the Standards.

60 CAFE standards: www.nhtsa.gov/fuel-economy.

The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential Standards include improvements for attics, walls, water heating, and lighting. The most significant efficiency improvements to the nonresidential Standards include alignment with the American Society of Heating, Refrigerating and Air-conditioning Engineers (ASHRAE) 90.1 2013 national standards. New efficiency requirements for elevators and direct digital controls are included in the nonresidential Standards. The 2016 Standards also include changes made throughout all of its sections to improve the clarity, consistency, and readability of the regulatory language. The building efficiency standards are enforced through the local building or individual agency permit and approval processes.[61]

California Green Building Code

Part 11 of the Title 24 California Building Standards Code is referred to as the California Green Building Standards Code, or CalGreen. The purpose of the California Green Building Standards Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." As of January 1, 2011, the California Green Building Standards Code is mandatory for all new buildings constructed in the state. The California Green Building Standards Code establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality. The California Green Building Standards Code was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2017.

California Renewable Energy Resources Act

LADWP is subject to the California Renewable Energy Resources act and thus is required to commit to the use of renewable energy sources, as defined in its 2013 Renewables Portfolio Standard Policy and Enforcement Program. LADWP has committed to meeting the requirement to procure at least 33 percent of their energy portfolio from renewable sources by 2020 as fiscal constraints, renewable energy pricing, system integration limits, and transmission constraints permit. Eligible renewable resources are defined in the 2013 Renewable Portfolio Standard to include biodiesel; biomass; hydroelectric and small hydro (30 mw or less); Los Angeles Aqueduct hydro power plants; digester gas; fuel cells; geothermal; landfill gas; municipal solid waste; ocean thermal, ocean wave, and tidal current technologies; renewable derived biogas;

61 CalGreen: http://www.bsc.ca.gov/

multi-fuel facilities using renewable fuels; solar photovoltaic; solar thermal electric; wind; and "other renewables that may be defined later".[62]

LADWP's target procurement of energy from renewable resources in 2014 is 20 percent. As of 2011, the most recent year for which data is available, its existing renewable energy resources included small hydro, wind, solar, and biogas, which accounted for 20 percent of its overall energy mix. This represents the available off-site renewable sources of energy that would meet Project demand. With respect to on-site renewable energy sources, because of the Project's location, there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydro, digester gas, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Geothermal energy, the use of heat naturally present in shallow soil or in groundwater or rock to provide building heating/cooling and to heat water, requires the installation of a heat exchanger consisting of a network of below-ground pipes to convey heated or cooled air to a building. Although methane is a renewable derived biogas, it is not available on the Project Site in commercially viable quantities or form (i.e., a form that could be used without further treatment), and its extraction and treatment for energy purposes would result in secondary impacts; it is currently regulated as a hazardous material by the City.

The use of energy provided by alternative (i.e., renewable) resources, off-site and on-site, to meet the Project's operational demands is constrained by the energy portfolio mix managed by LADPW, the service provider for the Project Site, and limitations on the availability or feasibility of on-site energy generation.

Assembly Bill 32

Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the State to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the California Public Utilities Commission and the California Energy Commission with providing information, analysis, and recommendations to the California Air Resources Board (CARB) regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

Assembly Bill 1493 (AB 1493)/Pavley Regulations

AB 1493 (commonly referred to as CARB's Pavley regulations) was the first legislation to regulate GHG emissions from new passenger vehicles. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-

62 City of Los Angeles, Department of Water and Power, Renewables Portfolio Standard Policy and Enforcement Program, amended December 2013.

duty trucks) for model years 2009–2016. The Pavley regulations are expected to reduce GHG emissions from California's passenger vehicles by about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. [63]

Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), established in 2007 through Executive Order S-1-07 and administered by CARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25 percent in 2011 and culminating in a 10-percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas, and hydrogen.[64]

CARB's Advanced Clean Cars Regulation

Closely associated with the Pavley regulations, the Advanced Clean Car Standards emissions-control program (ACC program) was approved by CARB in 2012. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2017–2025. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions. Additionally, environmentally superior cars will be available across the range of models (compacts, sport utility vehicles (SUVs), pickups, and minivans) and consumer savings on fuel costs will average $6,000 over the life of the car.[65]

Airborne Toxic Control Measure

The California Air Resources Board (CARB) has adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. This measure prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than five minutes at any given time. CARB has also approved the Truck and Bus regulation (CARB Rules Division 3, Chapter 1, Section 2025, subsection (h))[66] to reduce NOX, PM10, and PM2.5 emissions from existing diesel vehicles operating in California; this regulation will be phased in with full implementation by 2023. In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with

63 Clean Car Standards—Pavley, Assembly Bill 1943, www.energy.ca.gov/low_carbon_fuel_standard/,

64 Low Carbon Fuel Standard: Fuels and Transportation Division Emerging Fuels and Technologies Office, www.energy.ca.gov/low_carbon_fuel_standard/

65 California Renewables Portfolio Standard (RPS), http://www.cpuc.ca.gov/RPS_Homepage/

66 California Air Resources Board, Final Regulation Order, Amendments to the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use On-Road Diesel-Fueled Vehicles, http://www.arb.ca.gov/msprog/onrdiesel/documents/tbfinalreg.pdf, accessed May 12, 2017.

newer emission-controlled models. Implementation began January 1, 2014 and the compliance schedule requires that best available control technology turnovers or retrofits be fully implemented by 2023 for large and medium equipment fleets and by 2028 for small fleets. Construction workers working on the Site would be required to demonstrate compliance with applicable California Air Resources Board (CARB) regulations governing the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375 (SB 375), coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32. SB 375 specifically requires the Metropolitan Planning Organization (MPO) to prepare a "sustainable communities strategy" (SCS) as a part of its Regional Transportation Plan (RTP) that will achieve GHG emission reduction targets set by CARB for the years 2020 and 2035 by reducing vehicle miles traveled (VMT) from light-duty vehicles through the development of more compact, complete, and efficient communities.[67]

The Project Site is located within the planning jurisdiction of the Southern California Association of Governments (SCAG). SCAG's first-ever SCS is included in the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012–2035 RTP/SCS), which was adopted by SCAG in April 2012. The goals and policies of the SCS that reduce VMT (and result in corresponding decreases in transportation-related fuel consumption) focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service. Recently, SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS).[68] The goals and policies of the Updated RTP/SCS are the same as those in the 2012–2035 RTP/SCS.

The RTP/SCS also establishes High-Quality Transit Areas (HQTA), which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. Local jurisdictions are encouraged to focus housing and employment growth within HQTAs to reduce VMT.

The Project Site is located within a HQTA as designated by 2016 RTP/SCS.[69]

Senate Bill 1389

67 Sustainable Communities, www.arb.ca.gov/cc/sb375/sb375.htm

68 SCAG, 2016 RTP/SCS, dated April 2016.

69 http://scagrtpscs.net/SiteAssets/ExecutiveSummary/assets/resources/Exhibit5-1_HighQualityTransitAreaInTheSCAGregionFor2040Plan.pdf

Senate Bill 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the development of an integrated plan for electricity, natural gas, and transportation fuels. The California Energy Commission must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years. The most recently completed report, the 2015 Integrated Energy Policy Report, addresses a variety of issues related to energy efficiency, benchmarking under the Assembly Bill 758 Action Plan, strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan, building energy efficiency standards, achieving 50 percent renewable by 2030, among other issues.[70]

2016 Final Power Integrated Resource Plan[71]

The LADWP released the 2016 Final Power Integrated Resource Plan (IRP) in December 2016, which provides a 20-year framework to ensure LADWP can meet the future energy needs of its ratepayers by forecasting demand for energy and determining how that demand will be met. The IRP is an update of the 2015 IRP, and reflects evolving environmental, regulatory, and economic developments. The 2015 IRP included a newly created and redesigned energy efficiency (EE) program to achieve at least 10 percent less customer usage of electricity by 2020; development of a new Power System Reliability Program (PSRP) to incorporate not only distribution, but also generation, transmission, and substations with a new prioritization model to improve system reliability; and plans for an agreement between Intermountain Power Agency and the Intermountain Power Project (IPP) participants to replace IPP coal-fired generation with new highly efficient gas-fired generators by no later than July 1, 2025, two years earlier than recommended in 2012's IRP.

The 2016 IRP incorporates updates to reflect the latest load forecast, fuel price and projected renewable price forecasts, and other modeling assumptions. Major renewable projects approved or implemented include the approval of 460 mw of large scale solar, approval of the 250 mw Beacon Solar Project, implementation of Pine Tree and Adelanto Solar, and implementation of two geothermal projects. An innovative Solar Feed-in-Tariff (FiT) Program was implemented by the Department of Energy, which consists of a FiT 100 – Set Pricing Program and a FiT 50 – Competitive Pricing Program, which bundles Beacon Solar and Local Solar. The Fit 50 - Competitive Pricing Program is an innovative program that combines both a FiT local solar agreement committing to a large block of approximately 10mw, together with a commitment to a large utility scale project of approximately 50 mw to be built by the same vendor at LADWP's Beacon Solar site.[72] This IRP considers a 20-year planning horizon to guide LADWP as it executes major new and replacement projects and programs. The overriding purpose is to provide a framework to assure the future energy needs of LADWP customers are met in a manner that balances the following key objectives: superior reliability and supply of

70 California Energy Commission, 2015 Integrated Energy Policy Report.

71 2016 Final Power IRP: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=12do6zwhm2_33&_afrLoop=86387266209556, accessed May 12, 2017.

electric service; competitive electric rates consistent with sound business principles; and responsible environmental stewardship exceeding all regulatory obligations.[73]

LADWP Rules Governing Water and Electric Service

Electrical service would be provided in accordance with the LADWP's Rules Governing Water and Electric Service.[74] LADWP will provide a dependable supply of potable water, from available sources, in quantities adequate to meet the reasonable needs of its customers. The delivery of such supply will be at the Service Connection. Generally, the LADWP will maintain operating pressures at the Service Connection of not less than 25 pounds per square inch. Pressures may be lower at times of Maximum Demand or because of unusual elevations or other special conditions.

City of Los Angeles Green Building Code

The 2017 LA Green Building Code is based on the 2016 California Green Building Standards Code and commonly known as *CAL*Green as discussed above, that was developed and mandated by the State to attain consistency among the various jurisdictions within the State with the specific goals to reduce a building's energy and water use, reduce waste, and reduce the carbon footprint. The following types of projects are subject to the LA Green Building Code:

- All new buildings (residential and non-residential)
- All additions (residential and non-residential)
- Alterations with building valuations over $200,000 (residential and non-residential)

Specific measures to be incorporated into the Project to the extent feasible could include, but are not limited to:

- Recycling of asphalt, concrete, metal, wood and cardboard waste generated during demolition and construction;
- Installation of a "cool roof" that reflects the sun's heat and reduces urban heat island effect;
- Use of recycled construction materials, including recycled steel framing, crushed concrete
- sub-base in parking lots, fly ash-based concrete and recycled content in joists and joist girders when feasible;

73 2016 Final Power IRP: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=12do6zwhm2_33&_afrLoop=86387266209556, accessed May 12, 2017.

74 LADWP Rules Governing Water and Electric Service: https://www.lacity.org/your-government/government-information/city-charter-rules-and-codes

- Use of locally (within 500 miles) manufactured construction materials, where possible;
- Use of energy efficient lighting;
- Use of Energy Star appliances in residential units;
- Use of high energy efficiency rooftop heating and conditioning systems;
- 15% of the roof area set aside for future solar panels;
- Use of ultra-low-flow toilets and low-flow metered hand-wash faucets in public facilities;
- Use of smart irrigation systems to avoid over-watering of landscape;
- Use of indigenous and/or water-appropriate plants in landscaping;
- Use of low-impact development measures using innovative design to filter and infiltrate stormwater runoff and reduce water sent to stormdrain systems; and
- Provision of electric vehicle charging stations in the parking structure; 5% of total spaces will be designated for low emitting, fuel efficient and carpool/van pool vehicles.

Los Angeles Department of Water and Power

The LADWP provides electricity to the Project Site. The LADWP provides its 1.4 million customers with more than 26 million megawatt hours (mw-h) of electricity a year.[75] LADWP serves a 465-square-mile area and is the largest municipal utility in the nation. In total, LADWP operates 20 receiving stations and 174 distribution stations and plans to acquire additional facilities as their load increases. The LADWP electricity portfolio is made up of coal (39 percent), natural gas (22 percent), renewables[76] (20 percent), nuclear (11 percent), unspecified sources (5 percent), and large hydroelectric (3 percent).[77]

Table B.6-1, LADWP Electricity Capacity, shows the LADWP electricity system capacity and

Table B.6-2, LADWP Energy Usage, shows the LADWP power usage.

75 LADWP, website: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-pastandpresent?_adf.ctrl-state=na2o8wvza_4&_afrLoop=81976737428000, June 10, 2017.

76 Renewables include small hydroelectric, solar, wind, geothermal, biomass and waste.

77 LADWP, Power Facts and Figures website: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=scgxlug8o_21&_afrLoop=82063279159000&_afrWindowMode=0&_afrWindowId=na2o8wvza_1#%40%3F_afrWindowId%3Dna2o8wvza_1%26_afrLoop%3D82063279159000%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dna2o8wvza_33, June 10, 2017.

Table B.6-3, Energy Sales and Peak Demand, provides the estimated sales (consumption) by sector (residential, commercial, industrial, etc.) and peak demand over the next 10 years.

Table B.6-1
LADWP Electricity Capacity

	Amount (megawatts)
Net Maximum Plant Capacity	7,300
Los Angeles Peak Demand	6,177
Source: LADWP: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=15ti2xgei0_4&_afrLoop=1119458526572567 Table: CAJA Environmental Services, April 2018.	

Table B.6-2
LADWP Energy Usage

	Amount (megawatt-hours)
Residential	8.4
Commercial	12.8
Industrial	1.9
Other	0.4
Total	**23.14**
Fiscal Year 2013. Source: LADWP: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=15ti2xgei0_4&_afrLoop=1119458526572567. Table: CAJA Environmental Services, April 2018.	

Table B.6-3
Energy Sales and Peak Demand

Year	Sector Sales (gw-h)						Peak Demand (mw)
	Residential	Commercial	Industrial	Misc.	PHEV	Total	
2018-19	8,184	12,731	1,837	306	205	23,264	5,739
2019-20	8,166	12,506	1,829	309	288	23,098	5,707
2020-21	8,173	23,480	1,832	311	368	23,163	5,718
2021-22	8,288	12,714	1,843	314	451	23,609	5,782
2022-23	8,430	13,037	1,852	316	531	24,165	5,908
2023-24	8,568	13,306	1,850	319	610	24,653	6,006
2024-25	8,686	13,568	1,849	321	673	25,097	6,098
2025-26	8,795	13,837	1,850	323	739	25,544	6,185
gw-h – gigawatt-hours; mw – megawatts Misc. includes streetlighting, Owens Valley, and intra-departmental LADWP, 2016 IRP, Table A-1, page A-5: *https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=12do6zwhm2_33&_afrLoop=86387266209556* Table: CAJA Environmental Services September 2018.							

Power and Energy

When discussing electricity, the appropriate unit of measurement depends on whether one is referring to power or energy. Power is the rate at which energy is consumed (in watts, kilowatts, or megawatts). Energy is the amount of power consumed (in watt-hours). Customers are charged based on their energy use (typically kilowatt-hours). The relationship between power and energy:

- Energy (watt-hours) = power (watts) X time (hours)

For example, a 60-watt light bulb refers to the amount of power the light consumes. If the 60-watt light bulb was on for 12 hours, it would consume 720 watt-hours (or 0.72 kilowatt-hours) of energy.

Load Factor

Load factor represents how consistent the rate of energy usage throughout a given day. A 100 percent load factor means that the same amount of power is used off peak as on peak, so the system is getting full use of its generating resources. A low load factor results in generators being started more often to serve load for a few hours a day, which is not optimum. From the 1990s through 2005, annual system load factors were trending slowly upward, which is a positive movement. Since 2006, system load factors are trending down. Some of this decline in load factor is due to the fact that much of the historic energy efficiency effort is directed at lighting, which has a higher impact on sales when compared to peak. In the forecast for the future, this downward trend is sustained.[78]

Load factor can be expressed as the ratio of the average load in kilowatts (kw) supplied at a designated period compared to the peak or maximum load in kilowatts occurring in the period. Load factor, in percent, is derived by multiplying the kilowatt-hours (kw-h) in the period by 100 and dividing by the product of the maximum demand in kilowatts and the number of hours in the period:[79]

- Load Factor (%) = (kw-h / hours / kw) X 100%

- Example: Assume a 30-day billing period or 30 days X 24 hours for a total of 720 hours. Assume a customer used 10,000 kw-h and had a maximum demand of 21 kw. The customer's load factor would be 66 percent [(10,000 kw-h / 720 hours / 21 kw)*100].

Natural Gas Supply and Demand

78 LADWP, 2014 IRP, pg 47: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=q463ohn9x_17&_afrLoop=1251830725757441, April 14, 2015.

79 Madison Gas and Electric, Glossary for Load Factor: http://www.mge.com/about/electric/glossary.htm#f, November 19, 2016.

The Southern California Gas Company (SCG), a subsidiary of Sempra Energy and the nation's largest natural gas supplier, distributes natural gas to 19.5 million residential, commercial, and industrial customers throughout southern California, including the Project Site. SCG owns and operates 95,000 miles of gas distribution mains and service lines, gas transmission compressor stations, underground storage facilities, as well as nearly 3,000 miles of transmission and storage pipeline. The total 136.1 billion cubic feet (Bcf) of natural gas storage capacity is divided as follows: 82 Bcf is for core customers, small industrial, and commercial customers; 4 Bcf is for system balancing; and the remaining 49.1 Bcf is available to other customers.[80] Natural gas service is provided in accordance with SCG's policies and extension rules on file with the California Public Utilities Commission (PUC) at the time contractual agreements are made.

The State produces about 15 percent of the natural gas it uses. The remaining 85 percent is obtained from sources outside of the State, 62 percent from the Southwest and Rocky Mountain area, and 23 percent from Canada. In the last ten years, three new interstate gas pipelines were built to serve California, expanding the over one million miles of existing pipelines. However, the availability of natural gas is based upon present conditions of gas supply and regulatory policies. As a public utility, SCG is under the jurisdiction of the PUC, but can be affected by the actions of federal regulatory agencies. Should these agencies take any action affecting natural gas supply or the conditions under which service is available, natural gas service would be provided in accordance with those revised conditions.

The 2016 California Gas Report includes projections regarding future demand for natural gas in the Southern California region. SCG projects total gas demand to decline at an annual rate of 0.6% from 2016 to 2035. The decline in throughput demand is due to modest economic growth, CPUC-mandated energy efficiency (EE) standards and programs, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI). From 2016 to 2035, residential demand is expected to decline from 239 Bcf to 218 Bcf. The decline is due to declining use per meter offsetting new meter growth. The core, non-residential markets are expected to grow from 113 Bcf in 2016 to 105 Bcf by 2035. The change reflects an annual growth rate of 0.5% over the forecast period. The noncore, non-EG markets are expected to decline from 170 Bcf in 2016 to 153 Bcf by 2035. The annual rate of decline is approximately 0.5% due to very aggressive energy efficiency goals and associated programs. On the other hand, utility gas demand for enhanced oil recovery (EOR) steaming operations, which had declined since the FERC-regulated Kern/Mojave interstate pipeline began offering direct service to California customers in 1992, has shown some growth in recent years because of continuing high oil prices and is expected to show further growth in the early years of the forecast period. EOR demand is expected to remain at about its 2015 level through 2035 as gains are offset by the depletion of older oil fields.[81]

80 2016 CA Gas Report: https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf, November 19, 2016.
81 2016 CA Gas Report: https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf, April 17, 2018.

In 2016 gas demand for California is projected to average 6,072 million cubic feet per day (cf/day) and is projected to decrease to 4,626 million cf/day by 2035, a decline of 1.35 percent per year.[82] **Table B.6-4, Statewide Total Supplies and Requirements**, shows the anticipated statewide total supplies and requirements for natural gas for 2014 to 2030. In 2015 (the latest data available from the 2016 California Gas Report), SCG's highest winter sendout was 4,036 million cf/day and highest summer sendout was 3,601 million cf/day.[83]

Table B.6-4
Statewide Total Supplies and Requirements

	2018	2019	2020	2022	2025
Utility Supply Source					
California Sources	165	165	165	165	165
Out-of-State	4,758	4,711	4,668	4,618	4,599
Non-Utility Served Load	985	910	813	691	547
Statewide Supply Source Total	**5,909**	**5,787**	**5,645**	**5,474**	**5,312**
Utility Requirements					
Residential	1,185	1,167	1,155	1,148	1,114
Commercial	481	478	473	470	454
Natural Gas Vehicles	50	52	54	57	66
Industrial	943	937	932	931	930
Electric Generation	1,623	1,590	1,566	1,529	1,548
Enhanced Oil Recovery Steaming	46	46	46	46	46
Wholesale/International Exchange	246	246	247	247	247
Company Use and Unaccounted-For	74	73	73	71	72
Non-Utility Served Load	985	910	813	781	547
Statewide Requirements Total	**5,623**	**5,501**	**5,360**	**5,281**	**5,026**

All measurements in million cf per day. Numbers in the table may not add up exactly due to rounding.
Average temperature and normal hydro year.
2016 California Gas Report: https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf, November 19, 2016.
Table: CAJA Environmental Services April 17, 2018

The SCG demands for 2015 and 2035 are shown in **Table B.6-5**. Demand is expected to be relatively flat (commercial) or exhibit annual declines (residential, industrial) due to modest economic growth, PUC-mandated demand-side management goals and renewable electricity

82 2016 CA Gas Report: https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf, April 17, 2018.
83 2016 CA Gas Report: https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf, April 17, 2018.

goals, decline in commercial and industrial demand, and continued increased use of non-utility pipeline systems by EOR customers and savings linked to advanced metering modules.[84]

Table B.6-5
SCG Natural Gas Demands

	2015	2035	Difference
Residential	239	218	-21
Core Commercial	81	65	-16
Non-Core Commercial	16.4	14.7	-1.7
Industrial	21.6	15.3	-6.3
All measurements in billion cf 2016 CA Gas Report: https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf, August 31, 2016. Table: CAJA Environmental Services April 17, 2018.			

Methodology

The South Coast Air Quality Management District (SCAQMD) has electricity[85] and natural gas[86] consumption rates for various land uses based on the square footage of development. Applying the SCAQMD rates to the proposed building square footages and use types, an estimate was made as to the future demand for the Project. Given the existing capacity of the Project Site's electrical and natural gas delivery system and future projected consumption and demand, an assessment was made of the Project's impacts. Appendix F of the State *CEQA Guidelines* further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the Project Description, Environmental Setting and Impact Analysis portions of technical sections, as well as through mitigation measures and alternatives. In accordance with Appendix F of the State *CEQA Guidelines,* this analysis includes relevant information and analyses that address the energy implications of the Project. This section represents a summary of the Project's anticipated energy needs, impacts, and conservation measures.

Project Impacts

Construction

The Project would have short-term construction impacts, as construction activities would consume relatively minor quantities of electricity (i.e., temporary use for lighting and small power tools). Approximately 3,878 kWh of electricity[87] would be consumed during the conveyance of the water used during construction activities that require the use of water to control fugitive dust.

84 2016 CA Gas Report: https://www.socalgas.com/regulatory/documents/cgr/2016-cgr.pdf, November 19, 2016.
85 SCAQMD Air Quality Handbook, 1993, Appendix 9, Table A9-11-A, Electricity Usage Rate.
86 SCAQMD Air Quality Handbook, 1993, Appendix 9, Table A9-12-A, Natural Gas Usage Rate.
87 Calculation included in the appendices to this MND.

Furthermore, electricity used to provide temporary power for lighting electronic equipment inside temporary construction trailers and within the proposed structures would be consumed during Project construction. This electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. Electricity consumed during Project construction would be temporary and would cease upon the completion of construction, as well as vary depending on site-specific operations and the amount of construction occurring at any given time. Overall, construction activities associated with the Project would require limited electricity generation that would not be expected to have an adverse impact on available electricity supplies. **Therefore, electricity impacts during construction would be less than significant.**

Demolition, site clearing, grading, excavation, and trenching is projected to take approximately four months. Heavy duty construction equipment needed to complete these activities would include diesel fueled haul trucks, excavators, skid steer loaders, tractors, and water trucks. The use of haul trucks with double trailers would be used to increase the overall average capacity per trip, which would minimize the total number of trips and fuel required to transport the debris. Heavy duty construction equipment needed during construction of the Project would include air compressors, concrete pumps, forklifts, lifts, welders, backhoes, dozers, forklifts, lifts, loaders, and rollers, the majority of which would be diesel fueled. Construction equipment fuels would be provided by local or regional suppliers and vendors.

Transportation fuels, primarily gasoline and diesel, would be provided by local or regional suppliers and vendors. Project-related vehicles would require a negligible fraction of the total state's transportation fuel consumption. A study by Caltrans found that the statewide average fuel economy for all vehicle types (automobiles, trucks, and motorcycles) is projected at 20.4 miles per gallon (mpg) and worse-case diesel trucks is 5.71 mpg in 2015.[88] Assuming construction worker vehicles have an average fuel economy consistent with the Caltrans study and assuming the mpg for gasoline and diesel above, based on the maximum projected number of workers and venders during each phase, the Project would use approximately 254,938 gallons of gasoline.[89] In 2012, California consumed a total of 337,666 barrels of gasoline for transportation, which is equivalent to a total annual consumption of 14.1 billion gallons by the transportation sector.[90] Construction of the Project would use approximately 202,420 gallons of diesel for the hauling.[91] This would represent 0.0004 percent of the statewide gasoline consumption and 0.0002 percent of the statewide diesel consumption. Further, while construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and cease upon the completion of construction. **Therefore, construction-related impacts to petroleum fuel consumption would be less than significant.**

88 Caltrans, 2007 California Motor Vehicle Stock, Travel and Fuel Forecast, Table 7, http://www.energy.ca.gov/2008publications/CALTRANS-1000-2008-036/CALTRANS-1000-2008-036.PDF.

89 Construction VMT derived from the client provided information, and air quality trips and VMT model sheets, included in the appendix to the DEIR. Worker, vender, and haul trips x trip lengths x length of phase. VMT / mpg = gallons.

90 US EPA, State Energy Data System, Table F-3: http://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_mg.pdf, May 18, 2016.

91 Heavy duty construction equipment is primarily diesel fueled.

Energy Conservation

The Project would utilize construction contractors who demonstrate compliance with applicable California Air Resources Board (CARB) regulations governing the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment. CARB has adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. This measure prohibits diesel-fueled commercial vehicles greater than 10,000 pounds from idling for more than five minutes at any given time. CARB has also approved the Truck and Bus regulation (CARB Rules Division 3, Chapter 1, Section 2025, subsection (h))[92] to reduce NOX, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California; this regulation will be phased in with full implementation by 2023. In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. Implementation began January 1, 2014 and the compliance schedule requires that best available control technology turnovers or retrofits be fully implemented by 2023 for large and medium equipment fleets and by 2028 for small fleets. Compliance with the above anti-idling and emissions regulations would result in efficient use of construction-related energy and the minimization or elimination of wasteful and unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption, as would use of haul trucks with larger capacities, as previously stated.

Operation

Electricity Demand

Electrical conduits, wiring and associated infrastructure would be conveyed to the Project from existing LADWP lines in the surrounding streets to the Project during construction. The Project could likely require transformer vaults, which are common for buildings of its size. However, the construction of these vaults is part of the overall building construction and would not constitute unusual or unplanned infrastructure that would cause a significant impact on the environment. The analysis compares the electricity demand for the Project to the overall LADWP capacity Citywide. The LADWP forecasts that in 2018-19, the total adjusted electricity sales (load forecast) will be 26,638 gigawatt-hours (gwh) with residential uses consisting 8.242 gwh and

92 California Air Resources Board, Final Regulation Order, Amendments to the Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use On-Road Diesel-Fueled Vehicles, http://www.arb.ca.gov/msprog/onrdiesel/documents/tbfinalreg.pdf.

commercial uses consisting of 12.413 gwh. The peak demand would be 5,650 megawatts (mw).[93]

As shown in **Table B.6-6, Project Estimated Electricity Demand**, the Project would demand approximately 3.75 gwh/year of electricity. This total does not take any credit for the proposed sustainable and energy conservation features of the Project.

Table B.6-6
Project Estimated Electricity Demand

Land Use	Size	Electricity Rates	Total (kwh/yr)
Residential	640 units	5,626.5 kw-h / unit	3,600,960
Commercial	10,738 sf	13.55 kw-h/sf	145,500
		Total Increase	**3,746,460**

sf =square feet; kw-h = kilowatt-hour; yr = year
Source: SCAQMD Air Quality Handbook, 1993, Table A9-11-A Electricity Usage Rate
The LADWP does not provide or comment on generation rates to provide an estimate of demand. In addition, the Los Angeles City Planning Department has consistently accepted use of the SCAQMD rates in its EIRs.
Table: CAJA Environmental Services, August 2019.

The Project's annual electricity consumption would represent approximately 0.02 percent of the forecasted electricity demand in 2026.[94] Thus, the Project is within the anticipated demand of the LADWP system. The LADWP is able to supply 7,300 mw of power with a current peak of 6,177 mw. Thus, there is 1,055 mw of additional power capacity. To put this into perspective, this represents approximately 0.002 percent of the additional power capacity at existing levels. Peak demand is expected to grow to 6,185 mw in 2025-2026.[95] Despite these growth projections, they would still not exceed the existing capacity of 7,300 mw. Thus, there is adequate supply capacity to serve the Project. Therefore, the LADWP's current and planned electricity supplies would be sufficient to support the Project's electricity consumption.

The Project would not require the acquisition of additional electricity supplies beyond those that exist or anticipated by the LADWP. The Project would be in compliance with Title 24 of the CCR (CalGreen) requiring building energy efficiency standards, and would also be in compliance with the LA Green Building Code. Electrical service would be provided in accordance with the

93 LADWP, 2014 IRP, Table A-1, page A-5: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=9kjcyeafd_4&_afrLoop=1178238919540287.

94 3.75 / 25,544 x 100% = 0.02%

95 2014 Power Integrated Resource Plan, Table 2-3, Forecasted growth in Annual Peak Demand: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-integratedresourceplanning/a-p-irp-documents?_afrLoop=1185569764107656&_afrWindowMode=0&_afrWindowId=9kjcyeafd_1#%40%3F_afrWindowId%3D9kjcyeafd_1%26_afrLoop%3D1185569764107656%26_afrWindowMode%3D0%26_adf.ctrl-state%3D1ahsnk3itw_4.

LADWP's Rules Governing Water and Electric Service.[96] It should also be noted that the Project's estimated electricity consumption is based on usage rates that do not account for the Project's energy conservation features or updates to the Los Angeles Building Code. This represents a conservative (worst-case scenario) approach. Therefore, actual electricity consumption from the Project would likely be lower than that forecasted. **Based on the above analysis, no operational impacts associated with the consumption of electricity would occur.**

Natural Gas Demand

As shown in **Table B.6-7, Project Estimated Natural Gas Demand**, the Project is estimated to demand approximately a net increase of 2,598,500 cf/month (86,617 cf/day) of natural gas. This total represents a more conservative result since it does not take any credit for the proposed sustainable and energy conservation features of the Project.

The natural gas demand is based on natural gas usage rates from the SCAQMD and without taking credit for the Project's energy conservation features, which would reduce natural gas usage. The approximate demand is based on the best available data and is intended to provide an analysis of the estimated demand in comparison to SCG's overall supply. The SCG retail core peak day demand in 2026 is estimated at 2,849 million cf/day. The Project's 86,617 cf/day represents approximately 0.003 percent of the peak demand. Thus, there is adequate supply capacity and no impacts would occur.

Table B.6-7
Project Estimated Natural Gas Demand

Land Use	Size	Natural Gas Rates	Total (cf/mo)
Residential	640 units	4,011.5 cf / mo	2,567,360
Commercial	10,738 sf	2.9 cf / mo	31,140
		Total Increase	**2,598,500**

sf =square feet; cf = cubic feet; mo = month
Source: SCAQMD Air Quality Handbook, 1993, Appendix 9, Table A9-12-A, Natural Gas Usage Rate
The SCG does not provide or comment on generation rates to provide an estimate of demand. In addition, the Los Angeles City Planning Department has consistently accepted use of the SCAQMD rates in its EIRs.
Table: CAJA Environmental Services, August 2019.

The Project would be responsible for paying connection costs to connect its on-site service meters to existing infrastructure. SCG undertakes expansion and/or modification of the natural gas infrastructure to serve future growth within its service area as part of the normal process of providing service. There would be no disruption of service to other consumers during the

96 LADWP Rules Governing Water and Electric Service: http://netinfo.ladbs.org/ladbsec.nsf/d3450fd072c7344c882564e5005d0db4/0476e63f972b28e288256b79007c417d/$FILE/Rule%2016-d.pdf.

installation of these improvements. The Project would not result in the construction of natural gas facilities (i.e., distribution lines) that would cause significant environmental impacts. **As such, no impacts on natural gas infrastructure would occur.**

In 2015, the state anticipated a surplus difference of 179 million cf of gas between the supply and demand requirements. Therefore, it is anticipated that adequate supplies exist to accommodate the Project's demand for natural gas. Even if this were not the case, SCG would make the adequate changes in order to provide the load to the customer, as SCG has an obligation to serve projects in its service area. Overall, the Project would not require the acquisition of additional natural gas resources beyond those that are anticipated by SCG.

LADWP and SCG undertake system expansions and secure the capacity to serve their service areas and take into consideration general growth and development. Project operation would result in the irreversible consumption use of non-renewable natural gas and would thus limit the availability of this resource. However, the continued use of natural gas would be on a relatively small scale and consistent with regional and local growth expectations for the area. The Project would be in compliance with the City's Green Building Ordinance and would thus exceed the standards in Title 24 of the CCR requiring building energy efficiency standards.

The Project will implement all applicable mandatory measures within the LA Green Building Code that would have the effect of reducing the Project's energy use.

The Project will comply with City Ordinance No. 179,820 (Green Building Ordinance), which establishes a requirement to incorporate green building practices into projects that meet certain threshold criteria.

The Project will comply with the lighting power requirements in the California Energy Code, California Code of Regulations (CCR), Title 24, Part 6.

Therefore, because of compliance with the Green Building Ordinance and adequate projected supply and the obligation of SCG to service the Project Site, Project impacts related to natural gas would be less than significant.

Transportation Energy Demand

The Project's location takes advantage of existing transportation alternatives in the vicinity that could reduce energy (gasoline, electric, or natural gas, depending on the mode of travel) consumption for transportation needs. A number of Metro bus routes are within reasonable walking distance (less than one-quarter mile) of the Project Site. As such, the Project Site is located in proximity to numerous Metro bus routes, thereby providing access for employees, patrons, and residents of the Project Site. These services provide an alternative to driving individual vehicles both into the Project Site from the surrounding areas as well as for residents, guests, and visitors at the Project Site to travel to surrounding areas. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and vehicle miles

travelled by encouraging walking, bicycling, and other nonautomotive forms of transportation, which would result in corresponding reductions in energy demand. Regarding bicycling, the Project would provide bicycle parking spaces at least to the City's Bicycle Parking Ordinance.

Transportation fuels, primarily gasoline and diesel, would be provided by local or regional suppliers and vendors. Project-related vehicles would require a negligible fraction of the state's total transportation fuel consumption. Based on the Project's estimated vehicle miles traveled (VMT)[97], and assuming the Project's mix of vehicle types (automobiles, trucks, and motorcycles) have an average fuel economy of 18.6 mpg,[98] approximately 379,972 gallons of fuel would be required in a year. This would represent approximately than 0.0003 percent of the 2012 statewide gasoline consumption (14.1 billion gallons of gasoline). Additionally, alternative-fueled, electric, and hybrid vehicles, to the extent these types of vehicles would be utilized by visitors to the Project Site would reduce the Project's consumption of gasoline and diesel. **Therefore, impacts related to petroleum consumption, during operation of the Project, would be less than significant.**

Alternative Energy Discussion

The use of energy provided by alternative (i.e., renewable) resources, off-site and on-site, to meet the Project's operational demands is constrained by the energy portfolio mix managed by LADPW, the service provider for the Project Site, and limitations on the availability or feasibility of on-site energy generation. LADWP is required to commit to the use of renewable energy sources for compliance with the California Renewable Energy Resources Act, as defined in its 2013 Renewables Portfolio Standard Policy and Enforcement Program. LADWP has committed to meeting the requirement to procure at least 33 percent of their energy portfolio from renewable sources by 2020 through the procurement of energy from eligible renewable resources, to be implemented as fiscal constraints, renewable energy pricing, system integration limits, and transmission constraints permit. Eligible renewable resources are defined in the 2013 Renewable Portfolio Standard to include biodiesel; biomass; hydroelectric and small hydro (30 MW or less); Los Angeles Aqueduct hydro power plants; digester gas; fuel cells; geothermal; landfill gas; municipal solid waste; ocean thermal, ocean wave, and tidal current technologies; renewable derived biogas; multi-fuel facilities using renewable fuels; solar photovoltaic; solar thermal electric; wind; and "other renewables that may be defined later".[99] LADWP's target procurement of energy from renewable resources was 20 percent by 2010. As of 2012, the most recent year for which data is available, its existing renewable energy resources included small hydro, wind, solar, and biogas, which accounted for 20 percent of its overall energy mix. This represents the available off-site renewable sources of energy that

97 Operational VMT derived from the Air quality trips and VMT model sheets, included in MND Appendix C.

98 Consistent with CalEEMod worker vehicles are assumed to be gasoline. Vendor and haul trips are assumed to be 100% diesel Heavy Duty Trucks.

99 City of Los Angeles, Department of Water and Power, Renewables Portfolio Standard Policy and Enforcement Program, amended December 2013.

would meet Project demand. LADWP is committed to reach a goal of 35% renewable energy by 2020.[100]

With respect to on-site renewable energy sources, because of the Project's location, there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydro, digester gas, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Geothermal energy, the use of heat naturally present in shallow soil or in groundwater or rock to provide building heating/cooling and to heat water, requires the installation of a heat exchanger consisting of a network of below-ground pipes to convey heated or cooled air to a building. Although methane is a renewable derived biogas, it is not available on the Project Site in commercially viable quantities or form (i.e., a form that could be used without further treatment), and its extraction and treatment for energy purposes would result in secondary impacts; it is currently regulated as a hazardous material by the City through its Methane Code.

The City's Green Building Code discusses renewable energy (Section 99.04.211):

99.04.211.4. Solar Ready Buildings [N]. Buildings for which plans were submitted to the Department for plan check and the plan check fee was paid after the effective date of the 2013 California Energy Code (Title 24, Part 6) shall comply with the following:

1. All one- and two-family dwellings, shall comply with Section 110.10(b)1A, 110.10(b)2, 110.10(b)3, 110.10(b)4, 110.10(c), 110.10(d) and 110.10(e) of the California Energy Code (Title 24, Part 6).

2. All buildings, other than one- and two-family dwellings, shall comply with Section 110.10(b) through 110.10(d) of the California Energy Code (Title 24, Part 6).

99.04.211.5. Space for Future Electrical Solar System Installation [N]. Buildings for which plans were submitted to the Department for plan check and the plan check fee was paid prior to the effective date of the 2013 California Energy Code (Title 24, Part 6), shall provide a minimum of 250 square feet of contiguous unobstructed roof area for the installation of future solar photovoltaic or other electrical solar panels. The location shall be suitable for installing future solar panels as determined by the designer.

Finally, solar and wind power represent variable-energy, or intermittent, resources that are generally used to augment, but not replace, natural gas-fired energy power generation, since reliability of energy availability and transmission is necessary to meet demand, which is constant. Wind-powered energy is not viable on the Project Sites due to the lack of sufficient wind in the Los Angeles basin. The California Energy Commission (CEC) studied the State's

100 https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-renewableenergy/a-p-re-rpsprogram?_adf.ctrl-state=2zwwyiver_4&_afrLoop=482029044070877.

high wind resource potential.[101] Based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential. Wind resource areas with winds above 12 mph within Los Angeles County are located in relatively remote areas in the northwestern portion of the County. Additionally, there are no viable sites within the Project Site for placement and operation of a wind turbine. The CEC has identified areas within the State with high potential for viable solar, wind, and geothermal energy production. The CEC rated California's solar potential by county using insolation values available to typical photovoltaic system configurations, as provided by the National Renewable Energy Laboratory. Although Los Angeles as a County has a relatively high photovoltaic potential of 3,912,346 megawatt-hours (MWh)/day, inland counties such as Inyo (10,047,177 MWh/day), Riverside (7,811,694 MWh/day), and San Bernardino (25,338,276 MWh/day) are more suitable for large-scale solar power generation.[102] In addition, most of the high potential areas of greater than 6 KWh/sqm/day in Los Angeles County are concentrated in the northeastern corner of the county around Lancaster, approximately 45 miles away from the Project Site.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact.

The Project would be designed to comply with all applicable state and local codes, including the City's Green Building Ordinance and the California Green Building Standards Code. Design features that could be implemented would include, but not be limited to, use of efficient lighting technology; energy efficient heating, ventilation and cooling equipment; and Energy Star rated products and appliances.

Overall, the Project would be designed and constructed in accordance with applicable state and local green building standards that would serve to reduce the energy demand of the Project. In addition, based on the above, the Project's energy demand would be within the existing and planned electricity and natural gas capacities of LADWP and SoCalGas, respectively. Use of petroleum-based fuels during construction and operation would also be minimized. **Therefore, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation measures are required.**

101 California Energy Commission. California Wind Resource Potential, http://www.energy.ca.gov/maps/renewable/Wind_Potential.pdf.

102 California Energy Commission, California Solar Resources, April 2005, http://www.energy.ca.gov/2005publications/CEC-500-2005-072/CEC-500-2005-072-D.PDF.

VII. GEOLOGY AND SOILS

In 2015, the California Supreme Court in California Building Industry Association v. Bay Area Air Quality Management District (CBIA v. BAAQMD), held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the project. The revised thresholds are intended to comply with this decision. Specifically, the decision held that an impact from the existing environment to the project, including future users and/or residents, is not an impact for purposes of CEQA. However, if the project, including future users and residents, exacerbates existing conditions that already exist, that impact must be assessed, including how it might affect future users and/or residents of the project. Thus, in accordance with Appendix G of the State CEQA Guidelines and the CBIA v. BAAQMD decision, the project would have a significant impact related to geology and soils if it would result in any of the following impacts.

The section is based in part on the following report, included as Appendix G of this MND:

G-1 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018.

G-2 Soils Approval Letter, Los Angeles Department of Building and Safety, December 24, 2018.

G-3 Paleontology response, Natural History Museum, July 20, 2017.

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, caused in whole or in part by the project's exacerbation of the existing environmental conditions? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact.

The Project Site is located in the seismically active region of Southern California. Numerous active and potentially active faults with surface expressions (fault traces) have been mapped adjacent to, within, and beneath the City of Los Angeles. California faults are classified as active, potentially active or inactive. Faults from past geologic periods of mountain building, but do not display any evidence of recent offset are considered "inactive" or "potentially active." Faults that have historically produced earthquakes or show evidence of movement within the Holocene (past 11,000 years) are considered "active faults." Active faults that are capable of causing large earthquakes may also cause ground rupture. The Alquist-Priolo Act of 1971 was enacted to protect structures from hazards associated with fault ground rupture.

Faults

Recent examples of the seismic activity in the region include the 1987 Whittier Narrows earthquake and the 1994 Northridge earthquake. The closest active faults that have ruptured the ground surface in Late Quaternary time are the Hollywood Fault, which is located approximately 5.0 kilometers north of the Site, and the Newport-Inglewood Fault, which is located approximately 7.6 kilometers southwest of the Project Site. In addition to the active source faults that have ruptured the ground surface, potentially active blind thrust faults are also believed to exist at depth in the region of the site, including the Upper Elysian Park Thrust and the Puente Hills Blind Thrusts. These blind thrust faults do not explicitly rupture the surface by definition, but are inferred to exist at depth based on indirect information, such as seismicity and folded stratigraphy. Other faults in the area have a potential to generate strong ground motions at the Site, such as the Raymond Fault located about 10 kilometers to the northeast, the Verdugo Fault located about 14 kilometers to the north, the Santa Monica fault located about 11 kilometers to the northwest, and the San Andreas Fault about 57 km to the northwest.

Based on research of available literature and results of Project Site reconnaissance, no known active or potentially active faults underlie the Site. In addition, the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the Project Site is considered low.[103] **Impacts would be less than significant.**

(ii) Strong seismic ground shaking caused in whole or in part by the project's exacerbation of the existing environmental conditions?

Less Than Significant Impact.

The principal seismic hazard to the Project Site and Project is strong ground shaking from earthquakes produced by local faults. Modern, well-constructed buildings are designed to resist ground shaking through the use of shear panels, moment-resisting frames and reinforcement. Additional precautions may be taken to protect personal property and reduce the chance of injury, including strapping water heaters and securing furniture and appliances. It is likely that the Project Site will be shaken by future earthquakes produced in southern California.

The California State Legislature enacted the Seismic Hazards Mapping Act of 1990, which was prompted by damaging earthquakes in California, and was intended to protect public safety from the effects of strong ground shaking, liquefaction, landslides, and other earthquake-related hazards. The Seismic Hazards Mapping Act requires that the State Geologist delineate various "seismic hazards zones." The maps depicting the zones are released by the California Geological Survey. The Seismic Hazards Mapping Act does not require mitigation to a level of no ground failure and/or no structural damage.

103 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018.

The Site is not within an earthquake fault zone.[104]

As with most locations in southern California, there is a considerable potential for strong seismic shaking at the Project Site. The Project structures would be designed in accordance with seismic parameters contained in the City of Los Angeles and California Building Code. The design and construction of the Project is required to comply with the most current codes regulating seismic risk, including the California Building Code and the LAMC, which incorporates the International Building Code (IBC). Compliance with current California Building Code and LAMC requirements will minimize the potential to expose people or structures to substantial risk or loss or injury.

The Project will comply with site-specific ground motion values and seismic design criteria provided in the Geotechnical Investigation. **Therefore, impacts related to seismic ground shaking will be less than significant.**

(iii) Seismic-related ground failure, including liquefaction, caused in whole or in part by the project's exacerbation of the existing environmental conditions?

No Impact.

Liquefaction is a phenomenon in which saturated silty to cohesion-less soils below the groundwater table are subject to temporary loss of strength due to buildup of excess pore pressure during cyclic loading conditions such as those induced by an earthquake. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

The Site is not within a liquefaction zone.[105]

According to the City of Los Angeles ZIMAS mapping system the Project Site is not classified within an area susceptible to liquefaction.[106]

According to the General Plan Safety Element, the Project Site is not within a liquefaction area.[107]

The Seismic Hazards Map does not classify the Project Site as part of a liquefiable area. This determination is based on groundwater depth records, soil type and distance to a fault capable of producing a substantial earthquake. Based on the dense nature of the underlying Older

104 https://maps.conservation.ca.gov/cgs/EQZApp/app/
105 https://maps.conservation.ca.gov/cgs/EQZApp/app/
106 ZIMAS search: http://zimas.lacity.org/.
107 Los Angeles Safety Element, Exhibit B, Areas Susceptible to Liquefaction in the City of Los Angeles: http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf, September 21, 2018.

Alluvium and bedrock**,** the potential for liquefaction is considered remote.[108] **Therefore, no impacts with respect to liquefaction will occur.**

(**iv) Landslides caused in whole or in part by the project's exacerbation of the existing environmental conditions?**

No Impact.

A project-related significant adverse effect may occur if the project is located in a hillside area with soil conditions that would suggest a high potential for sliding. A landslide area is land identified by the State of California that is located in the general area of sites that possess the potential for earthquake-induced rock falls, slope failure, and debris flow. The Project Site is not located within a mapped landslide area. No significant slopes are located near the Project Site.

The Site is not within a landslide zone.[109]

The City of Los Angeles ZIMAS mapping system does not classify the Project Site as within a landslide area.[110]

The General Plan Safety Element does not identify any area around the Project Site as a bedrock or probable bedrock landslide area.[111] The probability of seismically-induced landslides affecting the Project Site is considered to be remote, due to the lack of significant slopes on the Site and in surrounding area.[112] **Therefore, no impacts with respect to landslides will occur.**

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact.

A significant impact may occur if a project exposes large areas to the erosional effects of wind or water for a protracted period of time. Demolition (removal of the existing parking structure) and grading would expose soils for a limited time, allowing for possible erosion. However, due to the temporary nature of the soil exposure during the grading process, substantial erosion is unlikely to occur.

The Project includes two subterranean levels. Excavation of between 15 and 30 feet will also include required foundation footings and soil compaction.

All grading activities require permits from the City of Los Angeles Department of Building and Safety which reviews compliance with requirements and standards designed to limit potential

108 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018.
109 https://maps.conservation.ca.gov/cgs/EQZApp/app/
110 ZIMAS search: http://zimas.lacity.org/.
111 Los Angeles Safety Element, Exhibit C, Landslide Inventory and Hillside Areas in the City of Los Angeles: http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf, accessed September 21, 2018.
112 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018.

impacts to acceptable levels. In addition, all on-site grading and Project Site preparation will comply with all applicable provisions of LAMC Chapter IX, Division 70, addressing grading, excavation, and fills. The grading plan will conform with the City's Landform Grading Manual guidelines, subject to approval by the Department of City Planning and the Department of Building and Safety's Grading Division.

During construction, the Project will be required to prevent the transport of sediments from the Project Site by stormwater runoff and winds through the use of appropriate Best Management Practices (BMPs). Appropriate erosion control and drainage devices per the Los Angeles Municipal Code Section 91.7013 shall be provided to the satisfaction of the Los Angeles Department of Building and Safety. With the implementation of the required construction BMPs, soil erosion during construction impacts will be less than significant.

Long-term operation of the Project would not result in substantial soil erosion or loss of topsoil. The entire Project Site would be covered by the proposed structures and landscaping that complied with LID; thus, no exposed areas subject to erosion would be created or affected by the Project. **Therefore, operation impacts related to erosion or the loss of topsoil will be less than significant.**

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, caused in whole or in part by the project's exacerbation of the existing environmental conditions?

Less Than Significant Impact.

A significant impact may occur if the project is built in an unstable area without proper site preparation or design features to provide adequate foundations for the project buildings, thus posing a hazard to life and property. Construction activities associated with the Project must comply with the City of Los Angeles Building Code, which is designed to assure safe construction, including building foundation requirements appropriate to site conditions. As discussed in the response to Questions 6(a)(iii) and 6(a)(iv), the Project Site is not at risk for liquefaction or landslides.

Seismically-Induced Settlement

Seismically-induced settlement or compaction of dry or moist, cohesion-less soils can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures. Some seismically-induced settlement of the proposed development should be expected as a result of strong ground-shaking. However, due to relatively dense and uniform nature of the underlying earth

materials, excessive differential settlements would not be expected to occur.[113] Therefore, impacts will be less than significant.

Based on the exploration, laboratory testing, evaluation and research, the Project is considered feasible from a geotechnical engineering standpoint provided the advice and recommendations are followed and implemented during construction.[114] **Therefore, impacts will be less than significant.**

d) Would the project be located on expansive soil, as identified in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact.

A significant impact may occur if a project is built on expansive soils without proper site preparation or design features to provide adequate foundations for project buildings thus posing a hazard to life and property. Expansive soils contain significant amounts of clay which may expand or shrink with moisture variations.

The onsite geologic materials are in the very low expansive range.[115] Construction of the Project would be required to comply with the City of Los Angeles Uniform Building Code, LAMC, and other applicable building codes which includes building foundation requirements appropriate to Site-specific conditions.

The Project would comply with the recommendations and conditions in the Geotechnical Investigation. This would ensure that the Project is developed and constructed as feasible from a geotechnical perspective. **Therefore, no impact with respect to expansive soils will occur.**

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact.

This question would apply to the Project only if it were located in an area not served by an existing sewer system. The Project Site is located in an urbanized area within the City of Los Angeles, which is served by a wastewater collection, conveyance, and treatment system operated by the City. No septic tanks or alternative disposal systems are necessary, nor are they proposed. **Therefore, no impacts related to alternative wastewater disposal systems will occur.**

113 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018.
114 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018.
115 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact.

The Project Site is located in an urbanized area and has been previously disturbed by past development activities and contains existing buildings and parking structures that provides subterranean levels. The Project would require excavation for subterranean parking levels, utility and foundation work, and grading. There is a possibility of encountering a resource.

The Natural History Museum conducted a search of their paleontology collection records for the locality and specimen data for the Project Site and does not have any vertebrate fossil localities that lie directly within the Project area boundaries, but do have localities nearby from the same sedimentary deposits that occur in the area.

However, there is still the potential for buried paleontological resources to be found within the Project Site. If paleontological resources are discovered during excavation, grading, or construction, the City of Los Angeles Department of Building and Safety will be notified immediately, and all work will cease in the area of the find until a qualified paleontologist evaluates the find. Construction activity may continue unimpeded on other portions of the Project Site. The paleontologist shall determine the location, the time frame, and the extent to which any monitoring of earthmoving activities shall be required. The found deposits would be treated in accordance with Federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. **Therefore, impacts would be less than significant.**

VIII.GREENHOUSE GAS EMISSIONS

The section is based in part on the following item, included as Appendix C of this MND:

C Air Quality and Greenhouse Gases Appendices, DKA Planning, August 2019.

Environmental Setting

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation, and storms. Global warming, a related concept, is the observed increase in average temperature of Earth's surface and atmosphere. One identified cause of global warming is an increase of GHG emissions in the atmosphere. GHG emissions are those compounds in Earth's atmosphere that play a critical role in determining Earth's surface temperature. Earth's natural warming process is known as the "greenhouse effect." It is called the greenhouse effect because Earth and the atmosphere surrounding it are similar to a greenhouse with glass panes in that the glass allows solar radiation (sunlight) into Earth's atmosphere but prevents radiative heat from escaping, thus warming Earth's atmosphere. Some levels of GHG emissions keep the average surface temperature of Earth close to a hospitable 60 degrees Fahrenheit. However, it is believed that excessive concentrations of anthropogenic GHG emissions in the atmosphere can result in increased global mean temperatures, with associated adverse climatic and ecological consequences.[116] Scientists studying the particularly rapid rise in global temperatures have determined that human activity has resulted in increased emissions of GHG emissions, primarily from the burning of fossil fuels (from motor vehicle travel, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.), deforestation, agricultural activity, and the decomposition of solid waste. Scientists refer to the global warming context of the past century as the "enhanced greenhouse effect" to distinguish it from the natural greenhouse effect.[117]

Global GHG emissions due to human activities have grown since pre-industrial times. As reported by the United States Environmental Protection Agency (USEPA), global carbon emissions from fossil fuels increased by over 16 times between 1900 and 2008 and by about 1.5 times between 1990 and 2008. In addition, in the Global Carbon Budget 2014 report, published in September 2014, atmospheric carbon dioxide (CO_2) concentrations in 2013 were found to be 43 percent above the concentration at the start of the Industrial Revolution, and the present concentration is the highest during at least the last 800,000 years.[118] Global increases in CO_2 concentrations are due primarily to fossil fuel use, with land use change providing another significant but smaller contribution. With regard to emissions of non- CO_2 GHG, these

116 Intergovernmental Panel on Climate Change, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)].

117 Center for Climate and Energy Solutions, Climate Change 101: Understanding and Responding to Global Climate Change.

118 C. Le Quéré, et al., Global Carbon Budget 2014, (Earth System Science Data, 2015, doi:10.5194/essd–7–47–2015).

have also increased significantly since 1990.[119] In particular, studies have concluded that it is very likely that the observed increase in methane (CH_4) concentration is predominantly due to agriculture and fossil fuel use.[120]

In August 2007, international climate talks held under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC) led to the official recognition by the participating nations that global emissions of GHG must be reduced. According to the "Ad Hoc Working Group on Further Commitments of Annex I Parties under the Kyoto Protocol," avoiding the most catastrophic events forecast by the United Nations Intergovernmental Panel on Climate Change (IPCC) would entail emissions reductions by industrialized countries in the range of 25 to 40 percent below 1990 levels. Because of the Kyoto Protocol's Clean Development Mechanism, which gives industrialized countries credit for financing emission-reducing projects in developing countries, such an emissions goal in industrialized countries could ultimately spur efforts to cut emissions in developing countries as well.[121]

With regard to the adverse effects of global warming, as reported by the Southern California Association of Governments (SCAG), "Global warming poses a serious threat to the economic well-being, public health and natural environment in southern California and beyond. The potential adverse impacts of global warming include, among others, a reduction in the quantity and quality of water supply, a rise in sea level, damage to marine and other ecosystems, and an increase in the incidences of infectious diseases. Over the past few decades, energy intensity of the national and state economy has been declining due to the shift to a more service-oriented economy. California ranked fifth lowest among the states in CO_2 emissions from fossil fuel consumption per unit of Gross State Product. However, in terms of total CO_2 emissions, California is second only to Texas in the nation and is the 12th largest source of climate change emissions in the world, exceeding most nations. The SCAG region, with close to half of the state's population and economic activities, is also a major contributor to the global warming problem."[122]

GHG Emissions Background

GHG emissions include CO_2, CH_4, nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).[123] Carbon dioxide is the most abundant GHG. Other GHG emissions are less abundant but have higher global warming potential than CO_2. Thus, emissions of other GHG emissions are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. Forest fires, decomposition, industrial processes, landfills, and consumption of fossil fuels for power generation,

119 USEPA, Global Greenhouse Gas Emissions Data, www.epa.gov/ghgemissions/global-greenhouse-gas- emissions-data, accessed March 17, 2017.

120 USEPA, Atmospheric Concentrations of Greenhouse Gas, updated June 2015.

121 United Nations Framework Convention on Climate Change, Press Release—Vienna UN Conference Shows Consensus on Key Building Blocks for Effective International Response to Climate Change, August 31, 2007

122 SCAG, The State of the Region—Measuring Regional Progress, December 2006, p. 121.

123 As defined by California Assembly Bill (AB) 32 and Senate Bill (SB) 104.

transportation, heating, and cooking are the primary sources of GHG emissions. A general description of the GHG emissions is provided in **Table B.8-1**.

Global Warming Potential (GWP) is one type of simplified index based upon radiative properties used to estimate the potential future impacts of emissions of different gases upon the climate system. The GWP is based on a number of factors, including the radiative efficiency (heat-absorbing ability) of each gas relative to that of CO_2, as well as the decay rate of each gas (the amount removed from the atmosphere over a given number of years) relative to that of CO_2. The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that time period. A summary of the atmospheric lifetime and GWP of selected gases is presented in **Table B.8-2**.[124] As indicated on the table, the GWP ranges from 1 to 22,800.

Table B.8-1
Description of Identified GHG Emissions [a]

Greenhouse Gas	General Description
Carbon Dioxide (CO_2)	An odorless, colorless GHG, which has both natural and anthropocentric sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human caused) sources of CO_2 are burning coal, oil, natural gas, and wood.
Methane (CH_4)	A flammable gas and is the main component of natural gas. When one molecule of CH_4 is burned in the presence of oxygen, one molecule of CO_2 and two molecules of water are released. A natural source of CH_4 is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain CH_4, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and cattle.
Nitrous Oxide (N_2O)	A colorless GHG. High concentrations can cause dizziness, euphoria, and sometimes slight hallucinations. N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used in rocket engines, racecars, and as an aerosol spray propellant.
Hydrofluorocarbons (HFCs)	Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are non-toxic, non-flammable, insoluble, and chemically unreactive in the troposphere (the level of air at Earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. Because they destroy stratospheric ozone, the production of CFCs was stopped as required by the Montreal Protocol in 1987. HFCs are synthetic man-made chemicals that are used as a substitute for CFCs as refrigerants. HFCs deplete stratospheric ozone, but to a much lesser extent than CFCs.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. PFCs have very long lifetimes, between 10,000 and 50,000

124 Atmospheric lifetime is defined as the time required to turn over the global Atmospheric burden. Source: Intergovernmental Panel on Climate Change, IPCC Third Assessment Report: Climate Change 2001 (TAR), Chapter 4: Atmospheric Chemistry and Greenhouse Gases, 2001, p. 247.

Table B.8-1
Description of Identified GHG Emissions [a]

Greenhouse Gas	General Description
	years. Two common PFCs are tetrafluoromethane and hexafluoroethane. The two main sources of PFCs are primary aluminum production and semi-conductor manufacturing.
Sulfur Hexafluoride (SF_6)	An inorganic, odorless, colorless, non-toxic, and non-flammable gas. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.
Nitrogen Trifluoride (NF_3)	An inorganic, non-toxic, odorless, non-flammable gas. NF_3 is used in the manufacture of semi-conductors, as an oxidizer of high-energy fuels, for the preparation of tetrafluorohydrazine, as an etchant gas in the electronic industry, and as a fluorine source in high power chemical lasers.
[a]GHG emissions identified in this table are ones identified in the Kyoto Protocol and other synthetic gases recently added to the IPCC's Fifth Assessment Report. Source: Association of Environmental Professionals, Alternative Approaches to Analyze Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Final, June 29, 2007; Environmental Protection Agency, Acute Exposure Guideline Levels (AEGLs) for Nitrogen Trifluoride; January 2009.	

Table B.8-2
Atmospheric Lifetimes and Global Warming Potential

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO_2)	50–200	1
Methane (CH_4)	12 (+/-3)	25
Nitrous Oxide (N_2O)	114	298
HFC-23: Fluoroform (CHF_3)	270	14,800
HFC-134a: 1,1,1,2-Tetrafluoroethane (CH_2FCF_3)	14	1,430
HFC-152a: 1,1-Difluoroethane ($C_2H_4F_2$)	1.4	124
PFC-14: Tetrafluoromethane (CF_4)	50,000	7,390
PFC-116: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800
Nitrogen Trifluoride (NF_3)	740	17,200
Source: IPCC, Climate Change 2007: Working Group I: The Physical Science Basis, Direct Global Warming Potentials, www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html, accessed May 14, 2018.		

Regulatory Framework

Federal

Federal Clean Air Act

The U.S. Supreme Court ruled in *Massachusetts v. Environmental Protection Agency*, 127 S.Ct. 1438 (2007), that CO_2 and other GHG emissions are pollutants under the federal Clean Air Act (CAA), which the USEPA must regulate if it determines they pose an endangerment to public health or welfare. The U.S. Supreme Court did not mandate that the USEPA enact regulations to reduce GHG emissions. Instead, the Court found that the USEPA could avoid taking action if it found that GHG emissions do not contribute to climate change or if it offered a "reasonable explanation" for not determining that GHG emissions contribute to climate change.

On April 17, 2009, the USEPA issued a proposed finding that GHG emissions contribute to air pollution that may endanger public health or welfare. On April 24, 2009, the proposed rule was published in the Federal Register under Docket ID No. EPA-HQ-OAR-2009-0171. The USEPA stated that high atmospheric levels of GHG emissions "are the unambiguous result of human emissions and are very likely the cause of the observed increase in average temperatures and other climatic changes." The USEPA further found that "atmospheric concentrations of greenhouse gases endanger public health and welfare within the meaning of Section 202 of the Clean Air Act." The findings were signed by the USEPA Administrator on December 7, 2009. The final findings were published in the Federal Register on December 15, 2009. The final rule was effective on January 14, 2010.[125] While these findings alone do not impose any requirements on industry or other entities, this action is a prerequisite to regulatory actions by the USEPA, including, but not limited to, GHG emissions standards for light-duty vehicles.

On April 4, 2012, the USEPA published a proposed rule to establish, for the first time, a new source performance standard for GHG emissions. Under the proposed rule, new fossil fuel–fired electric generating units larger than 25 megawatts (MW) are required to limit emissions to 1,000 pounds of CO_2 per MW-hour (CO_2/MWh) on an average annual basis, subject to certain exceptions. Subsequently, on April 23, 2018, the USEPA issued a policy stating that CO_2 emissions from biomass-fired and other biogenic sources would be considered carbon neutral when used for energy production at stationary sources.

On April 17, 2012, the USEPA issued emission rules for oil production and natural gas production and processing operations, which are required by the CAA under Title 40 of the Code of Federal Regulations, Parts 60 and 63. The final rules include the first federal air standards for natural gas wells that are hydraulically fractured, along with requirements for several other sources of pollution in the oil and gas industry that currently are not regulated at the federal level.[126]

Corporate Average Fuel Economy (CAFE) Standards

In response to the *Massachusetts v. Environmental Protection Agency* ruling, the George W. Bush Administration issued Executive Order 13432 in 2007, directing the USEPA, the United States Department of Transportation (USDOT), and the United States Department of Energy (USDOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011; in 2010, the USEPA and the NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

125 USEPA, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, Final Rule.

126 USEPA, 2012 Final Rules for Oil and Natural Gas Industry, April 17, 2012, www.epa.gov/controlling-air- pollution-oil-and-natural-gas-industry/2012-final-rules-oil-and-natural-gas-industry, accessed January 3, 2017.

In 2010, President Obama issued a memorandum directing the USEPA, USDOT, USDOE, and NHTSA to establish additional standards regarding fuel efficiency and GHG emissions reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG emissions and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if the standards were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021. On April 2, 2018, NHTSA's plans to revise adopted standards for model years 2022–2025 in a future rulemaking.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the USEPA and the NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.[127]

Building on the success of the first phase of standards, in August 2016, the USEPA and the NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution. The Phase 2 standards were to lower CO_2 emissions by approximately 1.1 billion metric tons and save vehicle owners fuel costs of about $170 billion.[128] On October 17, 2017, USEPA announced it would revisit these standards.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;

- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;

127 The emission reductions attributable to the regulations for medium- and heavy-duty trucks were not included in the Project's emissions inventory due to the difficulty in quantifying the reductions. Excluding these reductions results in a more conservative (i.e., higher) estimate of emissions for the Project.

128 U.S. EPA, EPA and NHTSA Adopt Standards to Reduce GHG and Improve Fuel Efficiency of Medium- and Heavy-Duty Vehicles for Model Year 2018 and Beyond, August 2016.

- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and the NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks, and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of the EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."[129]

State

Executive Order S-3-05 and Executive Order B-30-15

Executive Order S-3-05, issued by Governor Schwarzenegger in June 2005, established GHG emissions targets for the state, as well as a process to ensure the targets are met. The order directed the Secretary for the California Environmental Protection Agency (CalEPA) to report every two years on the state's progress toward meeting the Governor's GHG emission reduction targets. The statewide GHG emissions reduction targets are as follows:

- By 2010, reduce to 2000 emission levels;[130]
- By 2020, reduce to 1990 emission levels;
- By 2030, reduce to 40 percent below 1990 levels; and
- By 2050, reduce to 80 percent below 1990 levels.

Executive Order B-30-15, issued by Governor Brown in April 2015, established an additional statewide policy goal to reduce GHG emissions 40 percent below their 1990 levels by 2030. Reducing GHG emissions by 40 percent below 1990 levels in 2030 and by 80 percent below 1990 levels by 2050 (consistent with Executive Order S-3-05) aligns with scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius.[131]

The State Legislature adopted equivalent 2020 and 2030 statewide targets in the California Global Warming Solutions Act of 2006 (also known as Assembly Bill [AB] 32) and Senate Bill 32, respectively, both of which are discussed below. However, the Legislature has not yet adopted a target for the 2050 horizon year.

129 A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

130 The 2010 target to reduce GHG emissions to 2000 levels was not met. Source: Rubin, Thomas A.," Does California Really Need Major Land Use and Transportation Changes to Meet Greenhouse Gas Emissions Targets?," July 3, 2013.

131 CARB, Frequently Asked Questions about Executive Order B-30-15, 2030 Carbon Target and Adaptation FAQs, April 29, 2015.

As a result of Executive Order S-3-05, the California CAT, led by the Secretary of CalEPA, was formed. The CAT is made up of representatives from a number of state agencies and was formed to implement global warming emission reduction programs and to report on the progress made toward meeting statewide targets established under the Executive Order. The CAT reported several recommendations and strategies for reducing GHG emissions and reaching the targets established in the Executive Order.[132] The CAT stated that smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population. "Intelligent transportation systems" is the application of advanced technology systems and management strategies to improve operational efficiency of transportation systems and the movement of people, goods, and service.[133]

Assembly Bill 32 (California Global Warming Solutions Act of 2006) and Senate Bill 32

The California Global Warming Solutions Act of 2006 (also known as AB 32) commits the state to achieving the following:

- By 2010, reduce to 2000 GHG emission levels;[134] and
- By 2020, reduce to 1990 levels.

To achieve these goals, which are consistent with the California CAT GHG emissions reduction targets for 2010 and 2020, AB 32 mandates that the California Air Resources Board (CARB) establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce statewide GHG emissions from stationary sources consistent with the CAT strategies, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. In order to achieve the reduction targets, AB 32 requires CARB to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG emissions reductions.[135]

Senate Bill (SB) 32, signed September 8, 2016, updates AB 32 (the Global Warming Solutions Act) to include an emissions reductions goal for the year 2030. Specifically, SB 32 requires the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. The new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel,

132 CalEPA, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006.

133 CalEPA, Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 58.

134 The 2010 target to reduce GHG emissions to 2000 levels was not met. Source: Rubin, Thomas A., "Does California Really Need Major Land Use and Transportation Changes to Meet Greenhouse Gas Emissions Targets?", July 3, 2013.

135 CARB's list of discrete early action measures that could be adopted and implemented before January 1, 2010, was approved on June 21, 2007. The three adopted discrete early action measures are: (1) a low- carbon fuel standard, which reduces carbon intensity in fuels statewide; (2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance; and (3) increased methane capture from landfills, which includes requiring the use of state-of-the-art capture technologies.

putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

Climate Change Scoping Plan

In 2008, CARB approved the original *Climate Change Scoping Plan* as required by AB 32.[136] Subsequently, CARB approved updates to the *Climate Change Scoping Plan* in 2014 *(First Update)* and 2017 *(2017 Update)*, with the *2017 Update* considering SB 32 (adopted in 2016) in addition to AB 32. The original *Climate Change Scoping Plan* proposed a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health.[137] The original *Climate Change Scoping Plan* identified a range of GHG reduction actions that included direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms, such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The original *Climate Change Scoping Plan* called for a "coordinated set of solutions" to address all major categories of GHG emissions. Transportation emissions were addressed through a combination of higher standards for vehicle fuel economy, implementation of the Low Carbon Fuel Standard (LCFS), and greater consideration to reducing trip length and generation through land use planning and transit-oriented development. Buildings, land use, and industrial operations were encouraged and, sometimes, required to use energy more efficiently. Utility energy providers were required change to include more renewable energy sources through implementation of the Renewables Portfolio Standard (RPS).[138] Additionally, the original *Climate Change Scoping Plan* emphasized opportunities for households and businesses to save energy and money through increasing energy efficiency. It indicated that substantial savings of electricity and natural gas would be accomplished through "improving energy efficiency by 25 percent." The original *Climate Change Scoping Plan* identified a number of specific issues relevant to the Project, including the following:

- The potential of using the green building framework as a mechanism, which could enable GHG emissions reductions in other sectors (i.e., electricity, natural gas), noting that:

  A Green Building strategy will produce greenhouse gas savings through buildings that exceed minimum energy efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable materials. Combined, these measures can also contribute to healthy indoor air quality, protect human health, and minimize impacts to the environment.

136 Climate Change Proposed Scoping Plan was approved by CARB on December 11, 2008.
137 CARB, Climate Change Scoping Plan, December 2008.
138 For a discussion of Renewables Portfolio Standard, refer to Subsection 2(h)(i), California Renewables Portfolio Standard.

- The importance of supporting the Department of Water Resources' work to implement the Governor's objective to reduce per capita water use by 20 percent by 2020. Specific measures to achieve this goal include water use efficiency, water recycling, and reuse of urban runoff. The original *Climate Change Scoping Plan* noted that water use requires significant amounts of energy, including approximately one-fifth of statewide electricity.

- Encouraging local governments to set quantifiable emission reduction targets for their jurisdictions and use their influence and authority to encourage reductions in emissions caused by energy use, waste and recycling, water and wastewater systems, transportation, and community design.

Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the scope of the reductions California has to make to return to the 1990 emissions level by 2020 as required by AB 32. CARB originally defined the "business-as-usual" or BAU scenario as emissions in the absence of any GHG emission reduction measures discussed in the original *Climate Change Scoping Plan*. For example, in further explaining CARB's BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards. In the original *Climate Change Scoping Plan*, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level (i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations).[139]

Subsequent to adoption of the original *Climate Change Scoping Plan*, a lawsuit was filed challenging CARB's approval of the *Climate Change Scoping Plan Functional Equivalent Document* (*FED to the Climate Change Scoping Plan*). On May 20, 2011 (Case No. CPF-09-509562), the Court found that the environmental analysis of the alternatives in the *FED to the Climate Change Scoping Plan* was not sufficient under the California Environmental Quality Act (CEQA). CARB staff prepared a revised and expanded environmental analysis of the alternatives, and the *Supplemental FED to the Climate Change Scoping Plan* was approved on August 24, 2011 (*Supplemental FED*). The *Supplemental FED* indicated that there is the potential for adverse environmental impacts associated with implementation of the various GHG emission reduction measures recommended in the *Climate Change Scoping Plan*.

As part of the *Supplemental FED*, CARB updated the projected 2020 BAU emissions inventory based on then current economic forecasts (i.e., as influenced by the economic downturn) and emission reduction measures already in place, replacing its prior 2020 BAU emissions inventory. CARB staff derived the updated emissions estimates by projecting emissions growth, by sector, from the state's average emissions from 2006 through 2008. Specific emission reduction measures included were the million-solar-roofs program, the AB 1493 (Pavley I) motor

139 CARB, Climate Change Scoping Plan: A Framework for Change, p. 12, December 2008.

vehicle GHG emission standards, and the LCFS.[140] In addition, CARB also factored into the 2020 BAU inventory emissions reductions associated with a 33-percent RPS for electricity generation. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 percent (down from 28.5 percent) from BAU conditions. When the 2020 emissions level projection also was updated to account for newly implemented regulatory measures discussed above, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 28.5 percent) from the BAU conditions.[141][142]

In 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (First Update).[143] The stated purpose of the First Update was to "highlight… California's success to date in reducing its GHG emissions and lay…the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.[144] The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.[145]

In conjunction with the First Update, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that will be needed to meet the state's more expansive emission reduction needs by 2050.[146] Those six areas were: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The First Update identified key recommended actions for each sector that would facilitate achievement of the 2050 reduction target.

Based on CARB's research efforts, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050."[147] Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

140 Pavley I is the first GHG standards in the nation for passenger vehicles and took effect for model years starting in 2009 to 2016. Pavley I could potentially result in 27.7 million metric tonnes CO2e reduction in 2020. Pavley II will cover model years 2017 to 2025 and potentially result in an additional reduction of 4.1 million metric tons CO2e.

141 CARB, Supplement to the AB 32 Scoping Plan FED, Table 1.2-2.

142 The emissions and reductions estimates found in the Supplemental FED to the Climate Change Scoping Plan fully replace the estimates published in the 2008 Climate Change Scoping Plan. See CARB, Resolution 11-27 (Aug. 24, 2011) (setting aside approval of 2008 Climate Change Scoping Plan and associated emissions forecasts and approving the Supplemental FED). The estimates in the 2008 document are 596 million metric tons CO2e under 2020 BAU and a required reduction of 169 million metric tons CO2e (28.4 percent).

143 Health & Safety Code §38561(h) requires CARB to update the Scoping Plan every five years.

144 CARB, First Update, May 2014, p. 4.

145 CARB, First Update, May 2014, p. 34.

146 CARB, First Update, May 2014, p. 6.

147 CARB, First Update, May 2014, p. 32

The First Update discussed new residential and commercial building energy efficiency improvements, specifically identifying progress towards zero net energy buildings as an element of meeting mid-term and long-term GHG emissions reduction goals. The First Update expressed CARB's commitment to working with the California Public Utilities Commission (CPUC) and California Energy Commission (CEC) to facilitate further achievements in building energy efficiency.

In December 2017, CARB adopted California's 2017 *Climate Change Scoping Plan Update: The Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan Update*). The *2017 Scoping Plan Update* builds upon the framework established by the original *Climate Change Scoping Plan* and the First Update while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health. The 2017 Scoping Plan Update includes policies to require direct GHG emissions reductions at some of the state's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade program, which constrains and reduces emissions at covered sources.[148]

Assembly Bill 197

Assembly Bill (AB) 197, signed September 8, 2016, is a bill linked to SB 32 that prioritizes efforts to cut GHG emissions in low-income or minority communities. AB 197 requires CARB to make available, and update at least annually, on its Internet Web site the emissions of greenhouse gases, criteria pollutants, and toxic air contaminants for each facility that reports to CARB and air districts. In addition, AB 197 adds two Members of the Legislature to the CARB board as ex officio, non-voting members and also creates the Joint Legislative Committee on Climate Change Policies to ascertain facts and make recommendations to the Legislature and the houses of the Legislature concerning the state's programs, policies, and investments related to climate change.

Cap-and-Trade Program

The original *Climate Change Scoping Plan* identified a cap-and-trade program as one of the strategies for California to reduce GHG emissions. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap are able to trade permits to emit GHG emissions within the overall limit. According to CARB, a cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020.[149]

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32 and the State Legislature extended the Program through 2030 with the adoption of Assembly Bill 398. The Cap-and-Trade Program is designed to reduce GHG emissions from major sources,

148 CARB, 2017 Scoping Plan Update, November 2017, p. 7

149 With continuation of the Cap-and-Trade Program, the State can achieve a 40-percent reduction target by 2030.

such as refineries and power plants, (deemed "covered entities"). "Covered entities" subject to the Cap-and-Trade Program are sources that emit more than 25,000 metric tons CO2e (MTCO2e) per year. Triggering of the 25,000 MTCO2e per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (Mandatory Reporting Rule or MRR).

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or in part (if eligible) and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender an allowance for each metric ton CO2e of GHG they emit.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2030 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on a cumulative basis. As summarized by CARB in the First Update:

The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced.

For example, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a commensurate reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2030 GHG emissions reduction mandate.

The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the "capped sectors." Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33 percent [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices.

Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap. […][150] [T]he Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85 percent of California's GHG emissions.[151] Overall, the Cap-and-Trade Program will achieve aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the state's emissions forecasts and the effectiveness of direct regulatory measures. As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's GHG emissions.[152]

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and- Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.[153] Furthermore, the Cap-and-Trade Program also covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in state or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with vehicle-miles traveled (VMT) are covered by the Cap-and-Trade Program.

Assembly Bill 398 (AB 398) was enacted in 2017 to extend and clarify the role of the State's Cap-and-Trade Program from January 1, 2021, through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade program to establish updated protocols and allocation of proceeds to reduce GHG emissions.

Energy-Related Sources

California Renewables Portfolio Standard

The California RPS program (2002, SB 1078) required that 20 percent of the available energy supplies are from renewable energy sources by 2017. In 2006, SB 107 accelerated the 20 percent mandate to 2010. These mandates apply directly to investor-owned utilities. On April 12, 2011, California Governor Jerry Brown signed into law SB 2X, which modified California's RPS program to require that both public and investor-owned utilities in California receive at least 33 percent of their electricity from renewable sources by the year 2020. California SB 2X also requires regulated sellers of electricity to meet an interim milestone of procuring 25 percent of their energy supply from certified renewable resources by 2016. These levels of reduction are

150 CARB, First Update, May 2014, p. 88.

151 CARB, First Update, May 2014, pp. 86–87.

152 Center for Climate and Energy Solutions, California Cap-and-Trade, www.c2es.org/us-states-regions/key- legislation/california-cap-trade, accessed February 10, 2017.

153 While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, fuel suppliers did not have a compliance obligation (i.e., they were not fully regulated) until 2015.

consistent with the Los Angeles Department of Water and Power's (LADWP) commitment to achieve 35 percent renewables by 2020.

In 2017, LADWP indicated that 29 percent of its electricity came from renewable resources in Year 2016. Therefore, under SB 2X, LADWP is required to increase its electricity from renewable resources by an additional 4 percent to comply with the RPS of 33 percent.[154]

Senate Bill 350

Senate Bill (SB) 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. SB 350 is the implementation of some of the goals of Executive Order B-30-15. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent by December 31, 2030; and (2) to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.[155]

Senate Bill 1368

Senate Bill (SB) 1368, signed September 29, 2006, is a companion bill to AB 32 that requires the CPUC and the CEC to establish GHG emission performance standards for the generation of electricity. These standards also generally apply to power that is generated outside of California and imported into the state. SB 1368 provides a mechanism for reducing the emissions of electricity providers, thereby assisting CARB to meet its mandate under AB32. On January 25, 2007, the CPUC adopted an interim GHG Emissions Performance Standard, which is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plants that have GHG emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of CO_2 per MWh. Furthermore, on May 23, 2007, the CEC adopted regulations that establish and implement an identical Emissions Performance Standard of 1,100 pounds of CO_2 per MWh (see CEC Order No. 07-523-7).

Mobile Sources

Assembly Bill 1493 (Pavley I)

Assembly Bill (AB) 1493, passed in 2002, requires the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the state. CARB originally approved regulations to reduce GHG emissions from passenger vehicles in September 2004, with the regulations to take effect in 2009. On September 24, 2009, CARB adopted amendments to these "Pavley" regulations that reduce

154 LADWP, 2015 Power Integrated Resource Plan, December 2016, Table D-1, LADWP's 2014 Power Content Label, p. D-19.

155 Senate Bill 350 (2015–2016 Reg, Session) Stats 2015, ch. 547.

GHG emissions in new passenger vehicles from 2009 through 2016.[156] Although setting emission standards on automobiles is solely the responsibility of the USEPA, the federal CAA allows California to set state-specific emission standards on automobiles if the state first obtains a waiver from the USEPA. The USEPA granted California that waiver on July 1, 2009. A comparison between the AB 1493 standards and the Federal CAFE standards was completed by CARB and the analysis determined that California emission standards are 16 percent more stringent through the 2016 model year and 18 percent more stringent for 2020 model year.[157] California is also committed to further strengthening these standards beginning with 2020 model year vehicles to obtain a 45-percent GHG reduction in comparison to the 2009 model year.

Executive Order S-1-07 (California Low Carbon Fuel Standard)

Executive Order S-1-07, the LCFS (issued on January 18, 2007), requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. Regulatory proceedings and implementation of the LCFS were directed to CARB. The LCFS has been identified by CARB as a discrete early action item in the adopted *Climate Change Scoping Plan*. The LCFS program was re-adopted in 2015 and will continue to complement other AB 32 measures, transform and diversify the fuel pool, and is a key part of the State's petroleum reduction goals for 2030.

Advanced Clean Cars Regulations

In 2012, CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2015–2025.[158] The components of the Advance Clean Car program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero- Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.[159] In March 2017, CARB voted unanimously to continue with the vehicle greenhouse gas emission standards and the ZEV program for cars and light trucks sold in California through 2025.[160]

Senate Bill 375

Acknowledging the relationship between land use planning and transportation sector GHG emissions, Senate Bill (SB) 375 was passed by the State Assembly on August 25, 2008 and signed by the Governor on September 30, 2008. This legislation links regional planning for

156 CARB, Clean Car Standards—Pavley, Assembly Bill 1493, www.arb.ca.gov/cc/ccms/ccms.htm, last reviewed January 11, 2017.

157 CARB, "Comparison of Greenhouse Gas Reductions for all Fifty United States under CAFE Standards and ARB Regulations Adopted Pursuant to AB 1493", January 23, 2008.

158 CARB, California's Advanced Clean Cars Program, www.arb.ca.gov/msprog/acc/acc.htm, last reviewed by CARB January 18, 2017.

159 CARB, California's Advanced Clean Cars Program, www.arb.ca.gov/msprog/acc/acc.htm, last reviewed by CARB, January 18, 2017.

160 CARB, News Release: CARB finds vehicle standards are achievable and cost-effective, https://www.arb.ca.gov/newsrel/newsrelease.php?id=908, accessed May 14, 2018.

housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions would be achieved by, for example, locating employment opportunities close to transit. Under SB 375, each Metropolitan Planning Organization (MPO) would be required to adopt a Sustainable Community Strategy (SCS) to encourage compact development that reduce passenger VMT and trips so that the region will meet a target, created by CARB, for reducing GHG emissions. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the MPO is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target could be achieved through alternative development patterns, infrastructure, and/or transportation measures.

Building Standards

California Appliance Efficiency Regulations (Title 20, Sections 1601 through 1608)

The 2014 Appliance Efficiency Regulations, adopted by the CEC, include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

California Building Energy Efficiency Standards (Title 24, Part 6)

California's Energy Efficiency Standards for Residential and Nonresidential Buildings, located at Title 24, Part 6 of the California Code of Regulations and commonly referred to as "Title 24," were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.[161] The CEC adopted the 2016 Title 24 standards, which became effective on January 1, 2017, and are applicable to the Project.[162] The 2016 standards continue to improve upon the 2013 Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.[163] Compliance with Title 24 is enforced through the building permit process.

California Green Building Standards (CALGreen Code)

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2017. Most mandatory measure changes in the 2016 CALGreen Code from the previous 2013 CALGreen Code were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to energy that were added or revised affect electric vehicles chargers and charging and hot water recirculation systems. For new multi-family dwelling units, the residential mandatory measures were revised to provide additional electric vehicle charging space requirements, including quantity, location, size, single

161 CEC, 2016 Building Energy Efficiency Standards, www.energy.ca.gov/title24/2016standards/, accessed May 14, 2018
162 CEC, 2016 Building Energy Efficiency Standards, www.energy.ca.gov/title24/2016standards/, accessed February 10, 2017.
163 CEC, 2016 Building Energy Efficiency Standards, www.energy.ca.gov/title24/2016standards/, accessed February 10, 2017.

EV space, multiple EV spaces, and identification.[164] For nonresidential mandatory measures, the table (Table 5.106.5.3.3) identifying the number of required EV charging spaces has been revised in its entirety.[165] Compliance with Title 24 is enforced through the building permit process. The 2019 CalGreen code updates were published July 1, 2019 with an effective date of January 1, 2020.

Senate Bill 97

On June 19, 2008, the Office of Planning and research (OPR) released a technical advisory on addressing climate change. This guidance document outlines suggested components to CEQA disclosure, including quantification of GHG emissions from a project's construction and operation; determination of significance of the project's impact to climate change; and if the project is found to be significant, the identification of suitable alternatives and mitigation measures. Senate Bill (SB) 97, passed in August 2007, is designed to work in conjunction with CEQA and AB 32. SB 97 requires OPR to prepare and develop guidelines for the mitigation of GHG emissions or the effects thereof, including, but not limited to, the effects associated with transportation and energy consumption. The Draft Guidelines Amendments for Greenhouse Gas Emissions (Guidelines Amendments) were adopted on December 30, 2009 and address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in the Guidelines Amendments.[166] The Guidelines Amendments require a lead agency to make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The Guidelines Amendments give discretion to the lead agency whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance- based standards. Furthermore, the Guidelines Amendments identify the following three factors that should be considered in the evaluation of the significance of GHG emissions:

1. The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

164 California Building Standards Commission, 2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapter 4—Residential Mandatory Measures, effective January 1, 2017.

165 California Building Standards Commission, 2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapter 5—Nonresidential Mandatory Measures, effective January 1, 2017.

166 See 14 Cal. Code Regs. §§ 15064.7 (generally giving discretion to lead agencies to develop and publish thresholds of significance for use in the determination of the significance of environmental effects), 15064.4 (giving discretion to lead agencies to determine the significance of impacts from GHG emissions).

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[167]

The administrative record for the Guidelines Amendments also clarifies "that the effects of greenhouse gas emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis."[168]The California Natural Resources Agency is required to periodically update the Guidelines Amendments to incorporate new information or criteria established by CARB pursuant to AB 32. SB 97 applies to any environmental impact report (EIR), negative declaration, mitigated negative declaration, or other document required by CEQA, which has not been finalized.

Regional

South Coast Air Quality Management District

The Southern California Air Quality Management District (SCAQMD) adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and
- Support the adoption of a California GHG emission reduction goal.

Southern California Association of Governments

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS) on April 7, 2016.[169] The 2016–2040 RTP/SCS reaffirms the land use policies that were incorporated into the 2012–2035 RTP/SCS. These foundational policies, which guided the development of the 2016–2040 RTP/SCS's strategies for land use, include the following:

167 14 Cal. Code Regs. § 15064.4(b).
168 Letter from Cynthia Bryant, Director of the Governor's Office of Planning and Research to Mike Chrisman, California Secretary for Natural Resources, dated April 13, 2009.
169 SCAG, Final 2016–2040 RTP/SCS.

- Identify regional strategic areas for infill and investment;
- Structure the plan on a three-tiered system of centers development;[170]
- Develop "Complete Communities";
- Develop nodes on a corridor;
- Plan for additional housing and jobs near transit;
- Plan for changing demand in types of housing;
- Continue to protect stable, existing single-family areas;
- Ensure adequate access to open space and preservation of habitat; and
- Incorporate local input and feedback on future growth.

The 2016–2040 RTP/SCS recognizes that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the region make choices that sustain existing resources and expand efficiency, mobility, and accessibility for people across the region. In particular, the 2016–2040 RTP/SCS draws a closer connection between where people live and work, and it offers a blueprint for how Southern California can grow more sustainably. The 2016–2040 RTP/SCS also includes strategies focused on compact infill development and economic growth by building the infrastructure the region needs to promote the smooth flow of goods and easier access to jobs, services, educational facilities, healthcare and more.

The 2016–2040 RTP/SCS states that the SCAG region is home to about 18.3 million people in 2012 and currently includes approximately 5.9 million homes and 7.4 million jobs.[171] By 2040, the integrated growth forecast projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. High Quality Transit Areas (HQTAs) will account for 3 percent of regional total land but are projected to accommodate 46 percent and 55 percent of future household and employment growth respectively between 2012 and 2040.[172] The 2016–2040 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region's HQTAs. HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

170 Complete language: "Identify strategic centers based on a three-tiered system of existing, planned and potential relative to transportation infrastructure. This strategy more effectively integrates land use planning and transportation investment." A more detailed description of these strategies and policies can be found on pp. 90–92 of the SCAG 2008 Regional Transportation Plan, adopted in May 2008.

171 2016–2040 RTP/SCS population growth forecast methodology includes data for years 2012, 2020, 2035 and 2040.

172 Defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 miles of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.

The 2016–2040 RTP/SCS is expected to reduce per capita transportation emissions by 8 percent by 2020 and 18 percent by 2035. This level of reduction would meet the region's GHG targets set by CARB of 8 percent per capita by 2020 and exceed the region's GHG target set by CARB of 13 percent per capita by 2035.[173] Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS's GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[174] The 2016–2040 RTP/SCS would result in an estimated 21 percent decrease in per capita GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state's GHG emission reduction goals.

Local

City of Los Angeles Green LA Action Plan/Climate LA Plan

The City of Los Angeles (City) began addressing the issue of global climate change by publishing *Green LA, An Action Plan to Lead the Nation in Fighting Global Warming* (LA Green Plan) in 2007. This document outlines the goals and actions the City has established to reduce the generation and emission of GHG emissions from both public and private activities. According to the LA Green Plan, the City is committed to the goal of reducing emissions of CO_2 to 35 percent below 1990 levels by year 2030. To achieve this, the City has been implementing the following:

- Increase the generation of renewable energy;
- Improve energy conservation and efficiency; and
- Change transportation and land use patterns to reduce dependence on automobiles.[175]

To facilitate implementation of the LA Green Plan, the City has a Climate LA Plan that lays out departmental programs to implement the Action Plan's initiatives. The City also adopted the Los Angeles Green Building Code, as discussed below. In addition, LADWP will continue to implement programs to emphasize water conservation and will also pursue securing alternative supplies, including recycled water and storm water capture. Furthermore, the City implemented the Recovering Energy, Natural Resources and Economic Benefit from Waste for Los Angeles plan (RENEW LA plan) to meet solid waste reduction goals by expanding recycling to multifamily dwellings, commercial establishments, and restaurants. Under the RENEW LA plan,

173 SCAG, Final 2016–2040 RTP/SCS, Executive Summary, p. 8, April 2016.
174 SCAG, Final Program Environmental Impact Report for 2016–2040, RTP/SCS, April 2016, Figure 3.8.4-1.
175 City of Los Angeles, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, May 2007.

the City is also developing facilities that will convert solid waste to energy without incineration.[176] These measures would serve to reduce overall emissions from the City.

City of Los Angeles Green Building Code

On December 15, 2011, the Los Angeles City Council approved Ordinance No. 181,481, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, by adding a new Article 9 to incorporate various provisions of the 2010 CALGreen Code. On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which further amended Chapter IX of the LAMC, by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. Projects filing building permit applications on or after January 1, 2017 must comply with the provisions of the Los Angeles Green Building Code.

City of Los Angeles Sustainable City pLAn

The Sustainable City pLAn was adopted in 2015 and includes both short-term and long-term aspirations through the year 2035 in various topic areas, including: water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others.[177] Specific targets include increasing construction of new housing units within 1,500 feet of transit by 2017, reducing vehicle miles traveled per capita by five percent by 2025, and increasing trips made by walking, biking or transit by at least 35 percent by 2025. The Sustainable City pLAn will be updated every four years.

Traffic Study Policies and Procedures

The City of Los Angeles Department of Transportation (LADOT) has developed the Transportation Impact Study Guidelines (TISG) (December 2016) to provide the public, private consultants, and City staff with standards, guidelines, objectives, and criteria to be used in the preparation of a transportation impact study. The TSIG is consistent with the City's goals to emphasize the importance of sustainability, smart growth, and reduction of GHG emissions in addition to traditional traffic flow considerations when evaluating and mitigating impacts to the transportation system as a result of land use policy decisions. The TSIG prioritizes transportation demand management strategies and multi-modal strategies over automobile-centric solutions when mitigating project-related impacts to the City's transportation system. Through acknowledgement of an imminent update that will identify VMT reduction thresholds, the TSIG stands as an implementing mechanism of the City's strategy to conform to the mandates and requirements of AB 32, SB 375, and SB 743.

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

176 City of Los Angeles, Recovering Energy Natural Resources and Economic Benefit from Waste for Los Angeles, June 2011.

177 City of Los Angeles, Sustainable City pLAn, April 2015.

Less Than Significant Impact.

Project Emissions

Compliance with a GHG emissions reduction plan renders a project's GHG emissions less than significant. In support of the consistency analysis which describes the Project's compliance with or exceedance of performance-based standards included in the regulations and policies outlined in the applicable portions of the *Climate Change Scoping Plan*, the 2016–2040 RTP/SCS, the LA Green Plan, and the Sustainable City pLAn, quantitative calculations are provided below.

The Project would result in direct and indirect GHG emissions generated by different types of emissions sources, including the following:

- Construction: emissions associated with demolition of the existing buildings parking areas, shoring, excavation, grading, and construction-related equipment and vehicular activity;
- Area source: emissions associated with landscape equipment;
- Energy source (building operations): emissions associated with space heating and cooling, water heating, energy consumption, and lighting;
- Stationary source: emissions associated with stationary equipment (e.g., emergency generators);
- Mobile source: emissions associated with vehicles accessing the project site;
- Solid Waste: emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon; and
- Water/Wastewater: emissions associated with energy used to pump, convey, deliver, and treat water.

The Project would generate an incremental contribution to and a cumulative increase in GHG emissions. A specific discussion regarding potential GHG emissions associated with the construction and operational phases of the Project is provided below.

Construction

Project construction is anticipated to be completed in 2026 with occupancy in 2026. A summary of construction details (e.g., schedule, equipment mix, and vehicular trips) and CalEEMod modeling output files are provided in **Appendix C** of the MND. The GHG emissions associated with construction of the Project were calculated for each year of construction activity. A summary of GHG emissions for each year of construction is presented in **Table B.8-3**.

As presented in **Table B.8-3**, construction of the Project is estimated to generate a total of 4,187 $MTCO_2e$. As recommended by the SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the

Project's operational emissions) in order to determine the Project's annual GHG emissions inventory.[178] This results in annual Project construction emissions of 140 $MTCO_2e$. A complete listing of the construction equipment by on-site and off-site activities, duration, and emissions estimation model input assumptions used in this analysis is included within the emissions calculation worksheets that are provided in **Appendix C** of the MND.

Table B.8-3
Combined Construction-Related Emissions ($MTCO_2e$)

Year	$MTCO_2e$[a]
2022	1,570
2023	823
2024	822
2025	972
Total	**4,187**
Amortized Over 30 Years	**140**

A CO_2e was calculated using CalEEMod and the results are provided in Section 2.0 of the Construction CalEEMod output file within Appendix C of the MND.
Source: DKA Planning, 2019.

As presented in **Table B.8-3**, construction of the Project is estimated to generate a total of 4,187 $MTCO_2e$. As recommended by the SCAQMD, the total GHG construction emissions were amortized over the 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate that can be added to the Project's operational emissions) in order to determine the Project's annual GHG emissions inventory.[179] This results in annual Project construction emissions of 140 $MTCO_2e$. A complete listing of the construction equipment by on-site and off-site activities, duration, and emissions estimation model input assumptions used in this analysis is included within the emissions calculation worksheets that are provided in **Appendix C** of the MND.

Operation

Area Source Emissions

Area source emissions were calculated using the CalEEMod emissions inventory model, which includes hearths and landscape maintenance equipment. As shown in **Table B.8-4**, the Project would result in a total of approximately11 $MTCO_2e$ per year from area sources.

Table B.8-4
Annual GHG Emissions Summary (Buildout) [a]

Component	$MTCO_2$ [a]
Area [b]	11
Energy [c] (electricity and natural gas)	4,531
Mobile	3,281

178 SCAQMD Governing Board Agenda Item 31, December 5, 2008.
179 SCAQMD Governing Board Agenda Item 31, December 5, 2008.

Solid Waste [d]	190
Water/Wastewater [e]	546
Construction	140
Total Emissions	**8,698**

(metric tons of carbon dioxide equivalent [MTCO2e])
[a] CO2e was calculated using CalEEMod and the results are provided in Section 2.0 of the Operation CalEEMod output file within Appendix C of the MND.
[b] Area source emissions are from landscape equipment and other operational equipment.
[c] Energy source emissions are based on CalEEMod default electricity and natural gas usage rates.
[d] Solid waste emissions are calculated based on CalEEMod default solid waste generation rates.
[e] Water/Wastewater emissions are calculated based on CalEEMod default water consumption rates.
Source: DKA Planning, 2018.

Electricity and Natural Gas Generation Emissions

GHG emissions are emitted as a result of activities in buildings when electricity and natural gas are used as energy sources. Combustion of any type of fuel emits CO_2 and other GHG emissions directly into the atmosphere; when this occurs in a building, it is a direct emission source associated with that building. GHG emissions are also emitted during the generation of electricity from fossil fuels. When electricity is used in a building, the electricity generation typically takes place off-site at the power plant; electricity use in a building generally causes emissions in an indirect manner.

Electricity and natural gas emissions were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the energy usage by applicable emissions factors chosen by the utility company. GHG emissions from electricity use are directly dependent on the electricity utility provider. In this case, GHG intensity factors for LADWP were selected in CalEEMod. The carbon intensity (lbs/MWh) for electricity generation was calculated for the Project buildout year based on LADWP projections. A straight-line interpolation was performed to estimate the LADWP carbon intensity factor for the Project buildout year. LADWP's carbon intensity projections also take into account SB 350 RPS requirements for renewable energy.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building, such as in plug-in appliances. CalEEMod calculates energy use from systems covered by Title 24 (e.g., heating, ventilation, and air conditioning [HVAC] system, water heating system, and lighting system); energy use from lighting; and energy use from office equipment, appliances, plug-ins, and other sources not covered by Title 24 or lighting.

CalEEMod electricity and natural gas usage rates are based on the CEC-sponsored California Commercial End-Use Survey (CEUS) and the California Residential Appliance Saturation Survey (RASS) studies.[180] The data are specific for climate zones; therefore, Zone 11 was selected for the Project Site based on the zip code tool. Since these studies are based on older

180 CEC, Commercial End-Use Survey, March 2006, and California Residential Appliance Saturation Survey, October 2010.

buildings, adjustments have been made to account for changes to Title 24 building codes but do not reflect 2016 Title 24 standards. For the Project scenario, an adjustment was made to account for the 2016 Title 24 standards. The 2016 Title 24 standards would be applicable to the Project as the Project would be built after January 1, 2017, when the 2016 Title 24 standards went into effect. The 2016 Title 24 standards are 28 percent more efficient (for electricity) than the 2013 Title 24 standards for residential construction and 5 percent more efficient (for electricity) for non-residential construction.[181]

As shown in **Table B.8-4**, Project GHG emissions from electricity and natural gas usage would result in a total of 4,531 MTCO2e per year.

Mobile Source Emissions

Mobile-source emissions were calculated using the SCAQMD-recommended CalEEMod emissions inventory model. CalEEMod calculates the emissions associated with on-road mobile sources associated with residents, employees, visitors, and delivery vehicles visiting the Project Site based on the number of daily trips generated and VMT.

Mobile source operational GHG emissions were calculated using CalEEMod and are based on the Project trip-generation estimates. As discussed in **Section B.17, Transportation**, of the MND, to calculate daily trips, the number of residential units and amount of building area for the commercial retail and restaurant uses were multiplied by the applicable trip-generation rates based on the Institute of Transportation Engineers (ITE)'s *Trip Generation, 10th Edition*.

The Project represents an infill development within an urbanized area that would concentrate new residential and commercial retail and restaurant uses within an HQTA.[182] The Project Site is located in Koreatown with proximity to Metro local and Rapid bus service on Wilshire Boulevard, and the nearby Metro Rail Purple Line station. The Project would provide bicycle storage areas for Project residents and visitors. The Project would also incorporate characteristics that would reduce trips and VMT as compared to standard ITE trip generation rates. The Project characteristics listed below are consistent with the CAPCOA guidance document, *Quantifying Greenhouse Gas Mitigation Measures*, which provides emission reduction values for transportation related design techniques.[183] These techniques would reduce vehicle trips and VMT associated with the Project relative to the standard ITE trip generation rates, which would result in a comparable reduction in VMT and associated GHG emissions.

181 CEC, 2016 Building Energy Efficiency Standards, Frequently Asked Questions.

182 The Project Site is also located in Transit Priority Area as defined by Public Resources Code Section 20199. Public Resources Code Section 21099 defines a "transit priority area" as an area within 0.5 miles of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." Public Resources Code Section 21064.3 defines "major transit stop" as "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods." Also refer to the City's ZIMAS System regarding the location of the Project Site within a Transit Priority Area. www.zimas.lacity.org, accessed December 12, 2016.

183 CAPCOA, Quantifying Greenhouse Gas Mitigation Measures, 2010.

Techniques applicable to the Project include the following (a brief description of the Project's relevance to the measure is also provided):

- **CAPCOA Measure LUT-1 – Increase Density:** Increased density, measured in terms of persons, jobs, or dwelling units per unit area, reduces emissions associated with transportation as it reduces the distance people travel for work or services and provides a foundation for the implementation of other strategies, such as enhanced transit services. The Project would increase the Project Site's density with 640 residences and 10,738 square feet of commercial uses.

- **CAPCOA Measure LUT-3 – Increase Diversity of Urban and Suburban Developments (Mixed-Use):** The Project would introduce new uses on the Project Site, including new residential and commercial uses. The Project would co-locate complementary residential and commercial uses in proximity to other existing off site residential and commercial uses. The increases in land use diversity and mix of uses on the Project Site would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation (i.e., walking and biking), which would result in corresponding reductions in transportation-related emissions.

- **CAPCOA Measure LUT-4 – Increase Destination Accessibility:** The Project Site is located in Koreatown near Downtown Los Angeles, a primary job center, also easily accessible by public transportation. Access to multiple destinations, and other commercial and retail uses in proximity to the Project Site would reduce vehicle trips and VMT compared to the statewide average and encourage walking and non-automotive forms of transportation and would result in corresponding reductions in transportation-related emissions as a result of the Project.

- **CAPCOA Measure LUT-5 – Increase Transit Accessibility:** The Project would be located near a Metro Purple Line station, as well as Metro local and Rapid Bus service on Wilshire Boulevard. The Project would also provide bicycle parking spaces for resident and commercial uses to encourage utilization of alternative modes of transportation.

- **CAPCOA Measure LUT-9 – Improve Design of Development:** The Project would enhance the pedestrian environment by developing ground floor live/work spaces, commercial retail and improved streetscape, which would enhance walkability in the Project vicinity. The Project would also locate a development with a high level of street access, which improves street accessibility and connectivity.

- **CAPCOA Measure SDT-2 – Traffic Calming Measures:** Providing traffic calming measures encourages people to walk or bike instead of using a vehicle. This mode shift results in a decrease in VMT. Streets within a half mile of the Project Site are equipped with sidewalks, and several of the intersections include marked crosswalks and/or count-down signal timers that calm traffic.

CalEEMod calculates VMT based on the type of land use, trip purpose, and trip type percentages for each land use subtype in the project (primary, diverted, and pass-by). As shown

in **Table B.8-8** the Project GHG emissions from mobile sources would result in a total of 3,281 MTCO2e per year. This estimate reflects reductions attributable to the Project's characteristics (e.g., infill project near transit that supports multi-modal transportation options), as described above.

Solid Waste Generation Emissions

Emissions related to solid waste were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the waste generated by applicable emissions factors provided in Section 2.4 of the USEPA's AP-42, Compilation of Air Pollutant Emission Factors. CalEEMod solid waste generation rates for each applicable land use were selected for this analysis. As shown in **Table B.8-4**, the Project scenario is expected to result in a total of 190 $MTCO_2e$ per year from solid waste that accounts for a 50-percent recycling/diversion rate.

Water Usage and Wastewater Generation Emissions

GHG emissions are related to the energy used to convey, treat, and distribute water, and treat wastewater. Thus, these emissions are generally indirect emissions from the production of electricity to power these systems. Three processes are necessary to supply potable water; these include (1) supply and conveyance of the water from the source; (2) treatment of the water to potable standards; and (3) distribution of the water to individual users. After use, energy is used as the wastewater is treated and reused as reclaimed water.

Emissions related to water usage and wastewater generation were calculated using the CalEEMod emissions inventory model, which multiplies an estimate of the water usage by the applicable energy intensity factor to determine the embodied energy necessary to supply potable water.[184] GHG emissions are then calculated based on the amount of electricity consumed multiplied by the GHG intensity factors for the utility provider. In this case, embodied energy for Southern California supplied water and GHG intensity factors for LADWP were selected in CalEEMod. Water usage rates were calculated consistent with the requirements under City Ordinance No. 184,248, 2016 California Plumbing Code, 2016 CALGreen, 2017 Los Angeles Plumbing Code, and 2017 Los Angeles Green Building Code, and reflect an approximately 20 percent reduction as compared to the base demand.

As shown in **Table B.8-4**, Project GHG emissions from water/wastewater usage would result in a total of 546 $MTCO_2e$ per year, which reflects a 20-percent reduction in water/wastewater emissions consistent with building code requirements as compared to the Project without sustainability features related to water conservation.

Combined Construction and Operational Emissions

As shown in **Table B.8-4**, when taking into consideration implementation of Project design features provided throughout this MND, including the requirements set forth in the City's Green Building Code and the full implementation of current state mandates, the GHG emissions for the

184 The intensity factor reflects the average pounds of CO2e per megawatt generated by a utility company.

Project would equal 4,187 $MTCO_2e$ per year (amortized over 30 years) during construction and 140 $MTCO_2e$ per year during operation of the Project with a total of 8,698 $MTCO_2e$ per year.

Estimated Reduction of Project Related GHG Emissions Resulting from Consistency with Plans

As noted earlier, one approach to demonstrating a project's consistency with GHG plans is to show how a project will reduce its incremental contribution through a NAT comparison. The analysis in this section includes potential emissions under a NAT scenario and from the Project at build-out based on actions and mandates expected to be in force in 2020.

As shown in **Table B.8-5**, the emissions for the Project and its associated CARB 2020 NAT scenario are estimated to be 8,698 and 13,372 $MTCO_2e$ per year, respectively, which shows the Project would reduce emissions by 35 percent from CARB's 2020 NAT scenario.

Table B.8-5
Estimated Reduction of Project-Related GHG Emissions Resulting from Consistency with Plans

Scenario and Source	NAT Scenario*	As Proposed Scenario	Reduction from NAT Scenario	Change from NAT Scenario
Area Sources	11	11	-	0%
Energy Sources	7,812	4,531	-3,281	-42%
Mobile Sources	4,674	3,281	-1,393	-30%
Waste Sources	190	190	-	0%
Water Sources	546	546	-	0%
Construction	140	140	-	0%
Total Emissions	**13,372**	**8,698**	**-4,674**	**-35%**

Daily construction emissions amortized over 30-year period pursuant to SCAQMD guidance. Annual construction emissions derived by taking total emissions over duration of activities and dividing by construction period.

* NAT scenario does not assume 30% reduction in in mobile source emissions from Pavley emission standards (19.8%), low carbon fuel standards (7.2%), vehicle efficiency measures (2.8%); does not assume 42% reduction in energy production emissions from the State's renewables portfolio standard (33%), natural gas extraction efficiency measures (1.6%), and natural gas transmission and distribution efficiency measures (7.4%).

Source: DKA Planning, 2019.

The analysis in this MND uses the 2017 Scoping Plan's statewide goals as one approach to evaluate the Project's incremental contribution. The methodology used is to compare the Project's emissions as proposed to the Project's emissions if the Project were built using a NAT approach in terms of design, methodology, and technology. This means the Project's emissions were calculated as if it was constructed with project design features to reduce GHG and with several regulatory measures adopted in furtherance of AB 32.

While the AB 32 Scoping Plan's cumulative statewide objectives were not intended to serve as the basis for project-level assessments, this analysis finds that its NAT comparison based on the Scoping Plan is appropriate because the Project would contribute to statewide GHG reduction goals. Specifically, the Project's mixed-use nature and location in an existing urban setting provide opportunities to reduce transportation-related emissions. First, it would capture vehicle travel on-site that would have normally been destined for off-site locations. This produces substantial reductions in the amount of vehicle trips and vehicle miles traveled that no longer are made. Second, it would eliminate many vehicle trips because travel to and from the Project Site could be captured by public transit and pedestrian travel instead. Finally, it would attract existing trips on the street network that would divert to the proposed uses.

Post-2020 Analysis

Recent studies show that the State's existing and proposed regulatory framework will put the State on a pathway to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050 if additional appropriate reduction measures are adopted.[185] Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target. Subsequent to the findings of these studies, SB 32 was passed on September 8, 2016, and would require the state board to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. As discussed above, the new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

As discussed above, SCAG's 2016-2040 RTP/SCS establishes a regulatory framework for achieving GHG reductions from the land use and transportation sectors pursuant to SB 375 and the state's long-term climate policies. The 2016-2040 RTP/SCS ensures VMT reductions and other measures that reduce regional emissions from the land use and transportation sectors. Specifically, the 2016–2040 RTP/SCS would result in an estimated 8 percent decrease in per capita GHG emissions by 2020, an 18-percent decrease in per capita GHG emissions by 2035, and a 21-percent decrease in per capita GHG emissions by 2040. By meeting and exceeding

185 Energy and Environmental Economics (E3). "Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios" (April 2015); Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158–172). The California Air Resources Board, California Energy Commission, California Public Utilities Commission, and the California Independent System Operator engaged E3 to evaluate the feasibility and cost of a range of potential 2030 targets along the way to the state's goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved, as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation and electricity sectors.

the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state's GHG emission reduction goals.

The Project is the type of land use development that is encouraged by the RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the State's long-term climate policies. By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with State climate targets for 2020 and beyond. In addition, as demonstrated above in Table B.8-5, the Project would be consistent with the Actions and Strategies set forth in the 2016–2040 RTP/SCS. Therefore, the Project would be consistent with the 2016–2040 RTP/SCS.

b) Would the project conflict with an applicable plan, policy or regulations adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact.

Consistency with Applicable Plans and Policies

Statewide: Climate Change Scoping Plan

The goal to reduce GHG emissions to 1990 levels by 2020 (Executive Order S-3-05) was codified by the Legislature as the 2006 Global Warming Solutions Act (AB 32). In 2008, CARB approved a *Climate Change Scoping Plan* as required by AB 32 that has been updated over time to reflect updated strategies.[186] In addition, SB 32 was approved in 2016, calling for deeper GHG emissions reductions by 2030. The *2017 Climate Change Scoping Plan* addresses the 2030 horizon and has a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The following discussion demonstrates how the pertinent reduction actions relate to and reduce Project-related GHG emissions.

Provided in **Table B.8-6** is an evaluation of the Project's consistency with applicable reduction actions/strategies by emissions source category outlined in the *2017 Climate Change Scoping Plan Update*.[187] As discussed therein, the Project would be consistent with the GHG reduction-related actions and strategies of the 2017 *Climate Change Scoping Plan Update*. The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the

186 Climate Change Proposed Scoping Plan was approved by CARB on December 11, 2008.

187 An evaluation of stationary sources is not necessary as the stationary sources emissions will be created by emergency generators that would only be used in an emergency.

2030 target. These measures build upon those identified in the *2017 Climate Change Scoping Plan Update*. Provided in **Table B.8-7** is an evaluation of the Project's consistency with applicable reduction actions/strategies in the 2017 Scoping Plan Update. As discussed therein, the Project would be consistent with the GHG reduction-related actions and strategies of the *2017 Climate Change Scoping Plan Update.* Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. **Based on the analysis in Table B.8-6 and Table B.8-7 the Project would be consistent with the State's Climate Change Scoping Plan.**

Table B.8-6
Consistency Analysis—*Climate Change Scoping Plan* and First Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
Area		
SCAQMD Rule 445 (Wood Burning Devices): Requires use of natural gas to power all cooking stoves and fireplaces.	SCAQMD	**Consistent.** There would be a prohibition of hearths (woodstove and fireplaces) installed in the residential units. All cooking stoves would either be electric or natural gas, not wood-burning.
Energy		
California Renewables Portfolio Standard (RPS) program: Senate Bill 2X modified California's RPS program to require that both public and investor-owned utilities in California receive at least 33 percent of their electricity from renewable sources by the year 2020. California Senate Bill 2X also requires regulated sellers of electricity to meet an interim milestone of procuring 25 percent of their energy supply from certified renewable resources by 2016.	LADWP	**Consistent.** LADWP's commitment to achieve 35 percent renewables by 2020 would exceed the requirement under the RPS program of 33 percent renewables by 2020. In 2017, LADWP indicated that 29 percent of its electricity came from renewable resources in Year 2016.[a] As LADWP would provide electricity service to the Project Site, the Project would use electricity that is produced consistent with this performance-based standard. Electricity-related GHG emissions assume that LADWP will receive at least 33 percent of their electricity from renewable sources by the 2020.
Senate Bill 350 (SB 350): The Clean Energy and Pollution Reduction Act of 2015 increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by 2030 and also requires the State Energy Resources Conservation and Development Commission to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.[b]	State Energy Resources Conservation and Development Commission and LADWP	**Consistent.** LADWP would be required to generate electricity that would increase renewable energy resources to 50 percent by 2030. As LADWP would provide electricity service to the Project Site, the Project by 2030 would use electricity consistent with the requirements of SB 350. Project buildout would occur in Year 2021 and, therefore, the estimated GHG emissions from electricity usage provided herein conservatively do not include implementation of SB 350 with a compliance date of 2030. Electricity GHG emissions would be further reduced by 17 percent by Year 2030, as the electricity provided to the Project Site would meet the requirements under SB 350.

Table B.8-6
Consistency Analysis—*Climate Change Scoping Plan* and First Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		As required under SB 350, doubling of the energy efficiency savings from final end uses of retail customers by 2030 would primarily rely on the existing suite of building energy efficiency standards under the California Code of Regulations (CCR), Title 24, Part 6 (consistency with this regulation is discussed below) and utility-sponsored programs such as rebates for high-efficiency appliances, heating ventilation and air-conditioning (HVAC) systems and insulation. The Project would support this action/strategy because it includes compliance with specific requirements of the Los Angeles Green Code (consistency with this regulation is discussed below).
Senate Bill 1368 (SB 1368): GHG Emissions Standard for Baseload Generation prohibits any retail seller of electricity in California from entering into a long-term financial commitment for baseload generation if the GHG emissions are higher than those from a combined-cycle natural gas power plant.	State, CEC, and LADWP	**Consistent.** LADWP meets the requirements of SB 1368. As LADWP would provide electricity service to the Project Site, the Project would use electricity that meets the requirements under SB 1368.
California Code of Regulations (CCR), Title 20: The 2012 Appliance Efficiency Regulations, adopted by the California Energy Commission (CEC), include standards for new appliances (e.g., refrigerators) and lighting, if they are sold or offered for sale in California.	State and CEC	**Consistent.** The Appliance Efficiency Regulations apply to new appliances and lighting that are sold or offered for sale in California. The Project would include new appliances and lighting that comply with this energy efficiency standard. In addition, **Section B.6, Energy**, of the MND, demonstrates that the Project efficiently uses energy and does not result in wasteful energy use.
CCR, Title 24, Building Standards Code: The 2013 Building Energy Efficiency Standards contained in Title 24, Part 6 (also known as the California Energy Code), requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Green Building Standards Code (Part 11, Title 24) established mandatory and voluntary standards on planning and design for sustainable site development, energy efficiency (extensive update of the California Energy Code),	State and CEC	**Consistent.** Consistent with regulatory requirements, the Project must comply with applicable provisions of the 2016 Los Angeles Green Code that in turn requires compliance with mandatory standards included in the California Green Building Standards. The 2016 Title 24 standards are 28 percent more efficient (for electricity) than residential construction built to the 2013 Title 24 standards and 5 percent more efficient (for electricity) for non-residential construction built to 2013 Title 24 standards.[c] The 2016 Title 24 standards are more efficient than the 2020 Projected Emissions under Business-as-Usual in CARB's *Climate Action Scoping Plan*. The standards promote the use of better windows, insulation, lighting, ventilation systems and other features that reduce energy consumption

Table B.8-6
Consistency Analysis—*Climate Change Scoping Plan* and First Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
water conservation, material conservation, and internal air contaminants.		in homes and businesses. Thus, the Project has incorporated energy efficiency standards that are substantially more effective than the measures identified in the *Climate Action Scoping Plan* to reduce GHG emissions.
Energy Independence and Security Act of 2007 (EISA): EISA requires manufacturing for sale within the United States to phase out incandescent light bulbs between 2012 and 2014 resulting in approximately 25 percent greater efficiency for light bulbs and requires approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020.	Federal/ Manufacturers	**Consistent.** EISA would serve to reduce the use of incandescent light bulbs for the Project and, thus, reduce energy usage associated with lighting. Electricity GHG emissions account for a 25-percent reduction in lighting electricity consumption with implementation of this regulation.
Assembly Bill 1109 (AB 1109): The Lighting Efficiency and Toxic Reduction Act prohibits a person from manufacturing for sale in the state specified general purpose lights that contain levels of hazardous substances, as it requires the establishment of minimum energy efficiency standards for all general purpose lights. The standards are structured to reduce average statewide electrical energy consumption by not less than 50 percent from the 2007 levels for indoor residential lighting and not less than 25 percent from the 2007 levels for indoor commercial and outdoor lighting by 2018.[d]	State/ Manufacturers	**Consistent.** As with the EISA, discussed above, the Project would meet the requirements under AB 1109 because it incorporates energy efficient lighting and electricity consumption that complies with local and state green building programs.
Cap-and-Trade Program: The program establishes an overall limit on GHG emissions from capped sectors (e.g., electricity generation, petroleum refining, and cement production). Facilities subject to the cap are able to trade permits to emit GHG emissions within the overall limit.	State/ Manufacturers	**Consistent.** As required by AB 32 and the Climate Change Scoping Plan, the Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. Therefore, GHG emissions associated with the Project's electricity usage per year would be covered by the Cap-and-Trade Program (as LADWP would be a covered entity) and would be consistent with AB 32 and the Climate Change Scoping Plan.
Mobile		
Assembly Bill 1493 (AB 1493) "Pavley Standards": AB 1493 requires the development and adoption of regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used	State, CARB	**Consistent.** The Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and are expected to reduce GHG emissions by about 30 percent in 2016, all while improving fuel efficiency. GHG emissions related to vehicular travel by the Project would benefit from this

Table B.8-6
Consistency Analysis—*Climate Change Scoping Plan* and First Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
primarily for personal transportation in the State. In compliance with AB 1493, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles and light duty trucks of model year 2009 through 2016. Model years 2017 through 2025 are addressed by California's Advanced Clean Cars program (discussed below).		regulation because vehicle trips associated with the Project would be affected by AB 1493. Mobile source emissions generated by the Project would be reduced with implementation of AB 1493 consistent with reduction of GHG emissions under AB 32. Mobile source GHG emissions were calculated using CalEEMod that includes implementation of AB 1493 into mobile source emission factors.
Executive Order S-01-07: The Low Carbon Fuel Standard requires a 10-percent or greater reduction by 2020 in the average fuel carbon intensity for transportation fuels in California regulated by CARB. CARB identified the LCFS as a Discrete Early Action item under AB 32, and the final resolution (09-31) was issued on April 23, 2009 (CARB 2009).[e,f]	State, CARB	**Consistent.** GHG emissions related to vehicular travel by the Project would benefit from this regulation because fuel used by Project-related vehicles would be compliant with LCFS. Mobile source GHG emissions were calculated using CalEEMod that includes implementation of the LCFS into mobile source emission factors.
Advanced Clean Cars Program: In 2012, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model year 2017 through 2025. The program combines the control of smog, soot, and GHG emissions with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.	State, CARB	**Consistent.** Standards under the Advanced Clean Cars Program will apply to all passenger and light duty trucks used by customers, employees, and deliveries to the Project. GHG emissions related to vehicular travel by the Project would benefit from this regulation and mobile source emissions generated by the Project would be reduced with implementation of standards under the Advanced Clean Cars Program consistent with reduction of GHG emissions under AB 32. Mobile source GHG emissions, conservatively do not include this additional 34-percent reduction in mobile source emissions as the CalEEMod model does not yet account for this regulation. The Project would further support this regulation since the Project would provide at least 20 percent of the total code-required parking spaces for the Project to be capable of supporting future electric vehicle supply equipment (EVSE) and the Project would provide EV charging stations.
Senate Bill (SB) 375: SB 375 requires integration of planning processes for transportation, land-use and housing. Under SB 375, each Metropolitan Planning Organization would be required to adopt a Sustainable Community Strategy (SCS) to encourage compact development that reduces passenger vehicle miles traveled and trips so that the region will meet a target, created by CARB, for reducing GHG emissions.	State, CARB Regional, SCAG	**Consistent.** SB 375 requires SCAG to direct the development of the SCS for the region, which is discussed further below. The Project represents an infill development within an existing urbanized area that would concentrate new residential and commercial retail and restaurant uses within an HQTA. Therefore, the Project would be consistent with SCAG's 2016–2040 RTP/SCS. Furthermore, the 2016–2040 RTP/SCS would result in an estimated 18-percent decrease in per capita GHG

Table B.8-6
Consistency Analysis—*Climate Change Scoping Plan* and First Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		emissions from passenger vehicles by 2035 and 21-percent decrease in per capita GHG emissions from passenger vehicles by 2040. As Project-related transportation emissions are reduced by approximately 30 percent; therefore, the Project would be consistent with SB 375 and the 2016-2040 RTP/SCS.
Solid Waste		
California Integrated Waste Management Act of 1989 and Assembly Bill 341: The California Integrated Waste Management Act of 1989 requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; and (2) diversion of 50 percent of all solid waste on and after January 1, 2000, through source reduction, recycling, and composting facilities.[g] ***AB 341 (2011)*** amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020, and annually thereafter.[h]	State	**Consistent.** GHG emissions related to solid waste generation from the Project would benefit from this regulation as it would decrease the overall amount of solid waste disposed of at landfills. The decrease in solid waste would then in return decrease the amount of methane released from the decomposing solid waste. Project-related GHG emissions from solid waste generation include a 50-percent reduction in solid waste generation source emissions per goals of the City. The Applicant would only contract for waste disposal services with a company that recycles solid waste in compliance with AB 341. In addition, the Project would provide recycling bins at appropriate locations to promote recycling of paper, metal, glass and, other recyclables.
Water (Three percent of project inventory)		
CCR, Title 24, Building Standards Code: The California Green Building Standards Code (Part 11, Title 24) includes water efficiency requirements for new residential and non-residential uses, in which buildings shall demonstrate a 20-percent overall water use reduction.	State	**Consistent.** Water usage rates were calculated consistent with the requirements under City Ordinance No. 184,248, 2013 California Plumbing Code, 2016 California Green Building Code (CALGreen), 2014 Los Angeles Plumbing Code, and 2016 Los Angeles Green Building Code and reflect approximately a 20 percent reduction in water usage as compared to the base demand. Project-related GHG emissions from water related sources, accounts for compliance with water efficiency requirements. **W**ater conservation measures include: residential bathroom faucets with a maximum flow rate of 1.0 gallons per minute, kitchen faucets with a maximum flow rate of 1.5 gallons per minute, Energy Star-certified and high efficiency clothes washers and dishwashers, non-residential kitchen faucets (except restaurant kitchens) with a maximum flow rate of 1.5 gallons per minute, and installation of tankless

Table B.8-6
Consistency Analysis—*Climate Change Scoping Plan* and First Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		and on- demand water heaters in commercial kitchens and restrooms, when appropriate, among others. The Project would have an overall water use reduction of 20 percent and would meet the requirements of the California Green Building Standards.
Senate Bill X7-7: The Water Conservation Act of 2009 sets an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. The state is required to make incremental progress toward this goal by reducing per-capita water use by at least 10 percent by December 31, 2015. This in an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convene, treat, and distribute the water; it also reduces emissions from wastewater treatment.	State	**Consistent.** As discussed above under Title 24, the Project would meet this performance-based standard. Water conservation measures consistent with Green Building Code requirements include: residential bathroom faucets with a maximum flow rate of 1.0 gallons per minute, kitchen faucets with a maximum flow rate of 1.5 gallons per minute, Energy Star-certified and high-efficiency clothes washers and dishwashers, nonresidential kitchen faucets (except restaurant kitchens) with a maximum flow rate of 1.5 gallons per minute, and installation of tankless and on-demand water heaters in commercial kitchens and restrooms, when appropriate, among others. The Project thereby includes measures consistent with the GHG reductions sought by SB X7-7 related to water conservation and related GHG emissions.
Construction		
CARB In-Use Off-Road Regulation: CARB's in-use off- road diesel vehicle regulation ("Off-Road Diesel Fleet Regulation") requires the owners of off-road diesel equipment fleets to meet fleet average emissions standards pursuant to an established compliance schedule.	CARB	**Consistent.** The Project would use construction contractors that would comply with this regulation.
CARB In-Use On-Road Regulation: CARB's in-use on- road heavy-duty vehicle regulation ("Truck and Bus Regulation") applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds.	CARB	**Consistent.** The Project would use construction contractors that would comply with this regulation.

[a] California Energy Commission, Utility Annual Power Content Labels for 2016, www.energy.ca.gov/pcl/labels/.
[b] Senate Bill 350 (2015–2016 Reg, Session) Stats 2015, Ch. 547.
[c] CEC, Adoption Hearing, 2016 Building Energy Efficiency Standards.
[d] 2007b. Assembly Bill 1109 (2007–2008 Reg. Session) Stats. 2007, Ch. 534.
[e] CARB, Initial Statement of Reason for Proposed Regulation for The Management of High Global Warming Potential Refrigerant for Stationary Sources, October 23, 2009.
[f] Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the "lifecycle" of a transportation fuel.
[g] Cal. Pub. Res. Code § 41780(a).

Table B.8-6
Consistency Analysis—*Climate Change Scoping Plan* and First Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
[h] Cal. Pub. Res. Code § 41780.01(a). Source: DKA Planning, 2018.		

Table B.8-7
Consistency Analysis—2017 Scoping Plan Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
Senate Bill 350 (SB 350): The Clean Energy and Pollution Reduction Act of 2015 increases the standards of the California RPS program by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be increased to 50 percent by 2030.[a] Required measures include: • Increase RPS to 50 percent of retail sales by 2030. • Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. • Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in IRPs to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.	CPUC, CEC, CARB	**Consistent.** LADWP is required to generate electricity that would increase renewable energy resources to 33 percent by 2020 and 50 percent by 2030. As LADWP would provide electricity service to the Project Site, by 2030 the Project would use electricity consistent with the requirements of SB 350. It is assumed that LADWP will receive at least 33 percent of electricity from renewable sources by year 2020 and 50 percent by 2030 (with a straight line interpolation for the Project buildout year of 2026). As required under SB 350, doubling of the energy efficiency savings from final end uses of retail customers by 2030 would primarily rely on the existing suite of building energy efficiency standards under CCR Title 24, Part 6 (consistency with this regulation is discussed below) and utility-sponsored programs such as rebates for high-efficiency appliances, HVAC systems, and insulation. The Project would comply with this this action/strategy being located within the LADWP service area and would comply with CalGreen and Title 24 energy efficiency standards.
Implement Mobile Source Strategy (Cleaner Technology and Fuels) • At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025. • At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.	CARB, CalSTA, SGC, CalTrans CEC, OPR, Local agencies	**Consistent.** The CARB approved the Advanced Clean Cars Program in 2012 that establishes an emissions control program for model year 2017 through 2025. Standards under the Advanced Clean Cars Program likely will apply to all passenger and light duty trucks used by customers, employees, and deliveries to the Project, depending on the outcome of ongoing negotiations between CARB and EPA regarding

Table B.8-7
Consistency Analysis—2017 Scoping Plan Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
• Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars regulations. • Medium- and heavy-duty GHG Phase 2. • Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_x standard. • Last Mile Delivery: New regulation that would result in the use of low NO_x or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030. • Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		federal standards. The Program also requires auto manufacturers to produce an increasing number of zero emission vehicles in the 2018 through 2025 model years. Extension of the Advanced Clean Cars Program has not yet been adopted, but it is expected that measures will be introduced to increase GHG emissions reductions stringency on light duty autos and continue adding zero emission and plug in vehicles through 2030. CARB is also developing the Innovative Clean Transit measure to encourage purchase of advanced technology buses such as alternative fueled or battery powered buses. This would allow fleets to phase in cleaner technology in the near future. CARB is also in the process of developing proposals for new approaches and strategies to achieve zero emission trucks under the Advanced Clean Local Trucks (Last Mile Delivery) Program.[b,c] GHG emissions generated by Project-related vehicular travel would benefit from this regulation, and mobile source emissions generated by the Project would be reduced with implementation of standards under the Advanced Clean Cars Program, consistent with reduction of GHG emissions under AB 32. Mobile source GHG emissions conservatively do not include this additional 34-percent reduction in mobile source emissions as the CalEEMod model does not yet account for this regulation. Although the Innovative Clean Transit and Advanced Clean Local Truck Programs have not yet been established, the Project would also benefit from these measures once adopted. SB 375 requires SCAG to direct the development of the SCS for the region, which is discussed further below. The Project represents an infill development within an existing urbanized area that would concentrate new residential, commercial and hotel uses within an HQTA. Therefore, the Project would be consistent with SCAG's 2016–2040 RTP/SCS. Furthermore, the 2016–2040 RTP/SCS would result in an estimated 18-percent decrease in per capita GHG emissions from passenger vehicles by 2035 and 21-percent decrease in per capita GHG emissions from passenger

Table B.8-7
Consistency Analysis—2017 Scoping Plan Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		vehicles by 2040. Project-related transportation emissions would be reduced by approximately 30 percent and therefore, the Project would be consistent with SB 375 and the 2016–2040 RTP/SCS.
Increase Stringency of SB 375 Sustainable Communities Strategy (2035 Targets)	CARB	**Consistent** Under SB 375, the CARB sets regional targets for GHG emission reductions from passenger vehicle use. In 2010, the CARB established targets for 2020 and 2035 for each region. As required under SB 375, the CARB is required to update regional GHG emissions targets every 8 years, which is due to be updated in 2018. As part of the 2018 updates, the CARB has proposed a passenger vehicle related GHG reduction of 19 percent for 2035 for the SCAG region, which is more stringent than the current reduction target of 13 percent for 2035. The Project would be consistent with SB 375 for developing an infill project within an existing urbanized area. This would concentrate new residential, commercial and retail uses within an HQTA. Project-related transportation emissions would be reduced by approximately 30 percent and therefore, the Project would be consistent with SB 375 and the 2016–2040 RTP/SCS.
By 2019, adjust performance measures used to select and design transportation facilities. • Harmonize project performance with emissions reductions, and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).	CalSTA and SGC, OPR, CARB, GoBiz, IBank, DOF, CTC, Caltrans	**Not Applicable.** The Project would not involve construction of transportation facilities. The Project would benefit from this station by encouraging use of mass transit resulting in a reduction of Project-related vehicle trips to and from the Project Site.
By 2019, develop pricing policies to support low- GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR/SGC, CARB	**Consistent.** The Project would support this policy since the Applicant would provide electric vehicle charging stations at five percent of total code required parking spaces for the Project. In addition, electric vehicle supply wiring (EV-ready) would be available in at least 20 percent of the total code-required parking spaces for the Project.
Implement California Sustainable Freight Action Plan: • Improve freight system efficiency. • Deploy over 100,000 freight	CARB	**Not Applicable.** The Project land uses would not include freight transportation or warehousing. Therefore, the Project would not interfere or impede the implementation of the Sustainable Freight Action Plan.

Table B.8-7
Consistency Analysis—2017 Scoping Plan Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		
Adopt a Low Carbon Fuel Standard with a CI reduction of 18 percent.	CARB	**Consistent.** This regulatory program applies to fuel suppliers, not directly to land use development. GHG emissions related to vehicular travel associated with the Project would benefit from this regulation because fuel used by Project-related vehicles would be required to comply with LCFS. Mobile source GHG emissions were calculated using CalEEMod that includes implementation of the LCFS into mobile source emission factors. The current LCFS, adopted in 2007, requires a reduction of at least 10 percent in the carbon intensity (CI) of California's transportation fuels by 2020. The CARB has proposed an amendment to the LCFS regulation to target a 20 percent reduction in CI from a 2010 baseline by 2030. The amendments were released in March 2018 with the public comment period ending in April 2018. The proposed amendments would be potentially adopted in 2019 with a Board hearing and vote.
Implement the Short-Lived Climate Pollutant Strategy by 2030: • 40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels. • 50 percent reduction in black carbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, SWRCB, Local air districts	**Consistent.** Senate Bill 605 (SB 605) was adopted in 2014 that directs CARB to develop a comprehensive Short-Lived Climate Pollutant (SLCP) strategy. Senate Bill 1383 was later adopted in 2016 to require CARB to set statewide 2030 emission reduction targets of 40 percent for methane and hydrofluorocarbons and 50 percent black carbon emissions below 2013 levels.[e] The Project would comply with the CARB SLCP Reduction Strategy, which limits the use of hydrofluorocarbons for refrigeration uses.
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA, SWRCB, Local air districts	**Not Applicable.** This strategy calls on regulators to reduce GHG emissions from landfills and is not applicable to a development project. Under SB 1383, the California Department of Resources Recycling and Recovery (CalRecycle) is responsible for achieving a 50 percent reduction in the level of statewide disposal of organic waste from the 2014 level by 2020 and 75-percent reduction by 2025. As of March 2018, CalRecycle is currently

Table B.8-7
Consistency Analysis—2017 Scoping Plan Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		holding workshops to review draft regulatory language. Adoption of the regulations to achieve SB 1383 targets is expected in early 2019.[f]
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	**Not Applicable.** This applies to State regulators and is not applicable to a development project. The current Cap-and-Trade program would end on December 31, 2020. Assembly Bill 398 (AB 398) was enacted in 2017 to extend and clarify the role of the state's Cap-and-Trade Program from January 1, 2021, through December 31, 2030. As part of AB 398, refinements were made to the Cap-and-Trade program to establish updated protocols and allocation of proceeds to reduce GHG emissions.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink: • Protect land from conversion through conservation easements and other incentives. • Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity. • Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments. • Establish scenario projections to serve as the foundation for the Implementation Plan.	CNRA and departments within, CDFA, CalEPA, CARB	**Not Applicable.** This applies to State regulators and is not applicable to a development project. This regulatory program applies to Natural and Working Lands, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Integrated Natural and Working Lands Implementation Plan.
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018	CARB	**Not Applicable.** This applies to State regulators and is not applicable to a development project**.** This regulatory program applies to Natural and Working Lands, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Integrated Natural and Working Lands Implementation Plan.
Implement Forest Carbon Plan	CNRA, CAL FIRE, CalEPA and departments within	**Not Applicable.** This applies to State regulators and is not applicable to a development project**.** This regulatory program applies to state and federal forest land, not directly related to development of the Project. However, the Project would not interfere or impede implementation of the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	**Not Applicable.** This applies to State regulators and is not applicable to a development project**.** Funding and financing mechanisms are the

Table B.8-7
Consistency Analysis—2017 Scoping Plan Update

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
		responsibility of the state and local agencies. The Project would not conflict with funding and financing mechanisms to support GHG reductions.

[a] Senate Bill 350 (2015–2016 Regular Session) Stats 2015, Ch. 547.
[b] CARB, Advance Clean Cars, Midterm Review, www.arb.ca.gov/msprog/acc/acc-mtr.htm.
[c] CARB, Advanced Clean Local Trucks (Last mile delivery and local trucks), www.arb.ca.gov/msprog/actruck/actruck.htm.
[d] CARB, LCFS Rulemaking Documents, www.arb.ca.gov/fuels/lcfs/rulemakingdocs.htm.
[e] CARB, Reducing Short-Lived Climate Pollutants in California, www.arb.ca.gov/cc/shortlived/shortlived.htm.
[f] CARB, Short-Lived Climate Pollutants (SLCP): Organic Waste Methane Emissions Reductions, www.calrecycle.ca.gov/climate/slcp/.
Source: CARB, California's 2017 Climate Change Scoping Plan, November 2017.

Regional: 2016–2040 RTP/SCS

The 2016–2040 RTP/SCS is expected to help California reach its GHG reduction goals, with reductions in per capita transportation emissions of 9 percent by 2020 and 16 percent by 2035.[188] Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[189] The 2016–2040 RTP/SCS would result in an estimated 8-percent decrease in per capita passenger vehicle GHG emissions by 2020, 18-percent decrease in per capita passenger vehicle GHG emissions by 2035, and 21-percent decrease in per capita passenger vehicle GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita passenger vehicle GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state's GHG emission reduction goals.

The Project would result in a VMT reduction of approximately 70 percent as compared to the Project without implementation of VMT reducing measures. As estimated by CalEEMod and as shown in **Appendix C**, the Project results in a reduction in GHG emissions from mobile sources as compared to the Project without implementation of VMT reducing measures. This would be consistent with the reduction in transportation emission per capita provided in the 2016–2040 RTP/SCS. This reduction is attributable to the Project characteristics as being an infill project near transit that supports multi-modal transportation options. The Project would also be consistent with the following key GHG reduction strategies in SCAG's 2016–2040 RTP/SCS, which are based on changing the region's land use and travel patterns:

- Compact growth in areas accessible to transit;

188 CARB, Regional Greenhouse Gas Emission Reduction Targets Pursuant to SB 375, Resolution 10-31.
189 SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 153.

- More multi-family housing;
- Jobs and housing closer to transit;
- New housing and job growth focused in HQTAs; and
- Biking and walking infrastructure to improve active transportation options and transit access.

The Project represents an infill development that would concentrate new residential and commercial uses within an HQTA, which is defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 miles of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. The Project Site is located near the Metro Rail Purple Line station and several Metro local bus routes, as well as a Metro Rapid route.

In addition, the Project would also provide bicycle storage areas for Project residents, employees, and guests. The Project would provide residents, employees, and guests with convenient access to public transit and opportunities for walking and biking, which would facilitate a reduction in VMT and related vehicular GHG emissions. These and other measures would further promote a reduction in VMT and subsequent reduction in GHG emissions, which would be consistent with the goals of SCAG's 2016–2040 RTP/SCS.

At the regional level, the 2016–2040 RTP/SCS is an applicable plan adopted for the purpose of reducing GHG emissions. In order to assess the Project's potential to conflict with the 2016–2040 RTP/SCS, this section also analyzes the Project's land use assumptions for consistency with those utilized by SCAG in its Sustainable Communities Strategy. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's 2016-2040 RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. **Table B.8-8** includes a discussion of the Project's consistency with the Actions and Strategies set forth in the 2016–2040 RTP/SCS.[190] As demonstrated in **Table B.8-8**, the Project would be consistent with the 2016–2040 RTP/SCS.

In summary, the Project is the type of land use development that is encouraged by the 2016-2040 RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the state's long-term climate policies.[191] By furthering implementation of SB 375, the Project supports regional land use and transportation GHG reductions consistent with state regulatory requirements. **Therefore, the Project would be consistent with the 2016–2040 RTP/SCS and the GHG reduction-related actions and strategies contained therein.**

190 As discussed in the 2016–2040 RTP/SCS, the actions and strategies included in the 2016–2040 RTP/SCS remain unchanged from those adopted in the 2012–2035 RTP/SCS.

191 As discussed above, SB 375 legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32.

Table B.8-8
Consistency with the 2016 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
Land Use Strategies		
Reflect the changing population and demands, including combating gentrification and displacement, by increasing housing supply at a variety of affordability levels.	Local jurisdictions	**Consistent.** The Project would include residences that would add to the supply and diversity of housing in metropolitan Los Angeles County.
Focus new growth around transit.	Local Jurisdictions	**Consistent.** The Project is an infill development that would be consistent with the 2016 RTP/SCS focus on growing near transit facilities. It is located in the dense Koreatown community. It is also served by Metro's local and Rapid bus services, as well as the Metro Rail Purple Line station.
Plan for growth around livable corridors, including growth on the Livable Corridors network.	SCAG, Local Jurisdictions	**Consistent.** The Project is an infill development that would be consistent with the 2016 RTP/SCS focus on focusing growth along the 2,980 miles of Livable Corridors in the region. It is also served by Metro's local and Rapid bus services, as well as the Metro Rail Purple Line station.
Provide more options for short trips through Neighborhood Mobility Areas and Complete Communities.	SCAG, Local Jurisdictions	**Consistent.** The Project would help further jobs/housing balance objectives that can improve the use of Neighborhood Electric Vehicles for short trips. The Project is also generally consistent with the Complete Communities initiative that focuses on creation of mixed-use districts in growth areas.
Support local sustainability planning, including developing sustainable planning and design policies, sustainable zoning codes, and Climate Action Plans.	Local Jurisdictions	**Not Applicable.** While this strategy calls on local governments to adopt General Plan updates, zoning codes, and Climate Action Plans to further sustainable communities, the Project would not interfere with such policymaking and would be consistent with those policy objectives.
Protect natural and farm lands, including developing conservation strategies.	SCAG, Local Jurisdictions	**Consistent.** The Project is an infill development that would help reduce demand for growth in urbanizing areas that threaten greenfields and open spaces.
Transportation Strategies		
Preserve our existing transportation system.	SCAG, County Transportation Commissions, Local Jurisdictions	**Not Applicable.** While this strategy calls on investing in the maintenance of our existing transportation system, the Project would not interfere with such policymaking.
Manage congestion through programs like the Congestion Management Program, Transportation Demand	County Transportation	**Consistent.** The Project is an infill development that will minimize congestion impacts on the region because of its

Actions and Strategies	Responsible Party(ies)	Consistency Analysis[a]
Management, and Transportation Systems Management strategies.	Commissions, Local Jurisdictions	proximity to public transit, Complete Communities, and general density of population and jobs.
Promote safety and security in the transportation system.	SCAG, County Transportation Commissions, Local Jurisdictions	**Not Applicable.** While this strategy aims to improve the safety of the transportation system and protect users from security threats, the Project would not interfere with such policymaking.
Complete our transit, passenger rail, active transportation, highways and arterials, regional express lanes, goods movement, and airport ground transportation systems.	SCAG, County Transportation Commissions, Local Jurisdictions	**Not Applicable.** This strategy calls for transportation planning partners to implement major capital and operational projects that are designed to address regional growth. The Project would not interfere with this larger goal of investing in the transportation system.
Technological Innovation and 21st Century Transportation		
Promote zero-emission vehicles.	SCAG, Local Jurisdictions	**Consistent.** While this action/strategy is not necessarily applicable on a project-specific basis, the Project would include both electric vehicle charging stations in the parking structure and additional pre-wiring for future potential electric vehicle charging infrastructure.
Promote neighborhood electric vehicles.	SCAG, Local Jurisdictions	**Consistent.** While this action/strategy is not necessarily applicable on a project-specific basis, the Project would include both electric vehicle charging stations in the parking structure and additional pre-wiring for future potential electric vehicle charging infrastructure.
Implement shared mobility programs.	SCAG, Local Jurisdictions	**Not Applicable.** While this strategy is designed to integrate new technologies for last-mile and alternative transportation programs, the Project would not interfere with these emerging programs.
Source: Southern California Association of Governments; 2016–2040 RTP/SCS, Chapter 5: The Road to Greater Mobility and Sustainable Growth; April 2016.		

Local: LA Green Plan/Climate LA Plan

The Project would be consistent with the LA Green Plan. The LA Green Plan outlines the goals and actions the City has established to reduce the generation and emission of GHG emissions from both public and private activities. **Table B.8-9** evaluates the Project's consistency with applicable GHG-reducing actions from the LA Green Plan. As discussed below, the Project is consistent with the applicable goals and actions of the LA Green Plan. To facilitate implementation of the LA Green Plan, the City adopted the Los Angeles Green Building Code. The 2016 Los Angeles Green Building Code (Chapter IX, Article 9, of the Los Angeles Municipal

Code, as amended pursuant to City Ordinance No. 184,692) incorporated by reference the mandatory requirements of the 2016 California Green Building Standards Code (discussed above under AB 32 Climate Change Scoping Plan).

Table B.8-9
Consistency with Applicable GHG Emissions Goals and Actions of the LA Green Plan

Action		Description	Consistency Analysis
Focus Area: Energy			
E6	Present a comprehensive set of green building policies to guide and support private sector development.	The City initiated an effort to establish green building requirements, paired with incentives, for medium- to large- private projects. Buildings account for a majority of electricity use. Each building site relates to a wide range of environmental issues faced by the City, so addressing each site in a comprehensive manner will provide a variety of environmental benefits.	**Consistent.** While this action primarily applies to the City, the Project would be designed and operated to meet the applicable requirements of the State Green Building Standards Code and the City's Green Building Code.
Focus Area: Water			
W1	Meet all additional demand for water resulting from growth through water conservation and recycling.	The Mayor's Office and LADWP developed the *Securing LA's Water Supply* plan, which is an aggressive, multi-faceted approach to developing a locally sustainable water supply. The plan includes a set of key short-term and long-term strategies to secure our water future, such as: Short-Term Conservation Strategies: • Enforcing prohibited uses of water (levying fines and sanctions against water abusers and increase water conservation awareness). • Expanding the list of prohibited uses of water (possible further restrictions on watering landscape and washing/rinsing vehicles without a self-closing nozzle). • Extending outreach efforts, water conservation incentives, and rebates. • Encouraging regional conservation measures (encourage all water agencies in the region to adopt water conservation ordinances which include prohibited uses and enforcement). Long-Term Conservation Strategies:	**Consistent.** While this action primarily applies to the City and LADWP, the Project would incorporate water conservation features to reduce indoor water use by at least 20 percent. Water conservation measures include: Energy Star-certified appliances in residential units and use of ultra low flow toilets and hand wash faucets in public facilities. Further detail is provided in **Section B.19, Utilities and Service Systems - Water**, of the MND.

Table B.8-9
Consistency with Applicable GHG Emissions Goals and Actions of the LA Green Plan

Action		Description	Consistency Analysis
		• Increasing water conservation through reduction of outdoor water use and new technology. • Maximizing water recycling. • Enhancing stormwater capture • Accelerating cleanup of the groundwater basin. • Expanding groundwater storage.	
W2	Reduce per capita water consumption by 20%.	[See W1, above.]	[See W1, above.]
Focus Area: Transportation			
T4	Complete the Automated Traffic Surveillance and Control System (ATSAC).	This action reduces vehicle emissions that result from idling at intersections. By reducing vehicle stops, delays and travel time through improved traffic signal timing, vehicles can travel a longer distance at a consistent rate of speed, improving fuel economy.	**Consistent.** While the City has implemented this action, the Project would not interfere with the advancement of more signal timing in the City.
T6	Make transit information easily available, understandable, and translated into multiple languages.	A Los Angeles Department of Transportation (LADOT) partnership with the Personnel Department will enable DOT to determine in which additional languages transit information should be provided. Facilitating access to transit information increases the likelihood of transit use, which can reduce single occupancy vehicle trips and help alleviate traffic congestion, and most importantly, reducing associated greenhouse gas emissions.	**Consistent.** While this action primarily applies to the City, the Project would not impair the ability of the City to make transit information easily available, understandable, and translated into multiple languages.
T8	Promote walking and biking to work, within neighborhoods, and to large events and venues.	Promoting alternate modes of travel will reduce the carbon emissions associated with single occupancy vehicles (SOVs). As described in Action Items LU1 and LU2 below, the City is promoting high-density and mixed-use housing close to major transportation arteries. Such developments will also support the advancement of Action Item T8, by improving accessibility for those who wish to walk and bike to work.	**Consistent.** While this action primarily applies to the City, the Project would promote a pedestrian-friendly community by connecting the Project with the downtown Los Angeles community through the provision of ground- level neighborhood-serving commercial retail and restaurant uses to activate the streets in the surrounding area. The Project Site is also located in an HQTA as designated by the 2016–2040 RTP/SCS and near regional and local transit services. The Project would provide residents and visitors with

Table B.8-9
Consistency with Applicable GHG Emissions Goals and Actions of the LA Green Plan

Action		Description	Consistency Analysis
			convenient access to public transit and opportunities for walking and biking, including the installation of bicycle parking spaces in accordance with LAMC requirements.
Focus Area: Land Use			
LU 1	Promote high-density housing close to major transportation arteries.	With 469 square miles, Los Angeles is a vast and sprawling city. Yet many neighborhoods are walkable, with stores and services clustered near dense residential housing. As the city continues to redevelop and grow, there is an unprecedented opportunity to rethink the urban environment. Accommodating continued growth requires taking advantage of infill opportunities and increasing density along transit corridors.	**Consistent.** The Project represents a mixed-use infill development that would provide residences and commercial retail uses within an HQTA. The Project Site is located near regional and local public transit services. The Project would provide bicycle storage areas for Project residents, employees, and guests.
LU 2	Promote and implement transit-oriented development (TOD).	Transit Oriented Districts (TODs) represent opportunities for creating cohesive, vibrant, walkable communities where fragmented, auto- dependent corridors now exist. TODs are a positive alternative to low-density traditional land use patterns that typically segregate housing, jobs and neighborhood services from one another. In contrast, TODs cluster these community elements in close proximity, so a greater portion of trips can be made by transit, bike, or on foot.	**Consistent.** While this action primarily applies to the City, the Project would concentrate new residential and commercial uses in close proximity to public transit opportunities (e.g., light rail and bus routes). The Project area is well served by public transit, including both bus and rail service.
Action		**Description**	**Consistency Analysis**
Focus Area: Waste			
Ws T1	Reduce or recycle 70 percent of trash by 2015.	Source reduction and recycling programs not only conserve natural resources and landfill space, but also confer climate benefits.	**Consistent.** While this action primarily applies to the City, the Project would provide adequate storage areas in accordance with the City's Space Allocation Ordinance (Ordinance No. 171,687), which requires that developments include a recycling area or a room of specified size on the Project Site.
Source: DKA Planning, 2018.			

The Project would comply with performance-based standards included in the Green Building Code. In order to meet reduction goals in the LA Green Plan, LADWP will continue to implement programs to emphasize water conservation and will pursue securing alternative supplies, including recycled water and storm water capture. With regard to solid waste, the City implemented the RENEW LA plan to meet solid waste reduction goals by expanding recycling to multifamily dwellings, commercial establishments, and restaurants. The Project would be indirectly affected by these actions and would further reduce water and solid waste generation, thereby meeting the goals of the LA Green Plan. In addition, LADWP is required to procure a minimum of 33 percent of its energy portfolio from renewable sources by 2020 and would continue to implement programs consistent with the LA Green Plan. **Therefore, the Project would be consistent with the LA Green Plan.**

Local: City of Los Angeles Sustainable City pLAn

The Sustainable City pLAn includes both short-term and long- term aspirations through the year 2035 in various topic areas, including: water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others. The Sustainable City pLAn provides information as to what the City will do with buildings and infrastructure in their control. Specific targets related to housing and development and mobility and transit include the decrease of vehicle miles traveled per capita by 5 percent by 2025, and increasing trips made by walking, biking or transit by at least 35 percent by 2025. The Project would generally comply with these aspirations as the Project is an infill development consisting of residential, hotel, and commercial uses on the Project Site, which is located near regional and local transit services. The Project would be well-served by transit and would implement a TDM Program that would encourage transit use. Furthermore, the Project would comply with CALGreen, implement various features to reduce energy usage and conserve water, and comply with the City's Solid Waste Management Policy Plan, the RENEW LA Plan, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986) in furtherance of the aspirations included in the Sustainable City pLAn with regard to energy-efficient buildings and waste and landfills. The Project would also provide secure short- and long-term bicycle storage areas for Project residents and guests. **Therefore, the Project would be consistent with the Sustainable City pLAn**.

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the Project complies with or exceeds the plans, policies, regulations and GHG reduction actions/strategies outlined in the *Climate Change Scoping Plan and Update*, the 2016–2040 RTP/SCS, the LA Green Plan, and the Sustainable City pLAn. The Project would also be consistent with reducing emissions below a NAT scenario, as discussed earlier in this section. Consistency with the above plans, policies, regulations and GHG reduction actions/strategies would reduce the Project's incremental contribution of GHG emissions. **Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHG emissions. Furthermore, because the Project is consistent and does not conflict with these plans, policies, and regulations, the Project's**

incremental increase in GHG emissions as described above would not result in a significant impact on the environment. Therefore, Project-specific impacts with regard to climate change would be less than significant. No mitigation measures are required.

Thus, given the Project's consistency with State, SCAG, and City GHG emission reduction goals and objectives, the Project is consistent with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs. **In the absence of adopted standards and established significance thresholds, and given this consistency, it is concluded that the Project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable.**

IX. Hazards And Hazardous Materials

As discussed above, in 2015, the California Supreme Court in CBIA v. BAAQMD, held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the project. The revised thresholds are intended to comply with this decision. Specifically, the decision held that an impact from the existing environment to the project, including future users and/or residents, is not an impact for purposes of CEQA. However, if the project, including future users and residents, exacerbates existing conditions that already exist, that impact must be assessed, including how it might affect future users and/or residents of the project. For example, if construction of the project on a hazardous waste site will cause the potential dispersion of hazardous waste in the environment, the EIR should assess the impacts of that dispersion to the environment, including to the project's residents. Thus, in accordance with Appendix G of the State CEQA Guidelines and the CBIA v. BAAQMD decision, the project would have a significant impact related to hazards and hazardous materials if it would result in any of the following impacts.

This section is based on the following item, included as Appendix H of this MND:

H Phase I Environmental Site Assessment, IVI Assessment Services, October 22, 2014.

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact.

A significant impact may occur if a project would involve the use or disposal of hazardous materials as part of its routine operations, or would have the potential to generate toxic or otherwise hazardous emissions that could adversely affect sensitive receptors. Construction of the Project would involve the temporary transport, use, and disposal of potentially hazardous materials. These materials include paints, adhesives, surface coatings, cleaning agents, fuels, and oils that are typically associated with development of any urban mixed-use project. All of these materials would be used temporarily during construction. Thus, while construction of the Project would involve the routine transport, use, or disposal of hazardous materials, it would not be a significant hazard to the public or the environment.

Additionally, all potentially hazardous materials associated with construction activities would be used and stored in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations, which further minimizes the potential risk associated with construction-related hazardous materials. Finally, the construction activities are contained on the Project Site and, thus, any emissions from the use of such materials would be minimal and localized to the Project Site or disposed of in accordance with regulatory requirements. Therefore, construction of the Project would not expose persons or the environment to a substantial risk resulting from the release of hazardous materials or exposure to health hazards

in excess of regulatory standards. Potential impacts associated with the potential release of hazardous substances during construction of the Project would be less than significant.

Similarly, from an operational perspective, the Project does not involve the routine use, transport, or disposal of hazardous materials. The Project includes the development of residential, commercial, and parking uses. These typical urban uses do not involve the routine use of hazardous materials**.** Instead, the operation of the Project has limited hazardous materials similar to any other mixed-use urban development. For example, the proposed uses would involve the use and storage of small quantities of potentially hazardous materials such as cleaning solvents, paints, and pesticides for landscaping. Likewise, the Project's commercial and office uses could include commercial-grade cleaning solvents, waxes, dyes, toners, paints, bleach, grease, and petroleum products that are typically associated with commercial land uses. In other words, the Project generally would not produce significant amounts of hazardous waste, use or transport hazardous waste beyond those materials typically used in an urban development. Thus, none of the Project's operational features, or the type of hazardous materials used on the Project Site, creates a significant hazard to the environment or public.

Moreover, the Project would adhere to regulatory requirements for source hazardous waste reduction measures (e.g., recycling of used batteries, recycling of elemental mercury, etc.) that would further minimize the generation of hazardous waste. In addition, the Project will comply with the applicable City ordinances regarding implementation of hazardous waste reduction efforts on-site (i.e., the City's Green Building Ordinance). The applicable regulatory requirements further ensure that the minimal amount of hazardous materials associated with the Project are properly treated and disposed of at licensed resource recovery facilities or hazardous waste landfills. Therefore, potential impacts associated with the operation of the Project would be less than significant.

The potential transport of any hazardous materials and wastes, i.e., paints, adhesives, surface coatings, cleaning agents, fuels, and oils, if it occurs, would occur in accordance with federal and state regulations that govern the handling and transport of such materials. In accordance with such regulations, the transport of hazardous materials and wastes would only occur with transporters who have received training and appropriate licensing. **Therefore, potential impacts associated with the minimal transport of any hazardous materials would also be less than significant.**

b) Would the project create significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact.

A significant impact may occur if a project utilizes hazardous materials as part of its routine operations and could potentially pose a hazard to nearby sensitive receptors under accident or upset conditions.

Prior to the construction of the existing improvements in 1950-1951, the Project Site was primarily vacant land, with several residences on the western side.

This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Project Site; however, the following historical REC (HREC) was identified:

- IVI reviewed a Tank Closure Report, Central Plaza, 3450 Wilshire Boulevard, dated May 26, 1988, prepared by McLaren Environmental Engineering. This report indicated that in 1988, an 8,000-gallon fuel oil Underground Storage Tank **(**UST) was removed from the Site. This UST was reportedly installed in 1951 and was used as a backup fuel supply for the on-site boilers. The report indicated that petroleum impacted soils were encountered and excavated during tank removal activities. Soil samples collected after the excavation reportedly did not reveal any remaining contamination requiring further actions. The McLaren report recommended no additional actions be undertaken.

- An Application for Permit; Abandonment By Removal Fire Department-City of Los Angeles, was also reviewed as part of our previous assessment, which discussed the removal of one waste oil UST and two gasoline USTs, dated June 8, 1988. It is suspected that these USTs were related to the gas & oil station noted on the 1961 Sanborn Map. It should also be noted that based on our regulatory review, the Subject was identified as a registered storage tank site featuring a “inactive” regulatory status for two previous onsite “regulated unleaded” USTs. These gasoline USTs are suspected to be associated with the removal of the aforementioned gasoline USTs noted in the permit. Based on the foregoing, no further action is recommended at this time regarding the Site’s historical on-site USTs.

In addition, the following business environmental risk (BER) was identified, which warrants mention:

- Based on the age of the Project Site, the friable acoustical ceiling tiles are suspected to contain asbestos. In addition, the non-friable resilient floor finish assemblies, wallboard assemblies, roofing materials, caulking, and mastics may contain asbestos. Since these materials were observed to be in good condition, no further action is recommended at this time other than maintaining same in good condition under an Asbestos Operations and Maintenance (O&M) Program. All activities involving ACM should be conducted in accordance with governmental regulations.

The Project would maintain the Existing Office Buildings and remove the existing parking structure on the Project Site. If asbestos containing building materials are found to be present, those materials will need to be abated in compliance with the South Coast Air Quality

Management District's Rule 1403 as well as all other applicable State and Federal rules and regulations. If lead-based paint materials are found to be present, standard handling and disposal practices shall be implemented pursuant to OSHA regulations. It should be noted that construction activities that disturb materials or paints containing any amount of lead may be subject to certain requirements of the OSHA lead standard contained in 29 CFR 1910.1025 and 1926.62.

Methane

The Project Site is not within a Methane Buffer Zone.[192]

Operational Health Hazards

The Project shall be maintained in a neat, attractive, and safe condition at all times. On-site activities shall be conducted so as not to create noise, dust, odor, or other nuisances to surrounding properties. Trash and recycling bins shall be maintained with a lid in working condition; such lid shall be kept closed at all times. Trash and garbage collection bins shall be maintained in good condition and repair such that there are no holes or points of entry through which a rodent could enter. Trash and garbage collection containers shall be emptied a minimum of once per week. Trash and garbage bin collection areas shall be maintained free from trash, litter, garbage, and debris (per LAMC). **Operational impacts would be less than significant.**

Compliance with existing applicable LAMC regulations would ensure that impacts during construction and operation would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact.

A project-related significant adverse effect may occur if the Project Site is located within 0.25-mile (1,320 feet) of an existing or proposed school site, and is projected to release toxic emissions, which would pose a health hazard beyond regulatory thresholds. The Project Site is in proximity to the following schools:[193]

- RFK Community Schools (Ambassador, UCLA Community School, New Open Worlds, and Los Angeles High School of the Arts), 701 S. Catalina Street, 250 feet east of the Project Site.

192 ZIMAS search: http://zimas.lacity.org/.
193 LAUSD and Google Maps.

The Project will have a less than significant impact during construction (with regulatory compliance for asbestos and lead-based paint) and will not emit any hazardous substances during operation. The schools would be shielded from the Project Site by the distance noted above, intervening urban buildings (2-story and 3-story residential buildings and a 3-level parking structure), and standard construction walls and sheeting to reduce dust and other emissions from the Project Site. Potential construction impacts such as trucks and other equipment and operational changes to the streets and sidewalks nearby the schools will be mitigated to a less than significant level by **Mitigation Measure Tran-MM-1**.

The operational uses would not generate hazardous emissions, as it would be a residential and commercial use, which is already common in the area. **Therefore, impacts of hazardous materials within one-quarter mile of a school will be less than significant.**

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment, caused in whole or in part from the project's exacerbation of existing environmental conditions?

Less Than Significant Impact.

California Government Code Section 65962.5 requires various state agencies to compile lists of hazardous waste disposal facilities, unauthorized release from underground storage tanks, contaminated drinking water wells, and solid waste facilities from which there is known migration of hazardous waste and submit such information to the Secretary for Environmental Protection on at least an annual basis. This question would apply only if the Project Site is included on any of the above referenced lists (see question b), above) and would therefore pose an environmental hazard to the public or the environment. In meeting the provisions in Government Code Section 65962.5, commonly referred to as the "Cortese List," database resources that provide information regarding identified facilities or sites include EnviroStor, GeoTracker, and other lists compiled by the California Environmental Protection Agency:

According to EnviroStor, there are no cleanup sites (either Federal Superfund, State Response, voluntary, school evaluation, school investigation, military evaluation, tiered permit, or corrective action), permitted sites (either operating, post-closure, or non-operating), LUFT (leaking underground fuel tanks) or SLICS (Spills, Leaks, Investigation, and Cleanup) on, in or under the Project Site.[194]

According to GeoTracker, there are no LUST sites, other cleanup sites, land disposal sites, military sites waste discharge requirement (WDR) sites, permitted UST facilities, monitoring

194 California Department of Toxic Substance Control, EnviroStor, website: http://www.envirostor.dtsc.ca.gov/public/, September 21, 2018.

wells, or California Department of Toxic Substance Control cleanup sites or hazardous materials permits on, in or under the Project Site.[195]

The Project Site has not been identified as a solid waste disposal site having hazardous waste levels outside of the Waste Management Unit.[196] There are no active Cease and Desist Orders or Cleanup and Abatement Orders from the California Water Resources Control Board associated with the Project Site.[197] The Project Site is not subject to corrective action pursuant to the Health and Safety Code, as it has not been identified as a hazardous waste facility.[198]

Regulatory Review

A copy of regulatory database information contained within a Computerized Environmental Report (CER) is a listing of sites identified on select federal and state standard source environmental databases within the approximate minimum search distance (AMSD) specified by ASTM Standard Practice for Environmental Site Assessments E 1527-13.

Federal Databases

National Priorities List (NPL). The NPL database is a listing of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or "Superfund"). A site must be on the NPL to receive money from the Trust Fund for Remedial Action. The CER did not identify NPL sites within the AMSD.

Delisted NPL Site List. The EPA may delete a final NPL site if it determines that no further response is required to protect human health or the environment, under Section 300.425(e) of the National Contingency Plan (55 FR 8845, March 8, 1990). Sites that have been deleted from the NPL remain eligible for further Superfund-financed remedial action in the unlikely event that conditions in the future warrant such action. Partial deletions can also be conducted at NPL sites. The CER did not identify Delisted NPL sites within the AMSD.

Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS). CERCLIS is the USEPA's system for tracking potential hazardous-waste sites within the Superfund program. A site's presence on CERCLIS does not imply a level of federal activity or progress at a site, nor does it indicate that hazardous conditions necessarily exist at the location. Within one year of being entered into CERCLIS, the USEPA performs a

195 California State Water Resources Control Board, GeoTracker, website: http://geotracker.waterboards.ca.gov/map, September 21, 2018.

196 California Environmental Protection Agency, Cortese List Data Resources, Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit, website: http://www.calepa.ca.gov/SiteCleanup/CorteseList/CurrentList.pdf, September 21, 2018.

197 California Environmental Protection Agency, Cortese List Data Resources, List of "Active" CDO and CAO from Water Board, website: http://www.calepa.ca.gov/sitecleanup/corteselist/, September 21, 2018.

198 California Environmental Protection Agency, Cortese List Data Resources, Cortese List: Section 65962.5(a), website: http://www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm#Facilities, September 21, 2018.

preliminary assessment of a site. Based upon the results of the preliminary assessment, the USEPA may conduct additional investigation, which could lead to a site being listed on the NPL. The CER did not identify CERCLA sites within the AMSD.

CERCLIS No Further Remedial Action Planned (NFRAP) Sites. As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from the CERCLIS list. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to warrant Federal Superfund Action or NPL consideration. The CER identified the following CERCLA NFRAP site within the AMSD:

- Berendo Shopping Center/3301-3317 W. Sixth Street, 0.30 mile northeast upgradient (status NFRAP)

According to the CER, a preliminary assessment was conducted at this location in 2000. Although the assessment report was not readily available, the site was granted a No Further Remedial Action Planned (NFRAP) status by the USEPA at that time. As stated above, NFRAP sites may be sites where, following an initial investigation, no contamination was found, or the contamination was either abated or the contamination was not significant enough to warrant Federal Superfund Action or NPL consideration. Notwithstanding, this site is located a sufficient distance from the Project Site so as not to be reasonably suspect of having impacted the Site.

Federal Resource Conservation and Recovery Information System (RCRIS) Treatment, Storage, and Disposal (TSD) List. The RCRIS TSD contains information pertaining to those facilities that treat, store, or dispose of hazardous waste. While these facilities represent some form of hazardous waste activity, they are most significant if determined to be out of compliance or to have violations. The CER did not identify RCRIS TSD facilities within the AMSD.

RCRIS Generators. IVI Assessment Services reviewed the list of sites, which have filed notification with the USEPA in accordance with RCRA requirements. These sites include generators of hazardous waste regulated under RCRA. Under RCRA, hazardous waste generators are classified by the quantity of hazardous waste generated in a calendar month into the following categories: Large Quantity Generator (LQG), greater than 1,000 kilograms (kg); Small Quantity Generator (SQG), 100 to 1,000 kg; and Conditionally-Exempt Small Quantity Generator (CESQG), less than 100 kg. RCRA Generators, while they represent some form of hazardous waste activity, are most significant if they are determined to have Class I Violations or to be non-compliant. The CER identified the Project Site on the RCRA database:

- 3450 Wilshire Blvd Suite #408, On-site (status: Compliant/No Violations)

- Pacific Bell, 3470 Wilshire Blvd, On-site (status: Compliant/No Violations)

According to the CER, asbestos, an unidentified aqueous solution, and PCB wastes were removed from the Project Site. The above listings have no reported RCRA violations and it appears that wastes are associated with one time abatement/removal incidents. They are currently listed as non-generators. Based on the lack of reported RCRA violations and lack of reported releases, IVI Assessment Services concludes that these listings do not represent an environmental concern for the Project Site.

The CER identified the following RCRA Generators adjacent to the Project Site:

- Equitable Plaza/3435 Wilshire Boulevard, Northeast, Upgradient (status: Compliant/No Violations)

    - This site is listed as a small quantity generator for the removal of asbestos-containing material in 1993-1995. Inclusion of a site on the RCRA Generator list does not necessarily constitute environmental contamination, but instead merely indicates that a hazardous waste stream was or is generated. In any event, inasmuch as no violations or compliance infractions were identified in connection with the above-referenced RCRA site, it is not suspected that contamination originating at this site, if any exists, has encroached upon the Project Site.

- 20/20 Cleaners/698 S. Irolo Street, Southwest, Downgradient (status: Compliant/No Violations)

    - This site is listed as a small quantity generator likely for the removal of dry cleaning solvents, such as PCE. Inclusion of a site on the RCRA Generator list does not necessarily constitute environmental contamination, but instead merely indicates that a hazardous waste stream was or is generated. In any event, inasmuch as no violations or compliance infractions were identified in connection with the above-referenced RCRA site, it is not suspected that contamination originating at this site, if any exists, has encroached upon the Project Site. Additionally, this site is located in a downgradient direction from the Project Site, and groundwater is expected to flow away from the Site. Furthermore, this site was not identified on any regulatory databases indicative of a contamination condition. IVI Assessment Services has no significant environmental concerns regarding same.

Corrective Action Tracking System (CORRACTS). CORRACTS is a list of facilities that are found to have had hazardous waste releases and require RCRA corrective action activity, which can range from site investigations to remediation. The CER did not identify CORRACTS sites within the AMSD.

Federal Emergency Response Notification System (ERNS) List. The ERNS is a database of notifications of oil discharges and hazardous substance releases made to the Federal government. These notifications are used by “On-Scene Coordinators” to determine an

emergency response and release prevention. When a call is made to the National Response Center or one of the 10 USEPA Regions, a report is created containing all of the release information that the caller provided. This report is transferred to an appropriate agency to evaluate the need for a response and the records are electronically transferred to the ERNS database. As such, if a reported release of oil or a hazardous substance is deemed to require a response, it should also be listed in the appropriate federal or state environmental database such as CERCLIS, state equivalent CERCLIS, or state leaking underground storage tank or spills lists. The CER did not identify the Project Site on the ERNS database.

Federal Institutional Control/Engineering Control Registries. These Federal registries contain listings of those sites which have either engineering and/or institutional controls in place. Engineering controls include various physical control devices such as fences, caps, building slabs, paved areas, liners and treatment methods to eliminate pathways for regulated substances to enter the environment or affect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions (Activity and Use Limitations) are generally required as part of institutional controls. The CER did not identify the Project Site on the Federal Institutional or Engineering Control registries.

Facility Index System (FINDS). FINDS contains both facility information and "pointers" to other environment database sources that contain additional detail. These other databases include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA. The CER identified the Project Site on the FINDS database, related to the previous RCRA listings for Central Plaza at 3450 Wilshire and Pacific Bell at 3470 Wilshire. These listings are discussed above. Nevertheless, neither of these listings was cross-referenced on any regulatory databases that report releases or contamination conditions, such as the SHWS, LUST or SLIC databases. Based on the above information, these listings are not suspected to be of a significant environmental concern to the Project Site.

California Environmental Protection Agency (Cal/EPA) Databases

Response and Tribal NPL Equivalent Hazardous Waste Sites (HWS). The Response database is a list of confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. The CER did not identify HWS sites within the AMSD.

Envirostor, HIST Cal-Sites, and Tribal CERCLIS Equivalent Hazardous Waste Sites (HWS). The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

The HIST Cal-Sites database is a list of facilities subject to investigation concerning likely or threatened releases of hazardous substances. These sites are either being actively remediated, or are currently under evaluation for further action, if necessary. This database has been replaced by Envirostor and is no longer being updated.

Tribal CERCLIS Equivalent HWS list is an inventory of toxic sites listed by Tribal Environmental and Health Authorities. These sites are either under remediation, or are currently under evaluation for further action, if necessary. The CER identified nine California and/or Tribal CERCLIS Equivalent Hazardous Waste sites within the AMSD of 0.5 mile. Eight of those sites are located over 0.20 mile from the Project Site, a sufficient distance from the Site so as not to be reasonably suspected of having impacted the same. The closest listing to the Project Site is discussed below:

- Central Los Angeles Learning Center/3400 Wilshire Boulevard, 0.04 miles east Crossgradient (status: Certified for Operations and Maintenance)

    - This 23-acre site was formerly occupied by the Ambassador Hotel and associated structures, three residential properties, and a parking lot. The Ambassador Hotel operated from 1922 until 1989. Between 1989 and 2005, the building was primarily used by film studios, small rental car agencies, and for police training purposes. The hotel was demolished in 2005.

Previous site investigations for the Ambassador Site conducted in 2001 and 2002 revealed elevated levels of lead, arsenic, and volatile organic compounds. Areas of existing underground storage tanks were identified, as was an area of elevated levels of methane near a corehole. A Removal Action Workplan (RAW) was prepared to address these chemical of concerns, and was approved by DTSC on January 28, 2003. The RAW included the closure of the USTs, removal of hydrocarbon-impacted soil, removal of lead-impacted soil, and the re-abandonment of the corehole. Approximately 251 cubic yards of soil were excavated and removed from the

site in 2003. A methane gas mitigation system was installed at the site in preparation for the construction of a school.

The site was certified in 2011 by the State Department of Toxic Substances Control (DTSC) as having been remediated, but was placed under an Operations and Maintenance program due to its current use as a school campus, which was constructed in 2010. IVI Assessment Services has no significant environmental concerns regarding same.

California and/or Tribal Solid Waste Facilities (SWF) List. The SWF list is an inventory of active, closed and inactive landfills and other sites that manage solid wastes. The CER did not identify SWF sites within the AMSD.

California and/or Tribal Registered Underground Storage Tanks (UST), HIST USTs and SWEEPS UST Facility Lists. The UST facility list is an inventory of registered liquid bulk storage tanks. The HIST UST database, aka the Hazardous Substance Storage Container Database, is a historical listing of UST sites. The SWEEPS UST database, aka the Statewide Environmental Evaluation and Planning System, is a list of USTs that was updated and maintained by a company contacted by the State Regional Water Quality Control Board in the early 1980's. This listing is no longer updated or maintained but has historical significance. Inclusion of a site on these lists does not necessarily constitute environmental contamination, but instead merely indicates the presence of registered bulk storage tanks. Analysis/Comment: The CER identified the following Registered Storage Tank sites within the AMSD:

- Central Plaza/3450 Wilshire Boulevard, On-Site (status: Inactive)

The Project Site is a registered storage tank site featuring an inactive regulatory status, identified as previously having two USTs. This listing is likely related to the two gasoline USTs which were identified in the 2007 Phase I ESA from a review of Los Angeles City Fire Department files. The Project Site is not listed on other environmental databases indicative of contamination such as the leaking underground storage tank list or the inventory of Hazardous Waste Sites.

California and Tribal Leaking Underground Storage Tanks (LUST) List and Spills, Leaks, Investigations and Cleanups (SLIC) Records. The LUST list is an inventory of reported spills and leaks, both active and inactive maintained by the various California Regional Water Quality Control Boards. It includes stationary and non-stationary source spills reported to state and federal agencies, including remediated and contaminated leaking UST sites. SLIC records, which are maintained by the various Regional Water Quality Control Boards, document unauthorized discharges from spills and leaks from sources other than UST and other regulated sites. The CER identified 22 LUST/SLIC cases within the AMSD, 17 of which have been issued a Case Closed status. A Case Closed status is granted to those sites that do not exhibit levels of contamination requiring cleanup, have been remediated to the satisfaction of the lead regulatory agency, or are not suspected to represent a significant threat to human health or the

environment. As such, absent additional information to the contrary, it is unlikely that contamination originating at sites with a Case Closed status have had a significant negative environmental impact on the Project Site. Of the five open cases, four are located at distances of over 0.45 mile, a sufficient distance from the Project Site so as not to be reasonably suspected of having impacted same. The nearest LUST site is discussed below:

- Chevron Station, #95294/549 S. Normandie Avenue, 0.16 miles North-northwest, Upgradient Crossgradient (status: Under remediation)

This site is a former Chevron station that operated until 1986, when the station was demolished and the site was redeveloped as a commercial strip mall with restaurants and retail shops. In 1986, two 10,000-gallon and one 5,000-gallon product USTs, and one waste oil UST were removed from the site, along with three dispenser islands, associated product piping and the station building. Subsurface investigations conducted between 1986 and 2001 revealed elevated levels of petroleum hydrocarbons and BTEX in the soil and groundwater. Groundwater was encountered at approximately 35 to 55 feet below ground surface, with a southwesterly flow direction. Several remediation events have occurred at the site, including free product removal, soil vapor extraction, and dual-phase extraction for the soil and groundwater. Although the site is still undergoing monitoring, contamination does not appear to have migrated off-site. In addition, since groundwater at this site is anticipated to flow to the southwest, away from the Project Site, it is not anticipated that contamination originating at this site will impact the Project Site.

California Deed Restriction Listing and Tribal Institutional Control/Engineering Control Registries. The DTSC SMBRP list includes sites remediated under the program's oversight that have active deed restrictions. The DTSC Hazardous Waste Management Program Facility Sites (HWMP) list includes current and former hazardous waste facilities with deed/Land Use Restrictions that have been recorded with the County. The type of land use restrictions includes deed notices, deed restrictions, or a land use restriction that binds current and future owners. The Tribal Institutional Control/Engineering Control Registries contain listings of those sites which have either engineering and/or institutional controls in place. Engineering controls include various physical control devices such as fences, caps, building slabs, paved areas, liners and treatment methods to eliminate pathways for regulated substances to enter the environment or effect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions (Activity and Use Limitations) are generally required as part of institutional controls. The CER did not identify the Project Site on the SMBRP, HWMP or Tribal Institutional or Engineering Control registries.

California and Tribal Voluntary Cleanup Program (VCP) Sites. The California VCP properties list includes "low" threat level properties with either confirmed or unconfirmed releases and the project proponents have requested that the DTSC oversee the investigation and cleanup. The

CER did not identify VCP sites within the AMSD California and Tribal Brownfield Sites. A Brownfield site was defined in the 2002 Small Business Liability Relief and Brownfields Revitalization Act (Brownfields Law) as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant". In connection with the passage of the Brownfields Law, the Environmental Protection Agency grants awards to states and tribes for activities under Section 128 (a). The CER did not identify Brownfield sites within the AMSD.

California HAZNET. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, Treatment, Storage, and Disposal ID, waste category, and disposal method. The Project Site addresses are listed on the HAZNET database several times for the removal of asbestos-containing waste, an unspecified solvent mixture, an unspecified alkaline solution, PCB-containing materials, and inorganic solid waste at various times from 1994 through 2011. It appears that the identified wastes are related to one-time abatement/removal incidents associated with typical building maintenance activities. In addition, a tenant, Mark Laska, DDS, in 3460 Wilshire Boulevard, Suite 104, was issued an EPA ID number in 1996 for the removal of photochemical/photoprocessing wastes likely associated with x-ray developing. Currently, only digital x-ray equipment is used at the suite. All of the EPA ID numbers identified are listed as inactive on the State DTSC Hazardous Waste Tracking System. Of note, the Project Site was not identified on any regulatory databases that report releases or contamination conditions, such as the SHWS, LUST or SLIC databases. Based on the above information, these listings are not suspected to be of a significant environmental concern to the Project Site.

EDR Manufactured Gas Plants. This database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to the 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of wastes. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination. The CER did not identify the Project Site or any adjacent properties on the manufactured gas plant database.

EDR Historic Auto Stations. EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station

establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. The CER identified the Project Site on the historical auto stations database. Specifically, MJ's Automotive was listed at 3440 Wilshire Boulevard in 2006, Majestic Mobility Conversions was listed at 3470 Wilshire Boulevard in 2006, and Majestic Auto House was listed at 3450 Wilshire Boulevard in 2009. However, it is possible that these listings were for office purposes only, as there are no automotive repair facilities located at the Project Site. Since the Project Site does not appear on any lists of known or reported releases, these listings are not anticipated to be of significant environmental concern to the Project Site.

EDR Historic Cleaners. EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. The CER identified the Project Site on the historical cleaners database. Specifically, Soon Hui Kim Cleaning Company was listed at 3432 Wilshire Boulevard in 2001. That retail suite located on the ground floor of the Project Site, and is currently occupied by Numero Uno Pizza. Of note, it is not known if this location was specifically a dry cleaners or was a janitorial/cleaning business. However, that address does not appear on the State Hazardous Waste Tracking System database, which tracks businesses that generate hazardous waste, such as drycleaners. This would suggest that a drycleaner did not operate at the Project Site, and as such, this listing is not anticipated to be of significant environmental concern to the Project Site.

Therefore, as the Project Site is not located on a list of hazardous material sites and will not result in a significant hazard to the public or environment, a less than significant impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact.

A significant project-related impact may occur if a project were placed within a public airport land use plan area or within two miles of a public airport, and subject to a safety hazard. The Project is not within an airport hazard area.[199] The Project Site is not located within two miles of a public airport. Santa Monica Municipal Airport is located 8 miles to the west. Hollywood Burbank Airport (Bob Hope Airport) is 10 miles to the north. Los Angeles International Airport (LAX) is approximately 9 miles to the southwest. Given the distance between the Project Site

199 ZIMAS search: http://zimas.lacity.org/.

and the listed airports, the Project would not have the potential to result in a safety hazard or excessive noise. **Therefore no impact would occur.**

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact.

A significant impact may occur if a project were to interfere with roadway operations used in conjunction with an emergency response plan or emergency evacuation plan, or would generate sufficient traffic to create traffic congestion that would interfere with the execution of such a plan. Construction of the Project will not substantially impede public access or travel on public rights-of-way such as Wilshire Boulevard, and would not interfere with any adopted emergency response plan or emergency evacuation plan.

Full-time closures to the sidewalk and parking lane are anticipated for the Project along Mariposa Avenue and 7th Street. Mariposa Avenue is classified as a local street and 7th Street is classified as an Avenue II. In addition, there are no emergency services located within the immediate vicinity of the affected streets. The closures during construction would be for the parking lane; therefore, the temporary construction impacts on the roadway network would be less than significant.

Major roadways throughout the City, such as Western Avenue, are selected disaster routes.[200] Disaster routes function as primary thoroughfares for movement of emergency response traffic and access to critical facilities. Immediate emergency debris clearance and road/bridge repairs for short-term emergency operations will be emphasized along these routes. The Project will not impede the routes, and emergency access would be maintained at all times. The future traffic conditions with the Project show that none of the 14 study intersections would have a significant impact (see **Section B.17** of this MND for additional information).[201]

The Project Site is not within a Hillside Area.[202] The Project would comply with emergency evacuation requirements according to the LAMC and LAFD. **Therefore, impacts would be less than significant.**

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact.

A significant impact may occur if a project is located in proximity to wildland areas and would

200 Los Angeles Safety Element, Exhibit H, Critical Facilities and Lifeline Systems in the City of Los Angeles: http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf.
201 Transportation Impact Analysis, Fehr & Peers, September 2018.
202 ZIMAS search: http://zimas.lacity.org/.

pose a potential fire hazard, which could affect persons or structures in the area in the event of a fire. The Project Site is not located in a Very High Fire Hazard Severity Zone[203] or in the wildlands fire hazard Mountain Fire District.[204] The Project Site is not on the direct edge of a rural or wildland area. Furthermore, the Project would be developed in accordance with LAMC requirements pertaining to fire safety. Additionally, the Project would not create a fire hazard that has the potential to exacerbate the current environmental condition relative to wildfires. **Therefore, no impact would occur.**

203 ZIMAS search: http://zimas.lacity.org/.

204 Los Angeles Safety Element, Exhibit D, Selected Wildfire Hazard Areas in the City of Los Angeles: http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf.

X. Hydrology And Water Quality

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact.

A significant impact may occur if a project discharges water that does not meet the quality standards of agencies that regulate surface water quality and water discharge into stormwater drainage systems. The National Pollutant Discharge Elimination System (NPDES) program establishes a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment to the maximum extent practicable. Pursuant to the NPDES, the Project is subject to the requirements set forth in the County's Standard Urban Stormwater Mitigation Plan (SUSMP). The goals and objectives of the SUSMP are achieved through the use of Best Management Practices (BMPs) to help manage runoff water quality. The City of Los Angeles has adopted the regulatory requirements set forth in the SUSMP of the Los Angeles Regional Water Quality Control Board (LARWQCB) under the City of Los Angeles Ordinance No. 173,494. BMPs typically include controlling roadway and parking lot contaminants by installing oil and grease separators at storm drain inlets; cleaning parking lots on a regular basis; incorporating peak-flow reduction and infiltration features (such as grass swales, infiltration trenches, and grass filter strips) into landscaping; and implementing education programs. The SUSMP identifies the types and sizes of private development projects that are subject to its requirements.[205] Requirements of the SUSMP are enforced through the City's plan approval and permit process.

Low Impact Development (LID) is a stormwater management strategy that seeks to prevent impacts of runoff and stormwater pollution as close to its source as possible. Ordinance No. 181,899 was adopted in 2011 to amend LAMC 64.70, the City's stormwater code, and expand the City's existing Standard Urban Stormwater Mitigation Plan (SUSMP) requirements. LID is different from the previous SUSMP because it requires a larger scope of development and redevelopment projects to comply with stormwater measures, and incorporating new LID practices and measures. All development and redevelopment projects that create, add, or replace 500 square feet or more of impervious area need to comply with the LID Ordinance. A project must comply with the LID Best Management Practices (LID BMPSs) (determined on a case by case basis by Public Works), and if that is not feasible only then do SUSMP BMPs

205 Project applicants are required to prepare and implement a Standard Urban Stormwater Mitigation Plan when their projects fall into any of these categories: Single-family hillside residential developments; Housing developments of 10 or more dwelling units (including single family tract developments); Industrial /Commercial developments with one acre or more of impervious surface area; Automotive service facilities*; Retail gasoline outlets"; Restaurants* Parking lots of 5,000 square feet or more of surface area or with 25 or more parking spaces; Projects with 2,500 square feet or more of impervious area that are located in, adjacent to, or draining directly to designated Environmentally Sensitive Areas (ESA). http://www.lastormwater.org/green-la/standard-urban-stormwater-mitigation-plan/.

apply. Possible BMPs include 1. Infiltration Systems, 2. Stormwater Capture and Use, 3. High Efficiency Biofiltration/Bioretention Systems, and 4. Combination of Any of the Above

Construction

Demolition and construction activities at the Project Site have the potential to affect the quality of storm water runoff. Typically, runoff picks up pollutants as it flows over the ground or paved areas and carries these pollutants into the storm drain system or directly into natural drainages. There are three general sources of short-term construction-related stormwater pollution associated with the Project: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion. During construction, the Project Site would contain a variety of construction materials that are potential sources of stormwater pollution, such as adhesives, cleaning agents, landscaping, plumbing, painting, heat/cooling, masonry materials, floor and wall coverings, and demolition debris. Construction material spills can also be a source of stormwater pollution and/or soil contamination.

The Project will not be required to obtain a NPDES water quality permit from the LARWQCB since the discharge will be sent to the City's Stormwater System and not directly to surface waters.[206] The City is in compliance with all requirements of the NPDES Municipal Permit.[207] Implementation of appropriate project design features and compliance with the local, State, and Federal regulations, code requirements, and permit provisions would prevent significant impacts related to the release of potentially polluted discharge into surface water.

Construction activities associated with the Project are subject to City inspection and implementation of storm water BMPs. Since the construction of the Project will disturb greater than one acre of land[208], the Project Applicant will be required to obtain coverage under the General Construction Activity Storm Water Permit (GCASP), which requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).[209] Construction projects that include grading activities during the rainy season must also develop a Wet Weather Erosion Control Plan (WWECP). The Project will comply with LID requirements. The Project will comply with LAMC Chapter IX, Division 70, which addresses grading, excavations, and fills. Compliance with the LAMC would ensure that construction would not violate any water quality standards, or discharge requirements, or otherwise substantially degrade water quality. BMPs are methods to prevent or control stormwater runoff and the discharge of pollutants. The plan requires (1) advance planning and training to ensure implementation of the BMPs, (2) erosion and sediment control BMPs in place until the area is permanently stabilized, (3) pollution

206 http://water.epa.gov/polwaste/npdes/.

207 http://www.lastormwater.org/about-us/npdes-municipal-permit/.

208 See Section A, Project Description Table A-1, Project Site.

209 California Environmental Protection Agency, State Water Resources Control Board, Storm Water Program, Construction Storm Water Program, website: http://www.swrcb.ca.gov/water_issues/programs/stormwater/construction.shtml, accessed November 16, 2016.

prevention BMPs to keep the construction site clean and (4) regular inspection of the construction site to ensure proper installation and maintenance of BMPs.[210]

Storm Water Pollution Prevention Plan. The Applicant shall provide the Waste Discharge Identification Number to the City of Los Angeles to demonstrate proof of coverage under the Construction General Permit. A Storm Water Pollution Prevention Plan shall be prepared and implemented for the Project in compliance with the requirements of the Construction General Permit. The Storm Water Pollution Prevention Plan shall identify construction BMPs to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in stormwater runoff as a result of construction activities.

Low Impact Development Plan. Prior to issuance of grading permits, the Applicant shall submit a Low Impact Development Plan and/or Standard Urban Stormwater Mitigation Plan to the City of Los Angeles Bureau of Sanitation Watershed Protection Division for review and approval. The Low Impact Development Plan and/or Standard Urban Stormwater Mitigation Plan shall be prepared consistent with the requirements of the Development Best Management Practices Handbook.

Development Best Management Practices. The BMPs shall be designed to retain or treat the runoff from a storm event producing 0.75 inch of rainfall in a 24-hour period, in accordance with the Development Best Management Practices Handbook Part B Planning Activities. A signed certificate from a licensed civil engineer or licensed architect confirming that the proposed BMPs meet this numerical threshold standard shall be provided.

Waste Discharge Requirements (WDR). The Regional Water Quality Control Board (RWQCB) has issued a general permit for construction dewatering (Waste Discharge Requirements for Discharges of Groundwater from Construction Projects Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties Order No. R4-2013-0095, and CAG994004). Discharges covered by this permit include but not limited to, treated or untreated groundwater generated from permanent, temporary dewatering operations or other applicable wastewater discharges not specifically covered in other general or individual NPDES permits. If dewatering is required for construction or operation the Project would have to obtain coverage under this permit. Therefore, with compliance with applicable regulatory measures, **construction-related impacts to water quality will be less than significant.**

Operation

The Project will not include industrial discharge to any public water system. Under existing conditions, runoff at the Project Site may contain typical urban pollutants such as automotive fluids (including oil and grease) commercial cleaning and landscaping pollutants discharged into the storm drainage system. Because there would be no substantial change in the type of runoff as a result of the Project (which would continue to have automobiles, cleaning supplies, and similar elements), urban contaminants that may be present in urban runoff from the Project Site

210 http://www.lastormwater.org/about-us/regulatory-mandates/

would not differ substantially in type than that which currently exists. The parking for the Project would be located within the building and not subject to rain that can create runoff.

As required for plan check, the Project would submit site drainage plans to the City Engineer and other responsible agencies demonstrating compliance with water quality standards and wastewater discharge BMPs set forth by the City and the State Water Resources Control Board (SWRCB) for review and approval prior to development of any drainage improvements. In addition, design criteria as established in the SUSMP would be incorporated into the Project to minimize the off-site conveyance of pollutants. **Therefore, operation-related impacts to water quality will be less than significant.**

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact.

A significant impact may occur if a project includes deep excavations resulting in the potential to interfere with groundwater movement or includes withdrawal of groundwater or paving of existing permeable surfaces important to groundwater recharge. The nearest surface water in the vicinity is MacArthur Park Lake, approximately 1.45 miles away. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins are on the Project Site or nearby.

Drainage appears to occur by sheetflow along existing contours towards the City streets. Groundwater was encountered during exploration at a depth of 22 and 26.5 feet below the ground surface (Borings 1 and 2) but not at 40 feet (Borings 3 and 4). The Seismic Hazard Zone Report for the Hollywood 7.5 minute Quadrangle indicates the historic highest groundwater level in the vicinity of the Site was on the order of 20 feet below the ground surface.[211] Excavation of the subterranean level will require shoring and dewatering to provide a stable and dry excavation due to the depth of excavation (up to 30 feet), the presence of water seepage, and the proximity of adjacent structures.

A public water system operated by the Los Angeles Department of Water and Power (LADWP) serves the Project Site. The sources of public water for the City of Los Angeles are surface water from California Water Project and Colorado River purchased through the Metropolitan Water District (MWD) and groundwater.[212] The Project Site is located in an urbanized area of the City. The Project Site is primarily covered with an office and parking structure (hardscape). The Project will similarly occupy the entire Project Site with a podium and two new buildings. Thus, the Project would not be altering the amount of impervious surface that affects groundwater recharge.

211 Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018.
212 LADWP, Water, Sources of Water: https://www.ladwp.com/, accessed April 16, 2018.

The development of the Project will not involve direct groundwater withdrawal, and therefore, it will not deplete groundwater supplies. The Project will not interfere with groundwater recharge since current recharge is negligible due to the existing and proposed impervious surface covering the Project Site. **Therefore, impacts will be less than significant.**

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact.

A significant impact may occur if a project results in a substantial alteration of drainage patterns that would result in a substantial increase in erosion or siltation during construction or operation of the project. Proper surface drainage is critical to the future performance of the Project. Saturation of soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designated engineering properties. Proper Project Site drainage would be maintained at all times. The Project Site is located in an urbanized area of the City. The Project Site is primarily covered with a parking structure (hardscape). The Project will similarly occupy the entire Project Site with two new buildings and a podium parking structure. Thus, the Project would not be altering the amount of impervious surface that affects drainage patterns. The Project Site is within a developed area of the City, which is connected to the municipally-owned separated storm sewer system (MS4); therefore, the development of the Project will not cause changes in existing drainage patterns or surface water bodies in a manner that could cause erosion or siltation. The Project Site is not near and will not alter a stream or river. **Therefore, impacts related to site drainage and erosion will be less than significant.**

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

No Impact.

A significant impact may occur if a project results in increased runoff volumes during construction or operation of the project that would result in flooding conditions affecting the Project Site or nearby properties. The Project Site is located in an urbanized area of the City. The Project Site is primarily covered with a parking structure (hardscape). The Project will similarly occupy the entire Project Site with two new buildings and a podium parking structure. Thus, the Project would not be altering the amount of impervious surface that affects drainage patterns. No flooding is expected to occur on- or off-site due to the relatively flat grades of the Project Site and the vicinity. The Project Site is also not near, nor would be altering, a stream or river. **Therefore, no impact with respect to flooding will occur.**

iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact.

A significant impact may occur if a project would increase the volume of stormwater runoff to a level that exceeds the capacity of the storm drain system serving the Project Site. A project-related significant adverse effect would also occur if a project would substantially increase the probability that polluted runoff would reach storm drains. No natural watercourses exist on or in the vicinity of the Project Site. Water runoff flows toward the existing storm drain system on Wilshire Boulevard.[213] Urban runoff discharged from municipal storm drains is one of the principal causes of water quality problems in most urban areas. Oil and grease from parking lots, pesticides, cleaning solvents, and other toxic chemicals can contaminate stormwater, which can then contaminate receiving waters downstream and, eventually, the Pacific Ocean. As discussed in the response to Question 9(a), the Project is required to comply with the NPDES program, LID Best Management Practices, as well as the LAMC. These regulations control water pollution by regulating point sources that discharge pollutants. Additional discussion of the construction and operation impacts is provided below.

Construction

The Project would require excavation for two subterranean levels and utility and foundation work. Three general sources of potential short-term construction-related stormwater pollution associated with the Project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth-moving activities which, when not controlled, may generate soil erosion and the transportation of pollutants via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials can effectively mitigate the potential pollution of stormwater by these materials. The same types of common sense, “good housekeeping” procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes. Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids onto the construction site are also common sources of stormwater pollution and soil contamination. Earth-moving activities that can greatly increase erosion processes are another source of stormwater pollution contamination.

Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control off-site migration of pollutants. When properly designed and implemented, these practices would reduce short-term construction-related impacts to a less than significant level by controlling dust and erosion that may occur

213 Navigate LA, Storm Drains Layer: http://navigatela.lacity.org/navigatela/.

onsite and leaks from any construction equipment. The Project is required to comply with the LID Best Management Practices, which are determined on a case by case basis by the Department of Public Works. Approval will not be granted or issued until appropriate and applicable stormwater BMPS are incorporated into the Project design plans. **Compliance with existing regulations would reduce the potential for construction water quality impacts to a less than significant level.**

Operation

Activities associated with operation of the Project will not generate substances that could degrade the quality of water runoff. The deposition of chemicals by cars in the existing parking lot could have the potential to contribute metals, oil and grease, solvents, phosphates, hydrocarbons, and suspended solids to the storm drain system. By removing the existing parking structure and developing a mixed-use project, the type of urban runoff would likely improve in quality. The parking for the Project would be located below grade in two subterranean levels and within the building on 4 levels. Therefore, the parking areas would not be subject to rain that can create runoff. In addition, impacts to water quality would be reduced since the Project must comply with water quality standards and wastewater discharge BMPs set forth by the County of Los Angeles and the SWRCB. Furthermore, required design criteria, as established in the SUSMP for Los Angeles County and the City (such as LID), would be incorporated into the Project to minimize the off-site conveyance of pollutants. **Compliance with existing regulations would reduce the potential for operational water quality impacts to a less than significant level.**

iv. impede or redirect flood flows?

No Impact.

This question would apply to the Project only if it were placing housing in a 100-year flood zone. The Project would not be located in a 100-year flood hazard area according to the Los Angeles General Plan Safety Element map.[214] Lands designated as special flood hazard areas are identified by the Federal Emergency Management Agency (FEMA) and published in the Flood Insurance Rate Map (FIRM) to establish the flood risk premium zone. These areas are subject to inundation by a flood having a one-percent or greater probability of being equaled or exceeded during any given year. This flood, which is referred to as the 1% annual chance flood (or base flood), is the national standard on which the floodplain management and insurance requirements of the National Flood Insurance Program (NFIP) are based. The Project Site is not within a Flood Zone.[215] **Therefore, no impact will occur.**

d) In flood hazard, tsunami, or seiches zones, risk release of pollutants due to

214 Los Angeles Safety Element, Exhibit F, 100-Year and 500-year Flood Plains in the City of Los Angeles: http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf.

215 ZIMAS search: http://zimas.lacity.org/.

project inundation?

No Impact.

A significant impact may occur if a project site is sufficiently close to the ocean or other water body to be potentially at risk for the effects of seismically-induced tidal phenomena (seiche and tsunami) or if the project site is located adjacent to a hillside area with soil characteristics that would indicate potential susceptibility to mudslides or mudflows. Seiches are oscillations generated in enclosed bodies of water that can be caused by ground shaking associated with an earthquake. Mitigation of potential seiche action has been implemented by the LADWP through regulation of the level of water in its storage facilities and providing walls of extra height to contain seiches and prevent overflows. Dams and reservoirs are monitored during storms and measures are instituted in the event of potential overflow.[216] The Project is located approximately 11 miles away from the Pacific Ocean and is not located within an area potentially impacted by a tsunami.[217]

The City of Los Angeles ZIMAS mapping system does not classify the Project Site as within a landslide area.[218] The City's General Plan Safety Element has no areas around the Project Site identified as a bedrock or probable bedrock landslide area.[219] Thus, there is no potential for mudflow. Therefore, development of the Project will not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow. **No impacts related to tsunamis, seiches, and mudflow will occur.**

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact.

Potential pollutants generated by the Project would be typical of residential and commercial land uses and may include sediment, nutrients, pesticides, pathogens, trash and debris, oil and grease, and metals. The implementation of BMPs required by the City's LID Ordinance would target these pollutants that could potentially be carried in stormwater runoff. Implementation of the LID measures on the Project Site would result in an improvement in surface water quality runoff as compared to existing conditions. As such, the Project would not conflict with or obstruct any water quality control plans for Ballona Creek. In addition, with implementation of the Project's proposed landscaping, impervious surfaces would marginally decrease. The decrease in impervious areas would improve the groundwater recharge capacity of the Project Site over existing conditions.

216 Page II-16, Los Angeles General Plan Safety Element, http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf.
217 ZIMAs search: http://zimas.lacity.org/.
218 ZIMAs search: http://zimas.lacity.org/.
219 Los Angeles Safety Element, Exhibit C, Landslide Inventory and Hillside Areas in the City of Los Angeles: http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf, April 16, 2018.

With compliance with existing regulatory requirements and implementation of LID BMPs, the Project would not conflict with or obstruct implementation of a water quality control plan or a sustainable groundwater management plan. **Impacts would be less than significant.**

XI. Land Use And Planning

a) Would the project physically divide an established community?

Less Than Significant Impact.

A significant impact may occur if a project were sufficiently large enough or otherwise configured in such a way as to create a physical barrier within an established community. A typical example would be a project that involved a continuous right-of-way such as a roadway, which would divide a community and impede access between parts of the community. The Project is not of a scale or nature that would physically divide an established community. The Project is not affecting any right-of-ways. The Project will be built on an existing urban infill site currently improved with a parking structure behind existing office buildings that will remain. The Project's uses are compatible with the residential uses along Wilshire and the residential uses to the south, which are higher density multi-family units located in an urbanized area. Throughout the City and near the Project Site, there are similar residential uses, especially in dense areas, such as Downtown Los Angeles, Hollywood, and West Long Angeles. **As such, impacts related to physical division of an established community will be less than significant.**

b) Would the project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact.

A significant impact may occur if a project is inconsistent with applicable land use plans or zoning designations and would cause adverse environmental effects, which these regulations are designed to avoid or mitigate.

The legal standard that governs consistency determinations is that a project must only be in "harmony" with the applicable land use plan to be consistent with that plan. (See *Sequoyah Hills Homeowners Assn. v. City of Oakland (*1993) 23 Cal.App.4th 704, 717-18 [upholding a city's determination that a subdivision project was consistent with the applicable general plan]). As the Court explained in *Sequoyah*, "state law does not require an exact match between a proposed subdivision and the applicable general plan." To be "consistent" with the general plan, a project must be "compatible with the objectives, policies, general land uses, and programs specified in the applicable plan," meaning, the project must be "in agreement or harmony with the applicable plan." (see also *Greenebaum v. City of Los* Angeles (1984) 153 Cal.App.3d 391, 406; *San Franciscans Upholding the Downtown Plan, supra*, 102 Cal.App.4th at p. 678.) Further, "[a]n action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment." (*Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807, 817.) Courts also

recognize that general plans "ordinarily do not state specific mandates or prohibitions," but instead provide "policies and set forth goals." (Id.).

The following is a list of applicable land use plans, policies, and regulations:

- City of Los Angeles General Plan
- Wilshire Community Plan
- ZI-2410 Metro Westside Subway Extension Project
- ZI-1117 MTA Project
- ZI-2452 Transit Priority Area in the City of Los Angeles
- ZI-2374 Los Angeles State Enterprise Zone
- ZI-1940 Wilshire Center/Koreatown Redevelopment Project and the Adaptive Reuse Incentive Area.
- Los Angeles Municipal Code

Compliance with Plans

City of Los Angeles General Plan

State law requires that every city and county prepare and adopt a long-range comprehensive General Plan to guide future development and to identify the community's environmental, social, and economic goals.[220] The City's General Plan is a dynamic document consisting of 11 elements, including 10 citywide elements (Air Quality Element, Conservation Element, Historic Preservation and Cultural Resources Element, Housing Element, Infrastructure Systems Element, Noise Element, Open Space Element, Public Facilities and Services Element, Safety Element, and Transportation Element) and the Land Use Element, which provides individual land use consistency plans for each of the City's 35 Community Plan Areas.

City of Los Angeles General Plan Framework Element

The Project Site is designated Regional Center Commercial.[221]

Regional Centers[222]

220 California Government Code Section 65300.
221 ZIMAS search: http://zimas.lacity.org
222 General Plan, Chapter 3-Land Use: http://cityplanning.lacity.org/cwd/framwk/chapters/03/03205.htm.

The General Plan Framework Element is a strategy for long-term growth that sets a citywide context to guide the update of the community plan and citywide elements. The General Plan Land Use Framework Element identifies the Project Site as Regional Center Commercial. Regional centers are intended to serve as the focal points of regional commerce, identity, and activity. They cater to many neighborhoods and communities and serve a population of 250,000 to 500,000 residents. They contain a diversity of uses such as corporate and professional offices, retail commercial malls, government buildings, major health facilities, major entertainment and cultural facilities and supporting services. Region-serving retail commercial malls and retail services should be integrated where they complement and support the other uses in the regional center. The development of sites and structures integrating housing with commercial uses is encouraged in concert with supporting services, recreational uses, open spaces, and amenities. Regional centers, typically, provide a significant number of jobs and many non-work destinations that generate and attract a high number of vehicular trips. Consequently, each center shall function as a hub of regional bus or rail transit both day and night. Good quality street, area, and pedestrian lighting is essential to generating feelings of safety, comfort, and wellbeing necessary for ensuring public nighttime use of transit facilities. They are typically high-density places whose physical form is substantially differentiated from the lower-density neighborhoods of the City. Their densities and functions support the development of a comprehensive and inter-connected network of public transit and services. Physically, the regional centers are generally characterized by three forms of development:

1. Areas containing mid- and high-rise structures concentrated along arterial or secondary highway street frontages (e.g., Wilshire and Hollywood Boulevards). The intensity of activity and incorporation of retail uses in the ground floor of these structures should induce considerable pedestrian activity.

2. Areas containing mid- and high-rise structures sited on large independent lots, set back from the property frontages (e.g., Warner Center and most of Century City). Though inhibited by the separation of structures, it is encouraged that buildings and sites be designed to improve pedestrian activity within the center.

3. Areas containing retail commercial "malls," characterized by low- and mid-rise buildings clustered around common pedestrian areas. It is encouraged that these buildings be sited and designed to improve their relationships to their principal street frontages, enhancing pedestrian activity.

Table B.11-1, General Plan Land Use, lists the goals, objectives, and policies for land use that apply to developers in collaboration with local government. As shown, the Project will be consistent with the applicable policies of the General Plan for each land use (within a developer's control or developer focused).

Wilshire Community Plan

The Project Site is located within the Wilshire Community Plan (Community Plan), which was adopted in September 2001.[223] **Table B.11-2, Wilshire Community Plan**, sets forth the Community Plan's objectives for residential and commercial land use and discusses the Project's consistency and applicability with each of them. The Project would not conflict with any of the goals, objectives, and policies of the Wilshire Community Plan. The Project would be consistent with all applicable policies related to the buildings siting, location, uses, and design features of private development.

The Project would also implement and be consistent with the applicable goals and policies of the General Plan and the General Plan Framework. The Project includes a mix of urban infill uses (residential, commercial) with bicycle parking and is located near public transit. Additionally, the Project would promote economic development by providing approximately 200 construction and 50 permanent jobs. The Project supports and promotes a pedestrian oriented streetscape along Wilshire Boulevard.

The Project will comply with the Los Angeles Green Building Code (LAGBC), which is based on the 2010 California Green Building Standards Code (CalGreen). The Project would provide natural surveillance and transition zones due to the large glass windows and distinction between public space and private building.

Compliance with Existing Regulations

ZI-2410 Metro Westside Subway Extension Project

Prior to the issuance of any building permit meeting the below criteria within an identified Metro Rail planning area (five hundred foot radius of future alignments), consultation with Metro is required.[224]

ZI-1117 MTA Project

Prior to the issuance of any building permit within 100 feet of the Metro Rail construction area, the Applicant shall obtain clearance from Metro.[225]

ZI-2452 Transit Priority Area in the City of Los Angeles

On September 2013, the Governor signed into law Senate Bill (SB) 743, which instituted changes to the California Environmental Quality Act (CEQA) when evaluating environmental impacts to projects located in areas served by transit. While the thrust of SB 743 addressed a major overhaul on how transportation impacts are evaluated under CEQA, it also limited the extent to which aesthetics and parking are defined as impacts under CEQA. Specifically,

223 Wilshire Community Plan: http://cityplanning.lacity.org/complan/pdf/wilcptxt.pdf
224 http://zimas.lacity.org/documents/zoneinfo/ZI2410.pdf
225 http://zimas.lacity.org/documents/zoneinfo/ZI1117.pdf

Section 21099 (d)(1) of the Public Resources Code (PRC) states that a project's aesthetic and parking impacts shall not be considered a significant impact on the environment if:

1. The project is a residential, mixed-use residential, or employment center project, and

2. The project is located on an infill site within a transit priority area.[226]

The Project contains multiple uses, including residential and commercial. The Project Site is an infill site, which is defined in pertinent part as a lot located within an urban area that has been previously developed.[227] The Project Site is within a transit priority area, which is defined in pertinent part as an area within one-half mile of an existing major transit stop.[228] The Project Site is within one block of the Metro Purple Line Western Park Station as well as multiple Metro and LADOT DASH lines.

ZI-2374 Los Angeles State Enterprise Zone

The Site is within an Enterprise Zone/Employment and Economic Incentive Program Area (EZ). The Federal, State and City governments provide economic incentives to stimulate local investment and employment through tax and regulation relief and improvement of public services. EZ special provisions applicable to plan check include parking standards and height.[229]

ZI-1940 Wilshire Center/Koreatown Redevelopment Project and the Adaptive Reuse Incentive Area.

All applications within the Wilshire Center/Koreatown Redevelopment Project requesting a permit for construction, remodeling, improvements, alterations including seismic compliance, demolition and/or signs must be referred to the Community Redevelopment Agency (CRA) for both CEQA clearance and permit approval.[230] On December 29, 2011, the California Supreme Court issued its decision in *California Redevelopment Association v. Matosantos*. The decision upheld state law dissolving all California redevelopment agencies including the CRA/LA and made the dissolution of the agencies effective February 1, 2012. For purposes of this analysis, any references to the former CRA/LA are intended to mean the Designated Local Authority pursuant to changes in state law as discussed above. CRA is statutorily prohibited from entering any new agreements and is currently only allowed to wind down CRA affairs, including honoring existing obligations and addressing land use issues consistent with CRA's land use powers under the Redevelopment Plan. To date, the CRA has not transferred its land use powers to the Los Angeles Department of City Planning.

226 http://zimas.lacity.org/documents/zoneinfo/ZI2452.pdf.
227 California Public Resources Code Section 21099(a)(4).
228 California Public Resources Code Section 21099(a)(7).
229 ZI-2374: http://zimas.lacity.org/documents/zoneinfo/ZI2374.pdf.
230 http://zimas.lacity.org/documents/zoneinfo/ZI1940.pdf

The Wilshire Center Redevelopment Plan sets forth an array of goals promoting business retention and expansion, attracting new businesses and developing public improvements.[231] The Project would promote the economic well-being of the area by increasing the tax revenue at the Site, redevelop the parking structure into a residential and commercial project. The Project would enhance the safety of the area by increasing the population and employees at the Site providing a natural surveillance around the Site into the night. The Project would add housing to the Site. The other objectives are for government policies and services.

Conclusion

The requested discretionary actions do not conflict with existing land uses in the area, and the Project would not introduce incompatible uses. **The Project is consistent with SCAG RTP, the General Plan, the Community Plan goals, objectives and policies related to commercial use and urban design guidelines, to the extent feasible and applicable. As such, impacts would be less than significant.**

231 http://www.crala.org/internet-site/Projects/Wilshire_Center/upload/WilshireCenter.pdf

Table B.11-1
General Plan Land Use

Goal, Objective, Policies	Discussion
Regional Centers	
GOAL 3F Mixed-use centers that provide jobs, entertainment, culture, and serve the region.	**Consistent.** The Project would create a mix of uses (640 residential units and 10,738 square feet commercial) that provides jobs and culture, and serves the region.
Objective 3.10 Reinforce existing and encourage the development of new regional centers that accommodate a broad range of uses that serve, provide job opportunities, and are accessible to the region, are compatible with adjacent land uses, and are developed to enhance urban lifestyles.	**Consistent.** The Project would create a mix of uses that provides jobs and is served by the Metro Purple Line at a nearby station 450 feet northwest, which provides access to the greater region. The uses are compatible with other existing uses in the area. The Project will also enhance urban lifestyles by developing a size and scale project that is more appropriate for an urban regional center compared to the Project Site's existing underutilized parking structure condition.
Policy 3.10.1 Accommodate land uses that serve a regional market in areas designated as "Regional Center" in accordance with Tables 3-1 and 3-6. Retail uses and services that support and are integrated with the primary uses shall be permitted. The range and densities/intensities of uses permitted in any area shall be identified in the community plans	**Consistent.** The Project would create a residential development that serves the region and is accessible due to the Metro Purple Line at a nearby station 450 feet northwest. The commercial uses support the residential uses and also would be available to the public. Table 3-1 of General Plan Land Use policy 3.10.1 states that Regional Commercial typically includes eating and drinking establishments, retail/commercial, and commercial overnight accommodations, among other uses. The Project would satisfy this requirement.
Policy 3.10.4 Provide for the development of public streetscape improvements, where appropriate.	**Consistent.** Dedication and improvements are required per the Bureau of Engineering (BOE). There are 30 trees in the public right-of-way (sidewalk or called a street tree), of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees would be removed and replaced. The Project would create new landscaping and trees on 7th, Mariposa, and Irolo. The sidewalks would be updated to widths required per BOE.
Policy 3.10.6 Require that Regional Centers be lighted to standards appropriate for nighttime access and use.	**Consistent.** The Project lighting would be standard for a residential and commercial building. Lighting will be designed and installed with shielding if necessary.
General Plan, Chapter 3-Land Use: http://cityplanning.lacity.org/cwd/framwk/chapters/03/03205.htm Table: CAJA Environmental Services, August 2019.	

Table B.11-2
Wilshire Community Plan

Objective and Policies	Discussion
Residential	
Objective 1-1 Provide for the preservation of existing quality housing, and for the development of new housing to meet the diverse economic and physical needs of the existing residents and expected new residents in the Wilshire Community Plan Area to the year 2010.	**Consistent**. The Project provides residential uses with a variety of bedroom sizes (441 studio and 199 2-bedroom units).
Policy 1-1.1 Protect existing stable single family and low density residential neighborhoods from encroachment by higher density residential uses and other uses that are incompatible as to scale and character, or would otherwise diminish quality of life.	**Consistent.** The Project includes development of mixed-use structures (residential units over commercial), similar in height and massing to other existing buildings along Wilshire Boulevard in the Project area. Additionally, no single-family/low-density residential neighborhoods are located near the Project Site. The nearest residential uses are multi-family, 2- to 5-story residential buildings along 7th Street and along Mariposa Avenue.
Policy 1-1.2 Promote neighborhood preservation in all stable residential neighborhoods.	**Consistent.** The Project would promote neighborhood stabilization through infill development of the Project Site with residential and commercial. None of the residential neighborhoods near the Project Site would be affected by the Project as all development would be on a site that currently has a parking structure and would not remove any existing nearby residential uses.
Policy 1-1.3 Provide for adequate Multiple Family residential development.	**Consistent.** The Project includes development of multi-family residential units, consistent with the land use designation for the Project Site.
Policy 1-1.4 Provide for housing along mixed-use boulevards where appropriate.	**Consistent.** The Project includes development of multi-family residential units, consistent with the land use designation for the Project Site. A mixed-use designation is to extend surrounding residential communities and supporting services into the boulevards. Wilshire Boulevard supports residential and commercial uses. The Project would be compatible with these uses and the residential uses to the south along 7th.
Objective 1-2 Reduce vehicular trips and congestion by developing new housing in close proximity to regional and community commercial centers, subway stations and existing bus route stops.	**Consistent.** The Project includes development of multi-family residential dwelling units and commercial uses, which is in proximity to several transit lines and within one block of the Metro Purple Line Normandie Station, 450 feet northwest. This would allow visitors and residents of the Project to use public transit and reduce reliance on single-user vehicles.
Policy 1-2.1 Encourage higher density residential uses near major	**Consistent.** The Project includes development of multi-family residential

Objective and Policies	Discussion
public transportation centers.	dwelling units and commercial uses, which is in proximity to several transit lines and within one block of the Metro Purple Line Normandie Station, 450 feet northwest.
Objective 1-3 Preserve and enhance the varied and distinct residential character and integrity of existing residential neighborhoods.	**Consistent**. While the Project Site does not contain existing residential uses, it is located adjacent to an existing multi-family residential neighborhood. The Project would include residential and commercial uses that would be compatible with these uses.
Policy 1-3.1 Promote architectural compatibility and landscaping for new Multiple Family residential development to protect the character and scale of existing residential neighborhoods.	**Consistent.** The Project Site is located in a fairly densely developed area of the City. The visual character of the Project area is dominated by the mix of low-, mid-, and high-rise residential development. The scale of the proposed buildings would be consistent with the scale of existing buildings along Wilshire Boulevard. The design, architecture, construction, and landscaping of the Project would comply with the City's design requirements for mixed-use buildings and the Project would be compatible with the existing residential land uses within the area.
Policy 1-3.2 Support historic preservation goals in neighborhoods of architectural merit and/or historic significance.	**Consistent**. Analysis of the potential impacts to historical resources has found that the Project will insert substantial new construction on land that was currently occupied by a three-story parking structure. The proposed new construction, however, will not result in substantial adverse changes that reduces the integrity or significance of historic resources either adjacent to or in the near vicinity of the Project Site.
Policy 1-3.3 Promote the preservation and rehabilitation of individual residential buildings of historic significance.	**Consistent**. Analysis of the potential impacts to historical resources has found that the Project will insert substantial new construction on land that was currently occupied by a three-story parking structure. The proposed new construction, however, will not result in substantial adverse changes that reduces the integrity or significance of historic resources either adjacent to or in the near vicinity of the Project Site.
Policy 1-3.4 Monitor the impact of new development on residential streets. Locate access to major development projects so as not to encourage spillover traffic on local residential streets.	**Consistent**. The Project Site would be on 7th Street, which contains residential uses south of the Site. Currently, the Project Site's parking structures provide access on 7th Street. The Project would close and remove one parking structure and shift access to Mariposa Avenue for the residential uses. The Project would not result in a significant impact at any of

Objective and Policies	Discussion
	the study neighborhood street segments (Mariposa south of 7th and Normandie south of 7th).
Objective 1-4 Provide affordable housing and increased accessibility to more population segments, especially students, the handicapped and senior citizens.	**Consistent**. The Project provides residential uses with a variety of bedroom sizes. Of the 640 units, 5% (32 units) affordable (considered Moderate Income, using the State's level of affordability and Los Angeles Housing Community Investment Department's schedule of rents for Moderate Income units.
Policy 1-4.1 Promote greater individual choice in type, quality, price and location of housing.	**Consistent.** The Project includes development of 640 multi-family residential units (441 studio units and 199 2-bedroom units). Of the 640 units, 5% (32 units) affordable (considered Moderate Income, using the State's level of affordability and Los Angeles Housing Community Investment Department's schedule of rents for Moderate Income units. The housing would be in proximity to several transit lines and within one block of the Metro Purple Line Normandie Station, 450 feet northwest.
Policy 1.4-2 Ensure that new housing opportunities minimize displacement of residents.	**Consistent.** The Project site currently does not contain any residential development and, therefore, there will be no displacement of residents.
Policy 1.4-3 Encourage multiple family residential and mixed use development in commercial zones.	**Consistent.** The Project would develop residential uses in a commercial C4 zone. The Project has a mix of uses including residential, retail, and restaurant uses. These uses complement each other because the residents can fulfill job opportunities and be customers of the commercial uses.
Commercial	
Objective 1 To conserve and strengthen viable commercial development in the community and to provide additional opportunities for new commercial development and services.	**Consistent**. The Project provides a mix of uses that would strengthen viable commercial development and provide new services within existing commercial areas. The Project will help to further activate Wilshire Boulevard.
Objective 2 To provide a range of commercial facilities at various locations to accommodate the shopping needs of residents and to provide increased employment opportunities within the community.	**Consistent**. The Project has a mix of uses including residential, retail, and restaurant uses. These would provide a variety of commercial uses and generate job opportunities for the area residents.
Objective 3 To improve the compatibility between commercial and residential uses.	**Consistent**. Commercial and residential uses are compatible with each other because the residents can fulfill job opportunities and be customers of the commercial uses.

Objective and Policies	Discussion
Objective 2-1 Preserve and strengthen viable commercial development and provide additional opportunities for new commercial development and services within existing commercial areas.	**Consistent**. The Project includes commercial uses along Mariposa and commercial kiosks in the pedestrian space between the existing buildings and proposed building, just off Mariposa Avenue. The Site is in an established commercial area south of Wilshire. The proposed new commercial would provide additional job opportunities and commercial activity.
Policy 2-1.1 New commercial uses should be located in existing established commercial areas or shopping centers.	**Consistent**. The Project includes commercial uses along Mariposa and commercial kiosks in the pedestrian space between the existing buildings and proposed building, just off Mariposa Avenue. The Site is in an established commercial area south of Wilshire that already supports. The proposed new commercial would provide additional job opportunities and commercial activity.
Policy 2-1.2 Protect existing and planned commercially zoned areas, especially in Regional Commercial Centers, from encroachment by stand alone residential development by adhering to the community plan land use designations.	**Consistent**. The Project includes commercial uses along Mariposa and commercial kiosks in the pedestrian space between the existing buildings and proposed building, just off Mariposa Avenue. The Project would be separate from any stand alone residential development, which is located south of 7th Street.
Policy 2-1.3 Enhance the viability of existing neighborhood stores and businesses which support the needs of local residents and are compatible with the neighborhood.	**Consistent**. The Project would add residential uses and new residents and employees to the area, which could support existing neighborhood stores and businesses.
Objective 2-2 Promote distinctive commercial districts and pedestrian-oriented areas.	**Consistent**. The Project would include commercial uses that would increase the commercial activity in the area. The Project would remove a parking structure and add a residential and commercial building that would enhance the pedestrian experience on 7th and Mariposa. It would provide new street trees and streetscape improvements such as landscaping. The additional residents and employees at the Site would also increase the sidewalk activity with ground-floor storefronts, entrances, and allow users to walk to Metro transit stops.
Policy 2-2.1 Encourage pedestrian-oriented design in designated areas and in new development	**Consistent**. The Project includes commercial uses along Mariposa and commercial kiosks in the pedestrian space between the existing buildings and proposed building, just off Mariposa Avenue. The Project would remove a parking structure and add a residential and commercial building that would enhance the pedestrian experience on 7th and Mariposa. It would provide new street trees and streetscape improvements such as landscaping.
Policy 2-2.2 Encourage large mixed use projects to incorporate	**Consistent**. The Project includes commercial uses and open space deck on

Objective and Policies	Discussion
facilities beneficial to the community such as libraries, child care facilities, community meeting rooms, senior centers, police sub-stations, and/or other appropriate human service facilities as part of the project.	the parking structure to enhance the walkability of the area. The Project would remove a parking structure and add a residential and commercial building that would enhance the pedestrian experience on 7th and Mariposa. It would provide new street trees and streetscape improvements such as landscaping.
Policy 2-2.3 Encourage the incorporation of retail, restaurant, and other neighborhood serving uses in the first floor street frontage of structures, including mixed use projects located in Neighborhood Districts.	**Consistent**. .The Project includes new retail and restaurant uses, which could be neighborhood-serving uses. These would be on the ground floor of a mixed-use residential development.
Objective 2-3 Enhance the visual appearance and appeal of commercial districts.	**Consistent**. The Project would remove a parking structure and add a residential and commercial building that would enhance the pedestrian experience on 7th and Mariposa. The Project would include two new contemporary buildings. The Project would appear as an integrated structure (common podium and deck) with two towers, with articulation and variation created by the massing of individual components. Parking spaces within the building, ground level commercial uses and residential units located within the building have been integrated into the overall architectural theme of the Project to create a modern appearance. Overall variation in building appearance is created with the use of various materials and massing of the ground level uses, the placement of residential units along the perimeter of the Podium, the landscaped ground floor, and the transition of the first floor commercial to upper level residential.
Policy 2-3.1 Improve streetscape identity and character through appropriate controls of signs, landscaping, and streetscape improvements; and require that new development be compatible with the scale of adjacent neighborhoods.	**Consistent**. The new buildings would be along 7th and Mariposa which currently have 2- to 5-story residential buildings. The proposed new buildings would be taller than existing parking structure to be replaced and neighboring buildings. The Project is similar in size and scale to multi-story structures in the vicinity of the Project Site. The Existing Office Buildings at 3440 Wilshire (within the Project Site) has three 12-story buildings and one 11-story building. 3424 Wilshire (100 feet east of the Site) is a 13-story office building. 3435 Wilshire (450 feet north) is a 28-story office building. 691 Irolo (450 feet west of the proposed building footprint) is a 21-story residential building. 3530 Wilshire (375 feet from the proposed building footprint) is an 18-story office building. The Project would remove a parking structure and add a residential and

Objective and Policies	Discussion
	commercial building that would enhance the pedestrian experience on 7th and Mariposa. It would provide new street trees and streetscape improvements such as landscaping.
Source: Wilshire Community Plan, http://cityplanning.lacity.org/complan/pdf/wilcptxt.pdf Table: CAJA Environmental Services, August 2019.	

XII. Mineral Resources

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact.

A significant impact may occur if the Project Site is located in an area used or available for extraction of a regionally-important mineral resource, or if the Project would convert an existing or future regionally-important mineral extraction use to another use, or if the Project would affect access to a site used or potentially available for regionally-important mineral resource extraction. Mineral Resources Zone-2 (MRZ-2) sites contain potentially significant sand and gravel deposits, which are to be conserved. Any proposed development plan must consider access to the deposits for purposes of extraction. Much of the area within the MRZ-2 zone in Los Angeles was developed with structures prior to the MRZ-2 classification and, therefore, are unavailable for extraction.[232] MRZ-2 sites are identified in two community plan elements of the city's general plan, the Sun Valley and the Sunland-Tujunga-Lake View Terrace-Shadow Hills-East La Tuna Canyon community plans.[233] Neither the Project Site nor the surrounding area is in an MRZ-2 zone, nor identified as an area containing mineral deposits of regional or statewide significance. Therefore, no impact to known mineral deposits would occur.

The Project Site is not located within any Major Oil Drilling Areas, which are 25 city designated major oil drilling areas. The nearest one is #10 LA City Oil Field, located near 3rd Street and Alameda Street.[234] The California Department of Conservation has more detailed online mapping of wells. No oil wells exist on the Project Site.[235] **Therefore, no impacts to mineral resources of regional or statewide significance will occur.**

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact.

A significant impact would occur if a project is located in an area used or available for extraction of a locally-important mineral resource and the Project converted an existing or potential future locally-important mineral extraction use to another use or if the Project affected access to a site

232 City of Los Angeles Department of City Planning, Conservation Element, adopted September 2001, page II-58: http://cityplanning.lacity.org/cwd/gnlpln/consvelt.pdf, accessed June 12, 2018.

233 City of Los Angeles Department of City Planning, Conservation Element, adopted September 2001, page II-59: http://cityplanning.lacity.org/cwd/gnlpln/consvelt.pdf, accessed June 12, 2018.

234 City of Los Angeles Department of City Planning, Safety Element Exhibit E, Oil Field and Oil Drilling Areas: http://cityplanning.lacity.org/cwd/gnlpln/saftyelt.pdf, accessed June 12, 2018.

235 California Department of Conservation, Division of Oil, Gas & Geothermal Resources, Online Mapping System, District 1, website: http://www.conservation.ca.gov/dog/Pages/WellFinder.aspx, June 12, 2018.

in use or potentially available for locally-important mineral resource extraction. The Project Site is not delineated as a locally important mineral resource recovery site on any City plans. Additionally, as stated in the response to Question 11(a), no oil wells exist on the Project Site. Furthermore, the Project Site is surrounded by dense urban uses. Thus, the Project Site would not be an adequate candidate for mineral extraction. **Therefore, no impacts to loss of availability of a locally important mineral resource will occur.**

XIII. Noise

The section is based in part on the following item, included as Appendix I of this MND:

I Noise Appendices, DKA Planning, September 2018.

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact.

Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. **Table B.13-1** provides examples of A-weighted noise levels from common sources.

Table B.13-1
A-Weighted Decibel Scale

Typical A-Weighted Sound Levels	Sound Level (dBA, L_{eq})
Near Jet Engine	130
Rock and Roll Band	110
Jet Flyover at 1,000 Feet	100
Power Motor	90
Food Blender	80
Living Room Music	70
Human Voice at 3 Feet	60
Residential Air Conditioner at 50 Feet	50
Bird Calls	40
Quiet Living Room	30
Average Whisper	20
Rustling Leaves	10
Source: Cowan, James P., Handbook of Environmental Acoustics, 1993. These noise levels are approximations intended for general reference and informational use. They do not meet the standard required for detailed noise analysis, but are provided for the reader to gain a rudimentary concept of various noise levels.	

Noise Definitions

This noise analysis discusses sound levels in terms of Equivalent Noise Level (L_{eq}), maximum noise level (L_{max}), and Community Noise Equivalent Level (CNEL).

Equivalent Noise Level. L_{eq} represents the average noise level on an energy basis for a specific time period. Average noise level is based on the energy content (acoustic energy) of sound. For example, the L_{eq} for one hour is the energy average noise level during that hour. L_{eq} can be thought of as a continuous noise level of a certain period equivalent in energy content to a fluctuating noise level of that same period. L_{eq} is expressed in units of dBA.

Maximum Noise Level (L_{max}). L_{max} represents the maximum instantaneous noise level measured during a given time period.

Community Noise Equivalent Level. CNEL is an adjusted noise measurement scale of average sound level during a 24-hour period. Due to increased noise sensitivities during evening and night hours, human reaction to sound between 7:00 P.M. and 10:00 P.M. is as if it were actually 5 dBA higher than had it occurred between 7:00 A.M. and 7:00 P.M. From 10:00 P.M. to 7:00 A.M., humans perceive sound as if it were 10 dBA higher. To account for these sensitivities, CNEL figures are obtained by adding an additional 5 dBA to evening noise levels between 7:00 P.M. and 10:00 P.M. and 10 dBA to nighttime noise levels between 10:00 P.M. and 7:00 A.M. Because of this, 24-hour CNEL figures are always higher than their corresponding actual 24-hour averages.

Noise Attenuation

Noise levels decrease as the distance from a noise source to receivers increases. For each doubling of distance, noise from stationary sources, commonly referred to as "point sources," can decrease by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots), and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt and grass). For example, if a point source produces a noise level of 89 dBA at a reference distance of 50 feet and over an asphalt surface, its noise level would be approximately 83 dBA at a distance of 100 feet and 77 dBA at 200 feet. Noises generated by mobile sources decrease by approximately 3 dBA over hard surfaces and 4.5 dBA over soft surfaces for each doubling of distance.

Noise is most audible when traveling by direct line-of-sight, an unobstructed visual path between noise source and receptor. Barriers that break line of sight between sources and receivers, such as walls and buildings, can greatly reduce source noise levels, allowing noise to reach receivers by diffraction only. As a result, sound barriers can reduce source noise levels by up to 20 dBA, though it is infeasible for temporary barriers to reduce noise levels by more than 15 dBA[236] The effectiveness of barriers can be greatly reduced when they are not high or long enough to completely break line of sight from sources to receivers.

236 California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

It should be noted that because decibels are logarithmic units they cannot be simply added or subtracted. For example, two cars producing 60 dBA of noise each would not produce a combined 120 dBA.

Effects of Noise

The degree to which noise can impact an environment ranges from levels that interfere with speech and sleep to levels that can cause adverse health effects. Most human response to noise subjective. Factors that influence individual responses include the intensity, frequency, and pattern of noise; the amount of background noise present; and the nature of work or human activity exposed to intruding noise.

People with normal hearing sensitivity can recognize small perceptible changes in sound levels of approximately 3 dBA. Changes of at least 5 dBA can be readily noticeable and may cause community reactions. Sound level increases of 10 dBA or greater are perceived as a doubling in loudness and can provoke a community response.[237] However, few people are highly annoyed at noise levels below 55 dBA L_{eq}.[238]

Regulatory Setting

Federal

Currently, no federal noise standards regulate environmental noise associated with short-term construction activities or the long-term operations of development projects. As such, temporary and long-term noise impacts produced by the Project would be largely regulated by and evaluated by State and City of Los Angeles standards designed to protect public well-being and health.

State

State of California 2017 General Plan Guidelines**.** The State's 2017 General Plan Guidelines establish county and city standards for acceptable exterior noise levels based on land use. These standards are incorporated into land use planning processes to prevent or reduce noise and land use incompatibilities. **Table B.13-2** illustrates State compatibility considerations between various land uses and exterior noise levels.

Table B.13-2
Land Use Compatibility for Community Noise Environments

Land Use Compatibility	Community Noise Exposure (dBA, CNEL)							
	<	55	60	65	70	75	80	>
Residential – Low Density Single-Family, Duplex Mobile Homes	NA							
		CA						
					NU			

237 Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006.
238 World Health Organization, Guidelines for Community Noise, 1999.

					CU			
Residential – Multi-Family	NA							
			CA					
					NU			
					CU			
Transient Lodging – Motels, Hotels	NA							
			CA					
					NU			
							CU	
Schools, Libraries, Churches, Hospitals, Nursing Homes	NA							
			CA					
					NU			
							CU	
Auditoriums, Concert Halls, Amphitheaters								
	CA							
				CU				
Sports Arenas, Outdoor Spectator Sports								
	CA							
					CU			
Playgrounds, Neighborhood Parks	NA							
				NU				
						CU		
Golf Courses, Riding Stables, Water Recreation, Cemeteries	NA							
				NU				
								CU
Office Buildings, Business Commercial and Professional	NA							
				CA				
						NU		
Industrial, Manufacturing, Utilities, Agriculture	NA							
				CA				
						NU		

NA = Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

CA = Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply system or air conditioning will normally suffice.

NU = Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CU = Clearly Unacceptable - New construction or development should generally not be undertaken.

Source: California Office of Planning and Research, General Plan Guidelines - Noise Element Guidelines (Appendix D), Figure 2; 2017.

City of Los Angeles

Los Angeles General Plan Noise Element**.** The City of Los Angeles General Plan includes a Noise Element that contains policies and standards to guide the control of noise to protect residents, workers, and visitors. Its primary goal is to regulate long-term noise impacts that preserve acceptable noise environments for all types of land uses. However, the Noise Element contains no quantitative or other thresholds of significance for evaluating a proposed project's noise impacts. Instead, it adopts the State's guidance on noise and land use compatibility, shown in Table 2 above, "to help guide determination of appropriate land use and mitigation measures vis-à-vis existing or anticipated ambient noise levels."

Los Angeles Municipal Code. The City of Los Angeles Municipal Code (LAMC) contains a number of regulations that would apply to the Project's temporary construction activities and long-term operations. Section 41.40(a) would prohibit Project construction activities from occurring between the hours of 9:00 P.M. and 7:00 A.M., Monday through Friday. Subdivision (c), below, would further prohibit such activities from occurring before 8:00 A.M. or after 6:00 P.M. on any Saturday, or on any Sunday or national holiday.

> *SEC.41.40. NOISE DUE TO CONSTRUCTION, EXCAVATION WORK—WHEN PROHIBITED.*
>
> *(a) No person shall, between the hours of 9:00 P.M. and 7:00 A.M. of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power drive drill, riveting machine excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code.*
>
> *(c) No person, other than an individual homeowner engaged in the repair or construction of his single-family dwelling shall perform any construction or repair work of any kind upon, or any earth grading for, any building or structure located on land developed with residential buildings under the provisions of Chapter I of this Code, or perform such work within 500 feet of land so occupied, before 8:00 A.M. or after 6:00 P.M. on any Saturday or national holiday nor at any time on any Sunday. In addition, the operation, repair, or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited on Saturdays and on Sundays during the hours herein specific…*

Section 112.05 of the LAMC establishes noise limits for powered equipment and hand tools operated within 500 feet of residential zones. Of particular importance to Project construction would be subdivision (a), which institutes a maximum noise limit of 75 dBA for the types of construction vehicles and equipment that would be necessary for Project demolition and grading, especially. However, the LAMC goes on to note that these limitations would not

necessarily apply if proven that the Project's compliance therewith would be technically infeasible despite the use of noise-reducing means or methods.

> *SEC. 112.05. MAXIMUM NOISE LEVEL OF POWERED EQUIPMENT OR POWERED HAND TOOLS*
>
> *Between the hours of 7:00 A.M. and 10:00 P.M., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:*
>
> *75 dBA for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;*
>
> *75 dBA for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;*
>
> *65 dBA for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors.*
>
> *Said noise limitations shall not apply where compliance therewith is technically infeasible. The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device or techniques during the operation of the equipment.*

Section 112.01 of the LAMC would prohibit any amplified noises, especially those from outdoor sources (e.g., outdoor speakers, stereo systems, etc.) from exceeding the ambient noise levels of adjacent properties by more than 5 dBA. Amplified noises would also be prohibited from being audible at any distance greater than 150 feet from the Project's property line.

> *SEC.112.01. RADIOS, TELEVISION SETS, AND SIMILAR DEVICES*
>
> *a) It shall be unlawful for any person within any zone of the City to use or operate any radio, musical instrument, phonograph, television receiver, or other machine or device for the producing, reproducing or amplification of the human voice, music, or any other sound, in such a manner, as to disturb the peace, quiet, and comfort of neighbor occupants or any reasonable person residing or working in the area.*
>
> *b) Any noise level caused by such use or operation which is audible to the human ear at a distance in excess of 150 feet from the property line of the noise source, within any residential zone of the City or within 500 feet thereof, shall be a violation of the provisions of this section.*
>
> *c) Any noise level caused by such use or operation which exceeds the ambient noise level on the premises of any other occupied property, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit, by more than five (5) decibels shall be a violation of the provisions of this section.*

Section 112.02(a), below, would prevent Project HVAC systems and other mechanical equipment from elevating ambient noise levels at neighboring residences by more than 5 dBA.

> *SEC.112.02. AIR CONDITIONING, REFRIGERATION, HEATING, PLUMBING, FILTERING EQUIPMENT*
>
> *a) It shall be unlawful for any person, within any zone of the city, to operate any air conditioning, refrigeration or heating equipment for any residence or other structure or to operate any pumping, filtering or heating equipment for any pool or reservoir in such manner as to create any noise which would cause the noise level on the premises of any other occupied property … to exceed the ambient noise level by more than five decibels.*

Existing Conditions

The Project Site is currently developed with four commercial office buildings that each include ground floor retail components: three buildings front Wilshire Boulevard, and one fronts Irolo Street. These existing office buildings would remain as part of the Project. On-site parking is provided by two parking structures: the five-story structure would remain, but the three-story structure would be demolished and replaced by the proposed podium and one podium with two-tower mixed-use development. Operational noises related to the Project Site's existing uses are primarily associated with the two open-air parking structures, which generate noise from auto-related activities (e.g. driving, doors slamming, engines starting, driveways, etc.). Outdoor seating/table areas associated with the Project Site's existing high-turnover and fast-food restaurant uses in the existing buildings generate nominal levels of noise that are typically inaudible over traffic noise from Wilshire Boulevard and general pedestrian noises in the area.

The Project Site comprises the majority of the block that is bounded by Wilshire Boulevard to the north, Mariposa Avenue to the east, 7th Street to the south, and Irolo Street to the West. Non-Project properties located within this block include the Piccadilly Apartments building (682 Irolo Street) and the 7th and Irolo Shopping Center (698 Irolo Street). Both are located near the northeast corner of 7th Street and Irolo Street. The proposed podium and two-building mixed-use structure would be located at the northwest corner of 7th Street and Mariposa Avenue. The majority of the Project's noise impacts, from both construction and operations, would be associated with this new structure.

Ambient noise levels in areas surrounding the Project vary, but they are generally consistent with its location in a dense urban environment bordered by two major roadways, Wilshire Boulevard and Irolo Street. Predictably, ambient noise levels are highest near these streets and somewhat quieter along Mariposa Avenue and 7th Street, collector streets with less traffic and primarily residential land uses in the vicinity of the Project Site.

There are a number of noise-sensitive land uses in the vicinity of the Project Site. Land uses sensitive to noise include residences, transient lodgings, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks. Local receptors include but are not limited to the following:

Piccadilly Apartments – 682 Irolo Street: This residential mid-rise building is located approximately 30 feet south of an existing Project Site office building (3470 While Boulevard) and 55 feet west of an existing 5-story parking structure. However, both of these structures would remain as part of the Project and neither would be subject to major noise-generating construction activities. The Piccadilly Apartments receptor is approximately 240 feet west of the proposed podium and Towers 1 and 2 location where the majority of the Project's noise-generating activities and new operational noise sources would be.

Oasis Church – 634 Normandie Avenue: This church is located at the northeast corner of Wilshire Boulevard and Irolo Street/Normandie Avenue, 140 feet north of an existing Project Site office building (3458 Wilshire Boulevard) but approximately 370 feet northwest of where the Project's major noise-generating construction activities and new operational noise sources would be.

Mariposa Avenue Residences: This receptor consists of residential uses located along Mariposa Avenue, east of the Project Site near 7th Street. Individual apartment buildings at 684 and 688 Mariposa Avenue are approximately 65 feet east of the proposed podium and Towers 1 and 2 location.

7th Street Residences: This receptor consists of residential uses fronting 7th Street, directly south of the Project Site. The two individual residences nearest to the proposed podium and Towers 1 and 2 locations are 701 Mariposa Avenue and 706 Normandie Avenue, 65 feet south across 7th Street.

Other noise-sensitive receptors are located at a greater distance from the Project and would experience lesser impacts than those listed above.

DKA Planning took short-term noise readings near the Project Site on September 4, 2018, to determine ambient noise conditions in the neighborhood. As discussed earlier, ambient noise at and around the Project Site largely correlates with vehicle traffic on nearby roadways, especially Wilshire Boulevard and Irolo Street. Lower traffic volumes on Mariposa Avenue and 7th Street result in lower ambient noise levels for receptors located along these roadways. Ambient noise levels are shown in **Table B.13-3** for reference.

Table B.13-3
Existing Ambient Noise Levels

Sensitive Receptor	Distance to Site	Existing Ambient Noise Level (dBA L_{eq})
1. Piccadilly Apartments	240 feet	68.0
2. Oasis Church	370 feet	71.4
3. Mariposa Avenue Residences	65 feet	62.2
4. 7th Street Residences	65 feet	61.9
Source: DKA Planning, 2018.		

Construction Noise

Regulated Noise Sources – LAMC Section 41.40 and 112.05

Proposed construction would generate noise during the roughly 48 months of demolition, site preparation, excavation/grading, building construction, site renovations, and application of architectural coatings. During all construction phases, noise-generating activities could occur at the Project Site between the hours of 7:00 AM and 9:00 PM Monday through Friday, in accordance with Section 41.40(a) of the LAMC. On Saturdays, construction would be permitted to occur between 8:00 AM and 6:00 PM. Construction of the Project would require heavy-duty construction vehicles such as excavators and front-end loaders. Smaller equipment such as forklifts, generators, and various powered hand tools would also be utilized. Off-site secondary noises would be generated by sources such as construction worker vehicles, vendor deliveries, and haul trucks.

Regulatory compliance with LAMC Section 112.05 would ultimately limit any noise levels from powered construction equipment to 75 dBA or below, as the Project Site is located within 500 feet of residential zones. Standard, industry-wide "best practices" for construction in urban or otherwise noise-sensitive areas would ensure the Project's construction noise stays below the City's 75 dBA threshold of significance. "Best practices" utilized by the Project would include equipping heavy equipment with noise-reducing mufflers and warming-up or staging equipment away from sensitive receptors. Additionally, temporary noise barriers would be erected between the Project Site and nearby residences located along 7th Street and Mariposa Avenue. **As shown in Table B.13-4, compliance with LAMC Section 112.05 would ensure that the Project's powered equipment noise levels at 50 feet do not exceed the LAMC's maximum 75 dBA limit.**

Table B.13-4
Construction Noise Levels

Noise Source	Noise Level (dBA, L_{max})[1]
	50 feet
Auger Drill Rig	74.4
Backhoe	64.6
Crane	72.6
Dozer	68.7
Drill Rig Truck	69.1
Excavator	67.7
Front-End Loader	66.1
Gradall	70.4
Grader	72.0
Scraper	70.6

Table B.13-4
Construction Noise Levels

Noise Source	Noise Level (dBA, L_{max})[1]
	50 feet
[1] Noise levels derived from the Federal Highway Administration's Roadway Construction Noise Model, version 1.1 (FHWA RCNM 1.1).	

With regard to off-site construction-related noise impacts, LAMC Section 112.05 does not regulate noise levels from road legal trucks, such as delivery vehicles, concrete mixing trucks, pumping trucks, and haul trucks. However, the operation of these vehicles would still comply with the construction restrictions set forth by LAMC Section 41.40. Haul trucks in particular would access the regional freeway system immediately via Wilshire Boulevard, Irolo Street/Normandie Avenue, and other major arterials and designated truck routes, eliminating travel on quieter residential streets that would be more susceptible to pronounced noise increases from haul trucks. On major roadways such as Wilshire Boulevard, Project haul trucks would not be capable of substantially raising noise levels as they would represent a small fraction of overall traffic that these roadways carry. For example, Wilshire carries approximately 1,200 vehicles in each direction at peak hour. There could be approximately 20 vendor trips per day. **As a result, the Project's off-site construction noise impact from haul trucks would be less than significant.**

Operational Noise

On-Site Noise Sources

During Project operations, the development would produce noise from both on- and off-site sources. The direct on-site sources would include the following:

Mechanical Equipment. Regulatory compliance with LAMC Section 112.02 would ultimately ensure that noises from sources such as heating, air conditioning, and ventilation systems not increase ambient noise levels at neighboring occupied properties by more than 5 dBA. However, it is unlikely that the Project's HVAC or other mechanical systems would be capable of substantially altering surrounding noise levels. For example, HVAC systems associated with the proposed podium and two-tower structure would be rooftop mounted at a height much greater than nearby residences fronting Mariposa Avenue and 7th Street (which range from 3 to 8 stories). Ground and near-ground level noises at these receptors are likely to be unaffected by the Project's rooftop-mounted HVAC equipment. Other mechanical systems would be located within the structure in dedicated mechanical/electrical rooms. It should be noted that most apartment buildings in the vicinity of the Project include window or other exterior mounted HVAC units. Such units are often clearly audible at ground and near-ground levels as they contain limited shielding and are in direct line of sight of nearby receptors. LAMC Section112.02 would also regulate noises from pool pumping and filtering equipment.

Residential Land Uses. Noise from recurrent activities (e.g., conversation, consumer electronics) and non-recurrent activities (e.g., social gatherings) would elevate ambient noise levels to differing degrees.

- Human conversation and activities. Noise associated with everyday human activities would largely be contained internally within the Project. Normal and reasonable use of the Project's open space areas would not be expected to generate a substantial amount of noise. Noise associated with outdoor residential activities could include passive activities such as human conversation and socializing on the roof deck or on units with outdoor balconies. These outdoor spaces represent gathering places for outdoor activities that are both private and group oriented. These would be intermittent activities that would produce negligible impacts from human speech, based in large part on the Lombard effect. This phenomenon recognizes that voice noise levels in face-to-face conversations generally increase proportionally to background ambient noise levels, but only up to approximately 67 dBA at a reference distance of one meter. Specifically, vocal intensity increases about 0.38 dB for every 1.0 dB increase in noise levels above 55 dB, meaning people talk slightly above ambient noise levels in order to communicate.[239] Assuming an ambient noise level as low as 61.9 dBA L_{eq} at the nearby 7th Street residences, human conversations from rooftop activities could generate about 57.7 dB of noise at one meter (i.e., 3.2 feet).

  While the noise levels from rooftop activities would be marginal, the attenuation from the built environment would virtually eliminate any exposure to elevated noise levels at the nearest sensitive receptors. Noise from speech and conversation generally does not exceed approximately 65 dBA at a reference distance of one meter. These noises attenuate rapidly and would not be capable of elevating surrounding ambient noise levels by more than a nominal degree. The combination of the roof deck's height, roof edges and a safety barriers would block any light of-sight from residents and guests conversing on the rooftop. As a result, the increase in ambient noise levels at nearby receptors would be negligible for sensitive receptors that are no closer than 65 feet from the property line of the Project site.

The City's noise ordinance would provide a means to address nuisances related to residential noises, including LAMC Section 112.01, which governs noise from amplified noises.

Commercial Land Uses. The Project would include add two commercial kiosks (one along Irolo Street and one along Mariposa Avenue) and additional commercial spaces that could include limited outdoor seating and dining areas. Though these outdoor commercial areas could generate modest noise levels from users (e.g. conversation, general dining noises, etc.), it is important to note that they would be located near the center of the Project Site and setback from the street, far from any nearby sensitive receptors and out of direct line of sight. For example, the outdoor commercial area nearest to Mariposa Avenue would be approximately 250 feet from residential apartment buildings located near the intersection of Mariposa Avenue and 7th Street.

[239] Acoustical Society of America, Volume 134; Evidence that the Lombard effect is frequency-specific in humans, Stowe and Golob, July 2013.

The Project's own massing would block the direct line of sight noise travel from this outdoor commercial area to these sensitive receptors. Residential land uses along 7th Street would be over 450 feet south of the proposed outdoor commercial areas and with no direct line of sight to them. Piccadilly Apartments would be approximately 150 feet south of the nearest proposed outdoor commercial area, but the line of sight to this receptor would be obstructed entirely by existing structures. Overall, it is unlikely that noise associated with the proposed commercial spaces and any outdoor seating/dining areas would be audible at nearby sensitive receptors, let alone capable of contributing to substantial increases in ambient noise levels. Other proposed commercial areas would be fully enclosed within the new podium and two-tower structure and would not contain outdoor features or components. Noise related to their operations would be primarily internal and within the Project space itself. Proposed loading areas would be located within the ground-floor of the enclosed podium parking structures. As a result, loading-related noises would be substantially attenuated off-site and occasional loading activities would have a limited influence on surrounding ambient noise levels.

Auto-Related Activities. The Project Site currently contains an open-air three-story parking structure that would be demolished and replaced with a six-level (two subterranean, four above ground) fully-enclosed podium structure containing 1,921 parking spaces. Given that auto-related noises from the existing garage are able to emanate unabated to off-site locations and receptors (since the parking structure is not wrapped by a podium or building) and that the proposed structure would contain such noises behind concrete walls and paneling, it is likely that off-site noise levels attributable to the Site's auto-related noises could decrease as a result of the Project.

Therefore, the impact potential of these on-site operational noise sources would be less than significant.

Off-Site Noise Sources

The majority of the Project's operational noise impacts would result from off-site mobile sources associated with its net generation of daily automobile trips. On a typical weekday, the Project is forecast to generate an estimated 2,348 net new daily trips, including 153 net new A.M. peak hour trips and 202 net new P.M. peak hour trips.[240] The noise impact of these vehicle trips was modeled using the Federal Highway Administration's (FHWA) Traffic Noise Model 2.5 (TNM 2.5).[241] This noise prediction software uses traffic volumes, vehicle mix, average speeds, roadway geometry, and other inputs to calculate average noise levels along inputted roadway segments. For this analysis, an existing year (2018) no project scenario was compared to an existing year with Project scenario. As shown in **Tables B.13-5** and **B.13-6**, Project-related traffic would, individually, have a negligible impact on roadside ambient noise levels in the Project's vicinity. 24-hour CNEL impacts would similarly be minimal, far below LAMC Section

240 Fehr and Peers, Technical Addendum to 3440 Wilshire Boulevard Project Draft Transportation Analysis, August 2019.

241 TNM modeling reflects A.M. and P.M. peak hour traffic volumes of 131 and 186, respectively. The Project's traffic profile will not substantively increase these noise impacts, which are far substantially below the 5 dBA threshold established by LAMC Section 111.02.

111.02's threshold for significant operational noise impacts, which begin at a 5 dBA increase over average ambient noise levels at an adjacent property. Therefore, **operational noise impact from off-site noise sources would be less than significant.**

Table B.13-5
Existing + Project AM Peak Hour Mobile Source Noise Levels

Roadway Segment	Direction	Estimated dBA, L_{eq} 1hr			
		No Project (2018)	With Project (2018)	Project Change	Significant Impact?
7th St., E of Irolo St.	N	61.3	61.4	0.1	No
	S	60.2	60.3	0.1	No
Mariposa Ave., N of 7th St.	E	63.4	63.6	0.2	No
	W	63.3	63.4	0.1	No
Mariposa Ave., S of 7th St.	E	62.7	62.9	0.2	No
	W	62.4	62.6	0.2	No
Source: DKA Planning, 2018.					

Table B.13-6
Existing + Project PM Peak Hour Mobile Source Noise Levels

Roadway Segment	Direction	Estimated dBA, L_{eq} 1hr			
		No Project (2018)	With Project (2018)	Project Change	Significant Impact?
7th St., E of Irolo St.	N	63.1	63.3	0.2	No
	S	62.3	62.5	0.2	No
Mariposa Ave., N of 7th St.	E	63.4	63.6	0.2	No
	W	63.3	63.5	0.2	No
Mariposa Ave., S of 7th St.	E	62.7	63.0	0.3	No
	W	62.4	62.6	0.2	No
Source: DKA Planning, 2018.					

The majority of the Project's long-term noise impacts would come from traffic traveling to and from the Project. The addition of future traffic from any new developments in the Project area and overall ambient traffic growth would further elevate ambient noise levels surrounding local roadways over time. However, the Project's individual and cumulative contribution to permanent off-site ambient noise increases would also be minimal. As shown in **Table B-13-7** and **B.13-8**, with or without the addition of Project traffic, future roadside peak hour ambient noise levels would not increase by more than a marginal degree, far below thresholds of perceptibility. As a result, the Project would not result in a substantial permanent increase in ambient noise levels

above the levels existing with the Project. Therefore, **the Project's future and cumulative operational noise impact would be less than significant.**

Table B.13-7
Future + Project AM Peak Hour Mobile Source Noise Levels

Roadway Segment	Direction	Estimated dBA, L_{eq} 1hr				
		Existing (2018)	No Project (2026)	With Project (2026)	Project Change	Significant Impact?
7th St., E of Irolo St.	N	61.3	61.8	62.0	0.7	No
	S	60.2	60.8	60.9	0.7	No
Mariposa Ave., N of 7th St.	E	63.4	63.9	64.0	0.6	No
	W	63.3	63.8	63.9	0.6	No
Mariposa Ave., S of 7th St.	E	62.7	63.2	63.3	0.6	No
	W	62.4	62.9	63.0	0.6	No
Source: DKA Planning, 2018.						

Table B.13-8
Future + Project PM Peak Hour Mobile Source Noise Levels

Roadway Segment	Direction	Estimated dBA, L_{eq} 1hr				
		Existing (2018)	No Project (2026)	With Project (2026)	Project Change	Significant Impact?
7th St., E of Irolo St.	N	63.1	63.6	63.7	0.6	No
	S	62.3	62.7	62.9	0.6	No
Mariposa Ave., N of 7th St.	E	63.4	63.8	63.9	0.5	No
	W	63.3	63.7	63.8	0.5	No
Mariposa Ave., S of 7th St.	E	62.7	63.2	63.4	0.7	No
	W	62.4	63.7	63.8	1.4	No
Source: DKA Planning, 2018.						

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Unlike noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible. Sources of vibration include trains, buses, and construction activities.

Vibration Definitions

Peak particle velocity (PPV) can be used to describe vibration impacts to both buildings and humans. PPV represents the maximum instantaneous peak of a vibration signal, and it is usually measured in inches per second.[242]

Effects of Vibration

High levels of vibration may cause physical personal injury or damage to buildings. However, ground-borne vibration levels rarely affect human health. Instead, most people consider ground-borne vibration to be an annoyance that can affect concentration or disturb sleep. Ground-borne vibrations can also interfere with certain types of highly sensitive equipment or machines, especially imaging devices used in medical laboratories.

Perceptible Vibration Changes

Unlike noise, ground-borne vibration is not an environmental issue that most people experience every day. Background vibration levels in residential areas are usually well below the threshold of perception for humans, approximately 0.01 inches per second.[243] Perceptible indoor vibrations are most often caused by sources within buildings themselves, such as slamming doors or heavy footsteps. Common outdoor sources of ground-borne vibration include construction equipment, trains, and traffic on rough or unpaved roads. Traffic vibration from smooth and well-maintained roads is typically not perceptible.

Regulatory Settings

For the evaluation of construction-related vibration impacts, FTA guidelines and recommendations are used given the absence of applicable federal, County, and City standards specific to temporary construction activities.

Federal Transit Administration (FTA). Though not regulatory in nature, the FTA has established vibration impact criteria as it relates to potential building and structural damages, as these are the foremost concern when evaluating the impacts of construction-related vibrations. **Table B.13-9** summarizes the FTA's vibration guidelines for building and structural damage.

Table B.13-9
FTA Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
I. Reinforced concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2

242 Caltrans. Transportation and Construction Vibration Guidance Manual, September 2013.
243 Caltrans. Transportation and Construction Vibration Guidance Manual, September 2013.

Table B.13-9
FTA Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
IV. Buildings extremely susceptible to vibration damage	0.12
Source: FTA, Transit Noise and Vibration Impact Assessment, May 2006.	

Construction Vibration Impacts

Construction of the Project would require heavy-duty steel-tracked earthmoving equipment such as bulldozers and excavators. Utilized for rough grading work, such vehicles can produce vibration levels of 0.089 inches per second PPV at a reference distance of 25 feet.[244] Auger drilling rigs can produce similar vibration levels. Other construction vehicles, equipment, and practices would have lesser impacts. **Table B.13-10** shows the Project's projected construction vibration impacts at the nearest off-site structures. No receptor would experience potentially damaging levels of groundborne vibration from the Project's construction activities. More distant structures would experience lesser impacts. **As a result, the Project's construction vibration impacts would be less than significant.**

Table B.13-10
Building Damage Vibration levels at Off-Site Structures - Unmitigated

Off-Site Structures	Distance to Project Site (ft)	Condition	Significant Criteria (in/sec)	Impact (in/sec)	Significant ?
Parking Structure – 680 Mariposa Ave.	65	I. Reinforced concrete, steel or timber	0.5	0.021	No
Mariposa Avenue Residences	65	III. Non-engineered timber and masonry	0.2	0.021	No
7th Street Residences	65	III. Non-engineered timber and masonry	0.2	0.019	No
Source: DKA Planning 2018.					

Operational Vibration Impacts

The Project Site is currently developed with commercial uses that generate negligible vibration from operational sources, such as cars entering and exiting the property, mechanical equipment, and human activity. As such, there are no existing significant operational sources of vibration on the Project Site.

During Project operations, there would also be no significant stationary sources of ground-borne vibration, such as heavy equipment or industrial operations. Minimal levels of operational ground-borne vibration in the Project's vicinity would be generated by its related vehicle travel

244 Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006.

on local roadways, but most vibrations from road vehicles are imperceptible. As a result, the Project's long-term vibration impacts would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the proposed project expose people residing or working in the project area to excessive noise levels?

No Impact.

The Project is not located within the vicinity (i.e., five miles) of a private airstrip nor a public airport. The Project would not expose people to excessive noise levels related to the operation of a public airport. Santa Monica Municipal Airport is located 8 miles to the west. Hollywood Burbank Airport (Bob Hope Airport) is 10 miles to the north. Los Angeles International Airport (LAX) is approximately 9 miles to the southwest. Given the distance between the Project Site and the airports listed above, the Project would not have the potential to expose people working or residing in the Project area to excessive noise levels. Therefore, no impact would occur.

XIV. Population And Housing

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact.

A significant impact would occur if a project would locate new development such as homes, businesses, or infrastructure, with the effect of substantially inducing growth in the project area that would otherwise not have occurred as rapidly or in as great a magnitude.

Construction Impacts

Construction job opportunities created as a result of the Project are not expected to result in any substantial population growth in the area. The work requirements of most construction projects are highly specialized so that construction workers remain at a job site only for the timeframe in which their specific skills are needed to complete a particular phase of the construction process. Additionally, the construction workers would likely be supplied from the region's labor pool. Construction workers would not be likely to relocate their household as a consequence of working on the Project, and as such, significant housing or population impacts will not result from construction of the Project. **Therefore, construction-related population growth impacts will be less than significant.**

Operational Impacts

The Project Site is located in SCAG's City of Los Angeles Subregion. According to SCAG's 2016–2040 RTP/SCS, the forecasted population for the City of Los Angeles Subregion in 2018 is approximately 4,009,193 persons.[245] In 2026, the projected occupancy year of the Project, the City of Los Angeles Subregion is anticipated to have a population of approximately 4,227,448 persons,[246] an increase of 218,266 persons.

According to SCAG's State-approved 2014 Regional Housing Needs Assessment (RHNA), the City is in need of 82,002 housing units, an annual average of about 10,250 new dwelling units per year, for eight years.

245 Based on linear interpolation of 2012-2040 data.
246 Based on linear interpolation of 2012-2040 data.

Table B.14-1, Population, Households, and Employment in the City of Los Angeles, includes the 2018 (baseline) and 2026 (buildout year) population,[247] households,[248] and employment[249] values from SCAG's 2016-2040 RTP/SCS.

Table B.14-1
Population, Households, and Employment in the City of Los Angeles

Year	Population	Households	Employment
2018	4,009,192	1,403,674	1,797,592
2026	4,227,448	1,507,906	1,932,648
Projected Growth	+218,266	+104,232	+135,056
Population, housing, and employment calculated based on linear interpolation of 2018 and 2026 values. Based on the adopted 2016-2040 Regional Transportation Plan by SCAG: http://www.scag.ca.gov/Documents/2016DraftGrowthForecastByJurisdiction.pdf. Table: CAJA Environmental Services, September 2018.			

Population generation is shown in **Table B.14-2** and employee generation is shown in **Table B.14-3**. It is estimated that the Project would have approximately 1,555 residents and 29 employees. Employment in existing buildings would not change and, therefore, is not considered in the analysis.

Table B.14-2
Project Estimated Population Generation

Land Use	Quantity	Population Generation Rates	Total Population
Residential	640 DU	2.43 person / DU	1,555
		Proposed Population	**1,555**
Note: DU = dwelling unit Source: The source for the 2.43 persons-per-household rate for the City is the American Community Survey, 5-year (2012-2016) Average Estimates. Table: CAJA Environmental Services, August 2019.			

247 The interpolated value is calculated using SCAG's 2012 and 2040 values to find the average increase between years and then applying that annual increase to 2012. Population between 2012 (3,845,500) and 2040 (4,609,400) is projected to grow by 763,900 over the 28-year period, or 27,282 per year average.

248 The interpolated value is calculated using SCAG's 2012 and 2040 values to find the average increase between years and then applying that annual increase to 2012. Households between 2012 (1,325,500) and 2040 (1,690,300) is projected to grow by 364,800 over the 28-year period, or 13,029 per year average.

249 The interpolated value is calculated using SCAG's 2012 and 2040 values to find the average increase between years and then applying that annual increase to 2012 for the baseline and buildout years. Employment between 2012 (1,696,300) and 2040 (2,169,100) is projected to grow by 472,700 over the 28-year period, or 16,882 per year average.

Table B.14-3
Project Estimated Employment Generation

Land Use	Size	Employee Generation Rates	Total Employees
Commercial	10,738 sf	1 employee / 369 sf	29
		Proposed Employees	**29**

Note: sf = square feet
Source: LAUSD 2018 Developer Fee Justification Study, March 2018. Table 14.
Table: CAJA Environmental Services, August 2019.

The July 2019 unemployment rate is Los Angeles-Long Beach-Glendale area is approximately 5.0 percent.[250] Thus, there is still potential for employment capacity (jobs) to increase to fulfill demand. The Project is not a unique use to compel substantial new residents to the area to fulfill the jobs. Rather the jobs could be filled by workers already counted within the Los Angeles area.

The estimated 1,555 new residents generated by the Project would represent approximately 0.7 percent of the population growth forecasted between 2018 and 2026. Therefore, the Project's residents would be well within SCAG's projection for the City.

The Project's 640 new residential units would constitute up to approximately 0.6 percent of the housing growth forecasted between 2018 and 2026. Therefore, the Project's housing units would be well within SCAG's projection for the City.

The Project's 29 new employees would constitute up to approximately 0.03 percent of the employee growth forecasted between 2018 and 2026. Therefore, the Project's housing units would be well within SCAG's projection for the City.

As emphasized in many regional and local planning documents, including the City of Los Angeles General Plan Housing Element, the City is in need of new dwelling units to serve both the current population and the projected population. The Housing Element has identified 4,019 sites (1,014.2 acres) in the Wilshire Community Plan Area as having housing capacity for 51,490 net units.[251] The Project Site does not currently provide housing but will add housing units. The Project will not conflict with the Housing Element, which requires that the City must show it has adequate land zoned to accommodate the RHNA allocation of 82,002 housing units for 2013-2021.[252] Thus, the Project, which is adding housing units, will not result in a net loss of housing inventory in the area. By developing new residential dwelling units, the Project would help to fulfill this demand.

250 Bureau of Labor Statistics: http://www.bls.gov/eag/eag.ca_losangeles_md.htm.
251 City of Los Angeles, Housing Element, 2013-2021, adopted December 3, 2013, Table 3.1, page 3-4.
252 City of Los Angeles, Housing Element, 2013-2021, adopted December 3, 2013, page 3-3.

As analyzed above, the net new population and housing that would be generated by the Project would be within SCAG's population and housing projections for the City and consistent with the Wilshire Community Plan. Therefore, the Project would not induce substantial unplanned population growth. As a result, **impacts related to population and housing would be less than significant.**

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact.

The Project Site does not contain any housing. The Project does not represent a displacement of substantial numbers of existing people or housing. **Therefore, no impact would occur.**

XV. Public Services

Section 35 of Article XIII of the California Constitution at Subdivision (a)(2) provides: "The protection of public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services." Section 35 of Article XIII of the California Constitution was adopted by the voters in 1993 under Proposition 172. Proposition 172 directed the proceeds of a 0.50-percent sales tax to be expended exclusively on local public safety services. California Government Code Sections 30051-30056 provide rules to implement Proposition 172. Public safety services include fire protection. Section 30056 mandates that cities are not allowed to spend less of their own financial resources on their combined public safety services in any given year compared to the 1992-93 fiscal year. Therefore, an agency is required to use Proposition 172 to supplement its local funds used on fire protection services, as well as other public safety services. In City of Hayward v. Board of Trustee of California State University (2015) 242 Cal. App. 4th 833, the court found that Section 35 of Article XIII of the California Constitution requires local agencies to provide public safety services, including fire protection and emergency medical services, and that it is reasonable to conclude that the city will comply with that provision to ensure that public safety services are provided.[253]

This section is based on the following letters, included as Appendix J of this MND:

J-1 Los Angeles Unified School District response, July 12, 2017.

J-2 Los Angeles Department of Recreation and Parks response, August 16, 2017.

J-3 Los Angeles Public Library response, October 10, 2018.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objective for any of the following public services:

i) Fire protection?

Less Than Significant Impact.

A significant impact may occur if the City of Los Angeles Fire Department (LAFD) could not adequately serve a project, and a new or physically altered fire station would be necessary. LAFD considers fire protection services for a project adequate if a project is within the maximum response distance for the land use proposed. A total of 1,104 uniformed firefighters (included

253 City of Hayward v. Board Trustee of California State University (2015) 242 Cal. App. 4th 833, 847.

242 serving as Firefighters/Paramedics), are always on duty at 106 neighborhood fire stations located in the LAFD's 471-square-mile jurisdiction.[254] Pursuant to Table 507.3.3 of the 2014 Fire Code, the maximum response distance between commercial land use and a LAFD station that houses an engine company[255] is 1.0 mile and a station that houses a truck company[256] is 1.5 miles. If these response distances are exceeded, installation of an automatic fire sprinkler system is required.[257]

The Project Site is served by several fire stations, as shown in **Table B.15-1, Fire Stations**.

Table B.15-1
Fire Stations

No.	Address	Distance	Equipment	Ave. Time (Turnout + Travel)	Incident Counts
29	4029 W. Wilshire	4,800 feet	Task Force Paramedic Rescue BLS Rescue Ambulance Decon Tender	EMS: 5:04 min Non-EMS: 4 :40 min	EMS: 4,482 Non-EMS: 1,090
13	2401 W. Pico	1.45 miles	Engine Paramedic Rescue EMS Battalion Captain	EMS: 4:52 min Non-EMS: 4:50 min	EMS: 5,260 Non-EMS: 983

Incident counts: year 2017 (January to December). Non-EMS is fire emergency. EMS is emergency medical service.

Response Time: year 2017 (January to December) average time (turnout time + travel time) in the station area.

Response time listed above does not include call processing, which averages 1:04 minutes citywide in 2017. Call processing is done at a central location and does not differ by fire stations.

Fire Department Call Processing Time: The time interval that starts when the call is created in CAD by a Fire Dispatcher until the initial Fire or EMS unit is dispatched. Turnout Time: The time interval between the activation of station alerting devices to when first responders put on their personal protective equipment and are aboard apparatus and en-route (wheels rolling). Both station alarm and en-route times are required to measure this for each unit that responds.

Travel Time: The time interval that begins when the first unit is en route to the incident and ends upon arrival of any of the units first on scene. This requires one valid en-route time and one valid on-scene time for the incident. Travel time can differ considerably amongst stations. Many factors, such as traffic, topography, road width, public events and unspecified incident locations, may impact travel time.

Incident Count: The number of incidents that result in one or more LAFD units being dispatched, regardless of record qualification.

http://lafd.org/sites/default/files/pdf_files/11-03-2014_AllStations.pdf

Task Force: Truck company and two fire engines.

LAFD April 2016 Fire Station Directory.

Table: CAJA Environmental Services, April 2018.

254 http://www.ecodes.biz/ecodes_support/free_resources/2014LACityFire/PDFs/Chapter%205%20-%20Fire%20Service%20Features.pdf.

255 LAFD: All LAFD Engines are Triple Combination apparatus, meaning they can pump water, carry hose, and have a water tank: http://lafd.org/about/apparatus.

256 LAFD: Aerial Ladder Fire Engines: http://lafd.org/about/apparatus.

257 http://www.ecodes.biz/ecodes_support/free_resources/2014LACityFire/PDFs/Chapter%205%20-%20Fire%20Service%20Features.pdf.

Response Distance

The Project Site is located within the response distance specified by Table 507.3.3 of the 2014 Fire Code. Station No. 29 is within 1 mile away and contains a Task Force (truck company and engine company)[258] and additional engine and ambulance. Additionally, the Project will be constructed with fire protection as required by the LAFD Chief, unless other building and safety codes supersede those requirements. The LAFD goal is to reach EMS incidents within 5 minutes 90 percent of the time and fire incidents within 5:20 minutes 90 percent of the time. The Project is within the maximum response distance of a fire station with adequate equipment. There are also additional fire stations located nearby.

Construction Impacts

Appropriate construction traffic control measures (e.g., detour signage, delineators, etc.) would also be implemented, as necessary, to ensure emergency access to the Project Site and traffic flow is maintained on adjacent right-of-ways. Furthermore, the drivers of emergency vehicles normally have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lanes of opposing traffic. As construction activities are temporary in nature and emergency vehicles have a variety of options for dealing with traffic, such as using their sirens to clear a path of travel and/or driving in opposing traffic lanes, construction of the Project would not impact LAFD services to the extent that there would be a need for new or expanded fire facilities in order to maintain acceptable service ratios, response times, or other performance objectives during construction of the Project.

Emergency Access

Emergency vehicle access to the Project Site will continue to be provided from local and major roadways near the Project Site. The routes from the fire stations to the Project Site would likely pass through several of the study intersections. The future traffic conditions with the Project show that none of the 14 study intersections would have a significant impact (see **Section B.17** of this MND for additional information).[259]

Division 118 of the Fire Code requires that all new high-rise buildings greater than 75 feet in height (measured from the lowest point with fire access) include a fire control station containing a public address system and telephones for LAFD use. The fire control station must contain a fire detection and fire alarm system, an elevator recall switch and status panel for all elevator cars, a sprinkler control system, standby power and emergency electrical power controls, controls for unlocking stair shaft doors, smoke evacuation and fan controls, stairway pressurization control switches, and status indicators for fire pumps and water supply. A sound-powered telephone communication system must be located at every floor level in each enclosed

258 LAFD: http://www.lafd.org/about/about-lafd/apparatus.

259 Transportation Impact Analysis, Fehr & Peers, September 2018 and Technical Addendum to Transportation Impact Analysis, Fehr & Peers, August 2019.

exit stairway, at every exterior location where an enclosed stairway exits to a public way, on the roof, and in every elevator car. In addition, a high-rise building must have at least one emergency and fire control elevator in each bank of elevators (Section 57.118.05), a dependable method of sounding a fire alarm throughout the building (Section 57.118.06), an emergency smoke control system (Section 57.118.07), a standby and emergency power system (Section 57.118.08), stair shaft doors for fire department use (Section 57.118.09), pressurized stair shafts (Section 57.118.10), and other devices operable from the fire control station, as previously listed.

Division 118 also requires the installation of automatic sprinkler systems in all new high-rise buildings in addition to a rooftop emergency helicopter landing facility (EHLF) on each high-rise building in a location approved by the Chief of the LAFD (Section 57.4705.4). However, if specific life safety features are provided as outlined in LAFD Requirement No. 10, the EHLF is not required.[260] Such life safety measures include; providing an additional Fire Service Access Elevator in addition to the number of elevators required in the CBC; two (2) stairways (and a third if added) shall have roof access; enclosed elevator lobbies; escalator openings or stairways that are not part of the means of egress system and connect more than two stories protected by approved power-operated automatic shutters at every penetrated floor; automatic sprinkler systems; and a Video Camera Surveillance System with cameras located in all Firefighter Elevator Vestibules and on every 5th floor landing in exit stairway shafts, with an additional camera at the top of the exit stairway shaft.

For high-rise buildings, LAMC Section 57.33.19 requires the preparation of an Emergency Plan that establishes dedicated personnel and emergency procedures to assist the LAFD during an emergency incident, and establishes a drill procedure to prepare for emergency incidents. The Emergency Plan is required to designate at each building a Fire Safety Director, Floor Wardens, Private First Responders, and Essential Building Personnel. Among other tasks, these individuals would be required to call 911 during an emergency incident; report to the building's Emergency Assistance Center; direct evacuation operations; report conditions to the LAFD; conduct monthly inspections; know the location of all exits; direct emergency evacuations and fire drills; and assist the LAFD, emergency responders, and on-site personnel during emergency evacuations. A description of the procedures all occupants should follow in an emergency evacuation or drill is also required in the Emergency Plan. The Emergency Plan also designates appropriate evacuation signs and requires the Fire Safety Director to establish the on-site Emergency Assistance Center. Lastly, LAMC Section 57.33.19 requires that mandatory fire drills be conducted at least once annually. A Fire Safety Officer is required to be present to witness and document the total building evacuation. The Emergency Plan must be submitted to the LAFD for approval prior to implementation, and must be submitted annually (and revised if required by the LAFD).

260 http://www.lafd.org/sites/default/files/pdf_files/EHLF-Reg10.pdf

The Project would be in compliance with the Fire Code, including any additional access requirements of the LAFD. Additionally, emergency access to the Project Site will be maintained at all times. Therefore, impacts related to emergency access will be less than significant.

Fire Flow

The adequacy of fire protection is also based upon the required fire flow, equipment access, and LAFD's safety requirements regarding needs and service for the area. The quantity of water necessary for fire protection varies with the type of development, occupancy rates, life hazard, and the degree of fire hazard. City-established fire flow requirements vary from 2,000 gallons per minute (gpm) in low-density residential areas to 12,000 gpm in high-density commercial or industrial areas. In any case, a minimum residual water pressure of 20 pounds per square inch is to remain in the water system while the required gpm is flowing. The fire flow is set at 6,000 to 9,000 gpm. The following fire hydrants are the nearest to the Project Site:[261]

- Hydrant (ID 9715, size 4D, 8-inch main) on southwest corner of Mariposa and Wilshire.
- Hydrant (ID 4637, size 4D, 30-inch main) on southeast corner of Wilshire and Normandie.
- Hydrant (ID 9716, size 4D, 8-inch main) on southwest corner of Mariposa and 7th
- Hydrant (ID 9697, size 4D, 8-inch main) on southwest corner of Normandie and 7th.

Upgrades to the hydrants and system will be evaluated at the plan check phase as is standard City practice. The Project will submit a request to the City of Los Angeles Department of Water and Power (LADWP) to determine whether the pressure in the Project area is sufficient as is standard practice. If it is not, then upgrades to the existing infrastructure may be required. No changes are planned in the near future for new or expanded fire stations in the area, which contains the Project Site.

The Project will comply with the required regulations and feasible recommendations of the Fire Department relative to fire safety and emergency access. Those recommendations will be incorporated into the building plans, which includes the submittal of a plot plan for approval by the Fire Department prior to the approval of a building permit. **This will allow the LAFD to ensure that the Project will not increase demand on the fire department to the extent that a new or expanded facility is needed, the construction of which may cause a significant impact on the environment. Therefore, Project impacts associated with fire services will be less than significant.**

ii) Police protection?

Less Than Significant Impact.

261 Navigate LA, Fire Hydrants Layer: http://navigatela.lacity.org/navigatela/.

A significant impact may occur if a project creates the need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives. The Project Site is served by the City of Los Angeles Police Department's (LAPD) West Bureau, which oversees LAPD operations in the Hollywood, Olympic, Pacific, West LA, and Wilshire.[262] The Olympic Community Police Station, located at 1130 South Vermont, is approximately 1.2 miles driving distance from the Project Site. The Olympic Community is 6.2 square miles in size, has approximately 200,000 residents, and has approximate 235 sworn officers. The officer to resident ratio is 1:851.

Each community police station is broken down into approximately one dozen smaller Reporting Districts (RD) that consist of a few blocks. The Project is within RD 2035, which is bound by Wilshire to the north, 8th to the south, Catalina to the east, and Normandie to the west.[263]

Crime Rate

Crime statistics (Part 1 violent and property crimes) are shown in **Table B.15-2, Crime Statistics**. The crime rate, which represents the number of crimes reported, affects the "needs" projection for staff and equipment for the LAPD to some extent.

Table B.15-2
Crime Statistics

Type of Crime	Olympic	Citywide
Homicide	1	65
Rape	27	392
Robbery	142	2,504
Aggravated Assault	144	3,543
Burglary	174	3,714
Motor Vehicle Theft	174	4,287
Burglary Theft from Vehicle	469	7,820
Personal/Other Theft	318	7,425
Total (Part 1 Crimes)	**1,449**	**29,750**
Year-to-date: March 31, 2018 Olympic: http://assets.lapdonline.org/assets/pdf/olyprof.pdf Citywide: http://assets.lapdonline.org/assets/pdf/cityprof.pdf Table: CAJA Environmental Services, April 2018.		

Construction Impacts

262 LAPD, West Bureau: http://www.lapdonline.org/west_bureau
263 http://assets.lapdonline.org/assets/pdf/bwOLYM%20STREET%20MAP.pdf

Construction sites can be sources of attractive nuisances, providing hazards, and inviting theft and vandalism. Therefore, when not properly secured, construction sites can become a distraction for local law enforcement from more pressing matters that require their attention. Consequently, developers typically take precautions to prevent trespassing through construction sites. Most commonly, temporary fencing is installed around the construction site.

The Project Site is generally open on all sides. The boundaries will need to be secured during construction. The Project Applicant will employ construction security features, such as fencing, which would serve to minimize the need for LAPD services. Temporary construction fencing will be placed along the periphery of the active construction areas to screen as much of the construction activity from view at the local street level and to keep unpermitted persons from entering the construction area. These security measures would ensure that valuable materials (e.g., building supplies, metals such as copper wiring) and construction equipment are not easily stolen or abused. **Therefore, construction impacts on police protection services would be less than significant.**

Operational Impacts

The Project will generate jobs and an increase in visitors and patrons, especially over the evening and night hours due to the residential uses. As such, the Project could potentially increase the number of police service calls due to an increase in onsite residents, employees and visitors. The potential for crime can be reduced with site-specific designs and features. The Project will include standard security measures such as adequate security lighting, secure key access to residential areas, and residential lobby and leasing area that offers a visual deterrent and human surveillance feature. Parking would be provided in an enclosed below grade levels and as part of the podium.

The LAPD will require that the commanding officer of the Community Area be provided a diagram of each portion of the property showing access routes, and any additional information that might facilitate police response.

The current approximate ratio of residents to officers is approximately 861 residents to officer.[264] The addition of the Project's 1,555 residents would equate to 2 officers.[265] 2 officers represents approximately 0.85 percent increase compared to existing staffing levels.[266] This change is not substantial and the current facilities could accommodate this so there would be no need for additional facilities or expansion of existing facilities. The Project will contribute sales and property tax revenue into the City's General Fund, which can be used to fund additional resources per the planning and deployment strategies of the LAPD. Thus, the Project would not require the construction of a new or expanded police station. **Therefore, Project impacts associated with police services would be less than significant.**

264 200,000 / 235 = 861.

265 1,555 / 861 = 2

266 2 / 235 x 100% = 0.85%

iii) Schools?

Less Than Significant Impact.

A significant impact may occur if a project includes substantial employment or population growth, which could generate demand for additional school facilities. The Project Site is served by the following Los Angeles Unified School District (LAUSD) schools:[267]

- RFK (Robert F. Kennedy) Zone of Choice:[268]
    - Ambassador School, 3201 W. 8th Street for Elementary (K-5), includes Global Education in Korean and Spanish.
    - Community School, 700 S. Mariposa Avenue for Elementary (K-5).
    - New Open World, 3201 W. 8th Street for Elementary (K-5), Middle (6-8), and High (9-12).
    - Los Angeles High School of the Arts, 701 S. Catalina Street for High (9-12), includes Global Leadership, Visual Arts and Humanities.

Enrollment Capacities

Each of the schools' enrollments and capacities are shown in **Table B.15-3**. There are no anticipated new schools planned for the area.

267 LAUSD School Finder: http://rsi.lausd.net/ResidentSchoolIdentifier/.

268 Schools & programs that are part of a "school choice area" pull enrollments from the school(s) that have resident areas, as defined by attendance boundaries.

Table B.15-3
LAUSD Schools Enrollments and Capacities

Name	Current Capacity [1]	Resident Enrollment [2]	Actual Enrollment [3]	Current Overage/ (Shortage) [4]	Overcrowded Now? [5]	Projected Capacity [6]	Projected Enrollment [7]	Future Overage/ (Shortage) [8]	Overcrowding Future? [9]
RFK Zone of Choice	4,532	3,473	4,082	(1,059)	YES	4,212	3,431	(781)	Yes

Note: Current and projected enrollments/capacities reflect data from School Year (SY) 2016-2017. Current and projected data are updated annually and become available after May 1st of each calendar.

[1]School's current operating capacity, or the maximum number of students the school can serve while operating on its current calendar. Excludes capacity allocated to charter co-locations. Includes capacity for magnet program.

[2] The total number of students living in the school's attendance area and who are eligible to attend the school. Includes magnet students. -Multi-track calendars are utilized as one method of providing relief to overcrowded schools by increasing enrollment capacities. – A goal of the Superintendent and Board of Education is to return all schools to a traditional 2-semester calendar (1 TRK).

[3] The number of students actually attending the school now, including magnet students.

[4] Current seating overage or (shortage): equal to (current capacity) - (resident enrollment).

[5] Current overcrowding status of school or service area. The school or area is currently overcrowded if any of these conditions exist: -A school is currently on a multi-track calendar. -There is currently a seating shortage. -There is currently a seating overage of LESS THAN or EQUAL TO a 'safety margin' of 30 seats.

[6] School planning capacity. Formulated from a baseline calculation of the number of eligible classrooms after implementing LAUSD operational goals and shifting to a 2-semester (1 TRK) calendar. Includes capacity allocated to by charter co-locations. Includes capacity for magnet programs.

[7] Projected 5-year total number of students living in the school's attendance area and who are eligible to attend the school. Includes magnet students.

[8] Projected seating overage or (shortage): equal to (projected capacity) - (projected enrollment).

[9] Projected overcrowding status of school. The school will be considered overcrowded in the future if any of these conditions exist: -A school remains on a multi-track calendar. -There is a seating shortage in the future. -There is a seating overage of LESS THAN or EQUAL TO a 'safety margin' of 30 seats in the future.

^Current capacity shown for QEIA (Quality Education Investment Act) schools includes class-size reduction due to QEIA. Excludes capacity used by charter co-locations. Projected capacity excludes class-size reduction due to QEIA.

Source: Written response from Rena Perez, LAUSD, July 12, 2017. Included in the Appendices.

Table by CAJA Environmental Services, April 2018.

Enrollment Generation

As shown on **Table B.15-4**, the Project (directly through the residential use and indirectly through its employees) would generate an increase of approximately 149 elementary, 40 middle, and 85 high school students, for a total increase of approximately 274 students. To be conservative, this analysis assumed that all students generated by the Project will be new to LAUSD. As discussed below, payment of required school fees is deemed to provide full and complete mitigation.

Table B.15-4
Project Estimated Student Generation

Project		Students Generated			
Source	**Quantity**	**Elementary**	**Middle**	**High**	**Total**
Residential units	640 units	145	39	83	267
Non-Residential	10,738 sf	4	1	2	7
Total		**149**	**40**	**85**	**274**

The generation factor is from the Los Angeles Unified School District, 2018 Developer Fee Justification Study, March 2018.
Students per household: 0.2269 elementary, 0.0611 middle; 0.1296 high school. Students per 1,000 sf: 0.610 for neighborhood shopping centers.
Since the Study does not specify the grade levels of students that are generated from non-residential land uses, such students are assumed to be divided among the residential generation factors (i.e. approximately 54.3 percent for elementary, 14.6 percent for middle, and 31.0 percent for high school.
Table: CAJA Environmental Services, August 2019.

School Fees

California Education Code Section 17620(a)(1) states that the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirements against any construction within the boundaries of the district, for the purposes of funding the construction or reconstruction of school facilities. The LAUSD School Facilities Fee Plan has been prepared to support the school district's levy of the fees authorized by California Education Code Section 17620. The Leroy F. Greene School Facilities Act of 1998 (SB 50) sets a maximum level of fees a developer may be required to pay to mitigate a project's impacts on school facilities. The maximum fees authorized under SB 50 apply to zone changes, general plan amendments, zoning permits and subdivisions. The provisions of SB 50 are deemed to provide full and complete mitigation of school facilities impacts, notwithstanding any contrary provisions in CEQA, or other state or local law (Government Code Section 65996). Furthermore, per Government Code Section 65995.5-7, LAUSD has imposed developer fees for commercial/industrial and residential space. Overall, the payment of school fees in compliance with SB 50 would be mandatory and would provide full and complete mitigation of school impacts for the purposes of CEQA. **Therefore, impacts related to schools would be less than significant.**

iv) Parks?

Less Than Significant Impact.

A significant impact to parks would occur if implementation of a project includes a new or physically altered park or creates the need for a new or physically altered park, the construction of which could cause substantial adverse physical impacts. The City of Los Angeles Department of Recreation and Parks (LADRP) manages all municipally owned and operated recreation and park facilities within the City. The Public Recreation Plan, a portion of the Service Element of the City's General Plan sets a goal of a parkland acres-to-population ratio of neighborhood and community parks of 4.0 (or 4 acres per 1,000 persons). The Wilshire Community Plan Area has a ratio of 0.23 acres or parkland per 1,000 persons.

Table B.15-5, Parks and Recreation Centers, lists the parks and recreation centers that are located nearby the Project Site. While the LADRP is currently in the process of implementing the 50 Parks Initiative, these are small pocket parks typically less than half an acre, often only one tenth of an acre, and have a service radius of one half mile. None of these parks will be sited within half mile from the Project Site.

Table B.15-5
Parks and Recreation Centers

Name	Address	Acres	Distance
LA (High School) Memorial Park	4625 West Olympic Boulevard	2.51	1.75 miles
Seoul International Park	3250 West San Marino Avenue	3.47	2,150 feet
Lafayette Park	4800 West Hollywood Boulevard	10	4,500 feet
MacArthur Park	2230 West 6th Street	29.87	1.25 miles
Normandie Recreation Center	1550 Normandie Avenue	3.28	1 mile
Shatto Recreation Center	3191 W. 4th Street	5.39	3,300 feet
NavigateLA with Recreation and Parks Department layer: http://navigatela.lacity.org/index01.cfm Table: CAJA Environmental Services, August 2019.			

The Project would increase the number of residents and employees at the Project Site. However, employees of commercial developments do not typically frequent parks or recreation centers during work hours, but are more likely to use facilities near their homes during non-work hours. The Project would include open space, a pool, an amenities deck and fitness center, and private open space and decks. The amount of open space required is 68,975 square feet and provided is 69,567 square feet. While Project residents would use the on-site open spaces and recreational facilities, it is reasonably foreseeable that Project residents would use nearby parks and recreation facilities listed in **Table B.15-5**.

LAMC provides for payment of park fees, depending on the nature of the development:

- Pursuant to Section 17.12-A or 17.58 of the Los Angeles Municipal Code, the applicant shall pay the applicable Parks and Recreation Fee for the construction of dwelling units with a subdivision.

- Pursuant to Section 21.10 of the Los Angeles Municipal Code, the applicant shall pay the Dwelling Unit Construction Tax for construction of apartment buildings.

- Pursuant to Section 12.33 of the Los Angeles Municipal Code, the applicant shall pay the applicable fees for the construction of dwelling units if using a zone change.

The City requires developers to dedicate parkland or pay applicable fees (such as dwelling unit construction tax) in lieu of parkland dedication. **Thus, with the provided on-site open space and payment of applicable fees, impacts on parks would be less than significant.**

v) Other public facilities?

Less Than Significant Impact.

A significant impact may occur if a project includes substantial employment or population growth that could generate a demand for other public facilities, such as libraries, which would exceed the capacity to service the project site. The City of Los Angeles Public Library (LAPL) provides library services throughout the City through its Central Library, 8 regional branches, and 64 community branches. The LAPL collection has 6.4 million books, magazines, electronic media, 120 online databases, and 34,000 e-books and related media.[269] On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes Criteria for new Libraries, which recommends new size standards for the provision of LAPL facilities – 12,500 square feet for communities with less than 45,000 people, 14,500 square feet for community with more than 45,000 people, and up to 20,000 square feet for a Regional branch. It also recommends that when a community reaches a population of 90,000, an additional branch library should be considered for the area. **Table B.15-6** describes the libraries that would serve the Project. There is some overlap in the service population of each library. The Pico Union and Pio Pico branches comply with the recommendations.

The Project would not directly necessitate the need for a new library facility. This is because the LAPL has indicated that there are no planned improvements to add capacity through expansion. There are no plans for the development of any other new libraries to serve this community. The LAPL uses the most recent Census figures to determine if a branch should be constructed in a given area. Employees do not typically frequent libraries during work hours, but are more likely to use facilities near their homes during non-work hours.

The analysis considers features (on-site library facilities, direct support to LAPL) that would reduce the demand for library services. It is likely that the residents of the Project would have

269 LAPL website: http://www.lapl.org/about-lapl/press/2012-library-facts.

individual access to internet service, which provides information and research capabilities that studies have shown reduce demand at physical library locations.[270,271] The Project will be internet accessible. Further, Measure L has provided funds to restore adequate services to the existing library system. For all of these reasons, it is not anticipated that the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, or need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for library services. **Therefore**, **impacts to library service would be less than significant.**

Table B.15-6
Los Angeles Public Libraries

Name	Address	Size (sf)	Volumes / Circulation	Current Service	Staff	Distance
De Neve	2820 West 6th Street	9,273	35,424 / 176,698	110,861	9	4,500 feet
Memorial	4625 West Olympic Boulevard	10,578	37,352 / 200,321	45,615	9	1.85 miles
Pico Union	1030 South Alvarado Street	12,500	46,562 / 167,493	41,457	10.5	1.25 miles
Pio Pico	694 South Oxford Avenue	20,000	77,712 / 129,660	123,611	16.5	2,000 feet
Wilshire	149 North St Andrews Place	6,258	33,988 / 90,096	109,529	9.5	1.15 miles

Staffing is full-time equivalent.
Current Service – LA Times Mapping LA and branch library community boundaries.
The LAPL does not make targeted projections but rather uses the most recent Census figures to determine if a branch should be constructed in a given area, according to the new Branch Facilities Plan.
Table: CAJA Environmental Services, August 2019.

270 "To Read or Not To Read", see pg. 10: "Literary reading declined significantly in a period of rising Internet use": http://www.nea.gov/research/toread.pdf.

271 "How and Why Are Libraries Changing?" Denise A. Troll, Distinguished Fellow, Digital Library Federation: http://old.diglib.org/use/whitepaper.htm.

XVI. Recreation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact.

A significant impact may occur if a project would include substantial employment or population growth which could generate an increased demand for public park facilities that exceeds the capacities of existing parks and causes premature deterioration of the park facilities.

The Project would increase the number of residents and employees at the Project Site. Employees do not typically frequent parks or recreation centers during work hours, but are more likely to use facilities near their homes during non-work hours. The nearby parks and the open space provided on the Project Site are discussed under **Section 15.iv. Parks,** above. While the increased residents may lead to additional use and, therefore, physical deterioration of facilities or accelerate deterioration, the payment of Recreation and Park Fees will be used to offset the increased demand and provide a fund for future recreational facilities provided by the LADRP. **Therefore, impacts to recreational facilities will be less than significant.**

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact.

A significant impact may occur if a project includes the construction or expansion of park facilities and such construction would have a significant adverse effect on the environment. While the increased residents may lead to physical deterioration of facilities or accelerate deterioration, the payment of applicable Recreation and Park Fees will be used to offset the increased demand and provide a fund for future recreational facilities provided by the LADRP. The Project would include 69,567 square feet of onsite open space, which complies with the requirements. The construction of the open space would be part of the overall Project and would not have a physical effect on the environment. **Therefore, impacts will be less than significant.**

XVII. Transportation/Traffic

This section is based on the following items, included as Appendix K of this MND:

K-1 Transportation Impact Analysis, Fehr & Peers, September 2018.

K-2 Letter, Los Angeles Department of Transportation, October 25, 2018.

K-3 Traffic Study Technical Addendum, Fehr & Peers, August 27, 2019.[272]

K-4 LADOT Assessment Letter, October 22, 2019.[273]

a) Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact.

A significant impact may occur if roadways and intersections that would carry project-generated traffic would exceed adopted City of Los Angeles Department of Transportation (LADOT) thresholds of significance.

Traffic Scenarios

Existing Conditions – The analysis of existing traffic conditions provides a basis for the the Transportation Impact Analysis (study). The existing conditions analysis includes a description of the transportation system serving the Project Site, existing traffic volumes, and an assessment of the operating conditions at the study analysis locations.

Existing plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of Project-generated traffic. The impacts of the Project on existing traffic operating conditions were then identified.

Future Base (Year 2026) Conditions – Future traffic projections without the Project were developed for the year 2026. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth, Related Projects, and transportation network changes in the vicinity of the Project Site by the year 2026.

[272] This document is a technical addendum to the original transportation impact analysis conducted by Fehr & Peers in September 2018. The original Project involved the construction of 641 multifamily high-rise residential units and 18,454 square feet of retail space. The revised Project description provides 640 multifamily high-rise residential units, 5,538 square feet of retail space, 4,600 square feet of high-turnover (sit-down) restaurant space, and 2,000 square feet of fast casual restaurant space. The revised Project's access and driveway plan will remain the same as that of the original Project.

[273] LADOT concurs with the addendum that the project's expected impact would be less than significant and no changes to the transportation analysis are required.

Future (Year 2026) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under future conditions with the addition of Project-generated traffic. The impacts of the Project on future traffic operating conditions were then identified.

Study Locations

14 signalized intersections, one stop-controlled intersection, and two local street segments were selected for analysis in consultation with LADOT.

Signalized Intersections

The following 14 signalized intersections, illustrated in Figure 1 (in Transportation Impact Analysis, Fehr & Peers, included in Appendix K-1), were identified in conjunction with LADOT to be analyzed for this Project:

1. Western Avenue & Wilshire Boulevard
2. Western Avenue & 8th Street
3. Normandie Avenue & 3rd Street
4. Normandie Avenue & 6th Street
5. Normandie Avenue & Wilshire Boulevard
6. Irolo Street & 7th Street
7. Irolo Street & 8th Street
8. Normandie Avenue & Olympic Boulevard
9. Mariposa Avenue & 6th Street
10. Mariposa Avenue (West) & Wilshire Boulevard
11. Mariposa Avenue (East) & Wilshire Boulevard
12. Mariposa Avenue & 8th Street
13. Vermont Avenue & Wilshire Boulevard
14. Vermont Avenue & 8th Street

Unsignalized Analysis

The following two stop-controlled intersection was identified in conjunction with LADOT to be considered for signal warrant analyses:

A. Mariposa Avenue & 7th Street

Segment Analysis

The following two segments were identified in conjunction with LADOT to be analyzed for this Project:

Segment A. Mariposa Avenue, south of 7th Street

Segment B. Normandie Avenue, south of 7th Street

Existing Street System

Freeways

Interstate 10, 1.65 miles south of the Site, runs in an east/west direction and extends from the Pacific Ocean eastward through Los Angeles County and beyond. In the vicinity of the study area, the freeway provides four lanes in each direction plus auxiliary lanes. Ramps in the vicinity of the study area are provided at Western Avenue, Normandie Avenue and Vermont Avenue.

US-101, 1.3 miles north of the Site, runs in the southeast-northwest direction, extending from downtown Los Angeles through Hollywood and the San Fernando Valley and beyond. In the vicinity of the study area, the Hollywood freeway provides four lanes in each direction plus auxiliary lanes. Ramps in the vicinity of the study area are provided at Western Avenue, Santa Monica Boulevard, Melrose Avenue, and Vermont Avenue.

East/West Street

3rd Street is designated as an Avenue II in the City of Los Angles' Mobility Plan 2035 and runs north of the Project Site with two travel lanes in each direction within the Project study area. Parking is permitted along portions of the roadway on both sides of the street. Left-turn pockets are present at major intersections. 3rd Street is part of the Bicycle Enhanced Network, the Moderate Transit Enhanced Network, and the Pedestrian Enhanced Districts in the Mobility Plan 2035.

6th Street is designated as an Avenue II that runs north of the Project Site with two travel lanes in each direction and with no on-street parking during peak hours. During non-peak hours, parking is permitted in the westbound direction leaving one travel lane in that direction and two eastbound travel lanes. Left-turn pockets are present at major intersections.

7th Street is designated as an Avenue II that runs along the southern edge of the Project Site with one travel lane in each direction. Parking is permitted on both sides of the street and left-turn pockets are present at major intersections. Portions of 7th Street are part of the

Neighborhood Enhanced Network and the Pedestrian Enhanced Districts in the Mobility Plan 2035.

8th Street is designated as an Avenue II that runs south of the Project Site with two travel lanes in each direction. Parking is generally permitted on both sides of the street and left-turn pockets are present at major intersections. A portion of 8th Street near the Project Site is part of the Neighborhood Enhanced Network and the Pedestrian Enhanced Districts.

Olympic Boulevard is designated as a Boulevard II that runs south of the Project Site with three travel lanes in each direction during peak hours and with two travel lanes in each direction during non-peak hours. Parking is permitted on both sides of the street only during non-peak hours. Leftturn pockets are present at major intersections. Olympic Boulevard is part of the Vehicle Enhanced Network and the Pedestrian Enhanced Districts.

Wilshire Boulevard is designated as an Avenue I that runs north of the Project Site with two travel lanes in each direction and turn pockets are major intersections. An additional travel lane in each direction provides dedicated right-of-way for bus only lanes during peak hours. Parking is permitted on both sides of the street during non-peak period times. Wilshire Boulevard is part of the Tier 2 Bicycle Lane Network, the Comprehensive Transit Enhanced Network, and the Pedestrian Enhanced Districts.

North/South Streets

Irolo Street is designated as an Avenue III that runs west of the Project Site, south of Wilshire Boulevard with one travel lane in each direction. Parking is permitted on both sides of the street. Irolo Street is part of the Pedestrian Enhanced Districts in the Mobility Plan 2035.

Mariposa Avenue is designated as a Local Street that runs east of the Project Site with one travel lane in each direction and parking permitted throughout the study area.

Normandie Avenue is designated as an Avenue III that runs west of the Project Site with two southbound travel lanes and one northbound travel lane during the AM peak period and one southbound travel lane and two northbound travel lanes during the PM peak period. Parking is prohibited along the east side of the street during the AM peak period and is prohibited along the west side of the street during the PM peak period. Left-turn pockets are present at major intersections. In the study area, Normandie Avenue is part of the Pedestrian Enhanced Districts north of Wilshire Boulevard and south of Irolo Street.

Vermont Avenue is designated as an Avenue I that runs east of the Project Site with two travel lanes in each direction. Parking is permitted on both sides of the street and left-turn pockets are present at major intersections. North of Wilshire Boulevard, Vermont Avenue widens to three travel lanes in each direction during peak hours and parking is only permitted during non-peak hours. In the study area, Vermont Avenue is part of the Comprehensive Transit Enhanced Network and the Pedestrian Enhanced Districts.

Western Avenue is designated as an Avenue II that runs west of the Project Site with two travel lanes in each direction. South of 6th street, parking is generally only permitted on one side of the street. North of 6th street, parking is permitted on both sides of the street. Left-turn pockets are present at major intersections. Western Avenue is part of the Moderate Plus Transit Enhanced Network and the Pedestrian Enhanced Districts.

Existing Traffic Volumes

Weekday AM and PM peak hour turning movement counts were collected at the study intersections on Tuesday April 17, 2018.

Level Of Service Methodology

A variety of standard methodologies are available to analyze level of service (LOS). According to Traffic Study Policies and Procedures (LADOT, August 2014), the analysis is required to use the Critical Movement Analysis (CMA) method of intersection capacity calculation (Transportation Research Board, 1980) to analyze signalized intersections in the City. The vehicle capacity (V/C) ratio is then used to find the corresponding LOS based on the definitions in **Table B.17-1**. Under the CMA methodology, a V/C ratio is generated for each study intersection based on factors such as the volume of traffic and the number of lanes providing for such vehicle movement and an LOS grade.

For the driveway analysis, the Highway Capacity Manual (HCM) (Transportation Research Board, 2010) methodology was used to analyze the delay. Under HCM methodology, delay is calculated in seconds and given an LOS grade, as shown in **Table B.17-2**.

The City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system is a computer–based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC operations to manage signal timing to improve traffic flow conditions. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic conditions. All of the study intersections located in the City are currently operating under the City's ATSAC system and ATCS control. ATSAC and ATCS provide improved operating conditions. Therefore, in accordance with City procedures, a credit of 0.07 V/C reduction was applied at each intersection where ATSAC is implemented and an additional 0.03 V/C reduction was applied at each intersection where ATCS is implemented.

Table B.17-1
Level of Service Definitions for Intersections

LOS	V/C Ratio	Operating Conditions
A	0.00 - 0.60	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	> 0.60 – 0.70	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.

Table B.17-1
Level of Service Definitions for Intersections

LOS	V/C Ratio	Operating Conditions
C	> 0.70 – 0.80	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	> 0.80 – 0.90	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	> 0.90 – 1.00	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.00	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.
Transportation Research Circular No. 212, Interim Materials on Highway Capacity, Transportation Research Board, 1980. Source: Table 2A, Transportation Impact Analysis, Fehr & Peers, September 2018.		

Table B.17-2
Level of Service Definition for Stop-Controlled Intersections

Level of Service	Average Control Delay (seconds/vehicle)
A	≤ 10.0
B	> 10.0 ≤ 15.0
C	> 15.0 ≤ 25.0
D	> 25.0 ≤ 35.0
E	> 35.0 ≤ 50.0
F	> 50.0
Highway Capacity Manual, Transportation Research Board, 2010 Source: Table 2B, Transportation Impact Analysis, Fehr & Peers, September 2018.	

Existing Levels Of Service

Existing year traffic volumes were analyzed in the study using the intersection capacity analysis methodology described above to determine the existing operating conditions at the study intersections. **Table B.17-3** summarizes the results of the analysis of the existing weekday morning and afternoon peak hour V/C ratio and corresponding LOS at each of the analyzed intersections. As indicated, all of the 14 signalized intersections analyzed for impacts operate at LOS D or better during both peak periods.

Table B.17-3
Existing Conditions Intersections Levels of Service

No.	Intersection	Peak	Existing (2018)

		Hour	V/C	LOS
1	Western Avenue and Wilshire Boulevard	AM PM	0.719 0.661	C B
2	Western Avenue and 8th Street	AM PM	0.660 0.619	B B
3	Normandie Avenue and 3rd Street	AM PM	0.627 0.587	B A
4	Normandie Avenue and 6th Street	AM PM	0.562 0.571	A A
5	Normandie Avenue and Wilshire Boulevard	AM PM	0.679 0.687	B B
6	Irolo Street and 7th Street	AM PM	0.521 0.583	A A
7	Irolo Street and 8th Street	AM PM	0.712 0.709	C C
8	Normandie Avenue and Olympic Boulevard	AM PM	0.696 0.715	B C
9	Mariposa Avenue and 6th Street	AM PM	0.483 0.517	A A
10	Mariposa Avenue (West) and Wilshire Boulevard	AM PM	0.545 0.525	A A
11	Mariposa Avenue (East) and Wilshire Boulevard	AM PM	0.511 0.467	A A
12	Mariposa Avenue and 8th Street	AM PM	0.403 0.450	A A
13	Vermont Avenue and Wilshire Boulevard	AM PM	0.833 0.757	D C
14	Vermont Avenue and 8th Street	AM PM	0.649 0.651	B B
Source: Table 3, Transportation Impact Analysis, Fehr & Peers, September 2018.				

Project Traffic

Project Trip Generation

Trip generation rates from Trip Generation, 10th Edition (Institute of Transportation Engineers [ITE], 2017) were used in the study to estimate the number of trips associated with the Project. The ITE 10th edition introduces and defines the geographic setting for four different settings/locations: Rural, General Urban/Suburban, Dense Multi-Use Urban, and City Core. In many instances, trip generation rates are provided for each land use by geographic setting. The Project is located in an area that meets the dense multi-use urban ITE definitions; therefore, the trip generation rates for dense multi-use urban were used in the study when available. However, for mid-rise and high-rise multifamily housing sites in dense multi-use urban and center city core

areas, empirical trip generation data from surveys conducted at properties located within the City of Los Angeles area are available as a secondary data source to the ITE trip rates. The local data reveals higher high-rise residential trip generation rates than the ITE 10th edition rates; therefore, the local data was used for the residential component of this project.

Furthermore, ITE rates for General Urban/Suburban were used in the study for the retail uses since data is not available for the Dense Multi-Use Urban geographic setting for retail uses. ITE daily rates for General Urban/Suburban were also used for daily trip generation for the residential uses since daily rate data is not available for the Dense Multi-Use Urban geographic setting for these uses.

While the ITE 10th edition data and local data account for geographic settings in urban environments, the data is based on single-use freestanding sites. These defining characteristics limit their applicability to mixed-use or multi-use development projects, such as the Project, which is in a high density walkable urban setting with frequent and nearby local and regional transit service. The land use mix, design features, and setting of the Project include characteristics that influence travel behavior differently from typical single-use developments. In order to estimate the Project's trip generation within the context of the mixed-use setting, a Main Street analysis was conducted in the study.

The Project trip generation accounts for the mix of uses provided in the Project, the dense urban setting in which it is located, and the level of transit service provided in the area. The Main Street methodology as applied in the study starts by estimating the trip generation based on trip generation rates from Trip Generation, 9th Edition (Institute of Transportation Engineers [ITE], 2017) and then estimates reductions to account for trip internalization and external non-automobile trips. The Main Street methodology estimates that the Project would generate about 32-44% percent fewer trips than the unadjusted ITE data. Informed adjustments were made to the ITE trip generation based on the Main Street analysis to account for the improved density and diversity of land uses, pedestrian and bicycle connectivity, and transit service in the future.

Internal trip credits can be defined as a reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. These are trips usually made via walking within the site. Reflective of the travel behavior characteristics of the land uses in the Wilshire corridor as well as the Main Street analysis, a 15% internal credit was incorporated in the trip generation analysis. Consistent with the City of Los Angeles' Transportation Impact Study Guidelines which state that developments above or adjacent to a Metro Rail, Metrolink, or Orange Line station, with convenient pedestrian access to the station may qualify for up to a 25% transit credit, the trip generation estimates incorporate a 25% transit credit. Per LADOT's Transportation Impact Study Guidelines, Attachment I Policy on Pass-By Trips, pass-by credits were applied to portions of the development. A 50% pass-by credit was applied to the retail uses. Pass-by credits account for the patrons making an intermediate stop on the way from an origin to a primary trip destination without a route diversion. These trips would be attracted from traffic passing the Project Site on Wilshire Boulevard and other nearby streets.

As shown in **Table B.17-4**, the Project would generate an estimated net increase of 2,348 daily trips, including 153 trips (30 inbound/123 outbound) during the AM peak hour and 202 trips (137 inbound/65 outbound) during the PM peak hour.

Table B.17-4
Trip Generation

Description	ITE Land Use	Rate	Daily Traffic	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates [a]									
Retail	820	1,000 sf	37.75	62%	38%	0.94	48%	52%	3.81
High-turnover sit down restaurant	932	1,000 sf	112.18	55%	45%	9.94	62%	38%	9.97
Fast casual restaurant	930	1,000 sf	315.17	67%	33%	2.07	55%	45%	14.13
Multi-family High-Rise	222	DU	4.45	12%	88%	0.23	70%	30%	0.3
Proposed Project									
Retail	820	5,538 sf	209	3	2	5	10	11	21
Less Internal Capture [b]		15%	(31)	(0)	(0)	(0)	(2)	(2)	(4)
Less Transit Credit [c]		25%	(45)	(1)	(1)	(2)	(2)	(2)	(4)
Less Pass-by [d]		50%	(66)	(1)	(0)	(1)	(3)	(3)	(6)
Net External			67	1	1	2	3	4	7
High-turnover Restaurant	932	4,600 sf	516	25	21	46	28	17	45
Less Internal Capture [b]		15%	(77)	(4)	(3)	(7)	(4)	(3)	(7)
Less Transit Credit [c]		25%	(110)	(5)	(5)	(10)	(6)	(4)	(10)
Less Pass-by [d]		20%	(65)	(3)	(2)	(5)	(3)	(2)	(5)
Net External			264	13	11	24	15	8	23
Fast Casual Restaurant	930	2,000 sf	630	3	1	4	15	13	28
Less Internal Capture [b]		15%	(95)	(0)	(0)	(0)	(2)	(2)	(4)
Less Transit Credit [c]		25%	(134)	(1)	(0)	(1)	(3)	(3)	(6)
Less Pass-by [d]		50%	(200)	(1)	(0)	(1)	(5)	(4)	(9)
Net External			201	1	1	2	5	4	9
Multi-family High-Rise [e]	222	640 du	2,848	18	129	147	134	58	192
Less Internal Capture [b]		15%	(427)	(3)	(19)	(22)	(20)	(9)	(29)
Less Transit Credit [f]		25%	(605)		[f]			[f]	
Net External			1,816	15	110	125	114	49	163
Total Driveway Trips			**2,679**	**35**	**125**	**160**	**148**	**74**	**222**
Net Incremental External Trips			**2.348**	**30**	**123**	**153**	**137**	**65**	**202**

Notes:
[a] Source: Institute of Transportation Engineers (ITE), Trip Generation, 10th Edition, 2017
[b] Internal capture represents the percentage of trips between land uses that occur within the Project Site. Main Street model calibration of base ITE rates reflecting Project and Project Site specific characteristics.
[c] The transit credit is based on LADOT's Traffic Study Policies and Procedures, December 2016. The guidelines state that up to 25% transit credit may be taken for projects adjacent to a transit station or Rapid Bus stop.
[d] The pass-by credit is based on Attachment I of LADOT's Traffic Study Policies and Procedures, December 2016.

[e] Local high-rise residential data collected for LADOT was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.
[f] The local high-rise residential data for the peak hours was collected in locations with access to transit; therefore, a transit credit was not applied during the peak hours. As local data was not available for daily trips, the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.
Source: Table 3, Technical Addendum to Transportation Impact Analysis, Fehr & Peers, August 2019.

Project Traffic Distribution

The geographic distribution of trips generated by the Project is dependent on characteristics of the street system serving the Project Site; the level of accessibility of routes to and from the Project Site; locations of employment and commercial centers to which residents of the Project would be drawn; and residential areas from which the office employees and other commercial visitors would be drawn. A select zone analysis was conducted for the proposed uses using the City of Los Angeles' Travel Demand Model to inform the general distribution pattern for the study. The distribution of Project trips is illustrated in Figure 5 (in Appendix K-1).

Project Traffic Assignment

The traffic to be generated by the Project was assigned to the street network using the distribution pattern described in Figure 5 (in Appendix K-1). The assignment of traffic volumes took into consideration the locations of the Project driveways on Mariposa Avenue, Irolo Street, and 7th Street.

Existing Plus Project Traffic Conditions

The Project traffic estimated and assigned to the study intersections was added to the existing traffic volumes to estimate existing plus Project traffic volumes.

Future Year 2026 Traffic Conditions

To evaluate the potential impacts of the Project on future conditions, estimates of future traffic conditions in the area both without and with Project traffic were developed. First, estimates of traffic growth were developed for the study area to forecast future conditions without the Project. These forecasts included traffic increases as a result of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the Project (Related Projects). These Projected-traffic volumes, identified herein as the Future Base conditions, represent the future conditions without the Project. The traffic generated by the Project was then estimated and assigned to the surrounding street system. Project traffic was added to the Future Base conditions to form Future plus Project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the Project itself.

Background Or Ambient Growth

Based on historic trends and at the direction of LADOT, it was established that an ambient growth factor of 1% per year should be applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development by year 2026. This adjustment was applied to the existing (year 2018) traffic volume data to reflect the effect of ambient growth by the year 2026.

Related Project Traffic Generation And Assignment

Future Base traffic forecasts include the effects of known specific projects, called Related Projects, expected to be implemented in the vicinity of the Project Site prior to the buildout date of the Project. The list of Related Projects was prepared based on data from LADOT. A total of 134 Related Projects were identified in the study area; these projects are listed in Table 5 and illustrated in Figure 6 (both in Appendix K-1).

Transportation Infrastructure Projects

The Metro Purple Line subway is currently undergoing an extension from the Wilshire/Western station to Westwood/UCLA. Construction for the first section of the project began in 2015 and is anticipated to be completed in 2023. The second section of the project, began in 2018 and is anticipated to be completed in 2025. The full project includes additional stations at Westwood/UCLA and Westwood/Veterans Affairs Hospital. There are no other infrastructure changes in the study area planned for implementation by year 2026 as confirmed by City staff. Therefore, network changes were not included in the analysis.

Future Year 2026 Base Traffic Volumes

Future Plus Project Traffic Projections

The Project traffic volumes were added to the year 2026 Future Base traffic projections, resulting in Future (year 2026) plus Project AM and PM peak hour traffic volumes. The Future (year 2026) plus Project scenario presents future traffic conditions with the completion of the Project.

Intersection Traffic Impact Analysis

The traffic impact analysis evaluates the projected LOS at each study intersection under the Existing plus Project and Future (year 2026) plus Project conditions to estimate the incremental increase in the V/C ratio caused by the Project. This provides the information needed to assess the potential impact of the Project using significance criteria established by LADOT.

Criteria For Determination Of Significant Traffic Impact

The City has established threshold criteria to determine significant traffic impact of a proposed project in its jurisdiction. Under the LADOT guidelines, an intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.04 for intersections operating

at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. **Table B.17-5** summarizes the impact criteria.

Table B.17-5
Significant Impact Criteria, City of Los Angeles

Intersection Conditions with Project Traffic		Significant Impact Threshold for Project-related Increase in V/C Ratio
LOS	V/C	
C	> 0.700 – 0.800	Equal to or greater than 0.040
D	>0.800 – 0.900	Equal to or greater than 0.020
E and F	> 0.901	Equal to or greater than 0.010
Source: City of Los Angeles. Table by CAJA Environmental Services, August 2018.		

Existing Plus Project Impact Analysis

The Existing plus Project traffic volumes were analyzed to determine the projected V/C ratios and LOS for each of the analyzed intersections under this scenario. **Table B.17-6** summarizes the Existing plus Project LOS. All 14 signalized intersections are projected to operate at LOS D or better during both peak hours. **After applying the aforementioned significant impact criteria, it is determined that the Project would not result in significant impacts under Existing plus Project conditions at any of the study intersections.**

Table B.17-6
Existing + Project Intersection Levels of Service and Impact Analysis

No.	Intersection	Peak Hour	Existing		Existing + Project			Significant Impact
			V/C	LOS	V/C	LOS	V/C Increase	
1	Western Avenue and Wilshire Boulevard	AM	0.719	C	0.723	C	0.004	No
		PM	0.661	B	0.665	B	0.004	No
2	Western Avenue and 8th Street	AM	0.660	B	0.661	B	0.001	No
		PM	0.619	B	0.621	B	0.002	No
3	Normandie Avenue and 3rd Street	AM	0.627	B	0.628	B	0.001	No
		PM	0.587	A	0.588	A	0.001	No
4	Normandie Avenue and 6th Street	AM	0.562	A	0.563	A	0.001	No
		PM	0.571	A	0.573	A	0.002	No
5	Normandie Avenue and Wilshire Boulevard	AM	0.679	B	0.681	B	0.002	No
		PM	0.687	B	0.699	B	0.012	No
6	Irolo Street and 7th Street	AM	0.521	A	0.532	A	0.011	No
		PM	0.583	A	0.601	A	0.018	No
7	Irolo Street and 8th Street	AM	0.712	C	0.716	C	0.004	No
		PM	0.709	C	0.714	C	0.005	No

8	Normandie Avenue and Olympic Boulevard	AM	0.696	B	0.697	B	0.001	No
		PM	0.715	C	0.717	C	0.002	No
9	Mariposa Avenue and 6th Street	AM	0.483	A	0.489	A	0.006	No
		PM	0.517	A	0.523	A	0.006	No
10	Mariposa Avenue (West) and Wilshire Boulevard	AM	0.545	A	0.553	A	0.008	No
		PM	0.525	A	0.538	A	0.013	No
11	Mariposa Avenue (East) and Wilshire Boulevard	AM	0.511	A	0.532	A	0.021	No
		PM	0.467	A	0.499	A	0.032	No
12	Mariposa Avenue and 8th Street	AM	0.403	A	0.417	A	0.014	No
		PM	0.450	A	0.483	A	0.033	No
13	Vermont Avenue and Wilshire Boulevard	AM	0.833	D	0.840	D	0.007	No
		PM	0.757	C	0.760	C	0.003	No
14	Vermont Avenue and 8th Street	AM	0.649	B	0.651	B	0.002	No
		PM	0.651	B	0.657	B	0.006	No
Source: Table 4, Technical Addendum to Transportation Impact Analysis, Fehr & Peers, August 2019.								

Future Plus Project Impact Analysis

Future Base Traffic Conditions

The year 2026 Future Base peak hour traffic volumes were analyzed to determine the projected V/C ratio and LOS for each of the analyzed intersections. **Table B.17-7** summarizes the future LOS. 7 of the 14 signalized intersections analyzed for impacts are projected to operate at LOS D or better during the morning and afternoon peak hours under Future Base conditions. The following 7 intersections are projected to operate at LOS E or worse during one or both of the peak hours under Future Base conditions:

1. Western Avenue & Wilshire Boulevard (LOS E during AM and PM)

2. Western Avenue & 8th Street (LOS E during AM and LOS F during PM)

5. Normandie Avenue & Wilshire Boulevard (LOS F during AM and PM)

7. Irolo Street & 8th Street (LOS F during AM and PM)

8. Normandie Avenue & Olympic Boulevard (LOS E during AM and LOS F during PM)

13. Vermont Avenue & Wilshire Boulevard (LOS F during AM and PM)

14. Vermont Avenue & 8th Street (LOS E during AM and LOS F during PM)

Future Plus Project Traffic Conditions

The resulting Future plus Project peak hour traffic volumes were analyzed to determine the projected future operating conditions with the addition of the Project traffic. The results of the Future plus Project analysis are also presented in **Table B.17-7**. 7 of the 14 signalized intersections analyzed for impacts are projected to operate at LOS D or better during the morning and afternoon peak hours under Future (plus Project conditions. The following 7 intersections are projected to operate at LOS E or worse during one or both of the peak hours under Future (year 2026) plus Project conditions:

1. Western Avenue & Wilshire Boulevard (LOS E during AM and PM)

2. Western Avenue & 8th Street (LOS E during AM and LOS F during PM)

5. Normandie Avenue & Wilshire Boulevard (LOS F during AM and PM)

7. Irolo Street & 8th Street (LOS F during AM and PM)

8. Normandie Avenue & Olympic Boulevard (LOS E during AM and LOS F during PM)

13. Vermont Avenue & Wilshire Boulevard (LOS F during AM and PM)

14. Vermont Avenue & 8th Street (LOS E during AM and LOS F during PM)

As shown in Table B.17-7, using the criteria for determination of significant impacts, it is determined that the Project would not result in significant impacts under Future (year 2026) plus Project conditions.

Table B.17-7
Future + Project Intersection Levels of Service and Impact Analysis

No.	Intersection	Peak Hour	Future		Future + Project			Significant Impact
			V/C	LOS	V/C	LOS	V/C Increase	
1	Western Avenue and Wilshire Boulevard	AM	0.972	E	0.976	E	0.004	No
		PM	0.940	E	0.944	E	0.004	No
2	Western Avenue and 8th Street	AM	0.920	E	0.921	E	0.001	No
		PM	1.009	F	1.013	F	0.004	No
3	Normandie Avenue and 3rd Street	AM	0.828	D	0.828	D	0.000	No
		PM	0.864	D	0.866	D	0.002	No
4	Normandie Avenue and 6th Street	AM	0.789	C	0.789	C	0.000	No
		PM	0.755	C	0.756	C	0.001	No
5	Normandie Avenue and Wilshire Boulevard	AM	1.037	F	1.040	F	0.003	No
		PM	1.058	F	1.063	F	0.005	No
6	Irolo Street and 7th Street	AM	0.657	B	0.668	B	0.011	No
		PM	0.809	D	0.827	D	0.018	No
7	Irolo Street and 8th Street	AM	1.189	F	1.196	F	0.007	No
		PM	1.279	F	1.285	F	0.006	No
8	Normandie Avenue and	AM	0.962	E	0.965	E	0.003	No

	Olympic Boulevard	PM	1.046	F	1.049	F	0.003	No
9	Mariposa Avenue and 6th Street	AM	0.569	A	0.575	A	0.006	No
		PM	0.619	B	0.626	B	0.007	No
10	Mariposa Avenue (West) and Wilshire Boulevard	AM	0.690	B	0.698	B	0.008	No
		PM	0.701	C	0.714	C	0.013	No
11	Mariposa Avenue (East) and Wilshire Boulevard	AM	0.657	B	0.678	B	0.021	No
		PM	0.635	B	0.667	B	0.032	No
12	Mariposa Avenue and 8th Street	AM	0.574	A	0.587	A	0.013	No
		PM	0.661	B	0.699	B	0.038	No
13	Vermont Avenue and Wilshire Boulevard	AM	1.159	F	1.165	F	0.006	No
		PM	1.161	F	1.169	F	0.008	No
14	Vermont Avenue and 8th Street	AM	0.985	E	0.989	E	0.004	No
		PM	1.046	F	1.048	F	0.002	No
Source: Table 5, Technical Addendum to Transportation Impact Analysis, Fehr & Peers, August 2019.								

Unsignalized Intersection Signal Warrant Analysis

One intersection near the Project Site is currently unsignalized, Mariposa Avenue & 7th Street. The City of Los Angeles traffic analysis methodology and significance criteria are for signalized intersections only. The City does not provide impact thresholds for unsignalized intersections. Rather, the LADOT Transportation Impact Study Guidelines states that "unsignalized intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device." Traffic volumes and lane configurations were used to prepare the signal warrant analysis at the Mariposa Avenue & 7th Street unsignalized intersection under Existing, Existing plus Project, Future Base, and Future plus Project conditions. As shown in **B.17-8**, the intersection met the signal warrant thresholds during the PM peak hour under all analysis scenarios, except existing conditions. During the AM peak hour, the intersection met the signal warrant for Future plus Project conditions.

Table B.17-8
Peak Hour Signal Warrant Analysis

No.	Intersection	Peak Hour	Signal Warrant Met?			
			Existing	Existing + Project	Future	Future + Project
A	Mariposa and 7th	AM	No	No	No	Yes
		PM	No	Yes	Yes	Yes
Source: Table 8, Transportation Impact Analysis, Fehr & Peers, September 2018.						

Neighborhood Traffic Impact Analysis

The analysis was conducted on two residential street segments to the south of 7th Street and the Project Site on Normandie Avenue and Mariposa Avenue. These streets were selected in

conjunction with the LADOT, as they were determined to have a greater likelihood of neighborhood cut-through traffic from the Project. The significance of potential impacts was assessed using criteria established by the City. 24-hour machine counts were conducted on the two analyzed street segments in April 2018. Future daily traffic volumes were projected in a manner similar to the peak hour analysis of the study intersections, including both ambient growth at 1% per year as well as anticipated traffic from the Related Projects that could be constructed by 2026. The net new Project trips were assigned to the street network based on the Project trip distribution pattern and were added to the Future Base projection to obtain Future plus Project projections.

Under the City guidelines, a project impact on a local residential street would be considered significant if the new commercial trips generated by the project result in increases in average daily traffic (ADT) volumes as follows:

Table B.17-9
City of Los Angeles Guidelines

Projected ADT with Project (Final ADT)	**Project-Related Increase in ADT**
0 to 999	120 or more
1,000 to 1,999	12% or more of final ADT
2,000 to 2,999	10% or more of final ADT
3,000 or more	8% or more of final ADT
Transportation Impact Analysis, Fehr & Peers, September 2018.	

Daily traffic volumes for the existing and projected future conditions are summarized in **Table B.17-10 and Table B.17-11**. As shown, the Project would not result in a significant impact at any of the study neighborhood street segments.

Table B.17-10
Neighborhood Street Impact Analysis – Existing Plus Project Analysis

Street Segment	**Weekday Two-Way Daily**	**With Project Impact Analysis**				
	Existing Base	**Commercial Project Only**	**Existing + Project**	**Project % Increase**	**Impact Criteria [a]**	**Significant Impact?**
Mariposa Ave south of 7th Street	5,531	182	5,713	3.2%	8%	No
Normandie Ave south of 7th Street	4,164	24	4,188	0.6%	8%	No
Notes: [a] Uses City of Los Angeles impact criteria for residential street segments. Source: Table 7, Technical Addendum to Transportation Impact Analysis, Fehr & Peers, August 2019.						

Table B.17-11
Neighborhood Street Impact Analysis – Cumulative Plus Project Analysis

Street Segment	Weekday Two-Way Daily		With Project Impact Analysis				
	Existing Base	Cumulative Base	Commercial Project Only	Cumulative + Project	Project % Increase	Impact Criteria [a]	Significant Impact?
Mariposa Ave south of 7th Street	5,531	6,271	182	6,453	2.8%	8%	No
Normandie Ave south of 7th Street	4,164	4,509	24	4,509	0.5%	8%	No

Notes:
[a] Uses City of Los Angeles impact criteria for residential street segments.
Source: Table 8, Technical Addendum to Transportation Impact Analysis, Fehr & Peers, August 2019.

Construction Impact

LADOT generally considers construction-related traffic to cause adverse but not significant impacts because, while sometimes inconvenient, construction-related traffic effects are temporary. LADOT requires implementation of worksite traffic control plans to ensure that any construction-related effects are minimized to the greatest extent possible. The LA CEQA Thresholds Guide provides four categories to be considered in regards to in-street construction impacts: temporary traffic impacts, temporary loss of access, temporary loss of bus stops or rerouting of bus lines, and temporary loss of on-street parking (LA CEQA Threshold Guide, pages L.8-2 through L.8-4).

The LA CEQA Thresholds Guide provides four categories to be considered in regards to in-street construction impacts. The factors to be considered in each of these categories, and the assessment of the Project against these factors, is presented in **Table B.17-12**.

It should be noted, however, that SB 743 as implemented in California Public Resources Code Section 21099 provides that parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. This guidance supersedes the significance guidance in the LA CEQA Threshold Guide. The LAMC provides that construction activities are limited to the hours from 7:00 AM to 9:00 PM on weekdays and from 8:00 AM to 6:00 PM on Saturdays and holidays. No construction is permitted on Sundays.

Table B.17-12
Construction Impact Significance Factors

Significance Factor	Assessment	Conclusion
Temporary Traffic Impacts:		
The length of time of temporary street closures or closures of two or more traffic lanes;	Temporary street closures or closures of two or more traffic lanes are not anticipated.	Less than significant

The classification of the street (major arterial, state highway) affected;	The streets affected by any temporary lane or sidewalk closures (Mariposa Avenue and 7th Street) local street and Avenue II, respectively.	
The existing traffic levels and LOS on the affected street segments and intersections;	The Mariposa/Wilshire and Irolo/7th intersections currently operates at LOS A during both peak periods. Mariposa/Wilshire operates at LOS A during both peak periods under Project with Future conditions. Irolo/7th operates at LOS B (AM) and LOS D (PM) under Project with Future conditions.	
Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;	None of the affected streets directly lead to a freeway on-or off-ramp or other state highways.	
Potential safety issues involved with street or lane closures;	Worksite traffic control plans would be prepared for any temporary lane closures in accordance with applicable City and Manual on Uniform Traffic Control Devices (MUTCD) guidelines.	
The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.	There are no emergency services located within the immediate vicinity of the affected streets.	
Temporary Loss of Access:		
The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area;	Blockage of existing vehicle or pedestrian access to parcels fronting the construction area is not anticipated. A plan will be implemented to protect pedestrians (per **TRAN-PDF-1** and **TRAN-MM-2**. Access to the office building and parking structure will remain throughout construction.	Less than significant
The availability of alternative vehicular or pedestrian access within ¼ mile of the lost access;		
The type of land uses affected, and related safety, convenience, and/or economic issues.		
Temporary Loss of Bus Stops or Rerouting of Bus Lines:		
The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;	There are no bus stops along the Mariposa Avenue and 7th Street. There is a bus stop on Irolo, just south of Wilshire. There is one bus lane on the south side of Wilshire Boulevard, with a bus stop located along the Project frontage but as lane closures are not anticipated along Irolo and Wilshire Boulevard, Project construction would not require blockage of the bus lane.	Less than significant
The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated;		
The existence of other bus stops or routes with similar routes/ destinations within ¼ mile radius of the affected stops or routes;		
Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).		
Temporary Loss of On-Street Parking:		
The current utilization of existing on-street parking;	The Project could require temporary removal of on-street parking spaces along the Project	Less than significant in

The availability of alternative parking locations or public transit options (e.g. bus, train) within ¼ mile of the project site;	frontages on Mariposa Avenue and 7th Street to accommodate temporary truck staging or travel lanes. This requires the temporary removal of 28 well utilized, two-hour, metered parking spaces for 24 months. Thee is available street parking along Irolo and 7th Street, west of Irolo. Public transit options are available within 1/4 mile of the Project site, including: Metro Purple Line Wilshire/Normandie Station and rapid and local bus routes on 6th Street, 8th Street, 9th Street, and Wilshire.	accordance with SB 743/Public Resources Code Section 21099.
The length of time that existing parking spaces would be unavailable.		
Note: SB 743 as implemented in California PRC Section 21099 provides that parking impacts of a residential, mixed- use residential, or employment center project on an infill site within a transit priority area (TPA) shall not be considered significant impacts on the environment. This guidance supersedes significance guidance in LA CEQA Threshold Guide. As previously discussed, the Project qualifies as an infill site in a TPA. Source: Table 12, Transportation Impact Analysis, Fehr & Peers, September 2018.		

Temporary Traffic Impacts

Full-time closures to the sidewalk and parking lane are anticipated for the Project along Mariposa Avenue and 7th Street. Mariposa Avenue is classified as a local street and 7th Street is classified as an Avenue II. In addition, there are no emergency services located within the immediate vicinity of the affected streets. **The closures during construction would be for the parking lane; therefore, the temporary construction impacts on the roadway network would be less than significant.**

The sidewalks along Mariposa Avenue and 7th Street fronting the Project construction will be closed for the duration of the Project construction. Sidewalk and lane closures are not anticipated along Wilshire Boulevard. The sidewalk on the east side of Mariposa Avenue and south side of 7th Street will be open and pedestrians are anticipated to use this as a detour throughout construction. **As such, the temporary impacts to pedestrians during construction would be less than significant.**

The intersection of Mariposa Avenue (South) & Wilshire Boulevard operates at LOS A during both peak hours under existing conditions, and would operate at LOS A during the both peak hours under Future with Project conditions. The intersection of Irolo Street & 7th Street operates at LOS A during both peak hours under existing conditions, and would operate at LOS B in the AM peak hour and LOS D during the PM peak hour under Future with Project conditions.

Worksite traffic control plans would be prepared for any temporary vehicle lane, bicycle lane, or sidewalk closures in accordance with applicable City and MUTCD guidelines. **As such, the temporary impacts during construction would be less than significant.**

Temporary Loss Of Access

The existing office building located directly north of the construction site will remain open throughout construction. In addition, the 7th Street parking garage (accessed on 7th Street) will remain open during construction as well providing parking for both the office building tenants and the construction workers. Pedestrian and vehicular access to properties located to the east and west of the Project Site will be open and unobstructed for the duration of construction. **Since the Project construction would not block any vehicle or pedestrian access to other parcels fronting the construction area, impacts would be less than significant.**

Temporary Loss Of Bus Stops Or Rerouting Of Bus Lines

Bus stops are not located along Mariposa Avenue or 7th Street where the parking lane closures would occur. A bus only lane is located on the south side of Wilshire Boulevard adjacent to the Project Site and a bus stop is present directly east of Irolo Street, but construction will not affect bus operations as there are no sidewalk or lane closures anticipated on Wilshire Boulevard along the Project frontage. **Therefore, the Project construction would not require relocation of bus stops and the construction impacts on transit operations would be less than significant.**

Temporary Loss Of On-Street Parking

Construction would require temporary removal of well utilized on-street parking spaces along the Project frontages of Mariposa Avenue, from Wilshire Boulevard to 7th Street, and 7th Street, from Irolo Street to Mariposa Avenue, to accommodate the construction area footprint and/or temporary truck staging. This would require the temporary removal of 12 two-hour metered parking spaces along Mariposa Avenue and 16 two-hour metered parking spaces along 7th Street for 24 months. Pursuant the provisions in the California Public Resources Code Section 21099, which implements SB 743, parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. **Therefore, since the Project is an infill project in a transit priority area, temporary parking impacts would be less than significant.**

Construction Period Trip Generation

A construction period trip generation analysis was conducted for each phase of construction to estimate daily, morning and evening peak hour passenger car equivalent (PCE) trips. Construction workers often travel to and from a worksite outside of the typical peak commute hours. For the purpose of the analysis, it was assumed that up to 40% of the construction workers will arrive during the peak morning commute hour and 40% will depart during the peak evening commute hour. For the purposes of the trip generation analysis, the hauling hours were assumed to occur from 7:00 AM to 5:00 PM, a 10-hour period, which would create the highest number of haul trips in the peak hours. The delivery/equipment trucks are anticipated to arrive and depart between 7:00 AM and 5:00 PM, a 10-hour period. A PCE factor of 2.5 was assumed for haul trucks assuming the use of double-belly trailer trucks and a PCE factor of 2.0 was used for delivery trucks.

Table B.17-13 shows a summary of construction period trip generation under each phase of construction. As shown, on a peak construction activity day, a total of up to 196 daily PCE trips are estimated to occur under demolition, of which 24 PCE trips would occur during each of the morning and evening peak hours. Grading is estimated to generate a total of 331 daily PCE trips on a day with peak construction activity, of which 38 PCE trips are estimated to occur during each of the morning and evening peak hours. Construction is estimated to generate a total of 485 daily PCE trips on a day with peak construction activity, of which 88 PCE trips are estimated to occur during each of the morning and evening peak hours. Architectural coatings is estimated to generate a total of 170 daily PCE trips on a day with peak construction activity, of which 18 PCE trips are estimated to occur during each of the morning and evening peak hours.

At any given time, the peak construction activity is estimated to generate fewer daily and peak hour trips than are projected for the Project once it is completed and occupied (2,040 daily trips, 131 AM peak hour trips, and 186 PM peak hour trips). Although significant construction impacts are not anticipated, the influx of this material and equipment could create less than significant impacts on the adjacent roadway network based on the following considerations:

- There may be intermittent periods when large numbers of material deliveries are required, such as when concrete trucks will be needed for the parking garage and the buildings.
- Some of the materials and equipment could require the use of large trucks (18-wheelers), which could create additional congestion on the adjacent roadways.
- Delivery vehicles may need to park temporarily on adjacent roadways such as Sunset Place and Hoover Street as they deliver their items. Based on past experience, it is not uncommon for these types of deliveries to result in temporary lane closures.

Table B.17-13
Construction Period Trip Generation

Phase	Daily PCE Trips [1]	AM Peak			PM Peak		
		In	Out	Total	In	Out	Total
Demolition and Site Preparation							
Construction Worker trips [2]	30	6	0	6	0	6	6
Haul Truck Trips [3]	150	8	8	16	8	8	16
Delivery/Equipment Truck Trips [3]	16	1	1	2	1	1	2
Total	**196**	**15**	**9**	**24**	**9**	**15**	**24**
Grading							
Construction Worker trips [2]	40	8	0	8	0	8	8
Haul Truck Trips [3]	275	14	14	28	14	14	28
Delivery/Equipment Truck Trips [3]	16	1	1	2	1	1	2
Total	**331**	**23**	**15**	**38**	**15**	**23**	**38**
Construction							
Construction Worker trips [2]	400	80	0	80	0	80	80

Haul Truck Trips [3]	5	0	0	0	0	0	0
Delivery/Equipment Truck Trips [3]	80	4	4	8	4	4	8
Total	**485**	**84**	**4**	**88**	**4**	**84**	**88**
Architectural Coating							
Construction Worker trips [2]	10	2	0	2	0	2	2
Haul Truck Trips [3]	0	0	0	0	0	0	0
Delivery/Equipment Truck Trips [3]	160	8	8	16	8	8	16
Total	**170**	**10**	**8**	**18**	**8**	**10**	**18**

PCE - Passenger car equivalent
Notes:
[1] - Daily trips were calculated by counting two trips, one inbound and one outbound trip for each vehicle
[2] - Up to 40% of the construction workers were assumed to arrive during the morning peak hour of adjacent street traffic. A total of up to 40% worker were assumed to depart during the evening peak hour.
[3] - Daily haul, delivery/equipment, and trash truck trips were assumed to occur evenly throughout an 11-hour construction day. Therefore, the daily truck trips were divided by 11 hours to calculate morning and evening peak hour truck trips.
Source: Table 13, Transportation Impact Analysis, Fehr & Peers, September 2018.

Construction Project Design Features

As shown in **Table B.17-13**, impacts related to construction traffic were found to be less than significant. In addition, the peak construction activity will generate fewer daily and peak hour trips than are projected for the Project once it is completed and occupied. While mitigation measures are not required to mitigate less-than-significant impacts, to be conservative a Construction Management Plan and Construction Worker Parking Plan should be implemented (see **TRAN-PDF-1**).

Project Design Feature

TRAN-PDF-1 A Construction Traffic Management Plan will be developed by the contractor and approved by the City of Los Angeles to alleviate construction period impacts, which may include but is not limited to the following measures:

- Provide off-site truck staging in a legal area furnished by the construction truck contractor. Anticipated truck access to the project site will be off Mariposa Avenue and 7th Street.

- Schedule deliveries and pick-ups of construction materials during non-peak travel periods to the extent possible and coordinate to reduce the potential of trucks waiting to load or unload for protracted periods.

- As parking lane and/or sidewalk closures are anticipated along 7th Street, worksite traffic control plan(s), approved by the City of Los Angeles, should be implemented to route vehicular traffic, bicyclists, and pedestrians around any such closures.

- Establish requirements for loading/unloading and storage of materials on the project site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses and residences.

- Ensure that access will remain unobstructed for land uses in proximity to the project site during project construction.

- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses and residences.

A Construction Worker Parking Plan will also be developed by the contractor and approved by the City of Los Angeles to ensure that the parking location requirements for construction workers will be strictly enforced. These could include but are not limited to the following measures:

- During construction activities when construction worker parking cannot be accommodated on the project site, the plan shall identify alternate parking location(s) for construction workers and the method of transportation to and from the project site (if beyond walking distance) for approval by the City 30 days prior to commencement of construction.

- Provide all construction contractors with written information on where their workers and their subcontractors are permitted to park, and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets.

Conclusion

The LOS analysis for the Existing plus Project and Future plus Project determined that the Project would not result in significant impacts at study area intersections.

Existing Public Transit Service

The Project Site is served by a high level of public transit. Figure 3 of Appendix K-1 shows the various metro bus routes, rapid bus routes, and Metro Rail lines providing service in the study area. The Project is located adjacent to the Metro Purple Line Wilshire/Normandie Station. Eight local Metro (Route 16/17, 18, 20, 28, 66, 204, 206, 207), four Metro Rapid (Route 720, 728, 754, 757), two DASH (Wilshire Center/Koreatown and Hollywood/Wilshire), one Foothill Transit (Route 481), and one Commuter Express (Route 534) bus routes provide service within 1/2 mile of the Project Site along Wilshire Boulevard. In addition, Wilshire Boulevard has east-west dedicated bus lanes.

Existing Bicycle And Pedestrian Facilities

Figure 4 of Appendix K-1 shows citywide designated bicycle facilities in the Project area. Wilshire Boulevard has peak hour bus lanes with bicycles permitted. S. Oxford Avenue contains a bike lane that extends from W. 3rd Street northwards. W. 7th Street contains a bike lane from S. Catalina Street eastwards.

The Mobility Plan 2035 identifies corridors proposed to receive improved bicycle, pedestrian and vehicle infrastructure improvements. Tier 1 Protected Bicycle Lanes are bicycle facilities that are separated from vehicular traffic. Tier 2 and Tier 3 Bicycle Lanes are facilities on roadways with striped separation. Tier 2 Bicycle Lanes are those which are more likely to be built by 2035. The Neighborhood Enhanced Network is the network of locally-serving streets planned to contain traffic-calming measures that close the gaps between streets containing bicycle facilities. Within the study area, W. 7th Street east of S. New Hampshire Avenue is a planned Tier 1 Protected Bicycle Lane. Wilshire Boulevard contains a planned Tier 2 Bicycle Lane, and Vermont Avenue contains a planned Tier 3 Bicycle Lane. Several streets within the study area are included within the planned Neighborhood Enhanced Network, including W. 9th Street/James Wood Boulevard, W. 4th Street and S. Harvard Boulevard.

The study area generally has a mature network of pedestrian facilities including sidewalks, crosswalks and pedestrian safety features. Approximately 8- to 18-foot sidewalks are provided throughout the study area.

The Project will include bicycle parking and will activate the sidewalks around the Site with commercial uses. The Project will not conflict with public transit, bicycles, or pedestrian facilities. **Therefore, a less than significant impact will occur.**

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)[274]

Less Than Significant Impact.

A significant impact may occur if the adopted Los Angeles County Metropolitan Transportation Authority (Metro) thresholds for a significant project impact would be exceeded. The Congestion Management program (CMP) was adopted to regulate and monitor regional traffic growth and

[274] Checklist Question XVI.b was revised to address consistency with CEQA Guidelines Section 15064.3, subdivision (b), which relates to use of vehicle miles traveled (VMT) as the methodology for evaluating traffic impacts. While Appendix G was revised to incorporate Section 15064.3, Section 15064.3 does not become applicable statewide until July 1, 2020. Until that time, pursuant to Section 15064.3(c), agencies are not required to use VMT as the basis for evaluation of traffic impacts and also may elect to use Section 15064.3 immediately. The City adopted a VMT methodology on July 30, 2019. During this transition, projects that already have a signed memorandum of understanding (MOU) with LADOT and have filed an application with DCP may continue analyzing transportation impacts with level of service (LOS), as long as the project will be adopted and through any appeal period prior to the State deadline of July 1, 2020. Thus, at this time, traffic analyses within the City of Los Angeles continue to be based on LADOT's adopted methodology under its Transportation Impact Study Guidelines, which requires use of LOS to evaluate traffic impacts of a Project (consistent with Checklist Question XVII.b of the CEQA Guidelines prior to the latest update).

transportation improvement programs. The CMP designates a transportation network that includes all state highways and some arterials within the County of Los Angeles.

Arterial Monitoring Stations

The CMP arterial monitoring station closest to the Project Site is at Western Avenue & Wilshire Boulevard located west of the Project Site. Based on the Project trip distribution and trip generation, the Project is expected to add approximately 15 trips in the AM peak hour and 20 trips in the PM peak hour through the CMP arterial monitoring station. The Project is not expected to add enough new traffic to exceed the arterial analysis threshold criteria of 50 vehicle trips at the above-mentioned location. Therefore, no further CMP arterial analysis is required.

Freeway Analysis

Regional access to the Project Site is provided by the US-101 Freeway located approximately 1.6 miles north of the Project Site and the I-10 Freeway located approximately 1.7 miles to the south of the Project Site, respectively.

The CMP freeway monitoring stations closest to the Project Site includes the US-101 Freeway at Normandie Avenue and the I-10 Freeway at Budlong Avenue Based on the Project distribution patterns, approximately 7.5% of Project traffic is expected to travel through the US-101 freeway monitoring station at Normandie Avenue. According to the trip generation estimates, the Project is projected to result in an increase of 11 trips in the morning and 15 trips in the evening peak hour US-101 at Normandie Avenue. Therefore, the Project is projected to result in an increase of 10 trips in the morning and 14 trips in the evening peak hour on the US-101 freeway.

The CMP freeway monitoring stations closest to the Project Site on the I-10 freeway are at Budlong Avenue. Approximately 7.5% of Project traffic is expected to travel east on the I-10 freeway through Budlong Avenue and approximately 7.5% is expected to travel west on the I-10 freeway towards the City of Santa Monica. Therefore, the Project is projected to result in an increase of 11 trips in the morning and 15 trips in the evening peak hour on eastbound and westbound I-10 freeway.

Since fewer than 150 trips would be added during the AM or PM peak hours in either direction at any of the freeway segments in the vicinity of the study area, no further analysis of the freeway segments is required for CMP purposes.

Regional Transit Impact Analysis

Potential increases in transit person trips generated by the Project were estimated in the study. The methodology used in the study assumes an average vehicle ridership (AVR) factor of 1.4 in order to estimate the number of person trips to and from the Project and then provides guidance regarding the percentage of person trips assigned to public transit depending on the type of use

(commercial/other versus residential) and the proximity to transit services. Appendix C-8 of the 2010 CMP recommends summarizing the fixed-route local bus services within 1/4 mile of a project site and express bus routes and rail service within two miles of a project site. Excluding the transit credit in the trip generation table, the Project would have an estimated increase in vehicle trip generation of approximately 166 net vehicle trips during the AM peak hour and 222 during the PM peak hour before the transit credit. Applying the AVR factor of 1.4 to the estimated vehicle trips would result in an estimated increase of approximately 232 and 311 person trips during the AM and PM peak hours, respectively.

A 25% transit credit was applied to the Project trip generation estimates to account for trips made to and from the Project Site using modes other than automobiles. The Project is located within a 0.25-mile walking distance of the Metro Purple Line at the Wilshire/Western Station as well as the transit service. Consistent with this approach, the Project would generate an estimated increase of 35 transit trips during the AM peak hour and 47 transit trips during the PM peak hour. Given the frequency of the high quality transit service in close proximity to the Project Site, including the Metro Purple Line subway and multiple Metro Rapid and local bus routes, the incremental transit riders resulting from the Project would result in a less than significant impact on the transit lines serving the area.

Therefore, the Project would have a less than significant impact.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact with Mitigation Incorporated.

A significant impact may occur if a project were to include a new roadway design, introduce a new land use or project features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if project access or other features were designed in such a way as to create hazardous conditions.

Proximity to Schools

The Project Site is in proximity to the following schools:[275]

- RFK Community Schools (Ambassador, UCLA Community School, New Open Worlds, and Los Angeles High School of the Arts), 701 S. Catalina Street, 250 feet east of the Project Site.

Potential construction impacts such as trucks and other equipment and operational changes to the streets and sidewalks nearby the schools will be mitigated to a less than significant level by **Mitigation Measure Tran-MM-1**.

275 LAUSD and Google Maps.

Driveways

The Project would have four driveways:

- A full-access driveway on Mariposa Avenue.
- Two full-access driveways on 7th Street.
- A full-access driveway on Irolo Street.

The loading areas for the Project uses will be located in the parking structure on Level 1 and will be accessible from the Mariposa Avenue driveway.

A level of service analysis was conducted at to evaluate the ability of the Project access plan to accommodate the anticipated traffic levels at the driveway access points. The residents will primarily use the Mariposa Avenue driveway and eastern 7th Street driveway, but all other land uses on the Project Site will have access to use each of the driveways, similar to the existing Site access. The driveway LOS analysis focuses on the two driveways which will be used by residents. The driveway locations below will be unsignalized and stop-controlled and were analyzed using the 2-way Stop methodology from the HCM. The HCM methodology determines the average vehicle delay for the stop-controlled approach to find the corresponding LOS. **Table B.17-14** shows the results of the LOS analysis at the unsignalized driveways. As shown, the driveways are projected to operate at acceptable LOS (LOS D or better) under Existing plus Project (2018) and Future plus Project (2026) conditions.

The Project would provide a parking and driveway plan for review and approval by Los Angeles Department of Building and Safety.

Table B.17-14
Driveway Service and Impact Analysis

Driveway Location	Peak Hour	Existing + Project (2018)		Future + Project (2026)	
		Delay (seconds)	LOS	Delay (seconds)	LOS
7th Street Eastern Driveway	AM	14.1	B	14.9	C
	PM	18.5	C	20.4	C
Mariposa Avenue Driveway	AM	24.4	D	27.7	D
	PM	25.45	D	29.0	D

Source: Table 9, Technical Addendum to Transportation Impact Analysis, Fehr & Peers, August 2019.

Pedestrian Safety

Temporary significant impacts to pedestrian safety could occur during construction. The Project will comply with **Mitigation Measure TRAN-MM-2** to ensure the safety of pedestrians and other vehicles in general, as the construction area could create hazards of incompatible/slow-moving

construction and haul vehicles. **Therefore, impacts would be reduced to less than significant.**

Pedestrian access to the Project would be provided at entrances along Mariposa, as well as from the parking structures within the building. **The Project would not mix pedestrian and automobile traffic and, therefore, no pedestrian impacts would occur.**

Other Hazards

The Project does not include any sharp curves, dangerous intersections, or incompatible uses. No off-site traffic improvements are proposed or warranted in the area surrounding the Project Site.

Mitigation Measures

TRAN-MM-1 Construction Activity Near Schools

The developer shall maintain ongoing contact with administrators of RFK Community Schools. The administrators shall be contacted when demolition, grading and construction activity begin on the Project Site so that students and their parents will know when such activities are to occur. The developer shall obtain school walk and bus routes to the schools from either the administrators or from LAUSD's Transportation Branch (323) 342-1400 and guarantee that safe and convenient pedestrian and bus routes to the school are maintained.

TRAN-MM-2 Safety Hazards

- The developer shall install appropriate construction related traffic signs around the Project Site to ensure pedestrian and vehicle safety.

- The Applicant shall plan construction and construction staging as to maintain pedestrian access on adjacent sidewalks throughout all construction phases. This requires the applicant to maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding) from work space and vehicular traffic, and overhead protection, due to sidewalk closure or blockage, at all times.

- Temporary pedestrian facilities shall be adjacent to the Project Site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility.

- Covered walkways shall be provided where pedestrians are exposed to potential injury from falling objects.

- Applicant shall keep sidewalk open during construction until only when it is absolutely required to close or block sidewalk for construction and/or construction staging. Sidewalk shall be reopened as soon as reasonably feasible taking construction and construction staging into account.

d) Would the project result in inadequate emergency access?

Less Than Significant Impact.

A significant impact may occur if a project design would not provide emergency access meeting the requirements of the LAFD and LAPD, or in any other way threatened the ability of emergency vehicles to access and serve the Project Site. The Project would comply with LAFD and LAPD requirements and provide adequate access for emergency vehicles and service responses. The Project would ensure that adequate and safe access, including access for emergency vehicles, remains available. This would be accomplished through the Construction Management Plan (**TRAN-PDF-1**). **Therefore, impacts related to emergency access would be less than significant.**

XVIII. Tribal Cultural Resources

Would the project:

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?

Less Than Significant Impact.

Analysis of the potential impacts to historical resources has found that the Project will insert substantial new construction on land that was currently occupied by a three-story parking structure. The proposed new construction, however, will not result in substantial adverse changes that reduces the integrity or significance of historic resources either adjacent to or in the near vicinity of the Project Site.[276] T**herefore the Project would result in a less than significant impact to tribal cultural resources.**

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant Impact.

Approved by Governor Brown on September 25, 2014, Assembly Bill 52 (AB52) establishes a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources (TCRs), as defined in Public Resources Code Section 21074, as part of CEQA. Effective July 1, 2015, AB 52 applies to projects that file a Notice of Preparation of an MND or EIR on or after July 1, 2015. PRC Section 21084.2 now establishes that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment. To help determine whether a project may have such an effect, PRC Section 21080.3.1 requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must

276 Historic Resources Technical Report, Historic Resources Group, November 2018.

take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. As a result of AB 52, the following must take place: 1) prescribed notification and response timelines; 2) consultation on alternatives, resource identification, significance determinations, impact evaluation, and mitigation measures; and 3) documentation of all consultation efforts to support CEQA findings for the administrative record.

Under AB 52, if a lead agency determines that a project may cause a substantial adverse change to a TCR, the lead agency must consider measures to mitigate that impact. PRC Section 21074 provides a definition of a TCR. In brief, in order to be considered a TCR, a resource must be either: 1) listed, or determined to be eligible for listing, on the national, State, or local register of historic resources, or 2) a resource that the lead agency chooses, in its discretion supported by substantial evidence, to treat as a TCR. In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the State register of historic resources or City Designated Cultural Resource. In applying those criteria, a lead agency shall consider the value of the resource to the tribe.

As specified in AB 52, lead agencies must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if the tribe has submitted a written request to be notified. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation.

As lead agency, the City mailed letters to the 10 listed Native American tribes included on the City's consultation list. Letters were sent out to all contacts on May 25, 2017.

To date, the City has received no responses to the notification letters.

Though unlikely, if present, any unidentified tribal cultural resources have the potential to be significant under CEQA. However, while the Project would not adversely affect known Tribal cultural resources, the City has established a standard condition of approval to address inadvertent discovery of Tribal cultural resources:

> In the event that objects or artifacts that may be tribal cultural resources are encountered during the course of any ground disturbance activities (excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, removing peat, clearing, driving posts, augering, backfilling, blasting, stripping topsoil or a similar activity), all such activities shall temporarily cease on the project site until the potential tribal cultural resources are properly assessed and addressed pursuant to the process set forth below:
>
> - Upon a discovery of a potential tribal cultural resource, the Applicant shall immediately stop all ground disturbance activities and contact the following: (1) all California Native American tribes that have informed the City they are traditionally

and culturally affiliated with the geographic area of the proposed project; (2) and the Department of City Planning.

- If the City determines, pursuant to Public Resources Code Section 21074 (a)(2), that the object or artifact appears to be tribal cultural resource, the City shall provide any effected tribe a reasonable period of time, not less than 30 days, to conduct a site visit and make recommendations to the Applicant and the City regarding the monitoring of future ground disturbance activities, as well as the treatment and disposition of any discovered tribal cultural resources.

- The Applicant shall implement the tribe's recommendations if a qualified archaeologist and by a culturally affiliated tribal monitor, both retained by the City and paid for by the Applicant, reasonably concludes that the tribe's recommendations are reasonable and feasible.

- The Applicant shall submit a tribal cultural resource monitoring plan to the City that includes all recommendations from the City and any effected tribes that have been reviewed and determined by the qualified archaeologist and by a culturally affiliated tribal monitor to be reasonable and feasible. The Applicant shall not be allowed to recommence ground disturbance activities until this plan is approved by the City.

- If the Applicant does not accept a particular recommendation determined to be reasonable and feasible by the qualified archaeologist or by a culturally affiliated tribal monitor, the Applicant may request mediation by a mediator agreed to by the Applicant and the City who has the requisite professional qualifications and experience to mediate such a dispute. The Applicant shall pay any costs associated with the mediation.

- The Applicant may recommence ground disturbance activities outside of a specified radius of the discovery site, so long as this radius has been reviewed by the qualified archaeologist and by a culturally affiliated tribal monitor and determined to be reasonable and appropriate.

- Copies of any subsequent prehistoric archaeological study, tribal cultural resources study or report, detailing the nature of any significant tribal cultural resources, remedial actions taken, and disposition of any significant tribal cultural resources shall be submitted to the South Central Coastal Information Center (SCCIC) at California State University, Fullerton.

In accordance with the condition of approval, all activities would be conducted in accordance with regulatory requirements. **Based on these conditions, any potential Project impacts on Tribal Cultural Resources would be reduced to less than significant.**

XIX. Utilities And Service Systems

This section is based on the following items, included as Appendix L of this MND:

L-1 Los Angeles Bureau of Sanitation response, August 23, 2017.

L-2 Los Angeles Department of Water and Power response, July 17, 2017.

L-3 Water Supply Assessment, Los Angeles Department of Water and Power, July 18, 2017.

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact.

Water and wastewater systems consist of two components, the source of the water supply or place of sewage treatment, and the conveyance systems (i.e., distribution lines and mains) that link the location of these facilities to an individual development site.

Water

The City of Los Angeles Department of Water and Power (LADWP), which provides municipal water services to the City, is responsible for providing water to the Project Site.

The proposed development land uses will conform to Water-Efficiency Requirements Ordinance No. 180822, 2013 California Plumbing Code, 2013 California Green Building Code (CALGreen), 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code.

As shown on **Table B.19-1, Project Estimated Water Consumption**, it is estimated the Project will consume a total of approximately 69,011 gallons per day (gpd) (or 77.31 acre-feet per year[277]) of water.

Table B.19-1
Estimated Future Water Demand

Use	Size	Water Use Factor[3] (gpd/unit)	Base Demand (gpd)	Required Ordinances Water Savings [4] (gpd)	Water Demand	
					(gpd)	AF / year
Existing Uses[1]						
Landscaping	13,133 sf	-			-	-

277 1 acre foot = 325,851.429 US gallons.

3-story parking structure	266,571 sf	-			-	-
Existing to be Removed Total[2]					**1,082**	**1.21**
Proposed Uses[1]						
Residential – Studio	461 units	75 gallons / unit	34,575			
Residential – 2 Bedroom	180 units	150 gallons / unit	27,000			
Base Demand Adjustment (residential)[5]			7,947			
Residential Units Total	**641 du**		**69,522**	**22,302**	**47,220**	**52.90**
Indoor Lounge	9,935 sf	50 gallons / 1,000 sf	497			
Rooftop Outdoor Amenity Deck	10,930 sf	50 gallons / 1,000 sf	547			
Gym/Fitness Center	785 sf	650 gallons / 1,000 sf	510			
Lobby and Leasing Office	2,620 sf	50 gallons / 1,000 sf	131			
Pool	1,200 sf		113			
Water Feature/Fountain	887 sf		83			
Residential Amenity Total[6]			**1,881**	**582**	**1,299**	**1.46**
Restaurant: High-turnover	138 seats	25 gallons / seat	3,450			
Restaurant: Fast-food	68 seats	25 gallons / seat	1,700			
Retail	13,500 sf	25 gallons / 1,000 sf	338			
Commercial Total			**5,488**	**1,408**	**4,080**	**4.57**
Landscaping[7]	**21,860 sf**		**2,042**	**997**	**1,045**	**1.17**
Parking Structure[8]	**309,558 sf**	**0.02**	**204**	**0**	**204**	**0.23**
Cooling Tower 1	700 tons	24	16,632	3,326	13,306	14.91
Cooling Tower 2	800 tons	24	19,008	14,411	4,597	5,14
Cooling Tower Total			**35,640**	**17,738**	**17,902**	**20.05**
Proposed Subtotal			**114,777**	**43.027**	**71,750**	**80.38**
Less Existing to be removed					**(1,082)**	**(1.21)**
Less Additional Conservation[8]					**(1,657)**	**(1.86)**
Net Additional Water Demand					**69,011**	**77.31**

Note: the WSA analyzed a larger program then the Project: 641 units instead of 640 units and 13,500 sf retail instead of 5,538 sf. The restaurant seating amount remains unchanged. Therefore, the WSA presents a more conservative, worse-case approach.

[1] Provided by the City of Los Angeles Department of City Planning in the Request for Water Supply Assessment letter.

[2] The existing water demand is based on the LADWP billing data (average of years 2010 to 2015) and it includes water use for the surrounding parking lot, landscape, and cooling tower. Note that water use credit is only given for removed parking and landscaping.
[3] Proposed indoor water uses are based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table available at http: www.lacitysan.org/fmd/pdf/sfcfeerates.pdf.
[4] The proposed development land uses will conform to City of Los Angeles Ordinance No. 184248, 2013 California Plumbing Code, 2013 California Green Building Code (Calgreen), 2014 Los Angeles Plumbing Code, and 2014 LA Green Building Code.
[5] Base Demand Adjustment is the estimated savings due to Ordinance No. 180822 accounted for in the current version of Bureau of Sanitation Sewer Generation Rates.
[6] Outdoor pool deck not shown here does not have additional water demand.
[7] Landscaping water use is estimated per California Code of Regulations Title 23, Division 2, Chapter 2.7. Model Water Efficient Landscape Ordinance.
[8]Auto parking water uses are based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table, and 12 times/year cleaning assumptions.
[9] Water conservation due to additional conservation commitments agreed by the Applicant.
Source: LADWP, Water Supply Assessment, July 17, 2017.

The Water Service Organization (WSO) would be able to provide the domestic needs of the Project from the existing water system. The Project Applicant will consult with the LADBS and LAFD to determine fire flow requirements for the Project. This system hydraulic analysis will determine if existing LADWP water supply facilities can provide the proposed fire flow requirements of the Project. If water main or infrastructure upgrades are required, the Applicant would pay for such upgrades, which would be constructed by either the Applicant or LADWP.

LADWP owns and operates the Los Angeles Aqueduct Filtration Plant (LAAFP) located in the Sylmar community of the City. The LAAFP treats City water prior to distribution throughout LADWP's Central Water Service Area. The designated treatment capacity of LAAFP is 600 mgd with an average plant flow of 550 mgd during the summer months and 450 mgd in the non-summer months. Thus, the facility has between approximately 50 to 150 mgd of remaining capacity depending on the season. The Project's water consumption increase represents approximately 0.05 percent and 0.02 percent of the remaining capacity currently available at LAAFP during the summer and non-summer months, respectively. Therefore, impacts to water treatment facilities and existing infrastructure would be less than significant. If a deficiency or service problem is discovered during the permitting process that prevents the Project from an adequate level of service, the Project Applicant shall fund the required upgrades to adequately serve the Project.

While domestic water demand is typically the main contributor to water consumption, fire flow demands have a much greater instantaneous impact on infrastructure, and therefore are the primary means for analyzing infrastructure capacity. Fire flow to the Project would be required to meet City of Los Angeles fire flow requirements. Section 57.507.3.1 of the LAMC establishes fire flow standards for specified land uses, including Low Density Residential, High Density Residential and Commercial Neighborhood, Industrial and Commercial, and High Density

Industrial and Commercial or Industrial. Based on fire flow standards set forth in Section 57.507.3.1 of the LAMC, the Project falls within the High Density Residential and Neighborhood Commercial category, which has a required fire flow of 4,000 gallons per minute from four adjacent fire hydrants flowing simultaneously with a residual pressure of 20 pounds per square inch (psi). In accordance with the fire flow standards set forth in the LAMC, the Applicant would coordinate with the City to ensure that adequate water infrastructure is available to meet the required fire flows. Should the City determine that additional water connections and water infrastructure capacity is needed to meet the required fire flows, the Applicant would implement such improvements in consultation with the City. Additionally, as required by the LAMC, hydrants would be spaced per the hydrant spacing requirements set forth in Section 57.507.3.2 of the LAMC to provide adequate coverage of the building exterior and to deliver a minimum pressure of 20 pounds per square inch at full flow. Therefore, the Project would not result in the construction of new water facilities or expansion of existing facilities.

Wastewater

Wastewater reclamation and treatment in the City of Los Angeles is provided by the City of Los Angeles Department of Public Works' Bureau of Sanitation (LABS), which operates two treatment plants (Hyperion and Terminal Island) and two water reclamation plants in accordance with the treatment requirements of the LAWQCB and/or water reclamation requirements of the Basin Plan.

The Project Site is located within the service area of the Hyperion Treatment Plant (HTP)[278], which has been designed to treat 450 million gallons per day (mgd) to full secondary treatment,[279] and currently treats an average daily flow of approximately 362 mgd.[280] Thus, there is a remaining capacity of approximately 88 mgd. Full secondary treatment prevents virtually all particles suspended in effluent from being discharged into the Pacific Ocean and is consistent with the LAWQCB's discharge policies for Santa Monica Bay. Further, the HTP is a public facility and is, therefore, subject to the state's wastewater treatment requirements. The Project's wastewater discharge would be typical for a mixed-use residential and commercial building and would not require any on-site treatment before flowing to the sewer.

It is estimated the Project will generate a total of approximately 69,011 gallons per day (gpd) (or 0.069 mgd) of wastewater.[281] This total does not take any credit for the proposed sustainable and water conservation features of the Project.

The wastewater generated by the Project will be similar to other uses in the area. No industrial discharge into the wastewater or drainage system would occur. Additionally, there is adequate treatment capacity within the HTP system which currently treats an average daily flow of

278 LA Sewers: http://www.lasewers.org/treatment_plants/about/index.htm.
279 Los Angeles Sanitation: http://www.lacitysan.org/irp/Wastewater.htm.
280 LABS, Wastewater, About Wastewater, Facts and Figures, Treatment Plants, Hyperion Treatment Plant, website: http://www.lacitysan.org/wastewater/factsfigures.htm.
281 LADWP, Water Supply Assessment, July 18, 2017. Water demand and wastewater generation estimated to be equivalent.

approximately 362 mgd.[282] Thus, there is a remaining capacity of approximately 88 mgd. The increase in wastewater generation represents approximately 0.24% of the remaining capacity[283], and would not have a significant impact on treatment plant capacity.

As HTP complies with the State's wastewater treatment requirements and the Project's wastewater generation is well within the existing capacity, the Project will not exceed the wastewater treatment requirements of LAWQCB. The Project Site will be served by the LABS, which provides municipal wastewater services to the City.

The Site is served by an existing 18-inch line on Normandie Boulevard that feeds into a 48-inch line on Normandie before discharging into a 57-inch line on James M Wood Boulevard. The current approximate flow level (depth/diameter or d/D) and the design capacities at d/D of 50% is shown in **Table B.19-2**.[284]

Table B.19-2
Sewer Infrastructure

Pipe Diameter (inches)	Location	Current Gauging d/D (%)	50% Design Capacity
18	Wilshire	*	4.32 MGD
48	Normandie	26	29.86 MGD
54	James M. Wood	*	67.79 MGD
57	James M. Wood	24	
* no gauging available. gpd = gallons per day. MGD = million gallons daily. Bureau of Sanitation response, August 23, 2017.			

The Project Site is currently developed and adequately served by the existing wastewater conveyance system. As part of the building permit process the lead agency would confirm and ensure that there is sufficient capacity in the local and trunk lines to accommodate the Project's wastewater flows. The standard procedure is that further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity, then the Applicant shall be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time.

Additionally, water conservation measures required by City ordinance (e.g., installation of low flow toilets and plumbing fixtures, limitations on hose washing of driveways and parking areas, etc.) will be implemented as part of the Project and will help reduce the amount of Project-generated wastewater.

282 LABS, Wastewater, About Wastewater, Facts and Figures, Treatment Plants, Hyperion Treatment Plant, website: http://www.lacitysan.org/wastewater/factsfigures.htm.
283 0.069 mgd / 88 mgd x 100% = 0.08%.
284 Bureau of Sanitation response, August 23, 2017.

Stormwater Drainage

As discussed in **Section B.10**, above, the Project would maintain the existing percentage of impervious surfaces within the Project Site. The Project Site is primarily covered with a parking structure (hardscape). The Project will similarly occupy the entire Project Site with two new buildings and a podium parking structure. Thus, the Project would not be altering the amount of impervious surface that affects runoff. Runoff currently flows toward the existing storm drain system, and the Project will not substantially alter the amount of runoff. Therefore, stormwater flows from the Project Site would not increase with implementation of the Project. Thus, the existing public stormwater system would have sufficient capacity to accommodate the Project and the Project would not require or result in the construction of new stormwater drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects. **Impacts would be less than significant.**

Electric Power

As discussed in **Section B.6**, above, LADWP has confirmed that electrical service is available and will be provided in accordance with the LADWP's Rules Governing Water and Electric Service. Therefore, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand. Accordingly, operation of the Project would not result in an increase in demand for electricity that exceeds available supply or distribution infrastructure capabilities that could result in the relocation or construction of new or expanded electric power facilities, the construction of which would cause significant environmental effects. **Impacts would be less than significant.**

Natural Gas

As discussed in **Section B.6**, above, there is sufficient natural gas supplies to serve the Project's natural gas demand. Accordingly, operation of the Project would not result in an increase in demand for natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the relocation or construction of new or expanded natural gas facilities, the construction of which would cause significant environmental effects. **Impacts would be less than significant.**

Telecommunications

The Project would require construction of new on-site telecommunications infrastructure to serve the new building and potential upgrades and/or relocation of existing telecommunications infrastructure. Construction impacts associated with the installation of telecommunications infrastructure would primarily involve trenching in order to place the lines below surface. When considering impacts resulting from the installation of any required telecommunications infrastructure, all impacts are of a relatively short duration and would cease to occur when installation is complete. Installation of new telecommunications infrastructure would be limited to on-site telecommunications distribution and minor off-site work associated with connections to

the public system. No upgrades to off-site telecommunications systems are anticipated. Any work that may affect services to the existing telecommunications lines would be coordinated with service providers. **Impacts would be less than significant.**

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact.

A significant impact may occur if a project were to increase water consumption to such a degree that new water sources would need to be identified, or that existing resources would be consumed at a pace greater than planned for by purveyors, distributors, and service providers. The City's water supply comes from local groundwater sources, the Los Angeles-Owens River Aqueduct, State Water Project, and from the Metropolitan Water District of Southern California, which is obtained from the Colorado River Aqueduct. These sources, along with recycled water, are expected to supply the City's water needs in the years to come.

Water Supply Assessment

State CEQA Guidelines Section 15083.5 requires a lead agency to identify water systems to provide water supply assessments for projects over specified thresholds. For any residential subdivision project Senate Bill (SB) 221 requires that the lead agency include a requirement that a sufficient water supply shall be available to serve the residential development. A residential subdivision is a proposed residential development of more than 500 dwelling units. SB 610 requires a water supply assessment to evaluate whether total projected water supplies will meet the projected water demand for certain development projects that are otherwise subject to CEQA review. Existing law identified those certain projects as follows:

(a) Residential developments of more than 500 dwelling units;

(b) Shopping centers or businesses employing more than 1,000 persons or having more than 500,000 square feet of floor space;

(c) Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet;

(d) Hotels or motels with more than 500 rooms;

(e) Industrial or manufacturing establishments housing more than 1,000 persons or having more than 650,000 square feet of 40 acres;

(f) Mixed use projects containing any of the foregoing; or

(g) Any other project that would have a water demand at least equal to a 500-dwelling unit project.

WSA Results

The Project is subject to SB 610 and conducted a Water Supply Assessment (WSA). According to the WSA and included in **Table B.19-1** above, the Project total net water demand is estimated to be 77.31 acre-feet per year (AFY), which includes annual water conservation. Savings due to water conservation ordinances are approximately 48 AFY, and savings due to additional voluntary conservation measures are approximately 2 AFY. LADWP's WSA finds adequate water supplies will be available to meet the total additional water demand. LADWP anticipates the projected water demand can be met during normal, single-dry and multiple-dry water years, in addition to the existing and planned future demands on LADWP.[285]

The 2015 UWMP was adopted in June 2016 and projects a demand of 611,800 AFY in 2020 and 644,700,000 AFY in 2025.[286] The UWMP forecasts water demand by estimating baseline water consumption by use (single family, multifamily, commercial/government, industrial), then adjusting for projected changes in socioeconomic variables (including personal income, family size, conservation effects) and projected growth of different uses based on SCAG 2012 RTP.[287] The 2012 RTP models local and regional population, housing supply and jobs using a model accounting for job availability by wage and sector and demographic trends (including household size, birth and death rates, migration patterns and life expectancy).[288] Neither the Urban Water Management Plan forecasts, nor the 2012 RTP include parcel-level zoning and land use designation as an input. The Project does not materially alter socioeconomic variables or projected growth by use. Any shortfall in LADWP controlled supplies (groundwater, recycled, conservation, LA aqueduct) is offset with MWD purchases to rise to the level of demand.

Based on LADWP's 2015 Urban Water Management Plan, projected water demand for the City would be met by the available supplies during an average year, single-dry year, and multiple-dry year through the year 2040. Therefore, the Project would not be anticipated to require new or expanded water entitlements. **Therefore, Project impacts to water supplies would be less than significant.**

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact.

285 LADWP, Water Supply Assessment, July 17, 2017.
286 2015 Urban Water Management Plan, Los Angeles, pg. ES-23.
287 2015 Urban Water Management Plan, Los Angeles, pgs. 1-12.
288 SCAG, 2008 Regional Transportation Plan Growth Forecast Report, pgs 2-10.

A significant impact may occur if a project would increase wastewater generation to such a degree that the capacity of facilities currently serving the Project Site would be exceeded. As discussed above, the Project's wastewater generation of 0.069 mgd would be sufficiently accommodated as part of the remaining 88 mgd of treatment capacity currently available at HTP. **Therefore, impacts to wastewater treatment capacity would be less than significant.**

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact.

The remaining disposal capacity for the County's Class III landfills is estimated at approximately 167.60 million tons.[289] In 2017, approximately 5.011 million tons of solid waste were disposed of at the County's Class III landfills. In addition, approximately 0.490 million tons of solid waste were disposed of at County transformation facilities in 2017.[290] Assuming a Countywide diversion rate of 65 percent for 2017, the 2017 Annual Report estimated that approximately 19.18 million tons of solid waste were generated within the County in 2017.

Of the remaining Class III landfill capacity in the County of Los Angeles, approximately 149.77 million tons are available to the City of Los Angeles.[291] As is the case with solid waste haulers, landfills operate in a free-enterprise system. Their operating funds and profits are obtained by collecting disposal fees from the haulers on a per ton basis. Landfill capacity is regulated primarily through the amount of solid waste that each particular facility is permitted to collect on a daily basis relative to its capacity. The Annual Report indicates that the countywide cumulative need for Class III landfill disposal capacity, approximately 126.4 million tons in 2032, will not exceed the 2017 remaining permitted Class III landfill capacity of 167.60 million tons.

Scholl Canyon Landfill in Glendale has 4.70 million tons of remaining capacity and Sunshine Canyon Landfill in Sylmar has 68.04 million tons of remaining capacity.[292]

The remaining disposal capacity for Azusa Land Reclamation is estimated at approximately 55.71 million tons. In 2017, approximately 0.423 million tons of inert waste (e.g., soil, concrete, asphalt, and other construction and demolition debris) were disposed of at this unclassified

[289] This total excludes the estimated remaining capacity at the Puente Hills Landfill, which closed on October 31, 2013.

[290] County of Los Angeles, Department of Public Works; Los Angeles County Integrated Waste Management Plan 2017 Annual Report, April 2019.

[291] Total excludes Class III landfills not open to the City of Los Angeles for disposal (i.e., Scholl Canyon, Whittier, Burbank, Pebbly Beach, and San Clemente). In addition, total excludes the Calabasas Landfill, as its wasteshed does not include the Project Site. The Chiquita Canyon Landfill Expansion permits the facility to operate until it reaches 60 million tons, or after 30 years, whichever comes first. However, since the current volume of the facility's wasteshed is unknown, the volume of waste that it would take to reach 60 million tons cannot be determined. As such, for a conservative analysis, the Chiquita Canyon Landfill Expansion is excluded from the total.

[292] Disposal quantities are based on actual tonnages reported by owners/operators of permitted solid waste disposal facilities to the Los Angeles County Department of Public Works' Solid Waste Information Management System, as of December 31, 2016.

landfill. Given the remaining permitted capacity and based on the average disposal rate of 1,356 tons per day (based on 260 days of disposal per year) in 2017, this capacity would be exhausted in 158 years.[293]

In 2017, the City of Los Angeles disposed of approximately 2.9 million tons of solid waste at the County's Class III landfills and approximately 23,810 tons at transformation facilities.[294] The 2.9 million tons of solid waste accounts for approximately 1.9 percent of the total remaining capacity (149.77 million tons) for the County's Class III landfills open to the City.[295]

Construction

Construction of the Project will generate minimal amounts of construction and demolition debris that would need to be disposed of at area landfills. Construction and demolition debris includes concrete, asphalt, wood, drywall, metals, and other miscellaneous and composite materials. California Assembly Bill (AB) 939, also known as the Integrated Waste Management Act, requires each city and county in the state to divert 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. As such, much of this material would be recycled and salvaged. Materials not recycled would be disposed of at local landfills.

Demolition will remove approximately 266,571 square feet of the existing parking structure. Demolition would produce demolition waste and recycling opportunities of raw materials and export of approximately 137,000 cy of dirt.[296]

Construction of the approximately 712,347 square feet of new floor area would generate approximately 1,560 tons of construction waste.[297]

This amount of construction and debris waste would represent approximately 0.03 percent of the Azusa Land Reclamation Landfill's existing remaining disposal capacity of 56.34 million tons. Thus, the total amount of construction and demolition waste generated by the Project would represent a fraction of the remaining capacity at the unclassified landfill serving Los Angeles County. Since the County's unclassified landfill generally does not face capacity shortages, and the County's unclassified landfill would be able to accommodate Project-generated waste, construction of the Project would not result in the need for an additional disposal facility to adequately handle Project-generated construction-related waste. **Therefore, Project construction impacts to solid waste facilities would be less than significant.**

Operation

293 County of Los Angeles, Department of Public Works; Los Angeles County Integrated Waste Management Plan 2017 Annual Report, April 2019.

294 These numbers represent waste disposal, not generation, and thus do not reflect the amount of solid waste that was diverted via source reduction and recycling programs within the City

295 2.9 million tons ÷ 78.71 million tons x 100% = 3.7 %.

296 Client provided, June 2017.

297 Based on 4.02 pounds of nonresidential construction and 4.38 lbs for residential construction per square foot. (Source: U.S. Environmental Protection Agency Report No. EPA530-98-010. Characterization of Building Related Construction and Demolition Debris in the United States, June 1998, Table A-2, page A-1).

As shown on **Table B.19-3, Project Estimated Solid Waste Generation**, it is estimated the Project will generate a total of approximately 1,453 tons per year of solid waste.

Table B.19-3
Project Estimated Solid Waste Generation

Land Use	Size	Solid Waste Generation Rates	Total (tons)
Residential	640 units	2.23 tons / unit	1,427
Commercial	29 employees	0.91 tons / employee	26
		Total Increase	**1,453**

Note: 1 ton = 2,000 pounds.
Residential solid waste factor (City of Los Angeles CEQA Thresholds Guide, 2006, page M.3-2) is based on a rate of 12.23 pounds per household per day (or 2.23 tons per household per year).
Non-residential solid waste factor (City of Los Angeles Bureau of Sanitation, Waste Characterization and Quantification Study, Table 4, July 2002) is based on tons per employee per year:
3.03 for hotel
0.91 for commercial/retail
2.98 for restaurant
Table: CAJA Environmental Services, August 2019.

In compliance with LAMC provisions, the Project shall provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals.

In compliance with AB341, recycling bins shall be provided at appropriate locations to promote recycling of paper, metal, glass and other recyclable material. These bins shall be emptied and recycled accordingly as a part of the Project's regular solid waste disposal program. The Project Applicant shall only contract for waste disposal services with a company that recycles solid waste in compliance with AB3 41.

In compliance with the LAMC, the General Contractor shall utilize solid waste haulers, contractors, and recyclers who have obtained an Assembly Bill (AB) 939 Compliance Permit from the City of Los Angeles Bureau of Sanitation.

The increase in solid waste disposal would represent an approximate 0.05 percent increase in the City's annual solid waste disposal quantity, based on the 2017 disposal of approximately 2.9 million tons.

The increase in solid waste disposal would represent approximately 0.001 percent of the estimated remaining Class III landfill capacity of 149,77 million tons available to the City of Los Angeles. Therefore, no Project impacts related to solid waste would occur and the Project is

adequately served. **Therefore, Project operation impacts to landfills and solid waste services will be less than significant.**

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact.

Solid waste generated on-site by the Project will be disposed of in compliance with all applicable federal, state, and local regulations, related to solid waste, such as AB 939. AB 939 establishes an integrated waste management hierarchy consisting of (in order of priority): (1) source reduction; (2) recycling and composting; and (3) environmentally safe transformation and land disposal.

In addition, AB 1327 provided for the development of the California Solid Waste Reuse and Recycling Access Act of 1991, which requires the adoption of an ordinance by any local agency governing the provision of adequate areas for the collection and loading of recyclable materials in development projects.

Furthermore, AB 341, which became effective on July 1, 2012, requires businesses and public entities that generate four cubic yards or more of waste per week and multi-family dwellings with five or more units, to recycle. The purpose of AB 341 is to reduce greenhouse gas emissions by diverting commercial solid waste from landfills and expand opportunities for recycling in California.

In addition, in March 2006, the Los Angeles City Council adopted RENEW LA, a 20-year plan with the primary goal of shifting from waste disposal to resource recovery within the City, resulting in "zero waste" by 2030. The plan also calls for reductions in the quantity and environmental impacts of residue material disposed in landfills.

In October 2014, Governor Jerry Brown signed AB 1826, requiring businesses to recycle their organic waste[298] on and after April 1, 2016, depending on the amount of waste generated per week. Specifically, beginning April 1, 2016, businesses that generate eight cubic yards of organic waste per week were required to arrange for organic waste recycling services. In addition, beginning January 1, 2017, businesses that generate four cubic yards of organic waste per week were required to arrange for organic waste recycling services.

The amount of Project-related waste disposed of at area landfills would be reduced through recycling and waste diversion programs implemented by the City, in compliance with the City's Solid Waste Integrated Resources Plan, which is the long-range solid waste management policy plan for the City through 2025, and the Source Reduction and Recycling Element, which is the strategic action policy plan for diverting solid waste from landfills. The Project would also comply

[298] Organic waste refers to food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

with applicable regulatory measures, including the provisions of City Ordinance No. 171,687 regarding recycling for all new construction and other recycling measures; implementation of a demolition and construction debris recycling plan, with the explicit intent of requiring recycling during all phases of site preparation and building construction, and the provision of permanent, clearly marked, durable, source-sorted bins to facilitate the separation and deposit of recyclable materials.

Waste generated by the Project would not alter the projected timeline for landfills within the region to reach capacity. **The Project would comply with federal, state, and local regulations, and as such, impacts would be less than significant.**

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact.

There are no wildlands located in the vicinity of the Project Site. The Project Site is not located within a City-designated Very High Fire Hazard Severity Zone, [299] nor is it located within a City-designated fire buffer zone.[300] Therefore, the Project Site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. **No impacts regarding wildfire risks would occur.**

[299] ZIMAS, Parcel Profile Report, http://zimas.lacity.org/. The Very High Fire Hazard Severity Zone was first established in the City of Los Angeles in 1999 and replaced the older "Mountain Fire District" and "Buffer Zone" shown on Exhibit D of the Los Angeles General Plan Safety Element.

[300] City of Los Angeles, Safety Element of the Los Angeles City General Plan, November 26, 1996, Exhibit D, p. 53.

XXI. Mandatory Findings Of Significance

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact.

A significant impact may occur only if a project would have an identified potentially significant impact for any of the above issues. The Project Site is located in an urbanized area of the City. The Project Site is entirely covered with buildings and parking structures. The Project would not impact any protected trees.

The Project will have a less than significant impact on historic resources.

The Project will not degrade the quality of the environment, reduce or threaten any fish or wildlife species (endangered or otherwise), or eliminate important examples of the major periods of California history or pre-history. **Therefore, impacts from the Project will be less than significant.**

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact.

A significant impact may occur if a project, in conjunction with other Related Projects in the area of the Project Site, would result in impacts that are less than significant when viewed separately, but would be significant when viewed together. The Project will not combine with Related Projects to create a cumulatively significant impact in any of the environmental issue areas analyzed in the MND.

In accordance with CEQA Guidelines Section 15064(h), this MND includes an evaluation of the Project's cumulative impacts. An adequate discussion of a project's significant cumulative impact, in combination with other closely Related Projects, can be based on either: (1) a list of past, present, and probable future related impacts; or (2) a summary of projections contained in an adopted local, regional, statewide plan, or related planning document that describes conditions contributing to the cumulative effect. (CEQA Guidelines Section 15130(b)(1)(A)-(B). The lead agency may also blend the "list" and "plan" approaches to analyze the severity of

impacts and their likelihood of occurrence. Accordingly, all proposed, recently approved, under construction, or reasonably foreseeable projects that could produce a related or cumulative impact on the local environment, when considered in conjunction with the Project, were identified for evaluation.

There are 134 Related Projects in the general vicinity of the Project Site that were identified by the Project's traffic study.[301] Of these, only one project is located in the direct vicinity of the Project Site (i.e., within 500 feet):

- No. 123 – 3377 West Wilshire Boulevard, approximately 500 feet northeast of the Site. 11,971 square feet of restaurants.

The rest of the Related Projects, not listed above, have several intervening buildings and major roadways/freeway in between, and are at least 1,000 feet away or more, distances which ensure that any other localized impacts of the Related Projects would not combine with the Project.

Aesthetics

Development of the Project in conjunction with the Related Projects would result in an incremental intensification of existing prevailing land uses in an already heavily urbanized area of Los Angeles. With respect to aesthetics and views, and shade and shadow impacts, none of the Related Projects are located in proximity to the Project Site such that their development would affect the aesthetic character of the Project Site or its immediate surroundings. There are no scenic or protected views in the area. Views in the immediate area would not be affected by the Project or the nearest Related Project. Development of the Related Projects is expected to occur in accordance with adopted plans and regulations. As per ZI No. 2145 and SB 743, aesthetic impacts "shall not be considered significant impacts on the environment." Thus, the Project would not be cumulatively considerable. **Therefore, cumulative aesthetic impacts would be less than significant.**

Agriculture and Forestry Resources

Development of the Project in combination with the Related Projects would not result in the conversion of State-designated agricultural land from agricultural use to a non-agricultural use, nor result in the loss of forest land or conversion of forest land to non-forest use. The Extent of Important Farmland Map Coverage maintained by the Division of Land Protection indicates that the Project Site and the surrounding area are not included in the Important Farmland category. The Project Site and the surrounding area are highly urbanized area and do not include any State-designated agricultural lands or forest uses. **Therefore, no cumulative impacts to agricultural or forestry resources would occur.**

301 Fehr & Peers. "3400 Wilshire Boulevard Draft Transportation Analysis", September 2018.

Air Quality

AQMP Consistency

Cumulative development can affect implementation of the 2016 AQMP. The AQMP was prepared to accommodate growth, reduce pollutants within the areas under SCAQMD jurisdiction, improve the overall air quality of the region, and minimize the impact on the economy. Growth considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified by SCAG, implementation of the AQMP will not be obstructed by such growth and cumulative impacts would be less than significant. Since the Project is consistent with SCAG's growth projections, it would not have a cumulatively considerable contribution to an impact regarding a potential conflict with or obstruction of the implementation of the applicable air quality plan. **Thus, cumulative impacts related to conformance with the AQMP would be less than significant.**

Construction and Operational Emissions

Cumulative air quality impacts from construction and operation of the Project, based on SCAQMD guidelines, are analyzed in a manner similar to Project-specific air quality impacts. The SCAQMD recommends that a project's potential contribution to cumulative impacts should be assessed utilizing the same significance criteria as those for project specific impacts. Therefore, according to the SCAQMD, individual development projects that generate construction or operational emissions that exceed the SCAQMD recommended daily thresholds for project-specific impacts would also cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment. Thus, as discussed in the Air Quality section of this MND, above, because the construction-related and operational daily emissions associated with Project would not exceed the SCAQMD's recommended thresholds, these emissions associated with the Project would not be cumulatively considerable. Therefore, cumulative air quality impacts would be less than significant.

Odor Impacts

With respect to odor impacts, potential sources that may emit odors during construction activities at each Related Project include the use of architectural coatings, solvents, and asphalt paving. Based on mandatory compliance with SCAQMD Rules, construction activities and materials used in the construction of the Project and Related Projects would not combine to create objectionable construction odors. None of the Related Projects is close to the Project Site. With respect to operations, SCAQMD Rule 402 (Nuisance) and SCAQMD Best Available Control Technology Guidelines would limit potential objectionable odor impacts from the Related Projects and the Project's long-term operations phase. **Thus, cumulative odor impacts would be less than significant.**

Biological Resources

The Project would not impact any protected trees. The Project would have no impact upon biological resources. Development of the Project in combination with the Related Projects would not significantly impact wildlife corridors or habitat for any candidate, sensitive, or special status species identified in local plans, policies, or regulations, or by the CDFG or the USFWS. No such habitat occurs in the vicinity of the Project Site or Related Projects due to the existing urban development. Development of any of the Related Projects would be subject to the City of Los Angeles Protected Tree Ordinance. The Related Projects have no habitats, as they are infill developments. Thus, cumulative impacts to biological resources will be less than significant.

Cultural Resources

The Project and Related Projects would comply with applicable federal, state, and city regulations that would preclude significant cumulative impacts regarding cultural resources. This resource area is site and locally specific so that each Related Project would need to be evaluated within its own site-specific context. In addition, any Related Project within a historic district or affecting a historic resource would require a historic resource evaluation to ensure that removal of an existing building, addition of a new building, and/or conversion would not impact the historic resource in the area. The Project will have no historic impact and a less than significant impact on archeological resources, paleontological resources, and human remains, with implementation of required regulatory compliance measures. **For all these reasons, cumulative impacts on cultural resource will be less than significant.**

Energy

Each of the Related Projects would be evaluated within its own context with consideration of energy conservation features that could alleviate electrical demand. Each Related Projects would be required to be in compliance with Title 24 of the CCR (CalGreen) requiring building energy efficiency standards, and would also be in compliance with the Los Angeles Green Building Code. Further, each Related Projects would need to be consistent with the building energy efficiency requirements of Title 24 as well as how SCG serves each location with its existing distribution infrastructure. Finally, each Related Projects would need to be consistent with how the LADWP serves each location with its existing distribution infrastructure. **Therefore cumulative impacts would be less than significant.**

LADWP and SCG undertake system expansions and secure the capacity to serve their service areas and take into consideration general growth and development. Operation would result in the irreversible consumption use of non-renewable natural gas and would thus limit the availability of this resource. However, the continued use of natural gas would be on a relatively small scale and consistent with regional and local growth expectations for the area. The Related Projects would be in compliance with the City's Green Building Ordinance (for the City of Los Angeles) and would thus exceed the standards in Title 24 of the CCR requiring building energy efficiency standards.

All forecasted growth would incorporate design features and energy conservation measures, as required by Title 24 of the CCR (CalGreen) requiring building energy efficiency standards, and would also be in compliance with the LA Green Building Code, which would reduce the impact on natural gas demand. It is also anticipated that future developments would upgrade distribution facilities, commensurate with their demand, in accordance with all established policies and procedures. There would be sufficient statewide supplies to accommodate the statewide requirements from 2018-2030. Thus, there is a plan to secure natural gas supplies to meet demand. **Therefore cumulative impacts would be less than significant.**

Geology and Soils

Geotechnical hazards are site-specific and there is little, if any, cumulative geological relationship between the Project and any of the Related Projects. Similar to the Project, potential impacts related to geology and soils would be assessed on a case-by-case basis and, if necessary, the applicants of the Related Projects would be required to implement the appropriate mitigation measures. Furthermore, the analysis of the Project's geology and soils impacts concluded that Project impacts would be less than significant levels. **Therefore, the Project would not make a cumulatively considerable contribution to any potential cumulative impacts, and cumulative geology and soil impacts would be less than significant.**

Greenhouse Gas Emissions

GHG analysis is a cumulative analysis and thus, there would be no cumulative significant impact as shown above (see **Section B.8** of this MND). **Thus, the Project's generation of GHG emissions would not make a cumulatively considerable contribution to GHG emissions and impacts would be less than significant.**

Hazards and Hazardous Materials

Hazards are site-specific and there is little, if any, cumulative hazardous relationship between the Project and any of the Related Projects. Similar to the Project, potential impacts related to hazards would be assessed on a case-by-case basis and, if necessary, the applicants of the Related Projects would be required to implement the appropriate mitigation measures. Furthermore, the analysis of the Project's hazards and hazardous materials impact concluded that Project impacts would be less than significant levels. **Therefore, the Project would not make a cumulatively considerable contribution to any potential cumulative impacts, and cumulative hazard and hazardous materials impacts would be less than significant.**

Hydrology and Water Quality

The Project Site and the surrounding areas are served by the existing City storm drain system. Runoff from the Project Site and adjacent urban uses is typically directed into the adjacent streets, where it flows to the nearest drainage improvements. It is likely that most, if not all, of

the Related Projects would also drain to the surrounding street system. However, little if any additional cumulative runoff is expected from the Project Site and the Related Projects, since this part of the City is already fully developed with impervious surfaces. Under the requirements of the Low Impact Development Ordinance, each Related Project will be required to implement stormwater BMPs to retain or treat the runoff from a storm event producing ¾ inch of rainfall in a 24-hour period. Mandatory structural BMPs in accordance with the NPDES water quality program will therefore result in a cumulative reduction to surface water runoff, as the development in the surrounding area is limited to infill developments and redevelopment of existing urbanized areas. Therefore, the Project would not make a cumulatively considerable contribution to impacting the volume or quality of surface water runoff, and cumulative impacts to the existing or planned stormwater drainage systems would be less than significant. **Therefore, cumulative water quality impacts would be less than significant.**

Land Use

Compliance with City's land use standards would ensure that any cumulative impacts related to land use would be less than significant. Further, all Related Projects would be individually evaluated for consistency with applicable land use standards. None of the Related Projects would physically divide an established community or conflict with a habitat conservation plan. The Project would not make a cumulatively considerable contribution to land use planning, and cumulative impacts would be less than significant. **Therefore, cumulative land use impacts would be less than significant.**

Mineral Resources

Development of the Project in combination with the Related Projects would not result in the loss of availability of mineral resources. The Project Site and the surrounding area are highly urbanized area and do not include any MRZ zones. **Therefore, no cumulative impacts to mineral resources would occur.**

Noise

Development of the Project in conjunction with the Related Projects would result in an increase in construction-related and traffic-related noise as well as on-site stationary noise sources in the already urbanized area of the City of Los Angeles. Construction-period noise for the Project and each Related Project (that has not yet been built) would be localized in nature. None of the Related Projects are in close enough proximity to the Project Site to cause cumulative construction or stationary noise or vibration impacts. Any construction noise from the Related Project, were it to occur concurrently with the Project, would be attenuated by the distance across intervening streets and/or structures that break the line of sight from these sites to the nearby receptors.

Additionally, each of these Related Projects would be subject to LAMC Section 41.40, which limits the hours of allowable construction activities. Each Related Projects would also be subject

to Section 112.05 of the LAMC, which prohibits any powered equipment or powered hand tool from producing noise levels that exceed 75 dBA at a distance of 50 feet from the noise source within 500 feet of a residential zone. Noise levels are only allowed to exceed this noise limitation under conditions where compliance is technically infeasible. With respect to cumulative traffic noise impacts, it should be noted that the Project's mobile source vehicular noise impacts are based on the predicted traffic volumes as presented in the Project Traffic Impact Study (included as Appendix K-1 to this MND). Based on the Project's estimated trip generation, the Project plus future cumulative baseline conditions would not have the potential to create a significant cumulative impact. As such, the Project's noise volumes would not be cumulatively considerable. **Thus, the cumulative impact associated with construction noise would be less than significant.**

Population and Housing

The Related Projects would introduce additional residential, commercial/retail/restaurant, office, school, and other related uses to the City of Los Angeles. Any residential Related Projects would result in direct population growth. The Related Projects growth would not exceed the projected growth because SCAG can update it's projections after the 2020 Census when some of the Related Projects are in operation. The net increase of employees is not cumulatively considerable as there are no thresholds for employee impacts. Because the Project would not displace any residents, the Project's population growth would not be cumulatively considerable. **Therefore, the Project's cumulative impacts to population and housing would be less than significant.**

Public Services

Fire

Given the geographic range of the Related Projects, they would be served by a variety of fire stations (Nos. 29, 11, 26, 52).[302] The Project, in combination with the Related Projects, could increase the demand for fire protection services in the Project area. Specifically, there could be increased demands for additional LAFD staffing, equipment, and facilities over time. This need would be funded via existing mechanisms (e.g., property taxes, government funding, and developer fees) to which the Project and Related Projects would contribute. Similar to the Project, each of the Related Projects in the City of Los Angeles would be individually subject to LAFD review and would be required to comply with all applicable fire safety requirements of the LAFD in order to adequately mitigate fire protection impacts. Specifically, any Related Projects that exceeded the applicable response distance standards described above would be required to install automatic fire sprinkler systems in order to mitigate the additional response distance. To the extent cumulative development causes the need for additional fire stations to be built throughout the City, the development of such stations would be on small infill lots within existing developed areas. Nevertheless, the development of any new fire stations would be subject to

302 LAFD Fire Station Finder: http://www.lafd.org/fire_stations/find_your_station.

further CEQA review and evaluated on a case-by-case basis. However, as the LAFD does not currently have any plans for new fire stations to be developed in proximity to the Project Site, no impacts are currently anticipated to occur. **On this basis, the Project would not make a cumulatively considerable contribution to fire protection services impacts, and, as such cumulative impacts on fire protection would be less than significant.**

Police

The Project, in combination with the Related Projects, would increase the demand for police protection services in the Project area. Specifically, there would be an increased demand for additional LAPD staffing, equipment, and facilities over time. This need would be funded via existing mechanisms (e.g., sales taxes, government funding, and developer fees), to which the Project and Related Projects would contribute. In addition, each of the Related Projects would be individually subject to LAPD review and would be required to comply with all applicable safety requirements of the LAPD and the City of Los Angeles in order to adequately address police protection service demands. Furthermore, each of the Related Projects would likely install and/or incorporate adequate crime prevention design features in consultation with the LAPD, as necessary, to further decrease the demand for police protection services. To the extent cumulative development causes the need for additional police stations to be built throughout the City, the development of such stations would be on small infill lots within existing developed areas. Nevertheless, the siting and development of any new police stations would be subject to further CEQA review and evaluated on a case-by-case basis. However, as the LAPD does not currently have any plans for new police stations to be developed in proximity to the Project Site, no impacts are currently anticipated to occur. **On this basis, the Project would not make a cumulatively considerable contribution to police protection services impacts, and cumulative impacts on police protection would be less than significant.**

Schools

Given the geographic range of the Related Projects, they would be served by a variety of public schools depending on the location and service boundaries. The Project, in combination with the Related Projects is expected to result in a cumulative increase in the demand for school services. Development of the Related Projects include 1,262 student seats and is projected to generate approximately 11,150 new residential dwelling units to the area, which would generate additional demands upon school services. The Related Project would generate approximately 4,460 elementary school students, 1,115 middle school students, and 2,230 high school students.[303] These Related Projects would have the potential to generate students that would attend the same schools as the Project. However, each of the projects would be responsible for paying mandatory school fees to mitigate the increased demands for school services. **Therefore, cumulative impacts on schools would be less than significant.**

303 Residential land uses: Elementary: 0.4 students per household; Middle: 0.1 students per household; High: 0.2 students per household.

Parks and Recreation

Development of the Project in conjunction with the Related Projects could result in an increase in permanent residents residing in the Project area. Additional cumulative development would contribute to lowering the City's existing parkland to population ratio, which is currently below the preferred standard. However, each of the residential Related Projects is required to comply with payment of Quimby (for condominium units) and other fees, such as the Parks and Recreation Fee (for apartment units). Each residential Related Projects would also be required to comply with the on-site open space requirements of the LAMC. **Therefore, with payment of the applicable recreation fees on a project-by-project basis, the Project would not make a cumulatively considerable impact to parks and recreational facilities and cumulative impacts would be less than significant.**

Library

Given the geographic range of the Related Projects, they would be served by a variety of libraries (De Neve, Pio Pico, Pico Union, Wilshire, Memorial).[304] Development of the Related Projects would likely generate additional demands upon library services. The LAPL has no plans for new or expanded libraries; however, the Related Projects, like the Project, would contribute to the City General Fund, which goes to, among other things, library services. **Therefore, the cumulative impacts related to library facilities would be less than significant.**

Traffic

Development of the Project in conjunction with the Related Projects would result in an increase in average daily vehicle trips and peak hour vehicle trips. The methodology for traffic analysis included both an individual project level analysis (existing with Project scenario) and a cumulative impact analysis (future baseline with Project scenario). The future includes ambient growth (1 percent per year increase) and the Related Projects. The future traffic conditions with the Project show that none of the 14 study intersections would have a significant impact in either the existing or future baseline (cumulative) condition (see **Section B.17, Transportation**, of this MND). Thus, there would be no CMP intersections or freeways impacts. **Therefore, the Project's cumulative impact would be less than significant.**

Utilities

Individual sewer and water infrastructure is location and site-specific and made on a case by case basis. Through the 2015 Urban Water Management Plan, the LADWP has demonstrated that it can provide adequate water supplies for the City through the year 2040. Demands on water consumption, wastewater generation, and solid waste generation resulting from the Project would be less than significant. In addition, several of the Related Projects could be

304 LAPL Locations: http://www.lapl.org/branches.

subject to SB 610, which requires a water supply assessment to evaluate whether total projected water supplies will meet the projected water demand. Ultimately, the wastewater and water facilities (HTP and LAAFP) and the Puente Hills MRF, Sunshine Canyon landfill, and Mesquite landfill have adequate capacity to accommodate the project and Related Projects along with the general growth within the City. **Therefore, the Project's contribution to cumulative wastewater, water, and solid waste impacts will not be cumulatively considerable and cumulative impacts would be less than significant.**

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact.

A significant impact may occur if a project has the potential to result in significant impacts, as discussed in the preceding sections. As described throughout this environmental impact analysis, with implementation of the recommended mitigation measures and project design features, and compliance with applicable regulatory measures, where applicable, the Project would not result in any unmitigated significant impacts. **Thus, the Project would not have the potential to result in substantial adverse effects on human beings and impacts would be less than significant.**

CENTRAL PLAZA

CASE FILING
JANUARY 9TH 2020

NOT FOR CONSTRUCTION

SHEET INDEX

GENERAL

G0.00	COVER SHEET
G0.01	PLOT PLAN

ARCHITECTURAL

A1.01	LEVEL B2 PLAN
A1.02	LEVEL B1 PLAN
A1.03	LEVEL 1 PLAN
A1.04	LEVEL 2 PLAN
A1.05	LEVEL 3 PLAN
A1.06	LEVEL 4 PLAN
A1.07	LEVEL 5 PLAN
A1.08	FLOOR PLAN - LOWER LEVELS
A1.09	FLOOR PLAN - UPPER LEVELS
A1.10	FLOOR PLAN - PENTHOUSE
A1.11	FLOOR PLAN - AMENITY DECK
A1.12	ROOF PLAN
A2.01	WEST ELEVATION - SITE
A2.02	WEST ELEVATION
A2.03	WEST ELEVATION
A2.04	NORTH ELEVATION 1
A2.05	NORTH ELEVATION 2
A2.06	SOUTH ELEVATION 1
A2.07	SOUTH ELEVATION 2
A2.08	EAST ELEVATION - SITE
A2.09	EAST ELEVATION
A2.10	EAST ELEVATION
A2.11	LEVEL 1 ENLARGED ELEVATIONS
A2.12	LEVEL 1 ENLARGED ELEVATIONS
A3.01	BUILDING SECTION
A3.02	BUILDING SECTION
A3.03	PARKING FACADE DETAILS
A3.04	PARKING FACADE DETAILS
A3.05	PARKING FACADE DETAILS
A4.01	CUB EXHIBIT
A4.01	CUB EXHIBIT - ENLARGED PLAN
A9.01	RENDERING
A9.02	RENDERING
A9.03	RENDERING

LANDSCAPE

L1.01	LEVEL 1 LANDSCAPE PLAN
L1.02	LEVEL 5 LANDSCAPE PLAN
L1.03	ROOF LEVEL LANDSCAPE PLAN
L1.04	SAMPLE CONCEPT IMAGERY
L1.05	PLANTER WALL HEIGHT PLAN
L1.06	TREE DISPOSITION PLAN
L1.07	PLANTING PALETTE - L1
L1.08	PLANTING PALETTE - L5/ROOF

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

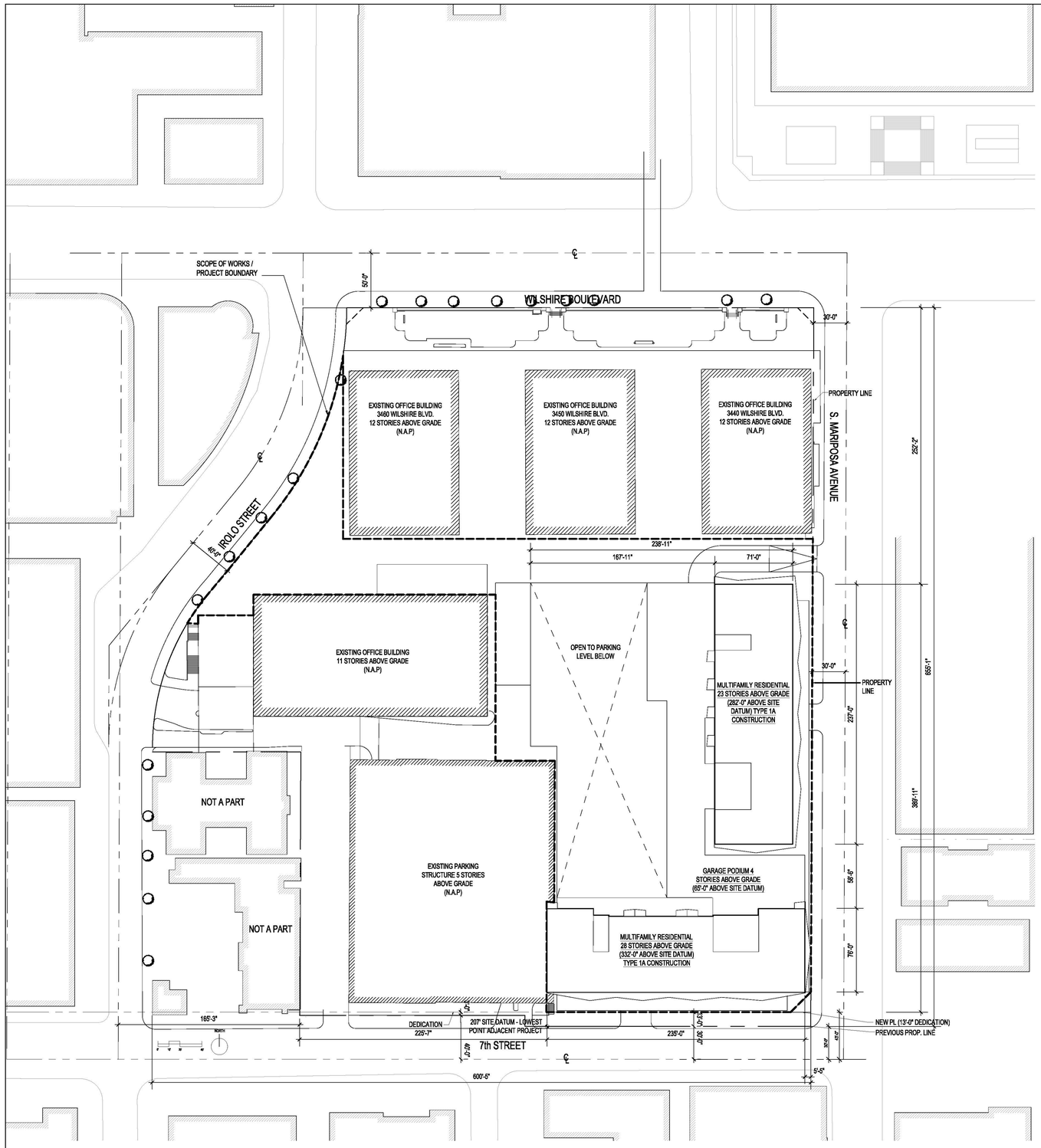
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
COVER SHEET

NUMBER
G0.00

2020 CALLISON RTKL, INC.



1 PLOT PLAN

SCALE: 1" = 50'

3440 WILSHIRE PROJECT SUMMARY

APPLICANT	CENTRAL PLAZA LLC C/O EDGAR KHALATIAN, MAYER BROWN LLP 350 SOUTH GRAND AVENUE, 25TH FLOOR LOS ANGELES, CALIFORNIA 90071
BUILDING ADDRESS	3440 WILSHIRE BOULEVARD LOS ANGELES, CA 90010

ZONING

SITE CLASSIFICATION = C4-2, PB-2, P-2
WILSHIRE COMMUNITY PLAN AREA
REGIONAL CENTER COMMERCIAL
ZI-1940 WILSHIRE CENTER/KOREATOWN REDEVELOPMENT PROJECT
ZI-2374 LOS ANGELES STATE ENTERPRISE ZONE
ZI-1117 MTA PROJECT
ZI-2410 METRO WESTSIDE SUBWAY EXTENSION PROJECT

RESIDENTIAL DENSITY

- 441 STUDIO UNITS
- 199 2BR UNITS

640 DWELLING UNITS PROVIDED INC. 5% MODERATE INCOME (32 UNITS)

FLOOR AREA

LOT & BUILDING AREA	
LOT AREA	320,534 SF
LOT AREA LESS DEDICATION	316,438 SF (BUILDABLE AREA - F.A.R. BASED ON GROSS SITE AREA PER LAMC 14.5.3)
FLOOR AREA	
ALLOWABLE F.A.R.	6 : 1
	6 x 316,438 =
TOTAL ALLOWED AREA	**1,898,628 SF**
EXISTING COMMERCIAL	**760,456 SF**
PROVIDED COMMERCIAL	10,738 SF
PROVIDED RESIDENTIAL	701,315 SF
TOTAL PROVIDED AREA	**712,053 SF**
TOTAL PROPOSED + EXISTING	**1,472,509 SF**
PROVIDED F.A.R.	4.65 : 1

PARKING

PER LAMC 12.21 A.4(a) & *LAMC 12.21 A.4 (x) (3)*

AUTOMOBILE

NO. OF PARKING SPACES REQUIRED		
UNITS < 3 HABITABLE ROOMS	441 x 1/EA =	441
UNITS 3 HABITABLE ROOMS	0 x 1.5/EA =	0
UNITS > 3 HABITABLE ROOMS	199 x 2/EA =	398
TOTAL RESIDENTIAL		839
NO. OF AUTOMOBILE PARKING REQUIRED		
RESIDENTIAL		839
15% RES. BIKE REPLACEMENT		-125
RESIDENTIAL PARKING REQ'D		714
EXISTING COMMERCIAL 2 per 1,000 (760,456 / 500)		1,521
NEW COMMERCIAL 2 per 1,000 (10,738 / 500)		21
COMMERCIAL REQUIRED		1,542
TOTAL COMMERCIAL BIKE REPLACEMENT		- 335 (21.7%)
COMMERCIAL PARKING REQ'D WITH BIKE REDUCTION		1,207
TOTAL REQUIRED		1,921

NO. OF AUTOMOBILE PARKING PROVIDED

	COMMERCIAL			RESIDENTIAL			
LEVEL	STANDARD	COMPACT	TANDEM	STANDARD	COMPACT	TANDEM	TOTAL
LEVEL B2	205	17					222
LEVEL B1	183	18	6				207
LEVEL 1	68	3		51			122
LEVEL 2				205	16		221
LEVEL 3				205	16		221
LEVEL 4				193	28		221
	456	38	6	653	60		
TOTAL	500			714			1,214

NEW CONSTRUCTION TOTAL:	1,214
(OF WHICH 5% TO BE EV SPACES)	61 EV SPACES
EXISTING CONSTRUCTION	707
TOTAL PARKING PROVIDED	**1,921**

BICYCLE

RESIDENTIAL

SHORT TERM

UNITS	RATIO	REQUIRED	PROVIDED
1-25	1 SPACE PER 10 UNITS	2.5	2
26-100	1 SPACE PER 15 UNITS	5	5
101-200	1 SPACE PER 20 UNITS	5	5
201+	1 SPACE PER 40 UNITS	11	11
TOTAL SHORT TERM		23	23

LONG TERM

UNITS	RATIO	REQUIRED	PROVIDED
1-25	**1 SPACE PER UNIT**	25	25
26-100	1 SPACE PER 1.5 UNITS	50	50
101-200	1 SPACE PER 2 UNITS	50	50
201+	1 SPACE PER 4 UNITS	110	110
TOTAL LONG TERM		235	235

RESIDENTIAL AUTOMOBILE REPLACEMENT STALLS	**(125 x 4 =) 500**
TOTAL RESIDENTIAL BIKE PARKING STALLS:	**(23 SHORT TERM + 477 LONG TERM) 500**

COMMERCIAL

PROPOSED SHORT TERM		
1 PER 2,000 SF	5	5
PROPOSED LONG TERM		
1 PER 2,000 SF	5	5
EXISTING COMMERCIAL REPLACEMENT STALLS		1,332
PROPOSED COMMERCIAL REPLACEMENT STALLS		8
TOTAL COMMERCIAL BIKE PARKING STALLS:		(5 SHORT TERM + 1,335 LONG TERM) 1,340
TOTAL BICYCLE STALLS	268	1,840

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:
PARCEL 1:
THOSE PORTIONS OF LOTS 94 THROUGH 98 INCLUSIVE OF WILSHIRE HARVARD HEIGHTS, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY AND THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN SAID CITY, COUNTY AND STATE, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS A WHOLE AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 4.3.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 168 . .39 FEET; THENCE NORTH 89 DEGREES .39 MINUTES .30 SECONDS EAST 1.39.67 FEET; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 158.8.3 FEET; THENCE SOUTH 89 DEGREES .39 MINUTES .30 SECONDS WEST .309.70 FEET TO A POINT IN THE SOUTHEAST LINE OF NORMANDY AVENUE, AS DESCRIBED IN THE DEED RECORDED IN BOOK 4.3.1.4 PAGE 4 .34, OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, SAID POINT BEING A CURVE CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 220.05 FEET, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS NORTH 82 DEGREES 24 MINUTES .33 SECONDS WEST; THENCE NORTHEASTERLY ALONG SAID CURVE 120.82 FEET; THENCE TANGENT TO SAID CURVE, NORTH .39 DEGREES 00 MINUTES 16 SECONDS EAST 82.66 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF .301.92 FEET; THENCE NORTHEASTERLY ALONG SAID CURVE, 48.78 FEET TO THE EASTERLY LINE OF SAID LOT "B"; THENCE NORTH O DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE, 150.00 FEET TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD; THENCE ALONG SAID BOULEVARD, NORTH 89 DEGREES .39 MINUTES 30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING.
PARCEL 2:
THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET WIDE, WITH THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE; THENCE WESTERLY ALONG SAID SOUTHERLY LINE, 161.50 FEET; THENCE SOUTHERLY AT RIGHT ANGLES TO SAID SOUTHERLY LINE, 655.04 FEET, MORE OR LESS, TO THE NORTHERLY LINE OF SEVENTH STREET, 60 FEET WIDE; THENCE EASTERLY ALONG SAID SEVENTH STREET, 158.55 FEET, MORE OR LESS, TO THE POINT OF INTERSECTION OF THE NORTHERLY LINE OF SEVENTH STREET THE WESTERLY LINE OF MARIPOSA AVENUE; THENCE NORTHERLY ALONG THE SAID MARIPOSA AVENUE, 655.10 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.
PARCEL 3:
THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, DISTANT SOUTH 89 DEGREES 39 MINUTES 00 SECONDS WEST THEREON 161.50 FEET FROM THE INTERSECTION OF SAID SOUTHERLY LINE WITH THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET WIDE; THENCE SOUTH 89 DEGREES 39 MINUTES 00 SECONDS WEST,M ALONG SAID SOUTHERLY LINE, 160.625 FEET; THENCE AT RIGHT ANGLES, SOUTH O DEGREES 21 MINUTES 00 SECONDS EAST 645.12 FEET, MORE OR LESS, TO THE NORTHERLY LINE OF SEVENTH STREET; THENCE EASTERLY ALONG SAID SEVENTH STREET TO A LINE DRAWN AT RIGHT ANGLES FROM THE SOUTHERLY LINE OF SAID WILSHIRE BOULEVARD THAT PASSES THROUGH THE POINT OF BEGINNING; THENCE NORTH O DEGREES 21 MINUTES 00 SECONDS WEST, ALONG SAID LINE, 655.04 FEET, MORE OR LESS, TO THE POINT OF BEGINNING. EXCEPT THAT PORTION THEREOF, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 43.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 168 . .39 FEET; THENCE NORTH 89 DEGREES .39 MINUTES .30 SECONDS EAST 1.39.67 FEET; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 158.83 FEET; THENCE SOUTH 89 DEGREES 39 MINUTES 30 SECONDS WEST 176.50 FEET, MORE OR LESS, TO THE POINT IN THE EASTERLY LINE OF SAID WILSHIRE HARVARD HEIGHTS; THENCE NORTH O DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD; THENCE ALONG SAID BOULEVARD, NORTH 89 DEGREES 39 MINUTES .30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING.
PARCEL 4:
THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, DISTANT SOUTH 89 DEGREES 49 MINUTES 00 SECONDS WEST, THEREON 322.125 FEET FROM THE INTERSECTION OF SAID SOUTHERLY LINE WITH THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET WIDE; THENCE SOUTH O DEGREES 21 MINUTES 00 SECONDS EAST 645.12 FEET TO THE NORTH LINE OF SEVENTH STREET; THENCE ALONG SAID SEVENTH STREET, SOUTH 89 DEGREES 40 MINUTES 00 SECONDS WEST, TO THE EAST LINE OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS; THENCE NORTH O DEGREES 05 MINUTES 00 SECONDS WEST, ALONG SAID LINE 644.97 FEET, MORE OR LESS, TO THE SOUTHERLY LINE OF SAID WILSHIRE BOULEVARD; THENCE NORTH 89 DEGREES 39 MINUTES 00 SECONDS EAST, ALONG SAID SOUTHERLY LINE, 143.455 FEET, MORE OR LESS, TO THE POINT OF BEGINNING. EXCEPT THAT PORTION THEREOF, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF 301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 43.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 168 . .39 FEET; THENCE NORTH 89 DEGREES .39 MINUTES .30 SECONDS EAST 1.39.67 FEET; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 158.83 FEET; THENCE SOUTH 89 DEGREES 39 MINUTES 30 SECONDS WEST 176.50 FEET, MORE OR LESS, TO THE POINT IN THE EASTERLY LINE OF SAID WILSHIRE HARVARD HEIGHTS; THENCE NORTH O DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD; THENCE ALONG SAID BOULEVARD, NORTH 89 DEGREES 39 MINUTES .30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING.
PARCEL 5:
THOSE PORTIONS OF LOTS 9.3 AND 94 OF WILSHIRE HARVARD HEIGHTS, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WDE, (SAID SOUTHERLY LINE BEING THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT' ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF .301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF .205.97 FEET; THENCE TANGENT TO SAID CURVE, SOUTH 39 DEGREES 00 MINUTES 18 SECONDS WEST 82.68 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 220.00 FEET; THENCE SOUTHERLY ALONG SAID CURVE, 120.82 FEET TO THE TRUE POINT OF BESINNING; THENCE NORTH 89 DEGREES 39 MINUTES .30 SECONDS EAST 1.3.3.28 FEET TO THE EAST LINE OF SAID LOT 94; THENCE ALONG THE EAST LINES OF SAID LOTS, SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 34.17 FEET TO THE SOUTH LINE OF THE NORTH 10 FEET OF SAID LOT 93; THENCE ALONG SAID SOUTH LINE, SOUTH 89 DEGREES 39 MINUTES 30 SECONDS WEST 135.25 FEET TO THE WEST LINE OF SAID LOT 93; THENCE ALONG SAID WEST LINE, NORTH O DEGREES 05 MINUTES 00 SECONDS WEST 4.40 FEET TO THE INTERSECTION OF SAID LINE WITH THE SOUTHERLY CONTINUATION OF THE CURVE HEREIN DESCRIBED HAVING A RADIUS OF 220.00 FEET: THENCE NORTHERLY ALONG SAID CURVE, 29.47 FEET TO THE TRUE POINT OF BEGINNING.
APN: 5094-002-011, 012, 013, 015, 017, 019, 020

OPEN SPACE

PER LAMC 12.21 G.2

OPEN SPACE REQUIRED	
UNITS < 3 HABITABLE ROOMS	441 x 100 SF/EA = 44,100 sf
UNITS = 3 HABITABLE ROOMS	199 x 125 SF/EA = 24,875 sf
UNITS > 3 HABITABLE ROOMS	0 x 175 SF/EA = 0 sf
TOTAL OPEN SPACE REQUIRED	**68,975 SF**
OUTDOOR OPEN SPACE PROVIDED	
LEVEL 5 (AMENITY DECK)	17,882 SF
ROOF LEVEL	8,000 SF
TOTAL COMMON OUTDOOR OPEN SPACE	25,882 SF
PRIVATE BALCONIES	
LEVEL 5 (25 x 50 SF)	1,250 SF
TOWER 1	
LEVELS 6-16 (12 PER FLOOR) 120 x 50 sf =	6,000 SF
LEVELS 17-21 (15 PER FLOOR) 90 x 50 sf =	4,500 SF
TOWER 2	
LEVELS 6-16 (10 PER FLOOR) 110 x 50 sf =	5,500 SF
LEVELS 17-26 (15 PER FLOOR) 150 x 50 sf =	7,500 SF
LEVEL 22 & 27 (22 X 50 SF)	1,100 SF
TOTAL BALCONIES (517 x 50 SF)	25,850 SF
INDOOR OPEN SPACE PROVIDED	
LEVEL 1 (LOBBY)	4,475 SF
LEVEL 5 (GYM & AMENITY LOUNGE(S)	4,785 SF
ROOF LEVEL AMENITY	8,575 SF
TOTAL COMMON INDOOR OPEN SPACE	17,835 SF
RATIO OF INDOOR COMMON SPACE COUNTED (MAX 25%) = 17,243 SF	
TOTAL OPEN SPACE PROVIDED	**68,975 SF**

LANDSCAPE

PER LAMC 12.21 G.2.A.3

REQUIRED COMMON OPEN SPACE (50%)	34,488 SF
PROVIDED PERCENTAGE OF LANDSCAPED COMMON OPEN SPACE (25%)	**8,622 SF**
REQUIRED NUMBER OF TREES ON-SITE (0.25 TREE PER DWELLING UNIT)	160
PROVIDED NUMBER OF TREES ON-SITE	**160**

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

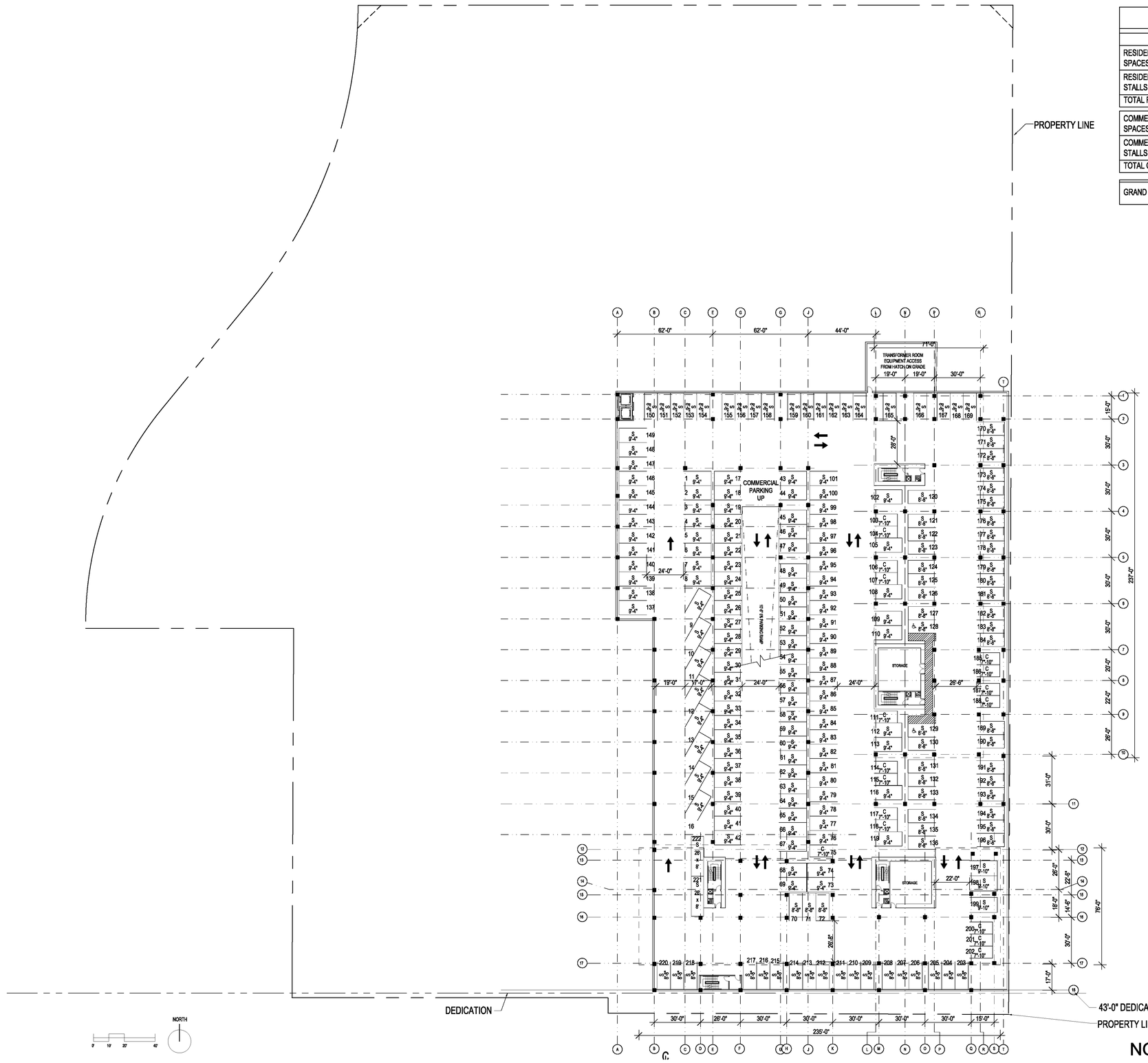
SEAL

SHEET IDENTIFICATION
TITLE
PLOT PLAN

NUMBER
G0.01

2020 CALLISON RTKL, INC.

PARKING MIX, LEVEL B2		
	FIRST ACCESS	TANDEM
RESIDENTIAL COMPACT SPACES	0 SPACES	0 SPACES
RESIDENTIAL STANDARD STALLS	0 SPACES	0 SPACES
TOTAL RESIDENTIAL	0 SPACES	0 SPACES
COMMERCIAL COMPACT SPACES	17 SPACES	0 SPACES
COMMERCIAL STANDARD STALLS	205 SPACES	0 SPACES
TOTAL COMMERCIAL	222 SPACES	0 SPACES
GRAND TOTAL	222 SPACES	



1 LEVEL B2
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

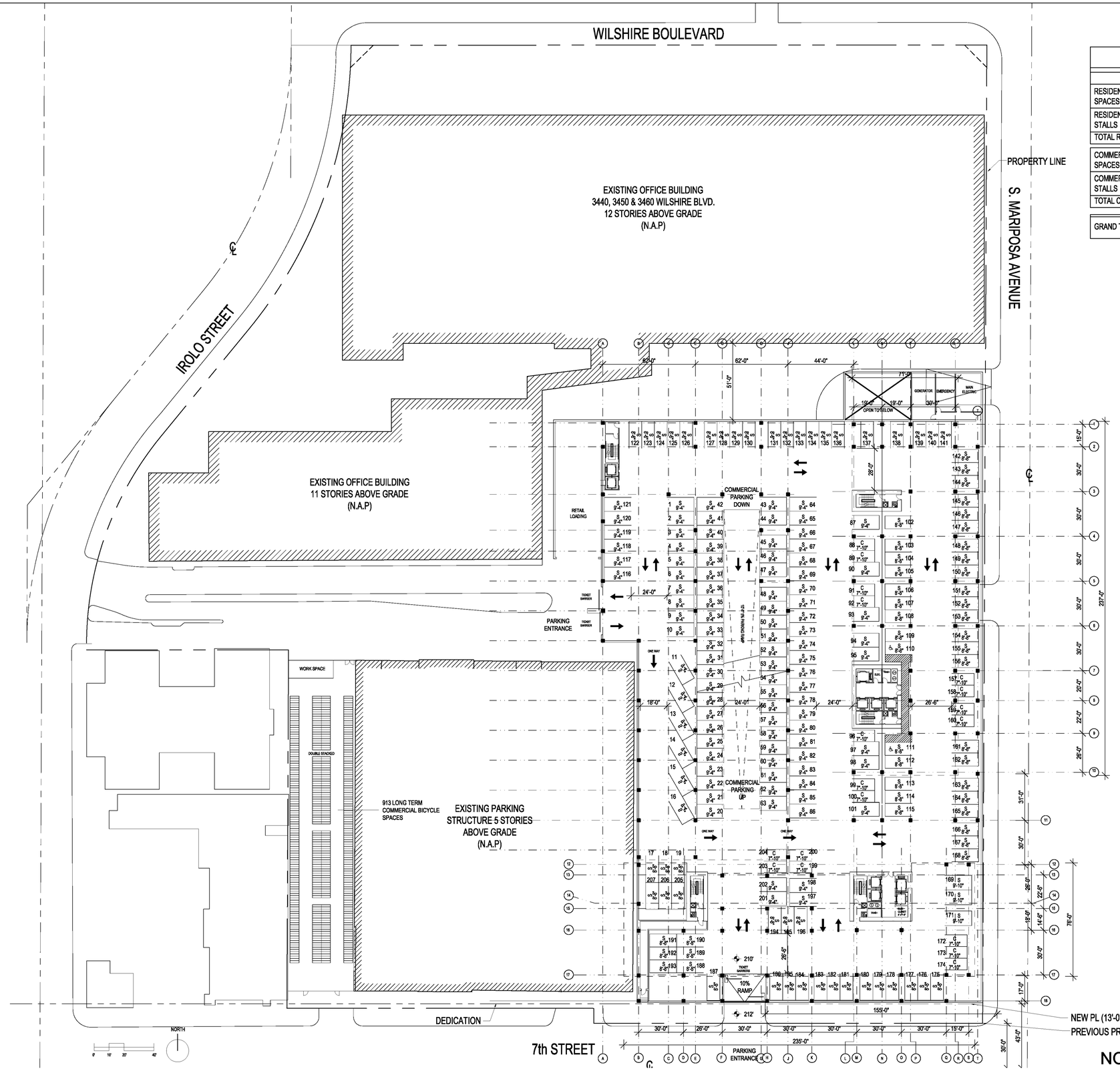
ISSUE DRAWING LOG		
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/08/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL B2

NUMBER
A1.01

2020 CALLISON RTKL, INC.



PARKING MIX, LEVEL B1

	FIRST ACCESS	TANDEM
RESIDENTIAL COMPACT SPACES	0 SPACES	0 SPACES
RESIDENTIAL STANDARD STALLS	0 SPACES	0 SPACES
TOTAL RESIDENTIAL	0 SPACES	0 SPACES
COMMERCIAL COMPACT SPACES	18 SPACES	0 SPACES
COMMERCIAL STANDARD STALLS	183 SPACES	6 SPACES
TOTAL COMMERCIAL	201 SPACES	6 SPACES
GRAND TOTAL	207 SPACES	

1 LEVEL B1
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

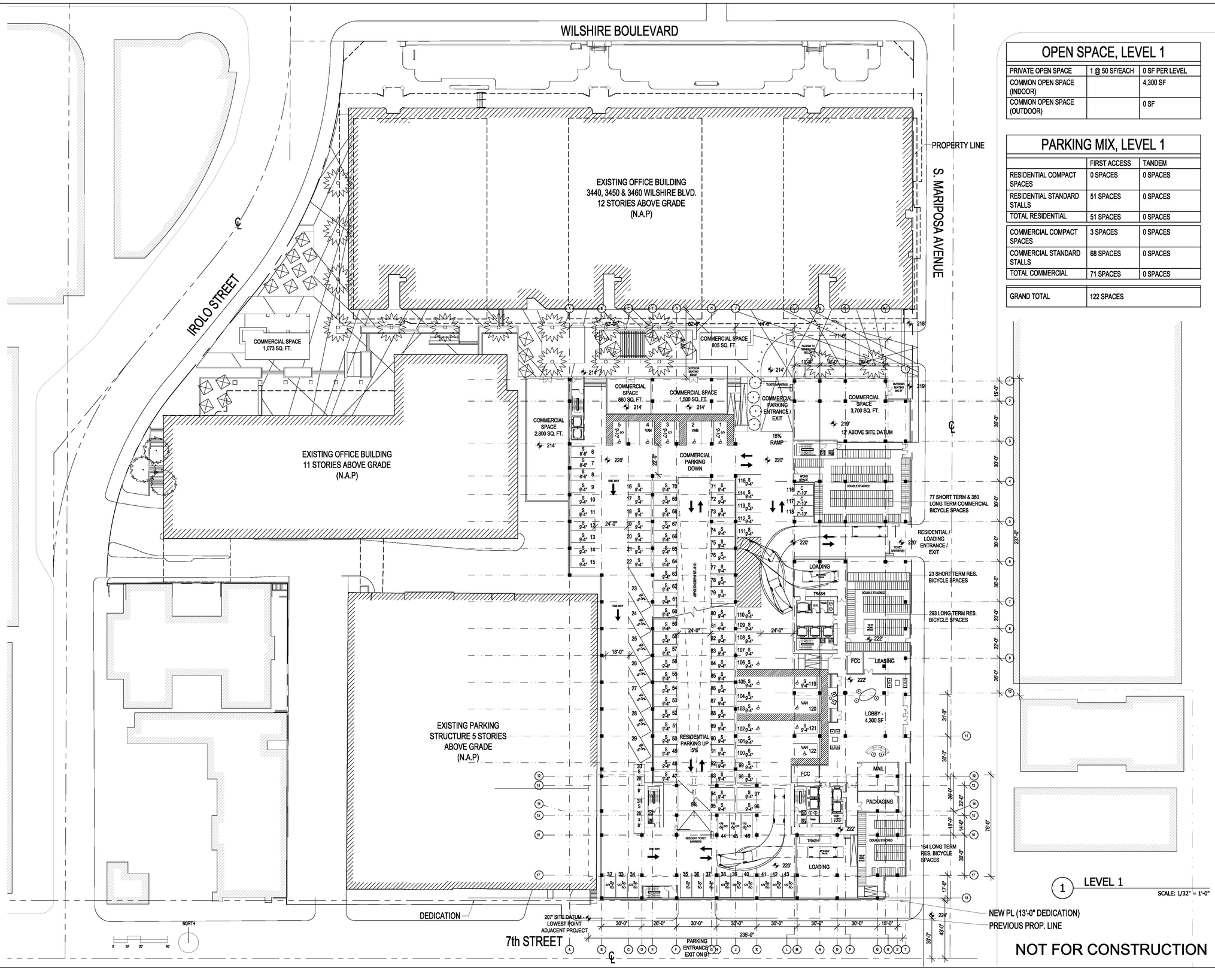
ISSUE DRAWING LOG		
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL B1

NUMBER
A1.02

2020 CALLISON RTKL, INC.



1 LEVEL 1
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

OPEN SPACE, LEVEL 1

PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		4,300 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

PARKING MIX, LEVEL 1

	FIRST ACCESS	TANDEM
RESIDENTIAL COMPACT SPACES	0 SPACES	0 SPACES
RESIDENTIAL STANDARD STALLS	51 SPACES	0 SPACES
TOTAL RESIDENTIAL	51 SPACES	0 SPACES
COMMERCIAL COMPACT SPACES	3 SPACES	0 SPACES
COMMERCIAL STANDARD STALLS	68 SPACES	0 SPACES
TOTAL COMMERCIAL	71 SPACES	0 SPACES
GRAND TOTAL	122 SPACES	

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

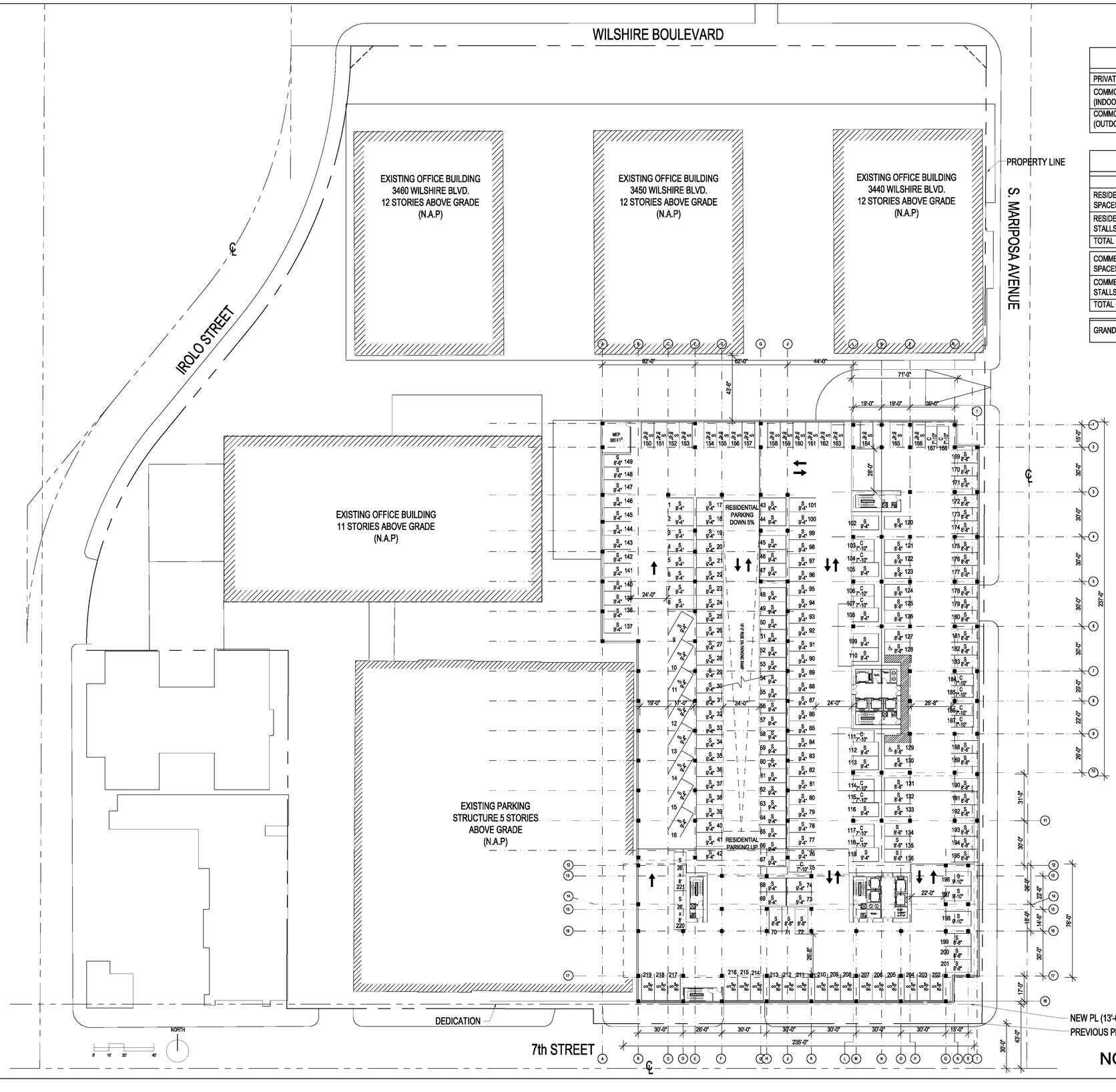
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL 1

NUMBER
A1.03

2020 CALLISON RTKL, INC.



OPEN SPACE, LEVEL 2

PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

PARKING MIX, LEVEL 2

	FIRST ACCESS	TANDEM
RESIDENTIAL COMPACT SPACES	16 SPACES	0 SPACES
RESIDENTIAL STANDARD STALLS	205 SPACES	0 SPACES
TOTAL RESIDENTIAL	221 SPACES	0 SPACES
COMMERCIAL COMPACT SPACES	0 SPACES	0 SPACES
COMMERCIAL STANDARD STALLS	0 SPACES	0 SPACES
TOTAL COMMERCIAL	0 SPACES	0 SPACES
GRAND TOTAL	221 SPACES	

1 LEVEL 2
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

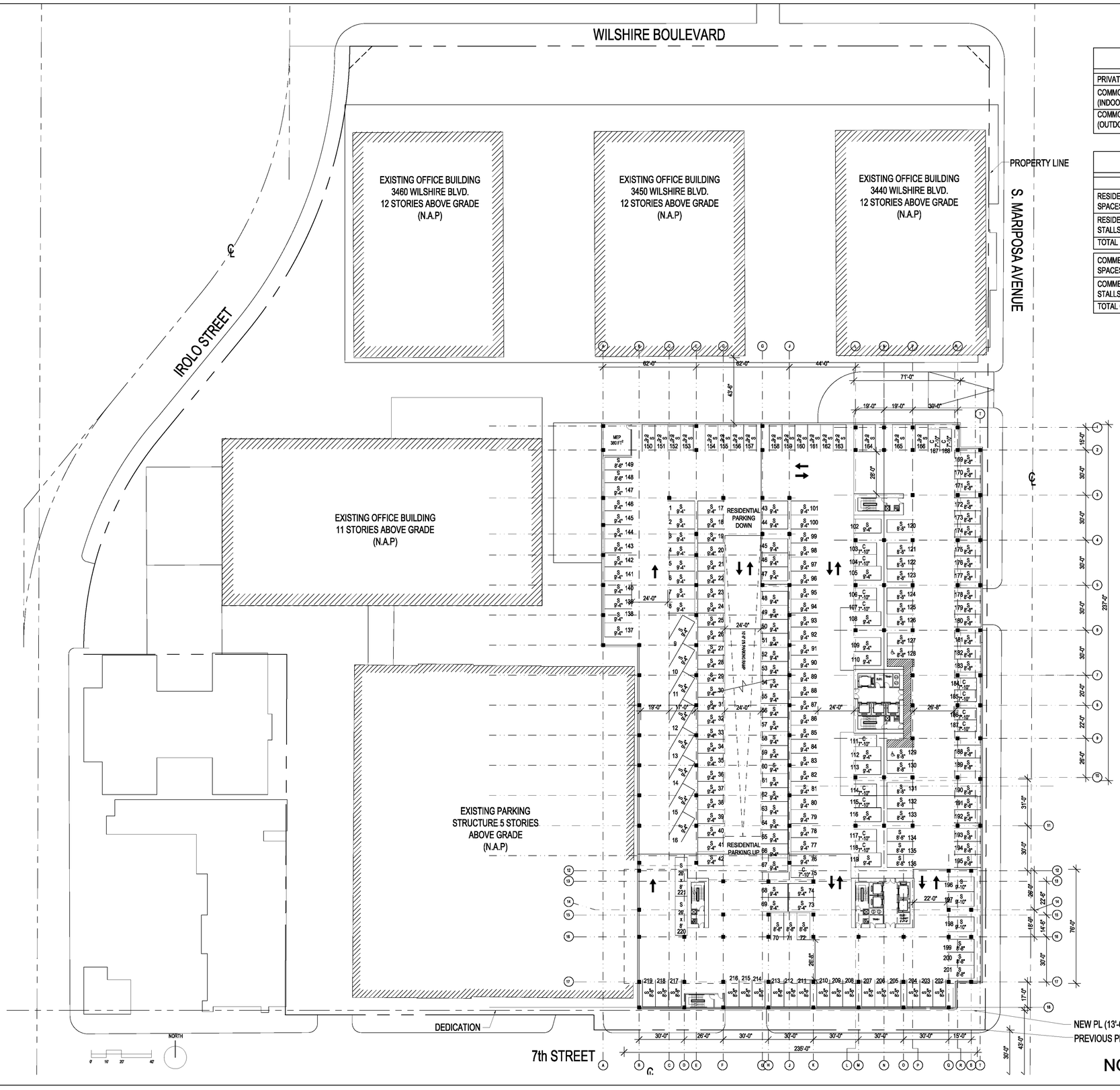
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL 2

NUMBER
A1.04

2020 CALLISON RTKL, INC.



1 LEVEL 3

SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

OPEN SPACE, LEVEL 3

PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

PARKING MIX, LEVEL 3

	FIRST ACCESS	TANDEM
RESIDENTIAL COMPACT SPACES	16 SPACES	0 SPACES
RESIDENTIAL STANDARD STALLS	205 SPACES	0 SPACES
TOTAL RESIDENTIAL	221 SPACES	0 SPACES
COMMERCIAL COMPACT SPACES	0 SPACES	0 SPACES
COMMERCIAL STANDARD STALLS	0 SPACES	0 SPACES
TOTAL COMMERCIAL	0 SPACES	0 SPACES

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION

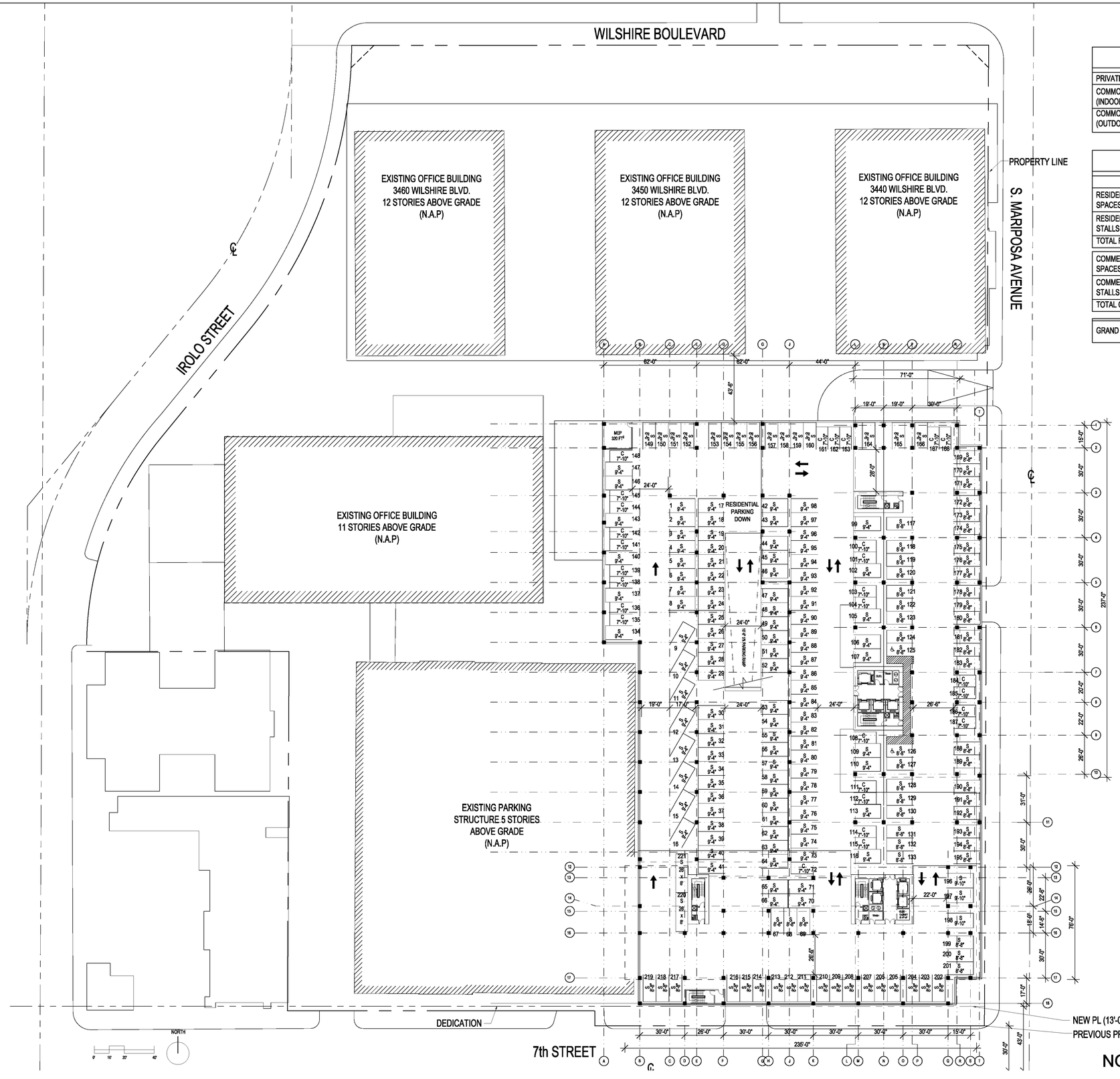
TITLE

FLOOR PLAN - LEVEL 3

NUMBER

A1.05

2020 CALLISON RTKL, INC.



1 LEVEL 4

SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

OPEN SPACE, LEVEL 4

PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

PARKING MIX, LEVEL 4

	FIRST ACCESS	TANDEM
RESIDENTIAL COMPACT SPACES	28 SPACES	0 SPACES
RESIDENTIAL STANDARD STALLS	193 SPACES	0 SPACES
TOTAL RESIDENTIAL	221 SPACES	0 SPACES
COMMERCIAL COMPACT SPACES	0 SPACES	0 SPACES
COMMERCIAL STANDARD STALLS	0 SPACES	0 SPACES
TOTAL COMMERCIAL	0 SPACES	0 SPACES
GRAND TOTAL	221 SPACES	

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA

LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION

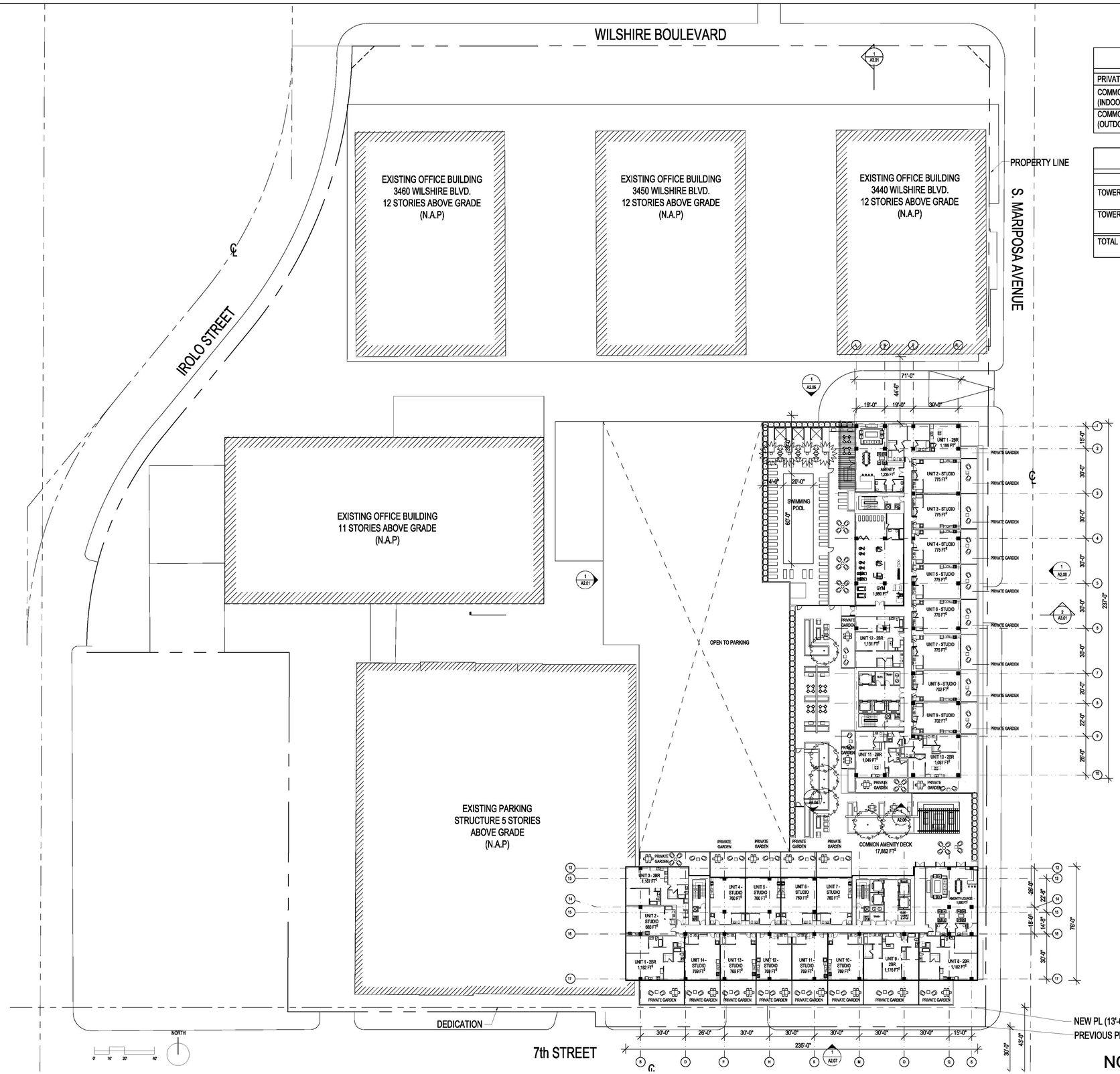
TITLE

FLOOR PLAN - LEVEL 4

NUMBER

A1.06

2020 CALLISON RTKL, INC.



OPEN SPACE, LEVEL 5

PRIVATE OPEN SPACE	25 @ 50 SF/EACH	1,250 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		4,785 SF
COMMON OPEN SPACE (OUTDOOR)		17,882 SF

UNIT MIX, LEVEL 5

	STUDIO UNITS	2BR UNITS
TOWER 1	8 (67%)	4 (33%)
TOWER 2	10 (71%)	4 (29%)
TOTAL	18 (70%)	8 (30%)

1 LEVEL 5 - AMENITY DECK
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

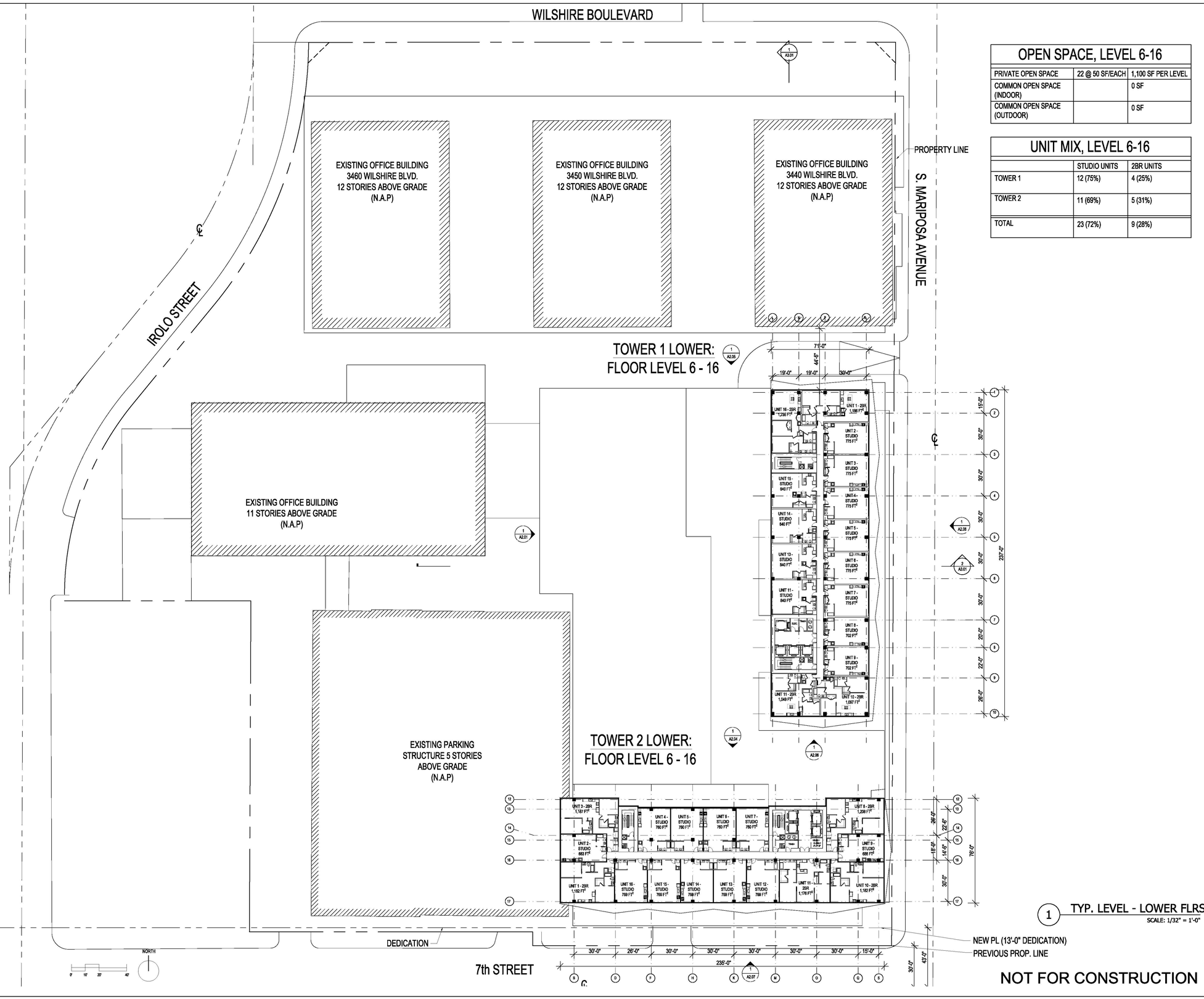
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL 5

NUMBER
A1.07

2020 CALLISON RTKL, INC.



OPEN SPACE, LEVEL 6-16

PRIVATE OPEN SPACE	22 @ 50 SF/EACH	1,100 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

UNIT MIX, LEVEL 6-16

	STUDIO UNITS	2BR UNITS
TOWER 1	12 (75%)	4 (25%)
TOWER 2	11 (69%)	5 (31%)
TOTAL	23 (72%)	9 (28%)

1 TYP. LEVEL - LOWER FLRS
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

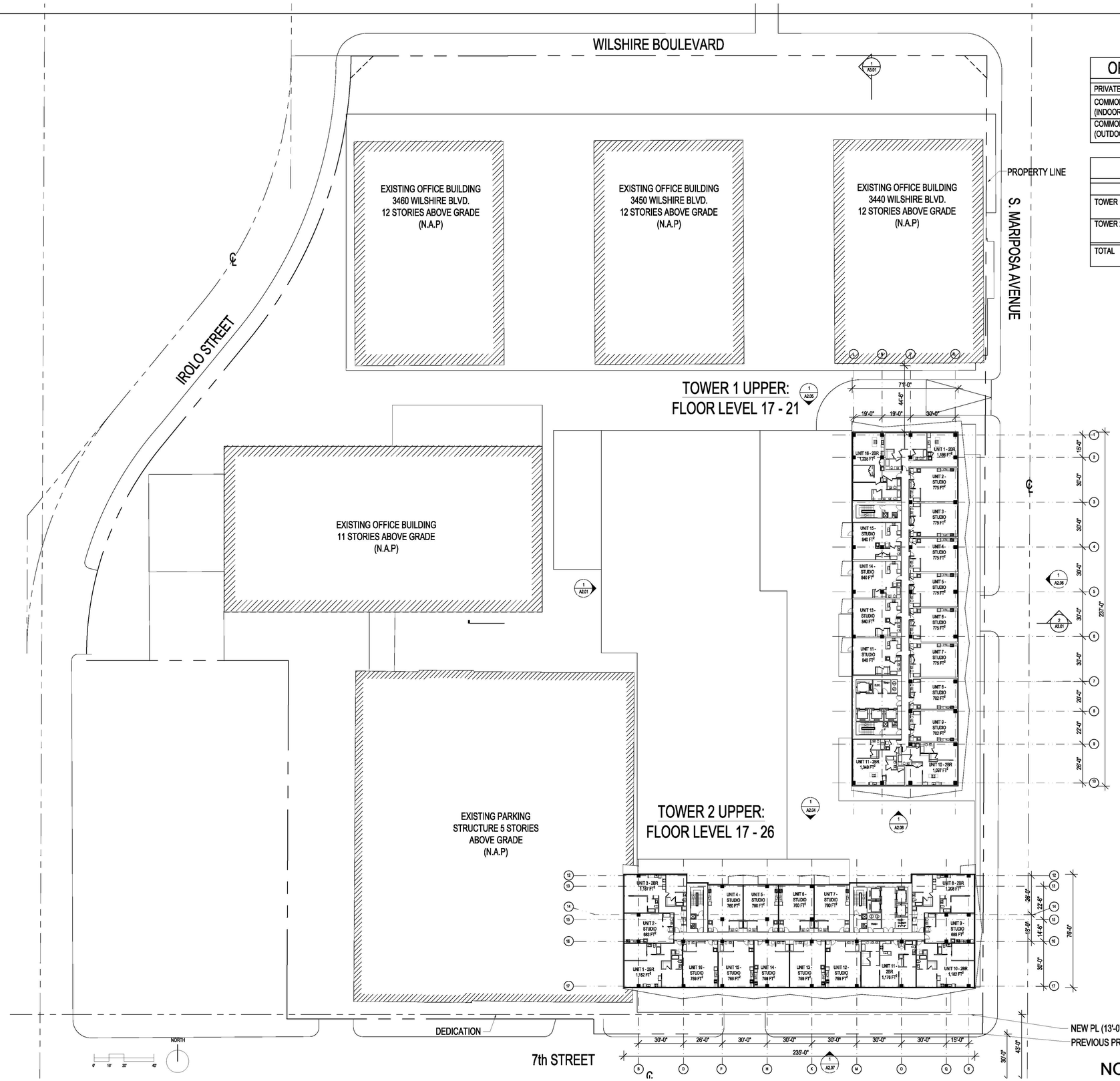
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LOWER LEVELS

NUMBER
A1.08

2020 CALLISON RTKL, INC.



1 TYP. LEVEL - UPPER FLRS
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

OPEN SPACE, LEVEL 17-21/26

PRIVATE OPEN SPACE	30 @ 50 SF/EACH	1,500 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

UNIT MIX, LEVEL 17-21/26

	STUDIO UNITS	2BR UNITS
TOWER 1	12 (75%)	4 (25%)
TOWER 2	11 (69%)	5 (31%)
TOTAL	23 (72%)	9 (28%)

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

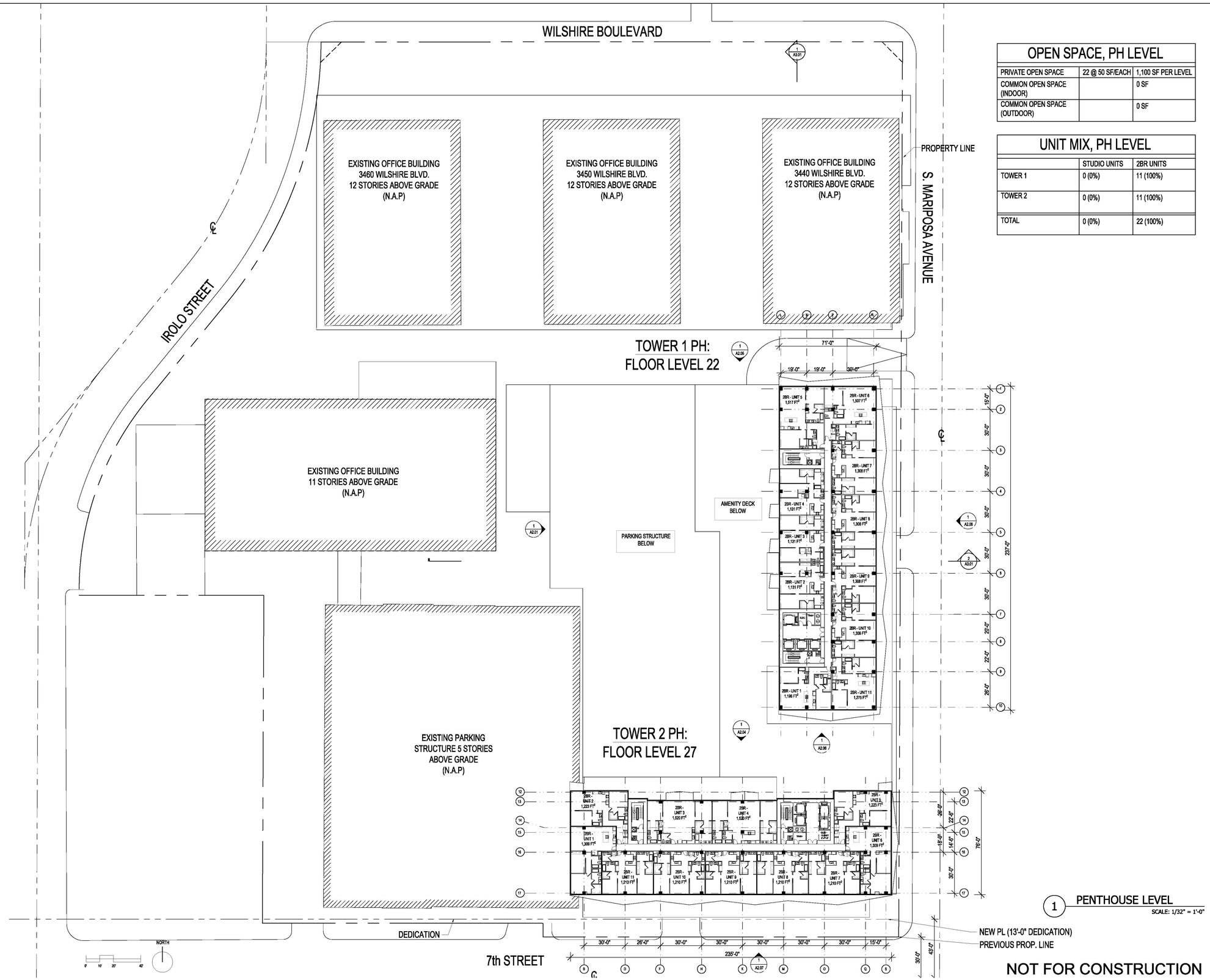
1	05/09/2018	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - UPPER LEVELS

NUMBER
A1.09

2020 CALLISON RTKL, INC.



1 PENTHOUSE LEVEL
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

OPEN SPACE, PH LEVEL

PRIVATE OPEN SPACE	22 @ 50 SF/EACH	1,100 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

UNIT MIX, PH LEVEL

	STUDIO UNITS	2BR UNITS
TOWER 1	0 (0%)	11 (100%)
TOWER 2	0 (0%)	11 (100%)
TOTAL	0 (0%)	22 (100%)

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - PENTHOUSE LEVEL
NUMBER
A1.10

2020 CALLISON RTKL, INC.

WILSHIRE BOULEVARD

IROLO STREET

S. MARIPOSA AVENUE

PROPERTY LINE

EXISTING OFFICE BUILDING
3460 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3450 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3440 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
11 STORIES ABOVE GRADE
(N.A.P)

EXISTING PARKING
STRUCTURE 5 STORIES
ABOVE GRADE
(N.A.P)

TOWER 1 AMENITY
ROOF: LEVEL 23

TOWER 2 AMENITY
ROOF: LEVEL 28

MECH. EQUIPMENT
(OPEN TO SKY)

MECH. EQUIPMENT
(OPEN TO SKY)

ROOFTOP
AMENITY
4,000 FT²

INDOOR AMENITY LOUNGE
7,500 FT²

STORAGE

ROOFTOP
AMENITY
4,000 FT²

MECH. EQUIPMENT
(OPEN TO SKY)

INDOOR AMENITY LOUNGE - 4,750 FT²

STORAGE

71'-0"
19'-0"
19'-0"
30'-0"

15'-0"
30'-0"
30'-0"
30'-0"
237'-0"
30'-0"
20'-0"
22'-0"
26'-0"

26'-0"
22'-6"
14'-6"
18'-0"
30'-0"
76'-0"

30'-0"
26'-0"
30'-0"
30'-0"
30'-0"
30'-0"
30'-0"
15'-0"
235'-0"
30'-0"
43'-0"

DEDICATION

NEW PL (13'-0" DEDICATION)

PREVIOUS PROP. LINE

7th STREET

NORTH

0' 10' 20' 40'

1 ROOF AMENITY
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

OPEN SPACE, ROOF AMENITY LEVEL		
PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		8,575 SF
COMMON OPEN SPACE (OUTDOOR)		8,000 SF

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

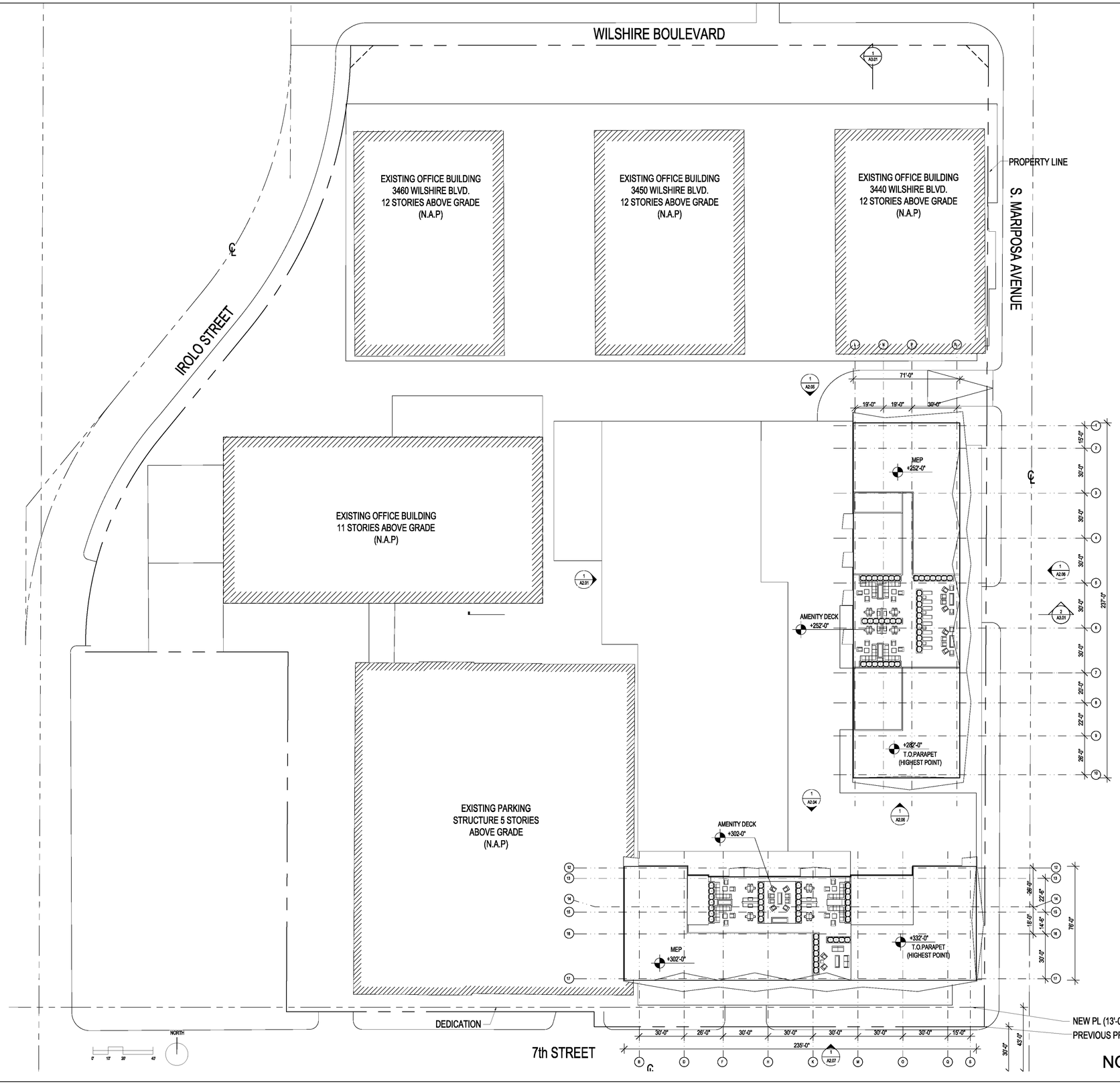
ISSUE DRAWING LOG

1	05/09/2018	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - ROOF LEVEL AMENITY
NUMBER
A1.11

2020 CALLISON RTKL, INC.



1 ROOF LEVEL
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

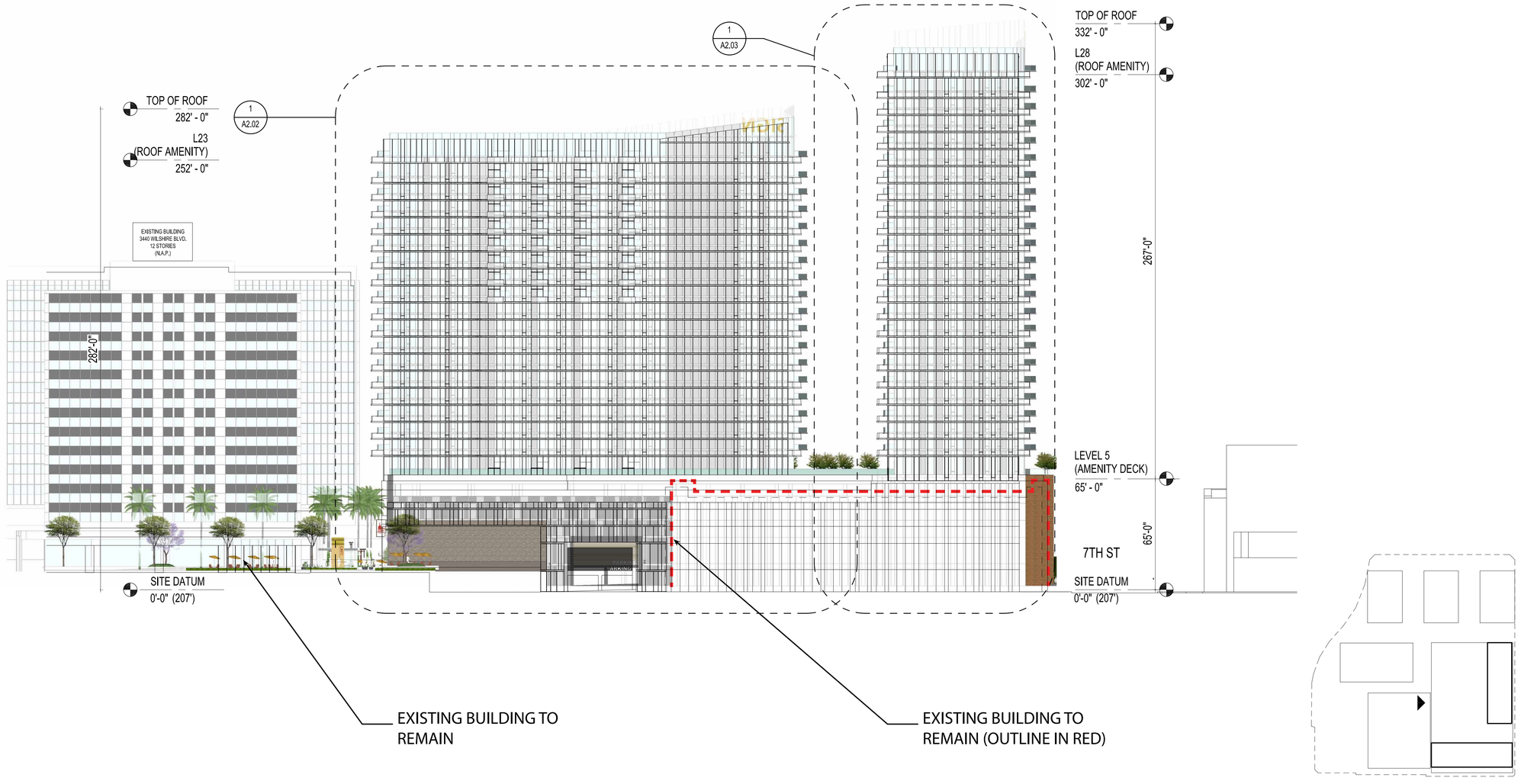
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - ROOF LEVEL

NUMBER
A1.12

2020 CALLISON RTKL, INC.



1 WEST ELEVATION - SITE
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

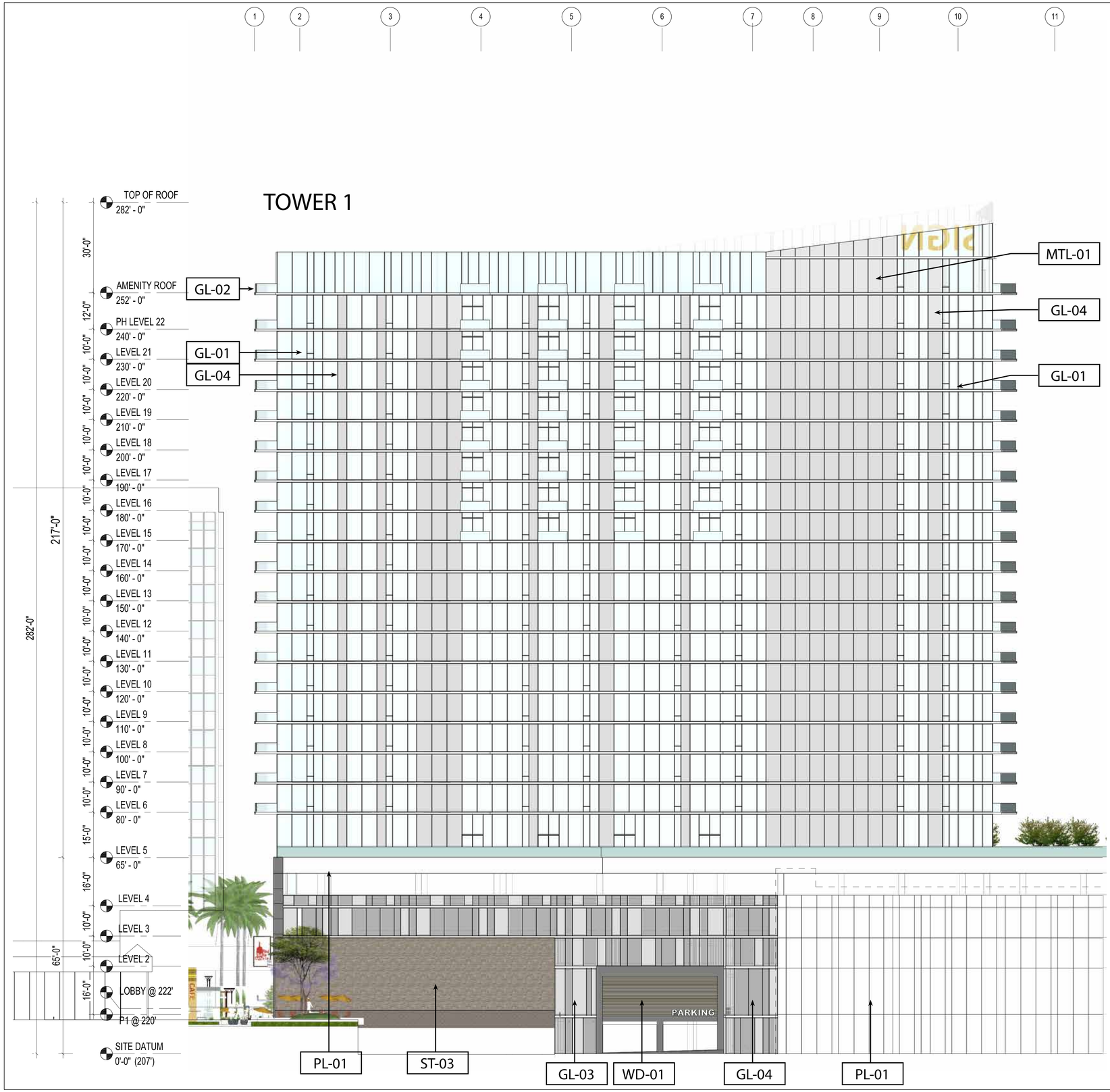
ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
WEST ELEVATION - SITE
NUMBER
A2.01

2020 CALLISON RTKL, INC.



MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND

MTL-01

MTL-02

ST-01

ST-02

ST-03

GL-01

GL-02

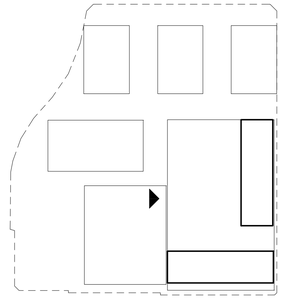
GL-03

GL-04

WD-01

LT-01

PL-01


1 WEST ELEVATION
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

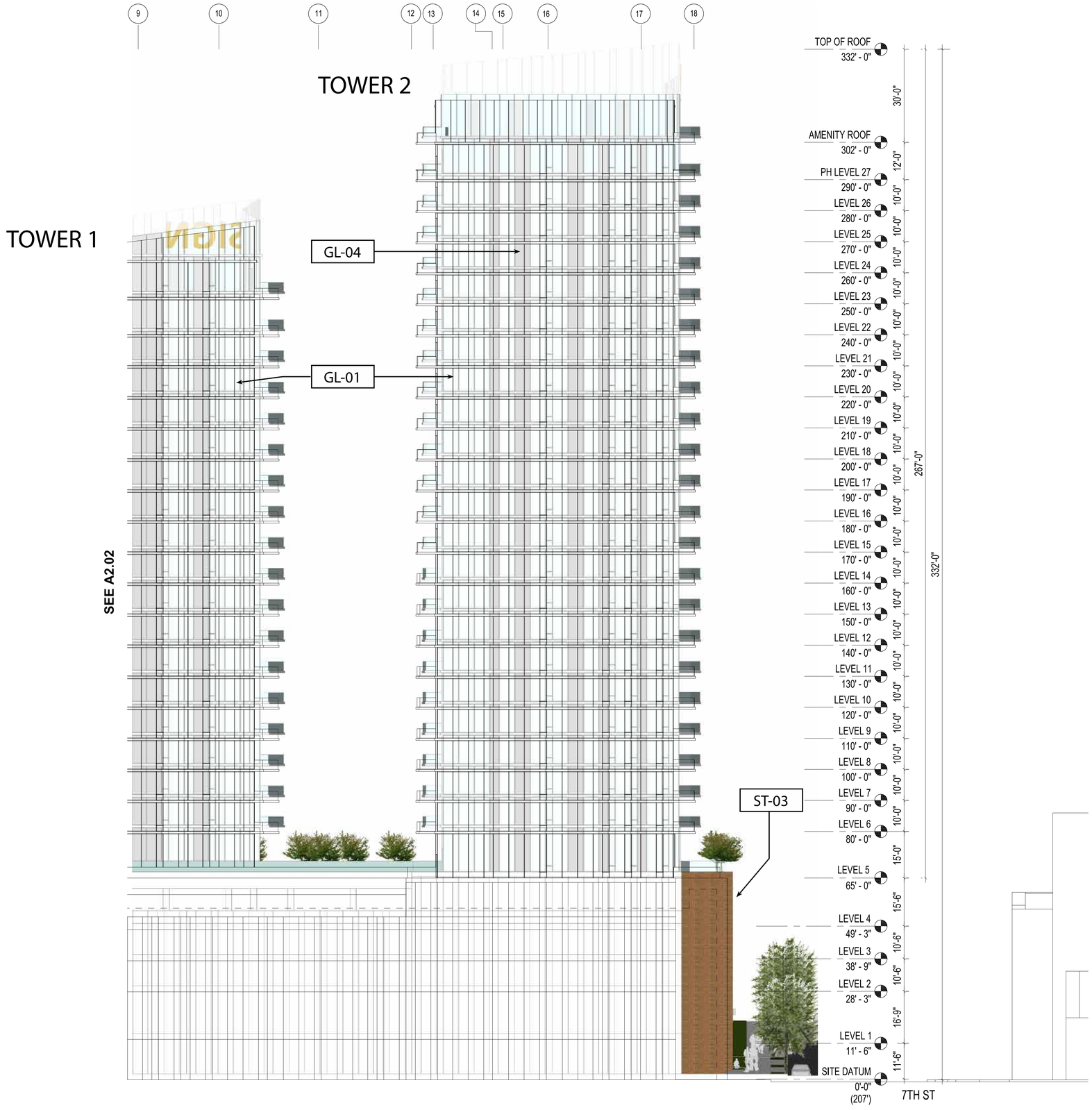
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
WEST ELEVATION

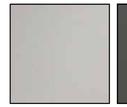
NUMBER
A2.02

2020 CALLISON RTKL, INC.



MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND


MTL-01

MTL-02

ST-01

ST-02

ST-03

GL-01

GL-02

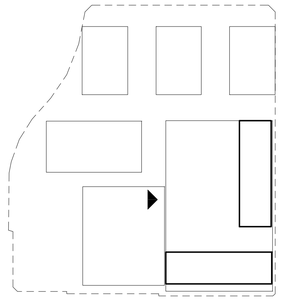
GL-03

GL-04

WD-01

LT-01

PL-01



1 WEST ELEVATION
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

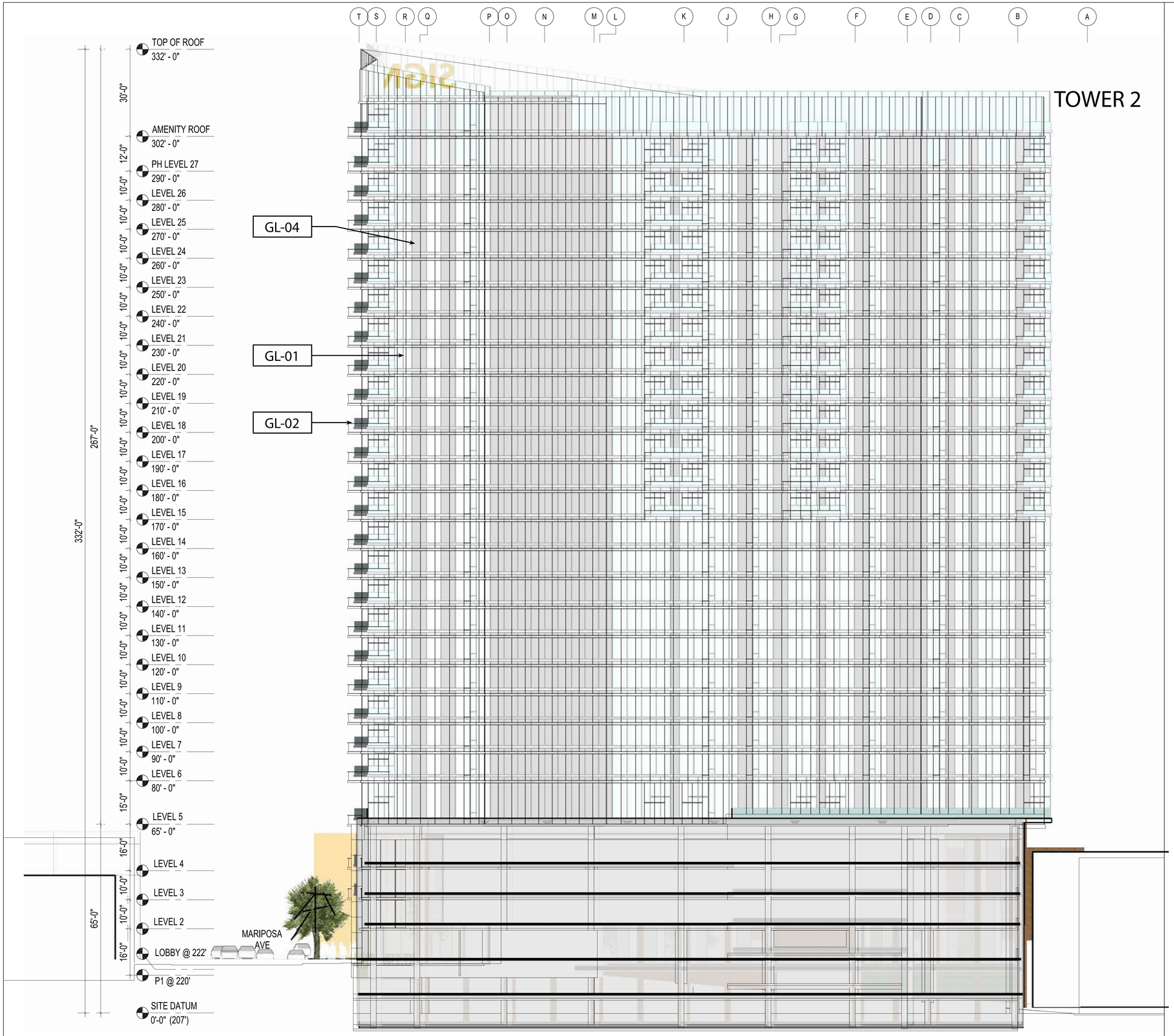
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
WEST ELEVATION

NUMBER
A2.03

2020 CALLISON RTKL, INC.



MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND

MTL-01

MTL-02

ST-01

ST-02

ST-03

GL-01

GL-02

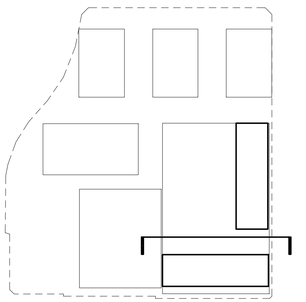
GL-03

GL-04

WD-01

LT-01

PL-01



1 NORTH ELEVATION 1
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

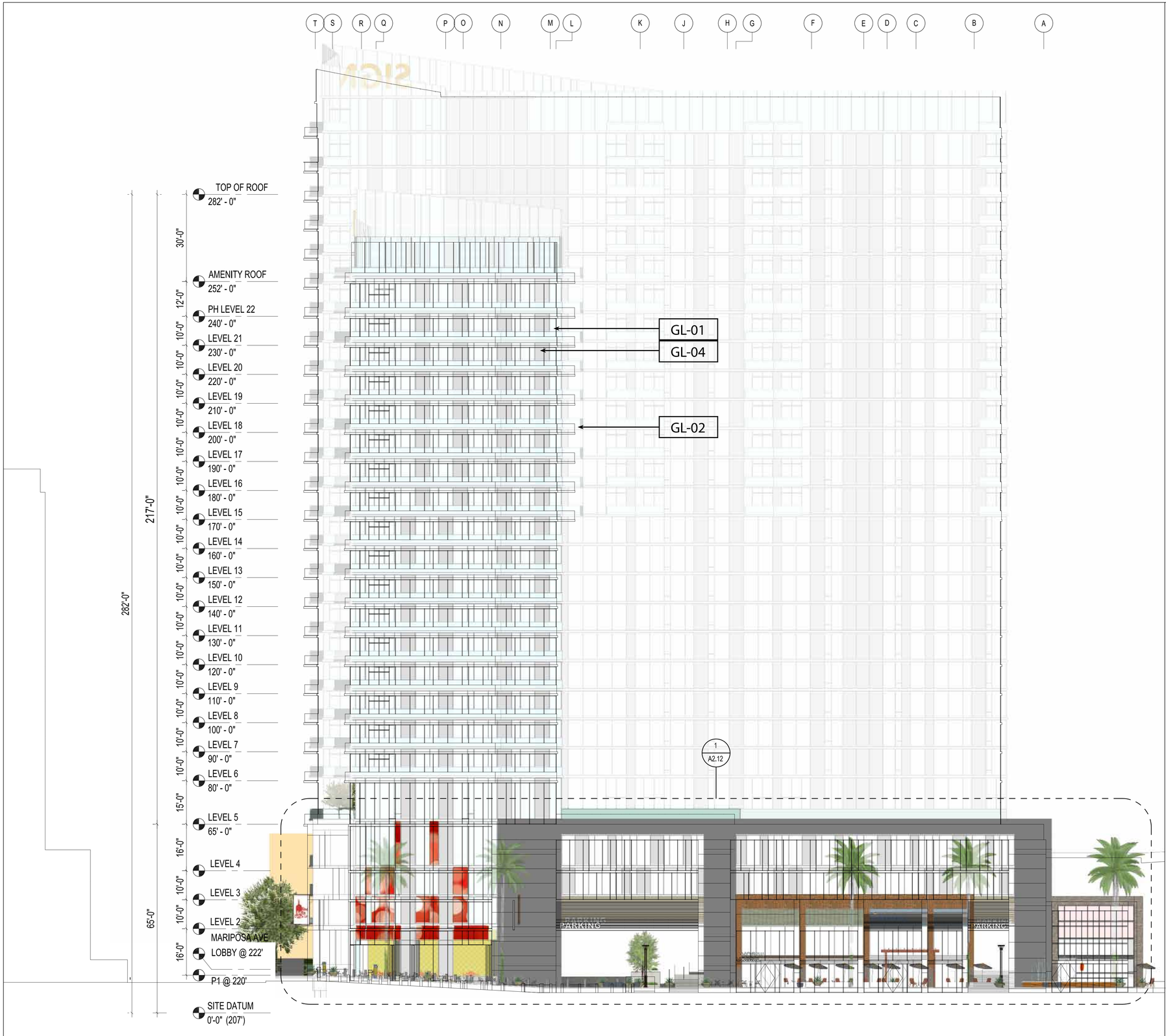
ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
CROSS SECTION / TOWER 2 NORTH ELEVATION
NUMBER
A2.04

2020 CALLISON RTKL, INC.



MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND

MTL-01

MTL-02

ST-01

ST-02

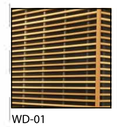
ST-03

GL-01

GL-02

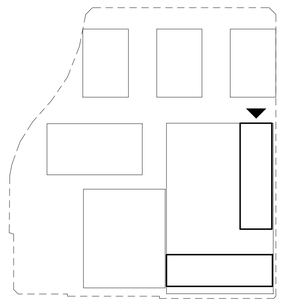
GL-03

GL-04


WD-01

LT-01

PL-01



1 NORTH ELEVATION 2
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

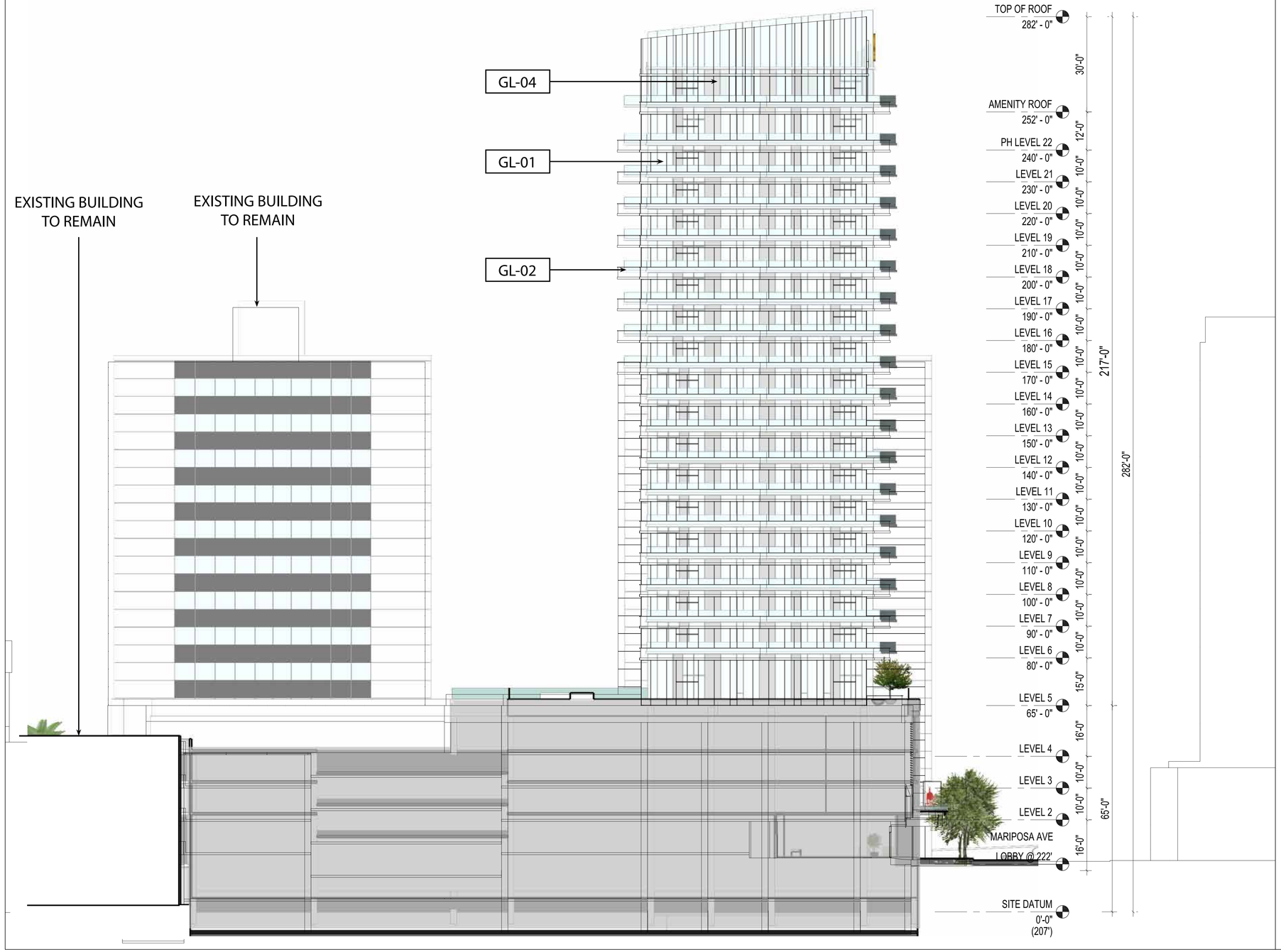
SHEET IDENTIFICATION
TITLE
NORTH ELEVATION 2

NUMBER
A2.05

2020 CALLISON RTKL, INC.

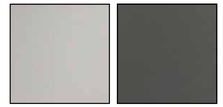
A B C D E F G H J K L M N O P Q R S T

TOWER 1



MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND


MTL-01

MTL-02

ST-01

ST-02

ST-03

GL-01

GL-02

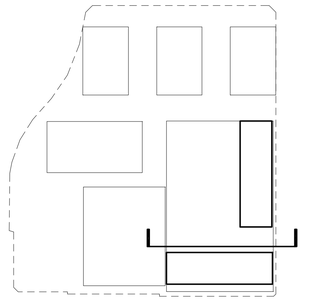
GL-03

GL-04

WD-01

LT-01

PL-01



1 SOUTH ELEVATION 1
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

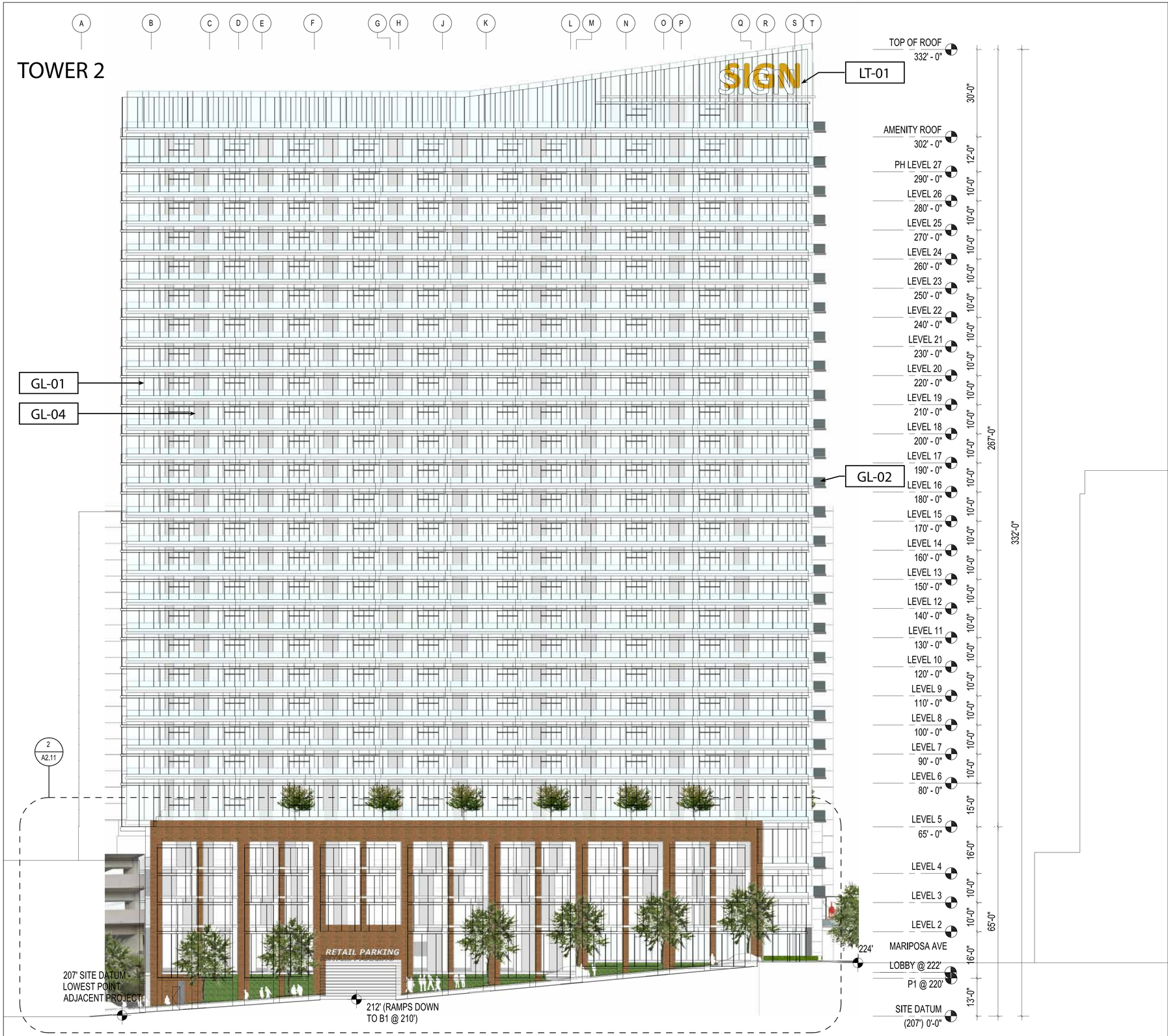
ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

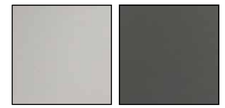
SHEET IDENTIFICATION
TITLE
CROSS SECTION / TOWER 1 SOUTH ELEVATION
NUMBER
A2.06

2020 CALLISON RTKL, INC.



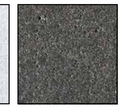
MATERIAL FINISHES

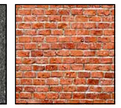
MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND


MTL-01

MTL-02

ST-01


ST-02


ST-03

GL-01

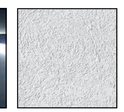
GL-02

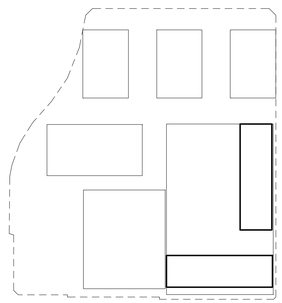
GL-03

GL-04

WD-01

LT-01


PL-01



1 SOUTH ELEVATION 2
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

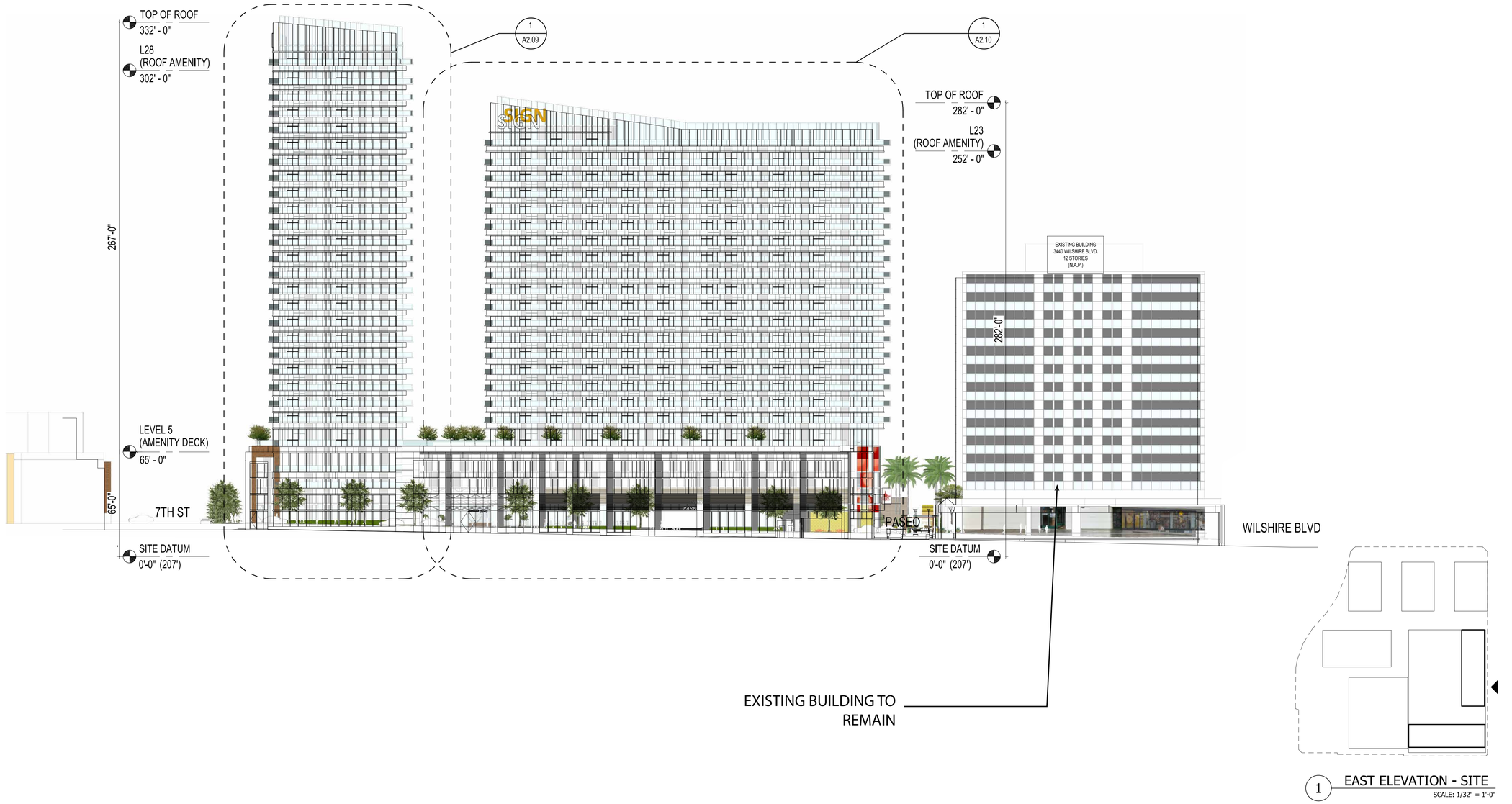
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
SOUTH ELEVATION 2

NUMBER
A2.07

2020 CALLISON RTKL, INC.



1 EAST ELEVATION - SITE
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

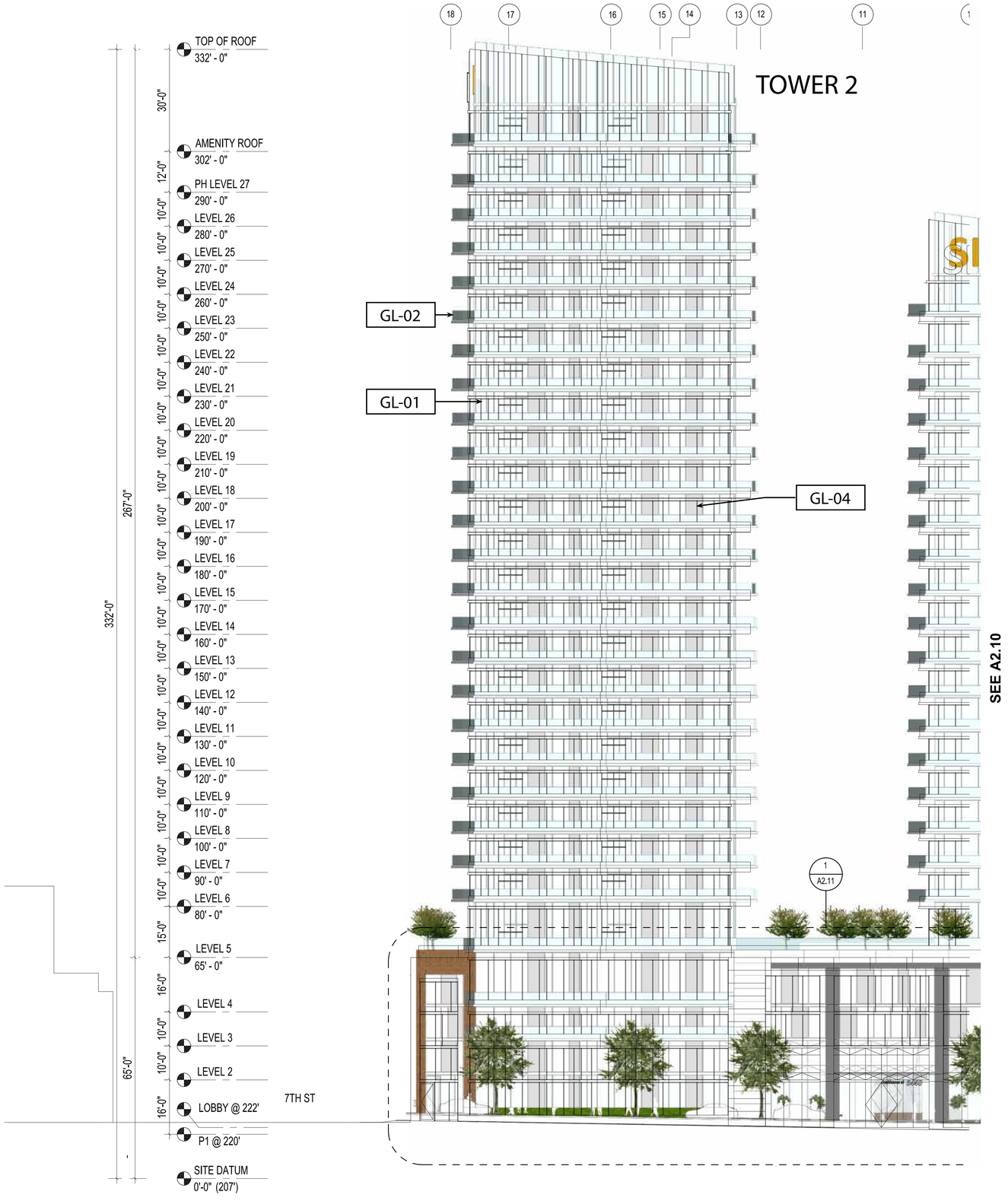
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
EAST ELEVATION - SITE

NUMBER
A2.08

2020 CALLISON RTKL, INC.



MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND

MTL-01

MTL-02

ST-01

ST-02

ST-03

GL-01

GL-02

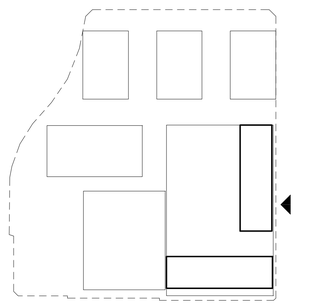
GL-03

GL-04

WD-01

LT-01

PL-01



1 EAST ELEVATION
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

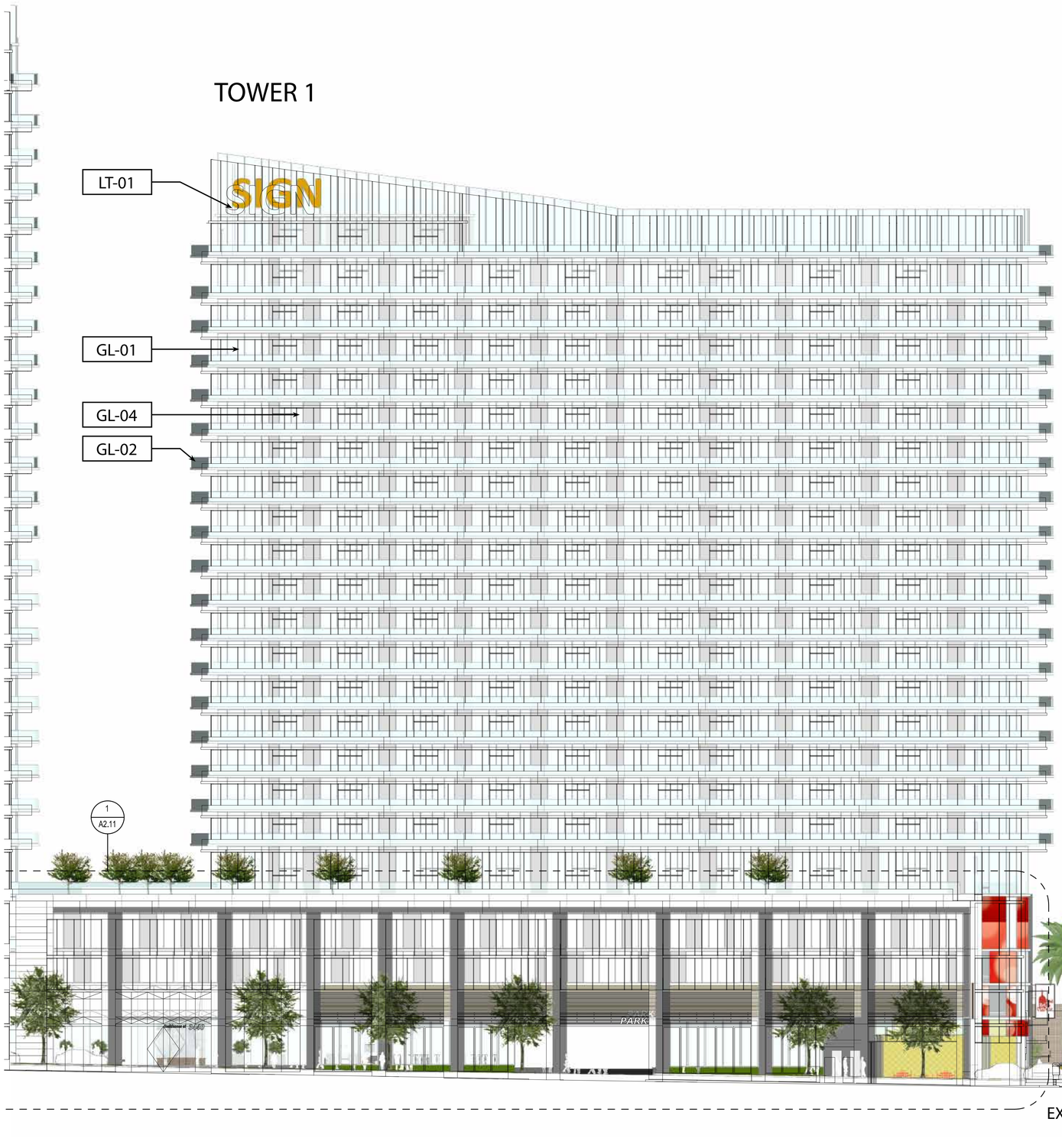
SHEET IDENTIFICATION
TITLE
EAST ELEVATION

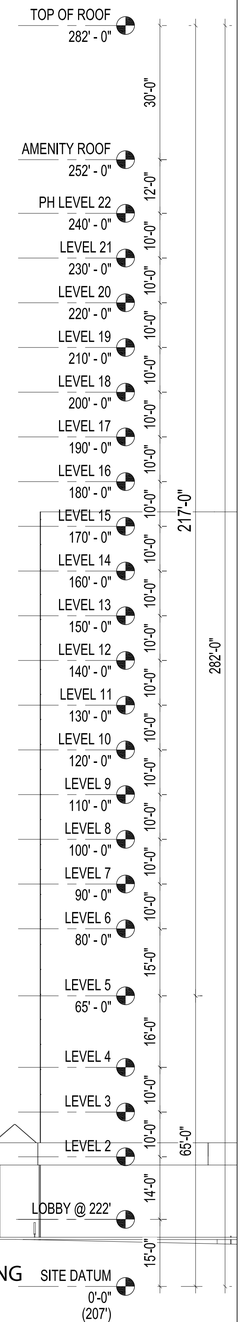
NUMBER
A2.09

2020 CALLISON RTKL, INC.

13 12 11 10 9 8 7 6 5 4 3 2 1

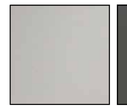
TOWER 1



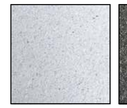


MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND


MTL-01

MTL-02


ST-01

ST-02

ST-03

GL-01

GL-02

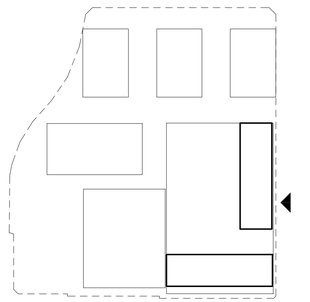
GL-03

GL-04

WD-01

LT-01

PL-01



1 EAST ELEVATION
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
EAST ELEVATION

NUMBER
A2.10

2020 CALLISON RTKL, INC.

1 EAST ELEVATION

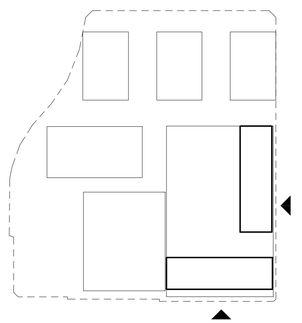
SCALE: 1/16" = 1'-0"

2 NORTH ELEVATION

SCALE: 1/16" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE

LEVEL 1 ENLARGED ELEVATIONS

NUMBER

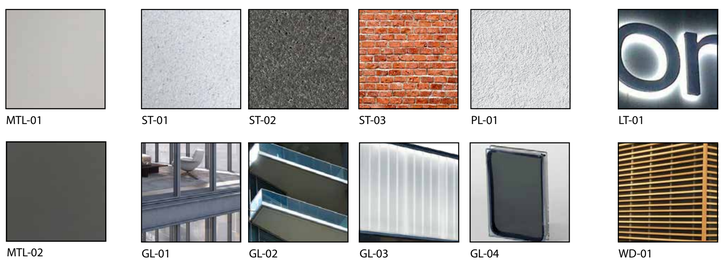
A2.11

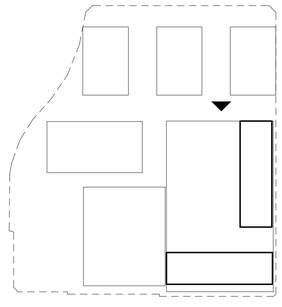
2020 CALLISON RTKL, INC.

1 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND





NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION

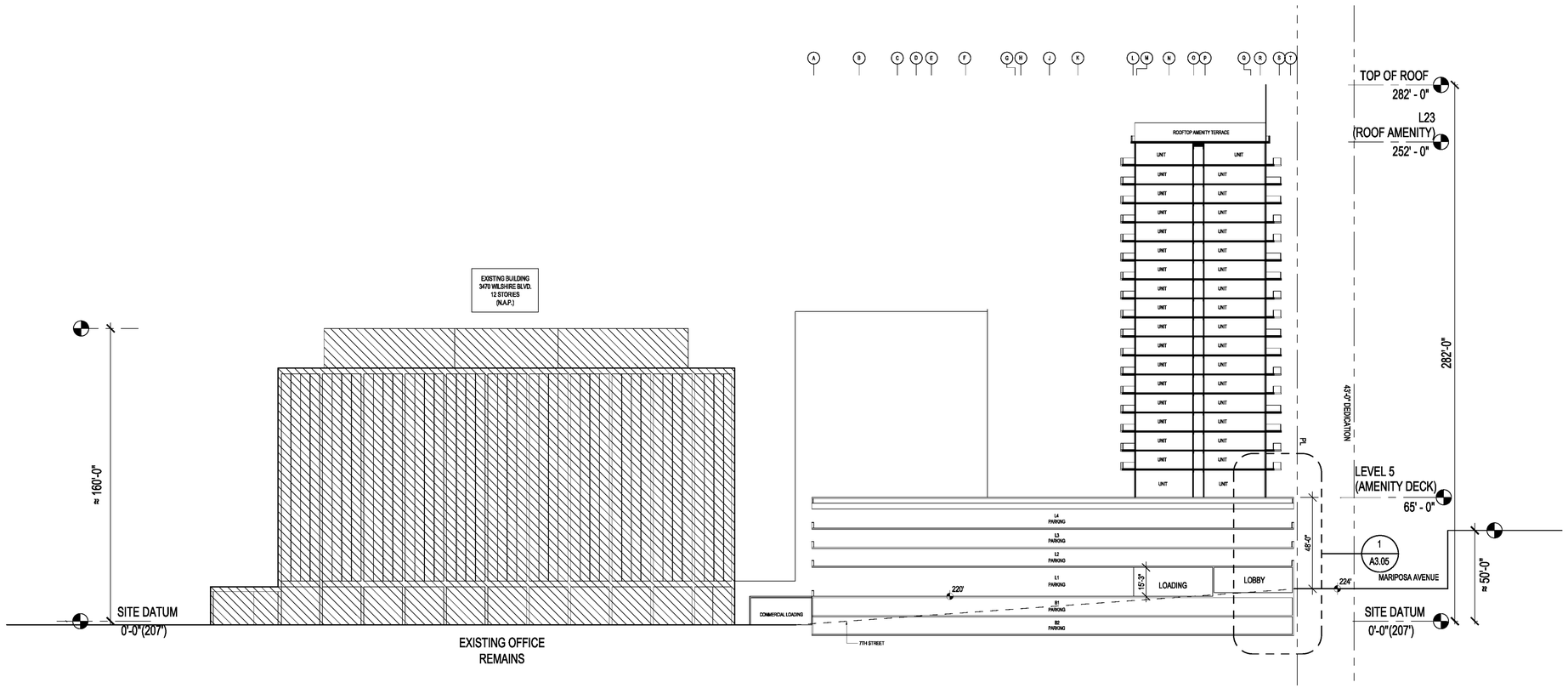
TITLE

LEVEL 1 ENLARGED ELEVATIONS

NUMBER

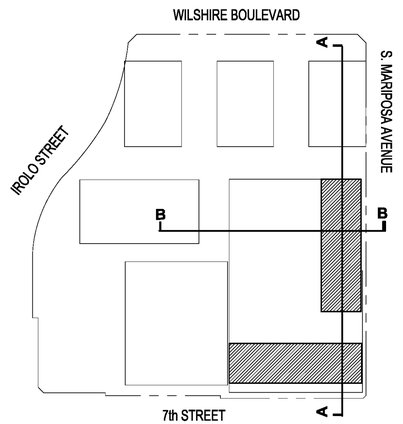
A2.12

2020 CALLISON RTKL, INC.



1 SECTION B-B

SCALE: 1/32" = 1'-0"



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-833-6000
FAX: 213-833-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION

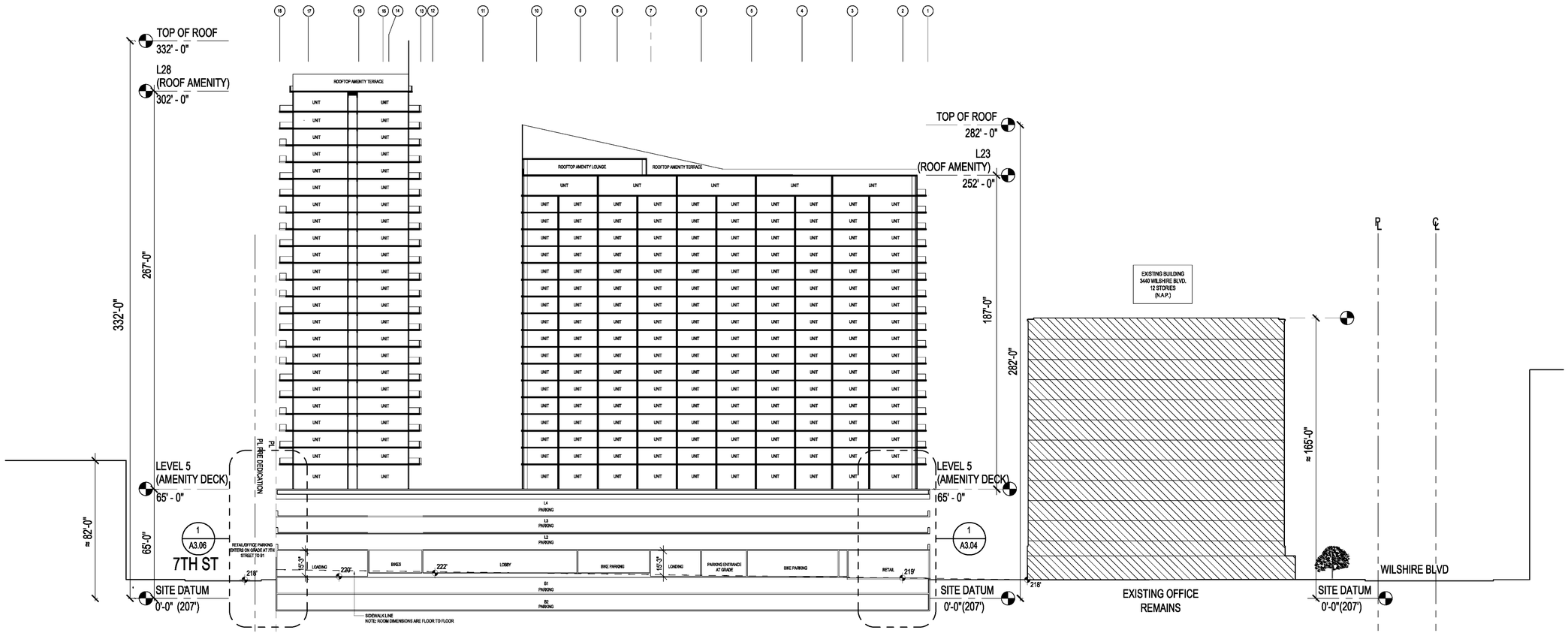
TITLE

SECTIONS

NUMBER

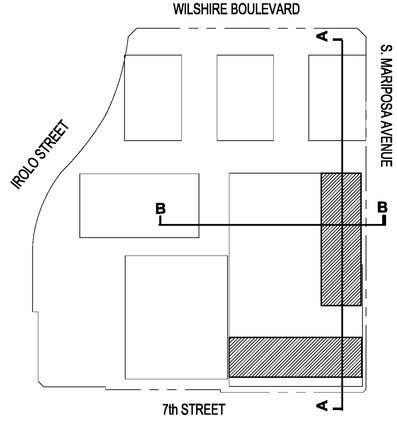
A3.01

2020 CALLISON RTKL, INC.



1 SECTION A-A

SCALE: 1/32" = 1'-0"



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

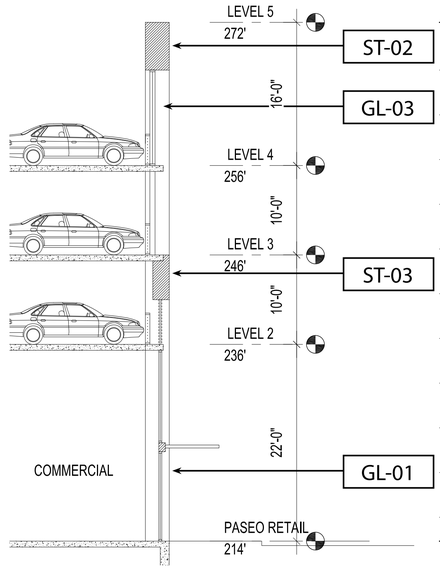
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
SECTIONS

NUMBER
A3.02

2020 CALLISON RTKL, INC.

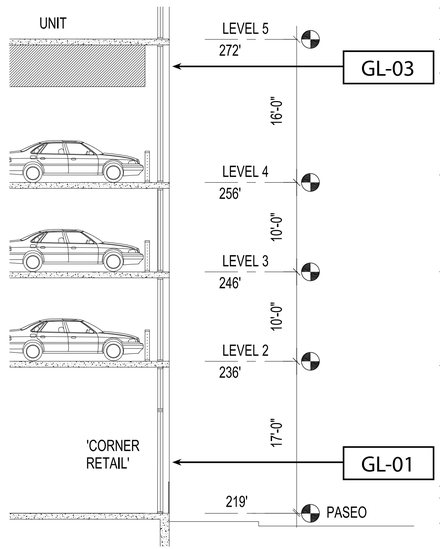


1 DETAIL SECTION 1
SCALE: 1/8" = 1'-0"

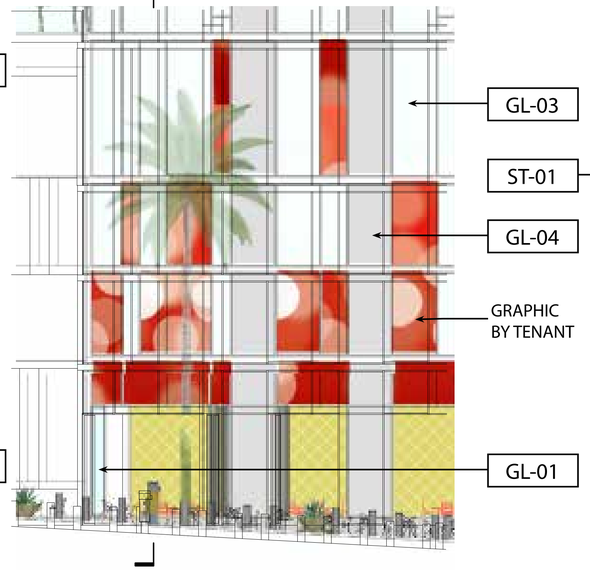
2 DETAIL ELEVATION 1
SCALE: 1/8" = 1'-0"

3 DETAIL AXON 1
N.T.S

4 DETAIL PLAN 1
SCALE: 1/8" = 1'-0"

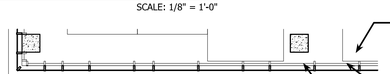


5 DETAIL SECTION 2
SCALE: 1/8" = 1'-0"



6 DETAIL ELEVATION 2
SCALE: 1/8" = 1'-0"

7 DETAIL AXON 2
N.T.S



8 DETAIL PLAN 2
SCALE: 1/8" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND

MTL-01

MTL-02

ST-01

ST-02

ST-03

GL-01

GL-02

GL-03

GL-04

WD-01

LT-01

PL-01

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

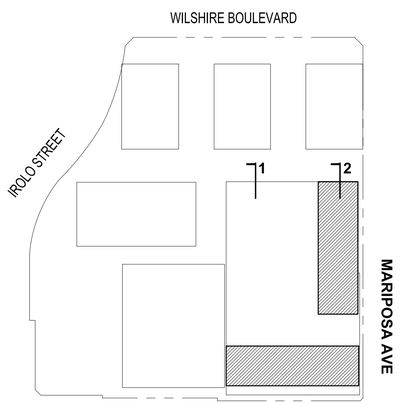
PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

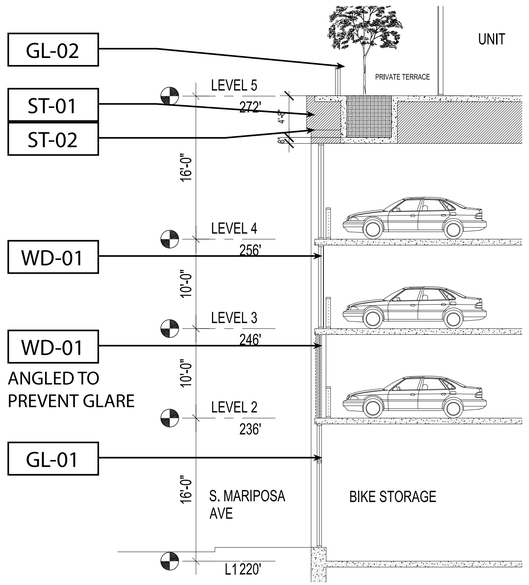


NOT FOR CONSTRUCTION

SHEET IDENTIFICATION
TITLE
TYPICAL PARKING FACADE SECTIONS

NUMBER
A3.03

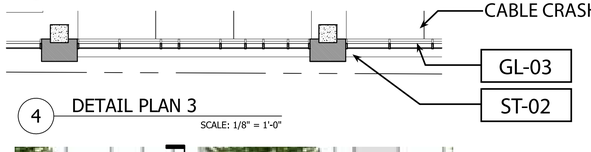
2020 CALLISON RTKL, INC.



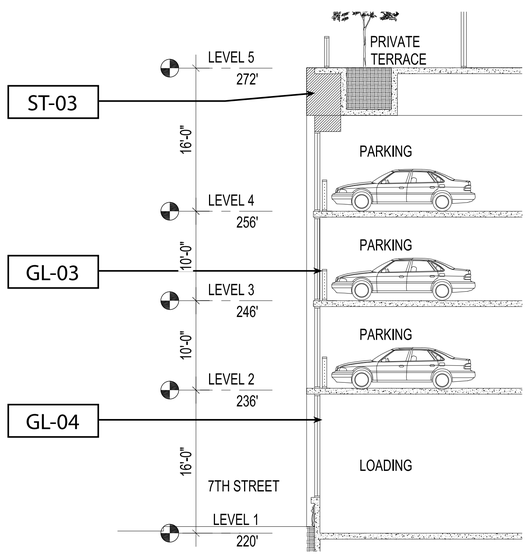
1 DETAIL SECTION 3
SCALE: 1/8" = 1'-0"

2 DETAIL ELEVATION 3
SCALE: 1/8" = 1'-0"

3 DETAIL AXON 3
N.T.S



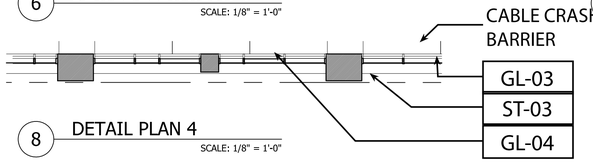
4 DETAIL PLAN 3
SCALE: 1/8" = 1'-0"



5 DETAIL SECTION 4
SCALE: 1/8" = 1'-0"

6 DETAIL ELEVATION 4
SCALE: 1/8" = 1'-0"

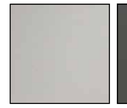
7 DETAIL AXON 4
N.T.S



8 DETAIL PLAN 4
SCALE: 1/8" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND


MTL-01

MTL-02

ST-01

ST-02

ST-03

GL-01

GL-02

GL-03

GL-04

WD-01

LT-01

PL-01

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

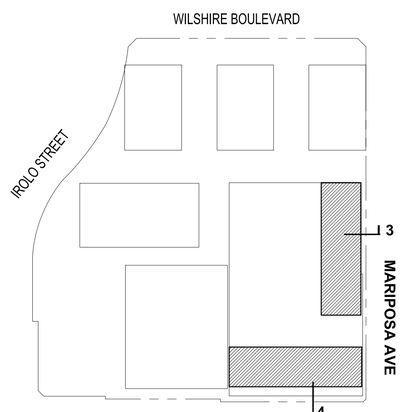
PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

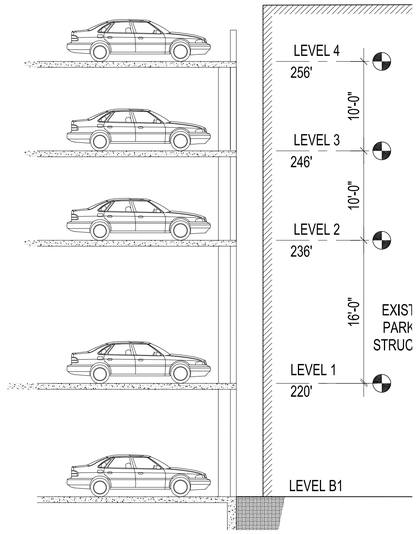


NOT FOR CONSTRUCTION

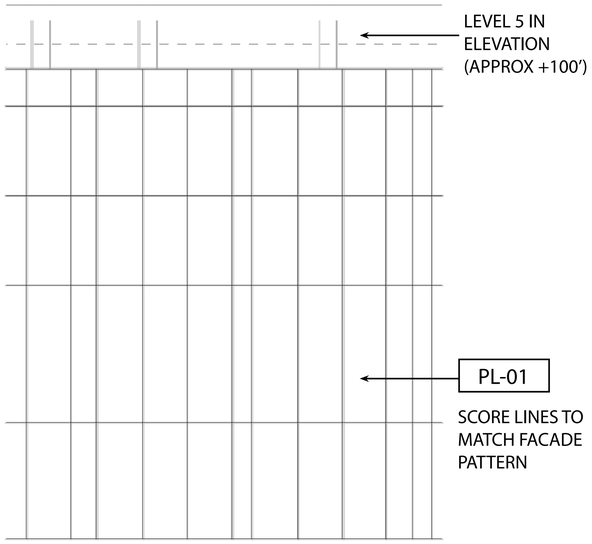
SHEET IDENTIFICATION
TITLE
TYPICAL PARKING FACADE SECTIONS

NUMBER
A3.04

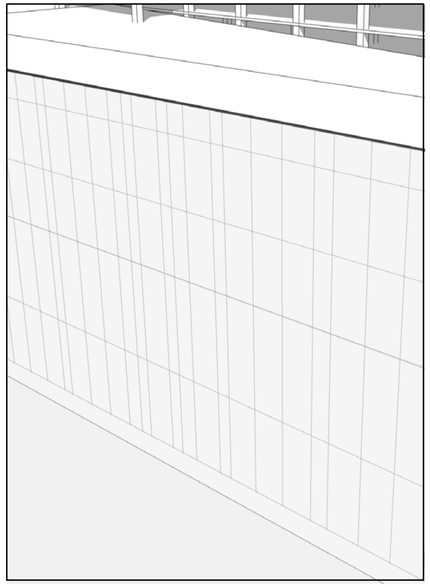
2020 CALLISON RTKL, INC.



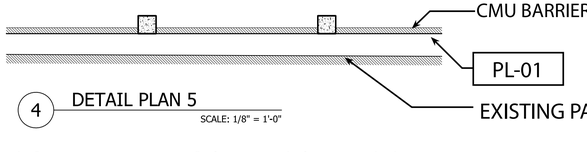
1 DETAIL SECTION 5
SCALE: 1/8" = 1'-0"



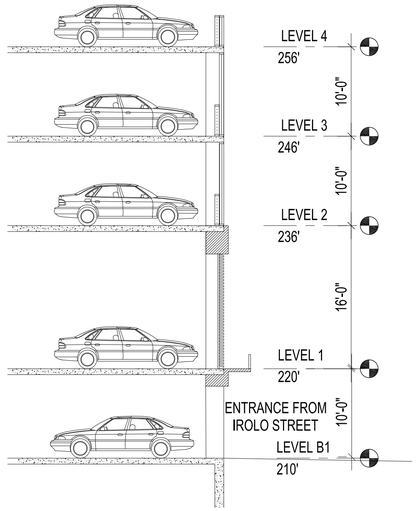
2 DETAIL ELEVATION 5
SCALE: 1/8" = 1'-0"



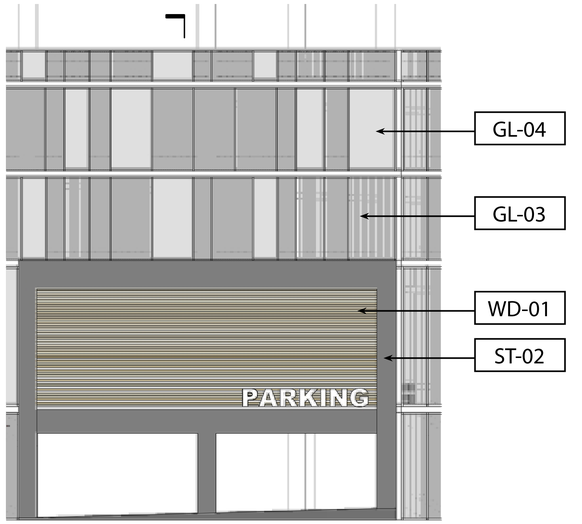
3 DETAIL AXON 5
N.T.S



4 DETAIL PLAN 5
SCALE: 1/8" = 1'-0"



5 DETAIL SECTION 6
SCALE: 1/8" = 1'-0"



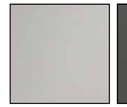
6 DETAIL ELEVATION 6
SCALE: 1/8" = 1'-0"

7 DETAIL AXON 6
N.T.S

8 DETAIL PLAN 6
SCALE: 1/8" = 1'-0"

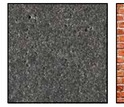
MATERIAL FINISHES

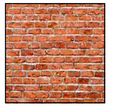
MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
ST-01	GFRC PANEL, SILVER WHITE
ST-02	GFRC PANEL, DARK GRAY
ST-03	BRICK
PL-01	STUCCO, WHITE
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
GL-03	FROSTED GLAZING MIN 50% OPACITY
GL-04	SHADOW BOX GLAZING
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE
WD-01	HORIZONTAL WOODEN SLATS/SIGNAGE BAND


MTL-01

MTL-02

ST-01


ST-02


ST-03

GL-01

GL-02

GL-03

GL-04

WD-01

LT-01

PL-01

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

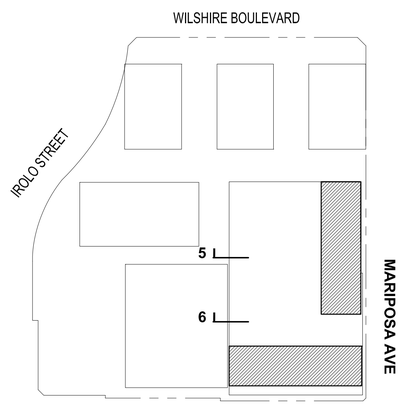
PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

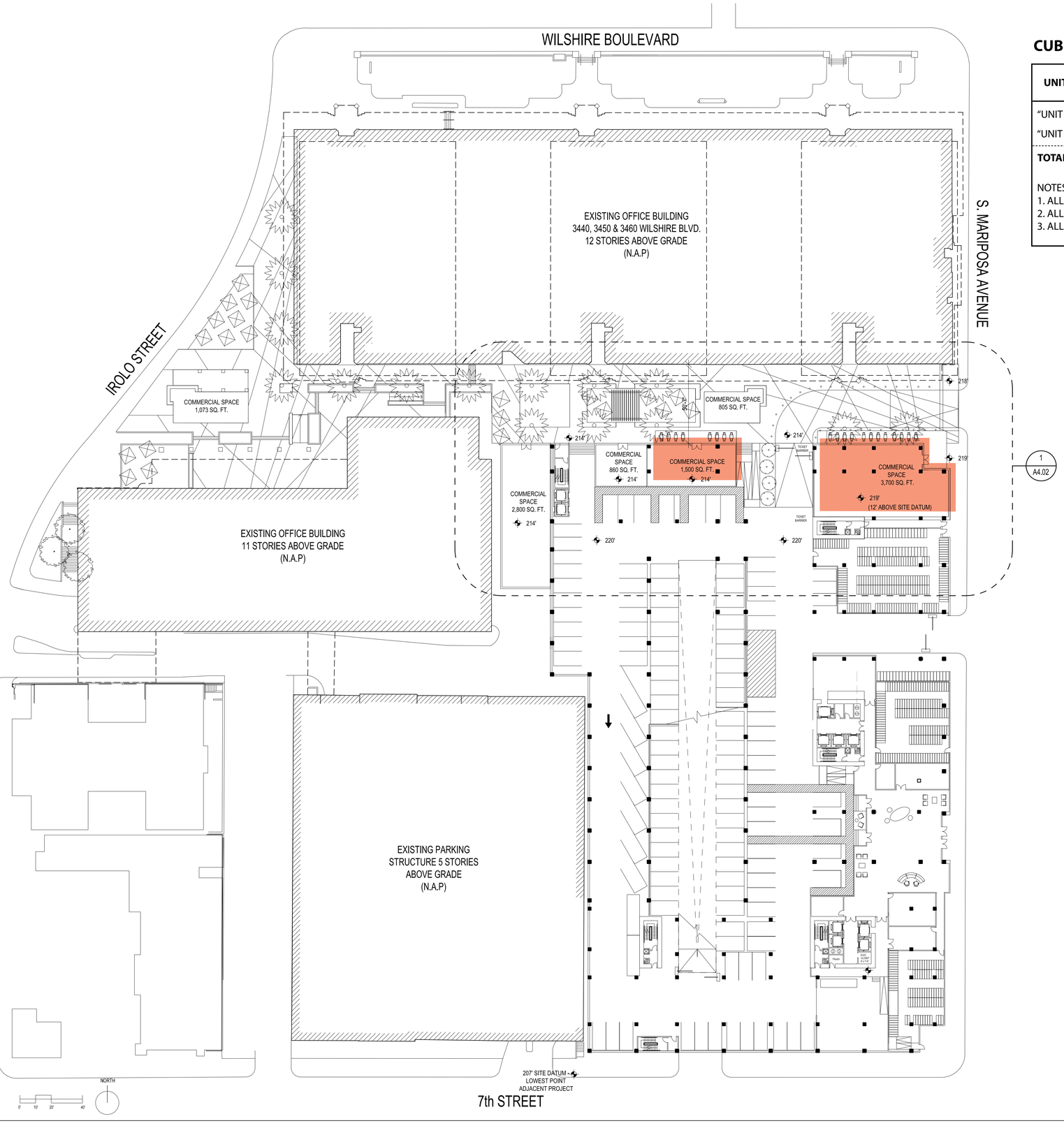


SHEET IDENTIFICATION
TITLE
TYPICAL PARKING FACADE SECTIONS

NUMBER
A3.05

NOT FOR CONSTRUCTION

2020 CALLISON RTKL, INC.



CUB SUMMARY TABLE

UNIT	USE	AREA	PATIO AREA	TYPE	INDOOR SEATING	OUTDOOR SEATING	TOTAL SEATING
"UNIT A"	RESTAURANT	3,700 SF	900 SF	47	114	24	**138**
"UNIT C"	RESTAURANT	1,500 SF	500 SF	47	48	20	**68**
TOTALS		**5,200 SF**	**1,400 SF**		**162**	**44**	**206**

NOTES:
1. ALL LOCATIONS AND AREAS ARE APPROXIMATE AND MAY VARY.
2. ALL AREAS SHOWN ARE GROSS BUILDING AREA (GBA).
3. ALL AREAS SHOWN ON PLAN INCLUDE BUILDING AREA PLUS PATIO AREA.

INTERIOR SPACE

1 LEVEL 1
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
CUB EXHIBIT

NUMBER
A4.01

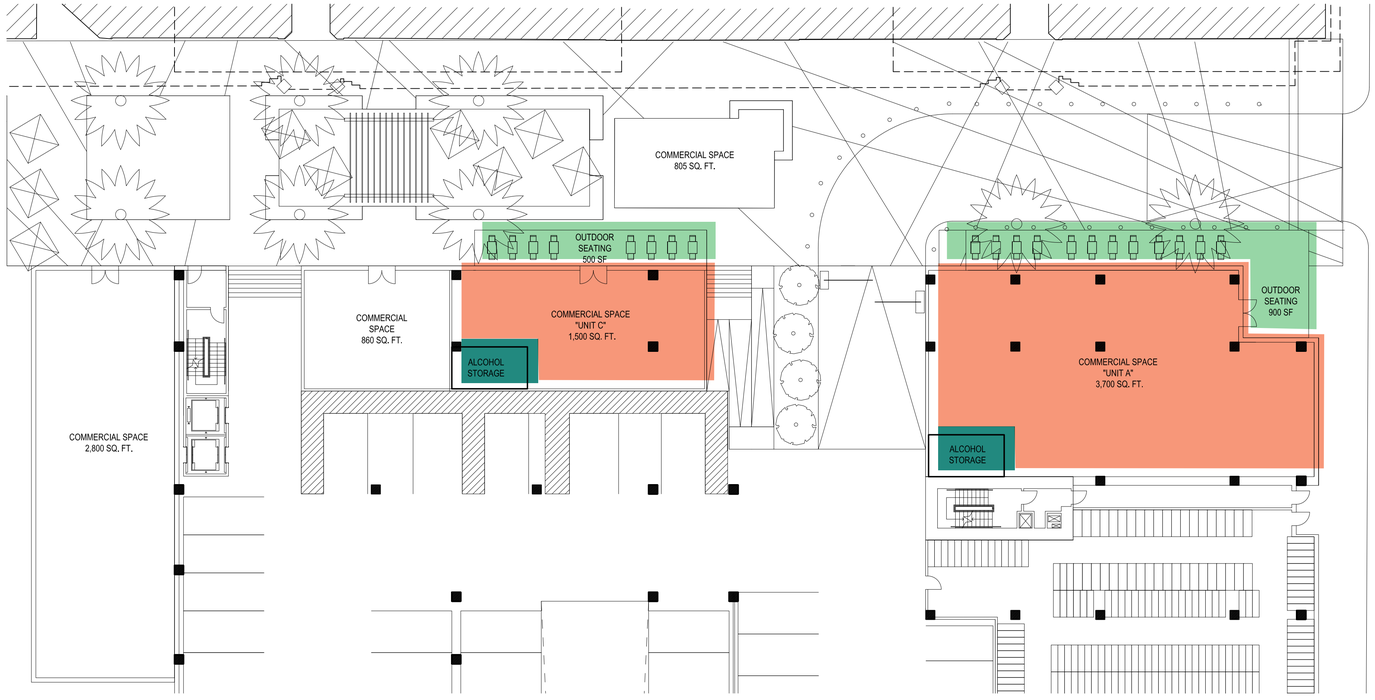
2020 CALLISON RTKL, INC.

CUB SUMMARY TABLE

UNIT	USE	AREA	PATIO AREA	TYPE	INDOOR SEATING	OUTDOOR SEATING	TOTAL SEATING
"UNIT A"	RESTAURANT	3,700 SF	900 SF	47	114	24	**138**
"UNIT C"	RESTAURANT	1,500 SF	500 SF	47	48	20	**68**
TOTALS		**5,200 SF**	**1,400 SF**		**162**	**44**	**206**

NOTES:
1. ALL LOCATIONS AND AREAS ARE APPROXIMATE AND MAY VARY.
2. ALL AREAS SHOWN ARE GROSS BUILDING AREA (GBA).
3. ALL AREAS SHOWN ON PLAN INCLUDE BUILDING AREA PLUS PATIO AREA.

INTERIOR SPACE
ALCOHOL STORAGE
PATIO AREA



1 LEVEL 1
SCALE: 1/16" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
CUB EXHIBIT ENLARGED PLAN

NUMBER
A4.02

2020 CALLISON RTKL, INC.

1 VIEW FROM 7TH & MARIPOSA LOOKING NORTH WEST
N.T.S

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-8000
FAX: 213-633-8080

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
1440 WILSHIRE BLVD
LOS ANGELES, CA 90016

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	06/09/2016	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

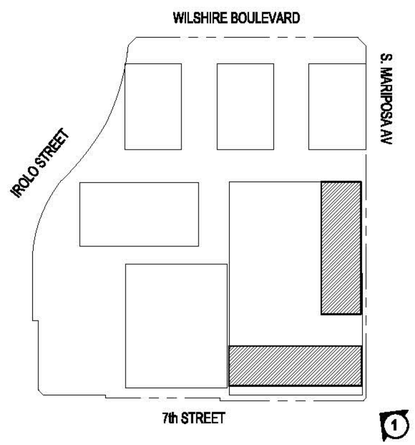
SEAL

SHEET IDENTIFICATION
TITLE
RENDERING

NUMBER
A9.01

2020 CALLISON RTKL, INC.

1 STREET VIEW FROM 7TH & MARIPOSA LOOKING WEST
N.T.S



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6090

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

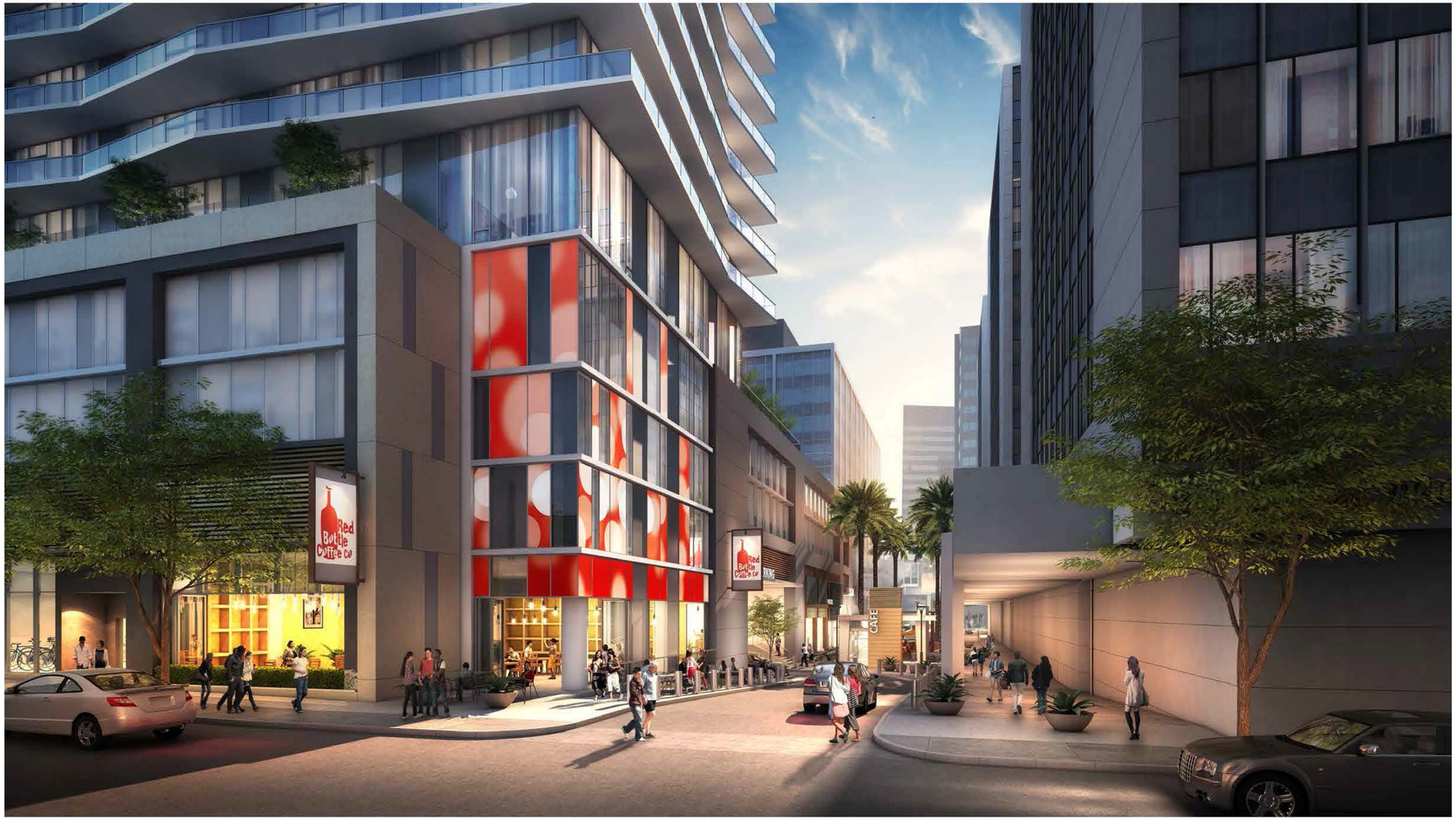
1	06/30/2016	CASE FILING
2	09/16/2016	REVISION FILING
3	12/07/2016	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/09/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
RENDERING

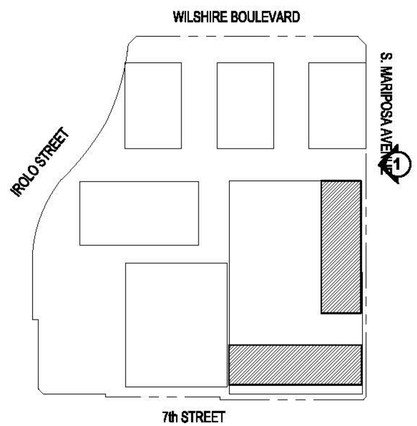
NUMBER
A9.02

2020 CALLISON RTKL, INC.



1 STREET VIEW FROM PASEO LOOKING WEST

N.T.S



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6090

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/03/2018	CASE FILING
2	05/18/2018	REVISION FILING
3	12/07/2018	REVISION FILING
4	04/15/2019	REVISION FILING
5	07/10/2019	REVISION FILING
6	01/03/2020	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE

RENDERING

NUMBER

A9.03

2020 CALLISON RTKL, INC.

CONSTRUCTION LEGEND

1. ENHANCED PAVING
2. RESTAURANT PATIO SEATING
3. TRELLIS
4. STAIRS
5. RAMP
6. WATER FEATURE
7. EXISTING ARCHITECTURAL OVERHANG
8. BOLLARDS
9. OVERHEAD ENTRY PORTAL
10. PORTABLE PLANTER
11. RAISED PLANTER

PLANTING LEGEND

- A — CANOPY TREE, REFER TO SHEET L1.07 FOR PALETTE
- B — PALM TREE, REFER TO SHEET L1.07 FOR PALETTE
- C — STREET TREE PER THE STREET TREE DIVISION
- D — SHRUB/GROUNDCOVER PLANTING MIX, REFER TO SHEET L1.08 FOR PALETTE
- E — EXISTING TREE
- F — EXISTING STREET TREE

PAVING FINISHES

PV01 — PRECAST CONCRTE PAVERS, GREY COLOR

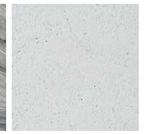
PV02 — PORCELAIN WOOD TILE, GREY COLOR

PV03 — CAST IN PLACE CONCRETE PAVING, NATURAL GREY COLOR

PV04 — CAST IN PLACE CONCRETE PAVING, COBBLESTONE COLOR

WALL FINISHES

W01 — CAST IN PLACE CONCRETE BOARD FORM WALL, NATURAL GREY COLOR



W02 — PRECAST CONCRETE WALL, WHITE COLOR

W03 — DECORATIVE CMU BLOCK WALL, WHITE COLOR

TREE COUNT

(MIN. 24" BOX SIZE, PALM TREES NOT INCLUDED)

LEVEL	QUANTITY
LEVEL 1 (3 CANOPY TREE, 8 STREET TREES)	11
LEVEL 5 (7 CANOPY TREE, 84 SCREEN TREES)	91
ROOF LEVEL (SCREEN TREES)	58
TOTAL TREE PROVIDED	160
TOTAL TREE REQUIRED	160

TREE NOTE

THE MINIMUM AMOUNT OF SOIL VOLUME FOR TREE WELLS ON A PODIUM OR ROOFTOP SHALL BE BASED ON THE SIZE OF THE TREE AT MATURITY:

I. 200 CUBIC FEET FOR A TREE WITH A CANOPY DIAMETER OF 15'-19'
II. 400 CUBIC FEET FOR A TREE WITH A CANOPY DIAMETER OF 20'-24'
III. 620 CUBIC FEET FOR A TREE WITH A CANOPY DIAMETER OF 25'-29'
IV. 900 CUBIC FEET FOR A TREE WITH A CANOPY DIAMETER OF 30'-34'

16 0 32 64 128
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4255

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

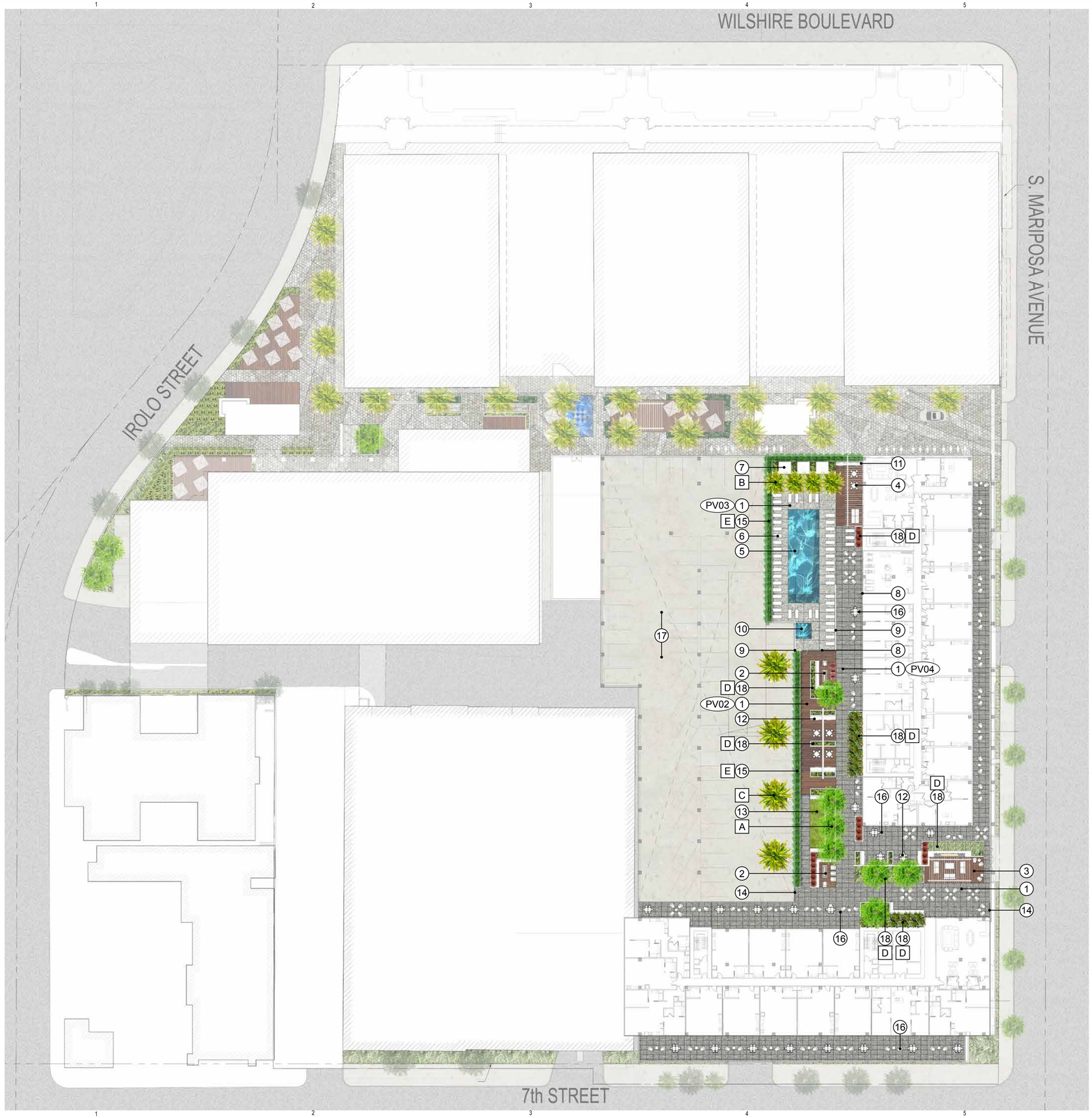
1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING
4	01/09/2020	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
LEVEL 1
LANDSCAPE PLAN

NUMBER
L-1.01

2016 CALLISON RTKL, INC.



CONSTRUCTION LEGEND

1. ENHANCED PAVING
2. FIREPIT WITH BANQUETTE/LOUNGE SEATING
3. FIREPLACE WITH TRELLIS/LOUNGE SEATING
4. TRELLIS WITH TABLE AND CHAIRS
5. POOL
6. CHAISE LOUNGE CHAIRS
7. POOL CABANAS
8. POOL ENCLOSURE FENCE/GATE
9. POOL ENCLOSURE WALL
10. SPA
11. BBQ COUNTER
12. BBQ COUNTER WITH SEATING AREA
13. DOG AREA WITH BENCH
14. GUARDRAIL
15. GUARDRAIL PARAPET PLANTER
16. PRIVATE PATIO
17. PARKING STRUCTURE LEVEL BELOW
18. RAISED PLANTER

PLANTING LEGEND

- A — CANOPY TREE, REFER TO SHEET L1.07 FOR PALETTE
- B — PALM TREE, REFER TO SHEET L1.07 FOR PALETTE
- C — PALM TREE IN PARKING STRUCTURE LEVEL BELOW. TRUNK HEIGHT TO BE LEVEL ABOVE PARAPET PLANTER
- D — SHRUB/GROUNDCOVER PLANTING MIX, REFER TO SHEET L1.08 FOR PALETTE
- E — SCREEN TREE, REFER TO SHEET L1.07 FOR PALETTE

PAVING FINISHES

PV01
PRECAST CONCRTE PAVERS, GREY COLOR

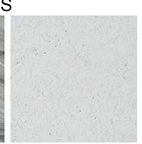
PV02
PORCELAIN WOOD TILE, GREY COLOR

PV03
CAST IN PLACE CONCRETE PAVING, NATURAL GREY COLOR

PV04
CAST IN PLACE CONCRETE PAVING, COBBLESTONE COLOR

WALL FINISHES

W01
CAST IN PLACE CONCRETE BOARD FORM WALL, NATURAL GREY COLOR



W02
PRECAST CONCRETE WALL, WHITE COLOR

W03
DECORATIVE CMU BLOCK WALL, WHITE COLOR

16 0 32 64 128
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4205

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING
4	01/09/2020	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION

TITLE

LEVEL 5
LANDSCAPE PLAN

NUMBER

L-1.02

2016 CALLISON RTKL, INC.

CONSTRUCTION LEGEND

1. ENHANCED PAVING
2. PLANTER
3. FIREPIT WITH LOUNGE SEATING
4. TRELLIS WITH LOUNGE SEATING
5. CHAISE LOUNGE CHAIRS
6. BBQ COUNTER WITH SEATING AREA
7. GUARDRAIL

PLANTING LEGEND

A SHRUB/GROUNDCOVER PLANTING MIX, REFER TO SHEET L1.08 FOR PALETTE

B SCREEN TREE, REFER TO SHEET L1.07 FOR PALETTE

PAVING FINISHES

PV01 PRECAST CONCRTE PAVERS, GREY COLOR

PV02 PORCELAIN WOOD TILE, GREY COLOR

PV03 CAST IN PLACE CONCRETE PAVING, NATURAL GREY COLOR

PV04 CAST IN PLACE CONCRETE PAVING, COBBLESTONE COLOR

WALL FINISHES

W01 CAST IN PLACE CONCRETE BOARD FORM WALL, NATURAL GREY COLOR

W02 PRECAST CONCRETE WALL, WHITE COLOR

W03 DECORATIVE CMU BLOCK WALL, WHITE COLOR

SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4205

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING
4	01/09/2020	REVISED CASE FILING

SEAL

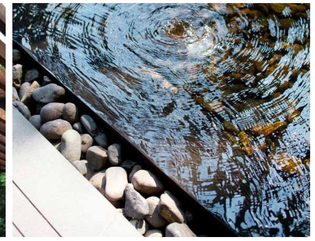
SHEET IDENTIFICATION
TITLE
ROOF LEVEL
LANDSCAPE PLAN

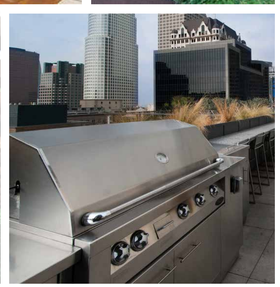
NUMBER
L-1.03

2016 CALLISON RTKL, INC.

LEVEL 1

RESTAURANT PATIO SEATING
TRELLIS
WATER FEATURE
BOLLARDS



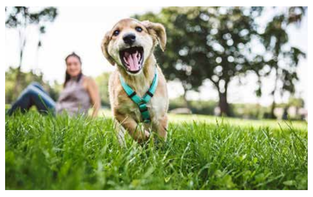


ROOF LEVEL

TRELLIS
FIREPIT
CHAISE LOUNGE CHAIRS
BBQ COUNTER

LEVEL 5

FIREPIT
FIREPLACE
POOL + SPA
CHAISE LOUNGE CHAIRS
POOL CABANAS
TRELLIS
BBQ COUNTER
DOG AREA WITH BENCH



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4255

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

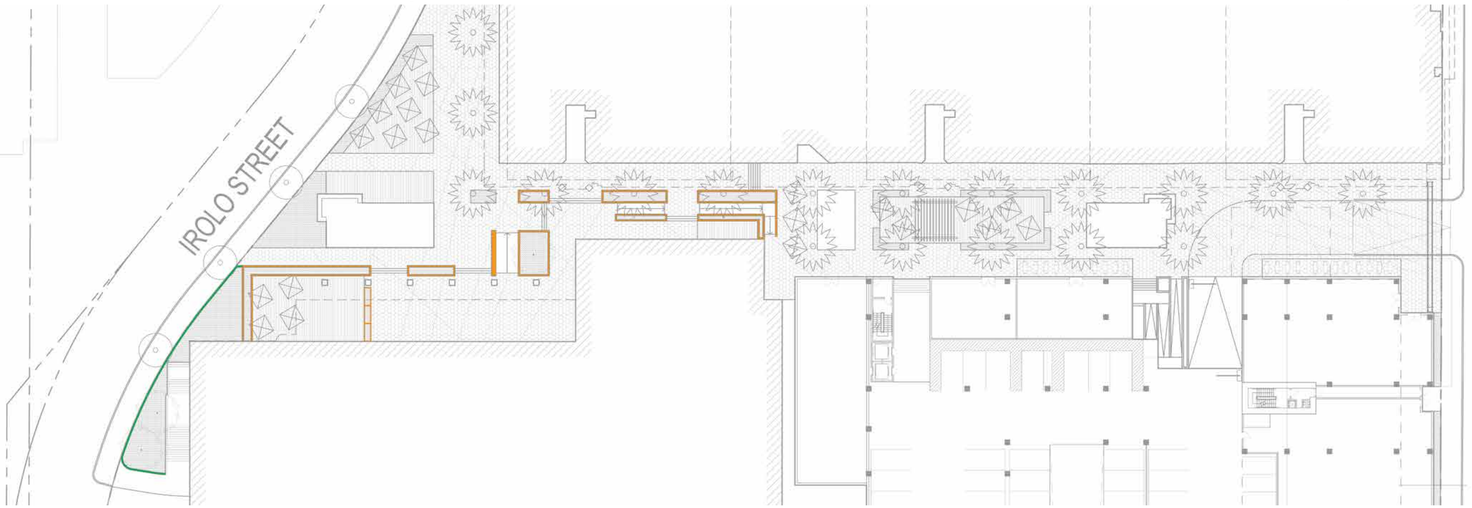
1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING
4	01/09/2020	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
SAMPLE CONCEPT IMAGERY

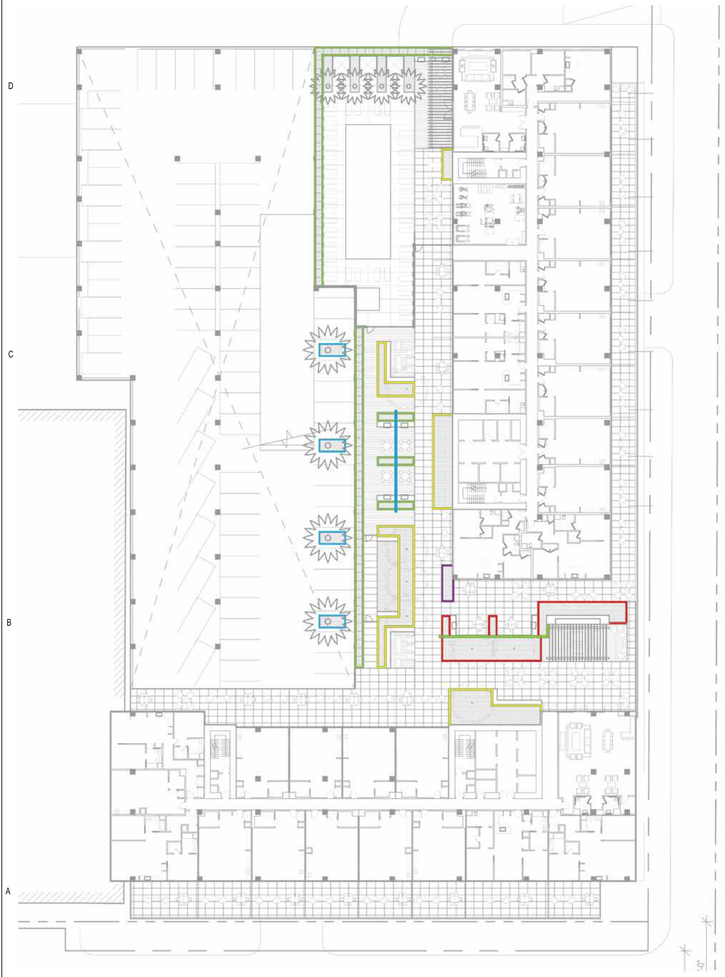
NUMBER
L-1.04

2016 CALLISON RTKL, INC.



S. MARIPOSA AVENUE

LEVEL 1



LEVEL 5

ROOF LEVEL

LEGEND

- 12”
- 24”
- 36”
- 40”
- 42”
- 48”
- 60”

NOTE:
PLANTER WALL HEIGHT IS FROM TOP OF WALL TO THE HIGHEST ADJACENT FINISH SURFACE ELEVATION.

16 0 32 64 128
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4255

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

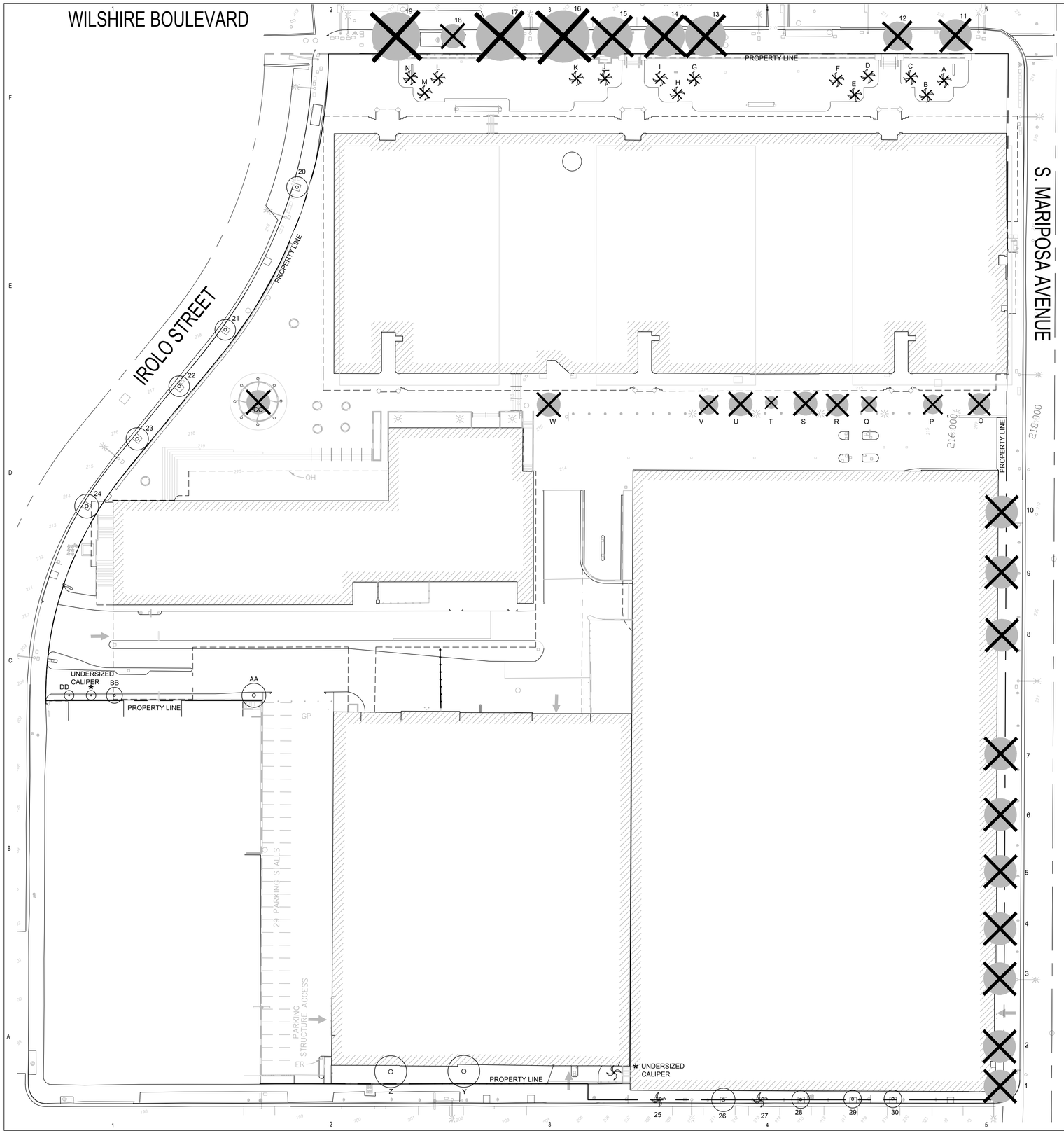
1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING
4	01/09/2020	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
PLANTER WALL HEIGHT PLAN

NUMBER
L-1.05

2016 CALLISON RTKL, INC.


WILSHIRE BOULEVARD
IROLO STREET
S. MARIPOSA AVENUE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
PROPERTY LINE
UNDERSIZED CALIPER
UNDERSIZED CALIPER
29 PARKING STALLS
PARKING STRUCTURE ACCESS
216.000
216.000
OH
GP
CC
CC
CC

CANOPY TREE

ARBUTIS 'MARINA'
marina strawberry tree

CERCIDIUM 'DESERT MUSEUM'
desert museum palo verde

LAGERSTROEMIA INDICA X FAURIEI
'NATCHEZ' natchez crape myrtlez

TIPUANA TIPU
tipu tree

ULMUS PARVIFOLIA
chinese evergreen elm

PALM TREE

PHOENIX DACTYLIFERA
date palm

SCREEN TREE

FICUS MICROCARPA NITIDA
indian laurel fig

PODOCARPUS MACROPHYLLUS
yew pine

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4205

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING
4	01/09/2020	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
PLANTING PALETTE

NUMBER
L-1.07

2016 CALLISON RTKL, INC.

SHRUB & GROUNDCOVER

AEONIUM A. 'ZWARTKOPF'
purple seonium

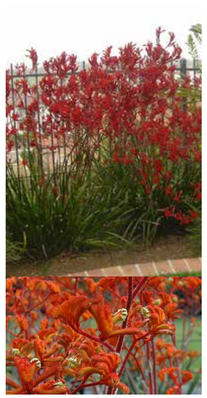
AEONIUM CANARIENSE
canary island aeonium

AGAVE AMERICANA
century plant

AGAVE ATTENUATA
foxtail agave

AGAVE 'BLUE GLOW'
blue glow agave

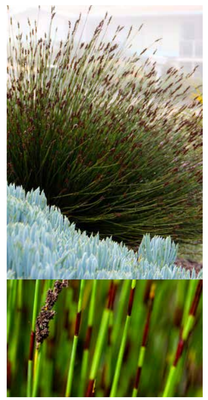
ANIGOZANTHOS HYBRID
kangaroo paw


ANIGOZANTHOS HYBRID
kangaroo paw

ASPARAGUS D. MYERS
foxtail fern

ASPIDISTRA ELATIOR
cast-iron plant

CHAMAEROPS HUMILIS
mediterranean fan palm


CHONDROPETALUM TECTORUM
cape rush

DIANELLA T. 'VARIEGATA'
variegated flax lily

FURCRAEA F. 'MEDIOPICTA'
mauritius hemp

LOMANDRA LONGIFOLIA 'BREEZE'
dwarf mat rush

LIRIOPE GIGANTEA
giant lilyturf

MYOPORUM P. 'PUTAH CREEK'
creeping myoporum

NASSELLA TENUISSIMA
mexican feather grass

PHILODENDRON 'XANADU'
winterbourne

PHORMIUM 'AMAZING RED'
amazing red flax

PHORMIUM TENAX 'BRONZE'
bronze flax

ROSMARINUS O. 'PROSTRATUS'
trailing rosemary

SANSEVIERIA HYBRID
snake plant

SANSEVIERIA HYBRID
snake plant

SENECIO MANDRALISCAE
blue chalksticks

SENECIO VITALIS
narrow-lead chalksticks

STRELITZIA NICOLAI
giant bird of paradise

WESTRINGIA FRUTICOSA 'WYNABBIE GEM'
coast rosemary

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4226

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING
4	01/09/2020	REVISED CASE FILING

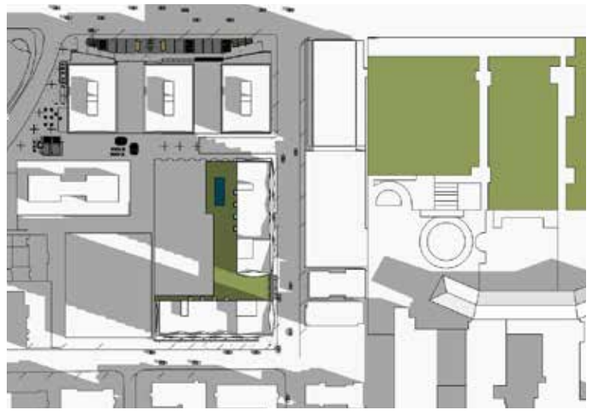
SEAL

SHEET IDENTIFICATION
TITLE
PLANTING PALETTE

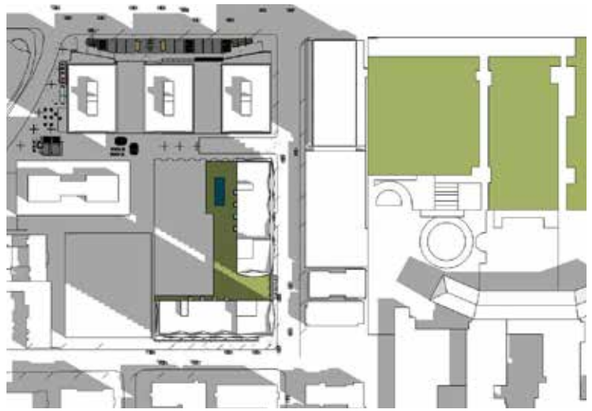
NUMBER
L-1.08

2016 CALLISON RTKL, INC.

8:00 A.M.

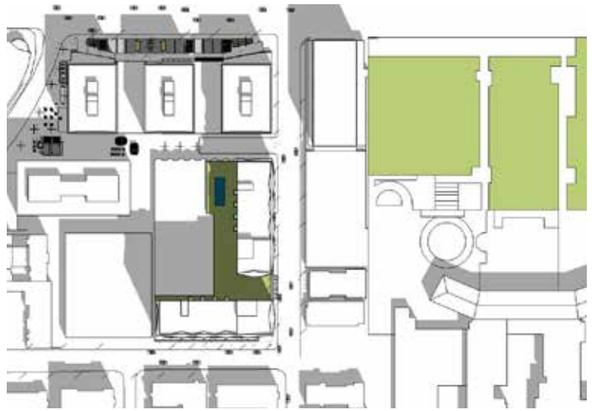


9:00 A.M.

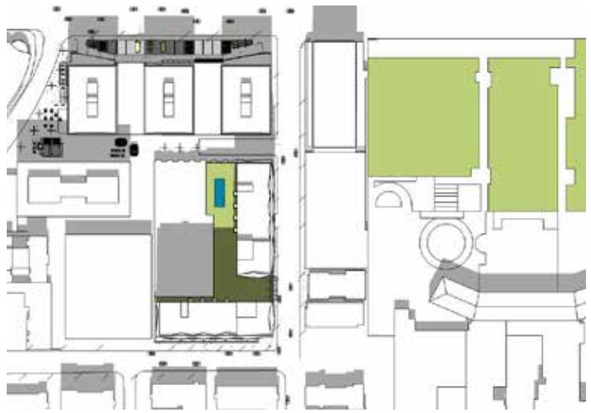


10:00 A.M.

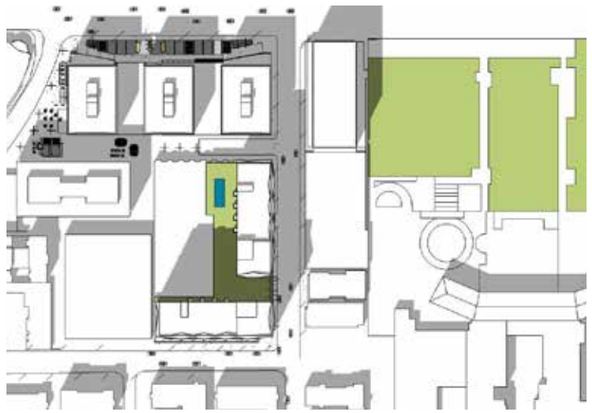
11:00 A.M.



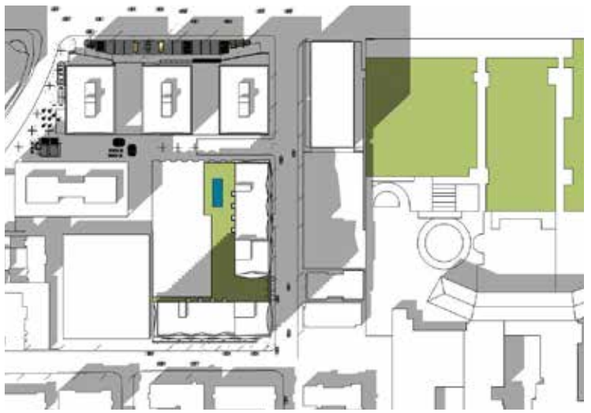
12.00 P.M.



1.00 P.M.

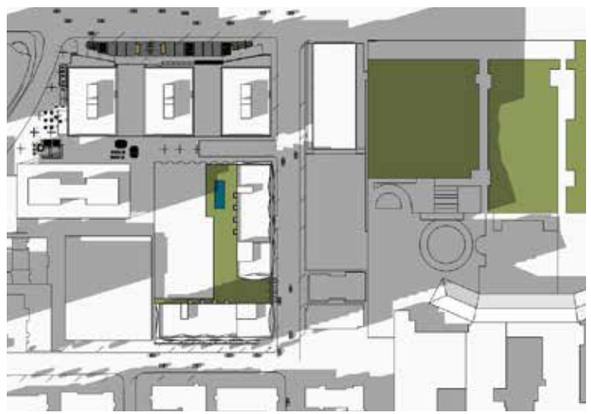


2.00 P.M.



3.00 P.M.

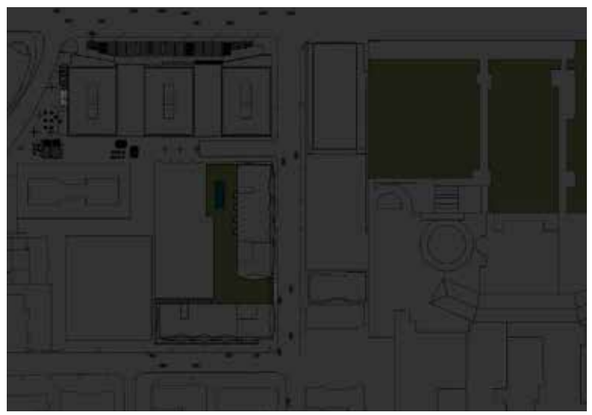
4.00 P.M.



5.00 P.M.

6.00 P.M.

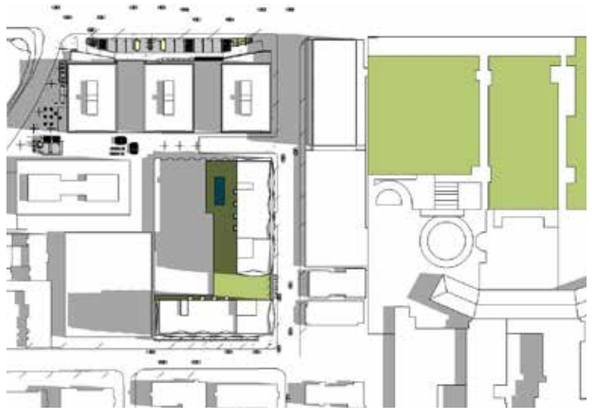
7.00 P.M.



MARCH 20TH

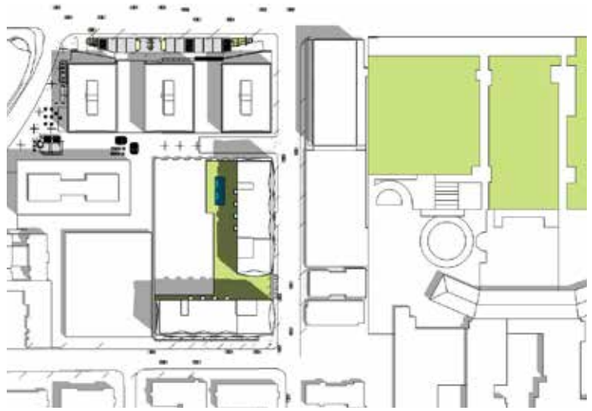
8:00 A.M.

9:00 A.M.

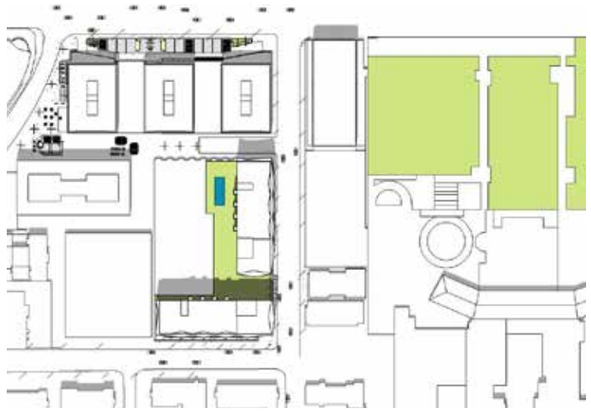


10:00 A.M.

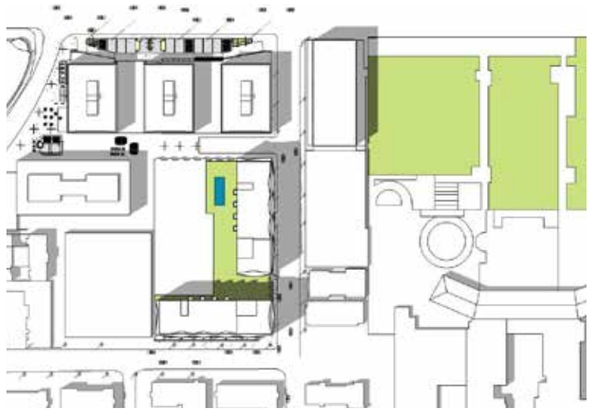
11:00 A.M.



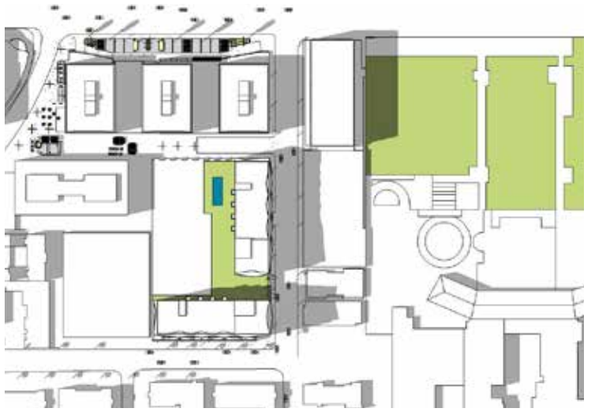
12.00 P.M.



1.00 P.M.



2.00 P.M.



3.00 P.M.

4.00 P.M.

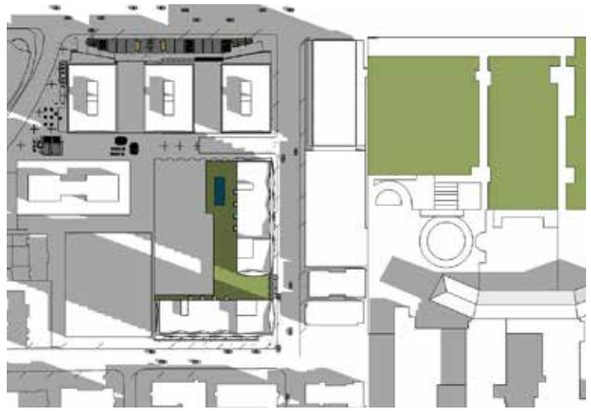
5.00 P.M.

6.00 P.M.

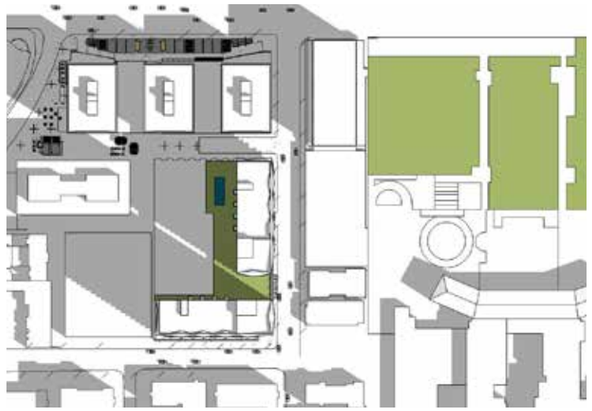
7.00 P.M.

JUNE 20TH

8:00 A.M.

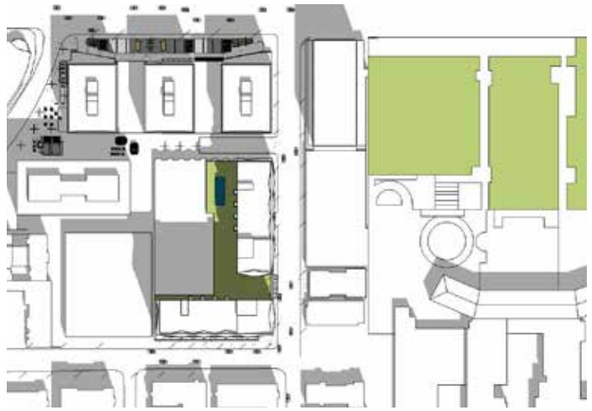


9:00 A.M.

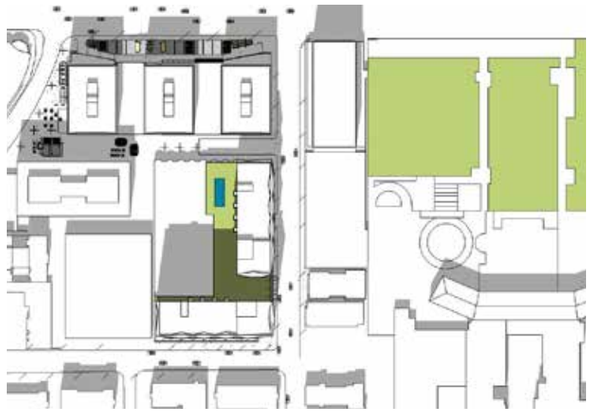


10:00 A.M.

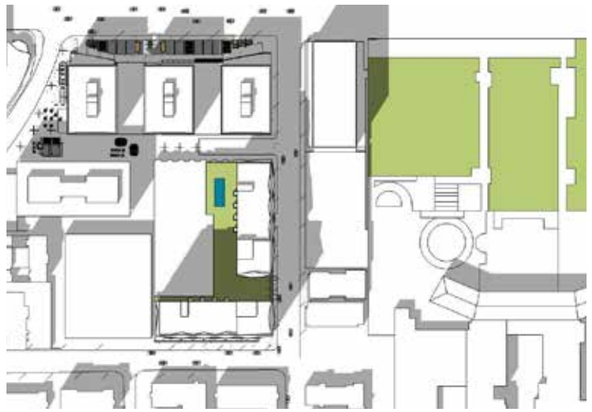
11:00 A.M.



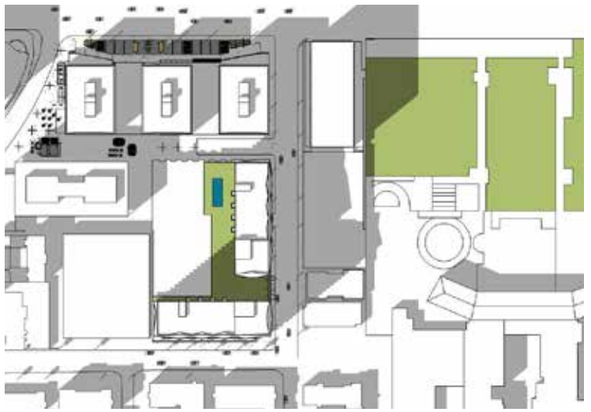
12.00 P.M.



1.00 P.M.

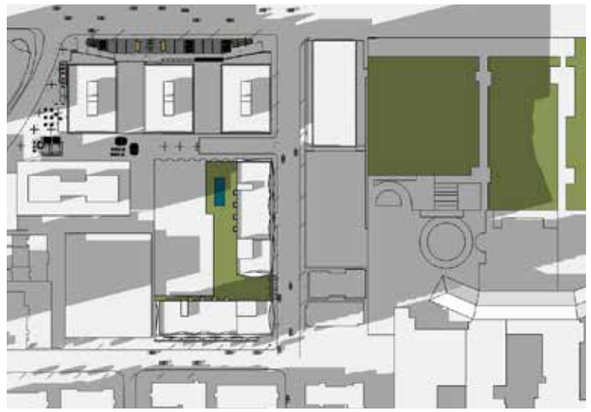


2.00 P.M.



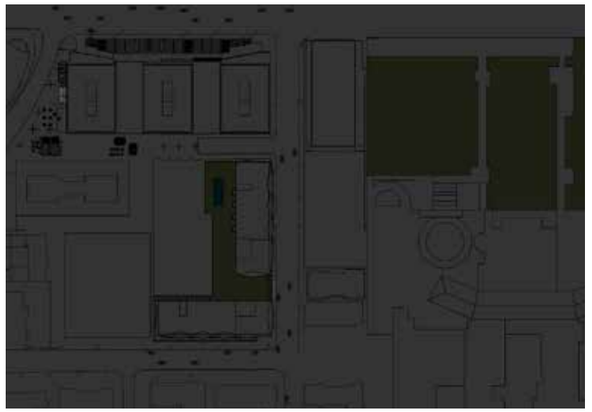
3.00 P.M.

4.00 P.M.

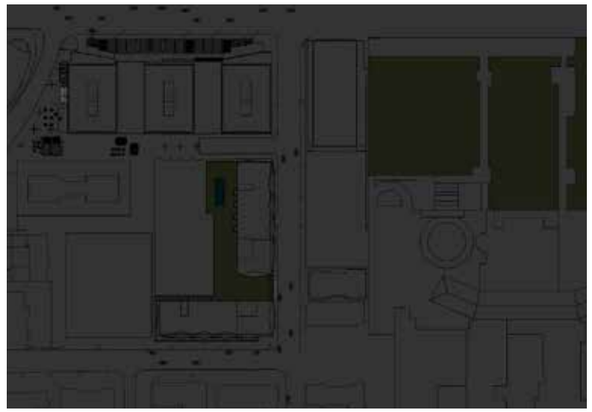


5.00 P.M.

6.00 P.M.



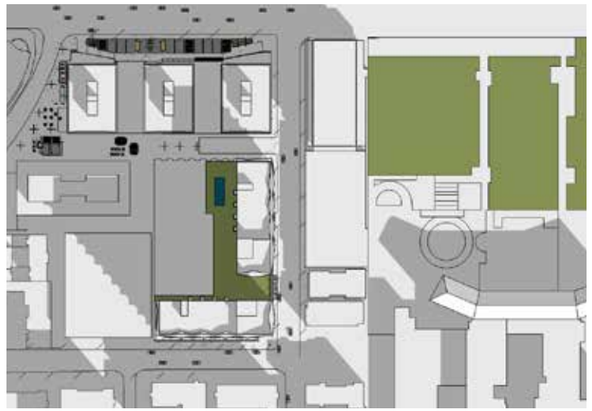
7.00 P.M.



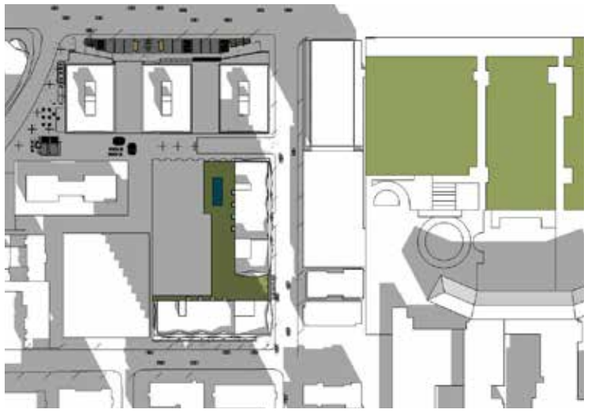
SEPTEMBER 20TH

8:00 A.M.

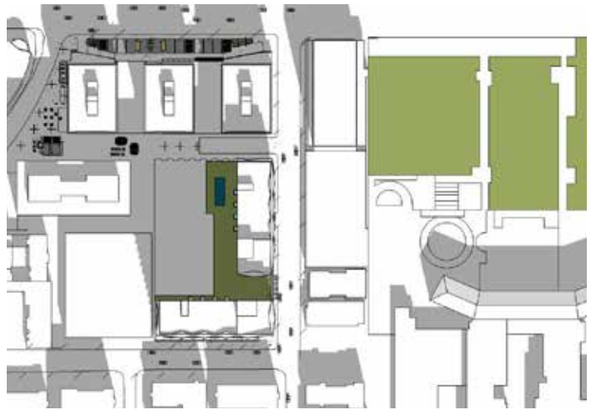
9:00 A.M.



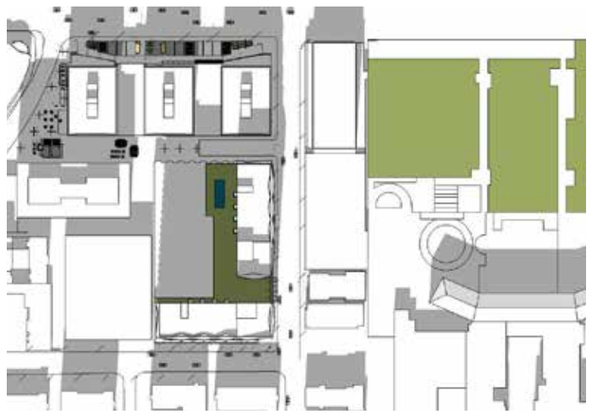
10:00 A.M.



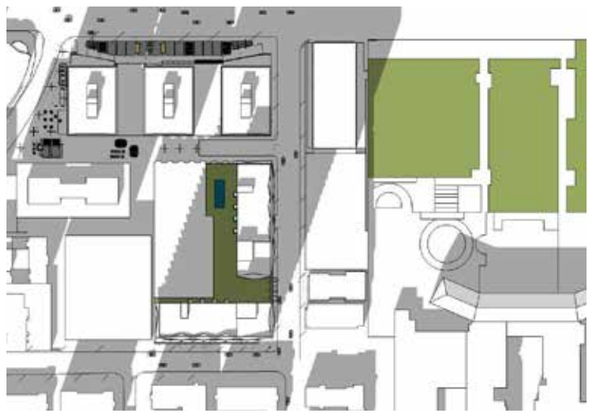
11:00 A.M.



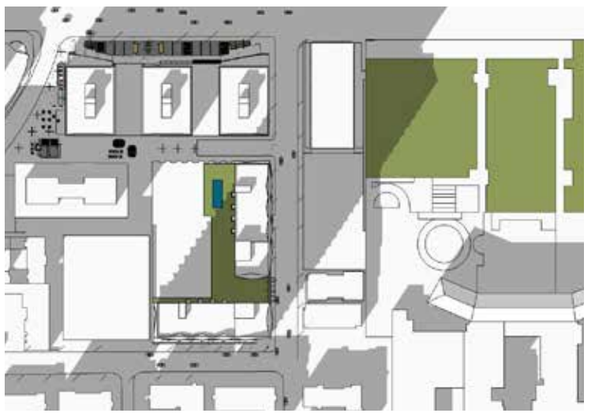
12.00 P.M.



1.00 P.M.



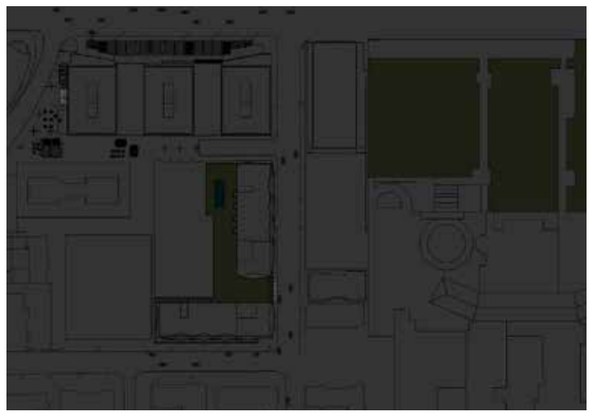
2.00 P.M.



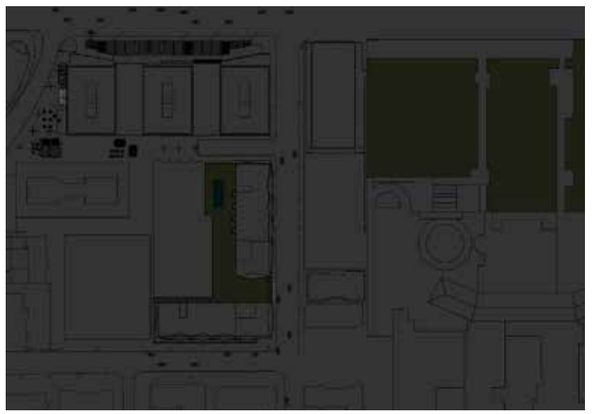
3.00 P.M.

4.00 P.M.

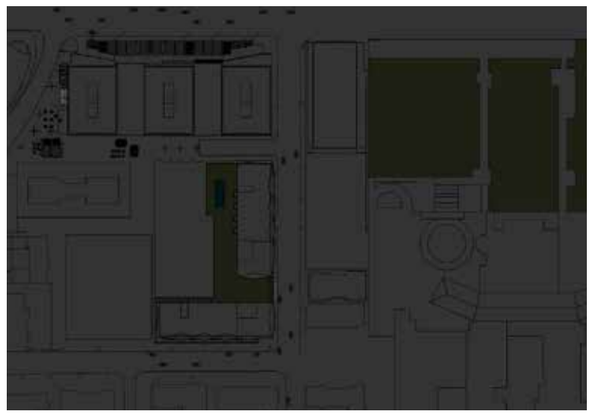
5.00 P.M.



6.00 P.M.



7.00 P.M.



DECEMBER 20TH

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Summer

3440 Wilshire Boulevard Future

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,921.00	Space	1.00	768,400.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.05	2,000.00	0
High Turnover (Sit Down Restaurant)	4.60	1000sqft	0.09	4,600.00	0
Apartments High Rise	640.00	Dwelling Unit	1.10	701,315.00	1830
Strip Mall	5.54	1000sqft	0.09	5,538.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Developer information

Construction Phase - Consultant assumptions

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Trips and VMT - Developer information

Demolition - Developer information

Grading - Developer information

Vehicle Trips - Fehr & Peers Traffic Impact Analysis Table 3-Trip Generation

Woodstoves - Developer information

Construction Off-road Equipment Mitigation - Assumes SCAQMD Rule 403 control efficiencies

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	46
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	NumDays	220.00	938.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	6.00	66.00
tblConstructionPhase	NumDays	3.00	20.00
tblFireplaces	NumberGas	544.00	0.00
tblFireplaces	NumberNoFireplace	64.00	641.00
tblFireplaces	NumberWood	32.00	0.00
tblGrading	AcresOfGrading	33.00	2.33
tblGrading	AcresOfGrading	30.00	0.00
tblGrading	MaterialExported	0.00	137,000.00
tblLandUse	LandUseSquareFeet	640,000.00	701,315.00
tblLandUse	LandUseSquareFeet	5,540.00	5,538.00
tblLandUse	LotAcreage	17.29	1.00
tblLandUse	LotAcreage	0.11	0.09
tblLandUse	LotAcreage	10.32	1.10
tblLandUse	LotAcreage	0.13	0.09
tblOffRoadEquipment	LoadFactor	0.36	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	17,125.00	13,700.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	196.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	40.00
tblTripsAndVMT	WorkerTripNumber	30.00	15.00
tblTripsAndVMT	WorkerTripNumber	28.00	20.00
tblTripsAndVMT	WorkerTripNumber	788.00	200.00
tblTripsAndVMT	WorkerTripNumber	158.00	5.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00

tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.98	2.84
tblVehicleTrips	ST_TR	696.00	100.54
tblVehicleTrips	ST_TR	158.37	57.44
tblVehicleTrips	ST_TR	42.04	12.00
tblVehicleTrips	SU_TR	3.65	2.84
tblVehicleTrips	SU_TR	500.00	100.54
tblVehicleTrips	SU_TR	131.84	57.44
tblVehicleTrips	SU_TR	20.43	12.00
tblVehicleTrips	WD_TR	4.20	2.84
tblVehicleTrips	WD_TR	716.00	100.54
tblVehicleTrips	WD_TR	127.15	57.44
tblVehicleTrips	WD_TR	44.32	12.00
tblWoodstoves	NumberCatalytic	32.00	0.00
tblWoodstoves	NumberNoncatalytic	32.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1708	95.8093	40.2942	0.2796	23.0428	1.4180	24.4608	4.9082	1.3365	6.2262	0.0000	29,741.1956	29,741.1956	2.9721	0.0000	29,815.4983
2023	3.6310	25.7361	32.8578	0.0733	2.3636	1.1058	3.4694	0.6297	1.0649	1.6947	0.0000	7,057.2426	7,057.2426	0.8377	0.0000	7,078.1854
2024	3.4186	24.1826	32.2092	0.0726	2.3636	0.9776	3.3411	0.6297	0.9406	1.5704	0.0000	6,989.6104	6,989.6104	0.8242	0.0000	7,010.2150
2025	25.0928	27.7317	36.1983	0.0880	2.6756	0.9654	3.6409	0.7183	0.9318	1.6501	0.0000	8,565.2291	8,565.2291	0.8960	0.0000	8,587.6283

2026	25.0584	27.6608	35.7794	0.0872	2.6756	0.9647	3.6403	0.7183	0.9312	1.6495	0.0000	8,486.6615	8,486.6615	0.8909	0.0000	8,508.9348
Maximum	**25.0928**	**95.8093**	**40.2942**	**0.2796**	**23.0428**	**1.4180**	**24.4608**	**4.9082**	**1.3365**	**6.2262**	**0.0000**	**29,741.1956**	**29,741.1956**	**2.9721**	**0.0000**	**29,815.4983**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.1708	95.8093	40.2942	0.2796	9.2789	1.4180	10.6969	2.3106	1.3365	3.6287	0.0000	29,741.1956	29,741.1956	2.9721	0.0000	29,815.4983
2023	3.6310	25.7361	32.8578	0.0733	1.4276	1.1058	2.5334	0.4000	1.0649	1.4649	0.0000	7,057.2425	7,057.2425	0.8377	0.0000	7,078.1854
2024	3.4186	24.1826	32.2092	0.0726	1.4276	0.9776	2.4052	0.4000	0.9406	1.3406	0.0000	6,989.6104	6,989.6104	0.8242	0.0000	7,010.2150
2025	25.0928	27.7317	36.1983	0.0880	1.6333	0.9654	2.5987	0.4625	0.9318	1.3943	0.0000	8,565.2291	8,565.2291	0.8960	0.0000	8,587.6283
2026	25.0584	27.6608	35.7794	0.0872	1.6333	0.9647	2.5980	0.4625	0.9312	1.3937	0.0000	8,486.6615	8,486.6615	0.8909	0.0000	8,508.9348
Maximum	**25.0928**	**95.8093**	**40.2942**	**0.2796**	**9.2789**	**1.4180**	**10.6969**	**2.3106**	**1.3365**	**3.6287**	**0.0000**	**29,741.1956**	**29,741.1956**	**2.9721**	**0.0000**	**29,815.4983**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.50**	**0.00**	**45.96**	**46.93**	**0.00**	**27.90**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Area	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Energy	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
Mobile	3.4501	15.3238	47.8159	0.2012	18.4344	0.1455	18.5800	4.9319	0.1351	5.0671		20,541.8871	20,541.8871	0.8979		20,564.3335
Total	**20.9618**	**17.8341**	**101.7429**	**0.2160**	**18.4344**	**0.5906**	**19.0251**	**4.9319**	**0.5802**	**5.5122**	**0.0000**	**23,032.5295**	**23,032.5295**	**1.0359**	**0.0439**	**23,071.5127**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Energy	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
Mobile	3.4501	15.3238	47.8159	0.2012	18.4344	0.1455	18.5800	4.9319	0.1351	5.0671		20,541.8871	20,541.8871	0.8979		20,564.3335
Total	**20.9618**	**17.8341**	**101.7429**	**0.2160**	**18.4344**	**0.5906**	**19.0251**	**4.9319**	**0.5802**	**5.5122**	**0.0000**	**23,032.5295**	**23,032.5295**	**1.0359**	**0.0439**	**23,071.5127**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	1/31/2022	5	21	
2	Site Preparation	Site Preparation	2/1/2022	2/28/2022	5	20	
3	Grading	Grading	3/1/2022	5/31/2022	5	66	

4	Building Construction	Building Construction	6/1/2022	1/2/2026	5	938	
5	Architectural Coating	Architectural Coating	3/1/2025	1/2/2026	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.33

Acres of Paving: 1

Residential Indoor: 1,420,163; Residential Outdoor: 473,388; Non-Residential Indoor: 18,207; Non-Residential Outdoor: 6,069; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Dumpers/Tenders	3	8.00	16	0.38
Demolition	Dumpers/Tenders	0		16	0.38
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	6.00	221	0.50
Site Preparation	Bore/Drill Rigs			221	0.50
Site Preparation	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Cement and Mortar Mixers			9	0.56
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Bore/Drill Rigs	1	6.00	221	0.50
Grading	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Welders	1	6.00	46	0.45
Building Construction	Aerial Lifts	2	6.00	63	0.31
Building Construction	Aerial Lifts			63	0.31
Building Construction	Air Compressors	2	6.00	78	0.48
Building Construction	Air Compressors			78	0.48
Building Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	15.00	4.00	1,978.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	20.00	4.00	13,700.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	200.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	5.00	40.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.3800	0.0000	20.3800	3.0857	0.0000	3.0857			0.0000			0.0000
Off-Road	2.9713	27.4795	26.4616	0.0494		1.3163	1.3163		1.2392	1.2392		4,721.4213	4,721.4213	1.1688		4,750.6412
Total	**2.9713**	**27.4795**	**26.4616**	**0.0494**	**20.3800**	**1.3163**	**21.6963**	**3.0857**	**1.2392**	**4.3249**		**4,721.4213**	**4,721.4213**	**1.1688**		**4,750.6412**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0509	30.9562	8.2722	0.1039	2.4696	0.0997	2.5693	0.6769	0.0954	0.7723		11,283.5994	11,283.5994	0.7302		11,301.8553
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0256	6.9000e-004	0.0263	7.3700e-003	6.6000e-004	8.0400e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**1.1225**	**31.3654**	**8.9257**	**0.1065**	**2.6628**	**0.1017**	**2.7645**	**0.7287**	**0.0973**	**0.8260**		**11,557.4006**	**11,557.4006**	**0.7410**		**11,575.9266**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5508	0.0000	7.5508	1.1433	0.0000	1.1433			0.0000			0.0000
Off-Road	2.9713	27.4795	26.4616	0.0494		1.3163	1.3163		1.2392	1.2392	0.0000	4,721.4213	4,721.4213	1.1688		4,750.6412
Total	**2.9713**	**27.4795**	**26.4616**	**0.0494**	**7.5508**	**1.3163**	**8.8671**	**1.1433**	**1.2392**	**2.3825**	**0.0000**	**4,721.4213**	**4,721.4213**	**1.1688**		**4,750.6412**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0509	30.9562	8.2722	0.1039	1.6103	0.0997	1.7100	0.4660	0.0954	0.5613		11,283.5994	11,283.5994	0.7302		11,301.8553
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0172	6.9000e-004	0.0179	5.3100e-003	6.6000e-004	5.9800e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1006	1.3100e-003	0.1019	0.0280	1.2100e-003	0.0292		164.8069	164.8069	4.5500e-003		164.9206
Total	**1.1225**	**31.3654**	**8.9257**	**0.1065**	**1.7281**	**0.1017**	**1.8298**	**0.4993**	**0.0973**	**0.5965**		**11,557.4006**	**11,557.4006**	**0.7410**		**11,575.9266**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7929	19.4202	15.0731	0.0373		0.7464	0.7464		0.6875	0.6875		3,598.2301	3,598.2301	1.1554		3,627.1156
Total	**1.7929**	**19.4202**	**15.0731**	**0.0373**	**0.0000**	**0.7464**	**0.7464**	**0.0000**	**0.6875**	**0.6875**		**3,598.2301**	**3,598.2301**	**1.1554**		**3,627.1156**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0256	6.9000e-004	0.0263	7.3700e-003	6.6000e-004	8.0400e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0716**	**0.4092**	**0.6535**	**2.6700e-003**	**0.1933**	**2.0000e-003**	**0.1953**	**0.0518**	**1.8700e-003**	**0.0537**		**273.8012**	**273.8012**	**0.0108**		**274.0713**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7929	19.4202	15.0731	0.0373		0.7464	0.7464		0.6875	0.6875	0.0000	3,598.2301	3,598.2301	1.1554		3,627.1156
Total	**1.7929**	**19.4202**	**15.0731**	**0.0373**	**0.0000**	**0.7464**	**0.7464**	**0.0000**	**0.6875**	**0.6875**	**0.0000**	**3,598.2301**	**3,598.2301**	**1.1554**		**3,627.1156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0172	6.9000e-004	0.0179	5.3100e-003	6.6000e-004	5.9800e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1006	1.3100e-003	0.1019	0.0280	1.2100e-003	0.0292		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0716**	**0.4092**	**0.6535**	**2.6700e-003**	**0.1178**	**2.0000e-003**	**0.1198**	**0.0333**	**1.8700e-003**	**0.0352**		**273.8012**	**273.8012**	**0.0108**		**274.0713**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2943	0.0000	6.2943	3.3498	0.0000	3.3498			0.0000			0.0000
Off-Road	2.7632	27.1660	21.2248	0.0475		1.1900	1.1900		1.1055	1.1055		4,545.8079	4,545.8079	1.3505		4,579.5705
Total	**2.7632**	**27.1660**	**21.2248**	**0.0475**	**6.2943**	**1.1900**	**7.4843**	**3.3498**	**1.1055**	**4.4554**		**4,545.8079**	**4,545.8079**	**1.3505**		**4,579.5705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	2.3160	68.2208	18.2302	0.2289	5.4424	0.2197	5.6621	1.4917	0.2102	1.7019		24,866.6509	24,866.6509	1.6093		24,906.8830
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0256	6.9000e-004	0.0263	7.3700e-003	6.6000e-004	8.0400e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**2.4077**	**68.6433**	**19.0694**	**0.2321**	**5.6915**	**0.2221**	**5.9137**	**1.5583**	**0.2125**	**1.7708**		**25,195.3877**	**25,195.3877**	**1.6216**		**25,235.9278**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3320	0.0000	2.3320	1.2411	0.0000	1.2411			0.0000			0.0000
Off-Road	2.7632	27.1660	21.2248	0.0475		1.1900	1.1900		1.1055	1.1055	0.0000	4,545.8079	4,545.8079	1.3505		4,579.5705
Total	**2.7632**	**27.1660**	**21.2248**	**0.0475**	**2.3320**	**1.1900**	**3.5221**	**1.2411**	**1.1055**	**2.3466**	**0.0000**	**4,545.8079**	**4,545.8079**	**1.3505**		**4,579.5705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3160	68.2208	18.2302	0.2289	3.5487	0.2197	3.7685	1.0269	0.2102	1.2371		24,866.6509	24,866.6509	1.6093		24,906.8830
Vendor	0.0114	0.3693	0.0961	1.0200e-003	0.0172	6.9000e-004	0.0179	5.3100e-003	6.6000e-004	5.9800e-003		108.9944	108.9944	6.2500e-003		109.1507
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.1342	1.7500e-003	0.1359	0.0373	1.6100e-003	0.0390		219.7425	219.7425	6.0600e-003		219.8941

Total	**2.4077**	**68.6433**	**19.0694**	**0.2321**	**3.7001**	**0.2221**	**3.9223**	**1.0695**	**0.2125**	**1.2820**		**25,195.3877**	**25,195.3877**	**1.6216**		**25,235.9278**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0396	25.7368	25.7776	0.0472		1.2378	1.2378		1.1936	1.1936		4,412.2312	4,412.2312	0.7695		4,431.4682
Total	**3.0396**	**25.7368**	**25.7776**	**0.0472**		**1.2378**	**1.2378**		**1.1936**	**1.1936**		**4,412.2312**	**4,412.2312**	**0.7695**		**4,431.4682**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0571	1.8466	0.4803	5.0900e-003	0.1281	3.4700e-003	0.1315	0.0369	3.3200e-003	0.0402		544.9718	544.9718	0.0313		545.7536
Worker	0.8031	0.5323	7.4321	0.0221	2.2355	0.0175	2.2530	0.5929	0.0161	0.6090		2,197.4246	2,197.4246	0.0607		2,198.9409
Total	**0.8601**	**2.3789**	**7.9124**	**0.0271**	**2.3636**	**0.0210**	**2.3846**	**0.6297**	**0.0194**	**0.6492**		**2,742.3964**	**2,742.3964**	**0.0919**		**2,744.6945**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0396	25.7368	25.7776	0.0472		1.2378	1.2378		1.1936	1.1936	0.0000	4,412.2312	4,412.2312	0.7695		4,431.4682
Total	**3.0396**	**25.7368**	**25.7776**	**0.0472**		**1.2378**	**1.2378**		**1.1936**	**1.1936**	**0.0000**	**4,412.2312**	**4,412.2312**	**0.7695**		**4,431.4682**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0571	1.8466	0.4803	5.0900e-003	0.0861	3.4700e-003	0.0896	0.0266	3.3200e-003	0.0299		544.9718	544.9718	0.0313		545.7536
Worker	0.8031	0.5323	7.4321	0.0221	1.3415	0.0175	1.3590	0.3734	0.0161	0.3896		2,197.4246	2,197.4246	0.0607		2,198.9409
Total	**0.8601**	**2.3789**	**7.9124**	**0.0271**	**1.4276**	**0.0210**	**1.4486**	**0.4000**	**0.0194**	**0.4194**		**2,742.3964**	**2,742.3964**	**0.0919**		**2,744.6945**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	2.8346	23.8534	25.5798	0.0472		1.0872	1.0872		1.0477	1.0477		4,412.4637	4,412.4637	0.7553		4,431.3466
Total	**2.8346**	**23.8534**	**25.5798**	**0.0472**		**1.0872**	**1.0872**		**1.0477**	**1.0477**		**4,412.4637**	**4,412.4637**	**0.7553**		**4,431.3466**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0423	1.4011	0.4338	4.9300e-003	0.1281	1.6200e-003	0.1297	0.0369	1.5500e-003	0.0384		527.8149	527.8149	0.0277		528.5077
Worker	0.7541	0.4816	6.8443	0.0212	2.2355	0.0170	2.2525	0.5929	0.0157	0.6085		2,116.9640	2,116.9640	0.0547		2,118.3311
Total	**0.7965**	**1.8827**	**7.2780**	**0.0262**	**2.3636**	**0.0186**	**2.3822**	**0.6297**	**0.0172**	**0.6469**		**2,644.7788**	**2,644.7788**	**0.0824**		**2,646.8388**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8346	23.8534	25.5798	0.0472		1.0872	1.0872		1.0477	1.0477	0.0000	4,412.4637	4,412.4637	0.7553		4,431.3466
Total	**2.8346**	**23.8534**	**25.5798**	**0.0472**		**1.0872**	**1.0872**		**1.0477**	**1.0477**	**0.0000**	**4,412.4637**	**4,412.4637**	**0.7553**		**4,431.3466**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0423	1.4011	0.4338	4.9300e-003	0.0861	1.6200e-003	0.0877	0.0266	1.5500e-003	0.0281		527.8149	527.8149	0.0277		528.5077
Worker	0.7541	0.4816	6.8443	0.0212	1.3415	0.0170	1.3585	0.3734	0.0157	0.3891		2,116.9640	2,116.9640	0.0547		2,118.3311
Total	**0.7965**	**1.8827**	**7.2780**	**0.0262**	**1.4276**	**0.0186**	**1.4462**	**0.4000**	**0.0172**	**0.4172**		**2,644.7788**	**2,644.7788**	**0.0824**		**2,646.8388**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6639	22.3477	25.4083	0.0472		0.9592	0.9592		0.9237	0.9237		4,412.5810	4,412.5810	0.7467		4,431.2484
Total	**2.6639**	**22.3477**	**25.4083**	**0.0472**		**0.9592**	**0.9592**		**0.9237**	**0.9237**		**4,412.5810**	**4,412.5810**	**0.7467**		**4,431.2484**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0413	1.3958	0.4206	4.9000e-003	0.1281	1.6000e-003	0.1297	0.0369	1.5300e-003	0.0384		525.6729	525.6729	0.0273		526.3558
Worker	0.7134	0.4392	6.3804	0.0206	2.2355	0.0168	2.2523	0.5929	0.0154	0.6083		2,051.3565	2,051.3565	0.0502		2,052.6107
Total	**0.7547**	**1.8350**	**6.8010**	**0.0255**	**2.3636**	**0.0184**	**2.3819**	**0.6297**	**0.0170**	**0.6467**		**2,577.0294**	**2,577.0294**	**0.0775**		**2,578.9666**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6639	22.3477	25.4083	0.0472		0.9592	0.9592		0.9237	0.9237	0.0000	4,412.5810	4,412.5810	0.7467		4,431.2484
Total	**2.6639**	**22.3477**	**25.4083**	**0.0472**		**0.9592**	**0.9592**		**0.9237**	**0.9237**	**0.0000**	**4,412.5810**	**4,412.5810**	**0.7467**		**4,431.2484**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0413	1.3958	0.4206	4.9000e-003	0.0861	1.6000e-003	0.0877	0.0266	1.5300e-003	0.0281		525.6729	525.6729	0.0273		526.3558
Worker	0.7134	0.4392	6.3804	0.0206	1.3415	0.0168	1.3583	0.3734	0.0154	0.3889		2,051.3565	2,051.3565	0.0502		2,052.6107

Total	**0.7547**	**1.8350**	**6.8010**	**0.0255**	**1.4276**	**0.0184**	**1.4460**	**0.4000**	**0.0170**	**0.4170**		**2,577.0294**	**2,577.0294**	**0.0775**		**2,578.9666**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5063	20.8770	25.2766	0.0472		0.8408	0.8408		0.8088	0.8088		4,412.8372	4,412.8372	0.7376		4,431.2759
Total	**2.5063**	**20.8770**	**25.2766**	**0.0472**		**0.8408**	**0.8408**		**0.8088**	**0.8088**		**4,412.8372**	**4,412.8372**	**0.7376**		**4,431.2759**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0403	1.3839	0.4098	4.8700e-003	0.1281	1.5700e-003	0.1296	0.0369	1.5000e-003	0.0384		522.7764	522.7764	0.0269		523.4498
Worker	0.6774	0.4018	5.9260	0.0198	2.2355	0.0164	2.2519	0.5929	0.0151	0.6080		1,971.8700	1,971.8700	0.0458		1,973.0140
Total	**0.7177**	**1.7858**	**6.3357**	**0.0247**	**2.3636**	**0.0180**	**2.3816**	**0.6297**	**0.0166**	**0.6464**		**2,494.6463**	**2,494.6463**	**0.0727**		**2,496.4638**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5063	20.8770	25.2766	0.0472		0.8408	0.8408		0.8088	0.8088	0.0000	4,412.8372	4,412.8372	0.7376		4,431.2759
Total	**2.5063**	**20.8770**	**25.2766**	**0.0472**		**0.8408**	**0.8408**		**0.8088**	**0.8088**	**0.0000**	**4,412.8372**	**4,412.8372**	**0.7376**		**4,431.2759**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0403	1.3839	0.4098	4.8700e-003	0.0861	1.5700e-003	0.0877	0.0266	1.5000e-003	0.0281		522.7764	522.7764	0.0269		523.4498
Worker	0.6774	0.4018	5.9260	0.0198	1.3415	0.0164	1.3579	0.3734	0.0151	0.3885		1,971.8700	1,971.8700	0.0458		1,973.0140
Total	**0.7177**	**1.7858**	**6.3357**	**0.0247**	**1.4276**	**0.0180**	**1.4456**	**0.4000**	**0.0166**	**0.4166**		**2,494.6463**	**2,494.6463**	**0.0727**		**2,496.4638**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	2.5063	20.8770	25.2766	0.0472		0.8408	0.8408		0.8088	0.8088		4,412.8372	4,412.8372	0.7376		4,431.2759
Total	**2.5063**	**20.8770**	**25.2766**	**0.0472**		**0.8408**	**0.8408**		**0.8088**	**0.8088**		**4,412.8372**	**4,412.8372**	**0.7376**		**4,431.2759**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0394	1.3711	0.4015	4.8400e-003	0.1281	1.5400e-003	0.1296	0.0369	1.4800e-003	0.0384		519.9950	519.9950	0.0266		520.6588
Worker	0.6464	0.3702	5.5415	0.0191	2.2355	0.0159	2.2514	0.5929	0.0146	0.6075		1,903.3593	1,903.3593	0.0420		1,904.4086
Total	**0.6858**	**1.7413**	**5.9430**	**0.0239**	**2.3636**	**0.0174**	**2.3810**	**0.6297**	**0.0161**	**0.6458**		**2,423.3543**	**2,423.3543**	**0.0685**		**2,425.0674**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5063	20.8770	25.2766	0.0472		0.8408	0.8408		0.8088	0.8088	0.0000	4,412.8372	4,412.8372	0.7376		4,431.2759
Total	**2.5063**	**20.8770**	**25.2766**	**0.0472**		**0.8408**	**0.8408**		**0.8088**	**0.8088**	**0.0000**	**4,412.8372**	**4,412.8372**	**0.7376**		**4,431.2759**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0394	1.3711	0.4015	4.8400e-003	0.0861	1.5400e-003	0.0876	0.0266	1.4800e-003	0.0281		519.9950	519.9950	0.0266		520.6588
Worker	0.6464	0.3702	5.5415	0.0191	1.3415	0.0159	1.3574	0.3734	0.0146	0.3880		1,903.3593	1,903.3593	0.0420		1,904.4086
Total	**0.6858**	**1.7413**	**5.9430**	**0.0239**	**1.4276**	**0.0174**	**1.4450**	**0.4000**	**0.0161**	**0.4161**		**2,423.3543**	**2,423.3543**	**0.0685**		**2,425.0674**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.4296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**21.7713**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0805	2.7679	0.8195	9.7500e-003	0.2561	3.1500e-003	0.2593	0.0737	3.0100e-003	0.0768		1,045.5527	1,045.5527	0.0539		1,046.8995
Worker	0.0169	0.0101	0.1482	4.9000e-004	0.0559	4.1000e-004	0.0563	0.0148	3.8000e-004	0.0152		49.2968	49.2968	1.1400e-003		49.3254
Total	**0.0975**	**2.7779**	**0.9677**	**0.0102**	**0.3120**	**3.5600e-003**	**0.3156**	**0.0886**	**3.3900e-003**	**0.0920**		**1,094.8495**	**1,094.8495**	**0.0550**		**1,096.2249**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.4296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**21.7713**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0805	2.7679	0.8195	9.7500e-003	0.1722	3.1500e-003	0.1753	0.0531	3.0100e-003	0.0562		1,045.5527	1,045.5527	0.0539		1,046.8995
Worker	0.0169	0.0101	0.1482	4.9000e-004	0.0335	4.1000e-004	0.0340	9.3400e-003	3.8000e-004	9.7100e-003		49.2968	49.2968	1.1400e-003		49.3254

Total	**0.0975**	**2.7779**	**0.9677**	**0.0102**	**0.2057**	**3.5600e-003**	**0.2093**	**0.0625**	**3.3900e-003**	**0.0659**		**1,094.8495**	**1,094.8495**	**0.0550**		**1,096.2249**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.4296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**21.7713**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0787	2.7422	0.8030	9.6900e-003	0.2561	3.0900e-003	0.2592	0.0737	2.9500e-003	0.0767		1,039.9900	1,039.9900	0.0531		1,041.3177
Worker	0.0162	9.2600e-003	0.1385	4.8000e-004	0.0559	4.0000e-004	0.0563	0.0148	3.6000e-004	0.0152		47.5840	47.5840	1.0500e-003		47.6102
Total	**0.0949**	**2.7515**	**0.9415**	**0.0102**	**0.3120**	**3.4900e-003**	**0.3155**	**0.0886**	**3.3100e-003**	**0.0919**		**1,087.5739**	**1,087.5739**	**0.0542**		**1,088.9279**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.4296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**21.7713**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0787	2.7422	0.8030	9.6900e-003	0.1722	3.0900e-003	0.1753	0.0531	2.9500e-003	0.0561		1,039.9900	1,039.9900	0.0531		1,041.3177
Worker	0.0162	9.2600e-003	0.1385	4.8000e-004	0.0335	4.0000e-004	0.0339	9.3400e-003	3.6000e-004	9.7000e-003		47.5840	47.5840	1.0500e-003		47.6102
Total	**0.0949**	**2.7515**	**0.9415**	**0.0102**	**0.2057**	**3.4900e-003**	**0.2092**	**0.0625**	**3.3100e-003**	**0.0658**		**1,087.5739**	**1,087.5739**	**0.0542**		**1,088.9279**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.4501	15.3238	47.8159	0.2012	18.4344	0.1455	18.5800	4.9319	0.1351	5.0671		20,541.8871	20,541.8871	0.8979		20,564.3335
Unmitigated	3.4501	15.3238	47.8159	0.2012	18.4344	0.1455	18.5800	4.9319	0.1351	5.0671		20,541.8871	20,541.8871	0.8979		20,564.3335

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,817.60	1,817.60	1817.60	6,991,856	6,991,856
Enclosed Parking with Elevator	0.00	0.00	0.00		
Strip Mall	66.48	66.48	66.48	229,312	229,312
Fast Food Restaurant w/o Drive Thru	201.08	201.08	201.08	602,965	602,965
High Turnover (Sit Down Restaurant)	264.22	264.22	264.22	847,516	847,516
Total	2,349.38	2,349.38	2,349.38	8,671,650	8,671,650

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.00	19.00	41.00	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Fast Food Restaurant w/o Drive Thru	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
NaturalGas Unmitigated	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16161.2	0.1743	1.4894	0.6338	9.5100e-003		0.1204	0.1204		0.1204	0.1204		1,901.3188	1,901.3188	0.0364	0.0349	1,912.6174

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	1264.44	0.0136	0.1240	0.1041	7.4000e-004		9.4200e-003	9.4200e-003		9.4200e-003	9.4200e-003		148.7575	148.7575	2.8500e-003	2.7300e-003	149.6414
High Turnover (Sit Down Restaurant)	2908.21	0.0314	0.2851	0.2395	1.7100e-003		0.0217	0.0217		0.0217	0.0217		342.1421	342.1421	6.5600e-003	6.2700e-003	344.1753
Strip Mall	24.8831	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9274	2.9274	6.0000e-005	5.0000e-005	2.9448
Total		**0.2196**	**1.9009**	**0.9795**	**0.0120**		**0.1517**	**0.1517**		**0.1517**	**0.1517**		**2,395.1458**	**2,395.1458**	**0.0459**	**0.0439**	**2,409.3790**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16.1612	0.1743	1.4894	0.6338	9.5100e-003		0.1204	0.1204		0.1204	0.1204		1,901.3188	1,901.3188	0.0364	0.0349	1,912.6174
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	1.26444	0.0136	0.1240	0.1041	7.4000e-004		9.4200e-003	9.4200e-003		9.4200e-003	9.4200e-003		148.7575	148.7575	2.8500e-003	2.7300e-003	149.6414
High Turnover (Sit Down Restaurant)	2.90821	0.0314	0.2851	0.2395	1.7100e-003		0.0217	0.0217		0.0217	0.0217		342.1421	342.1421	6.5600e-003	6.2700e-003	344.1753
Strip Mall	0.0248831	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9274	2.9274	6.0000e-005	5.0000e-005	2.9448
Total		**0.2196**	**1.9009**	**0.9795**	**0.0120**		**0.1517**	**0.1517**		**0.1517**	**0.1517**		**2,395.1458**	**2,395.1458**	**0.0459**	**0.0439**	**2,409.3790**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Unmitigated	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6020	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934		95.4965	95.4965	0.0921		97.8002
Total	**17.2921**	**0.6094**	**52.9476**	**2.8000e-003**		**0.2934**	**0.2934**		**0.2934**	**0.2934**	**0.0000**	**95.4965**	**95.4965**	**0.0921**	**0.0000**	**97.8002**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	14.3985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6020	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934		95.4965	95.4965	0.0921		97.8002
Total	**17.2921**	**0.6094**	**52.9476**	**2.8000e-003**		**0.2934**	**0.2934**		**0.2934**	**0.2934**	**0.0000**	**95.4965**	**95.4965**	**0.0921**	**0.0000**	**97.8002**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Annual

3440 Wilshire Boulevard Future

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,921.00	Space	1.00	768,400.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.05	2,000.00	0
High Turnover (Sit Down Restaurant)	4.60	1000sqft	0.09	4,600.00	0
Apartments High Rise	640.00	Dwelling Unit	1.10	701,315.00	1830
Strip Mall	5.54	1000sqft	0.09	5,538.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Developer information

Construction Phase - Consultant assumptions

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Trips and VMT - Developer information

Demolition - Developer information

Grading - Developer information

Vehicle Trips - Fehr & Peers Traffic Impact Analysis Table 3-Trip Generation

Woodstoves - Developer information

Construction Off-road Equipment Mitigation - Assumes SCAQMD Rule 403 control efficiencies

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	46
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	NumDays	220.00	938.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	6.00	66.00
tblConstructionPhase	NumDays	3.00	20.00
tblFireplaces	NumberGas	544.00	0.00
tblFireplaces	NumberNoFireplace	64.00	641.00
tblFireplaces	NumberWood	32.00	0.00
tblGrading	AcresOfGrading	33.00	2.33
tblGrading	AcresOfGrading	30.00	0.00
tblGrading	MaterialExported	0.00	137,000.00
tblLandUse	LandUseSquareFeet	640,000.00	701,315.00
tblLandUse	LandUseSquareFeet	5,540.00	5,538.00
tblLandUse	LotAcreage	17.29	1.00
tblLandUse	LotAcreage	0.11	0.09
tblLandUse	LotAcreage	10.32	1.10
tblLandUse	LotAcreage	0.13	0.09
tblOffRoadEquipment	LoadFactor	0.36	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	17,125.00	13,700.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	196.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	40.00
tblTripsAndVMT	WorkerTripNumber	30.00	15.00
tblTripsAndVMT	WorkerTripNumber	28.00	20.00
tblTripsAndVMT	WorkerTripNumber	788.00	200.00
tblTripsAndVMT	WorkerTripNumber	158.00	5.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00

tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.98	2.84
tblVehicleTrips	ST_TR	696.00	100.54
tblVehicleTrips	ST_TR	158.37	57.44
tblVehicleTrips	ST_TR	42.04	12.00
tblVehicleTrips	SU_TR	3.65	2.84
tblVehicleTrips	SU_TR	500.00	100.54
tblVehicleTrips	SU_TR	131.84	57.44
tblVehicleTrips	SU_TR	20.43	12.00
tblVehicleTrips	WD_TR	4.20	2.84
tblVehicleTrips	WD_TR	716.00	100.54
tblVehicleTrips	WD_TR	127.15	57.44
tblVehicleTrips	WD_TR	44.32	12.00
tblWoodstoves	NumberCatalytic	32.00	0.00
tblWoodstoves	NumberNoncatalytic	32.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.5317	6.2336	4.4116	0.0168	0.8130	0.1653	0.9783	0.2489	0.1573	0.4062	0.0000	1,565.2907	1,565.2907	0.1780	0.0000	1,569.7404
2023	0.4728	3.3563	4.2175	9.4100e-003	0.3013	0.1438	0.4450	0.0804	0.1384	0.2188	0.0000	820.9193	820.9193	0.0986	0.0000	823.3839
2024	0.4487	3.1778	4.1679	9.3900e-003	0.3036	0.1281	0.4317	0.0810	0.1232	0.2042	0.0000	819.5334	819.5334	0.0978	0.0000	821.9772
2025	2.8055	3.5227	4.5803	0.0110	0.3359	0.1237	0.4596	0.0902	0.1193	0.2095	0.0000	969.6484	969.6484	0.1044	0.0000	972.2571

2026	0.0251	0.0278	0.0355	9.0000e-005	2.6200e-003	9.6000e-004	3.5900e-003	7.1000e-004	9.3000e-004	1.6400e-003	0.0000	7.6076	7.6076	8.1000e-004	0.0000	7.6278
Maximum	**2.8055**	**6.2336**	**4.5803**	**0.0168**	**0.8130**	**0.1653**	**0.9783**	**0.2489**	**0.1573**	**0.4062**	**0.0000**	**1,565.2907**	**1,565.2907**	**0.1780**	**0.0000**	**1,569.7404**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.5317	6.2336	4.4116	0.0168	0.4030	0.1653	0.5683	0.1235	0.1573	0.2807	0.0000	1,565.2901	1,565.2901	0.1780	0.0000	1,569.7398
2023	0.4728	3.3563	4.2175	9.4100e-003	0.1824	0.1438	0.3261	0.0512	0.1384	0.1897	0.0000	820.9187	820.9187	0.0986	0.0000	823.3832
2024	0.4487	3.1778	4.1679	9.3900e-003	0.1838	0.1281	0.3118	0.0516	0.1232	0.1748	0.0000	819.5328	819.5328	0.0978	0.0000	821.9765
2025	2.8055	3.5227	4.5803	0.0110	0.2052	0.1237	0.3289	0.0581	0.1193	0.1775	0.0000	969.6477	969.6477	0.1044	0.0000	972.2564
2026	0.0251	0.0278	0.0355	9.0000e-005	1.6100e-003	9.6000e-004	2.5700e-003	4.6000e-004	9.3000e-004	1.3900e-003	0.0000	7.6076	7.6076	8.1000e-004	0.0000	7.6278
Maximum	**2.8055**	**6.2336**	**4.5803**	**0.0168**	**0.4030**	**0.1653**	**0.5683**	**0.1235**	**0.1573**	**0.2807**	**0.0000**	**1,565.2901**	**1,565.2901**	**0.1780**	**0.0000**	**1,569.7398**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**44.44**	**0.00**	**33.67**	**43.17**	**0.00**	**20.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-3-2022	4-2-2022	2.0794	2.0794
2	4-3-2022	7-2-2022	2.4937	2.4937
3	7-3-2022	10-2-2022	1.0520	1.0520
4	10-3-2022	1-2-2023	1.0549	1.0549
5	1-3-2023	4-2-2023	0.9482	0.9482
6	4-3-2023	7-2-2023	0.9544	0.9544
7	7-3-2023	10-2-2023	0.9650	0.9650

8	10-3-2023	1-2-2024	0.9681	0.9681
9	1-3-2024	4-2-2024	0.9012	0.9012
10	4-3-2024	7-2-2024	0.8970	0.8970
11	7-3-2024	10-2-2024	0.9070	0.9070
12	10-3-2024	1-2-2025	0.9099	0.9099
13	1-3-2025	4-2-2025	1.1534	1.1534
14	4-3-2025	7-2-2025	1.7168	1.7168
15	7-3-2025	10-2-2025	1.7357	1.7357
16	10-3-2025	1-2-2026	1.7395	1.7395
		Highest	2.4937	2.4937

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0637	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Energy	0.0401	0.3469	0.1788	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	4,519.9312	4,519.9312	0.1050	0.0274	4,530.7266
Mobile	0.5954	2.9006	8.3409	0.0354	3.2903	0.0265	3.3168	0.8817	0.0246	0.9063	0.0000	3,277.2812	3,277.2812	0.1473	0.0000	3,280.9634
Waste						0.0000	0.0000		0.0000	0.0000	76.7306	0.0000	76.7306	4.5347	0.0000	190.0968
Water						0.0000	0.0000		0.0000	0.0000	13.9948	484.9258	498.9206	1.4489	0.0363	545.9621
Total	**3.6991**	**3.3237**	**15.1382**	**0.0379**	**3.2903**	**0.0908**	**3.3811**	**0.8817**	**0.0890**	**0.9707**	**90.7254**	**8,292.9673**	**8,383.6927**	**6.2462**	**0.0637**	**8,558.8393**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0637	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Energy	0.0401	0.3469	0.1788	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	4,519.9312	4,519.9312	0.1050	0.0274	4,530.7266
Mobile	0.5954	2.9006	8.3409	0.0354	3.2903	0.0265	3.3168	0.8817	0.0246	0.9063	0.0000	3,277.2812	3,277.2812	0.1473	0.0000	3,280.9634
Waste						0.0000	0.0000		0.0000	0.0000	76.7306	0.0000	76.7306	4.5347	0.0000	190.0968
Water						0.0000	0.0000		0.0000	0.0000	13.9948	484.9258	498.9206	1.4489	0.0363	545.9621
Total	**3.6991**	**3.3237**	**15.1382**	**0.0379**	**3.2903**	**0.0908**	**3.3811**	**0.8817**	**0.0890**	**0.9707**	**90.7254**	**8,292.9673**	**8,383.6927**	**6.2462**	**0.0637**	**8,558.8393**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	1/31/2022	5	21	
2	Site Preparation	Site Preparation	2/1/2022	2/28/2022	5	20	
3	Grading	Grading	3/1/2022	5/31/2022	5	66	
4	Building Construction	Building Construction	6/1/2022	1/2/2026	5	938	
5	Architectural Coating	Architectural Coating	3/1/2025	1/2/2026	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.33

Acres of Paving: 1

Residential Indoor: 1,420,163; Residential Outdoor: 473,388; Non-Residential Indoor: 18,207; Non-Residential Outdoor: 6,069; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Dumpers/Tenders	3	8.00	16	0.38
Demolition	Dumpers/Tenders	0		16	0.38
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	6.00	221	0.50
Site Preparation	Bore/Drill Rigs			221	0.50
Site Preparation	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Cement and Mortar Mixers			9	0.56
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Bore/Drill Rigs	1	6.00	221	0.50
Grading	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Welders	1	6.00	46	0.45
Building Construction	Aerial Lifts	2	6.00	63	0.31
Building Construction	Aerial Lifts			63	0.31
Building Construction	Air Compressors	2	6.00	78	0.48

Building Construction	Air Compressors			78	0.48
Building Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	15.00	4.00	1,978.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	20.00	4.00	13,700.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	200.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	5.00	40.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Fugitive Dust					0.2140	0.0000	0.2140	0.0324	0.0000	0.0324	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0312	0.2885	0.2779	5.2000e-004		0.0138	0.0138		0.0130	0.0130	0.0000	44.9736	44.9736	0.0111	0.0000	45.2520
Total	**0.0312**	**0.2885**	**0.2779**	**5.2000e-004**	**0.2140**	**0.0138**	**0.2278**	**0.0324**	**0.0130**	**0.0454**	**0.0000**	**44.9736**	**44.9736**	**0.0111**	**0.0000**	**45.2520**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0111	0.3372	0.0883	1.0800e-003	0.0255	1.0500e-003	0.0265	7.0000e-003	1.0100e-003	8.0000e-003	0.0000	106.9304	106.9304	7.0300e-003	0.0000	107.1062
Vendor	1.2000e-004	3.9400e-003	1.0600e-003	1.0000e-005	2.6000e-004	1.0000e-005	2.7000e-004	8.0000e-005	1.0000e-005	8.0000e-005	0.0000	1.0262	1.0262	6.0000e-005	0.0000	1.0277
Worker	6.4000e-004	4.8000e-004	5.4900e-003	2.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5028	1.5028	4.0000e-005	0.0000	1.5038
Total	**0.0119**	**0.3416**	**0.0948**	**1.1100e-003**	**0.0275**	**1.0700e-003**	**0.0286**	**7.5400e-003**	**1.0300e-003**	**8.5500e-003**	**0.0000**	**109.4594**	**109.4594**	**7.1300e-003**	**0.0000**	**109.6377**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0793	0.0000	0.0793	0.0120	0.0000	0.0120	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0312	0.2885	0.2779	5.2000e-004		0.0138	0.0138		0.0130	0.0130	0.0000	44.9736	44.9736	0.0111	0.0000	45.2519

Total	**0.0312**	**0.2885**	**0.2779**	**5.2000e-004**	**0.0793**	**0.0138**	**0.0931**	**0.0120**	**0.0130**	**0.0250**	**0.0000**	**44.9736**	**44.9736**	**0.0111**	**0.0000**	**45.2519**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0111	0.3372	0.0883	1.0800e-003	0.0167	1.0500e-003	0.0177	4.8300e-003	1.0100e-003	5.8400e-003	0.0000	106.9304	106.9304	7.0300e-003	0.0000	107.1062
Vendor	1.2000e-004	3.9400e-003	1.0600e-003	1.0000e-005	1.8000e-004	1.0000e-005	1.9000e-004	6.0000e-005	1.0000e-005	6.0000e-005	0.0000	1.0262	1.0262	6.0000e-005	0.0000	1.0277
Worker	6.4000e-004	4.8000e-004	5.4900e-003	2.0000e-005	1.0400e-003	1.0000e-005	1.0500e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.5028	1.5028	4.0000e-005	0.0000	1.5038
Total	**0.0119**	**0.3416**	**0.0948**	**1.1100e-003**	**0.0179**	**1.0700e-003**	**0.0190**	**5.1800e-003**	**1.0300e-003**	**6.2000e-003**	**0.0000**	**109.4594**	**109.4594**	**7.1300e-003**	**0.0000**	**109.6377**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1942	0.1507	3.7000e-004		7.4600e-003	7.4600e-003		6.8800e-003	6.8800e-003	0.0000	32.6426	32.6426	0.0105	0.0000	32.9046
Total	**0.0179**	**0.1942**	**0.1507**	**3.7000e-004**	**0.0000**	**7.4600e-003**	**7.4600e-003**	**0.0000**	**6.8800e-003**	**6.8800e-003**	**0.0000**	**32.6426**	**32.6426**	**0.0105**	**0.0000**	**32.9046**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	3.7500e-003	1.0100e-003	1.0000e-005	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.9773	0.9773	6.0000e-005	0.0000	0.9788
Worker	6.1000e-004	4.5000e-004	5.2300e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4312	1.4312	4.0000e-005	0.0000	1.4322
Total	**7.3000e-004**	**4.2000e-003**	**6.2400e-003**	**3.0000e-005**	**1.8900e-003**	**2.0000e-005**	**1.9200e-003**	**5.1000e-004**	**2.0000e-005**	**5.3000e-004**	**0.0000**	**2.4086**	**2.4086**	**1.0000e-004**	**0.0000**	**2.4110**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0179	0.1942	0.1507	3.7000e-004		7.4600e-003	7.4600e-003		6.8800e-003	6.8800e-003	0.0000	32.6426	32.6426	0.0105	0.0000	32.9046
Total	**0.0179**	**0.1942**	**0.1507**	**3.7000e-004**	**0.0000**	**7.4600e-003**	**7.4600e-003**	**0.0000**	**6.8800e-003**	**6.8800e-003**	**0.0000**	**32.6426**	**32.6426**	**0.0105**	**0.0000**	**32.9046**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	3.7500e-003	1.0100e-003	1.0000e-005	1.7000e-004	1.0000e-005	1.8000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.9773	0.9773	6.0000e-005	0.0000	0.9788
Worker	6.1000e-004	4.5000e-004	5.2300e-003	2.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	1.4312	1.4312	4.0000e-005	0.0000	1.4322
Total	**7.3000e-004**	**4.2000e-003**	**6.2400e-003**	**3.0000e-005**	**1.1600e-003**	**2.0000e-005**	**1.1800e-003**	**3.3000e-004**	**2.0000e-005**	**3.5000e-004**	**0.0000**	**2.4086**	**2.4086**	**1.0000e-004**	**0.0000**	**2.4110**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2077	0.0000	0.2077	0.1105	0.0000	0.1105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0912	0.8965	0.7004	1.5700e-003		0.0393	0.0393		0.0365	0.0365	0.0000	136.0883	136.0883	0.0404	0.0000	137.0990
Total	**0.0912**	**0.8965**	**0.7004**	**1.5700e-003**	**0.2077**	**0.0393**	**0.2470**	**0.1105**	**0.0365**	**0.1470**	**0.0000**	**136.0883**	**136.0883**	**0.0404**	**0.0000**	**137.0990**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0770	2.3355	0.6114	7.5100e-003	0.1765	7.2800e-003	0.1838	0.0485	6.9700e-003	0.0554	0.0000	740.6200	740.6200	0.0487	0.0000	741.8373
Vendor	3.8000e-004	0.0124	3.3400e-003	3.0000e-005	8.3000e-004	2.0000e-005	8.5000e-004	2.4000e-004	2.0000e-005	2.6000e-004	0.0000	3.2252	3.2252	1.9000e-004	0.0000	3.2300
Worker	2.6600e-003	2.0000e-003	0.0230	7.0000e-005	7.2300e-003	6.0000e-005	7.2900e-003	1.9200e-003	5.0000e-005	1.9700e-003	0.0000	6.2974	6.2974	1.7000e-004	0.0000	6.3018
Total	**0.0800**	**2.3499**	**0.6378**	**7.6100e-003**	**0.1846**	**7.3600e-003**	**0.1920**	**0.0506**	**7.0400e-003**	**0.0577**	**0.0000**	**750.1426**	**750.1426**	**0.0491**	**0.0000**	**751.3691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0770	0.0000	0.0770	0.0410	0.0000	0.0410	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0912	0.8965	0.7004	1.5700e-003		0.0393	0.0393		0.0365	0.0365	0.0000	136.0881	136.0881	0.0404	0.0000	137.0989
Total	**0.0912**	**0.8965**	**0.7004**	**1.5700e-003**	**0.0770**	**0.0393**	**0.1162**	**0.0410**	**0.0365**	**0.0774**	**0.0000**	**136.0881**	**136.0881**	**0.0404**	**0.0000**	**137.0989**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0770	2.3355	0.6114	7.5100e-003	0.1155	7.2800e-003	0.1227	0.0335	6.9700e-003	0.0405	0.0000	740.6200	740.6200	0.0487	0.0000	741.8373
Vendor	3.8000e-004	0.0124	3.3400e-003	3.0000e-005	5.6000e-004	2.0000e-005	5.8000e-004	1.7000e-004	2.0000e-005	2.0000e-004	0.0000	3.2252	3.2252	1.9000e-004	0.0000	3.2300
Worker	2.6600e-003	2.0000e-003	0.0230	7.0000e-005	4.3500e-003	6.0000e-005	4.4100e-003	1.2100e-003	5.0000e-005	1.2700e-003	0.0000	6.2974	6.2974	1.7000e-004	0.0000	6.3018
Total	**0.0800**	**2.3499**	**0.6378**	**7.6100e-003**	**0.1204**	**7.3600e-003**	**0.1277**	**0.0349**	**7.0400e-003**	**0.0419**	**0.0000**	**750.1426**	**750.1426**	**0.0491**	**0.0000**	**751.3691**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2325	1.9689	1.9720	3.6100e-003		0.0947	0.0947		0.0913	0.0913	0.0000	306.2072	306.2072	0.0534	0.0000	307.5423
Total	**0.2325**	**1.9689**	**1.9720**	**3.6100e-003**		**0.0947**	**0.0947**		**0.0913**	**0.0913**	**0.0000**	**306.2072**	**306.2072**	**0.0534**	**0.0000**	**307.5423**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.4600e-003	0.1435	0.0387	3.9000e-004	9.6400e-003	2.7000e-004	9.9100e-003	2.7800e-003	2.6000e-004	3.0400e-003	0.0000	37.3827	37.3827	2.2300e-003	0.0000	37.4385
Worker	0.0617	0.0463	0.5331	1.6100e-003	0.1677	1.3400e-003	0.1690	0.0445	1.2300e-003	0.0458	0.0000	145.9857	145.9857	4.0200e-003	0.0000	146.0862
Total	**0.0662**	**0.1898**	**0.5718**	**2.0000e-003**	**0.1773**	**1.6100e-003**	**0.1789**	**0.0473**	**1.4900e-003**	**0.0488**	**0.0000**	**183.3684**	**183.3684**	**6.2500e-003**	**0.0000**	**183.5247**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2325	1.9689	1.9720	3.6100e-003		0.0947	0.0947		0.0913	0.0913	0.0000	306.2069	306.2069	0.0534	0.0000	307.5419

Total	**0.2325**	**1.9689**	**1.9720**	**3.6100e-003**		**0.0947**	**0.0947**		**0.0913**	**0.0913**	**0.0000**	**306.2069**	**306.2069**	**0.0534**	**0.0000**	**307.5419**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.4600e-003	0.1435	0.0387	3.9000e-004	6.5000e-003	2.7000e-004	6.7700e-003	2.0100e-003	2.6000e-004	2.2700e-003	0.0000	37.3827	37.3827	2.2300e-003	0.0000	37.4385
Worker	0.0617	0.0463	0.5331	1.6100e-003	0.1008	1.3400e-003	0.1022	0.0281	1.2300e-003	0.0294	0.0000	145.9857	145.9857	4.0200e-003	0.0000	146.0862
Total	**0.0662**	**0.1898**	**0.5718**	**2.0000e-003**	**0.1073**	**1.6100e-003**	**0.1089**	**0.0301**	**1.4900e-003**	**0.0316**	**0.0000**	**183.3684**	**183.3684**	**6.2500e-003**	**0.0000**	**183.5247**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3685	3.1009	3.3254	6.1300e-003		0.1413	0.1413		0.1362	0.1362	0.0000	520.3796	520.3796	0.0891	0.0000	522.6065
Total	**0.3685**	**3.1009**	**3.3254**	**6.1300e-003**		**0.1413**	**0.1413**		**0.1362**	**0.1362**	**0.0000**	**520.3796**	**520.3796**	**0.0891**	**0.0000**	**522.6065**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6300e-003	0.1842	0.0591	6.3000e-004	0.0164	2.1000e-004	0.0166	4.7300e-003	2.1000e-004	4.9300e-003	0.0000	61.5374	61.5374	3.3500e-003	0.0000	61.6213
Worker	0.0986	0.0712	0.8331	2.6400e-003	0.2849	2.2100e-003	0.2871	0.0757	2.0400e-003	0.0777	0.0000	239.0023	239.0023	6.1500e-003	0.0000	239.1561
Total	**0.1043**	**0.2553**	**0.8921**	**3.2700e-003**	**0.3013**	**2.4200e-003**	**0.3037**	**0.0804**	**2.2500e-003**	**0.0826**	**0.0000**	**300.5397**	**300.5397**	**9.5000e-003**	**0.0000**	**300.7774**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3685	3.1009	3.3254	6.1300e-003		0.1413	0.1413		0.1362	0.1362	0.0000	520.3790	520.3790	0.0891	0.0000	522.6059
Total	**0.3685**	**3.1009**	**3.3254**	**6.1300e-003**		**0.1413**	**0.1413**		**0.1362**	**0.1362**	**0.0000**	**520.3790**	**520.3790**	**0.0891**	**0.0000**	**522.6059**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6300e-003	0.1842	0.0591	6.3000e-004	0.0111	2.1000e-004	0.0113	3.4200e-003	2.1000e-004	3.6200e-003	0.0000	61.5374	61.5374	3.3500e-003	0.0000	61.6213
Worker	0.0986	0.0712	0.8331	2.6400e-003	0.1713	2.2100e-003	0.1735	0.0478	2.0400e-003	0.0498	0.0000	239.0023	239.0023	6.1500e-003	0.0000	239.1561
Total	**0.1043**	**0.2553**	**0.8921**	**3.2700e-003**	**0.1824**	**2.4200e-003**	**0.1848**	**0.0512**	**2.2500e-003**	**0.0534**	**0.0000**	**300.5397**	**300.5397**	**9.5000e-003**	**0.0000**	**300.7774**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3490	2.9275	3.3285	6.1800e-003		0.1257	0.1257		0.1210	0.1210	0.0000	524.3964	524.3964	0.0887	0.0000	526.6149
Total	**0.3490**	**2.9275**	**3.3285**	**6.1800e-003**		**0.1257**	**0.1257**		**0.1210**	**0.1210**	**0.0000**	**524.3964**	**524.3964**	**0.0887**	**0.0000**	**526.6149**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5300e-003	0.1849	0.0577	6.4000e-004	0.0165	2.1000e-004	0.0167	4.7600e-003	2.0000e-004	4.9700e-003	0.0000	61.7638	61.7638	3.3300e-003	0.0000	61.8470
Worker	0.0942	0.0654	0.7817	2.5800e-003	0.2871	2.2000e-003	0.2893	0.0763	2.0200e-003	0.0783	0.0000	233.3732	233.3732	5.6800e-003	0.0000	233.5153
Total	**0.0997**	**0.2503**	**0.8394**	**3.2200e-003**	**0.3036**	**2.4100e-003**	**0.3060**	**0.0810**	**2.2200e-003**	**0.0832**	**0.0000**	**295.1370**	**295.1370**	**9.0100e-003**	**0.0000**	**295.3623**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3490	2.9275	3.3285	6.1800e-003		0.1257	0.1257		0.1210	0.1210	0.0000	524.3958	524.3958	0.0887	0.0000	526.6143
Total	**0.3490**	**2.9275**	**3.3285**	**6.1800e-003**		**0.1257**	**0.1257**		**0.1210**	**0.1210**	**0.0000**	**524.3958**	**524.3958**	**0.0887**	**0.0000**	**526.6143**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5300e-003	0.1849	0.0577	6.4000e-004	0.0111	2.1000e-004	0.0114	3.4400e-003	2.0000e-004	3.6500e-003	0.0000	61.7638	61.7638	3.3300e-003	0.0000	61.8470
Worker	0.0942	0.0654	0.7817	2.5800e-003	0.1726	2.2000e-003	0.1748	0.0482	2.0200e-003	0.0502	0.0000	233.3732	233.3732	5.6800e-003	0.0000	233.5153
Total	**0.0997**	**0.2503**	**0.8394**	**3.2200e-003**	**0.1838**	**2.4100e-003**	**0.1862**	**0.0516**	**2.2200e-003**	**0.0538**	**0.0000**	**295.1370**	**295.1370**	**9.0100e-003**	**0.0000**	**295.3623**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3271	2.7245	3.2986	6.1500e-003		0.1097	0.1097		0.1056	0.1056	0.0000	522.4252	522.4252	0.0873	0.0000	524.6082
Total	**0.3271**	**2.7245**	**3.2986**	**6.1500e-003**		**0.1097**	**0.1097**		**0.1056**	**0.1056**	**0.0000**	**522.4252**	**522.4252**	**0.0873**	**0.0000**	**524.6082**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3700e-003	0.1826	0.0560	6.3000e-004	0.0164	2.1000e-004	0.0167	4.7500e-003	2.0000e-004	4.9500e-003	0.0000	61.1928	61.1928	3.2700e-003	0.0000	61.2745
Worker	0.0892	0.0596	0.7228	2.4700e-003	0.2860	2.1400e-003	0.2882	0.0760	1.9700e-003	0.0779	0.0000	223.4805	223.4805	5.1600e-003	0.0000	223.6095
Total	**0.0946**	**0.2422**	**0.7787**	**3.1000e-003**	**0.3024**	**2.3500e-003**	**0.3048**	**0.0807**	**2.1700e-003**	**0.0829**	**0.0000**	**284.6733**	**284.6733**	**8.4300e-003**	**0.0000**	**284.8840**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3271	2.7245	3.2986	6.1500e-003		0.1097	0.1097		0.1056	0.1056	0.0000	522.4246	522.4246	0.0873	0.0000	524.6075

Total	**0.3271**	**2.7245**	**3.2986**	**6.1500e-003**		**0.1097**	**0.1097**		**0.1056**	**0.1056**	**0.0000**	**522.4246**	**522.4246**	**0.0873**	**0.0000**	**524.6075**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3700e-003	0.1826	0.0560	6.3000e-004	0.0111	2.1000e-004	0.0113	3.4300e-003	2.0000e-004	3.6300e-003	0.0000	61.1928	61.1928	3.2700e-003	0.0000	61.2745
Worker	0.0892	0.0596	0.7228	2.4700e-003	0.1720	2.1400e-003	0.1741	0.0480	1.9700e-003	0.0499	0.0000	223.4805	223.4805	5.1600e-003	0.0000	223.6095
Total	**0.0946**	**0.2422**	**0.7787**	**3.1000e-003**	**0.1831**	**2.3500e-003**	**0.1854**	**0.0514**	**2.1700e-003**	**0.0536**	**0.0000**	**284.6733**	**284.6733**	**8.4300e-003**	**0.0000**	**284.8840**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5100e-003	0.0209	0.0253	5.0000e-005		8.4000e-004	8.4000e-004		8.1000e-004	8.1000e-004	0.0000	4.0033	4.0033	6.7000e-004	0.0000	4.0200
Total	**2.5100e-003**	**0.0209**	**0.0253**	**5.0000e-005**		**8.4000e-004**	**8.4000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**4.0033**	**4.0033**	**6.7000e-004**	**0.0000**	**4.0200**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.3900e-003	4.2000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.4664	0.4664	2.0000e-005	0.0000	0.4671
Worker	6.5000e-004	4.2000e-004	5.1800e-003	2.0000e-005	2.1900e-003	2.0000e-005	2.2100e-003	5.8000e-004	1.0000e-005	6.0000e-004	0.0000	1.6530	1.6530	4.0000e-005	0.0000	1.6539
Total	**6.9000e-004**	**1.8100e-003**	**5.6000e-003**	**2.0000e-005**	**2.3200e-003**	**2.0000e-005**	**2.3400e-003**	**6.2000e-004**	**1.0000e-005**	**6.4000e-004**	**0.0000**	**2.1195**	**2.1195**	**6.0000e-005**	**0.0000**	**2.1210**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.5100e-003	0.0209	0.0253	5.0000e-005		8.4000e-004	8.4000e-004		8.1000e-004	8.1000e-004	0.0000	4.0033	4.0033	6.7000e-004	0.0000	4.0200
Total	**2.5100e-003**	**0.0209**	**0.0253**	**5.0000e-005**		**8.4000e-004**	**8.4000e-004**		**8.1000e-004**	**8.1000e-004**	**0.0000**	**4.0033**	**4.0033**	**6.7000e-004**	**0.0000**	**4.0200**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0000e-005	1.3900e-003	4.2000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.4664	0.4664	2.0000e-005	0.0000	0.4671
Worker	6.5000e-004	4.2000e-004	5.1800e-003	2.0000e-005	1.3200e-003	2.0000e-005	1.3300e-003	3.7000e-004	1.0000e-005	3.8000e-004	0.0000	1.6530	1.6530	4.0000e-005	0.0000	1.6539
Total	**6.9000e-004**	**1.8100e-003**	**5.6000e-003**	**2.0000e-005**	**1.4000e-003**	**2.0000e-005**	**1.4200e-003**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**0.0000**	**2.1195**	**2.1195**	**6.0000e-005**	**0.0000**	**2.1210**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0373	0.2497	0.3944	6.5000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	55.6609	55.6609	3.0400e-003	0.0000	55.7368
Total	**2.3731**	**0.2497**	**0.3944**	**6.5000e-004**		**0.0112**	**0.0112**		**0.0112**	**0.0112**	**0.0000**	**55.6609**	**55.6609**	**3.0400e-003**	**0.0000**	**55.7368**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.9700e-003	0.3051	0.0935	1.0500e-003	0.0275	3.5000e-004	0.0278	7.9300e-003	3.3000e-004	8.2600e-003	0.0000	102.2224	102.2224	5.4600e-003	0.0000	102.3589
Worker	1.8600e-003	1.2400e-003	0.0151	5.0000e-005	5.9700e-003	4.0000e-005	6.0200e-003	1.5900e-003	4.0000e-005	1.6300e-003	0.0000	4.6666	4.6666	1.1000e-004	0.0000	4.6692
Total	**0.0108**	**0.3063**	**0.1086**	**1.1000e-003**	**0.0334**	**3.9000e-004**	**0.0338**	**9.5200e-003**	**3.7000e-004**	**9.8900e-003**	**0.0000**	**106.8889**	**106.8889**	**5.5700e-003**	**0.0000**	**107.0281**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0373	0.2497	0.3944	6.5000e-004		0.0112	0.0112		0.0112	0.0112	0.0000	55.6609	55.6609	3.0400e-003	0.0000	55.7368
Total	**2.3731**	**0.2497**	**0.3944**	**6.5000e-004**		**0.0112**	**0.0112**		**0.0112**	**0.0112**	**0.0000**	**55.6609**	**55.6609**	**3.0400e-003**	**0.0000**	**55.7368**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.9700e-003	0.3051	0.0935	1.0500e-003	0.0185	3.5000e-004	0.0189	5.7300e-003	3.3000e-004	6.0700e-003	0.0000	102.2224	102.2224	5.4600e-003	0.0000	102.3589
Worker	1.8600e-003	1.2400e-003	0.0151	5.0000e-005	3.5900e-003	4.0000e-005	3.6400e-003	1.0000e-003	4.0000e-005	1.0400e-003	0.0000	4.6666	4.6666	1.1000e-004	0.0000	4.6692
Total	**0.0108**	**0.3063**	**0.1086**	**1.1000e-003**	**0.0221**	**3.9000e-004**	**0.0225**	**6.7300e-003**	**3.7000e-004**	**7.1100e-003**	**0.0000**	**106.8889**	**106.8889**	**5.5700e-003**	**0.0000**	**107.0281**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114
Total	**0.0218**	**2.2900e-003**	**3.6200e-003**	**1.0000e-005**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.5107**	**0.5107**	**3.0000e-005**	**0.0000**	**0.5114**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.7700e-003	8.4000e-004	1.0000e-005	2.5000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.9329	0.9329	5.0000e-005	0.0000	0.9341
Worker	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	0.0000	0.0000	0.0414
Total	**1.0000e-004**	**2.7800e-003**	**9.7000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**3.2000e-004**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.9742**	**0.9742**	**5.0000e-005**	**0.0000**	**0.9755**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4000e-004	2.2900e-003	3.6200e-003	1.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	0.5107	0.5107	3.0000e-005	0.0000	0.5114

Total	**0.0218**	**2.2900e-003**	**3.6200e-003**	**1.0000e-005**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**	**0.0000**	**0.5107**	**0.5107**	**3.0000e-005**	**0.0000**	**0.5114**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.7700e-003	8.4000e-004	1.0000e-005	1.7000e-004	0.0000	1.7000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.9329	0.9329	5.0000e-005	0.0000	0.9341
Worker	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0413	0.0413	0.0000	0.0000	0.0414
Total	**1.0000e-004**	**2.7800e-003**	**9.7000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**6.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.9742**	**0.9742**	**5.0000e-005**	**0.0000**	**0.9755**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5954	2.9006	8.3409	0.0354	3.2903	0.0265	3.3168	0.8817	0.0246	0.9063	0.0000	3,277.2812	3,277.2812	0.1473	0.0000	3,280.9634
Unmitigated	0.5954	2.9006	8.3409	0.0354	3.2903	0.0265	3.3168	0.8817	0.0246	0.9063	0.0000	3,277.2812	3,277.2812	0.1473	0.0000	3,280.9634

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,817.60	1,817.60	1817.60	6,991,856	6,991,856
Enclosed Parking with Elevator	0.00	0.00	0.00		
Strip Mall	66.48	66.48	66.48	229,312	229,312
Fast Food Restaurant w/o Drive Thru	201.08	201.08	201.08	602,965	602,965
High Turnover (Sit Down Restaurant)	264.22	264.22	264.22	847,516	847,516
Total	2,349.38	2,349.38	2,349.38	8,671,650	8,671,650

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.00	19.00	41.00	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Fast Food Restaurant w/o Drive Thru	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,123.3880	4,123.3880	0.0974	0.0202	4,131.8269
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,123.3880	4,123.3880	0.0974	0.0202	4,131.8269
NaturalGas Mitigated	0.0401	0.3469	0.1788	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	396.5433	396.5433	7.6000e-003	7.2700e-003	398.8997
NaturalGas Unmitigated	0.0401	0.3469	0.1788	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	396.5433	396.5433	7.6000e-003	7.2700e-003	398.8997

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	5.89884e+006	0.0318	0.2718	0.1157	1.7300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	314.7847	314.7847	6.0300e-003	5.7700e-003	316.6553
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	461520	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6285	24.6285	4.7000e-004	4.5000e-004	24.7748
High Turnover (Sit Down Restaurant)	1.0615e+006	5.7200e-003	0.0520	0.0437	3.1000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003	0.0000	56.6455	56.6455	1.0900e-003	1.0400e-003	56.9821
Strip Mall	9082.32	5.0000e-005	4.5000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4847	0.4847	1.0000e-005	1.0000e-005	0.4876
Total		**0.0401**	**0.3469**	**0.1787**	**2.1800e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**396.5433**	**396.5433**	**7.6000e-003**	**7.2700e-003**	**398.8997**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	5.89884e+006	0.0318	0.2718	0.1157	1.7300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	314.7847	314.7847	6.0300e-003	5.7700e-003	316.6553
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	461520	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6285	24.6285	4.7000e-004	4.5000e-004	24.7748
High Turnover (Sit Down Restaurant)	1.0615e+006	5.7200e-003	0.0520	0.0437	3.1000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003	0.0000	56.6455	56.6455	1.0900e-003	1.0400e-003	56.9821
Strip Mall	9082.32	5.0000e-005	4.5000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4847	0.4847	1.0000e-005	1.0000e-005	0.4876
Total		**0.0401**	**0.3469**	**0.1787**	**2.1800e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**396.5433**	**396.5433**	**7.6000e-003**	**7.2700e-003**	**398.8997**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	2.53445e+006	1,411.5918	0.0333	6.9000e-003	1,414.4808
Enclosed Parking with Elevator	4.50282e+006	2,507.8998	0.0592	0.0123	2,513.0324
Fast Food Restaurant w/o	88280	49.1686	1.1600e-003	2.4000e-004	49.2692
High Turnover (Sit Down Restaurant)	203044	113.0877	2.6700e-003	5.5000e-004	113.3191
Strip Mall	74763	41.6401	9.8000e-004	2.0000e-004	41.7253
Total		**4,123.3880**	**0.0974**	**0.0201**	**4,131.8269**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	2.53445e+006	1,411.5918	0.0333	6.9000e-003	1,414.4808
Enclosed Parking with Elevator	4.50282e+006	2,507.8998	0.0592	0.0123	2,513.0324
Fast Food Restaurant w/o	88280	49.1686	1.1600e-003	2.4000e-004	49.2692
High Turnover (Sit Down Restaurant)	203044	113.0877	2.6700e-003	5.5000e-004	113.3191
Strip Mall	74763	41.6401	9.8000e-004	2.0000e-004	41.7253
Total		**4,123.3880**	**0.0974**	**0.0201**	**4,131.8269**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0637	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Unmitigated	3.0637	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2357					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2002	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Total	**3.0637**	**0.0762**	**6.6185**	**3.5000e-004**		**0.0367**	**0.0367**		**0.0367**	**0.0367**	**0.0000**	**10.8291**	**10.8291**	**0.0105**	**0.0000**	**11.0904**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2357					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2002	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Total	**3.0637**	**0.0762**	**6.6185**	**3.5000e-004**		**0.0367**	**0.0367**		**0.0367**	**0.0367**	**0.0000**	**10.8291**	**10.8291**	**0.0105**	**0.0000**	**11.0904**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	498.9206	1.4489	0.0363	545.9621
Unmitigated	498.9206	1.4489	0.0363	545.9621

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	41.6986 / 26.2882	478.3027	1.3697	0.0344	522.7840
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	0.607067 / 0.038749	4.8349	0.0199	4.9000e-004	5.4782
High Turnover (Sit Down Restaurant)	1.39626 / 0.0891227	11.1204	0.0458	1.1300e-003	12.5998
Strip Mall	0.410362 / 0.251512	4.6625	0.0135	3.4000e-004	5.1002
Total		**498.9206**	**1.4489**	**0.0363**	**545.9621**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	41.6986 / 26.2882	478.3027	1.3697	0.0344	522.7840
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	0.607067 / 0.038749	4.8349	0.0199	4.9000e-004	5.4782
High Turnover (Sit Down Restaurant)	1.39626 / 0.0891227	11.1204	0.0458	1.1300e-003	12.5998
Strip Mall	0.410362 / 0.251512	4.6625	0.0135	3.4000e-004	5.1002
Total		**498.9206**	**1.4489**	**0.0363**	**545.9621**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	76.7306	4.5347	0.0000	190.0968
Unmitigated	76.7306	4.5347	0.0000	190.0968

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	294.4	59.7605	3.5318	0.0000	148.0542
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	23.04	4.6769	0.2764	0.0000	11.5869
High Turnover (Sit Down Restaurant)	54.74	11.1117	0.6567	0.0000	27.5288
Strip Mall	5.82	1.1814	0.0698	0.0000	2.9269
Total		**76.7306**	**4.5347**	**0.0000**	**190.0968**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	294.4	59.7605	3.5318	0.0000	148.0542
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	23.04	4.6769	0.2764	0.0000	11.5869
High Turnover (Sit Down Restaurant)	54.74	11.1117	0.6567	0.0000	27.5288
Strip Mall	5.82	1.1814	0.0698	0.0000	2.9269
Total		**76.7306**	**4.5347**	**0.0000**	**190.0968**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Winter

3440 Wilshire Boulevard Future

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,921.00	Space	1.00	768,400.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.05	2,000.00	0
High Turnover (Sit Down Restaurant)	4.60	1000sqft	0.09	4,600.00	0
Apartments High Rise	640.00	Dwelling Unit	1.10	701,315.00	1830
Strip Mall	5.54	1000sqft	0.09	5,538.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Developer information

Construction Phase - Consultant assumptions

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Off-road Equipment - Developer information

Trips and VMT - Developer information

Demolition - Developer information

Grading - Developer information

Vehicle Trips - Fehr & Peers Traffic Impact Analysis Table 3-Trip Generation

Woodstoves - Developer information

Construction Off-road Equipment Mitigation - Assumes SCAQMD Rule 403 control efficiencies

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	46
tblConstructionPhase	NumDays	10.00	220.00
tblConstructionPhase	NumDays	220.00	938.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	6.00	66.00
tblConstructionPhase	NumDays	3.00	20.00
tblFireplaces	NumberGas	544.00	0.00
tblFireplaces	NumberNoFireplace	64.00	641.00
tblFireplaces	NumberWood	32.00	0.00
tblGrading	AcresOfGrading	33.00	2.33
tblGrading	AcresOfGrading	30.00	0.00
tblGrading	MaterialExported	0.00	137,000.00
tblLandUse	LandUseSquareFeet	640,000.00	701,315.00
tblLandUse	LandUseSquareFeet	5,540.00	5,538.00
tblLandUse	LotAcreage	17.29	1.00
tblLandUse	LotAcreage	0.11	0.09
tblLandUse	LotAcreage	10.32	1.10
tblLandUse	LotAcreage	0.13	0.09
tblOffRoadEquipment	LoadFactor	0.36	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	17,125.00	13,700.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	196.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	40.00
tblTripsAndVMT	WorkerTripNumber	30.00	15.00
tblTripsAndVMT	WorkerTripNumber	28.00	20.00
tblTripsAndVMT	WorkerTripNumber	788.00	200.00
tblTripsAndVMT	WorkerTripNumber	158.00	5.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00

tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.98	2.84
tblVehicleTrips	ST_TR	696.00	100.54
tblVehicleTrips	ST_TR	158.37	57.44
tblVehicleTrips	ST_TR	42.04	12.00
tblVehicleTrips	SU_TR	3.65	2.84
tblVehicleTrips	SU_TR	500.00	100.54
tblVehicleTrips	SU_TR	131.84	57.44
tblVehicleTrips	SU_TR	20.43	12.00
tblVehicleTrips	WD_TR	4.20	2.84
tblVehicleTrips	WD_TR	716.00	100.54
tblVehicleTrips	WD_TR	127.15	57.44
tblVehicleTrips	WD_TR	44.32	12.00
tblWoodstoves	NumberCatalytic	32.00	0.00
tblWoodstoves	NumberNoncatalytic	32.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.2202	97.0507	40.9541	0.2766	23.0428	1.4191	24.4619	4.9082	1.3375	6.2284	0.0000	29,421.9219	29,421.9219	3.0120	0.0000	29,497.2221
2023	3.7229	25.7810	32.2874	0.0720	2.3636	1.1059	3.4695	0.6297	1.0650	1.6947	0.0000	6,919.3875	6,919.3875	0.8359	0.0000	6,940.2859
2024	3.5080	24.2232	31.6711	0.0713	2.3636	0.9776	3.3412	0.6297	0.9407	1.5704	0.0000	6,855.6797	6,855.6797	0.8226	0.0000	6,876.2442
2025	25.1864	27.7575	35.7546	0.0864	2.6756	0.9656	3.6411	0.7183	0.9320	1.6503	0.0000	8,405.2333	8,405.2333	0.8975	0.0000	8,427.6706

2026	25.1502	27.6831	35.3644	0.0857	2.6756	0.9649	3.6405	0.7183	0.9314	1.6497	0.0000	8,331.2398	8,331.2398	0.8925	0.0000	8,353.5531
Maximum	**25.1864**	**97.0507**	**40.9541**	**0.2766**	**23.0428**	**1.4191**	**24.4619**	**4.9082**	**1.3375**	**6.2284**	**0.0000**	**29,421.9219**	**29,421.9219**	**3.0120**	**0.0000**	**29,497.2221**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.2202	97.0507	40.9541	0.2766	9.2789	1.4191	10.6980	2.3106	1.3375	3.6309	0.0000	29,421.9219	29,421.9219	3.0120	0.0000	29,497.2221
2023	3.7229	25.7810	32.2874	0.0720	1.4276	1.1059	2.5335	0.4000	1.0650	1.4650	0.0000	6,919.3875	6,919.3875	0.8359	0.0000	6,940.2859
2024	3.5080	24.2232	31.6711	0.0713	1.4276	0.9776	2.4052	0.4000	0.9407	1.3407	0.0000	6,855.6797	6,855.6797	0.8226	0.0000	6,876.2442
2025	25.1864	27.7575	35.7546	0.0864	1.6333	0.9656	2.5989	0.4625	0.9320	1.3945	0.0000	8,405.2333	8,405.2333	0.8975	0.0000	8,427.6706
2026	25.1502	27.6831	35.3644	0.0857	1.6333	0.9649	2.5982	0.4625	0.9314	1.3938	0.0000	8,331.2398	8,331.2398	0.8925	0.0000	8,353.5531
Maximum	**25.1864**	**97.0507**	**40.9541**	**0.2766**	**9.2789**	**1.4191**	**10.6980**	**2.3106**	**1.3375**	**3.6309**	**0.0000**	**29,421.9219**	**29,421.9219**	**3.0120**	**0.0000**	**29,497.2221**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.50**	**0.00**	**45.96**	**46.93**	**0.00**	**27.89**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Area	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Energy	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
Mobile	3.3436	15.6705	45.1166	0.1917	18.4344	0.1460	18.5804	4.9319	0.1356	5.0675		19,582.6509	19,582.6509	0.8954		19,605.0364
Total	**20.8553**	**18.1808**	**99.0437**	**0.2065**	**18.4344**	**0.5911**	**19.0255**	**4.9319**	**0.5807**	**5.5126**	**0.0000**	**22,073.2932**	**22,073.2932**	**1.0335**	**0.0439**	**22,112.2155**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Energy	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
Mobile	3.3436	15.6705	45.1166	0.1917	18.4344	0.1460	18.5804	4.9319	0.1356	5.0675		19,582.6509	19,582.6509	0.8954		19,605.0364
Total	**20.8553**	**18.1808**	**99.0437**	**0.2065**	**18.4344**	**0.5911**	**19.0255**	**4.9319**	**0.5807**	**5.5126**	**0.0000**	**22,073.2932**	**22,073.2932**	**1.0335**	**0.0439**	**22,112.2155**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	1/31/2022	5	21	
2	Site Preparation	Site Preparation	2/1/2022	2/28/2022	5	20	
3	Grading	Grading	3/1/2022	5/31/2022	5	66	

4	Building Construction	Building Construction	6/1/2022	1/2/2026	5	938	
5	Architectural Coating	Architectural Coating	3/1/2025	1/2/2026	5	220	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2.33

Acres of Paving: 1

Residential Indoor: 1,420,163; Residential Outdoor: 473,388; Non-Residential Indoor: 18,207; Non-Residential Outdoor: 6,069; Striped Parking

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Dumpers/Tenders	3	8.00	16	0.38
Demolition	Dumpers/Tenders	0		16	0.38
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	6.00	221	0.50
Site Preparation	Bore/Drill Rigs			221	0.50
Site Preparation	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Cement and Mortar Mixers			9	0.56
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Bore/Drill Rigs	1	6.00	221	0.50
Grading	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41

Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	6.00	203	0.36
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Welders	1	6.00	46	0.45
Building Construction	Aerial Lifts	2	6.00	63	0.31
Building Construction	Aerial Lifts			63	0.31
Building Construction	Air Compressors	2	6.00	78	0.48
Building Construction	Air Compressors			78	0.48
Building Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Building Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Building Construction	Cranes	2	8.00	231	0.29
Building Construction	Forklifts	2	7.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45
Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	15.00	4.00	1,978.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	20.00	4.00	13,700.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	200.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	5.00	40.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.3800	0.0000	20.3800	3.0857	0.0000	3.0857			0.0000			0.0000
Off-Road	2.9713	27.4795	26.4616	0.0494		1.3163	1.3163		1.2392	1.2392		4,721.4213	4,721.4213	1.1688		4,750.6412
Total	**2.9713**	**27.4795**	**26.4616**	**0.0494**	**20.3800**	**1.3163**	**21.6963**	**3.0857**	**1.2392**	**4.3249**		**4,721.4213**	**4,721.4213**	**1.1688**		**4,750.6412**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0688	31.5173	8.5964	0.1026	2.4696	0.1007	2.5703	0.6769	0.0964	0.7733		11,145.9096	11,145.9096	0.7483		11,164.6177
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	**1.1480**	**31.9298**	**9.2115**	**0.1051**	**2.6628**	**0.1028**	**2.7656**	**0.7287**	**0.0983**	**0.8270**		**11,407.0831**	**11,407.0831**	**0.7593**		**11,426.0646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.5508	0.0000	7.5508	1.1433	0.0000	1.1433			0.0000			0.0000
Off-Road	2.9713	27.4795	26.4616	0.0494		1.3163	1.3163		1.2392	1.2392	0.0000	4,721.4213	4,721.4213	1.1688		4,750.6412
Total	**2.9713**	**27.4795**	**26.4616**	**0.0494**	**7.5508**	**1.3163**	**8.8671**	**1.1433**	**1.2392**	**2.3825**	**0.0000**	**4,721.4213**	**4,721.4213**	**1.1688**		**4,750.6412**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0688	31.5173	8.5964	0.1026	1.6103	0.1007	1.7110	0.4660	0.0964	0.5623		11,145.9096	11,145.9096	0.7483		11,164.6177
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0172	7.2000e-004	0.0179	5.3100e-003	6.9000e-004	6.0000e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1006	1.3100e-003	0.1019	0.0280	1.2100e-003	0.0292		155.1854	155.1854	4.2700e-003		155.2922
Total	**1.1480**	**31.9298**	**9.2115**	**0.1051**	**1.7281**	**0.1028**	**1.8309**	**0.4993**	**0.0983**	**0.5976**		**11,407.0831**	**11,407.0831**	**0.7593**		**11,426.0646**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7929	19.4202	15.0731	0.0373		0.7464	0.7464		0.6875	0.6875		3,598.2301	3,598.2301	1.1554		3,627.1156
Total	**1.7929**	**19.4202**	**15.0731**	**0.0373**	**0.0000**	**0.7464**	**0.7464**	**0.0000**	**0.6875**	**0.6875**		**3,598.2301**	**3,598.2301**	**1.1554**		**3,627.1156**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0792**	**0.4125**	**0.6151**	**2.5500e-003**	**0.1933**	**2.0300e-003**	**0.1953**	**0.0518**	**1.9000e-003**	**0.0537**		**261.1735**	**261.1735**	**0.0109**		**261.4469**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.7929	19.4202	15.0731	0.0373		0.7464	0.7464		0.6875	0.6875	0.0000	3,598.2301	3,598.2301	1.1554		3,627.1156
Total	**1.7929**	**19.4202**	**15.0731**	**0.0373**	**0.0000**	**0.7464**	**0.7464**	**0.0000**	**0.6875**	**0.6875**	**0.0000**	**3,598.2301**	**3,598.2301**	**1.1554**		**3,627.1156**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0172	7.2000e-004	0.0179	5.3100e-003	6.9000e-004	6.0000e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1006	1.3100e-003	0.1019	0.0280	1.2100e-003	0.0292		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0792**	**0.4125**	**0.6151**	**2.5500e-003**	**0.1178**	**2.0300e-003**	**0.1199**	**0.0333**	**1.9000e-003**	**0.0352**		**261.1735**	**261.1735**	**0.0109**		**261.4469**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2943	0.0000	6.2943	3.3498	0.0000	3.3498			0.0000			0.0000
Off-Road	2.7632	27.1660	21.2248	0.0475		1.1900	1.1900		1.1055	1.1055		4,545.8079	4,545.8079	1.3505		4,579.5705
Total	**2.7632**	**27.1660**	**21.2248**	**0.0475**	**6.2943**	**1.1900**	**7.4843**	**3.3498**	**1.1055**	**4.4554**		**4,545.8079**	**4,545.8079**	**1.3505**		**4,579.5705**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	2.3555	69.4575	18.9446	0.2261	5.4424	0.2220	5.6644	1.4917	0.2124	1.7041		24,563.2119	24,563.2119	1.6492		24,604.4407
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0256	7.2000e-004	0.0263	7.3700e-003	6.9000e-004	8.0600e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**2.4570**	**69.8847**	**19.7293**	**0.2291**	**5.6915**	**0.2245**	**5.9160**	**1.5583**	**0.2147**	**1.7730**		**24,876.1139**	**24,876.1139**	**1.6615**		**24,917.6516**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.3320	0.0000	2.3320	1.2411	0.0000	1.2411			0.0000			0.0000
Off-Road	2.7632	27.1660	21.2248	0.0475		1.1900	1.1900		1.1055	1.1055	0.0000	4,545.8079	4,545.8079	1.3505		4,579.5705
Total	**2.7632**	**27.1660**	**21.2248**	**0.0475**	**2.3320**	**1.1900**	**3.5221**	**1.2411**	**1.1055**	**2.3466**	**0.0000**	**4,545.8079**	**4,545.8079**	**1.3505**		**4,579.5705**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.3555	69.4575	18.9446	0.2261	3.5487	0.2220	3.7708	1.0269	0.2124	1.2393		24,563.2119	24,563.2119	1.6492		24,604.4407
Vendor	0.0120	0.3683	0.1063	9.9000e-004	0.0172	7.2000e-004	0.0179	5.3100e-003	6.9000e-004	6.0000e-003		105.9881	105.9881	6.6600e-003		106.1546
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.1342	1.7500e-003	0.1359	0.0373	1.6100e-003	0.0390		206.9139	206.9139	5.7000e-003		207.0563

Total	**2.4570**	**69.8847**	**19.7293**	**0.2291**	**3.7001**	**0.2245**	**3.9246**	**1.0695**	**0.2147**	**1.2842**		**24,876.1139**	**24,876.1139**	**1.6615**		**24,917.6516**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0396	25.7368	25.7776	0.0472		1.2378	1.2378		1.1936	1.1936		4,412.2312	4,412.2312	0.7695		4,431.4682
Total	**3.0396**	**25.7368**	**25.7776**	**0.0472**		**1.2378**	**1.2378**		**1.1936**	**1.1936**		**4,412.2312**	**4,412.2312**	**0.7695**		**4,431.4682**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0599	1.8416	0.5315	4.9600e-003	0.1281	3.5800e-003	0.1316	0.0369	3.4300e-003	0.0403		529.9406	529.9406	0.0333		530.7732
Worker	0.8957	0.5891	6.7835	0.0208	2.2355	0.0175	2.2530	0.5929	0.0161	0.6090		2,069.1389	2,069.1389	0.0570		2,070.5633
Total	**0.9556**	**2.4307**	**7.3151**	**0.0257**	**2.3636**	**0.0211**	**2.3847**	**0.6297**	**0.0196**	**0.6493**		**2,599.0795**	**2,599.0795**	**0.0903**		**2,601.3364**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0396	25.7368	25.7776	0.0472		1.2378	1.2378		1.1936	1.1936	0.0000	4,412.2312	4,412.2312	0.7695		4,431.4682
Total	**3.0396**	**25.7368**	**25.7776**	**0.0472**		**1.2378**	**1.2378**		**1.1936**	**1.1936**	**0.0000**	**4,412.2312**	**4,412.2312**	**0.7695**		**4,431.4682**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0599	1.8416	0.5315	4.9600e-003	0.0861	3.5800e-003	0.0897	0.0266	3.4300e-003	0.0300		529.9406	529.9406	0.0333		530.7732
Worker	0.8957	0.5891	6.7835	0.0208	1.3415	0.0175	1.3590	0.3734	0.0161	0.3896		2,069.1389	2,069.1389	0.0570		2,070.5633
Total	**0.9556**	**2.4307**	**7.3151**	**0.0257**	**1.4276**	**0.0211**	**1.4487**	**0.4000**	**0.0196**	**0.4195**		**2,599.0795**	**2,599.0795**	**0.0903**		**2,601.3364**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	2.8346	23.8534	25.5798	0.0472		1.0872	1.0872		1.0477	1.0477		4,412.4637	4,412.4637	0.7553		4,431.3466
Total	**2.8346**	**23.8534**	**25.5798**	**0.0472**		**1.0872**	**1.0872**		**1.0477**	**1.0477**		**4,412.4637**	**4,412.4637**	**0.7553**		**4,431.3466**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0445	1.3948	0.4723	4.7900e-003	0.1281	1.7000e-003	0.1298	0.0369	1.6300e-003	0.0385		513.4826	513.4826	0.0293		514.2156
Worker	0.8438	0.5328	6.2353	0.0200	2.2355	0.0170	2.2525	0.5929	0.0157	0.6085		1,993.4412	1,993.4412	0.0513		1,994.7237
Total	**0.8883**	**1.9276**	**6.7077**	**0.0248**	**2.3636**	**0.0187**	**2.3823**	**0.6297**	**0.0173**	**0.6470**		**2,506.9238**	**2,506.9238**	**0.0806**		**2,508.9393**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8346	23.8534	25.5798	0.0472		1.0872	1.0872		1.0477	1.0477	0.0000	4,412.4637	4,412.4637	0.7553		4,431.3466
Total	**2.8346**	**23.8534**	**25.5798**	**0.0472**		**1.0872**	**1.0872**		**1.0477**	**1.0477**	**0.0000**	**4,412.4637**	**4,412.4637**	**0.7553**		**4,431.3466**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0445	1.3948	0.4723	4.7900e-003	0.0861	1.7000e-003	0.0878	0.0266	1.6300e-003	0.0282		513.4826	513.4826	0.0293		514.2156
Worker	0.8438	0.5328	6.2353	0.0200	1.3415	0.0170	1.3585	0.3734	0.0157	0.3891		1,993.4412	1,993.4412	0.0513		1,994.7237
Total	**0.8883**	**1.9276**	**6.7077**	**0.0248**	**1.4276**	**0.0187**	**1.4463**	**0.4000**	**0.0173**	**0.4173**		**2,506.9238**	**2,506.9238**	**0.0806**		**2,508.9393**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6639	22.3477	25.4083	0.0472		0.9592	0.9592		0.9237	0.9237		4,412.5810	4,412.5810	0.7467		4,431.2484
Total	**2.6639**	**22.3477**	**25.4083**	**0.0472**		**0.9592**	**0.9592**		**0.9237**	**0.9237**		**4,412.5810**	**4,412.5810**	**0.7467**		**4,431.2484**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0434	1.3898	0.4580	4.7700e-003	0.1281	1.6700e-003	0.1297	0.0369	1.6000e-003	0.0385		511.4911	511.4911	0.0289		512.2130
Worker	0.8007	0.4858	5.8049	0.0194	2.2355	0.0168	2.2523	0.5929	0.0154	0.6083		1,931.6076	1,931.6076	0.0470		1,932.7827
Total	**0.8441**	**1.8755**	**6.2629**	**0.0241**	**2.3636**	**0.0184**	**2.3820**	**0.6297**	**0.0170**	**0.6468**		**2,443.0987**	**2,443.0987**	**0.0759**		**2,444.9957**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6639	22.3477	25.4083	0.0472		0.9592	0.9592		0.9237	0.9237	0.0000	4,412.5810	4,412.5810	0.7467		4,431.2484
Total	**2.6639**	**22.3477**	**25.4083**	**0.0472**		**0.9592**	**0.9592**		**0.9237**	**0.9237**	**0.0000**	**4,412.5810**	**4,412.5810**	**0.7467**		**4,431.2484**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0434	1.3898	0.4580	4.7700e-003	0.0861	1.6700e-003	0.0878	0.0266	1.6000e-003	0.0282		511.4911	511.4911	0.0289		512.2130
Worker	0.8007	0.4858	5.8049	0.0194	1.3415	0.0168	1.3583	0.3734	0.0154	0.3889		1,931.6076	1,931.6076	0.0470		1,932.7827

Total	**0.8441**	**1.8755**	**6.2629**	**0.0241**	**1.4276**	**0.0184**	**1.4460**	**0.4000**	**0.0170**	**0.4170**		**2,443.0987**	**2,443.0987**	**0.0759**		**2,444.9957**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5063	20.8770	25.2766	0.0472		0.8408	0.8408		0.8088	0.8088		4,412.8372	4,412.8372	0.7376		4,431.2759
Total	**2.5063**	**20.8770**	**25.2766**	**0.0472**		**0.8408**	**0.8408**		**0.8088**	**0.8088**		**4,412.8372**	**4,412.8372**	**0.7376**		**4,431.2759**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0423	1.3780	0.4463	4.7400e-003	0.1281	1.6400e-003	0.1297	0.0369	1.5700e-003	0.0384		508.7485	508.7485	0.0284		509.4595
Worker	0.7627	0.4444	5.3862	0.0186	2.2355	0.0164	2.2519	0.5929	0.0151	0.6080		1,856.8337	1,856.8337	0.0428		1,857.9048
Total	**0.8050**	**1.8224**	**5.8325**	**0.0234**	**2.3636**	**0.0181**	**2.3816**	**0.6297**	**0.0167**	**0.6464**		**2,365.5822**	**2,365.5822**	**0.0713**		**2,367.3643**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5063	20.8770	25.2766	0.0472		0.8408	0.8408		0.8088	0.8088	0.0000	4,412.8372	4,412.8372	0.7376		4,431.2759
Total	**2.5063**	**20.8770**	**25.2766**	**0.0472**		**0.8408**	**0.8408**		**0.8088**	**0.8088**	**0.0000**	**4,412.8372**	**4,412.8372**	**0.7376**		**4,431.2759**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0423	1.3780	0.4463	4.7400e-003	0.0861	1.6400e-003	0.0877	0.0266	1.5700e-003	0.0281		508.7485	508.7485	0.0284		509.4595
Worker	0.7627	0.4444	5.3862	0.0186	1.3415	0.0164	1.3579	0.3734	0.0151	0.3885		1,856.8337	1,856.8337	0.0428		1,857.9048
Total	**0.8050**	**1.8224**	**5.8325**	**0.0234**	**1.4276**	**0.0181**	**1.4457**	**0.4000**	**0.0167**	**0.4167**		**2,365.5822**	**2,365.5822**	**0.0713**		**2,367.3643**

3.5 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	2.5063	20.8770	25.2766	0.0472		0.8408	0.8408		0.8088	0.8088		4,412.8372	4,412.8372	0.7376		4,431.2759
Total	**2.5063**	**20.8770**	**25.2766**	**0.0472**		**0.8408**	**0.8408**		**0.8088**	**0.8088**		**4,412.8372**	**4,412.8372**	**0.7376**		**4,431.2759**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0413	1.3652	0.4373	4.7200e-003	0.1281	1.6000e-003	0.1297	0.0369	1.5300e-003	0.0384		506.1173	506.1173	0.0280		506.8176
Worker	0.7303	0.4093	5.0319	0.0180	2.2355	0.0159	2.2514	0.5929	0.0146	0.6075		1,792.3460	1,792.3460	0.0393		1,793.3277
Total	**0.7716**	**1.7745**	**5.4692**	**0.0227**	**2.3636**	**0.0175**	**2.3810**	**0.6297**	**0.0161**	**0.6459**		**2,298.4633**	**2,298.4633**	**0.0673**		**2,300.1452**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5063	20.8770	25.2766	0.0472		0.8408	0.8408		0.8088	0.8088	0.0000	4,412.8372	4,412.8372	0.7376		4,431.2759
Total	**2.5063**	**20.8770**	**25.2766**	**0.0472**		**0.8408**	**0.8408**		**0.8088**	**0.8088**	**0.0000**	**4,412.8372**	**4,412.8372**	**0.7376**		**4,431.2759**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0413	1.3652	0.4373	4.7200e-003	0.0861	1.6000e-003	0.0877	0.0266	1.5300e-003	0.0281		506.1173	506.1173	0.0280		506.8176
Worker	0.7303	0.4093	5.0319	0.0180	1.3415	0.0159	1.3574	0.3734	0.0146	0.3880		1,792.3460	1,792.3460	0.0393		1,793.3277
Total	**0.7716**	**1.7745**	**5.4692**	**0.0227**	**1.4276**	**0.0175**	**1.4451**	**0.4000**	**0.0161**	**0.4161**		**2,298.4633**	**2,298.4633**	**0.0673**		**2,300.1452**

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.4296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**21.7713**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day											lb/day				
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0846	2.7560	0.8926	9.4900e-003	0.2561	3.2800e-003	0.2594	0.0737	3.1400e-003	0.0769		1,017.4970	1,017.4970	0.0569		1,018.9191
Worker	0.0191	0.0111	0.1347	4.7000e-004	0.0559	4.1000e-004	0.0563	0.0148	3.8000e-004	0.0152		46.4208	46.4208	1.0700e-003		46.4476
Total	**0.1037**	**2.7671**	**1.0273**	**9.9600e-003**	**0.3120**	**3.6900e-003**	**0.3157**	**0.0886**	**3.5200e-003**	**0.0921**		**1,063.9178**	**1,063.9178**	**0.0580**		**1,065.3667**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.4296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**21.7713**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0846	2.7560	0.8926	9.4900e-003	0.1722	3.2800e-003	0.1755	0.0531	3.1400e-003	0.0563		1,017.4970	1,017.4970	0.0569		1,018.9191
Worker	0.0191	0.0111	0.1347	4.7000e-004	0.0335	4.1000e-004	0.0340	9.3400e-003	3.8000e-004	9.7100e-003		46.4208	46.4208	1.0700e-003		46.4476

Total	**0.1037**	**2.7671**	**1.0273**	**9.9600e-003**	**0.2057**	**3.6900e-003**	**0.2094**	**0.0625**	**3.5200e-003**	**0.0660**		**1,063.9178**	**1,063.9178**	**0.0580**		**1,065.3667**

3.6 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.4296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**21.7713**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0827	2.7304	0.8746	9.4300e-003	0.2561	3.2100e-003	0.2593	0.0737	3.0600e-003	0.0768		1,012.2346	1,012.2346	0.0560		1,013.6351
Worker	0.0183	0.0102	0.1258	4.5000e-004	0.0559	4.0000e-004	0.0563	0.0148	3.6000e-004	0.0152		44.8087	44.8087	9.8000e-004		44.8332
Total	**0.1009**	**2.7406**	**1.0004**	**9.8800e-003**	**0.3120**	**3.6100e-003**	**0.3156**	**0.0886**	**3.4200e-003**	**0.0920**		**1,057.0432**	**1,057.0432**	**0.0570**		**1,058.4683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	21.4296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**21.7713**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0827	2.7304	0.8746	9.4300e-003	0.1722	3.2100e-003	0.1754	0.0531	3.0600e-003	0.0562		1,012.2346	1,012.2346	0.0560		1,013.6351
Worker	0.0183	0.0102	0.1258	4.5000e-004	0.0335	4.0000e-004	0.0339	9.3400e-003	3.6000e-004	9.7000e-003		44.8087	44.8087	9.8000e-004		44.8332
Total	**0.1009**	**2.7406**	**1.0004**	**9.8800e-003**	**0.2057**	**3.6100e-003**	**0.2093**	**0.0625**	**3.4200e-003**	**0.0659**		**1,057.0432**	**1,057.0432**	**0.0570**		**1,058.4683**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.3436	15.6705	45.1166	0.1917	18.4344	0.1460	18.5804	4.9319	0.1356	5.0675		19,582.6509	19,582.6509	0.8954		19,605.0364
Unmitigated	3.3436	15.6705	45.1166	0.1917	18.4344	0.1460	18.5804	4.9319	0.1356	5.0675		19,582.6509	19,582.6509	0.8954		19,605.0364

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,817.60	1,817.60	1817.60	6,991,856	6,991,856
Enclosed Parking with Elevator	0.00	0.00	0.00		
Strip Mall	66.48	66.48	66.48	229,312	229,312
Fast Food Restaurant w/o Drive Thru	201.08	201.08	201.08	602,965	602,965
High Turnover (Sit Down Restaurant)	264.22	264.22	264.22	847,516	847,516
Total	2,349.38	2,349.38	2,349.38	8,671,650	8,671,650

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.00	19.00	41.00	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0
Fast Food Restaurant w/o Drive Thru	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
High Turnover (Sit Down Restaurant)	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Fast Food Restaurant w/o Drive Thru	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
NaturalGas Unmitigated	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16161.2	0.1743	1.4894	0.6338	9.5100e-003		0.1204	0.1204		0.1204	0.1204		1,901.3188	1,901.3188	0.0364	0.0349	1,912.6174

Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	1264.44	0.0136	0.1240	0.1041	7.4000e-004		9.4200e-003	9.4200e-003		9.4200e-003	9.4200e-003		148.7575	148.7575	2.8500e-003	2.7300e-003	149.6414
High Turnover (Sit Down Restaurant)	2908.21	0.0314	0.2851	0.2395	1.7100e-003		0.0217	0.0217		0.0217	0.0217		342.1421	342.1421	6.5600e-003	6.2700e-003	344.1753
Strip Mall	24.8831	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9274	2.9274	6.0000e-005	5.0000e-005	2.9448
Total		**0.2196**	**1.9009**	**0.9795**	**0.0120**		**0.1517**	**0.1517**		**0.1517**	**0.1517**		**2,395.1458**	**2,395.1458**	**0.0459**	**0.0439**	**2,409.3790**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16.1612	0.1743	1.4894	0.6338	9.5100e-003		0.1204	0.1204		0.1204	0.1204		1,901.3188	1,901.3188	0.0364	0.0349	1,912.6174
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o	1.26444	0.0136	0.1240	0.1041	7.4000e-004		9.4200e-003	9.4200e-003		9.4200e-003	9.4200e-003		148.7575	148.7575	2.8500e-003	2.7300e-003	149.6414
High Turnover (Sit Down Restaurant)	2.90821	0.0314	0.2851	0.2395	1.7100e-003		0.0217	0.0217		0.0217	0.0217		342.1421	342.1421	6.5600e-003	6.2700e-003	344.1753
Strip Mall	0.0248831	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9274	2.9274	6.0000e-005	5.0000e-005	2.9448
Total		**0.2196**	**1.9009**	**0.9795**	**0.0120**		**0.1517**	**0.1517**		**0.1517**	**0.1517**		**2,395.1458**	**2,395.1458**	**0.0459**	**0.0439**	**2,409.3790**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Unmitigated	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6020	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934		95.4965	95.4965	0.0921		97.8002
Total	**17.2921**	**0.6094**	**52.9476**	**2.8000e-003**		**0.2934**	**0.2934**		**0.2934**	**0.2934**	**0.0000**	**95.4965**	**95.4965**	**0.0921**	**0.0000**	**97.8002**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Consumer Products	14.3985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6020	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934		95.4965	95.4965	0.0921		97.8002
Total	**17.2921**	**0.6094**	**52.9476**	**2.8000e-003**		**0.2934**	**0.2934**		**0.2934**	**0.2934**	**0.0000**	**95.4965**	**95.4965**	**0.0921**	**0.0000**	**97.8002**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3440 Wilshire Boulevard
GHG Emissions Impact Compared to "No Action Taken" Scenario

Source	NAT (2026)	As Proposed (2026)	Reduction from NAT	Change from NAT
Area	11	11	-	0%
Energy	7,812	4,531	(3,281)	-42%
Mobile	4,674	3,281	(1,393)	-30%
Waste	190	190	-	0%
Water	546	546	-	0%
Construction	140	140	-	0%
Total Emissions	13,372	8,698	(4,674)	-35.0%

Land Use	NAT	As Proposed	Difference
Land Use	640 DU, 5,538 sf retail	640 DU, 5,538 sf retail,	None
Traffic	Up to 2,348 ADT	Up to 2,348 ADT	None
Area	Same as proposed	Project assumptions	None
Energy	No State measures	See below	State measures
Mobile	No State measures	See below	State measures
Waste	Reduce construction w	Reduce construction w	None
Water	Project assumptions	Project assumptions	None

Mobile source emission	Pavley emission standards (19.8% reduction)
	Low carbon fuel standard (7.2% reduction)
	Vehicle efficiency measures (2.8% reduction)
Energy Production Assu	Natural gas transmission and distribution efficiency measures (7.4% reduction)
	Natural gas extraction efficiency measures (1.6% reduction)
	Renewables (electricity) portfolio standard (33% reduction)

TREE REPORT

for

Central Plaza
3404 Wilshire Blvd.
Los Angeles, CA 90010

Applicant:

Central Plaza, LLC
C/O Edgar Khalatian, Mayer Brown LLP
350 South Grand Avenue, 25th Floor
Los Angeles, California 90071

Prepared by
Harmony Gardens, Inc.
12224 Addison Street
Valley Village, CA 91607
Phone (818) 505-9783
Shelley Sparks, RLA # 2896, ASLA
ISA Certified Arborist #WE-10883A

September 22, 2016

Tree Report

Background

According to Ordinance 177404 the following trees native tree species are protected: Oak trees including indigenous Oaks, Southern California Black Walnut, Western Sycamore and California Bay Tree. Any trees of the above species that are larger than 4" caliper at 4.5 feet above the ground level are to be considered protected for the purpose of this ordinance. Trees that are to be retained on the site need to be protected during any grading process to within 5' of the drip line of the tree to preclude potential damage to the tree. Non-protected trees of 8" caliper or larger need to be noted too.

The protected trees may be relocated or removed upon prior approval of removal if a) its presence prevents the reasonable development of the property, b) the health of the tree is in decline and its restoration is not advisable or feasible c) It is in danger of falling d) It interferes with proposed utility or roadways within or without property e) It has no apparent aesthetic value that will contribute to the appearance and design of a proposed subdivision.

Should a protected tree need to be removed, the first choice would be relocation elsewhere on the same property where the relocation is economically reasonable and favorable to the survival of the tree. Measures may need to be taken to mitigate adverse effects on the tree.

Should a protected tree need to be removed and relocation is not an option, trees of the protected tree species must be replaced within the property by at least four trees of a protected variety with 24" box or larger trees. The size and number of replacement trees shall approximate the value of the tree to be replaced.

Street Trees

If a street tree requires removal from the site it is necessary to contact the Urban Forestry Division, Bureau of Street Services for the city of Los Angeles at (213) 847-3077.

Site Conditions

This site is approximately 318,196 SF and currently contains 4 commercial/office buildings with retail on the ground floor and 2 parking structures. The new mixed-use project will involve demolishing the existing three-story parking structure, adding ground floor retail to the Existing Office Buildings, constructing three commercial kiosks along West Wilshire Boulevard and South Irolo Street, and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. The types of trees found on site and in the parkway are both protected and unprotected species. Species found were *Washingtonia filifera, Ficus microcarpa nitida,, Cinnamomum camphora, Quercus douglasii, Pittosporum rhombifolium, Lagerstroemia indica,*

Syagrus romanzoffiana, Cupaniopsis anacardiodes, Melaleuca quinquenervia and *Chamaerops humilis*. All trees except Y, Z and CC were tagged. The survey was conducted from September 20-21, 2016. This project will not affect any trees offsite. No protected offsite trees were observed.

TREES IN PUBLIC RIGHT OF WAY

Trees 1 and 2 are *Ficus microcarpa nitida*, Chinese Banyan, in good condition despite black sooty mold and trunk graffiti. Specifications are as follows: 1- caliper of 19", 21' high X 17'wide, 2- caliper of 19", 21' high X 18'wide. These trees are scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as they are STREET TREES.

Trees 3 and 4 are *Ficus microcarpa nitida*, Chinese Banyan, in good condition despite black sooty mold and trunk graffiti. Specifications are as follows: 3- caliper of 20", 21' high X 15'wide, 4 - caliper of 19", 21' high X 15'wide. These trees are scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as they are STREET TREES.

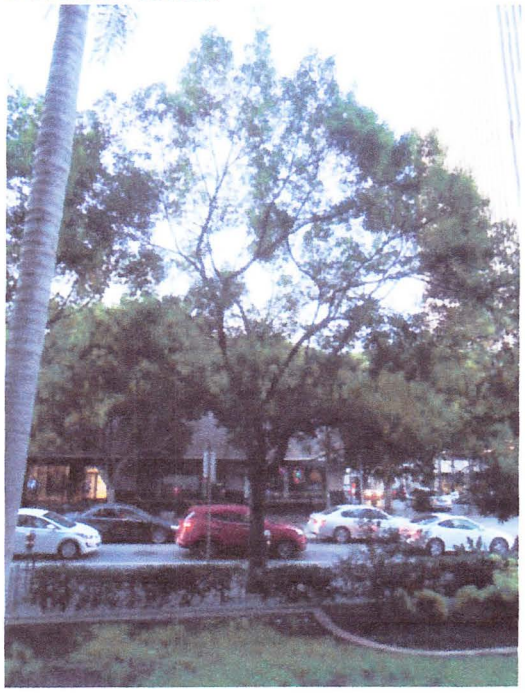
Trees 5, 6, and 7 are *Ficus microcarpa nitida*, Chinese Banyan, in good condition despite trunk graffiti. Specifications are as follows: 5- caliper of 22", 21' high X 17'wide, 6 - caliper of 20", 21' high X 18'wide, 7 - caliper of 18", 21' high X 18'wide. These trees are scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as they are STREET TREES.

Trees 8, 9, and 10 are *Ficus microcarpa nitida*, Chinese Banyan, in fair, good and poor condition due to canker, for tree 8 and canker and tree hollows for tree 10. Specifications are as follows: 8- caliper of 21", 21' high X 17'wide, 9 - caliper of 21", 21' high X 20'wide, 10 - caliper of 23", 21' high X 18'wide. These trees are scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as they are STREET TREES.

Tree 11 is *Cinnamomum camphora*, Camphor Tree in good condition with a caliper of 9", standing 18' high by 15' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 12 is *Cinnamomum camphora*, Camphor Tree in good condition with a caliper of 7", standing 18' high by 20' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.

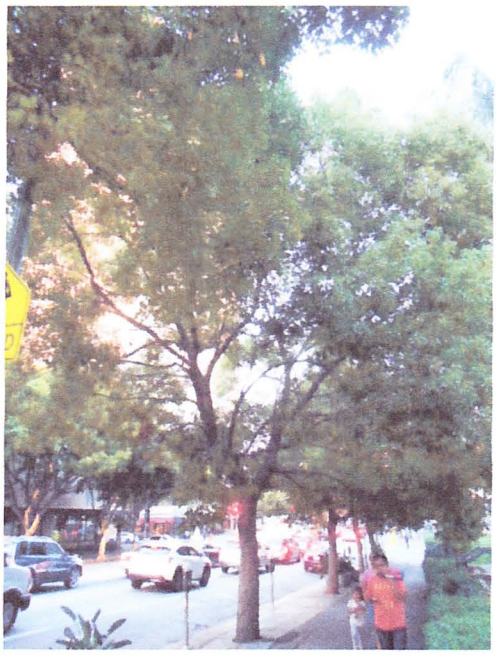
Tree 13 is *Cinnamomum camphora*, Camphor Tree in good condition with a caliper of 13", standing 23' high by 22' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.



Tree 14 is *Cinnamomum camphora*, Camphor Tree in good condition with a caliper of 10", standing 23' high by 20' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 15 is *Cinnamomum camphora*, Camphor Tree in good condition with a caliper of 9", standing 21' high by 22' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 16 is *Cinnamomum camphora*, Camphor Tree in good condition with a caliper of 12", standing 24' high by 22' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.



Tree 17 is *Cinnamomum camphora*, Camphor Tree in fair condition due to chlorosis with a caliper of 13", standing 19' high by 22' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 18 is *Cinnamomum camphora*, Camphor Tree in fair condition poor structure and poor pruning practice with a caliper of 8", standing 16' high by 12' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 19 is *Cinnamomum camphora*, Camphor Tree in good condition with a caliper of 10", standing 16' high by 22' wide. This tree is scheduled to be removed so it is necessary to contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 20 is *Quercus douglasii*, Blue Oak, in fair condition due to trunk damage and branch dieback with a caliper of 9", standing 13' high by 7' wide. This **protected** tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE. If construction is scheduled in the vicinity tree, the arborist shall be informed and tree protection methods will be instituted.

Tree 21 is *Pittosporum rhombifolium*, Queensland Pittosporum in fair condition due to split and leaning trunk and moderate dieback. It has a caliper of 10", standing 18' high by 10' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 22 is *Pittosporum rhombifolium*, Queensland Pittosporum in fair condition due to split, damaged trunk and dieback. It has a caliper of 9", standing 19' high by 9' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 23 *Pittosporum rhombifolium*, Queensland Pittosporum in good with a caliper of 10", standing 25' high by 12' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 24 is *Pittosporum rhombifolium*, Queensland Pittosporum in fair condition due to split trunk and trunk hollows. It has a caliper of 12", standing 22' high by 12' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 25 is *Washingtonia filifera*, California Fan Palm, in good condition with a caliper of 17", standing 11' high by 8' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 26 is *Lagerstroemia indica*, Crape Myrtle in good condition with a caliper of 6", standing 13' high by 10' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 27 is *Washingtonia filifera*, California Fan Palm, in good condition with the following specifications: a caliper of 9", standing 8' high by 6' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

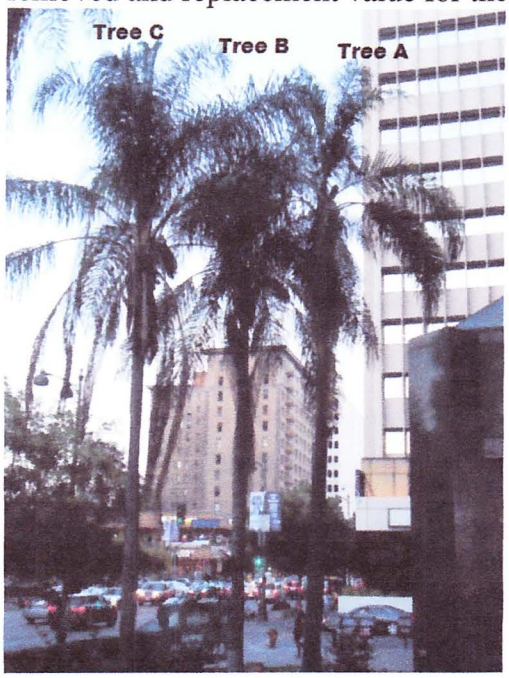
Tree 28 is *Lagerstroemia indica*, Crape Myrtle in good condition with a caliper of 4", standing 11' high by 5' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

Tree 29 is *Lagerstroemia indica*, Crape Myrtle in good condition with a caliper of 4", standing 11' high by 5' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

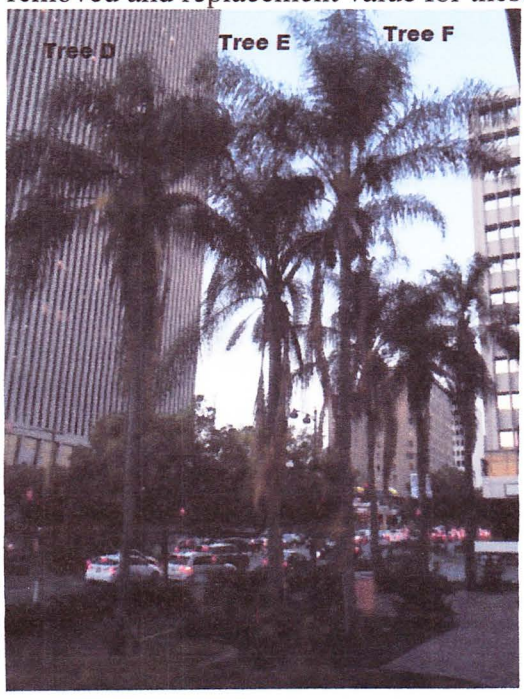
Tree 30 is *Lagerstroemia indica*, Crape Myrtle in good condition with a caliper of 4", standing 11' high by 5' wide. This tree is scheduled to remain, however, should this tree need removal, contact Urban Forestry Division for replacement value as it is a STREET TREE.

TREES IN PRIVATE PROPERTY

Trees A, B and C are *Syagrus romanzoffianai,* Queen Palms in good condition. Specifications are: A- caliper of 11", 28' high X 15'wide, B- caliper of 11", 28' high X 15'wide, C- caliper of 10", 28' high by 20' wide. These unprotected trees will be removed and replacement value for these trees are 24" Box tree/removal.

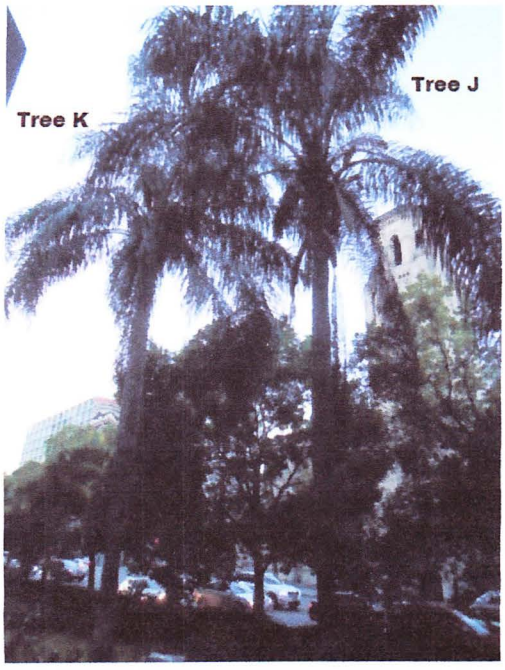


Trees D, E and F are *Syagrus romanzoffianai,* Queen Palms in good condition. Specifications are: D- caliper of 11", 28' high X 20'wide, E- caliper of 10", 28' high X 20'wide, F- caliper of 7", 28' high by 20' wide. These unprotected trees will be removed and replacement value for these trees are 24" Box tree/removal.



Trees G, H and I are *Syagrus romanzoffianai,* Queen Palms in good condition. Specifications are: G- caliper of 10", 42' high X 20'wide, H- caliper of 11", 45' high X 18'wide, I- caliper of 9", 36' high by 20' wide. These unprotected trees will be removed and replacement value for these trees are 24" Box tree/removal.

Trees J and K are *Syagrus romanzoffianai,* Queen Palms in good condition. Specifications are J- caliper of 8", 36' high X 21'wide, K- caliper of 12", 36' high X 21'wide. These unprotected trees will be removed and replacement value for these trees are 24" Box tree/removal.



Trees L, M and N are *Syagrus romanzoffianai,* Queen Palms in good condition. Specifications are: L- caliper of 9", 21' high X 11'wide, M- caliper of 9", 21' high X 11'wide, N- caliper of 10", 30' high by 11' wide. These unprotected trees will be removed and replacement value for these trees are 24" Box tree/removal.

Tree O is *Cupaniopsis anacardiodes*, Carrotwood in good condition with a caliper of 10" and 9' high by 8' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree P is *Cupaniopsis anacardiodes*, Carrotwood in good condition with a caliper of 9" and 9' high by 8' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree Q is *Cupaniopsis anacardiodes*, Carrotwood in good condition with a caliper of 9" and 8' high by 8' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree R is *Cupaniopsis anacardiodes*, Carrotwood in good condition with a caliper of 10" and 10' high by 9' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree S is *Cupaniopsis anacardiodes*, Carrotwood in good condition with a caliper of 10" and 10' high by 10' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree T is *Cupaniopsis anacardiodes*, Carrotwood in fair condition due to stunted growth and poor structure with a caliper of 8" and 8' high by 8' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree U is *Cupaniopsis anacardiodes*, Carrotwood in good condition with a caliper of 15" and 11' high by 10' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree V is *Cupaniopsis anacardiodes*, Carrotwood in good condition with a caliper of 9" and 10' high by 10' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree W is *Cupaniopsis anacardiodes*, Carrotwood in good condition with a caliper of 10" and 12' high by 11' wide. This tree is scheduled to be removed and replacement value for this tree is a 24" box tree.

Tree Y is *Ficus microcarpa nitida*, Chinese Banyan in good condition with a caliper of 16" and 16' high by 18' wide. This tree is scheduled to be remain but should replacement be needed, the value for this tree is a 24" box tree.

Tree Z is *Ficus microcarpa nitida*, Chinese Banyan in good condition with a caliper of 17" and 16' high by 11' wide. This tree is scheduled to be remain but should replacement be needed, the value for this tree is a 24" box tree.

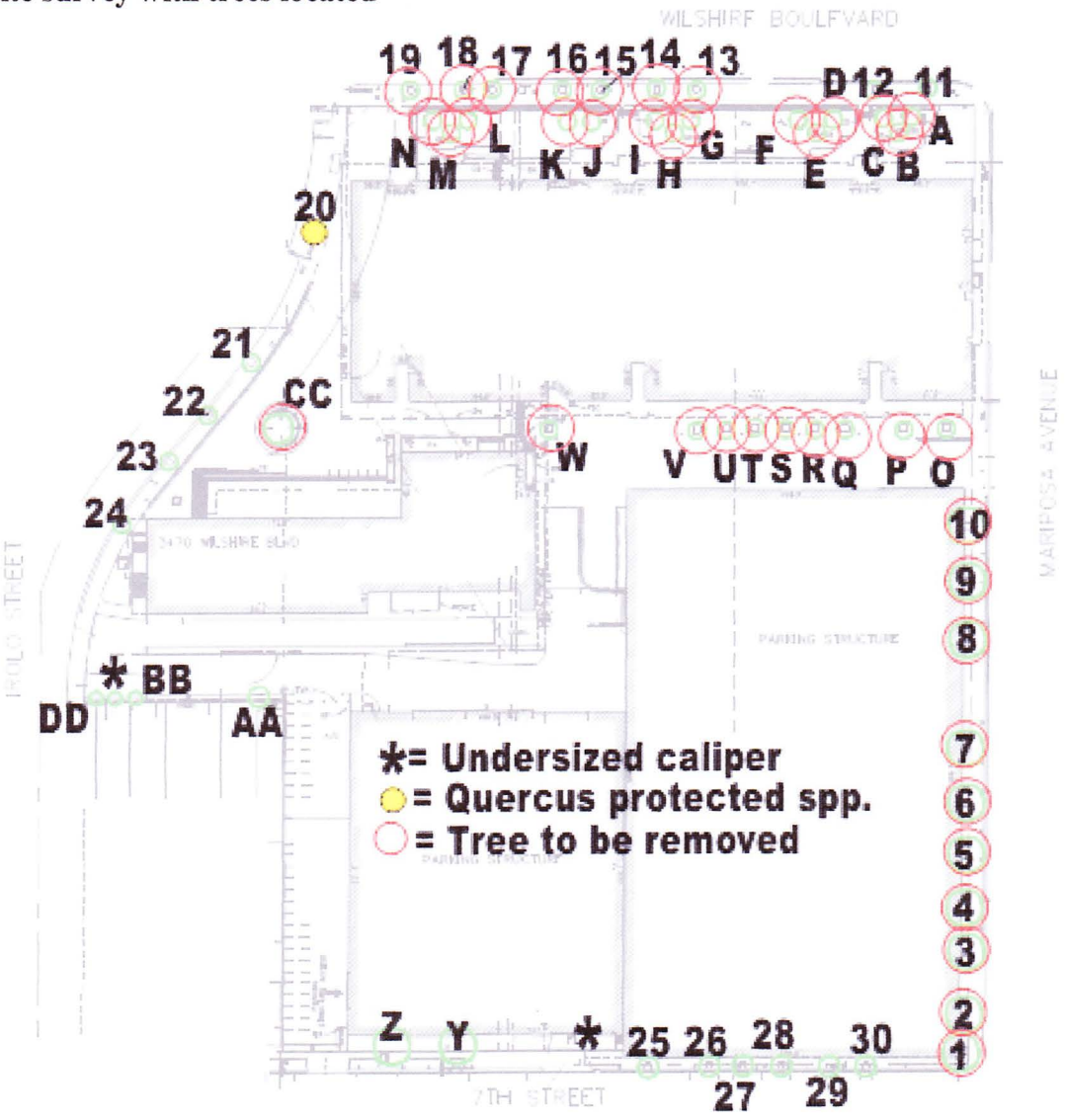
Trees AA *Melaleuca quinquenervia,* Paperbark Tree in fair condition due to hollows and nutrient deficiency. It has a caliper of 17" with height 17' by 18' wide. This tree is scheduled to be remain but should replacement be needed, the value for this tree is a 24" box tree.

Trees BB *Melaleuca quinquenervia,* Paperbark Tree in good condition despite some dieback. It has a caliper of 9" with height 22' by 7' wide. This tree is scheduled to be remain but should replacement be needed, the value for this tree is a 15 Gallon tree.

Trees CC *Chamaerops humilis,* Mediterranean Fan Palm in good condition. This tree has calipers of 14", 2-12" and 11" and stands 17' high by 15' wide. This unprotected tree will be removed and the replacement value is 2- 36" Box trees.

Trees DD *Melaleuca quinquenervia,* Paperbark Tree in good condition despite some dieback. It has a caliper of 10" with height 24' by 10' wide. This tree is scheduled to be remain but should replacement be needed, the value for this tree is a 15 Gallon tree.

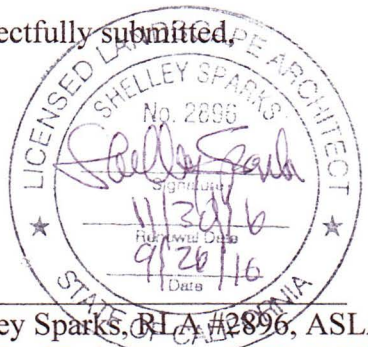
Site survey with trees located



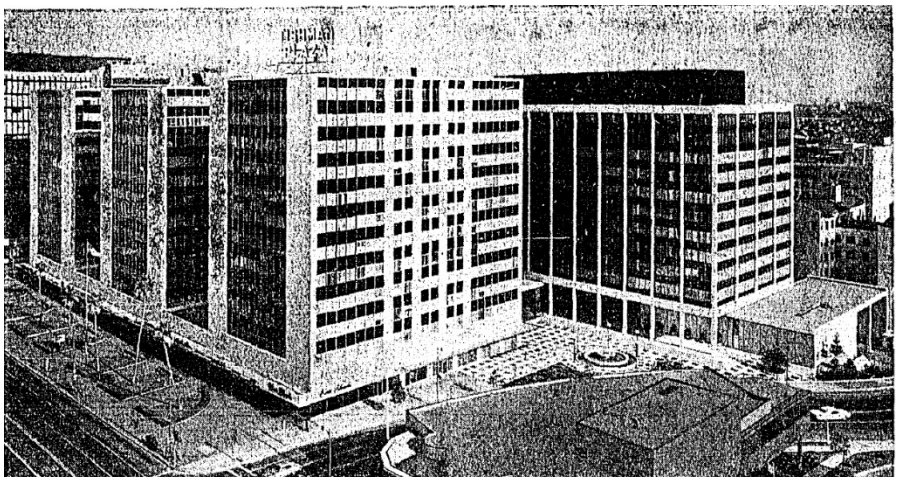
Summary of Trees							
Tree	Botanical Name	Common Name	Health	Aesthetic	Comments	Protected	Remove
TREES IN PUBLIC RIGHT OF WAY							
1	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good	Street tree	No	Yes
2	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good	Street tree	No	Yes
3	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good	Street tree	No	Yes
4	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good	Street tree	No	Yes
5	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good	Street tree	No	Yes
6	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good	Street tree	No	Yes
7	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good	Street tree	No	Yes
8	*Ficus microcarpa nitida*	Chinese Banyan	Fair	Good	Street tree	No	Yes
9	*Ficus microcarpa nitida*	Chinese Banyan	Fair	Good	Street tree	No	Yes
10	*Ficus microcarpa nitida*	Chinese Banyan	Poor	Fair	Street tree	No	Yes
11	*Cinnamomum camphora*	Camphor Tree	Good	Good	Street tree	No	Yes
12	*Cinnamomum camphora*	Camphor Tree	Good	Good	Street tree	No	Yes
13	*Cinnamomum camphora*	Camphor Tree	Good	Good	Street tree	No	Yes
14	*Cinnamomum camphora*	Camphor Tree	Good	Good	Street tree	No	Yes
15	*Cinnamomum camphora*	Camphor Tree	Good	Good	Street tree	No	Yes
16	*Cinnamomum camphora*	Camphor Tree	Good	Good	Street tree	No	Yes
17	*Cinnamomum camphora*	Camphor Tree	Fair	Fair	Street tree	No	Yes
18	*Cinnamomum camphora*	Camphor Tree	Fair	Fair	Street tree	No	Yes
19	*Cinnamomum camphora*	Camphor Tree	Good	Good	Street tree	No	Yes
20	*Quercus douglasii*	Blue Oak	Fair	Fair	Street tree	Yes	No
21	*Pittosporum rhombifolium*	Queensland Pitto.	Fair	Fair	Street tree	No	No
22	*Pittosporum rhombifolium*	Queensland Pitto.	Fair	Fair	Street tree	No	No
23	*Pittosporum rhombifolium*	Queensland Pitto.	Good	Good	Street tree	No	No
24	*Pittosporum rhombifolium*	Queensland Pitto.	Fair	Good	Street tree	No	No
25	*Washingtonia filifera*	California Fan Palm	Good	Good	Street tree	No	No
26	*Lagerstroemia indica*	Crape Myrtle	Good	Good	Street tree	No	No
27	*Washingtonia filifera*	California Fan Palm	Good	Good	Street tree	No	No
28	*Lagerstroemia indica*	Crape Myrtle	Good	Good	Street tree	No	No
29	*Lagerstroemia indica*	Crape Myrtle	Good	Good	Street tree	No	No
30	*Lagerstroemia indica*	Crape Myrtle	Good	Good	Street tree	No	No

TREES IN PRIVATE PROPERTY							
A	*Syagrus romanzoffiana*	Queen Palm	Good	Good		No	Yes
B	*Syagrus romanzoffiana*	Queen Palm	Good	Good		No	Yes
C	*Syagrus romanzoffiana*	Queen Palm	Good	Good		No	Yes
D	*Syagrus romanzoffiana*	Queen Palm	Good	Fair		No	Yes
E	*Syagrus romanzoffiana*	Queen Palm	Fair	Poor		No	Yes
F	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
G	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
H	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
I	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
J	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
K	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
L	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
M	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
N	*Syagrus romanzoffiana*	Queen Palm	Poor	Poor		No	Yes
O	*Cupaniopsis anacardiodes*	Carrotwood	Good	Good		No	Yes
P	*Cupaniopsis anacardiodes*	Carrotwood	Good	Good		No	Yes
Q	*Cupaniopsis anacardiodes*	Carrotwood	Good	Good		No	Yes
R	*Cupaniopsis anacardiodes*	Carrotwood	Good	Good		No	Yes
S	*Cupaniopsis anacardiodes*	Carrotwood	Good	Good		No	Yes
T	*Cupaniopsis anacardiodes*	Carrotwood	Fair	Fair		No	Yes
U	*Cupaniopsis anacardiodes*	Carrotwood	Good	Good		No	Yes
V	*Cupaniopsis anacardiodes*	Carrotwood	Good	Good		No	Yes
W	*Cupaniopsis anacardiodes*	Carrotwood	Good	Good		No	Yes
Y	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good		No	No
Z	*Ficus microcarpa nitida*	Chinese Banyan	Good	Good		No	No
AA	*Melaleuca quinquenervia*	Paperbark Tree	Fair	Fair	Some Die back	No	No
BB	*Melaleuca quinquenervia*	Paperbark Tree	Fair	Fair	Some Die back	No	No
CC	*Chamaerops humilis*	Mediterranean Fan Palm	Good	Good		No	Yes
DD	*Melaleuca quinquenervia*	Paperbark Tree	Poor	Poor	Die back	No	No

Respectfully submitted,



Shelley Sparks, RLA #2896, ASLA
ISA Certified Arborist #WE-10883A



Central Plaza – 3440-3470 Wilshire Boulevard
Historic Resources Technical Report
November 2018

HISTORIC RESOURCES GROUP

TABLE OF CONTENTS

5 1.0 Executive Summary

6 2.0 Introduction

8 3.0 Project Description
8 *2.1 Site Location and Description*
8 *2.2 Project Overview*

10 4.0 Methodology

11 5.0 Regulatory Review
11 *5.1 Historic Resources under CEQA*
12 *5.2 Historic Designations*
16 *5.3 Historic Districts*
16 *5.4 SurveyLA*
17 *5.5 Historic Significance and Integrity*

19 6.0 Historic Context
19 *6.1 Site Development History*
20 *6.2 Tishman Realty and Construction Company*
21 *6.3 Architect Claud Beelman*
22 *6.4 Charles Luckman and Associates*
24 *6.5 Corporate International Architecture*
25 *6.6 Associated SurveyLA Themes and Eligibility Standards*

28 7.0 Identification of Historical Resources
28 *7.1 Previously Identified Resources on the Project Site*
29 *7.2 Other Properties on the Project Site*

Central Plaza – 3440-3470 Wilshire Boulevard
Historic Resources Technical Report
November 2018

HISTORIC RESOURCES GROUP

31 *7.3 Previously Identified Resources Adjacent to the Project Site*
33 *7.4 Summary of Identified Historical Resources*

35 8.0 Analysis of Potential Impacts
35 *8.1 Significance Threshold*
36 *8.2 Potential Impacts to Project Site Historic Resources*
38 *8.3 Potential Impacts to Adjacent Historic Resources*
41 *8.4 Analytical Summary*
42 *8.5 Conclusions*

43 Bibliography

45 Appendix A: Existing Conditions Photos (Project Site)

47 Appendix B: Existing Conditions Photos (Adjacent Resources)

49 Appendix C: Previous Evaluation Documentation

59 Appendix D: Project Plans

Central Plaza – 3440-3470 Wilshire Boulevard
Historic Resources Technical Report
November 2018

HISTORIC RESOURCES GROUP

PREPARED FOR

Central Plaza LLC
3470 Wilshire Boulevard, Suite 700
Los Angeles, CA 90010

Central Plaza – 3440-3470 Wilshire Boulevard
Historic Resources Technical Report
November 2018

HISTORIC RESOURCES GROUP

This report identifies historic resources and analyzes potential impacts in conjunction with the proposed Central Plaza project ("the Project") located on a site bordered on the north by West Wilshire Boulevard, on the east by South Mariposa Avenue, on the south by West 7th Street, and on the west by South Irolo Street. The project would demolish an existing three-story parking structure and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. The Project would also add one commercial kiosk along South Irolo Street and another along South Mariposa Ave.

The purpose of this report is to determine if historic resources as defined by the California Environmental Quality Act (CEQA)[1] are present on the Project site, and, if so, to identify potential impacts to historic resources caused by the proposed Project. This report is intended to inform environmental review of the proposed Project.

Historic Resources Group (HRG) has identified one building on the Project Site that was previously found eligible for historic listing through survey evaluation. Several additional properties in the immediate vicinity of the Project Site have also been identified as eligible for historic listing. These properties are treated herein as historical resources for the purposes of CEQA.

Analysis of potential impacts to historical resources reveals that the Project will not demolish, alter or relocate any historic resource and will not result in substantial adverse changes that reduces the integrity or significance of historic resources located on or adjacent to the Project Site. Therefore, the Project will not result in significant impacts to historical resources.

[1] California PRC, Section 21084.1.

The purpose of this technical report is to determine if historic resources as defined by the California Environmental Quality Act (CEQA)[2] are present on the 3440-3470 Wilshire Boulevard Project Site and, if so, to identify potential impacts to historic resources caused by the proposed Project. This report is intended to inform environmental review of the proposed Project.

Under CEQA, the potential impacts of a project on historic resources must be considered. The purpose of CEQA is to evaluate whether a proposed project may have a significant adverse effect on the environment and, if so, if that effect can be reduced or eliminated by pursuing an alternative course of action or through mitigation measures.

The impacts of a project on an historic resource may be considered an environmental impact. CEQA states that:

> *A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.*[3]

Thus, an evaluation of project impacts under CEQA requires a two-part inquiry: (1) a determination of whether the project site contains or is adjacent to an historic resource or resources, and if so, (2) a determination of whether the proposed project will result in a "substantial adverse change" in the significance of the resource or resources. This report investigates the proposed Project Site to determine if historic resources exist either within or adjacent to its boundaries and analyzes Project impacts for any adverse change in the significance of such resources.

In doing so, this report provides a comprehensive review of the historic resources that could be directly impacted by development activities within the proposed Project footprint, as well as a contextual assessment of the potential historic resources that are located outside the proposed Project footprint that could be indirectly impacted.

This report contains:

- A review of the existing buildings located on, or adjacent to the Project Site.
- A review of previous evaluations of the site through historic survey, evaluation, or other official actions.

[2] California PRC, Sec. 21084.1.
[3] Ibid.

- Analysis and evaluation of any potential historic resources.
- Review of the required consideration of historic resources under the California Environmental Quality Act (CEQA).

This report was prepared using sources related to the Project Site's development. The following documents were consulted:

- Historic building permits for buildings on the Project Site
- Sanborn Fire Insurance maps
- Historic photographs, aerial photos, and local histories
- California State Historic Resources Inventory (HRI) for Los Angeles County
- Department of Parks and Recreation Historic Resources Inventory Forms
- Historic Los Angeles Times newspaper articles

Research, field inspection, and analysis were performed by Paul Travis, Principal; Molly Iker-Johnson, Associate Architectural Historian; and Holly Kane, Associate Historian. All are qualified professionals who meet or exceed the Secretary of the Interior's Professional Qualification Standards.

3.1 Site Location and Description

Central Plaza, LLC (the "Applicant") is proposing the construction of a mixed-use project at 3432, 3434, 3438, 3442, 3444, 3440, 3446, 3448, 3450, 3452, 3452 ½, 3454, 3458, 3458 ½, 3458 ¾, 3460, 3470 West Wilshire Boulevard; 659, 661, 667, 699 South Mariposa Avenue; 3265, 3281, 3287 West 7th Street; and 666, 668, 670, 675, 678 South Irolo Street, Los Angeles, California 90005/90010 (the "Property" or "Project Site"). The Property consists of eight contiguous lots bordered on the north by West Wilshire Boulevard, on the east by South Mariposa Avenue, on the south by West 7th Street, and on the west by South Irolo Street, a surface parking lot, a commercial building, and a multi-family residential building.

The Property is currently developed with four commercial office buildings with ground floor retail uses that front West Wilshire Boulevard and South Irolo Street (the "Existing Office Buildings"), a three-story parking structure, and a five-story parking structure. The Existing Office Buildings contain approximately 760,456 feet of commercial uses. The three-story parking structure contains approximately 1,191 vehicle parking spaces. The five-story parking structure contains approximately 707 vehicle parking spaces. Figure 1, below, depicts the location of the Property.

3.2 Project Overview

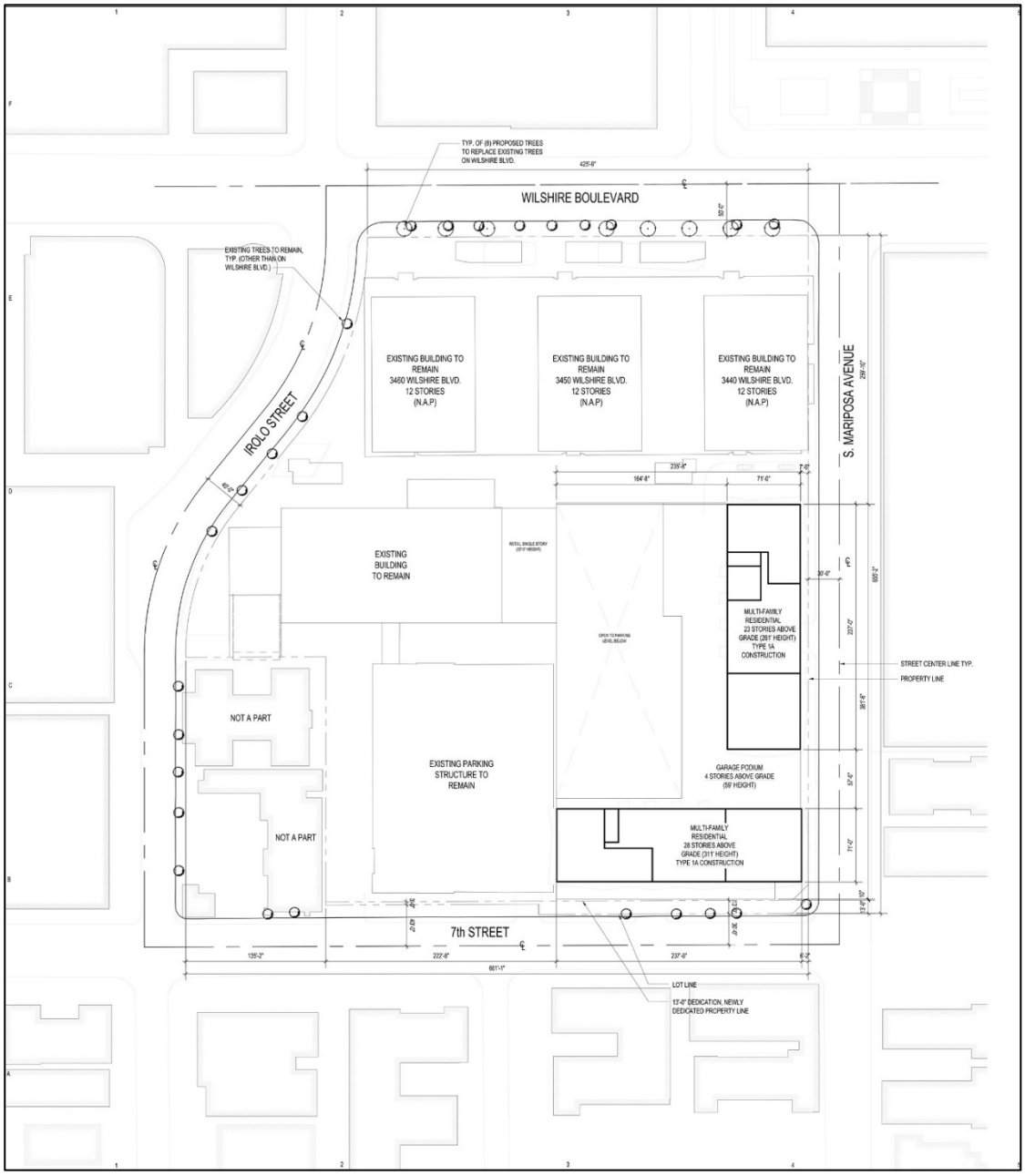
The mixed-use project will include approximately 641 apartment units and 18,454 square feet of commercial floor area. The project would involve demolishing the existing three-story parking structure, adding one commercial kiosk along South Irolo Street and one along South Mariposa Ave., and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean (the "Project").

The 23-story mixed-use building will include approximately 280 apartment units, rooftop amenities, and commercial space (the "Tower 1"). The 28-story mixed us building will include approximately 361 apartment units, rooftop amenities, and commercial space (the "Tower 2"). Tower 1 and Tower 2 will share a podium with amenity space and four stories of above-grade and two stories of below-grade parking (the "Podium").

Implementation of the Project will require the demolition of the existing three-story parking structure. No residential units exist on the Property.

[4] Description of existing conditions and the proposed project as provided by the Applicant.

Figure 1: Site Plan



Central Plaza – 3440-3470 Wilshire Boulevard
Historic Resources Technical Report

HISTORIC RESOURCES GROUP

Archival sources consulted included but were not limited to historical *Los Angeles Times* articles, historical aerial photographs, and Sanborn Insurance Co. fire insurance maps.

Contemporary planning documents were also consulted, which included the California State Historic Resources Inventory for Los Angeles County, California Department of Parks and Recreation Historic Resources Inventory Forms, and the 2009 Community Redevelopment Agency Intensive Historic Resources Survey of the Wilshire Center and Koreatown Recovery Redevelopment Area, conducted by PCR Services Corporation.

Digital Sanborn Insurance Company fire insurance maps, available through the Los Angeles Public Library, were also reviewed for the Project Site from the following years: 1907, 1913, 1919, and 1950.

Historical aerial photographs available at HistoricAerials.com were reviewed for the Project Site from the following years: 1948, 1952, 1954, 1964, 1972, 1980, 1989, 1994, 2003, 2004, 2005, 2009, 2010, 2012, and 2014.

Site inspection of the Project Site and its immediate vicinity was conducted in June 2017.

5.1 Historic Resources under CEQA

CEQA requires that environmental protection be given significant consideration in the decision making process. Historic resources are included under environmental protection. Thus, any project or action which may cause a substantial adverse change in the significance of an historic resource is a project that also has a significant effect on the environment and shall comply with the State CEQA Guidelines.

When the California Register of Historical Resources was established in 1992, the Legislature amended CEQA to clarify which historic resources may be significant, as well as which project impacts are considered to cause a substantial adverse change in the significance of an historic resource. A "substantial adverse change" means "demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

CEQA includes in its definition of historic resources a resource listed in, or determined eligible for listing, in the California Register of Historical Resources. All properties on the California Register are to be considered under CEQA. However, because a property does not appear on the California Register does not mean it is not significant and therefore exempt from CEQA consideration. All resources determined eligible for the California Register are also to be considered under CEQA.

The CEQA statute provides that an historic resource is a resource that is:

- Listed in the California Register of Historical Resources (California Register);
- Determined eligible for the California Register by the State Historical Resources Commission; or
- Included in a local register of historic resources.

The courts have interpreted CEQA to create three categories of historic resources:

- *Mandatory historical resources* are resources "listed in, or determined to be eligible for listing in, the California Register of Historical Resources."
- *Presumptive historical resources* are resources "included in a local register of historical resources, as defined in subdivision (k) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1" of the Public Resources Code, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant.

- *Discretionary historical resources* are those resources that are not listed but determined to be eligible under the criteria for the California Register of Historical Resources.[5]

Section 15064.5 of the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3) supplements the statute by providing two additional definitions of historical resources, which may be simplified in the following manner. An historic resource is a resource that is:

- Identified as significant in an historical resource survey meeting the requirements of Public Resources Code 5024.1 (g);
- Determined by a Lead Agency to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, this category includes resources that meet the criteria for listing on the California Register (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852).

The fact that a resource is not listed in, or determined eligible for listing in, the California Register, not included in a local register of historic resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1, does not preclude a lead agency from determining that the resource may be an "historic resource" for purposes of CEQA.

Properties formally determined eligible for listing in the National Register of Historic Places are automatically listed in the California Register. Properties designated by local municipalities can also be considered historic resources. A review of properties that are potentially affected by a project for historic eligibility is also required under CEQA.

5.2 Historic Designations

A property may be designated as historic by National, State, and local authorities. In order for a building to qualify for listing in the National Register or the California Register, it must meet one or more identified criteria of significance. The property must also retain sufficient architectural integrity to continue to evoke the sense of place and time with which it is historically associated.

[5] *League for the Protection of Oakland's Architectural and Historic Resources vs. City of Oakland,* 52 Cal. App. 4th 896, 906-7 (1997).

National Register of Historic Places

The National Register of Historic Places is an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment.[6] The National Park Service administers the National Register program. Listing in the National Register assists in preservation of historic properties in several ways including: recognition that a property is of significance to the nation, the state, or the community; consideration in the planning for federal or federally assisted projects; eligibility for federal tax benefits; and qualification for Federal assistance for historic preservation, when funds are available.

To be eligible for listing and/or listed in the National Register, a resource must possess significance in American history and culture, architecture, or archaeology. Listing in the National Register is primarily honorary and does not in and of itself provide protection of an historic resource. The primary effect of listing in the National Register on private owners of historic buildings is the availability of financial and tax incentives. In addition, for projects that receive Federal funding, a clearance process must be completed in accordance with Section 106 of the National Historic Preservation Act. Furthermore, state and local regulations may apply to properties listed in the National Register.

The criteria for listing in the National Register follow established guidelines for determining the significance of properties. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

B. That are associated with the lives of persons significant in our past; or

C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded, or may be likely to yield, information important in prehistory or
history. [7]

[6] 36CFR60, Section 60.2.
[7] 36CFR60, Section 60.3.

In addition to meeting any or all of the criteria listed above, properties nominated must also possess integrity of *location, design, setting, materials, workmanship, feeling,* and *association.*

California Register of Historical Resources

The California Register is an authoritative guide in California used by State and local agencies, private groups, and citizens to identify the State's historic resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change.[8]

The criteria for eligibility for listing in the California Register are based upon National Register criteria. These criteria are:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. Associated with the lives of persons important to local, California or national history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

The California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register includes the following:

- California properties formally determined eligible for (Category 2 in the State Inventory of Historical Resources), or listed in (Category 1 in the State Inventory), the National Register of Historic Places.
- State Historical Landmarks No. 770 and all consecutively numbered state historical landmarks following No. 770. For state historical landmarks preceding No. 770, the Office of Historic Preservation (OHP) shall review their eligibility for the California Register in accordance with procedures to be adopted by the State Historical Resources Commission (commission).

[8] California PRC, Section 5023.1(a).

- Points of historical interest which have been reviewed by the OHP and recommended for listing by the commission for inclusion in the California Register in accordance with criteria adopted by the commission. [9]

Other resources which may be nominated for listing in the California Register include:

- Individual historic resources.
- Historic resources contributing to the significance of an historic district.
- Historic resources identified as significant in historic resources surveys, if the survey meets the criteria listed in subdivision (g).
- Historic resources and historic districts designated or listed as city or county landmarks or historic properties or districts pursuant to any city or county ordinance, if the criteria for designation or listing under the ordinance have been determined by the office to be consistent with California Register criteria.
- Local landmarks or historic properties designated under any municipal or county ordinance. [10]

Local Designation Program

The City of Los Angeles Cultural Heritage Ordinance, enacted in 1962, allows for the designation of buildings and sites as individual local landmarks in the City of Los Angeles. These landmarks are known as "Historic-Cultural Monuments."

Section 22.171.7 of Article 1, Chapter 9, Division 22 of the City of Los Angeles Administrative Code defines a Historic-Cultural Monument as "any site (including significant trees or other plant life located on the site), building or structure of particular historic or cultural significance to the City of Los Angeles." A proposed Monument may be designated by the City Council upon the recommendation of the Cultural Heritage Commission if it meets at least one of the following criteria:

1. Is identified with important events of national, state, or local history, or exemplifies significant contributions to the broad cultural, economic or social history of the nation, state, city or community;
2. Is associated with the lives of historic personages important to national, state, city, or local history; or

[9] California PRC, Section 5023.1(d).
[10] California PRC, Section 5023.1(e).

3. Embodies the distinctive characteristics of a style, type, period, or method of construction; or represents a notable work of a master designer, builder, or architect whose individual genius influenced his or her age.

Designation recognizes the unique architectural value of certain structures and helps to protect their distinctive qualities. Any interested individual or group may submit nominations for Historic-Cultural Monument status. Buildings may be eligible for Historic-Cultural Monument status if they retain their historic design and materials. Those that are intact examples of past architectural styles or that have historical associations may meet the criteria listed in the Cultural Heritage Ordinance.

5.3 Historic Districts

Standard preservation practice evaluates collections of buildings from similar time periods and historic contexts as historic *districts*. The National Park Service defines a historic district as "a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development."[11] A historic district derives its significance as a single unified entity.

Resources that have been found to contribute to the historic identity of a district are referred to as *district contributors*. Properties located within the district boundaries that do not contribute to its significance are identified as *non-contributors*.

5.4 SurveyLA

The Project Site is located within the City of Los Angeles, which has been subject to a citywide historic resources survey known as SurveyLA. SurveyLA, the Los Angeles Historic Resources Survey, is the City's comprehensive program to identify and document potential historic resources throughout the City of Los Angeles. SurveyLA is intended to provide baseline information on historic resources to inform planning decisions and support City policy goals and processes.[12]

As part of SurveyLA, the Office of Historic Resources has developed a Historic Context Statement (HCS) to provide a framework for identifying and evaluating potential historic resources within the City of Los Angeles. The HCS utilizes the Multiple Property Documentation (MPD) format developed by the National Park Service for the National Register of Historic Places and complies with the standards and guidelines set forth by

[11] *National Register Bulletin 15*. (5)
[12] "SurveyLA Findings and Reports," SurveyLA: Los Angeles Historic Resources Survey, https://preservation.lacity.org/surveyla-findings-and-reports (accessed July 2018). Resources identified through SurveyLA are not designated resources; designation is a separate process that requires public hearings and property owner notification.

the National Park Service and the California Office of Historic Resources.[13] This approach organizes the themes, trends, and patterns of history shared by properties into historic contexts; identifies and describes historic resources or property types that represent the contexts; and provides specific standards to guide the evaluation of significance. The SurveyLA HCS is organized into nine broad historical contexts, which are specific to Los Angeles and focus on the development of the City during the period dating from 1780 to 1980, and further subdivided into themes and sub-themes that reflect the various historical trends and patterns of events associated with each context.[14]

Some parts of Los Angeles were surveyed concurrent with SurveyLA under the direction of the Community Redevelopment Agency (CRA) and were not reevaluated by SurveyLA.[15] The subject property at falls within the boundaries of the Hollywood Redevelopment Project Area (as described below) and therefore is located outside the area examined by SurveyLA during the field survey process.

5.5 Historic Significance and Integrity

Historic Significance

The definition of historic significance used by the California Office of Historic Preservation (OHP) in its administration of the California Register is based upon the definition used by the National Park Service for the National Register.

Historic significance is defined as the importance of a property to the history, architecture, archaeology, engineering, or culture of a community, state, or the nation.[16] It is achieved in several ways:

- Association with important events, activities or patterns
- Association with important persons
- Distinctive physical characteristics of design, construction, or form
- Potential to yield important information

[13] "Historic Context," SurveyLA: Los Angeles Historic Resources Survey, https://preservation.lacity.org/sites/default/files/SurveyLA_HistoricContextStatementOutline_July2018.pdf (accessed July 2018).
[14] "Los Angeles Historic Context Statement, Context Outline." SurveyLA: Los Angeles Historic Resources Survey. https://preservation.lacity.org/sites/default/files/SurveyLA_HistoricContextStatementOutline_July2018.pdf (accessed July 2018).
[15] "SurveyLA Findings and Reports," SurveyLA: Los Angeles Historic Resources Survey, https://preservation.lacity.org/surveyla-findings-and-reports (accessed July 2018).
[16] *National Register Bulletin 16A. How to Complete the National Register Registration Form.* Washington D.C.: National Park Service, U.S. Department of the Interior, 1997, p. 3.

A property may be significant individually or as part of a grouping of properties.

Historic Integrity

Historic integrity is the ability of a property to convey its significance and is defined as the "authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic period."[17] The National Park Service defines seven aspects of integrity: *location, design, setting, materials, workmanship, feeling,* and *association.* These qualities are defined as follows:

- *Location* is the place where the historic property was constructed or the place where the historic event took place.
- *Design* is the combination of elements that create the form, plan, space, structure, and style of a property.
- *Setting* is the physical environment of a historic property.
- *Materials* are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- *Workmanship* is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- *Feeling* is a property's expression of the aesthetic or historic sense of a particular period of time.
- *Association* is the direct link between an important historic event or person and a historic property.[18]

[17] Ibid., p. 3.
[18] *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation.* Washington D.C.: National Park Service, U.S. Department of Interior, 1995.

6.1 Site Development History

The Project Site contains a mixed-use commercial building at 3440-60 Wilshire Boulevard; a second commercial office building located to the rear of 3440-2460 Wilshire (address 3470 Wilshire Boulevard); and two parking structures. The entire complex was constructed between 1951 and 1967 by the Tishman Realty & Construction Company and was referred to when developed as "Tishman Plaza."

Prior to the construction of Tishman Plaza, the block bounded by Wilshire Boulevard, 7th Street, Irolo Street and Mariposa Street was largely undeveloped and for many years operated as a driving range.[19] According to the 1921 Sanborn Map, the driving range property was bordered to the west by residential parcels facing Irolo Street. Commercial billboards lined the Wilshire Boulevard frontage and two single-family homes were located at the southwest corner of Wilshire Boulevard and Irolo Street.

In 1950, most of the block, save for the residential properties facing Irolo Street, were acquired by Tishman Realty & Construction Company, Inc. Tishman Realty was founded in 1898 in New York City; the Wilshire Boulevard acquisition represented Tishman Realty's first development foray outside New York.[20]

Construction of an office complex of three identical 12-story office towers unified by a ground-level podium began in 1951 and was completed in 1952. Each tower was identified by separate addresses at 3440, 3450 and 3460 Wilshire Boulevard. The office complex was set back from Wilshire Boulevard behind a linear landscaped ground-level plaza. Tishman Realty located their Los Angeles offices on site.

The office complex was designed by acclaimed Los Angeles architect Claud Beelman in a stripped-down architectural style that incorporated the simple rectilinear geometry; concrete, steel and glass construction; and lack of decorative detailing associated with International Style architecture and its American post-WWII variant "Corporate Modern." It represents a very early example of Corporate Modern architecture in Los Angeles.

3440-60 Wilshire was purchased by Prudential Insurance Company of America in 1952 and leased back to Tishman for its continued operation. Between 1952 and 1954, the northwestern corner of the site was altered when Normandie Avenue was extended across Wilshire Boulevard curving west to join with Irolo Street.

[19] "What Happened on Wilshire Blvd.? A Firm Named Tishman Arrived," *Los Angeles Times*, April 9, 1967, O1.
[20] "Prudential Purchases All of Tishman Plaza," *Los Angeles Times*, September 16, 1973, J1.

Construction of two parking structures and an additional 11-story commercial office building, located south of 3440-60 Wilshire Boulevard, was completed in 1967.[21] The additional office building was designed by the powerhouse architecture and engineering firm of Charles Luckman & Associates in a Corporate Modern style. Although it was technically constructed south of Wilshire Boulevard along the Irolo Street frontage, the 12-story commercial building was assigned a 3470 Wilshire Boulevard address in keeping with the addressing system of the Tishman Plaza property. A triangular plaza with decorative fountain was constructed along the Irolo Street frontage between the new building and Wilshire Boulevard. A "promenade" with terra-cotta pavers and planters faced with ebony tile was also constructed on the south side of 3440-60 Wilshire to link the four commercial buildings and parking structures.[22]

Prudential Insurance had acquired the remaining Tishman land holdings and financed the Tishman Plaza expansion of the 1960s. In 1973, Prudential Insurance acquired all of Tishman's remaining interests in Tishman Plaza including long-term leaseholds and re-named the complex "Mid-Wilshire Plaza." At the time of the acquisition, the Los Angeles Times described the complex as "three 12-story buildings and an 11-story structure, a 2,200-car parking facility, and a pedestrian mall of retail shops and restaurants, all valued at $20 million."[23]

Since its completion in the late 1960s, there has been little change to the Tishman Plaza property save for alterations to the plaza landscaping, the addition of a canopy structure over the ground-floor level of 340-60 Wilshire Boulevard in the 1980s, storefront alterations at the ground-floor levels, interior alterations, and systems upgrades.

6.2 Tishman Realty & Construction Company

The Tishman Realty & Construction company was originally created in 1898 by Julius Tishman as "Julius Tishman & Sons." The Tishmans began their business by acquiring existing properties in New York City, refurbishing them and leasing them. Their success soon enabled the financing of new development as well. The company went public in 1928 as Tishman Realty & Construction, which developed, constructed and managed real estate.

Leadership of the firm was taken over by Julius Tishman's son David. David's son Robert Tishman later took leadership and oversaw the firm's rapid expansion beyond New York City after World War II. By the 1960s, the company had substantial

[21] "Prudential Purchases All of Tishman Plaza," *Los Angeles Times*, September 16, 1973, J1.
[22] "Promenade at Tishman Plaza Started," *Los Angeles Times*, December 31, 1967, H2.
[23] "Prudential Purchases All of Tishman Plaza," *Los Angeles Times*, September 16, 1973, J1.

operations in Los Angeles, Philadelphia, Chicago, San Francisco, St. Louis and Cleveland.[24]

The initial development of Tishman Plaza spurred major commercial development in the surrounding area along Wilshire Boulevard and the area became popularly referred to as "Wilshire Center." Since their initial acquisition of the Wilshire Boulevard property in 1950, Tishman Realty established a substantial presence in Los Angeles, developing additional commercial properties near Los Angeles International Airport, Westwood and Downtown Los Angeles as well as in Wilshire Center. After the full acquisition of Tishman Plaza by Prudential Insurance in 1973, Tishman Realty relocated their Los Angeles offices to their newly developed building at 10960 Wilshire Boulevard in Westwood.[25]

6.3 Architect Claud Beelman

3440-60 Wilshire Boulevard was designed by acclaimed Los Angeles architect Claud Beelman. 3440-60 Wilshire Boulevard is a notable early example of the Corporate Modern architectural style which would quickly become the dominant architectural style for commercial and institutional architecture of the mid-20th century.

Claud Beelman (1884-1963) was born and received his early education in Bellefontaine, Ohio. In 1905 he reportedly received the Harvard Scholarship awarded by the Architectural League of America, but other details of his education are unknown. After working in various cities of the Midwest from 1914-21, he came to Los Angeles and formed a partnership with Alexander Curlett, which continued until 1932. Beelman then established his own firm and continued to practice in the Los Angeles area until shortly before his death in the early 1960s.

Early in his career, Beelman designed buildings mainly in traditional revival styles. It wasn't until he began to work on his own that he would experiment and become proficient with more modern styles including Art Deco, Classical Moderne and Corporate Modern from the 1930s through the 1950s. Throughout his career, Beelman's works are significant for their high level of quality in design and materials. Over a thirty-five-year span, his buildings show how he was able not only to learn the lessons of each period and style he worked in, but also to excel within and make a significant contribution to each.[26]

[24] Sutherland, Henry, "What Happened on Wilshire Boulevard? A Firm Named Tishman Arrived," *Los Angeles Times*, April 9, 1967, O1.
[25] "Tishman Now Headquartered in Westwood," *Los Angeles Times*, March 10, 1974, G26.
[26] Historic Resources Group, *The Superior Oil Building: Historic Preservation Certification Part 1* February 7, 2001, 16

In 1928, although his partnership with Curlett had not yet ended, Beelman began to design major buildings on his own, including four major buildings in downtown Los Angeles between 1928 and 1930: the Garfield Building (1928-30) at 408 West Eighth Street; the Ninth and Broadway Building (1929); the Banker's Building (1930) at 629 South Hill Street; and the Eastern-Columbia Building (1930). These buildings established Beelman as a master of the Art Deco style.

After forming his own firm in 1932, Beelman's career continued to flourish. Notable buildings designed by Beelman during the 1930s include the Hollywood Wilcox Post Office (1937); the Thalberg Administration Building on the MGM Studios (now MGM/Sony) lot in Culver City (1938-39); and the redesign of the Los Angeles Philharmonic Hall on Pershing Square (1938); which has since been demolished. Each of these represent Beelman's shift from the more flamboyant, Art Deco style to the more restrained Moderne, which he would continue to use throughout the 1940s.

Between 1950 and his death in 1963, Beelman shifted to the more severe aesthetics of the Corporate Modern style. Major office buildings designed by Beelman include the Superior Oil Building (1953) and the United California Bank Tower (1957), both in downtown Los Angeles; and the Occidental Petroleum building in Westwood (1961). By this time all decoration had vanished although an emphasis on vertical piers and shafts echoes Beelman's 1930s forms.

Beelman remained professionally active until his death in 1963. For nearly fifty years he specialized in various modern styles that were currently fashionable while staying within the modern idiom.

6.4 Charles Luckman & Associates

3470 Wilshire Boulevard was designed by Charles Luckman & Associates in a Corporate Modern style that had become standard for commercial office buildings in the United States at the time of its construction in 1967. Architect Charles Luckman (1909-1999) is remembered not only as a visionary in the practice of architecture and construction but also for the extraordinary path he took to become one of Los Angeles' most famous architects.

Born in Kansas City, Luckman grew up wanting to become an architect, and trained at the University of Illinois where he was a member of Professional Engineering Fraternity Theta Tau. Unable to find architectural commissions during the Great Depression, Luckman entered sales at the Colgate-Palmolive-Peet Company (where his marketing techniques were credited with quadrupling profits) and he rapidly ascended the corporate ladder. Luckman became known as the "Boy Wonder of American Business," was featured on the cover of Time Magazine at age 27, and by age 33 he had become

the president of Pepsodent Toothpaste Company. Ultimately, when Lever Brothers acquired Pepsodent, Luckman became Lever's president.

Luckman helped plan Lever Brother' New York skyscraper, Lever House, one of the first sealed glass towers that began the curtain wall trend, and one of the first glass skyscrapers in Manhattan. Designed by the architectural firm of Skidmore, Owings and Merrill, the tower was completed in 1956 and remains a landmark of the International Style. This experience reminded Luckman of his passion for architecture, and he resigned the Lever presidency and moved to Los Angeles to start an architecture firm with fellow University of Illinois graduate William Pereira in 1950.

During his partnership with Pereira, Luckman told clients that he was the businessman while Pereira was the architect. Luckman was successful in bringing large-scale projects to the firm, including CBS' Television City in 1953. The firm became known for solving big architectural problems and addressed a series of unprecedented programmatic challenges. Luckman and Pereira spilt in 1958, and Luckman formed his own firm, Charles Luckman Associates. His new firm would design many notable structures in Los Angeles and around the country. "Luckman can look down and reflect that he, as much as anyone, has had a marked influence on this city's skyline."[27]

Some of Luckman's prominent Los Angeles-area buildings include 9200 Sunset Boulevard (Luckman Plaza) (1964), Century Park East Condominiums, Century City (1966), The Forum, Inglewood (1967) the Federal Building, West Los Angeles (1969), the Los Angeles Convention Center (1971) (now the West Hall), Aon Center, Los Angeles (1974) and the Arco Center Towers, Long Beach (1983). [28]

While Luckman asserted that his buildings did not conform to a single architectural style, architects credit Luckman for adhering closely to the functionalist creed of modern design. Luckman was also known in the architectural world for his unique approach of designing projects to suit the client's taste and needs rather than creating designs based only on the singular vision of the architect.

In addition to his architecture and business pursuits, Luckman has a notable record of public service and was the director of Freedom Train – part of President Truman's program for rebuilding Europe after World War II. In recognition for his work, Luckman was awarded France's Legion of Honor, England's Order of St. John and Italy's

[27] "About the Architect," *Los Angeles Times*, July 11, 1971.
[28] Additional projects listed in the Charles Luckman Chronology below.

Star of Solidarity. An active supporter of public service, Luckman served on the California State Board of Trustees from 1960-1982 and chaired the board twice.

In Los Angeles, Luckman was the chairman of the board of councilors at the Brain Research Institute at UCLA and president of the Los Angeles Ballet. In 1994, Luckman dedicated the Charles and Harriet Luckman Fine Arts Complex at California State University in East Lost Angeles, established with a donation of $2.1 million. Luckman also penned a detailed autobiography of his life and accomplishments at the age of 79: Twice in a Lifetime -- From Soap to Skyscrapers. Luckman passed away in Los Angeles in 1999.

6.5 Corporate International Architecture

The two commercial buildings located on the Project Site are examples of the "Corporate Modern" architectural style, also commonly referred to as "Corporate International." The Corporate International style is a post-World War II architectural esthetic that developed out of pre-war European Modernism which emerged in the 1920s with the architectural work of Le Corbusier in France, and Walter Gropius and Ludwig Mies van der Rohe in Germany. These architects, along with others in Austria and the Netherlands, codified a uniquely 20th century philosophy that stressed rationality, logic, and a break from western architectural traditions.

The United States became a stronghold of Modern architecture after the emigration of Gropius, Mies van der Rohe, and Marcel Breuer. Two Austrian emigrants, Richard Neutra and Rudolph Schindler, helped introduce modern architecture to Southern California in the 1920s. Their buildings were minimalist in concept, stressed functionalism, and were devoid of regional characteristics and nonessential decorative elements. In 1932, the Museum of Modern Art hosted an exhibit, titled simply "Modern Architecture," that featured the work of fifteen architects from around the world whose buildings shared a stark simplicity and rigorous functionalism. The term "International Style" was coined by Henry Russell Hitchcock and Philip Johnson to describe the emerging architectural style in their exhibit catalog.

The early impact of the International Style in the United States was primarily in the fields of residential and small-scale commercial design. The economic downturn of the Depression, followed by World War II, resulted in little architectural development during this period. It was not until the postwar period that Americans embraced Modernism, and its full impact on the architectural landscape is observed. Two trends emerged after World War II. The first emphasized the expression of the building's function, following the early work of Walter Gropius, who created innovative designs that borrowed materials and methods of construction from industrial technology. He

advocated for industrialized building and an acceptance of standardization and prefabrication. Gropius introduced a screen wall system that utilized a structural steel frame to support the floors and which allowed the external glass walls to continue without interruption.

The second postwar trend in the International Style is represented by Mies van der Rohe and his followers. Within the Miesian tradition there are three subtypes: the glass and steel pavilion, modeled on Mies' design for the Barcelona Pavilion (1929); the skyscraper with an all-glass curtain wall like his Seagram Building (1954) in New York City; and the modular office building like his design for Crown Hall (1955) at the Illinois Institute of Technology (IIT). While "form follows function" was the mantra of Gropius, "less is more" was the aphorism of Mies. He focused his efforts on the idea of enclosing open and adaptable "universal" spaces with clearly arranged structural frameworks, featuring pre-manufactured steel frames spanned with large sheets of glass.

Corporate International drew from International Style and Miesian precedents, celebrating an expression of structure and functionality in outward appearance. Embraced whole-heartedly in postwar Los Angeles, Corporate International was the predominant style of large-scale corporate office buildings from the late 1940s until the late 1960s. Practitioners of the style embraced new construction techniques which allowed for large expanses of glass, visually broken by strong horizontal or vertical divisions of steel or concrete.

6.6 Associated SurveyLA Themes and Eligibility Standards

SurveyLA, the Los Angeles Historic Resources Survey has developed a Historic Context Statement (HCS) that provides a framework for evaluating potential historic resources in the City of Los Angeles. The SurveyLA HCS is organized into nine broad historical contexts, which are specific to Los Angeles and focus on the development of the City during the period dating from 1780 to 1980, and further subdivided into themes and sub-themes that reflect the various historical trends and patterns of events associated with each context.[29]

The Project Site was developed between 1951 and 1967 with commercial office buildings and associated parking with buildings designed in a Corporate International architectural style. Corporate office buildings from the mid-20th century have been identified in the SurveyLA HCS as a potentially significant property type for their association with post-World War II commercial development in Los Angeles.

[29] "Los Angeles Historic Context Statement, Context Outline," SurveyLA: Los Angeles Historic Resources Survey, https://preservation.lacity.org/sites/default/files/SurveyLA_HistoricContextStatementOutline_July2018.pdf (accessed July 2018).

Additionally, examples of Corporate International architecture have been identified in the SurveyLA HCS as potentially a significant for their association with Modernist architectural design in Los Angeles. As a result, the following SurveyLA contexts and themes have been identified for their association with the history and development of the Project Site.

Context: Commercial Development 1850-1980
Theme: The Rise of Corporations and Corporate Types
Sub Theme: High-Rise Corporate Office Buildings,1945-1975

Eligibility Standards:

- Developed during the period of significance
- Designed to house a major corporation as a national or regional headquarters

Character Defining/Associative Features:

- Retains most of the essential character-defining features of the type from the period of significance
- Large-scale building mass (50,000 square feet and larger) and tall enough to stand out in its setting
- Parking incorporated into the complex, either subterranean or a separate adjacent structure or lot
- Public areas such has lobbies, restaurants, and retails shops
- May be significant as a type for its association with a corporation
- Exemplifies a L.A. Modernism theme within the Architecture and Engineering context and the work of noted architects/designers
- Associated corporation/developer may be significant in the commercial history of Los Angeles.

Context: Architecture and Engineering 1850-1980
Sub Context: L.A. Modernism 1919-1980
Theme: Post-War Modernism, 1946-1976
Sub Theme: Corporate International,1945-1975

Eligibility Standards:

- Was constructed during the period of significance

- Retains the essential character defining features of Corporate Modernism from the period of significance
- Exhibits quality of design through distinctive features

Character-Defining/Associative Features:

- Box-shaped form
- Constructed of concrete, steel and glass
- Flat roofs, either with flush eaves or cantilevered slabs
- Horizontal bands of flush, metal-framed windows, or curtain walls
- Lack of applied ornament
- Articulated ground story, often double-height and set back behind columns or pilotis
- Integral parking lot, either subterranean or above grade
- Landscaped plaza or integral plantings at ground floor
- Original use may have changed
- Citywide, with concentrations in Downtown, Wilshire Corridor, Century City, and communities largely developed in the post-World War II era, such as those in the South Bay (Playa del Rey, Westchester) and the San Fernando Valley.
- Retains the essential character defining features of Corporate Modernism from the period of significance

Properties located within the Project Site boundary and immediately adjacent to the Project Site, are examined in the following analysis for the purposes of identifying potential historical resources.

The Project Site and immediately surrounding area were most recently subject to intensive historic resources survey in 2009 by PCR Services Inc. for the Los Angeles Community Redevelopment Agency (CRA).[30] The 2009 survey findings are used as a baseline for this investigation.

7.1 Previously Identified Historic Resources on the Project Site

3440-3460 Wilshire Boulevard

3440-60 Wilshire Boulevard was constructed by the Tishman Realty and Construction Company in 1952. It was designed by celebrated Los Angeles architect Claud Beelman in the Corporate Modern style, it is one of the earliest examples of post-World War II Corporate Modern architecture in Los Angeles.

Set behind a flat, landscaped plaza fronting Wilshire Boulevard, the building is a tripartite composition of three identical 12-story office towers aligned horizontally above a shared podium base. The ground-floor features recessed, glazed storefronts and building entries. Building facades are clad in sections of cast-stone panels and contrasting curtain walls consisting of horizontal bands of flush metal-framed windows alternating with horizontal bands of dark spandrel glass.

3440-60 Wilshire Boulevard, was found eligible for listing in the National Register through survey evaluation in 2009.[31] The building was found eligible as an excellent example of early Corporate Modern architecture and as a representative work of master Los Angeles architect Claud Beelman. It is treated herein as a historical resource for the purposes of CEQA.

Since its original construction, the ground floor has been altered with an added canopy and projecting entry pavilions. The front plaza has also been redesigned. Despite these alterations, the majority of the building remains intact and retains sufficient integrity to convey its historic significance.

[30] *Intensive Historic Resources Survey of the Wilshire Center and Koreatown Recovery Redevelopment Area*, 2009
[31] The 2009 Wilshire Center and Koreatown Recovery Redevelopment Area CRA Intensive Historic Resources Survey assigned a status code of 3S or "Appears eligible for NR as an individual property through survey evaluation."

3470 Wilshire Boulevard

3470 Wilshire Boulevard opened on April 1, 1967.[32] It was constructed as part of the 1960s expansion of Tishman Plaza which also included the construction of two parking structures.

3470 Wilshire Boulevard was designed in a Corporate International style by the Los Angeles firm of Charles Luckman & Associates. The 11-story steel and concrete building is rectangular in plan with a flat roof. It consists of a rectangular office tower set above a recessed ground-floor. Tower facades are articulated with vertical concrete piers separating curtain wall expanses of alternating bands of windows and spandrel glass. Set back from Wilshire Boulevard, the building is located to the rear of 3440-60 Wilshire Boulevard on a small diagonal extension of Normandie Avenue to Irolo Street. A triangular plaza with a fountain extends from the street north of the building.

3470 Wilshire Boulevard was not identified as eligible for historic listing in the 2009 CRA Historic Resources Survey for Wilshire Center and Koreatown and has otherwise not been previously identified as historically significant. It is evaluated below using the relevant SurveyLA contexts, themes and eligibility standards identified in Section 6.6 of this report.

Context: Commercial Development 1850-1980
Theme: The Rise of Corporations and Corporate Types
Sub Theme: High-Rise Corporate Office Buildings,1945-1975

Eligibility Standards:

- *Developed during the period of significance*
- *Designed to house a major corporation as a national or regional headquarters*

Developed in 1967, 3470 Wilshire Boulevard was constructed during the period of significance established under the High-Rise Corporate Office Buildings sub-theme. No evidence was uncovered to suggest that it was specifically designed to house a major corporation as a national or regional headquarters. Instead, 3470 Wilshire Boulevard was constructed as infill to expand leasable space at Tishman Plaza and has hosted multiple tenants throughout its operation. Therefore, 3470 Wilshire Boulevard does not

[32] "What Happened on Wilshire Blvd.? A Firm Named Tishman Arrived," *Los Angeles Times*, April 9, 1967, O1. The Certificate of Occupancy was issued on June 14, 1967.

meet the eligibility standards established by SurveyLA under the High Rise Corporate Office Buildings sub-theme.

Context: Architecture and Engineering 1850-1980
Sub Context: L.A. Modernism 1919-1980
Theme: Post-War Modernism, 1946-1976
Sub Theme: Corporate International,1945-1975

Eligibility Standards:

- Was constructed during the period of significance
- Retains the essential character defining features of Corporate Modernism from the period of significance
- Exhibits quality of design through distinctive features

Developed in 1967, 3470 Wilshire Boulevard was constructed during the period of significance. It has also retained the essential character-defining features of the Corporate International style including a rectangular, box-shaped form; steel, glass and concrete construction; curtain walls; and a ground floor set back behind pilotis.

The building, however, does not appear to be an excellent or particularly distinguished example of the Corporate International style and does not exhibit a high-quality design through distinctive features. A simple composition of curtain walls separated by symmetrically arranged vertical concrete piers, 3470 Wilshire Boulevard appears to have been designed in deference to the existing 1952 Claud Beelman building using a standard design template.

Although Charles Luckman is undoubtedly a significant person and his firm made a significant contribution to Los Angeles' built environment, he is primarily characterized as a businessman more than an architect. William Pereira ultimately ended their partnership because he did not approve of Luckman's determination to expand the firm, and felt that architecture could not be "managed in a bureaucratic fashion, but should be rendered with craft by the architect."[33] When their partnership ended in 1958, William Pereira stated, "It is my conviction that I should limit the number of projects which my associates and I hope to undertake to those which we can contribute the most and which we can follow through personally from beginning to end."[34]

33 Rubin, Elihu James. *Insuring the City: The Prudential Center and the Reshaping of Boston,"* Dissertation, University of California, Berkeley, 2004. (256)
34 Rubin. (257)

In a 1954 interview with *New Yorker* magazine, Luckman reinforced the idea of architect as businessman:

I am firm in my belief that architecture is a business, and not an art. . . . I handle the programming of a job. I organize it. What is the problem? What is the client trying to achieve? If we do a project that is mostly engineering, I staff it with engineers. If it is mostly architectural, I staff it with architects.[35]

In 1962, *Time Magazine* ran a profile of Luckman that took this one step further, and included criticism from other architects: "'He is successful,' says one top Chicago architect coolly, 'because he produces anonymous architecture in a prescribed time and at the least cost and fuss to his clients.'"[36] The *Time* article referred to his architecture as "mass production, coming off the assembly lines." A 1968 *Business Week* article declared that Luckman "sold architecture the way he sold soap: in bulk."[37] Luckman ultimately became known in the architectural world for designing projects to suit the client's taste and needs rather than creating designs based on the singular vision of the architect.

Given the context of Los Angeles where Corporate International architecture proliferated during the 1950s and 60s, 3470 Wilshire Boulevard does not appear to be a particularly notable example of the Corporate International style. Outside of its architectural associations, no other important historic associations have been uncovered. For these reasons, the building does not appear eligible for listing as a historic resource and is not treated here as a historical resource for the purposes of CEQA.

7.3 Previously Identified Historic Resources Located Adjacent to the Project Site

682 Irolo Street (Piccadilly Apartments)

Located at the southwest edge of the Project Site at 682 Irolo Street, the Piccadilly Apartments building is an eight-story, multi-family residential building constructed in 1929. It was designed by architect Milton Friedman in a Chateauesque architectural style. The building is H-shaped in plan, with deep light wells on the north and south facades. The primary, west-facing façade features a central, projecting eight-story volume with pyramidal roof, roof towers, balconies, quoins and a recessed, tripartite arched entry.

The Piccadilly Apartments have been found eligible for listing in the National Register through survey evaluation in 2009. The majority of the building's original features

35 "Repeat Performance," *New Yorker*, August 28, 1954. (16)
36 "Corporations: The Second Time Around," *Time*, March 30, 1962.
37 "He Sells Architecture the Way He Sold Soap," *Business Week*, October 28, 1967. (78)

appear to remain intact and the building retains sufficient integrity to convey its historic significance. The building is treated as a historical resource herein for the purposes of CEQA.[38]

Normandie-Mariposa Apartment Historic District

The Normandie-Mariposa Apartment Historic District is a grouping of apartment buildings occupying both sides of Normandie Avenue and Mariposa Avenue between 7th Street and 8th Street, immediately south of the Project Site. In 1994, the Normandie-Mariposa Apartment Historic District was determined eligible for the National Register by consensus through Section 106 process, and is therefore listed in the California Register.[39]

The historic district contains twenty-one contributing apartment buildings constructed between 1920 and 1931. The majority of the historic district's contributing buildings appear to remain intact and the historic district retains sufficient integrity to convey its historic significance. Because it is listed in the California Register, the historic district is considered a historical resource for the purposes of CEQA.

3424 Wilshire Boulevard (IBM Building)

3424 Wilshire Boulevard was constructed in 1958 for IBM. It was designed by the Los Angeles architectural firm of Pereira & Luckman in a Corporate Modern style. The building is rectangular in plan with a flat roof and is composed of an office tower on pilotis set above a ground-floor podium with recessed entry. The tower facades feature glass curtain walls composed of alternating horizontal bands of windows and spandrel panels behind a projecting metal-frame grid. The ground-floor podium has been altered with new cladding and canopy structures.

In 2009, the building was found eligible for listing in the California Register through survey evaluation.[40] It is treated here as a historical resource for the purposes of CEQA.

Since its original construction, the ground floor has been altered with new cladding and the enclosure of outdoor terraces above the podium level. The front plaza has also been altered. Despite these alterations, the majority of the building remains intact and retains sufficient integrity to convey its historic significance.

[38] The 2009 Wilshire Center and Koreatown Recovery Redevelopment Area CRA Intensive Historic Resources Survey assigned a status code of 3S or "Appears eligible for NR as an individual property through survey evaluation."
[39] California State Historic Resources Inventory, 2011.
[40] The 2009 Wilshire Center and Koreatown Recovery Redevelopment Area CRA Intensive Historic Resources Survey assigned a status code of 3CS or "Appears eligible for CR as an individual property through survey evaluation."

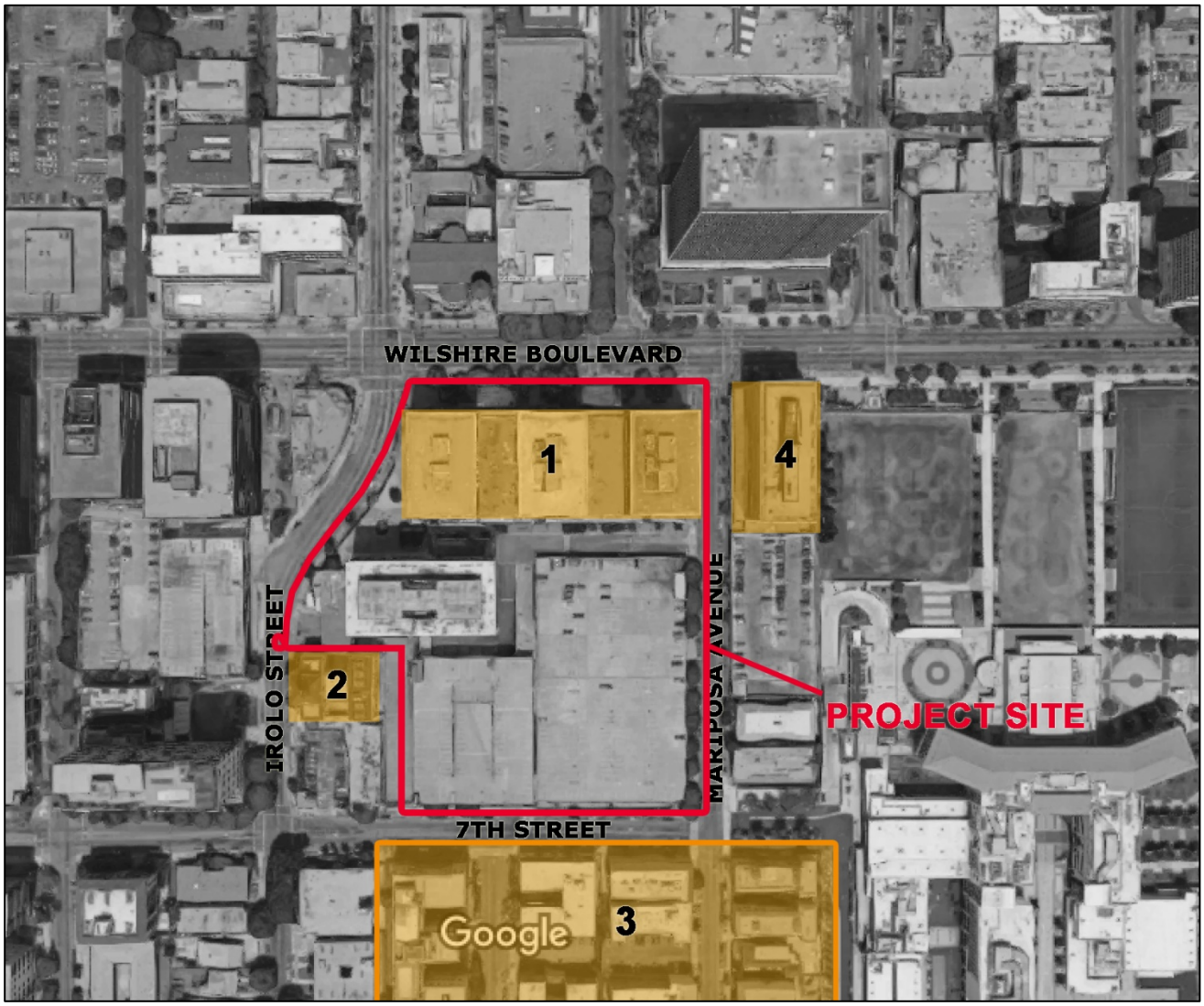
7.4 Summary of Historic Resources

The Project Site contains one individual property that is considered an historical resource under CEQA. Two additional individual properties and one historic district adjacent to the Project Site are also considered historical resources. These properties are listed in Table 1 below along with their status as historic resources. A map in Figure 2 shows their locations.

Table 1: Historic Resources Within and Adjacent to the Project Site

Map Number	Resource	Date Built	Address	Current Status / Notes
Resources Located Within the Project Site				
1	Commercial Office Building	1952	3440-60 Wilshire Blvd.	Appears eligible for listing in the NR as an individual property through survey evaluation. (Status Code 3S)
Resources Adjacent to the Project Site				
2	Piccadilly Apartments	1929	682 Irolo Street	Appears eligible for listing in the NR as an individual property through survey evaluation. (Status Code 3S)
3	Normandie-Mariposa Multi-family Residential Historic District	1910	Both sides of Normandie Avenue and Mariposa Avenue between 7th Street and 8th Street.	Historic district determined eligible for NR by consensus through Section 106 process. Listed in the CR. (All contributing properties carry a status code of 2D2)
4	IBM Building	1958	3424-30 Wilshire Blvd.	Appears eligible for CR as an individual property through survey evaluation. (Status Code 3CS)

Figure 2: Site Map with Historic Resources Highlighted



8.1 Significance Threshold

CEQA Guidelines, including Appendix G of the Guidelines, state that a project with an effect that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment.[41] A substantial adverse change in the significance of a historic resource means demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.[42]

The Guidelines go on to state that "[t]he significance of an historical resource is materially impaired when a project… [d]emolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources… local register of historic resources… or its identification in a historic resources survey meeting the requirements of section 5014.1(g) of the Public Resources Code….".".[43] As such, the test for determining whether or not a proposed project will have a significant impact on an identified historical resource is whether or not the project will alter in an adverse manner the physical integrity of the historical resource such that it would no longer be eligible for listing in the National or California Registers or local designation as a City of Los Angeles Historical-Cultural Monument.

Although the City of Los Angeles has determined to use the State CEQA Guidelines and the questions in Appendix G of the guidelines as its thresholds of significance, the following factors from the 2006 LA CEQA Thresholds Guide are used by the City where applicable and relevant to assist in analyzing what constitutes a substantial adverse change in a historical resource:

- Demolition of a significant resource;
- Relocation that does not maintain the integrity and (historical/architectural) significance of a significant resource;
- Conversion, rehabilitation, or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings; or

41 *CEQA Guidelines,* section 15064.5(b).
42 *CEQA Guidelines,* section 15064.5(b) (1).
43 *CEQA Guidelines,* section 15064.5(b)(2).

- Construction that reduces the integrity or significance of important resources on the site or in the vicinity.

8.2 Potential Impacts to Historic Resources on the Project Site

The Project proposes substantial new construction to be located south of and immediately adjacent to 3440-60 Wilshire Boulevard which is considered a historic resource for the purposes of CEQA. The project would add one commercial kiosk along South Irolo Street and one along S. Mariposa Ave., and construct a 23-story mixed-use building and a 28-story mixed-use building on top of a four-story podium.

The project would require demolishing an existing three-story parking structure. The existing three-story parking structure was constructed in 1967-68 and is not considered a historical resource for the purposes of CEQA. No other existing buildings, including 3440-60 Wilshire Boulevard, will be demolished or altered by the Project.

The proposed new construction will alter the immediate surroundings of 3440-60 Wilshire Boulevard by inserting new buildings in an area currently occupied by a parking structure and the insertion of two commercial kiosks. As noted above, CEQA defines "substantial adverse change" as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." The significance of an historical resource is materially impaired when a project "demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, the California Register of Historical Resources…or a local register of historical resources." For the new construction associated with the Project to be considered a substantial adverse change, it must be shown that the integrity and/or significance of the 3440-60 Wilshire Boulevard would be materially impaired by the proposed adjacent new construction.

The proposed new buildings will be located at the rear and to the east of the Project Site where it will not interfere with or detract from any public view of the primary northern façade of 3440-60 Wilshire Boulevard, or the building's east-facing and west-facing facades. Set behind a landscaped plaza, 3440-60 Wilshire Boulevard was designed with an orientation towards Wilshire Boulevard and it is from Wilshire Boulevard where the building's original massing, configuration and its important architectural features are best perceived and experienced. Similarly, the east- and west-facing facades are primarily experienced from Irolo Street and Mariposa Avenue where they intersect with Wilshire Boulevard.

The proposed new towers will be over twice the height of 3440-60 Wilshire Boulevard but the disparity in scale alone does not constitute a significant impact as defined by

CEQA. Again, the threshold of "substantial adverse change" is the determining factor when analyzing potential impacts. Because they will be over twice the height of 3440-60 Wilshire Boulevard, the proposed new towers will intermittently block views to 3440-60 Wilshire Boulevard from the south. Although a secondary, rear façade, the south-facing façade of 3440-60 Wilshire Boulevard continues the stone cladding and glass curtain wall treatment of the three other facades. Even so, much of the 3440-60 Wilshire Boulevard rear southern facade will remain visible from several vantages due to the siting of the proposed new construction to the southern and eastern portions of the Project Site.

As discussed in Section 3.3 of this report, the ability of a historical resource to convey its significance is called historic *integrity*. Historic integrity is defined as the "authenticity of a property's historic identity, evidenced by the survival of physical characteristics that existed during the property's historic period."[44] The National Park Service identifies seven aspects of integrity: *location*, *design*, *setting*, *materials*, *workmanship*, *feeling*, and *association*.

The Project will not involve any relocation, demolition or alteration of 3440-60 Wilshire Boulevard. Therefore, new construction associated with the Project will not affect integrity of *location*, *design*, *materials*, *workmanship*, *feeling* or *association*. All the existing physical elements will continue to convey the historic significance of the property after implementation of the Project.

The Project will insert substantial new construction on what is currently structured parking which will affect integrity of *setting*. According to National Park Service guidance, "to retain historic integrity a property will always possess several, and usually most, of the (seven) aspects" of integrity.[45] After implementation of the Project, all but one of the relevant aspects of integrity for 3440-60 Wilshire Boulevard will be unaffected and, therefore, its historic integrity will be retained. Despite some alteration to its surroundings, 3440-60 Wilshire Boulevard will continue to convey its historic significance after Project construction and will not be materially impaired. The original configuration and orientation of the building will remain discernible after construction and the primary north-facing facade will remain unobstructed.

[44] *National Register Bulletin 16A. How to Complete the National Register Registration Form*. Washington D.C.: National Park Service, U.S. Department of the Interior, 1997. (3)
[45] *National Register Bulletin 15*, 44.

For these reasons, the significance and integrity of the 3440-60 Wilshire Boulevard will remain intact and the building will retain its eligibility for listing in the National Register of Historic Places and the California Register of Historical Resources.

8.3 Potential Impacts to Historic Resources Adjacent to the Project Site

The Project will construct two new high-rise buildings on a site currently occupied by three-story parking structure. The addition of this new buildings will alter the surroundings of adjacent and nearby historic resources. Any alteration of the surroundings of nearby historical resources that adversely affect the integrity of those historical resources can potentially constitute a substantial adverse change in that resource. An analysis of the alteration to the immediate surroundings of each of the potentially affected historical resources using the seven aspects of historic integrity is provided below.

682 Irolo Street (Piccadilly Apartments)

As noted in Section 5.0 of this report, the Piccadilly Apartments at 682 Irolo Street has been identified as eligible for listing in the National Register through survey evaluation and is treated here as an historical resource for the purposes of CEQA. The Piccadilly Apartments is located adjacent to the Project Site at the southwest corner of the Project Site facing Irolo Street.

The proposed new towers will be substantially larger than the Piccadilly Apartments but, again, the disparity in scale alone does not constitute a significant impact as defined by CEQA. The proposed new buildings will be located at the eastern portion of the Project Site, separated from the Piccadilly Apartments by an existing five-story parking structure. At this location, the proposed new construction will not interfere with or detract from any public view of the primary west-facing façade of the Piccadilly Apartments. The Piccadilly Apartment building was designed with an orientation towards Irolo Street and it is from Irolo Street where the building's original massing, configuration and its important architectural features are perceived and experienced. In contrast, the north-, south- and west-facing facades are treated in a much simpler and utilitarian manner, largely devoid of articulation and architectural detailing. The north-, south- and west-facing facades are clearly secondary, and were designed in anticipation of possible new construction on the adjacent parcels. Even so, the majority of the Piccadilly Apartments' secondary facades will also remain largely visible from most vantage points due to the new commercial buildings to the southern and eastern portions of the Project Site.

The Project will not physically impact the Piccadilly Apartments building in any way. The immediate surroundings of the Piccadilly Apartments will not be significantly altered by the proposed Project given the distance between it and the new construction.

The Project will not affect the integrity of *location*, *design*, *materials*, *workmanship*, *feeling*, *association*, or *setting* of the Piccadilly Apartments.

After Project construction, the Piccadilly Apartments will remain unchanged and the building will continue to convey its historic significance. Therefore, the Project will not adversely affect the Piccadilly Apartments in a manner that would materially impair its significance as a historical resource.

Normandie-Mariposa Multi-Family Residential Historic District
(Normandie Avenue and Mariposa Avenue between 7th Street and 8th Street)

As noted in Section 5.0 of this report, a grouping of early 20th century apartment buildings located on Normandie Avenue and Mariposa Avenue between 7th Street and 8th Street was previously identified as a historic district determined eligible for listing in the National Register through Section 106 process and is listed in the California Register. The historic district is considered an historical resource for the purposes of CEQA.

The historic district is significant as a physical document of the explosive population growth in Los Angeles during the 1920s, and reflects the increased density of residential neighborhoods to meet demand for housing during that time. The District contains an unusually intact collection of multi-story apartment buildings typical of the 1920s. The historic district is located south of the Project Site across 7th Street. New construction associated with the Project will be substantially larger than the contributing buildings to the historic district which are all between four and six stories in height. This disparity in scale alone, however, does not constitute a significant impact as defined by CEQA.

The Project, would not affect the integrity of *location, design, materials, or workmanship* of any District contributors. All the contributing buildings would remain intact in their current locations, and would not be materially altered by the Project. Therefore, integrity of *feeling* would also remain unaffected because all the existing physical elements that characterize the historic district would continue to convey the district's historic significance after construction of the Project.

Because the district would retain integrity of *location, design, materials, workmanship*, and *feeling*, it would continue to reflect the development of multi-family housing in Los Angeles during the 1920s. Therefore, integrity of *association* would also remain unaffected by the Project.

The only aspect of the district's integrity that is potentially affected by the Project is *setting*. Because the Project will add substantial mass and height to an area currently

occupied by a three-story parking structure, the Project will change the physical environment immediately north of the historic district.

The area surrounding the historic district has been substantially altered since original construction of the historic district contributing buildings, particularly to the north toward Wilshire Boulevard, through successive demolitions and new construction. The historic district, largely constructed in the 1920s, pre-dates by decades the existing development on the Project site, which was developed during the 1950s and 60s. Alteration to the north of the historic significance has been the existing condition since the mid-20th century. The blocks adjoining Wilshire Boulevard have largely contained a mix of uses, including commercial uses, since the second decade of the 20th century and although individual buildings have changed, the mix of uses has remained.

The Project would be constructed north of and outside the historic district, and would not materially alter any district contributor, or the configuration and spatial relationships that characterize the historic district. Ultimately, the district is best understood from within its boundaries where the collection of 1920s apartment building can be directly experienced and understood. Thus, after construction of the Project the historic district's contributors will remain unaltered and fully discernible, and collectively will continue to convey their association with early 20th century residential development in Los Angeles.

According to National Park Service guidance, "to retain historic integrity a property will always possess several, and usually most, of the (seven) aspects" of integrity.[46] After the Project is constructed the historic district will fully retain integrity of *location, design, materials, workmanship*, *feeling* and *association*. Integrity of *setting* would be partially altered by the Project.

Therefore, all but one of the relevant aspects of integrity will be unaffected by the Project, so that the historic integrity of the historic district will be retained. While the Project will partially alter the setting of the district, this alteration will not materially impair the district such that it can no longer convey its historic significance. After construction of the Project, the historic district will remain intact, and eligible for historic designation. Therefore, the Project will not result in a significant impact to the Normandie-Mariposa Multi-Family Residential Historic District.

[46] *National Register Bulletin 15*, 44.

3424-30 Wilshire Boulevard (IBM Building)

As noted in Section 5.0 of this report, the IBM Building at 3424-30 Wilshire Boulevard has been previously found eligible for listing in the California Register through survey evaluation and is treated here as an historical resource for the purposes of CEQA.

The Project will not involve relocation, demolition or alteration of the IBM Building; therefore, the Project will not affect integrity of *location, design, materials, workmanship, feeling or association*. All the contributing buildings will continue to convey the historic significance of the historic district after implementation of the Project. The only aspect of integrity that is potentially relevant here is *setting.*

The property is located on the southeast corner of Wilshire Boulevard and Mariposa Avenue, separated from the Project Site by Mariposa Avenue. Located north and east of the proposed new construction associated with the Project, the immediate surroundings of the property will not be significantly altered by the proposed Project given the distance between the two properties. The Project will not substantially affect integrity of *setting* of the IBM Building.

After Project construction, the IBM Building will remain unchanged and the building will continue to convey its historic significance. Therefore, the Project will not adversely affect the IBM Building in a manner that would materially impair its significance as a historical resource.

8.4 Analytical Summary

Analysis of potential impacts to historical resources reveals that the Project will alter the setting and surroundings of historical resources located on the Project Site and in the near vicinity, but that the alteration will not substantially reduce the integrity or significance of those resources.

1. Would the Project involve the demolition of a significant resource?

The Project does not propose the demolition of any significant resources on the Project Site or in the surrounding area.

2. Would the Project involve relocation that does not maintain the integrity of a significant resource?

The Project does not involve the relocation of any significant resources on the Project Site or in the surrounding area.

3. Would the Project involve conversion, rehabilitation or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings?

The Project does not include conversion, rehabilitation or alteration of any significant resource located on the Project Site or in the near vicinity of the Project Site.

4. Would the Project involve construction that reduces the integrity or significance of important resources on the site or in the vicinity?

The Project does not include construction that reduces the integrity or significance of important resources on the site or in the vicinity.

8.5 Conclusions

Analysis of the potential impacts to historical resources has found that the proposed Project will insert substantial new construction on land that was currently occupied by a three-story parking structure. The proposed new construction, however, will not result in substantial adverse changes that reduces the integrity or significance of historic resources either adjacent to or in the near vicinity of the Project Site.

2018 California Environmental Quality Act (CEQA) Statute and Guidelines; California Association of Environmental Professionals, www.califaep.org

California Public Resources Code, (Sections 21000-21177).

California Code of Regulations, (Title 14, Division 6, Chapter 3, Sections 15000-15387).

City of Los Angeles Building Permits. Department of Building and Safety.

City of Los Angeles Office of Historic Resources; http://www.preservation.lacity.org

Code of Federal Regulations, (Title 36, Part 60).

Community Redevelopment Agency. "Intensive Historic Resources Survey of the Wilshire Center and Koreatown Recovery Redevelopment Area." Los Angeles: Community Redevelopment Agency, City of Los Angeles. Prepared by PCR Services Corporation. June 2009.

"Historic Resources Inventory." California State Office of Historic Preservation, August 2011.

Hevesi, Dennis, "Robert Tishman, Real Estate Developer, Dies at 94," New York Times, October 12, 2010.

"Los Angeles Historic Context Statement, Context Outline." SurveyLA: Los Angeles Historic Resources Survey. https://preservation.lacity.org/sites/default/files/SurveyLA_HistoricContextStatementOutline_July2018.pdf

Los Angeles Times. ProQuest Historical Newspapers: Los Angeles Times (1881-1990).

National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation. Washington D.C.: National Park Service, U.S. Department of Interior, 1995.

National Register Bulletin 16A: How to Complete the National Register Registration Form. Washington D.C.: National Park Service, U.S. Department of the Interior, 1997.

Sanborn Fire Insurance Maps for Los Angeles.

SurveyLA. "Historic Resources Survey Report: Westlake Community Plan Area." Los Angeles: Department of City Planning, Office of Historic Resources. Prepared by Historic Resources Group, April 2014.

Tishman company website, http://www.tishman.com/company/index.html

Tishman Speyer company website, http://www.tishmanspeyer.com/firm/history

3440-60 Wilshire Boulevard
Primary (north) façade looking southeast from Wilshire Boulevard.

3440-60 Wilshire Boulevard
South façade at right looking west from Mariposa Boulevard.

3440-60 Wilshire Boulevard
Primary (north) façade looking southwest from Wilshire Boulevard.

3470 Wilshire Boulevard
Primary (north) façade looking south from Wilshire Boulevard.

Project Site
Looking northeast from corner of Mariposa Avenue and 7th Street. Parking structure in foreground.

Project Site
Looking northeast from 7th Street. Parking structure in foreground.

682 Irolo Street (Piccadilly Apartments)
Primary (west) façade looking southwest from Irolo St.

3424-30 Wilshire Boulevard (IBM Building)
East façade at looking west from Wilshire Boulevard.

Normandie-Mariposa Multi-Family Residential Historic District
Looking east on 7th Street.

Normandie-Mariposa Multi-Family Residential Historic District
Looking to Normandie Avenue from 7th Street.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S
Other Listings _____
Review Code _____ Reviewer _____ Date _____

*Resource Name or #: (Assigned by recorder) 3440 WILSHIRE BLVD

P1. Other Identifier: Tishman Plaza

*P2. Location: ___ Not for Publication X Unrestricted *a. County Los Angeles County

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Hollywood Date: 1996

c. Address: 3440 WILSHIRE BLVD City: LOS ANGELES Zip: 90010

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: _____

APN:5094002011

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

A) Property Type: commercial **B) Setting (general):** commercial block, on major thoroughfare **C) General characteristics. Architectural Style** Modern, elements of **Plan:** irregular **No. of vertical divisions:** 3 **No. Stories:** 12, 3 buildings **Siding/Sheathing:** poured concrete: painted, All Visible , Glass curtain wall **Roof:** flat, parapet **Construction:** steel frame **D) Specific features. Fenestration:** aluminum, fixed, front, side, rear **Secondary Entrance:** storefront **G) Alterations or changes to the property. Retains integrity:** high, setting, location, association, design, feelin **I) Related:** Commercial storefronts occupy space between the three buildings

*P3b. Resource Attributes: (List attributes and codes) HP07

*P4. Resources Present: X Building ___ Structure ___ Object ___ Site ___ District X Element of District ___ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of photo: (View, data, accession #)

View to the Southwest, 09/03/08

***P6. Date Constructed/Age and Sources:** X Historic

___ Prehistoric ___ Both

1952

Permit

***P7. Owner and Address:**

CENTRAL PLAZA LLC
3450 WILSHIRE BLVD (# 420)
LOS ANGELES, CA 90010

***P8. Recorded by:**

Amanda Kainer
PCR Services Corporation
233 Wilshire Boulevard, Suite 130
Santa Monica, CA 90401

***P9. Date Recorded:** 09/03/2008

***P10. Survey Type:** (Describe)

Intensive

***P11. Report Citation:** (Cite survey report and other sources or enter "none.")

PCR Services Corporation Historic Resources Survey of the Wilshire Center/Koreatown Recovery Redevelopment Project Area. Prepared for the Community Redevelopment Agency of the City of Los Angeles in collaboration with Chattel Architecture (lead) and LSA Associates, Inc., March 2009.

***Attachments:** ___ None ___ Location Map X Sketch Map X Continuation Sheet X Building, Structure, and Object Record

___ Archeological Record ___ District Record ___ Linear Feature Record ___ Milling Station Record

___ Rock Art Record ___ Artifact Record ___ Photograph Record ___ Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # _____
HRI # _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) 3440 WILSHIRE BLVD

B1. Historic Name: Tishman Plaza

B2. Common Name: 3440 WILSHIRE BLVD

B3. Original Use: Office Building B4. Present Use: Office Building

*B5. Architectural Style: Modern

*B6. Construction History: (Construction date, alterations, and data of alterations)

Date: 1952; Owner: Equitable Insurance Co

*B7. Moved? X No ___ Yes ___ Unknown Date: _____ Original Location: _____

*B8. Related Features:

Commercial storefronts occupy space between the three buildings

B9a. Architect: Claude Beelman b. Builder: Unknown

*B10. Significance: Area: Los Angeles Theme:

Context: LA Modernism, 1946-1964 **Theme:** Mid-Century Modern, 1946-1964

Period of Significance: 1952 **Property Type:** Office Building **Applicable Criteria:** C/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Context: LA Modernism, 1946–1964
Theme: MidCentury Modern, 1946-1964

In the post-World War II period in America, the predominant idiom applied to corporate architecture was the International Style, which came to be known as Corporate Modernism. Deriving from the 1920s origins of Modernism in Europe, the International Style was characterized by rectilinear forms, flat roofs, open floor plans, use of steel and glass, and lack of applied ornamentation. During the 1950s and 1960s, distinct and broadly identifiable stylistic variants of the International Style evolved, including Corporate Modernism which was influenced by the work of German architect, Mies Van der Rohe and by Formalism,...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP07

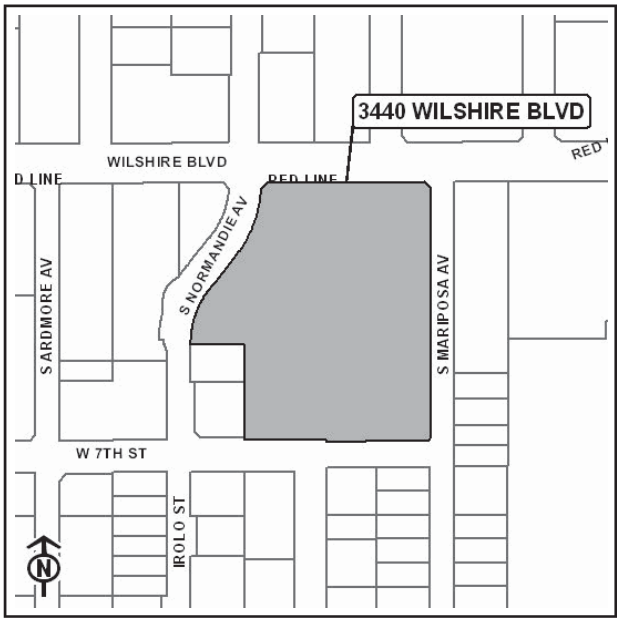
*B12. References:

B13. Remarks:

*B14. Evaluator: Amanda Kainer

*Date of Evaluation: 09/03/2008

(This space reserved for official comments.)



*Required Information

B10. Statement of Significance (continued): which abstracted and reinterpreted fundamental classical forms using modern materials and technology. It was not uncommon for an architectural firm or individual architect to work in a variety of idioms, the selection of which was generally related to the proposed building's functional use, the design of the surrounding urban fabric and the client's own stylistic preferences. There are examples of both Corporate Modernism and Brutalism within the survey area.

Corporate Modernism

Commercial office tower architecture of the 1950s-1960s is generally characterized by a tight integration of materials, construction systems and aesthetic minimalism. For a generation, Corporate Modernism became the accepted look for America's office buildings based upon a stylistic preference for its perceived modernity and practicality, as well as its inherent overall economy of construction. In plan, the regular structural grid enabled the creation of large spaces with few interruptions and made them flexible enough to accommodate a variety of functions. Such adaptability was particularly welcome in office buildings where tenants changed frequently and interior partition walls could be erected, altered, or removed based upon the tenant's requirements. The exterior of the Corporate Modern tower usually had a glazed curtain wall (Miesian) or vertical non-structural columns divided by fixed glazing (Formalism).

During this period in the Los Angeles region the three largest locally-based architectural firms - Welton Becket and Associates, Pereira and Luckman (after 1958, known individually as William Pereira and Associates and Charles Luckman Associates), and Albert C. Martin and Associates - designed numerous high-rise office buildings in this vein. Eligible properties associated with this theme in the survey area include 3435 Wilshire Boulevard (Welton Becket and Associates), 3348 Wilshire Boulevard (Welton Becket and Associates), 3600 Wilshire Boulevard (Welton Becket and Associates), 3424 Wilshire Boulevard (Pereira and Luckman), 3540 Wilshire Boulevard (Victor Gruen, AIA), 3440 Wilshire Boulevard (Claude Beelman), and 3243 Wilshire Boulevard (W. A. Sarmiento).

Corporate Modern commercial buildings within the survey area dating from 1946-1964 are significant for their association with the architectural styles and culture of mid-20th century commercial architecture. They represent the influence of the Modern Movement in Arts and Architecture on the architects, designers, and builders working in the survey during the postwar period.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3S
Other Listings _____
Review Code _____ Reviewer _____ Date _____

*Resource Name or #: (Assigned by recorder) Picadilly Apartments

P1. Other Identifier: _____

*P2. Location: ___ Not for Publication X Unrestricted *a. County Los Angeles County

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Hollywood Date: 1996 _____

c. Address: 682 IROLO ST City: LOS ANGELES Zip: 90005

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: _____

APN:5094002004

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

A) Property Type: residential **B) Setting (general):** commercial block **C) General characteristics. Architectural Style:** Chateauesque, elements of **Plan:** rectangular **No. Stories:** 8 **Siding/Sheathing:** stucco: smooth, W **Roof:** hipped, low, multiple rooflines, attic story **Construction:** unknow **D) Specific features. Fenestration:** wood, double-hung, front **Primary Entrance:** front, distinctive entry **E) Important decorative elements. Decorative Elements:** pilasters, columns **G) Alterations or changes to the property. Retains integrity:** high **I) Related:** Quoins, balconies, pinnacles

*P3b. Resource Attributes: (List attributes and codes) HP03

*P4. Resources Present: ___Building ___Structure ___Object ___Site ___District ___Element of District ___Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of photo: (View, data, accession #)
12/16/08

***P6. Date Constructed/Age and Sources:** X Historic
___ Prehistoric ___ Both
1929
Assessor

***P7. Owner and Address:**
682 IROLO LLC
1 TOWNE SQUARE (NO 191)
SOUTHFIELD, MI 48076

***P8. Recorded by:**
Amanda Kainer
PCR Services Corporation
233 Wilshire Boulevard, Suite 130
Santa Monica, CA 90401

***P9. Date Recorded:** 12/26/2008

***P10. Survey Type:** (Describe)
Intensive

***P11. Report Citation:** (Cite survey report and other sources or enter "none.")
PCR Services Corporation Historic Resources Survey of the Wilshire Center/Koreatown Recovery Redevelopment Project Area. Prepared for the Community Redevelopment Agency of the City of Los Angeles in collaboration with Chattel Architecture (lead) and LSA Associates, Inc., March 2009.

***Attachments:** ___None ___Location Map X Sketch Map X Continuation Sheet X Building, Structure, and Object Record
___Archeological Record ___District Record ___Linear Feature Record ___Milling Station Record
___Rock Art Record ___Artifact Record ___Photograph Record ___Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # _____
HRI # _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 3S

*Resource Name or #: (Assigned by recorder) Picadilly Apartments

B1. Historic Name: Picadilly Apartments

B2. Common Name: 682 IROLO ST

B3. Original Use: Apartment B4. Present Use: _____

*B5. Architectural Style: Chateauesque

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1929; Owner: Francis J Murphy; Valuation: $190,000

*B7. Moved? X No ___ Yes ___ Unknown Date: _____ Original Location: _____

*B8. Related Features:

Quoins, balconies, pinnacles

B9a. Architect: Milton M Friedman b. Builder: Unknown

*B10. Significance: Area: Los Angeles Theme:

Context: Residential Development and Suburbanization, 1913-1945 **Theme:** Apartment Streetcar Suburbs, 1906-1945; **Context:** Architecture, Engineering and Designed Landscapes, 1913-1945 **Theme:** The Architecture of Fantasy--Period Revival Styles, 1910-1940

Period of Significance: 1929 **Property Type:** Multi-family Resident **Applicable Criteria:** A/1, C/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Theme: The Architecture of Fantasy – Period Revival Styles, 1910–1940

By the 1920s, architecture in Los Angeles at every scale – from the grandiose to the mundane – drew from European precedents. Hollywood's most famous export created a permissive, open-minded and pioneering atmosphere in the city at-large with regards to the built environment. In addition to Spanish and Mediterranean Revival styles, the French Renaissance, Chateauesque, English Tudor and Renaissance Revival styles became an additional source of aesthetic inspiration in production design and architecture.

Furthermore, names that were given to apartment buildings, such as the St. Germaine and Chalfonte, evoked...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP03

*B12. References:

B13. Remarks:

*B14. Evaluator: Amanda Kainer

*Date of Evaluation: 12/26/2008

(This space reserved for official comments.)

B10. Statement of Significance (continued): legitimacy, along with allusions to European aristocracy and quaint village life. The illuminated neon signs that became signature features of buildings in the Wilshire Corridor area helped make such monikers more visible, and thus further these cultural and social aspirations. The best examples of this style are located in the Pellissier Square Tract area, and can be seen in a variety of forms and types.

While architects and designers in Los Angeles during the first decades of the twentieth century borrowed heavily from established European traditions, non-European and "exotic" places also captured the public imagination. An architecture of fantasy then emerged from eclectic sources, and Los Angeles proved to be fertile ground for testing these experiments.

Despite the widespread popularity of period revival and exotic styles, detractors dismissed the entire city as a back lot simulacrum. Modernist architect Richard Neutra "blamed" the motion picture industry for the proliferation of period revival architecture. Carey McWilliams offered a more generous explanation: "Lacking socially prominent first families or deeply rooted social traditions, Los Angeles quickly adopted the motion-picture elite as its arbiters of taste and style. Although the movie elite moved in a world of their own, this world was all the more conspicuous for having the spotlight riveted on its isolated, stage-like gyrations. Hence the movies came to set the tone of opinion in style and taste, manner of living, and attitudes. In other words, Los Angeles imitated Hollywood."

Theme: Apartment Streetcar Suburbs, 1906-1945

When Henry E. Huntington established the Pacific Electric Railway Company in 1901, it was as much a real estate concern as a transportation corporation. Within ten years, its fleet of hundreds of cars and aggressive real estate activities helped propel the city's expansion. The dovetailing of land subdivision, sales, transportation infrastructure, and economic development made Huntington among the wealthiest Los Angeles area residents. Rail lines were used to promote and sell tracts of land, though the latter eventually wound up subsidizing the former. Huntington's system also included the preexisting Los Angeles Railway Company (the "Big Yellow Cars"), which were incorporated into the vast interurban system of P.E.'s "Big Red Cars." The P.E. merged with the Southern Pacific Railroad upon Huntington's sale of his company and retirement. Ridership peaked in the mid-1920s, and the system began its slow, inexorable decline in the 1930s. Railway lines along West Sixth Street, West Eighth Street, Ninth Street, Western Avenue, and Vermont Avenue serviced the survey area.

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 3CS
Other Listings _____
Review Code _____ Reviewer _____ Date _____

Page 1 of 3 *Resource Name or #: (Assigned by recorder) 3424 WILSHIRE BLVD

P1. Other Identifier: _____

*P2. Location: ___ Not for Publication X Unrestricted *a. County Los Angeles County

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad: Hollywood Date: 1996 _____

c. Address: 3424 WILSHIRE BLVD City: LOS ANGELES Zip: 90010

d. UTM: (Give more than one for large and/or linear resources) Zone: _____ _____ mE/ _____ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: _____

APN:5094006015

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

A) Property Type: commercial **B) Setting (general):** commercial block, on major thoroughfare **C) General characteristics. Architectural Style** International **Plan:** rectangular **No. Stories:** 12 **Siding/Sheathing:** annodized aluminum window shades **Roof:** flat, parapet **Construction:** steel frame **D) Specific features. Fenestration:** metal, fixed **Primary Entrance:** multiple doors **Secondary Entrance:** storefront **Other notable features:** Storefronts altered; tinted black glass. **G) Alterations or changes to the property. Retains integrity:** medium, setting, location, association, design, feeling

*P3b. Resource Attributes: (List attributes and codes) HP07

*P4. Resources Present: X Building ___ Structure ___ Object ___ Site ___ District X Element of District ___ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of photo: (View, data, accession #)
View to the Southwest, 09/03/08

*P6. Date Constructed/Age and Sources: X Historic
___ Prehistoric ___ Both
1958
Assessor

*P7. Owner and Address:
OUR LADY QUEEN OF THE ANGELS
3424 WILSHIRE BLVD
LOS ANGELES, CA 90010

*P8. Recorded by:
Amanda Kainer
PCR Services Corporation
233 Wilshire Boulevard, Suite 130
Santa Monica, CA 90401

*P9. Date Recorded: 09/03/2008

*P10. Survey Type: (Describe)
Intensive

*P11. Report Citation: (Cite survey report and other sources or enter "none.")
PCR Services Corporation Historic Resources Survey of the Wilshire Center/Koreatown Recovery Redevelopment Project Area. Prepared for the Community Redevelopment Agency of the City of Los Angeles in collaboration with Chattel Architecture (lead) and LSA Associates, Inc., March 2009.

*Attachments: ___ None ___ Location Map X Sketch Map X Continuation Sheet X Building, Structure, and Object Record
___ Archeological Record ___ District Record ___ Linear Feature Record ___ Milling Station Record
___ Rock Art Record ___ Artifact Record ___ Photograph Record ___ Other (List): _____

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary # _____
HRI # _____

BUILDING, STRUCTURE, AND OBJECT RECORD

*NRHP Status Code 3CS

*Resource Name or #: (Assigned by recorder) 3424 WILSHIRE BLVD

B1. Historic Name:

B2. Common Name: 3424 WILSHIRE BLVD

B3. Original Use: Office Building B4. Present Use: Office Building

*B5. Architectural Style: International

*B6. Construction History: (Construction date, alterations, and data of alterations)

Year constructed: 1958; Owner: International Business Machine Corporation

*B7. Moved? X No ___ Yes ___ Unknown Date: _____ Original Location: _____

*B8. Related Features:

None

B9a. Architect: Pereira and Luckman b. Builder: McNeil Const Co

*B10. Significance: Area: Los Angeles Theme:

Context: LA Modernism, 1946-1964 **Theme:** Mid-Century Modern, 1946-1964

Period of Significance: 1958 **Property Type:** Office Building **Applicable Criteria:** C/3

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Mid-Century Modern, 1946-1964

In the post-World War II period in America, the predominant idiom applied to corporate architecture was the International Style, which came to be known as Corporate Modernism. Deriving from the 1920s origins of Modernism in Europe, the International Style was characterized by rectilinear forms, flat roofs, open floor plans, use of steel and glass, and lack of applied ornamentation. During the 1950s and 1960s, distinct and broadly identifiable stylistic variants of the International Style evolved, including Corporate Modernism which was influenced by the work of German architect, Mies Van der Rohe and by Formalism, which abstracted and reinterpreted...(continued on next page)

B11. Additional Resource Attributes: (List attributes and codes) HP07

*B12. References:

B13. Remarks:

*B14. Evaluator: Amanda Kainer

*Date of Evaluation: 09/03/2008

(This space reserved for official comments.)

B10. Statement of Significance (continued): fundamental classical forms using modern materials and technology. Brutalism, which was a variant of postwar Modernism that used a heavy masonry exterior and structure in a repetitive orthogonal form, was another variant of the International Style that arose during the postwar era. It was not uncommon for an architectural firm or individual architect to work in a variety of idioms, the selection of which was generally related to the proposed building's functional use, the design of the surrounding urban fabric and the client's own stylistic preferences. There are examples of both Corporate Modernism and Brutalism within the survey area.

Corporate Modernism

Commercial office tower architecture of the 1950s-1960s is generally characterized by a tight integration of materials, construction systems and aesthetic minimalism. For a generation, Corporate Modernism became the accepted look for America's office buildings based upon a stylistic preference for its perceived modernity and practicality, as well as its inherent overall economy of construction. In plan, the regular structural grid enabled the creation of large spaces with few interruptions and made them flexible enough to accommodate a variety of functions. Such adaptability was particularly welcome in office buildings where tenants changed frequently and interior partition walls could be erected, altered, or removed based upon the tenant's requirements. The exterior of the Corporate Modern tower usually had a glazed curtain wall (Miesian) or vertical cast concrete mullions (Formalism) divided by fixed glazing.

During this period in the Los Angeles region the three largest locally-based architectural firms - Welton Becket and Associates, Pereira and Luckman (after 1958, known individually as William Pereira and Associates and Charles Luckman Associates), and Albert C. Martin and Associates - designed numerous high-rise office buildings in this vein. Eligible properties associated with this theme in the survey area include 3435 Wilshire Boulevard (Welton Becket and Associates), 3348 Wilshire Boulevard (Welton Becket and Associates), 3600 Wilshire Boulevard (Welton Becket and Associates), 3424 Wilshire Boulevard (Pereira and Luckman), 3540 Wilshire Boulevard (Victor Gruen, AIA), 3440 Wilshire Boulevard (Claude Beelman), and 3243 Wilshire Boulevard (W. A. Sarmiento).

Corporate Modern commercial buildings within the survey area dating from 1946-1964 are significant for their association with the architectural styles and culture of mid-20th century commercial architecture. They represent the influence of the Modern Movement in Arts and Architecture on the architects, designers, and builders working in the survey during the postwar period.

PCR

LEGEND

Previously Designated Historic District (Approximate Boundaries)

Previously Designated

FIGURE 5

0 125 250

FEET

SOURCE: Aerials provided by City of Los Angeles Community Redevelopment Agency (2005)

I:\CAX0701\GIS\Wilshire_Normandie_Mariposa_Historic_Districts.mxd (6/15/2009)

CRA Historic Resources Survey

Normandie Mariposa Historic District

CENTRAL PLAZA

CASE FILING

SHEET INDEX

GENERAL

G0.00	COVER SHEET
G0.01	PLOT PLAN

ARCHITECTURAL

A1.01	LEVEL B2 PLAN
A1.02	LEVEL B1 PLAN
A1.03	LEVEL 1 PLAN
A1.04	LEVEL 2 PLAN
A1.05	LEVEL 3 PLAN
A1.06	LEVEL 4 PLAN
A1.07	LEVEL 5 PLAN
A1.08	FLOOR PLAN - LOWER LEVELS
A1.09	FLOOR PLAN - UPPER LEVELS
A1.10	FLOOR PLAN - PENTHOUSE
A1.11	FLOOR PLAN - AMENITY DECK
A1.12	ROOF PLAN
A2.01	WEST ELEVATION
A2.02	NORTH ELEVATIONS
A2.03	SOUTH ELEVATIONS
A2.04	EAST ELEVATION
A2.05	LEVEL 1 ENLARGED ELEVATIONS
A2.06	LEVEL 1 ENLARGED ELEVATIONS
A3.01	BUILDING SECTIONS
A4.01	CUB EXHIBIT
A9.01	RENDERINGS
A9.02	RENDERINGS
A9.03	RENDERINGS

LANDSCAPE

L1.01	LEVEL 1 LANDSCAPE PLAN
L1.02	LEVEL 5 LANDSCAPE PLAN
L1.03	ROOF LEVEL LANDSCAPE PLAN
L1.04	SAMPLE CONCEPT IMAGERY
L1.05	PLANTER WALL HEIGHT PLAN
L1.06	TREE DISPOSITION PLAN
L1.07	PLANTING PALETTE - L1
L1.08	PLANTING PALETTE - L5/ROOF

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

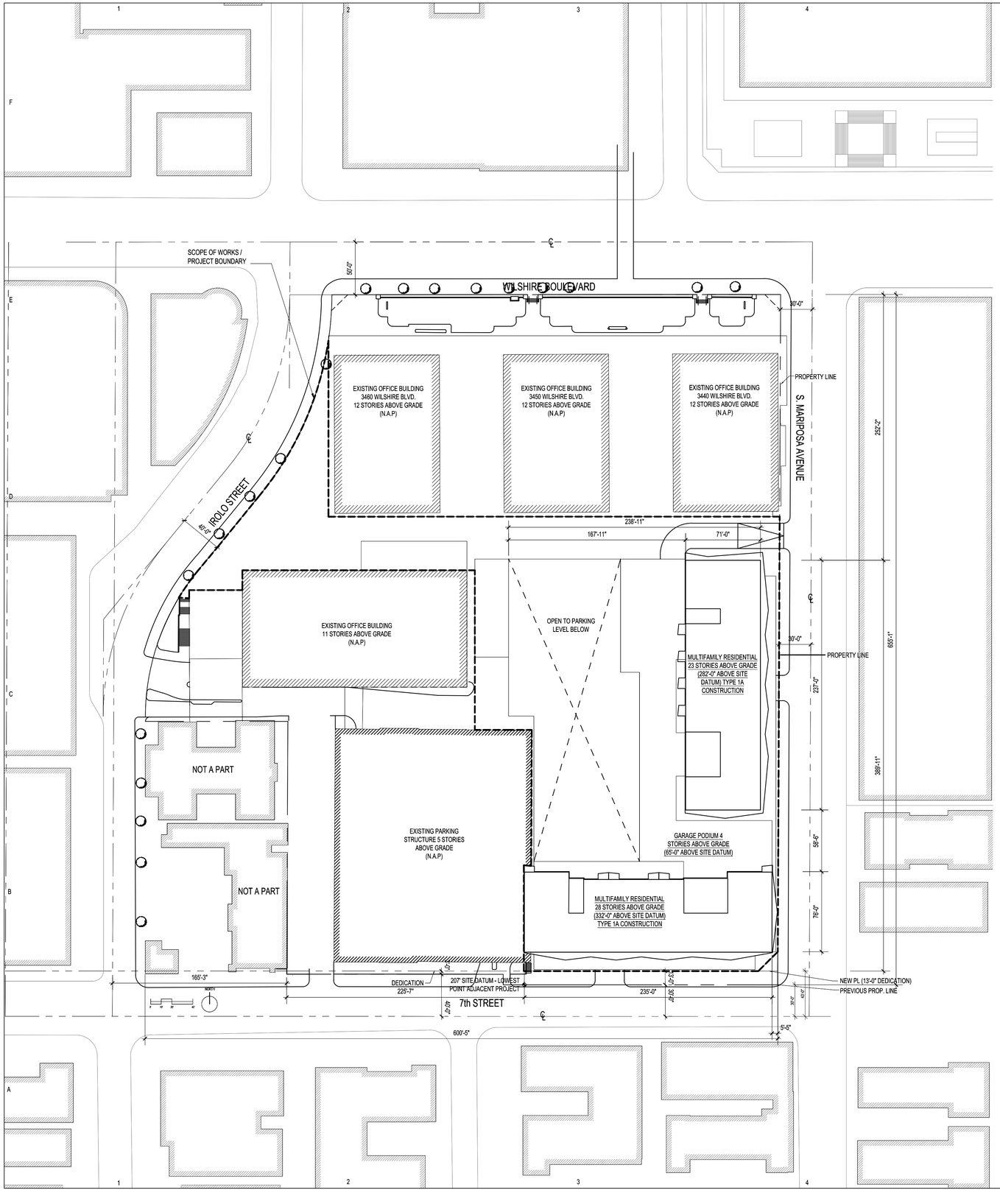
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
COVER SHEET

NUMBER
G0.00

2018 CALLISON RTKL, INC.



3440 WILSHIRE PROJECT SUMMARY

APPLICANT	CENTRAL PLAZA LLC C/O EDGAR KHALATIAN, MAYER BROWN LLP 350 SOUTH GRAND AVENUE, 25TH FLOOR LOS ANGELES, CALIFORNIA 90071
BUILDING ADDRESS	3440 WILSHIRE BOULEVARD LOS ANGELES, CA 90010

ZONING

SITE CLASSIFICATION = C4-2, PB-2, P-2
WILSHIRE COMMUNITY PLAN AREA
REGIONAL CENTER COMMERCIAL
ZI-1940 WILSHIRE CENTER/KOREATOWN REDEVELOPMENT PROJECT
ZI-2374 LOS ANGELES STATE ENTERPRISE ZONE
ZI-1117 MTA PROJECT
ZI-2410 METRO WESTSIDE SUBWAY EXTENSION PROJECT

RESIDENTIAL DENSITY

- 441 STUDIO UNITS
- 199 2BR UNITS

640 DWELLING UNITS PROVIDED

FLOOR AREA

LOT & BUILDING AREA	
LOT AREA	320,534 SF
LOT AREA LESS DEDICATION	316,420 SF (BUILDABLE AREA - F.A.R. BASED ON GROSS SITE AREA PER LAMC 14.5.3)
FLOOR AREA	
ALLOWABLE F.A.R.	6 : 1
	6 x 316,420 =
TOTAL ALLOWED AREA	**1,898,520 SF**
PROVIDED F.A.R.	4.65 : 1
EXISTING COMMERCIAL	**760,456 SF**
PROVIDED COMMERCIAL	11,032 SF
PROVIDED RESIDENTIAL	701,315 SF
TOTAL PROVIDED AREA	**712,347 SF**
TOTAL PROPOSED + EXISTING	**1,472,803 SF**

PARKING

PER LAMC 12.21 A.4(a) & *LAMC 12.21 A.4 (x) (3)*

BICYCLE

RESIDENTIAL

SHORT TERM

UNITS	RATIO	REQUIRED	PROVIDED
1-25	1 SPACE PER 10 UNITS	2.5	3
26-100	1 SPACE PER 15 UNITS	5	5
101-200	1 SPACE PER 20 UNITS	5	5
201+	1 SPACE PER 40 UNITS	11	11
TOTAL SHORT TERM		24	24

LONG TERM

UNITS	RATIO	REQUIRED	PROVIDED
1-25	**1 SPACE PER UNIT**	25	25
26-100	1 SPACE PER 1.5 UNITS	50	50
101-200	1 SPACE PER 2 UNITS	50	50
201+	1 SPACE PER 4 UNITS	110	110
TOTAL LONG TERM		235	235

COMMERCIAL

PROPOSED (6 SPACES) BIKE REPLACEMENT	24	24
EXISTING (284 SPACES) BIKE REPLACEMENT	1,136	1,136
TOTAL BICYCLE STALLS	1,419	1,419

AUTOMOBILE

NO. OF PARKING SPACES REQUIRED		
UNITS < 3 HABITABLE ROOMS	441 x 1/EA =	441
UNITS 3 HABITABLE ROOMS	0 x 1.5/EA =	0
UNITS > 3 HABITABLE ROOMS	199 x 2/EA =	398
TOTAL RESIDENTIAL		839
NO. OF AUTOMOBILE PARKING REQUIRED		
RESIDENTIAL		839
15% RES. BIKE REPLACEMENT		-125
RESIDENTIAL PARKING REQ'D		714
EXISTING COMMERCIAL		1,475
NEW COMMERCIAL 2 per 1,000 (11,032 / 500)		23
COMMERCIAL REQUIRED		1,498
19.3% EXISTING, COMMERCIAL BIKE REPLACEMENT		-284
30% NEW COMMERCIAL BIKE REPLACEMENT		-6
COMMERCIAL PARKING REQ'D WITH BIKE REDUCTION		1,208
TOTAL REQUIRED		1,922
NO. OF AUTOMOBILE PARKING PROVIDED		
NEW CONSTRUCTION (OF WHICH 3% TO BE EV SPACES)		1,215 (INC. 37 EV SPACES)
EXISTING CONSTRUCTION		707
TOTAL PARKING PROVIDED		**1,922**

LANDSCAPE

PER LAMC 12.21 G.2.A.3

REQUIRED PERCENTAGE OF LANDSCAPED COMMON OPEN SPACE	25% (6,603 SF)
PROVIDED PERCENTAGE OF LANDSCAPED COMMON OPEN SPACE	**25% (6,603 SF)**
REQUIRED NUMBER OF TREES ON-SITE (0.25 TREE PER DWELLING UNIT)	160
PROVIDED NUMBER OF TREES ON-SITE	**160**

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1:

THOSE PORTIONS OF LOTS 94 THROUGH 98 INCLUSIVE OF WILSHIRE HARVARD HEIGHTS, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY AND THAT PORTION OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN SAID CITY, COUNTY AND STATE, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS A WHOLE AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF .301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 4.3.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 168 . .39 FEET; THENCE NORTH 89 DEGREES .39 MINUTES .30 SECONDS EAST 1.39.67 FEET; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 158.83 FEET; THENCE SOUTH 89 DEGREES .39 MINUTES .30 SECONDS WEST .309.70 FEET TO A POINT IN THE SOUTHEAST LINE OF NORMANDY AVENUE, AS DESCRIBED IN THE DEED RECORDED IN BOOK 4 ,3,314 PAGE 4,34, OFFICIAL RECORDS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, SAID POINT BEING A CURVE CONCAVE SOUTHEASTERLY HAVING A RADIUS OF 220.00 FEET, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS NORTH 82 DEGREES 24 MINUTES .33 SECONDS WEST; THENCE NORTHEASTERLY ALONG SAID CURVE 120.62 FEET: THENCE TANGENT TO SAID CURVE, NORTH .39 DEGREES 00 MINUTES 16 SECONDS EAST 92.68 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF .301.92 FEET, THENCE NORTHEASTERLY ALONG SAID CURVE, 48.79 FEET TO THE EASTERLY LINE OF SAID LOT "B", THENCE NORTH O DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE, 150.00 FEET TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD; THENCE ALONG SAID BOULEVARD, NORTH 89 DEGREES .39 MINUTES 30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING.

PARCEL 2:

THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET 'MOE, WITH THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE; THENCE WESTERLY ALONG SAID SOUTHERLY LINE, 161.50 FEET; THENCE SOUTHERLY AT RIGHT ANGLES TO SAID SOUTHERLY LINE, 655.04 FEET, MORE OR LESS, TO THE NORTHERLY LINE OF SEVENTH STREET, 60 FEET WIDE; THENCE EASTERLY ALONG SAID SEVENTH STREET, 158.55 FEET, MORE OR LESS, TO THE POINT OF INTERSECTION OF THE NORTHERLY LINE OF SEVENTH STREET THE WESTERLY LINE OF MARIPOSA AVENUE; THENCE NORTHERLY ALONG THE SAID MARIPOSA AVENUE, 655.10 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

PARCEL 3:

THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, DISTANT SOUTH 89 DEGREES 39 MINUTES 00 SECONDS WEST THEREON 161.50 FEET FROM THE INTERSECTION OF SAID SOUTHERLY LINE WITH THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET WIDE; THENCE SOUTH 89 DEGREES 39 MINUTES 00 SECONDS WEST M ALONG SAID SOUTHERLY LINE, 160.625 FEET; THENCE AT RIGHT ANGLES, SOUTH O DEGREES 21 MINUTES 00 SECONDS EAST 645.12 FEET, MORE OR LESS, TO THE NORTHERLY LINE OF SEVENTH STREET; THENCE EASTERLY ALONG SAID SEVENTH STREET TO A LINE DRAWN AT RIGHT ANGLES FROM THE SOUTHERLY LINE OF SAID WILSHIRE BOULEVARD THAT PASSES THROUGH THE POINT OF BEGINNING; THENCE NORTH O DEGREES 21 MINUTES 00 SECONDS WEST, ALONG SAID LINE, 655.04 FEET, MORE OR LESS, TO THE POINT OF BEGINNING. EXCEPT THAT PORTION THEREOF, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET 'MDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) Vv1TH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF .301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 43.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH O DEGREES 05 MINUTES DO SECONDS EAST 168 . .39 FEET; THENCE NORTH 89 DEGREES .39 MINUTES 30 SECONDS EAST 1.39.67 FEET; THENCE SOUTH O DEGREES 05 MINUTES OO SECONDS EAST 158.83 FEET; THENCE SOUTH 89 DEGREES .39 MINUTES .30 SECONDS WEST 176.50, MORE OR LESS, TO THE POINT IN THE EASTERLY LINE OF SAID WILSHIRE HARVARD HEIGHTS. THENCE NORTH O DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD: THENCE ALONG SAID BOULEVARD. NORTH 89 DEGREES 39 MINUTES 30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING.

PARCEL 4:

THAT PORTION OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 1 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA ACCORDING TO THE OFFICIAL PLAT OF SAID LAND, DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, DISTANT SOUTH 89 DEGREES 49 MINUTES 00 SECONDS WEST, THEREON 322.125 FEET FROM THE INTERSECTION OF SAID SOUTHERLY LINE WITH THE WESTERLY LINE OF MARIPOSA AVENUE, 60 FEET WIDE; THENCE SOUTH O DEGREES 21 MINUTES 00 SECONDS EAST 645.12 FEET TO THE NORTH LINE OF SEVENTH STREET. THENCE ALONG SAID SEVENTH STREET, SOUTH 89 DEGREES 40 MINUTES DO SECONDS WEST, TO THE EAST LINE OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS; THENCE NORTH O DEGREES 05 MINUTES 05 SECONDS WEST, ALONG SAID LINE 644.97 FEET, MORE OR LESS, TO THE SOUTHERLY LINE OF SAID WILSHIRE BOULEVARD; THENCE NORTH 89 DEGREES 39 MINUTES 00 SECONDS EAST, ALONG SAID SOUTHERLY LINE. 143.455 FEET, MORE OR LESS, TO THE POINT OF BEGINNING. EXCEPT THAT PORTION THEREOF, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET WIDE, (SAID SOUTHERLY LINE BEING EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) Vv1TH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG A CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF .301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 43.79 FEET TO A POINT, A RADIAL LINE OF SAID CURVE TO SAID POINT BEARS SOUTH 81 DEGREES 46 MINUTES 24 SECONDS EAST; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 168 . .39 FEET; THENCE NORTH 89 DEGREES .39 MINUTES .30 SECONDS EAST 1.39.67 FEET; THENCE SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 158.83 FEET; THENCE SOUTH 89 DEGREES .39 MINUTES .30 SECONDS WEST 176.50 FEET, MORE OR LESS, TO THE POINT IN THE EASTERLY LINE OF SAID Vv1LSHIRE HARVARD HEIGHTS; THENCE NORTH O DEGREES 05 MINUTES 00 SECONDS WEST ALONG SAID EASTERLY LINE TO THE SOUTH LINE OF SAID WILSHIRE BOULEVARD; THENCE ALONG SAID BOULEVARD, NORTH 89 DEGREES 39 MINUTES .30 SECONDS EAST 40 FEET TO THE POINT OF BEGINNING,

PARCEL 5:

THOSE PORTIONS OF LOTS 9,3 AND 94 OF WILSHIRE HARVARD HEIGHTS, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 8 PAGE 113 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY LINE OF WILSHIRE BOULEVARD, 100 FEET 'MDE, (SAID SOUTHERLY LINE BEING THE EASTERLY PROLONGATION OF THE NORTHERLY LINE OF LOT "B" OF WILSHIRE HARVARD HEIGHTS, AS PER MAP RECORDED IN BOOK 8 PAGE 161 OF SAID MAPS) WITH A LINE PARALLEL WITH AND DISTANT 40 FEET EASTERLY MEASURED AT RIGHT ANGLES FROM THE EASTERLY LINE OF SAID LOT "B"; THENCE SOUTHWESTERLY ALONG CURVE CONCAVE TO THE NORTHWEST HAVING A RADIUS OF .301.92 FEET AND BEING TANGENT TO SAID PARALLEL LINE, AN ARC DISTANCE OF 205.97 FEET; THENCE TANGENT TO SAID CURVE, SOUTH 39 DEGREES 00 MINUTES 16 SECONDS WEST 92.68 FEET TO THE BEGINNING OF A TANGENT CURVE CONCAVE TO THE SOUTHEAST HAVING A RADIUS OF 220.00 FEET; THENCE SOUTHERLY ALONG SAID CURVE, 120.62 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 89 DEGREES 39 MINUTES .30 SECONDS EAST 1.3,3.28 FEET TO THE EAST LINE OF SAID LOT 94. THENCE ALONG THE EAST LINES OF SAID LOTS, SOUTH O DEGREES 05 MINUTES 00 SECONDS EAST 34.17 FEET TO THE SOUTH LINE OF THE NORTH 10 FEET OF SAID LOT 93; THENCE ALONG SAID SOUTH LINE, SOUTH 89 DEGREES 39 MINUTES 30 SECONDS WEST 135.25 FEET TO THE WEST LINE OF SAID LOT 93; THENCE ALONG SAID WEST LINE, NORTH O DEGREES 05 MINUTES 00 SECONDS WEST 4.80 FEET TO THE INTERSECTION OF SAID LINE WITH THE SOUTHERLY CONTINUATION OF THE CURVE HEREIN DESCRIBED HAVING A RADIUS OF 220.00 FEET: THENCE NORTHERLY ALONG SAID CURVE, 29.47 FEET TO THE TRUE POINT OF BEGINNING.

APN: 5094-002-011, 012, 013, 015, 017, 019, 020

OPEN SPACE

PER LAMC 12.21 G.2

OPEN SPACE REQUIRED		
UNITS < 3 HABITABLE ROOMS		441 x 100 SF/EA
UNITS = 3 HABITABLE ROOMS		199 x 125 SF/EA
UNITS > 3 HABITABLE ROOMS		0 x 175 SF/EA
TOTAL OPEN SPACE REQUIRED		**68,975 SF**
OUTDOOR OPEN SPACE PROVIDED		
LEVEL 5 (AMENITY DECK)		17,840 SF
ROOF LEVEL		8,570 SF
PRIVATE BALCONIES (519 x 50 SF)		25,950 SF
INDOOR OPEN SPACE PROVIDED		
LEVEL 1 (LOBBY)		4,300 SF
LEVEL 5 (GYM & AMENITY LOUNGE(S)		3,740 SF
ROOF LEVEL AMENITY		8,575 SF
TOTAL COMMON OPEN SPACE		**43,025 SF**
TOTAL OPEN SPACE PROVIDED		**68,975 SF**
RATIO OF INDOOR COMMON SPACE (MAX 25%)		**23%**

1 PLOT PLAN

0 50' 100'

SCALE: 1" = 50'

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
PLOT PLAN

NUMBER
G0.01

2018 CALLISON RTKL, INC.

PARKING MIX, LEVEL B2		
	FIRST ACCESS	TANDEM
COMPACT SPACES	17 SPACES	0 SPACES
STANDARD STALLS	205 SPACES	0 SPACES
TOTAL	222 SPACES	0 SPACES
GRAND TOTAL	222 SPACES	

1 LEVEL B2

SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG		
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL B2

NUMBER
A1.01

2018 CALLISON RTKL, INC.

WILSHIRE BOULEVARD

EXISTING OFFICE BUILDING
3440, 3450 & 3460 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

PROPERTY LINE

S. MARIPOSA AVENUE

IROLO STREET

EXISTING OFFICE BUILDING
11 STORIES ABOVE GRADE
(N.A.P)

RETAIL LOADING

PARKING ENTRANCE

TICKET BARRIER

WORK SPACE

DOUBLE STACKED LOCKERS

811 no. LONG TERM COMMERCIAL SPACES

EXISTING PARKING STRUCTURE 5 STORIES ABOVE GRADE (N.A.P)

COMMERCIAL PARKING DOWN

COMMERCIAL PARKING UP

ONE WAY

10% RAMP

DEDICATION

NEW PL (13'-0" DEDICATION)

PREVIOUS PROP. LINE

7th STREET

PARKING ENTRANCE

NORTH

0' 10' 20' 40'

PARKING MIX, LEVEL B1		
	FIRST ACCESS	TANDEM
COMPACT SPACES	18 SPACES	0 SPACES
STANDARD STALLS	183 SPACES	6 SPACES
TOTAL	201 SPACES	6 SPACES
GRAND TOTAL	207 SPACES	

1 LEVEL B1
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

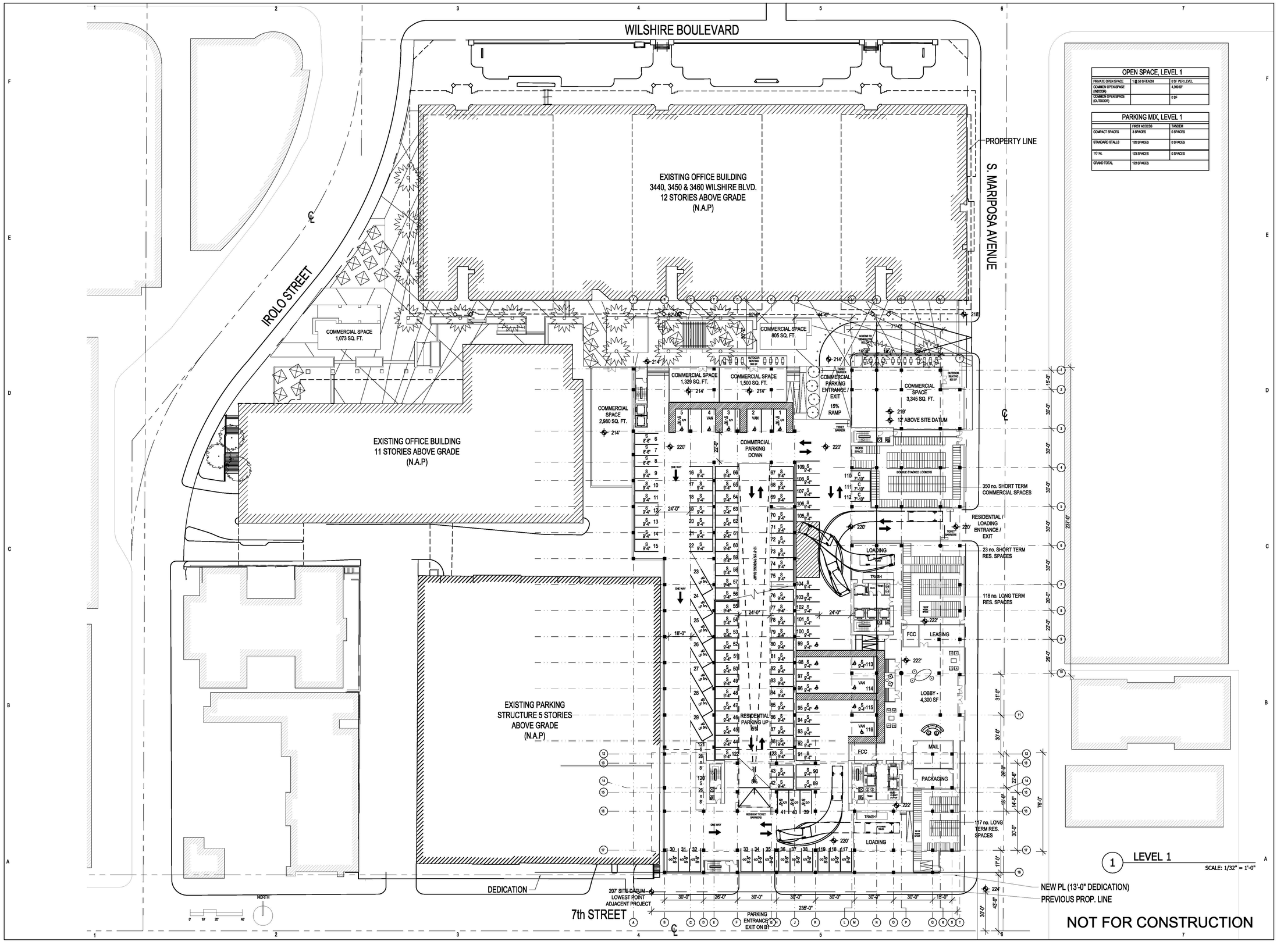
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL B1

NUMBER
A1.02

2018 CALLISON RTKL, INC.



OPEN SPACE, LEVEL 1		
PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		4,300 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

PARKING MIX, LEVEL 1		
	WRIST ACCESS	TANDEM
COMPACT SPACES	3 SPACES	0 SPACES
STANDARD STALLS	120 SPACES	0 SPACES
TOTAL	123 SPACES	0 SPACES
GRAND TOTAL	123 SPACES	

1 LEVEL 1
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL 1

NUMBER
A1.03

2018 CALLISON RTKL, INC.

WILSHIRE BOULEVARD

EXISTING OFFICE BUILDING
3460 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3450 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3440 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

PROPERTY LINE

S. MARIPOSA AVENUE

IROLO STREET

EXISTING OFFICE BUILDING
11 STORIES ABOVE GRADE
(N.A.P)

EXISTING PARKING
STRUCTURE 5 STORIES
ABOVE GRADE
(N.A.P)

RESIDENTIAL PARKING DOWN 5%

RESIDENTIAL PARKING UP

DEDICATION

NEW PL (13'-0" DEDICATION)

PREVIOUS PROP. LINE

7th STREET

NORTH

0' 10' 20' 40'

OPEN SPACE, LEVEL 2		
PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

PARKING MIX, LEVEL 2		
	FIRST ACCESS	TANDEM
COMPACT SPACES	16 SPACES	0 SPACES
STANDARD STALLS	205 SPACES	0 SPACES
TOTAL	221 SPACES	0 SPACES
GRAND TOTAL	221 SPACES	

1 LEVEL 2
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL 2

NUMBER
A1.04

2018 CALLISON RTKL, INC.

WILSHIRE BOULEVARD

EXISTING OFFICE BUILDING
3460 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3450 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3440 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

PROPERTY LINE

S. MARIPOSA AVENUE

IROLO STREET

EXISTING OFFICE BUILDING
11 STORIES ABOVE GRADE
(N.A.P)

EXISTING PARKING
STRUCTURE 5 STORIES
ABOVE GRADE
(N.A.P)

RESIDENTIAL
PARKING
DOWN

RESIDENTIAL
PARKING UP

DEDICATION

NEW PL (13'-0" DEDICATION)

PREVIOUS PROP. LINE

7th STREET

NORTH

0' 10' 20' 40'

OPEN SPACE, LEVEL 3		
PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

PARKING MIX, LEVEL 3		
	FIRST ACCESS	TANDEM
COMPACT SPACES	16 SPACES	0 SPACES
STANDARD STALLS	205 SPACES	0 SPACES
TOTAL	221 SPACES	0 SPACES
GRAND TOTAL	221 SPACES	

1 LEVEL 3
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL 3

NUMBER
A1.05

2018 CALLISON RTKL, INC.

WILSHIRE BOULEVARD

EXISTING OFFICE BUILDING
3460 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3450 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3440 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

PROPERTY LINE

S. MARIPOSA AVENUE

IROLO STREET

EXISTING OFFICE BUILDING
11 STORIES ABOVE GRADE
(N.A.P)

EXISTING PARKING
STRUCTURE 5 STORIES
ABOVE GRADE
(N.A.P)

RESIDENTIAL
PARKING
DOWN

DEDICATION

NEW PL (13'-0" DEDICATION)

PREVIOUS PROP. LINE

7th STREET

NORTH

0' 10' 20' 40'

OPEN SPACE, LEVEL 4		
PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

PARKING MIX, LEVEL 4		
	FIRST ACCESS	TANDEM
COMPACT SPACES	28 SPACES	0 SPACES
STANDARD STALLS	193 SPACES	0 SPACES
TOTAL	221 SPACES	0 SPACES
GRAND TOTAL	221 SPACES	

1 LEVEL 4
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG		
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL 4

NUMBER
A1.06

2018 CALLISON RTKL, INC.

WILSHIRE BOULEVARD

EXISTING OFFICE BUILDING
3460 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3450 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3440 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

PROPERTY LINE

S. MARIPOSA AVENUE

IROLO STREET

EXISTING OFFICE BUILDING
11 STORIES ABOVE GRADE
(N.A.P)

EXISTING PARKING
STRUCTURE 5 STORIES
ABOVE GRADE
(N.A.P)

OPEN TO PARKING

DEDICATION

7th STREET

NEW PL (13'-0" DEDICATION)

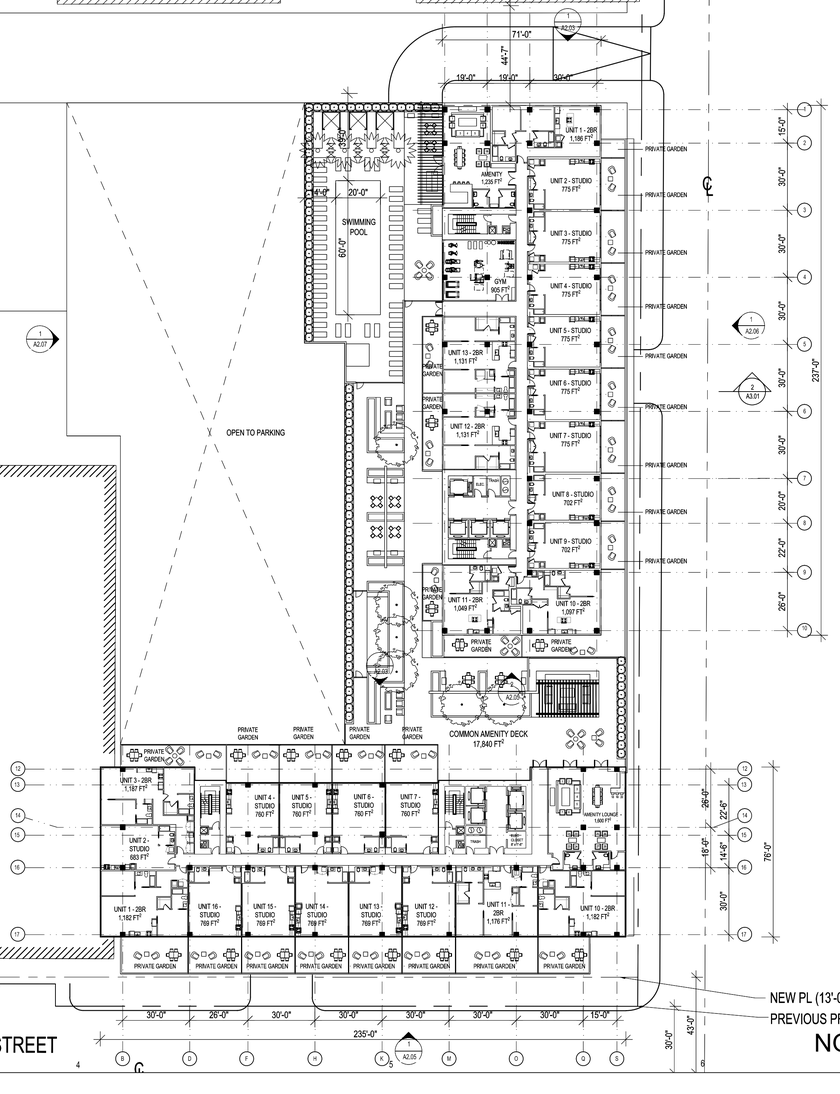
PREVIOUS PROP. LINE

NORTH

0' 10' 20' 40'

OPEN SPACE, LEVEL 5		
PRIVATE OPEN SPACE	26 @ 50 SF/EACH	1,300 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		3,740 SF
COMMON OPEN SPACE (OUTDOOR)		17,840 SF

UNIT MIX, LEVEL 5		
	STUDIO UNITS	2BR UNITS
TOWER 1	8 (62%)	5 (38%)
TOWER 2	10 (71%)	4 (29%)
TOTAL	18 (67%)	9 (33%)



1 LEVEL 5 - AMENITY DECK
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG		
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LEVEL 5

NUMBER
A1.07

2018 CALLISON RTKL, INC.

WILSHIRE BOULEVARD

EXISTING OFFICE BUILDING
3460 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3450 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

EXISTING OFFICE BUILDING
3440 WILSHIRE BLVD.
12 STORIES ABOVE GRADE
(N.A.P)

PROPERTY LINE

S. MARIPOSA AVENUE

IROLO STREET

EXISTING OFFICE BUILDING
11 STORIES ABOVE GRADE
(N.A.P)

EXISTING PARKING
STRUCTURE 5 STORIES
ABOVE GRADE
(N.A.P)

DEDICATION

NEW PL (13'-0" DEDICATION)

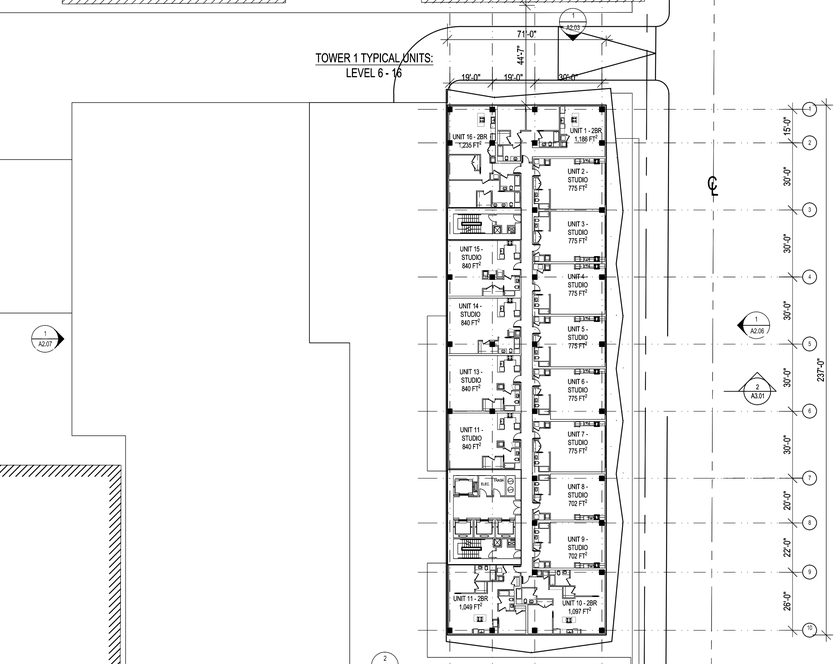
PREVIOUS PROP. LINE

7th STREET

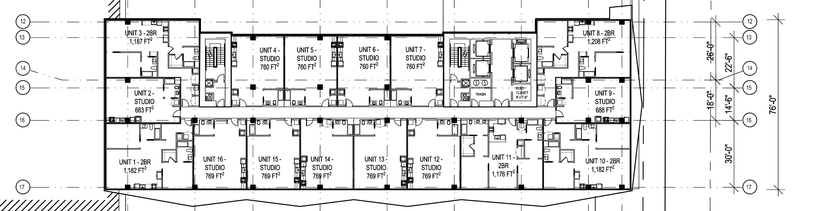
NORTH

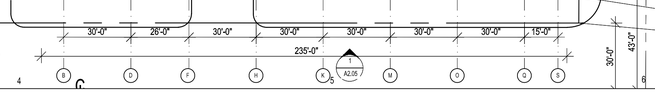
0' 10' 20' 40'

TOWER 1 TYPICAL UNITS:
LEVEL 6 - 16



TOWER 2 TYPICAL UNITS:
LEVEL 6 - 16





OPEN SPACE, LEVEL 6-16		
PRIVATE OPEN SPACE	21 @ 50 SF/EACH	1,050 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

UNIT MIX, LEVEL 6-16		
	STUDIO UNITS	2BR UNITS
TOWER 1	12 (75%)	4 (25%)
TOWER 2	11 (69%)	5 (31%)
TOTAL	23 (72%)	9 (28%)

1 TYP. LEVEL - LOWER FLRS
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - LOWER LEVELS

NUMBER
A1.08

2018 CALLISON RTKL, INC.

OPEN SPACE, LEVEL 17-21/26		
PRIVATE OPEN SPACE	31 @ 50 SF/EACH	1,550 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

UNIT MIX, LEVEL 17-21/26		
	STUDIO UNITS	2BR UNITS
TOWER 1	12 (75%)	4 (25%)
TOWER 2	11 (69%)	5 (31%)
TOTAL	23 (72%)	9 (28%)

1 TYP. LEVEL - UPPER FLRS
SCALE: 1/32" = 1'-0"

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - UPPER LEVELS

NUMBER
A1.09

2018 CALLISON RTKL, INC.

1 PENTHOUSE LEVEL
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

OPEN SPACE, PH LEVEL		
PRIVATE OPEN SPACE	22 @ 50 SF/EACH	1,100 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		0 SF
COMMON OPEN SPACE (OUTDOOR)		0 SF

UNIT MIX, PH LEVEL		
	STUDIO UNITS	2BR UNITS
TOWER 1	0 (0%)	11 (100%)
TOWER 2	0 (0%)	11 (100%)
TOTAL	0 (0%)	22 (100%)

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

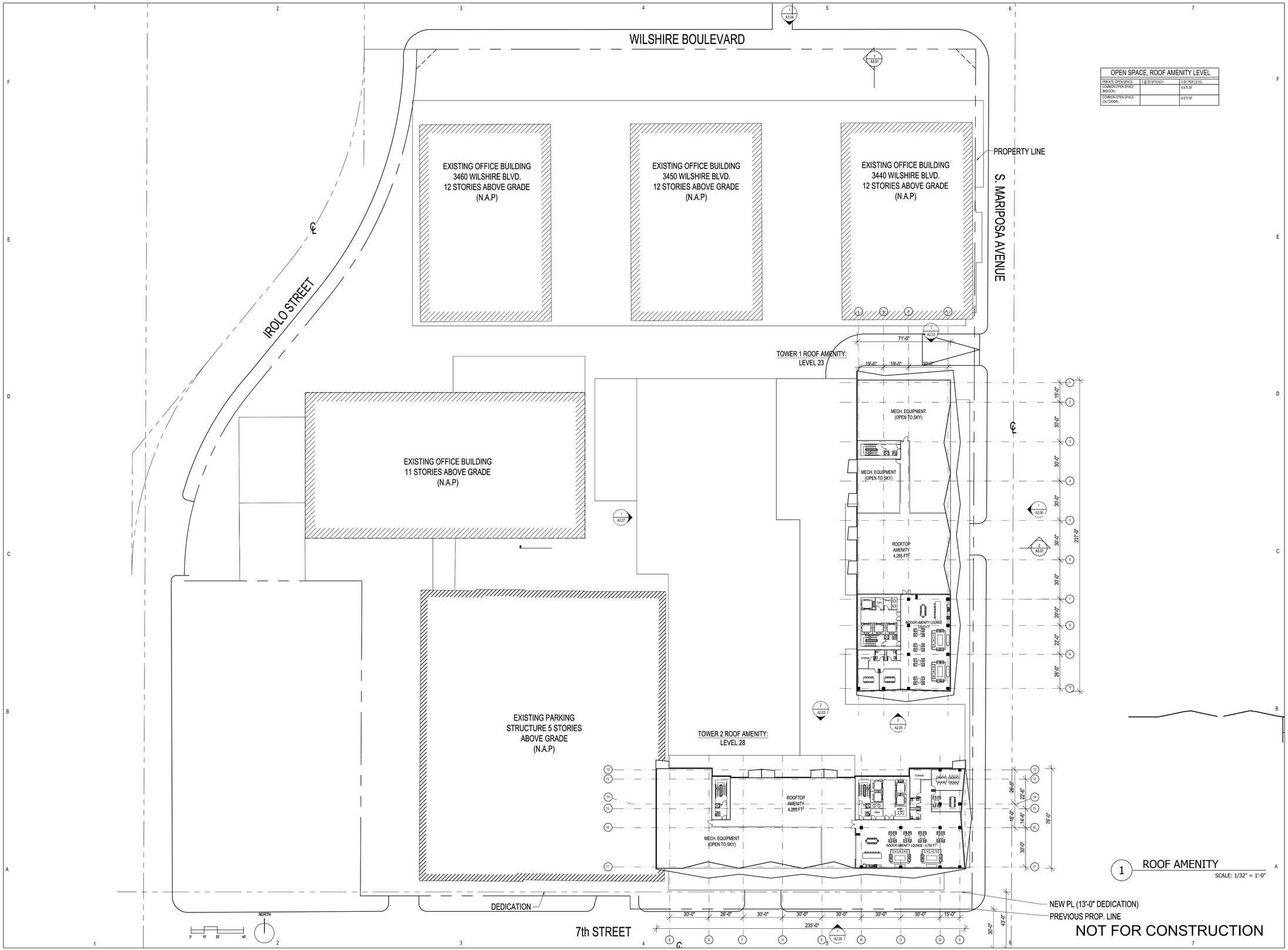
ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - PENTHOUSE LEVEL
NUMBER
A1.10

2018 CALLISON RTKL, INC.



OPEN SPACE, ROOF AMENITY LEVEL		
PRIVATE OPEN SPACE	1 @ 50 SF/EACH	0 SF PER LEVEL
COMMON OPEN SPACE (INDOOR)		8,575 SF
COMMON OPEN SPACE (OUTDOOR)		8,570 SF

1 ROOF AMENITY
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

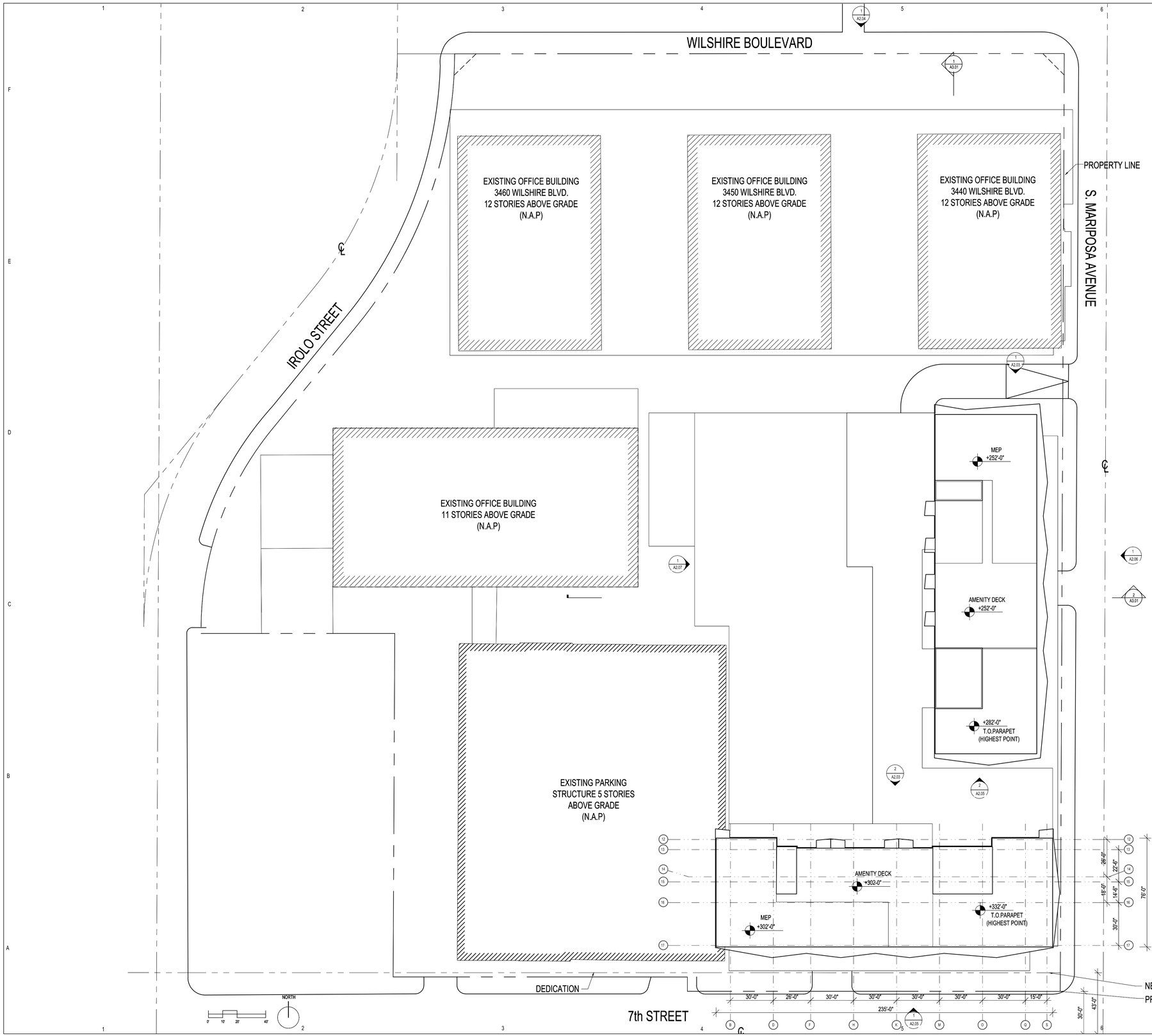
ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - ROOF LEVEL AMENITY
NUMBER
A1.11

2018 CALLISON RTKL, INC.



1 ROOF LEVEL
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

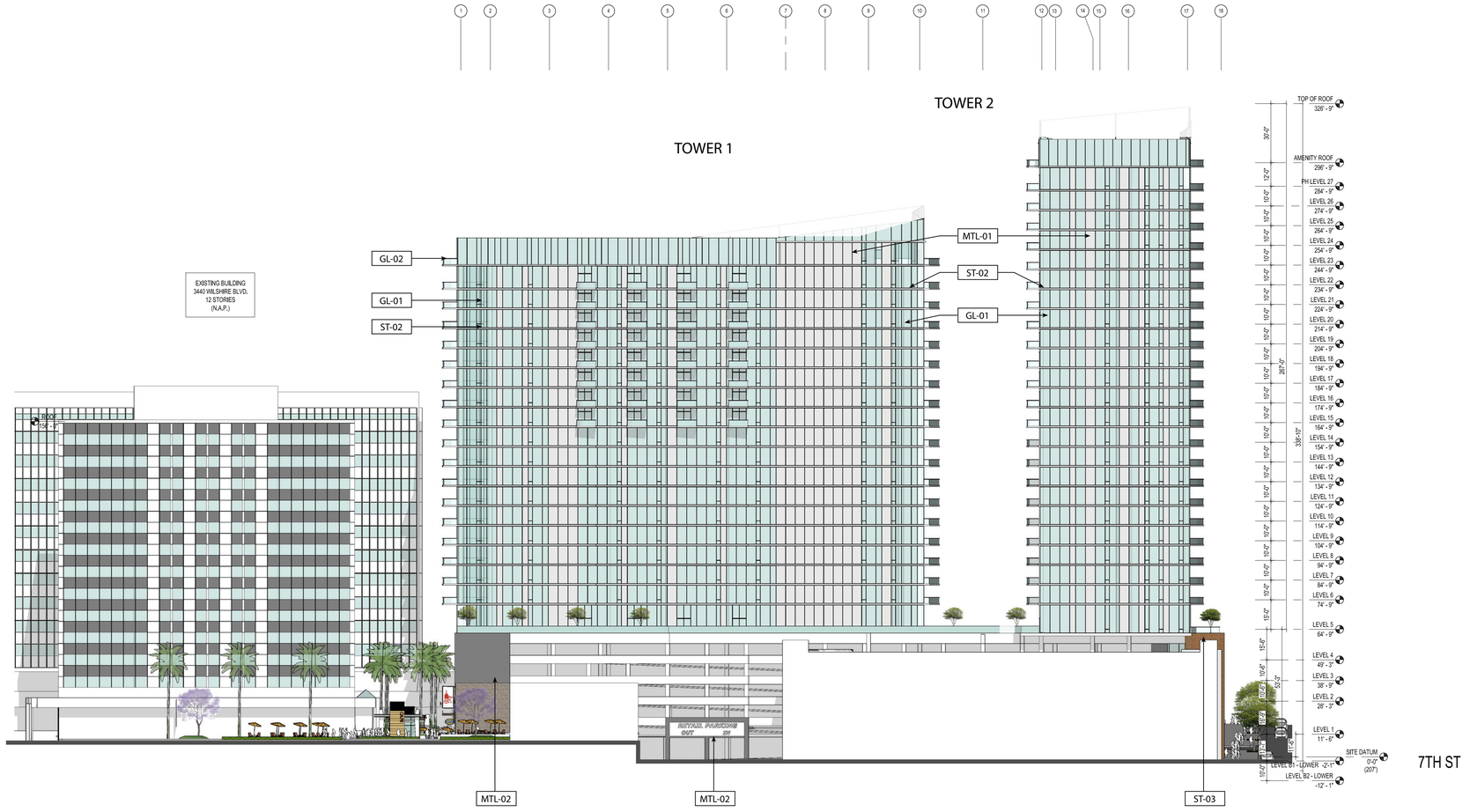
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
FLOOR PLAN - ROOF LEVEL

NUMBER
A1.12

2018 CALLISON RTKL, INC.

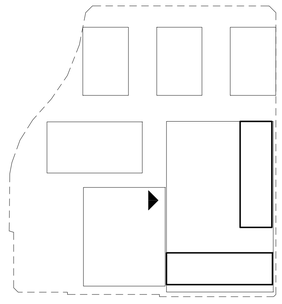


1 WEST ELEVATION

SCALE: 1/32" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
MTL-03	METAL LOUVRES LIGHT SILVER COLOR
MTL-04	PERFORATED METAL MESH, SILVER COLOR
ST-01	GFRC PANEL, WHITE
ST-02	EXPOSED CONCRETE
ST-03	BRICK
PL-01	PLASTER, DARK GRAY
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

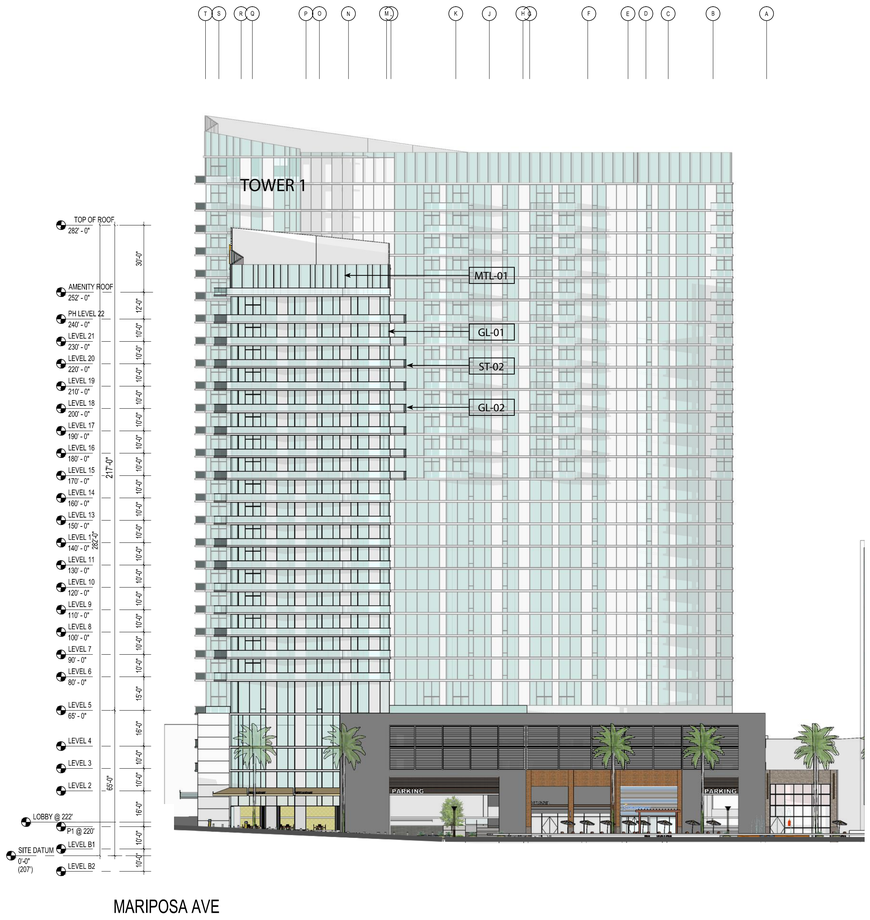
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
WEST ELEVATION

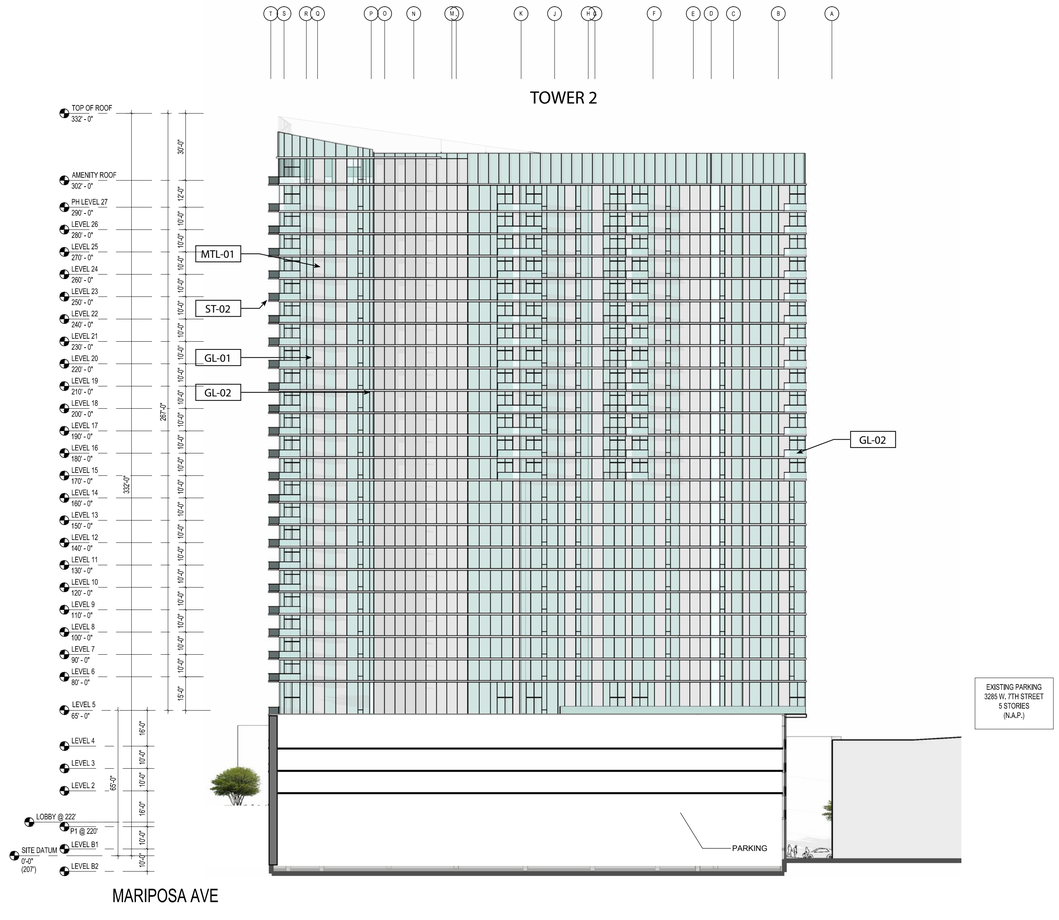
NUMBER
A2.01

2018 CALLISON RTKL, INC.



2 NORTH ELEVATION 2

SCALE: 1/32" = 1'-0"

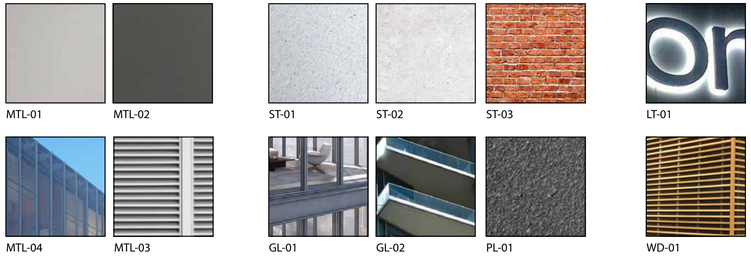


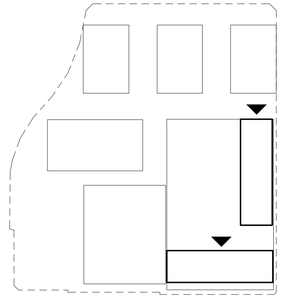
1 NORTH ELEVATION 1

SCALE: 1/32" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
MTL-03	METAL LOUVRES LIGHT SILVER COLOR
MTL-04	PERFORATED METAL MESH, SILVER COLOR
ST-01	GFRC PANEL, WHITE
ST-02	EXPOSED CONCRETE
ST-03	BRICK
PL-01	PLASTER, DARK GRAY
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE





NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

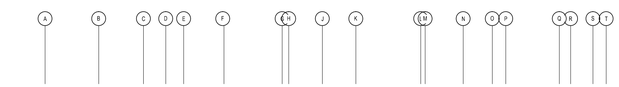
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

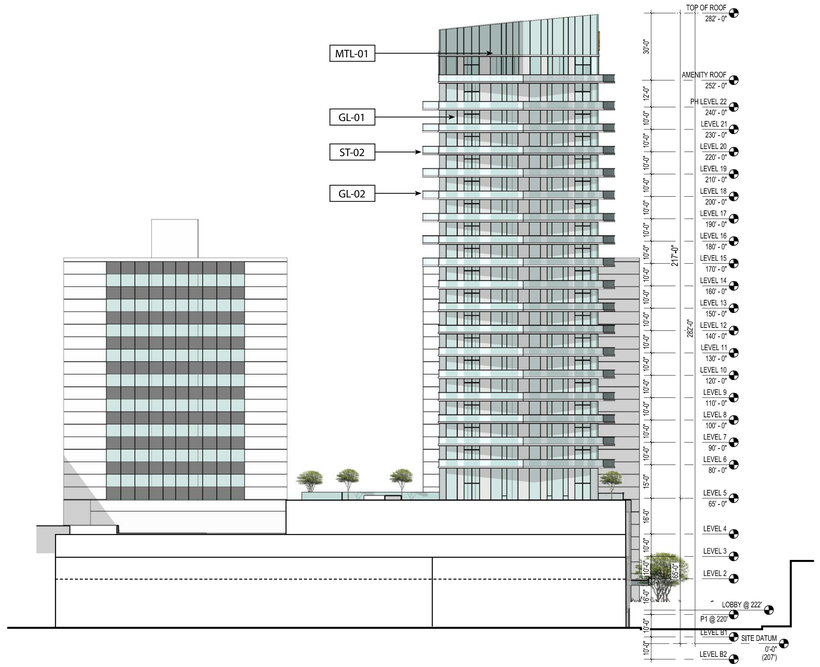
SHEET IDENTIFICATION
TITLE
NORTH ELEVATIONS

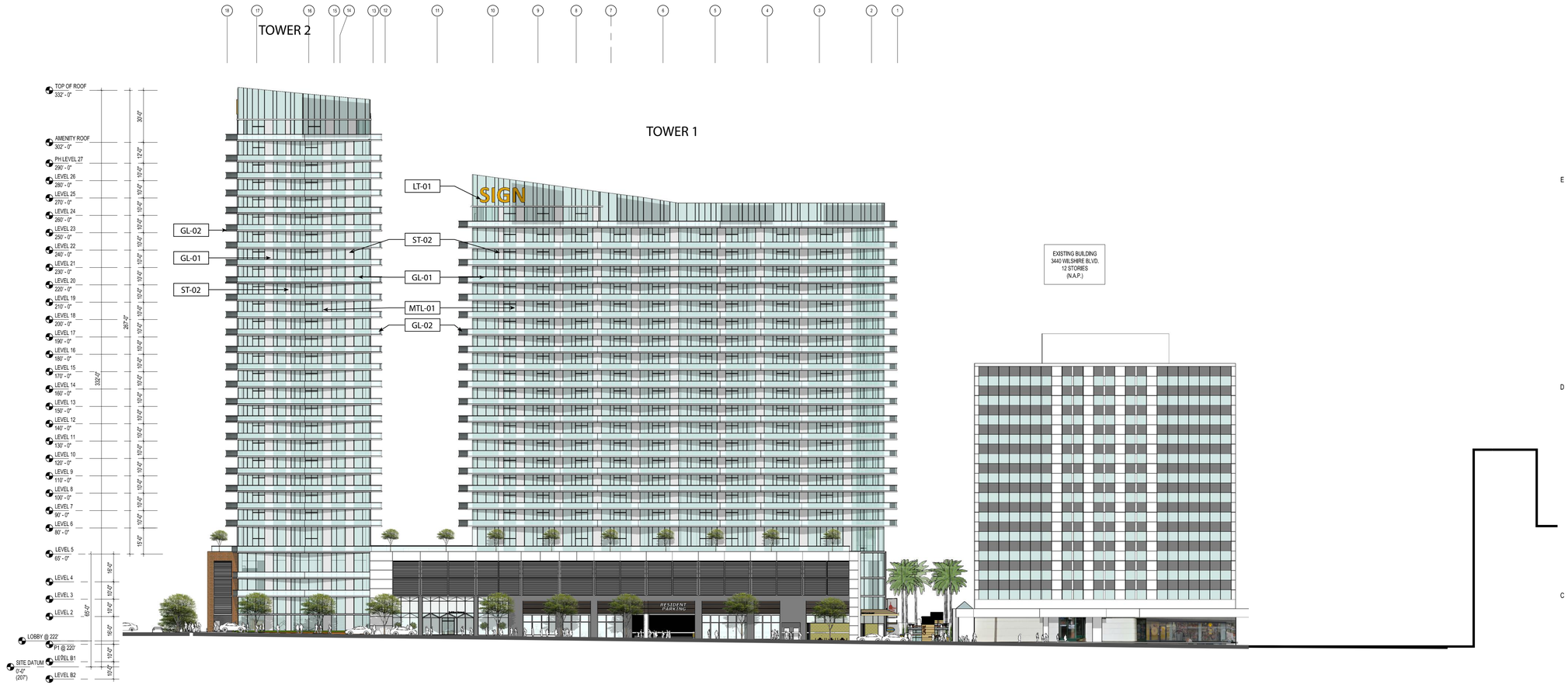
NUMBER
A2.02

2018 CALLISON RTKL, INC.



TOWER 1


MTL-01
GL-01
ST-02
GL-02
TOP OF ROOF 282' - 0"
AMENITY ROOF 252' - 0"
PH LEVEL 22 240' - 0"
LEVEL 21 230' - 0"
LEVEL 20 220' - 0"
LEVEL 19 210' - 0"
LEVEL 18 200' - 0"
LEVEL 17 190' - 0"
LEVEL 16 180' - 0"
LEVEL 15 170' - 0"
LEVEL 14 160' - 0"
LEVEL 13 150' - 0"
LEVEL 12 140' - 0"
LEVEL 11 130' - 0"
LEVEL 10 120' - 0"
LEVEL 9 110' - 0"
LEVEL 8 100' - 0"
LEVEL 7 90' - 0"
LEVEL 6 80' - 0"
LEVEL 5 65' - 0"
LEVEL 4
LEVEL 3
LEVEL 2
LOBBY @ 222'
P1 @ 220'
LEVEL B1
SITE DATUM 0'-0" (207')
LEVEL B2
30'-0"
12'-0"
10'-0"
10'-0"
10

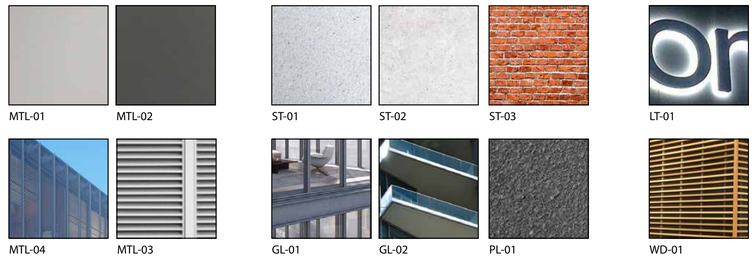


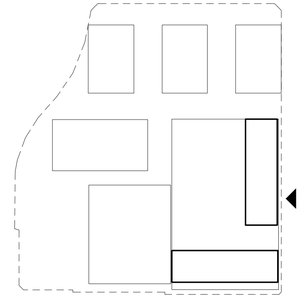
1 EAST ELEVATION

SCALE: 1/32" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
MTL-03	METAL LOUVRES LIGHT SILVER COLOR
MTL-04	PERFORATED METAL MESH, SILVER COLOR
ST-01	GFRC PANEL, WHITE
ST-02	EXPOSED CONCRETE
ST-03	BRICK
PL-01	PLASTER, DARK GRAY
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE





NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
EAST ELEVATION

NUMBER
A2.04

2018 CALLISON RTKL, INC.

1 EAST ELEVATION

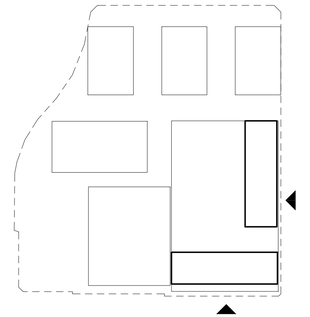
SCALE: 1/16" = 1'-0"

2 NORTH ELEVATION

SCALE: 1/16" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
MTL-03	METAL LOUVRES LIGHT SILVER COLOR
MTL-04	PERFORATED METAL MESH, SILVER COLOR
ST-01	GFRC PANEL, WHITE
ST-02	EXPOSED CONCRETE
ST-03	BRICK
PL-01	PLASTER, DARK GRAY
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

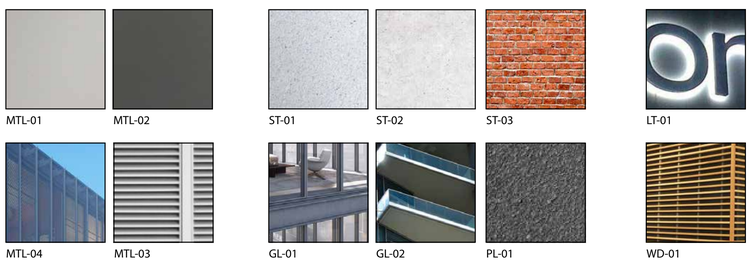
SHEET IDENTIFICATION
TITLE
LEVEL 1 ENLARGED ELEVATIONS
NUMBER
A2.05

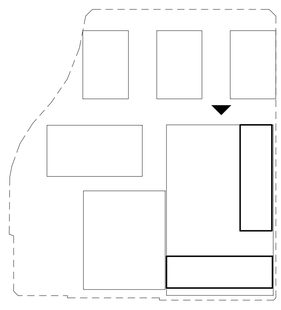
2018 CALLISON RTKL, INC.

1 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

MATERIAL FINISHES

MTL-01	METAL PANEL, LIGHT SILVER COLOR
MTL-02	METAL PANEL, DARK GRAY COLOR
MTL-03	METAL LOUVRES LIGHT SILVER COLOR
MTL-04	PERFORATED METAL MESH, SILVER COLOR
ST-01	GFRC PANEL, WHITE
ST-02	EXPOSED CONCRETE
ST-03	BRICK
PL-01	PLASTER, DARK GRAY
GL-01	VISION GLASS, CLEAR
GL-02	TEMPERED GLASS (GUARDRAIL, GLASS DOOR)
LT-01	PIN MOUNTED, BACK-LIT SIGNAGE





NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

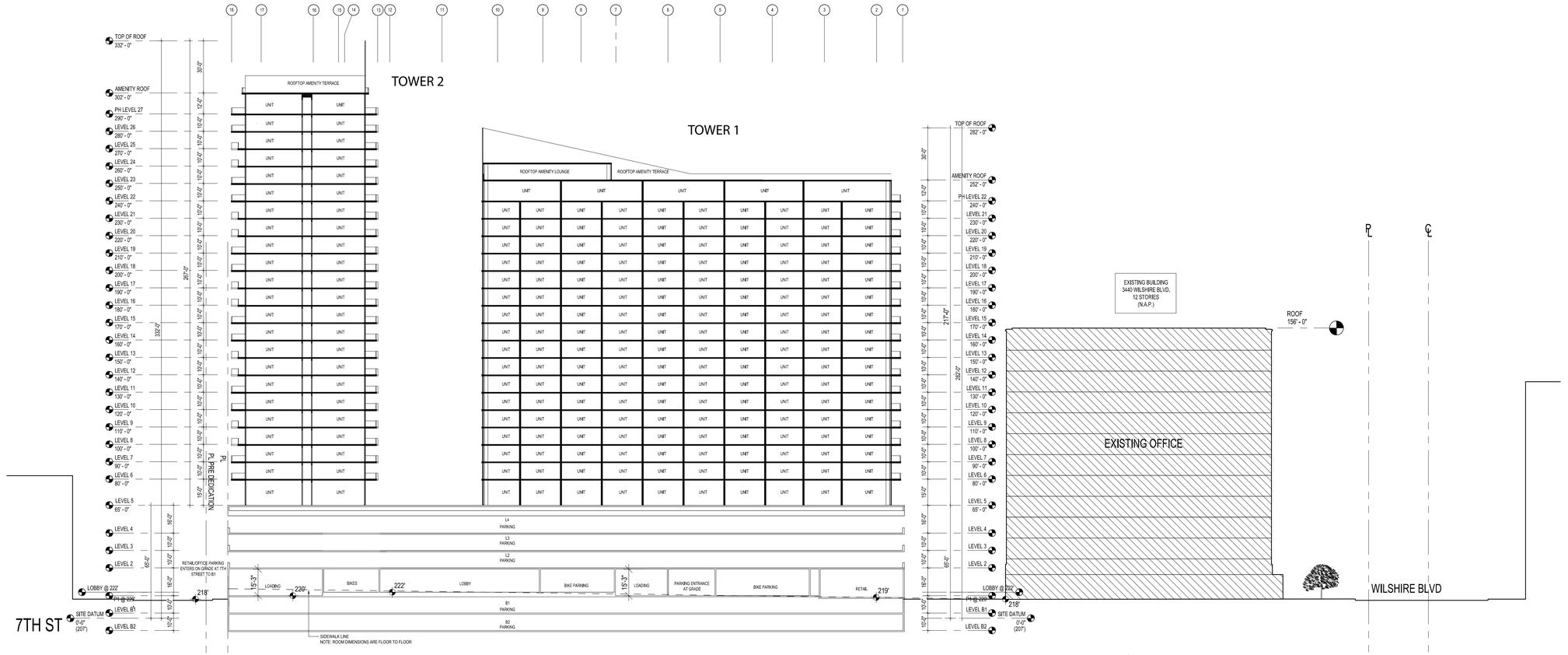
ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

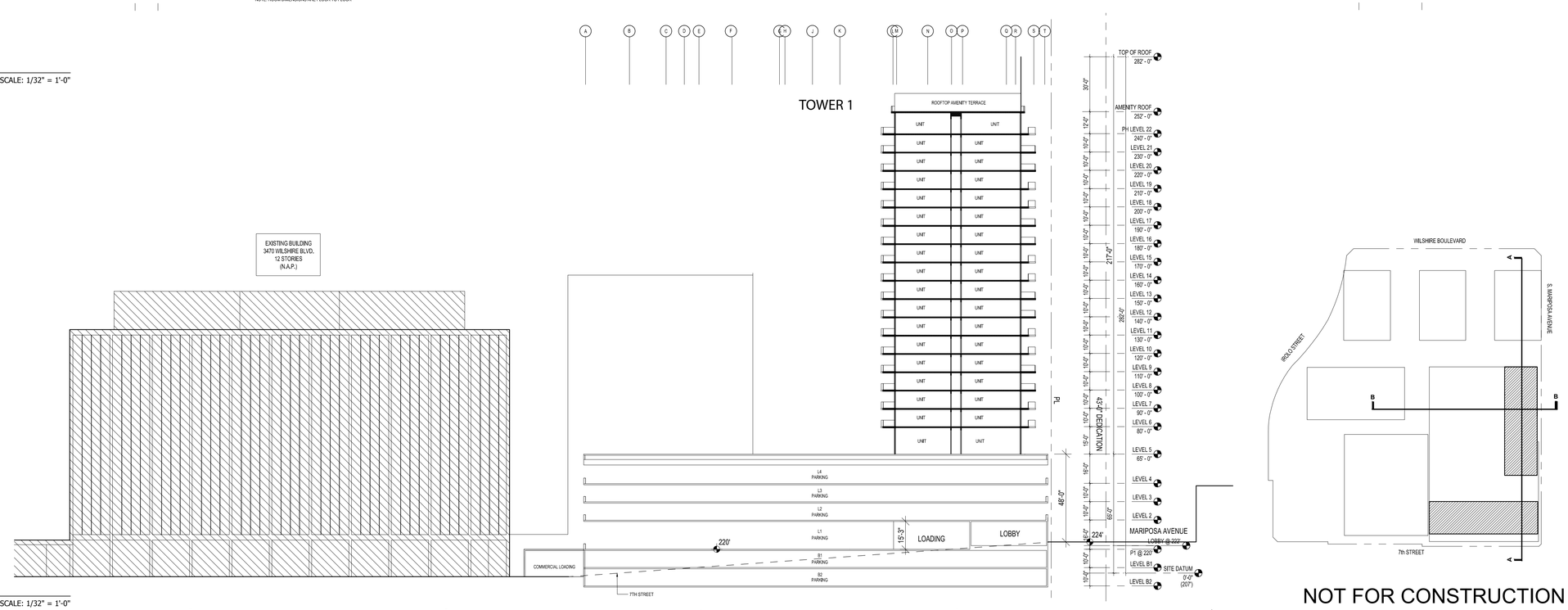
SHEET IDENTIFICATION
TITLE
LEVEL 1 ENLARGED ELEVATIONS
NUMBER
A2.05

2018 CALLISON RTKL, INC.



1 SECTION A-A

SCALE: 1/32" = 1'-0"



2 SECTION B-B

SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

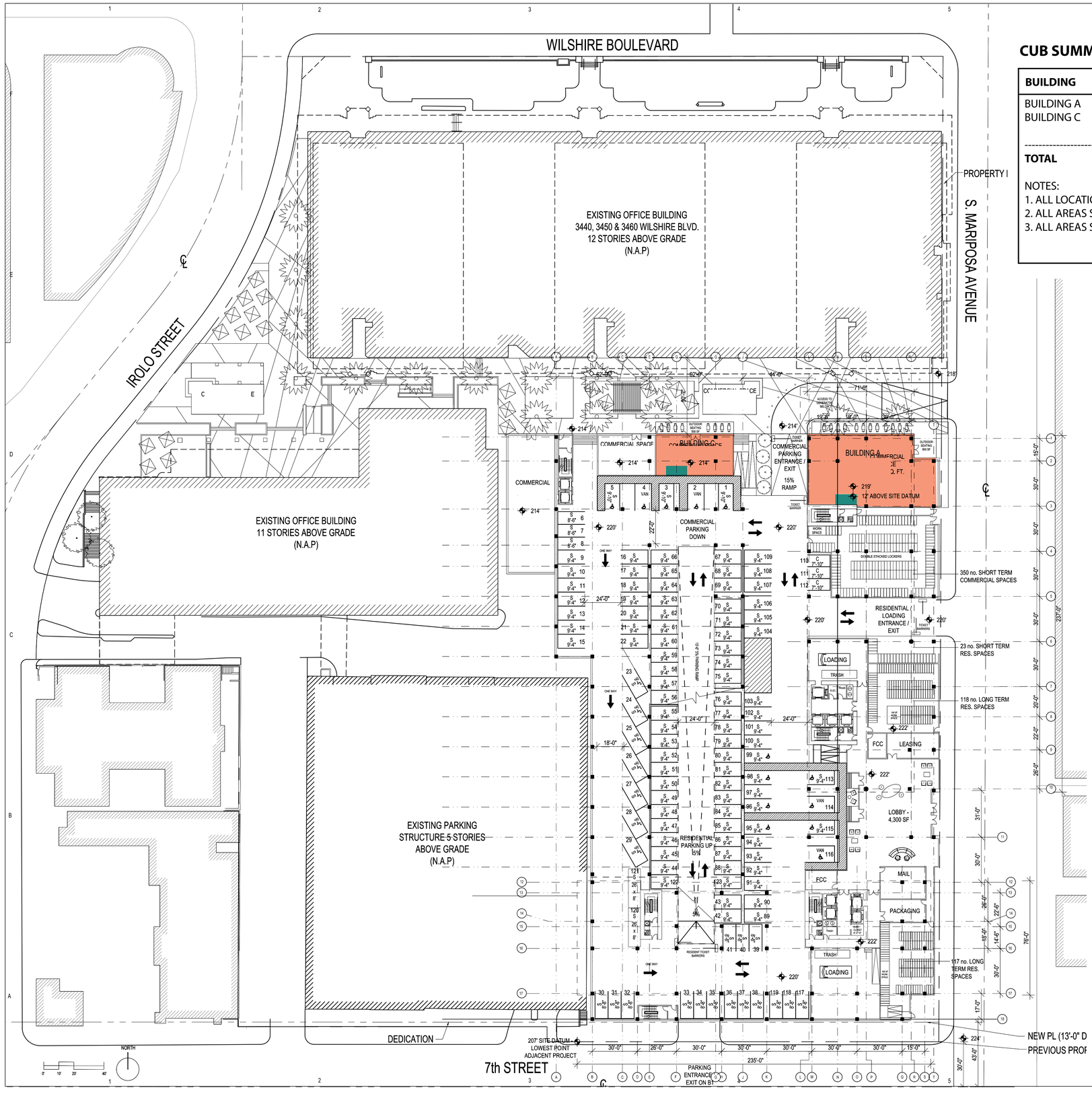
1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
SECTIONS

NUMBER
A3.01

2018 CALLISON RTKL, INC.



CUB SUMMARY TABLE

BUILDING	USE	BUILDING AREA	PATIO AREA	TYPE
BUILDING A	RESTAURANT	3,345 SF	900 SF	47
BUILDING C	RESTAURANT	1,500 SF	500 SF	47
TOTAL		**4,954 SF**	**1,400 SF**	

NOTES:
1. ALL LOCATIONS AND AREAS ARE APPROXIMATE AND MAY VARY.
2. ALL AREAS SHOWN ARE GROSS BUILDING AREA (GBA).
3. ALL AREAS SHOWN ON PLAN INCLUDE BUILDING AREA PLUS PATIO AREA.

INTERIOR SPACE

ALCOHOL STORAGE

1 LEVEL 1

SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
3440 WILSHIRE BLVD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2016	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION

TITLE

CUB EXHIBIT

NUMBER

A4.01

2018 CALLISON RTKL, INC.

1 VIEW FROM 7TH & MARIPOSA LOOKING NORTH WEST
N.T.S

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
1440 WILSHIRE BLVD
LOS ANGELES, CA 90016

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2018	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
RENDERING

NUMBER
A9.01

2018 CALLISON RTKL, INC.

1 STREET VIEW FROM 7TH & MARIPOSA LOOKING WEST

N.T.S

2 ENTRANCE VIEW FROM S. MARIPOSA AVE

N.T.S

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6090
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
5440 WILSHIRE BLVD
LOS ANGELES, CA 90015

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2018	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION
TITLE
RENDERING

NUMBER
A9.02

2018 CALLISON RTKL, INC.

1 STREET VIEW FROM PASEO LOOKING WEST

N.T.S

2 STREET VIEW FROM PASEO LOOKING EAST

N.T.S

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6090

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-170110.00

PROJECT ADDRESS:
5440 WILSHIRE BLVD
LOS ANGELES, CA 90015

PROJECT

CENTRAL PLAZA

LOS ANGELES, CA

ISSUE DRAWING LOG

1	05/09/2018	CASE FILING
2	05/18/2018	REVISION FILING

SEAL

SHEET IDENTIFICATION

TITLE

RENDERING

NUMBER

A9.03

2018 CALLISON RTKL, INC.

LEGEND

1. ENHANCED PAVING
2. CANOPY TREE
3. PALM TREE
4. NEW STREET TREE PER THE STREET TREE DIVISION
5. RAISED PLANTER, TYP. WITH SHRUB/GROUNDCOVER PLANTING MIX
6. SHRUB/GROUNDCOVER PLANTING MIX
7. RESTAURANT PATIO SEATING
8. TRELLIS
9. EXISTING TREE
10. STAIRS
11. RAMP
12. WATER FEATURE
13. EXISTING ARCHITECTURAL OVERHANG
14. BOLLARDS
15. OVERHEAD ENTRY PORTAL
16. EXISTING STREET TREE
17. PORTABLE PLANTER

PAVING FINISHES

PV01
PRECAST CONCRTE PAVERS, GREY COLOR

PV02
PORCELAIN WOOD TILE, GREY COLOR

PV03
CAST IN PLACE CONCRETE PAVING, NATURAL GREY COLOR

PV04
CAST IN PLACE CONCRETE PAVING, COBBLESTONE COLOR

WALL FINISHES

W01
CAST IN PLACE CONCRETE BOARD FORM WALL, NATURAL GREY COLOR

W02
PRECAST CONCRETE WALL, WHITE COLOR

W03
DECORATIVE CMU BLOCK WALL, WHITE COLOR

TREE COUNT (ON SITE)

(MIN. 24" BOX SIZE)	QUANTITY
LEVEL 5	82
ROOF LEVEL	78
TOTAL TREE PROVIDED	160
TOTAL TREE REQUIRED	160

16 0 32 64 128
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4205

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
LEVEL 1
LANDSCAPE PLAN

NUMBER
L-1.01

2016 CALLISON RTKL, INC.

LEGEND

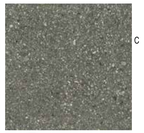
1. ENHANCED PAVING
2. CANOPY TREE
3. PALM TREE
4. PALM TREE IN PARKING STRUCTURE LEVEL BELOW. TRUNK HEIGHT TO BE LEVEL ABOVE PARAPET PLANTER
5. RAISED PLANTER, TYP. WITH SHRUB/GROUNDCOVER PLANTING MIX
6. FIREPIT WITH BANQUETTE/LOUNGE SEATING
7. FIREPLACE WITH TRELLIS/LOUNGE SEATING
8. TRELLIS WITH TABLE AND CHAIRS
9. POOL
10. CHAISE LOUNGE CHAIRS
11. POOL CABANAS
12. POOL ENCLOSURE FENCE/GATE
13. POOL ENCLOSURE WALL
14. SPA
15. BBQ COUNTER
16. BBQ COUNTER WITH SEATING AREA
17. DOG AREA WITH BENCH
18. GUARDRAIL
19. GUARDRAIL PARAPET PLANTER
20. PRIVATE PATIO
21. PARKING STRUCTURE LEVEL BELOW

PAVING FINISHES

PV01
PRECAST CONCRTE PAVERS, GREY COLOR

PV02
PORCELAIN WOOD TILE, GREY COLOR

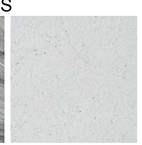
PV03
CAST IN PLACE CONCRETE PAVING, NATURAL GREY COLOR



PV04
CAST IN PLACE CONCRETE PAVING, COBBLESTONE COLOR

WALL FINISHES

W01
CAST IN PLACE CONCRETE BOARD FORM WALL, NATURAL GREY COLOR



W02
PRECAST CONCRETE WALL, WHITE COLOR

W03
DECORATIVE CMU BLOCK WALL, WHITE COLOR

16 0 32 64 128
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4255

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE

LEVEL 5
LANDSCAPE PLAN

NUMBER

L-1.02

2016 CALLISON RTKL, INC.

LEGEND

1. ENHANCED PAVING
2. PLANTER WITH SHRUB/GROUNDCOVER PLANTING MIX
3. FIREPIT WITH LOUNGE SEATING
4. TRELLIS WITH LOUNGE SEATING
5. CHAISE LOUNGE CHAIRS
6. BBQ COUNTER WITH SEATING AREA
7. GUARDRAIL

PAVING FINISHES

PV01
PRECAST CONCRTE PAVERS, GREY COLOR

PV02
PORCELAIN WOOD TILE, GREY COLOR

PV03
CAST IN PLACE CONCRETE PAVING, NATURAL GREY COLOR

PV04
CAST IN PLACE CONCRETE PAVING, COBBLESTONE COLOR

WALL FINISHES

W01
CAST IN PLACE CONCRETE BOARD FORM WALL, NATURAL GREY COLOR

W02
PRECAST CONCRETE WALL, WHITE COLOR

W03
DECORATIVE CMU BLOCK WALL, WHITE COLOR

16 0 32 64 128

SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4255

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION

TITLE

ROOF LEVEL
LANDSCAPE PLAN

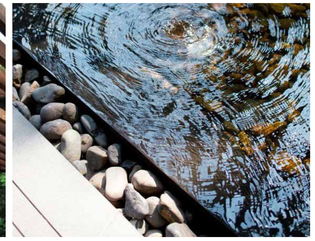
NUMBER

L-1.03

2016 CALLISON RTKL, INC.

LEVEL 1

RESTAURANT PATIO SEATING
TRELLIS
WATER FEATURE
BOLLARDS

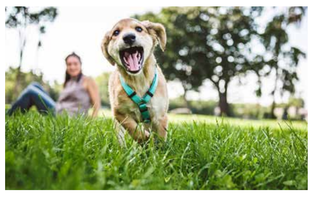


ROOF LEVEL

TRELLIS
FIREPIT
CHAISE LOUNGE CHAIRS
BBQ COUNTER

LEVEL 5

FIREPIT
FIREPLACE
POOL + SPA
CHAISE LOUNGE CHAIRS
POOL CABANAS
TRELLIS
BBQ COUNTER
DOG AREA WITH BENCH



NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4226

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

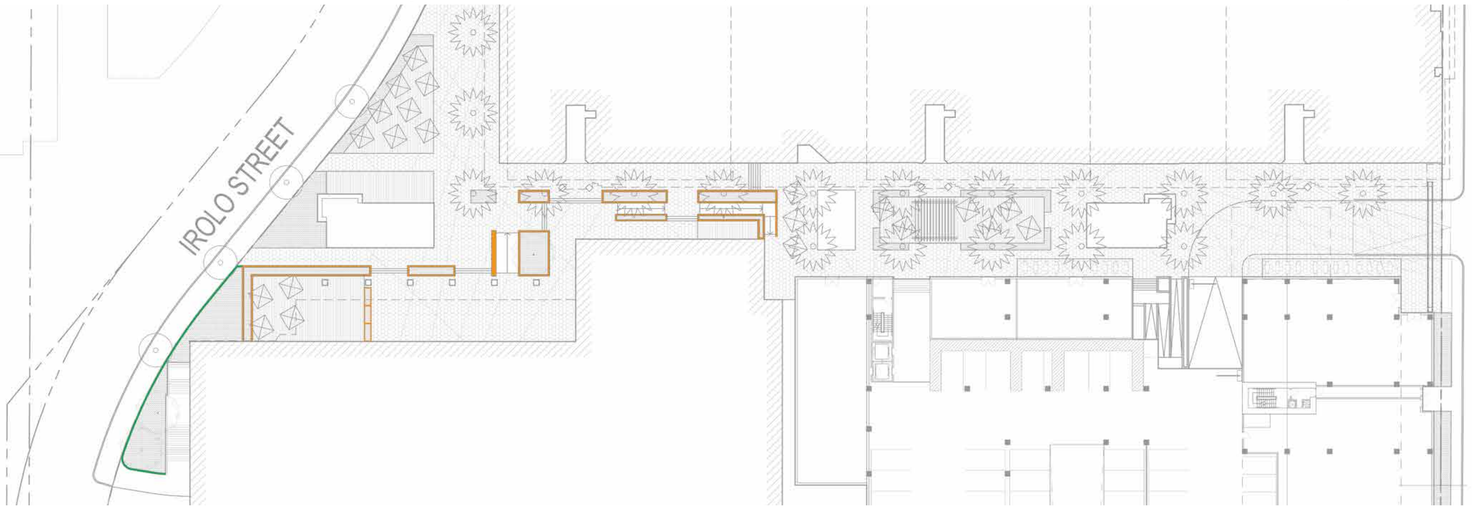
1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
SAMPLE CONCEPT IMAGERY

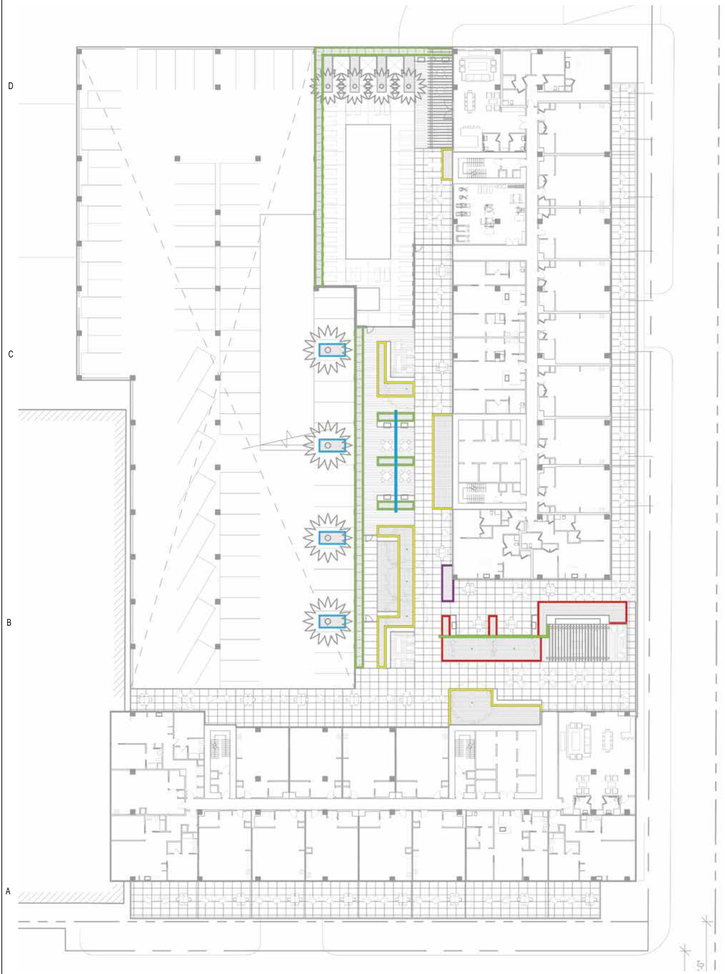
NUMBER
L-1.04

2016 CALLISON RTKL, INC.



S. MARIPOSA AVENUE

LEVEL 1



LEVEL 5

ROOF LEVEL

LEGEND

- 12”
- 24”
- 36”
- 40”
- 42”
- 48”
- 60”

NOTE:
PLANTER WALL HEIGHT IS FROM TOP OF WALL TO THE HIGHEST ADJACENT FINISH SURFACE ELEVATION.

16 0 32 64 128
SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4255

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

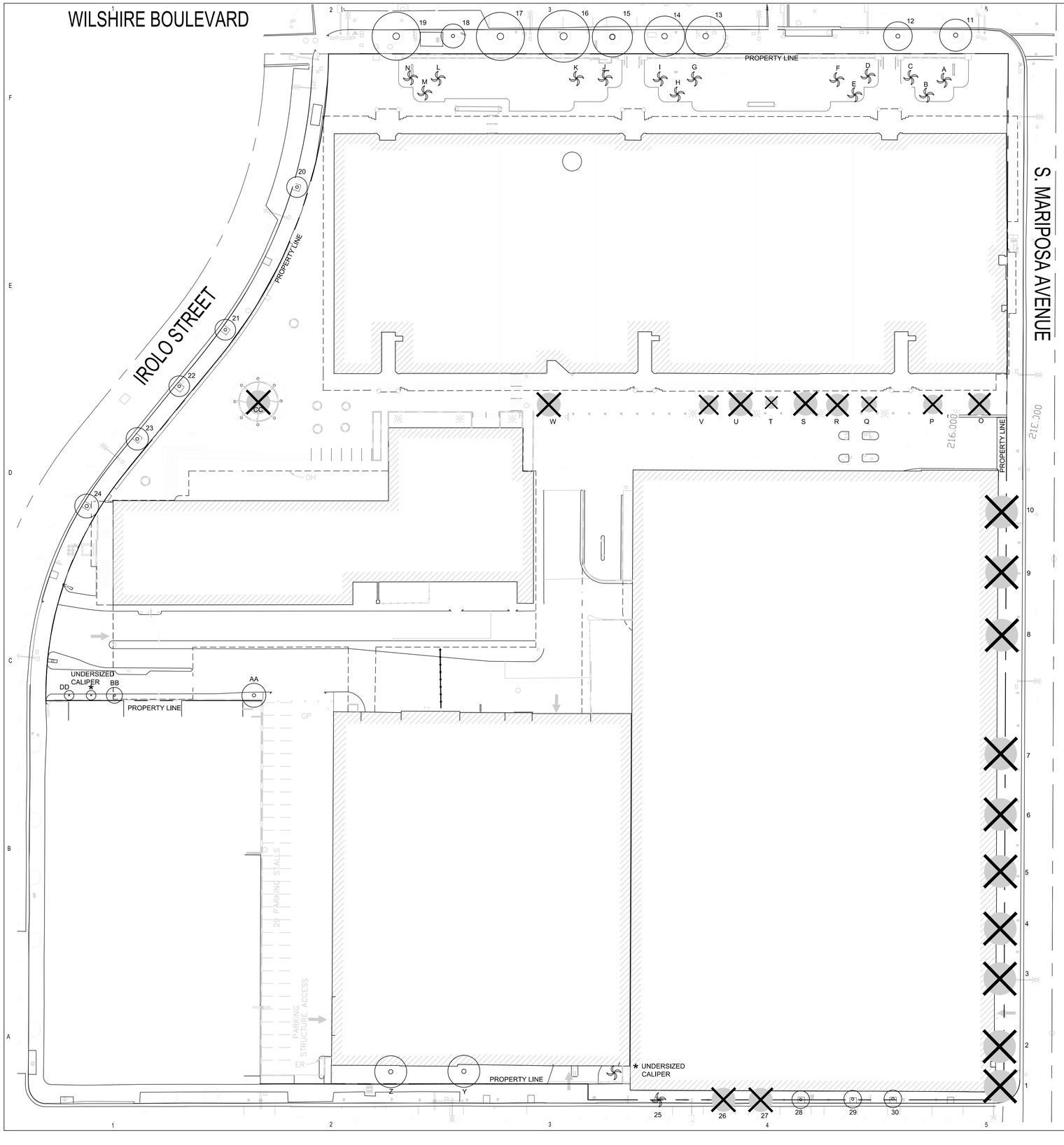
1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
PLANTER WALL HEIGHT PLAN

NUMBER
L-1.05

2016 CALLISON RTKL, INC.



LEGEND

- EXISTING TREES TO BE REMOVED (22 TOTAL)
- EXISTING TREES TO REMAIN, PROTECT IN PLACE (22 TOTAL)
- EXISTING PALMS TO REMAIN (15 TOTAL)

TREE ID	SPECIES NAME	COMMON NAME	HEALTH	PROTECTED? Y/N	REMOVE Y/N
TREES IN PUBLIC RIGHT OF WAY					
Tree 1	FICUS MICROCARPA NITIDA	CHINESE BANYAN	FAIR	N	Y
Tree 2	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 3	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 4	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 5	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 6	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 7	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 8	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 9	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 10	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	Y
Tree 11	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 12	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 13	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 14	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 15	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 16	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 17	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 18	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 19	CINNAMOMUM CAMPHORA	CAMPHOR TREE	GOOD	N	Y
Tree 20	QUERCUS DOUGLASII	BLUE OAK	FAIR	Y	N
Tree 21	PITTOSPORUM RHOMBIFOLIUM	QUEENSLAND PITTOSPORUM	FAIR	N	N
Tree 22	PITTOSPORUM RHOMBIFOLIUM	QUEENSLAND PITTOSPORUM	FAIR	N	N
Tree 23	PITTOSPORUM RHOMBIFOLIUM	QUEENSLAND PITTOSPORUM	FAIR	N	N
Tree 24	PITTOSPORUM RHOMBIFOLIUM	QUEENSLAND PITTOSPORUM	FAIR	N	N
Tree 25	WASHINGTONIA FILIFERA	CALIFORNIA FAN PALM	GOOD	N	N
Tree 26	LAGERSTROEMIA INDICA	CRAPE MYRTLE	GOOD	N	N
Tree 27	WASHINGTONIA FILIFERA	CALIFORNIA FAN PALM	GOOD	N	N
Tree 28	LAGERSTROEMIA INDICA	CRAPE MYRTLE	GOOD	N	N
Tree 29	LAGERSTROEMIA INDICA	CRAPE MYRTLE	GOOD	N	N
Tree 30	LAGERSTROEMIA INDICA	CRAPE MYRTLE	GOOD	N	N
TREES IN PRIVATE PROPERTY					
Tree A	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree B	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree C	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree D	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree E	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree F	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree G	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree H	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree I	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree J	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree K	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree L	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree M	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree N	SYAGRUS ROMANZOFFIANA	QUEEN PALM	GOOD	N	Y
Tree O	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree P	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree Q	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree R	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree S	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree T	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree U	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree V	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree W	CUPANIOPSIS ANACARDIOIDES	CARROTWOOD	GOOD	N	Y
Tree Y	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	N
Tree Z	FICUS MICROCARPA NITIDA	CHINESE BANYAN	GOOD	N	N
Tree AA	MELALEUCA QUINQUENERVIA	PAPERBARK TREE	GOOD	N	N
Tree BB	MELALEUCA QUINQUENERVIA	PAPERBARK TREE	GOOD	N	N
Tree CC	CHAMAEROPS HUMILIS	MEDITERRANEAN FAN PALM	GOOD	N	Y
Tree DD	MELALEUCA QUINQUENERVIA	PAPERBARK TREE	GOOD	N	N

16 0 32 64 128

SCALE: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071

TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION

TITLE

TREE DISPOSITION PLAN

NUMBER

L-1.06

2016 CALLISON RTKL, INC.

ARBUTIS 'MARINA'
marina strawberry tree

CERCIDIUM 'DESERT MUSEUM'
desert museum palo verde

LAGERSTROEMIA INDICA X FAURIEI 'NATCHEZ' natchez crape myrtlez

PHOENIX DACTYLIFERA
date palm

AEONIUM A. 'ZWARTKOPF'
purple seonium

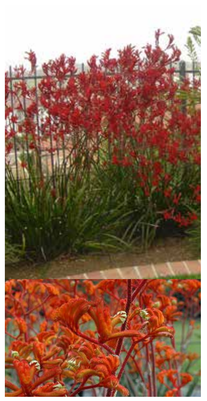
AEONIUM CANARIENSE
canary island aeonium

AGAVE AMERICANA
century plant

AGAVE ATTENUATA
foxtail agave

AGAVE 'BLUE GLOW'
blue glow agave

ANIGOZANTHOS HYBRID
kangaroo paw



ANIGOZANTHOS HYBRID
kangaroo paw

ASPARAGUS D. MYERS
foxtail fern

ASPIDISTRA ELATIOR
cast-iron plant

CHONDROPETALUM TECTORUM
cape rush

DIANELLA T. 'VARIEGATA'
variegated flax lily

FURCRAEA F. 'MEDIOPICTA'
mauritius hemp

LOMANDRA LONGIFOLIA 'BREEZE'
dwarf mat rush

LIRIOPE GIGANTEA
giant lilyturf

MYOPORUM P. 'PUTAH CREEK'
creeping myoporum

NASSELLA TENUISSIMA
mexican feather grass

PHILODENDRON 'XANADU'
winterbourne

PHORMIUM 'AMAZING RED'
amazing red flax

PHORMIUM TENAX 'BRONZE'
bronze flax

ROSMARINUS O. 'PROSTRATUS'
trailing rosemary

SANSEVIERIA HYBRID
snake plant

SANSEVIERIA HYBRID
snake plant

SENECIO MANDRALISCAE
blue chalksticks

SENECIO VITALIS
narrow-lead chalksticks

WESTRINGIA FRUTICOSA 'WYNABBIE GEM'
coast rosemary

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060
WWW.CALLISONRTKL.COM

PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4256

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
LEVEL 1
PLANTING PALETTE

NUMBER
L-1.07

2018 CALLISON RTKL, INC.

ARBUTIS 'MARINA'
marina strawberry tree

CERCIDIUM 'DESERT MUSEUM'
desert museum palo verde

LAGERSTROEMIA INDICA X FAURIEI 'NATCHEZ' natchez crape myrtlez

PHOENIX DACTYLIFERA
date palm

TIPUANA TIPU
tipu tree

ULMUS PARVIFOLIA
chinese evergreen elm

AEONIUM CANARIENSE
canary island aeonium

AGAVE AMERICANA
century plant

AGAVE ATTENUATA
foxtail agave

AGAVE 'BLUE GLOW'
blue glow agave

ASPIDISTRA ELATIOR
cast-iron plant

CHAMAEROPS HUMILIS
mediterranean fan palm

FICUS MICROCARPA NITIDA
indian laurel fig

PODOCARPUS MACROPHYLLUS
yew pine

DIANELLA T. 'VARIEGATA'
variegated flax lily

LIRIOPE GIGANTEA
giant lilyturf

PHILODENDRON 'XANADU'
winterbourne

PHORMIUM 'AMAZING RED'
amazing red flax

PHORMIUM TENAX 'BRONZE'
bronze flax

ROSMARINUS O. 'PROSTRATUS'
trailing rosemary

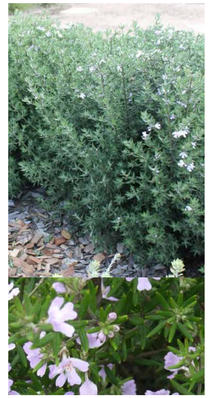
SANSEVIERIA HYBRID
snake plant

SANSEVIERIA HYBRID
snake plant

SENECIO MANDRALISCAE
blue chalksticks

SENECIO VITALIS
narrow-lead chalksticks

STRELITZIA NICOLAI
giant bird of paradise



WESTRINGIA FRUTICOSA 'WYNABBIE GEM'
coast rosemary

NOT FOR CONSTRUCTION

CALLISONRTKL
A DESIGN CONSULTANCY OF ARCADIS

CALLISON RTKL, INC.
333 S. HOPE STREET, C-200
LOS ANGELES, CA 90071
TEL: 213-633-6000
FAX: 213-633-6060

WWW.CALLISONRTKL.COM
PROJECT NUMBER: 040-150069.00

LRM
LANDSCAPE ARCHITECTURE | URBAN DESIGN
LRMLTD.COM CA PLA 4226

PROJECT ADDRESS:
CENTRAL PLAZA
3440 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010

PROJECT

CENTRAL PLAZA
LOS ANGELES, CA

ISSUE DRAWING LOG

1	09/24/2016	CASE FILING
2	07/18/2018	REVISED CASE FILING
3	08/10/2018	REVISED CASE FILING

SEAL

SHEET IDENTIFICATION
TITLE
LEVEL 5/ROOF LEVEL
PLANTING PALETTE

NUMBER
L-1.08

2016 CALLISON RTKL, INC.

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

7/20/2017 SCCIC File #: 17868.3900

Andrea Schultz
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

Re: Records Search for the Central Plaza Project

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Hollywood, CA USGS 7.5' quadrangle. The following summary reflects the results of the records search for the project area and a ½-mile radius. The search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), the California State Historic Properties Directory (HPD), and the City of Los Angeles Historic-Cultural Monuments (LAHCM) listings were reviewed for the above referenced project site. Due to the sensitive nature of cultural resources, archaeological site locations are not released.

RECORDS SEARCH RESULTS SUMMARY

Archaeological Resources	Within project area: 0 Within project radius: 1
Built-Environment Resources	Within project area: 0 Within project radius: 19
Reports and Studies	Within project area: 5 Within project radius: 37
OHP Historic Properties Directory (HPD)	Within project area: 0 Within project radius: 51
California Points of Historical Interest (SPHI)	Within project area: 0 Within project radius: 0
California Historical Landmarks (SHL)	Within project area: 0 Within project radius: 0
California Register of Historical Resources (CAL REG)	Within project area: 0 Within project radius: 36
National Register of Historic Places (NRHP)	Within project area: 0 Within project radius: 2

City of Los Angeles Historic-Cultural Monuments (LAHCM)	Within project area: 0 Within project radius: 4

HISTORIC MAP REVIEW – The Santa Monica (1902, 1921) 1:62,500 scale historic maps indicated that in 1902 there were three developed roads present and 2 buildings. There were four streams, one of which was an intermittent stream. Place names nearby included Pico Heights and Los Angeles. In 1921 there was major development in the area with the existence of an intense grid-like system of developed roads and blocks of buildings.

RECOMMENDATIONS

According to our records, the project site has not been subjected to any previous cultural resources studies and the sensitivity of the project site is unknown. Although the project site is currently developed, there is the potential for the discovery of prehistoric and historic cultural resources within the project boundaries. Agricultural remains, foundations, trails, hearths, trash dumps, privies, changes in soil colorations, human or animal bone, pottery, chipped or shaped stone, etc. are all potential indications of an archaeological site. Therefore, customary caution and a halt-work condition should be in place for any ground-disturbing activities. In the event that any evidence of cultural resources is discovered, all work within the vicinity of the find should stop until a qualified archaeological consultant can assess the find and make recommendations. Excavation of potential cultural resources should not be attempted by project personnel. It is also recommended that any historic structures (45 years and older) be identified, recorded, and evaluated for local, state, or national significance prior to the approval of project plans as may be required by the lead agency. Finally, it is also recommended that the Native American Heritage Commission should be consulted to identify if any additional traditional cultural properties or other sacred sites are known to be in the area.

For your convenience, you may find a professional consultant* at www.chrisinfo.org. Any resulting reports by the qualified consultant should be submitted to the South Central Coastal Information Center as soon as possible.

*The SCCIC does not endorse any particular consultant and makes no claims about the qualifications of any person listed. Each consultant on this list self-reports that they meet current professional standards.

If you have any questions regarding the results presented herein, please contact the office at 657.278.5395 Monday through Thursday 9:00 am to 3:30 pm.

Should you require any additional information for the above referenced project, reference the SCCIC number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Michelle Galaz
Assistant Coordinator

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Fuel and Energy Calculations
3440 Wilshire

Summary of Energy Use during Construction

Electricity
Water Consumption: 3,875 kWh
Gasoline
On Road: 254,938 gallons
Off Road: 0 gallons
Total: 254,938 gallons
Diesel
On Road: 106,022 gallons
Off Road: 96,398 gallons
Total: 202,420 gallons

Construction Transportation Gasoline Fuel

On-road (worker)

Phase	Trips	Days	Length (miles)	Total (miles)	MPG	Gallons
Demolition	15	21				
Site Prep	15	20				
Grading	20	66				
Construction	200	938				
Arch Coating	5	220				
Total	**255**	**1,265**	**14.7**	**4,741,853**	**18.6**	**254,938**

Transportation Diesel Fuel

On-road (vender)

Phase	Trips	Days	Length (miles)	Total (miles)	MPG	Gallons
Demolition	4	21				
Site Prep	4	20				
Grading	4	66				
Construction	20	938				
Arch Coating	4	220				
Total	**36**	**1,265**	**6.9**	**314,226**	**7.4**	**42,463**

On-road (haul)

Phase	Trips	Length (mi)	Total (mil)	MPG	Gallons
Demolition	1,978				
Grading	13,700				
Total	**15,678**	**30**	**470,340**	**7.4**	**63,559**

Off-road (equipment)

Phase	Equipment	Units	Hours	HP	Load Factor	Ave. Daily Factor	Days	HP-hours
Demolition	Concrete Saws	2	8	81	0.73	0.6	21	11920
Demolition	Rubber Tired Dozers	1	8	247	0.40	0.6	21	9959
Demolition	Dumpers/Tenders	3	8	16	0.38	0.6	21	1838
Site Preparation	Graders	1	8	187	0.41	0.6	20	7360
Site Preparation	Excavators	1	8	158	0.38	0.6	20	5763
Site Preparation	Cement and Mortar Mixer	1	6	9	0.56	0.6	20	362
Site Preparation	Scrapers	1	8	367	0.48	0.6	20	16911
Grading	Rubber Tired Dozers	1	8	247	0.40	0.6	66	31299
Grading	Tractors/Loaders/Backhoes	1	7	97	0.37	0.6	66	9948

Grading	Graders	1	8	187	0.73	0.6	66	43246
Grading	Welders	1	6	46	0.45	0.6	66	4918
Grading	Sweepers/Scrubbers	1	6	64	0.46	0.6	66	6994
Grading	Excavators	2	8	158	0.38	0.6	66	38041
Construction	Cranes	2	8	231	0.29	0.6	938	603231
Construction	Forklifts	3	6	89	0.20	0.6	938	180321
Construction	Tractors/Loaders/Backhoes	3	8	97	0.37	0.6	938	484773
Construction	Aerial Lifts	2	6	63	0.31	0.6	938	131897
Construction	Generator	1	8	84	0.74	0.6	938	279869
Arch Coatings	Air Compressors	2	6	78	0.48	0.6	220	59304
Total								**1,927,964**

HP = horsepower
gallons of diesel fuel per HP-hour= 0.05
Equipment assumptions are provide in the CalEEMod output files and fuel usage estimate of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

1,927,964 hp-hours = 96,398 gallons diesel

Water Usage for fugitive dust control during construction
Water application rate = 3,020 gallons/acre/day
Each gallon of delivered potable water in Southern California is associated with 0.009727 kWh of electricity).

Grading 66 days x 2 acres x 3,020 gallons = 398,640 gallons x 0.009727 kWh/gallon = 3,878 kWh

Operation Transportation Fuel

Gasoline and Diesel Use

Proposed Annual VMT: 7,766,464 miles			**Fuel**	
Fleet Mix	91% Auto	7,067,482 miles	18.6 mpg gas	379,972 gallons
	9% Other	698,982 miles	7.4 mpg diesel	94,457 gallons

Geotechnologies, Inc.
Consulting Geotechnical Engineers

439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

December 5, 2018
File Number 21491

Jamison Properties
3470 Wilshire Boulevard, Suite 700
Los Angeles, California 90010

Attention: Garrett Lee

Subject: Preliminary Geotechnical Engineering Investigation for Entitlement Process
Proposed "Central Plaza" Residential Development
3440 Wilshire Boulevard, Los Angeles, California

Ladies and Gentlemen:

This letter transmits the Preliminary Geotechnical Engineering Investigation for the subject property prepared by Geotechnologies, Inc. This report provides preliminary geotechnical recommendations for entitlement of the proposed development, including earthwork, seismic design, retaining walls, excavations, shoring and foundation design. Engineering for the proposed project should not begin until approval of the geotechnical investigation is granted by the local building official. Significant changes in the geotechnical recommendations may result due to the building department review process.

This report is considered preliminary since the development is in the initial conceptual design phase. Limited exploration and research were performed as part of this preliminary report. Additional exploration will be necessary in order to achieve a thorough investigation of the site. A comprehensive report shall be prepared when the site is available for additional exploration and the development plan achieves more refinement.

The validity of the recommendations presented herein is dependent upon review of the geotechnical aspects of the project during construction by this firm. The subsurface conditions described herein have been projected from limited subsurface exploration and laboratory testing. The exploration and testing presented in this report should in no way be construed to reflect any variations which may occur between the exploration locations or which may result from changes in subsurface conditions.

Should you have any questions please contact this office.

Respectfully submitted,
GEOTECHNOLOGIES, INC.

REGISTERED PROFESSIONAL ENGINEER
STANLEY SIU-KEI TANG
No. 56178
Exp.12/31/18
CIVIL
STATE OF CALIFORNIA

STANLEY S. TANG
R.C.E. 56178

SST:km

Distribution: (5) Addressee

TABLE OF CONTENTS

SECTION	PAGE
INTRODUCTION	1
PROPOSED DEVELOPMENT	1
SITE CONDITIONS	2
GEOTECHNICAL EXPLORATION	3
FIELD EXPLORATION	3
Geologic Materials	3
Groundwater	4
Caving	4
Research	5
SEISMIC EVALUATION	6
REGIONAL GEOLOGIC SETTING	6
REGIONAL FAULTING	7
SEISMIC HAZARDS AND DESIGN CONSIDERATIONS	7
Surface Rupture	8
Liquefaction	8
Dynamic Dry Settlement	9
Tsunamis, Seiches and Flooding	9
Landsliding	10
CONCLUSIONS AND RECOMMENDATIONS	10
SEISMIC DESIGN CONSIDERATIONS	11
2016 California Building Code Seismic Parameters	11
FILL SOILS	12
EXPANSIVE SOILS	12
WATER-SOLUBLE SULFATES	13
DEWATERING	13
METHANE ZONES	14
GRADING GUIDELINES	14
Site Preparation	14
Compaction	15
Acceptable Materials	16
Utility Trench Backfill	16
Wet Soils	16
Shrinkage	17
Weather Related Grading Considerations	17
Geotechnical Observations and Testing During Grading	18
FOUNDATION DESIGN	18
Mat Foundation	19
Conventional	20
Miscellaneous Foundations	21
Lateral Design	21
Foundation Settlement	22
Foundation Observations	22
RETAINING WALL DESIGN	22

TABLE OF CONTENTS

SECTION **PAGE**

Dynamic (Seismic) Earth Pressure 23
Surcharge from Adjacent Structures 24
Waterproofing 24
Retaining Wall Drainage 25
Retaining Wall Backfill 26
Sump Pump Design 27
TEMPORARY EXCAVATIONS 27
Temporary Dewatering 28
Excavation Observations 29
SHORING DESIGN 29
Soldier Piles 29
Lagging 31
Lateral Pressures 31
Tied-Back Anchors 32
Anchor Installation 34
Deflection 34
Monitoring 35
Shoring Observations 35
SLABS ON GRADE 35
Concrete Slabs-on Grade 35
Design of Slabs That Receive Moisture-Sensitive Floor Coverings 36
Concrete Crack Control 37
PAVEMENTS 38
SITE DRAINAGE 39
STORMWATER DISPOSAL 39
DESIGN REVIEW 39
CONSTRUCTION MONITORING 40
EXCAVATION CHARACTERISTICS 40
CLOSURE AND LIMITATIONS 41
GEOTECHNICAL TESTING 42
Classification and Sampling 42
Moisture and Density Relationships 42
Direct Shear Testing 43
Consolidation Testing 43
Expansion Index Testing 44
Laboratory Compaction Characteristics 44
Grain Size Distribution 44

ENCLOSURES
References
Vicinity Map
Local Geologic Map
Seismic Hazard Zone Map

TABLE OF CONTENTS

SECTION **PAGE**

ENCLOSURES - continued

Historically Highest Groundwater Levels Map
Methane Zone Risk Map
Plot Plan
Plates A-1 through A-4
Plates B-1 through B-2
Plate C-1
Plate D
Plate F
Preliminary Investigation Report by Dames and Moore (09/05/50)
Additional Foundation Exploration Report by Dames and Moore (05/11/54)
Soils Engineering Report by Earth Systems Consultants (03/13/92)

PRELIMINARY GEOTECHNICAL ENGINEERING INVESTIGATION
FOR ENTITLEMENT PROCESS
PROPOSED "CENTRAL PLAZA" RESIDENTIAL DEVELOPMENT
3440 WILSHIRE BOULEVARD
LOS ANGELES, CALIFORNIA

INTRODUCTION

This report presents the results of the preliminary geotechnical engineering investigation performed on the subject property. The purpose of this investigation was to identify the distribution and engineering properties of the earth materials underlying the site, and to provide geotechnical recommendations for the design of the proposed development.

This report is considered preliminary since the development is in the initial conceptual design phase. Limited exploration and research were performed as part of this preliminary report. Additional exploration will be necessary in order to achieve a thorough investigation of the site. A comprehensive report shall be prepared when the site is available for additional exploration and the development plan achieves more refinement.

This investigation included excavation of four exploratory borings, collection of representative samples, laboratory testing, engineering analysis, review of published geologic data, review of available geotechnical engineering information and the preparation of this report. The exploratory excavation locations are shown on the enclosed Plot Plan. The results of the exploration and the laboratory testing are presented in the Appendix of this report.

PROPOSED DEVELOPMENT

Information concerning the proposed development was furnished by the client. The site is proposed to be developed with a new residential development, which will consist of two

residential towers. The proposed towers will be 23 and 28 stories in height, with roof top amenities. The entire development will be constructed over 1 to 2 subterranean parking levels and 4 podium parking levels. Due to the gently sloping nature of the site, the proposed subterranean levels will extend between 5 to 20 feet below the existing site grade. Based on the preliminary plans, the lowest subterranean B2 Level will have a finished floor varying between 195.0 feet and 202.5 feet above Mean Sea Level (MSL).

Preliminarily, column loads are estimated to be between 2,500 and 3,500 kips. Grading will consist of excavations between 15 and 30 feet in depth for the proposed subterranean parking levels and foundation elements.

Any changes in the design of the project or location of any structure, as outlined in this report, should be reviewed by this office. The recommendations contained in this report should not be considered valid until reviewed and modified or reaffirmed, in writing, subsequent to such review.

SITE CONDITIONS

The property is located at 3440 Wilshire Boulevard, in the City of Los Angeles, California. The area of the proposed development is currently developed with an existing two-story parking structure, which will be demolished prior to construction of the proposed development. The neighboring development consists primarily of residential and commercial structures. Three 12-story office buildings (3440-3460 Wilshire Boulevard) exist north of the proposed development. Another 12-story office building (3470 Wilshire Boulevard) is located west of the northwest portion of the proposed development. An existing 3-story parking structure is located immediately west of the proposed development. The project site is also bounded by Mariposa Avenue to the east, by 7th Street to the south.

The overall topography surrounding the project site slopes very gently to the southwest, with approximately 27 feet of elevation change from the corner of Mariposa Avenue and 7th Street (with an approximate high elevation of 225.0 feet above MSL) to the corner of Irolo Street and 7th Street (with an approximate low elevation of 198.0 feet above MSL). Drainage across the site is by sheetflow to the city streets. The vegetation on the site consists of isolated trees.

GEOTECHNICAL EXPLORATION

FIELD EXPLORATION

The site was explored between September 29, 2015, and September 30, 2015, by excavating 4 exploratory borings. The exploratory borings varied between 40 to 60 feet in depth below the existing site grade. The borings were excavated with the aid of a truck-mounted drilling machine, equipped with an automatic hammer, and using 8-inch diameter hollowstem augers. The exploration locations are shown on the Plot Plan and the geologic materials encountered are logged on Plates A-1 through A-4.

Geologic Materials

Fill materials underlying the subject site consist of silty sands and sandy clays, which are yellowish to dark brown in color, slightly moist to moist, medium dense to dense, stiff, fine to coarse grained, with occasional gravel, and brick and concrete fragments. Fill thickness ranging from 5½ and 7½ feet was encountered during exploration.

Native soils consist of Older Alluvium, comprising of sandy to silty clays, and silty sands, which are olive brown to dark grayish brown in color, slightly moist to moist, stiff to very stiff, dense, fine grained.

The native soils are underlain by bedrock materials at depths between 27½ and 45 feet below site grades. The bedrock underlying the subject site consists of sandstone and siltstone of the Upper-Miocene Puente Formation. The rock is moderately bedded, gray to dark olive gray in color, moist, moderately hard to hard. More detailed soil profiles may be obtained from individual boring logs.

Groundwater

Seepage of water was encountered at depths between 22 and 26½ feet in Boring Number 1 and 2, respectively. However, groundwater was not encountered in Boring Number 3 and 4, which were excavated to depths of 40 feet below the existing site grade.

The historically highest groundwater level was established by review of California Geological Survey Seismic Hazard Zone Report of the Hollywood Quadrangle. Review of this report indicates that the historically highest groundwater level is on the order of 20 feet below the existing site grade.

Fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors not evident at the time of the measurements reported herein. Fluctuations also may occur across the site. High groundwater levels can result in changed conditions.

Caving

Caving could not be directly observed during exploration due to the type of excavation equipment utilized. Based on the experience of this firm, large diameter excavations, excavations that encounter granular, cohesionless soils and excavations below the groundwater table will most likely experience caving.

Research

Available geotechnical reports for the site were reviewed during the preparation of this investigation. The following reports were obtained from the City of Los Angeles Records Division for review:

1. Preliminary Report, Foundation investigation, Proposed Commercial Buildings, Wilshire Boulevard and Mariposa Avenue, Los Angeles, California, for the Tishman Realty & Construction Company, by Dames and Moore Soil Engineers (DM), dated December 5, 1950;
2. Additional Foundation Exploration, Proposed Additional Parking Facilities, 3440 Wilshire Boulevard, for Tishman Realty and Construction Company, by Dames and Moore Soil Engineers, dated May 11, 1954;
3. Soil Engineering Report for Proposed Canopies and Sign Monuments, at 3450 Wilshire Boulevard, Los Angeles, California, by Earth Systems Consultants (ESC), dated March 13, 1992.

A preliminary report (Reference #1) was prepared by DM in 1950 for the development of a total of three 12-story buildings (office buildings north of the proposed development), two single-story buildings, and a two-level garage facility (existing parking structure). A total of eight boring logs were presented as part of the preliminary report. However, a plan showing the location of the borings could not be found during research of the City records. According to the boring logs, bedrock (shale) was encountered at depths approximately between 24 and 44 feet below the ground surface. Groundwater seepage was generally encountered above the native soils/bedrock contact. According to the report, drilled and belled caissons were recommended for the development. A bearing pressure of 12,000 psf was recommended for caissons embedded a minimum of 3 feet into the shale bedrock, and 16,000 psf was recommended for caissons embedded a minimum of 5 feet into the shale bedrock.

Reference #2 presented the results of additional borings drilled by DM for the development of the Additional Parking Facilities. Three additional 18-inch diameter bucket-auger borings were drilled as part of this additional investigation to determine the depths to the shale bedrock, and to

confirm the strength of the bedrock. DM provided the same caisson design parameters for the parking structure as Reference #1.

Reference #3 was prepared by ESC in 1992, for the development of canopies and sign monuments along the north side of the property at Wilshire Boulevard. A total of five borings were excavated by ESC as part of their geotechnical investigation. The borings encountered bedrock at depths of 24 to 32 feet below the ground surface in Test Hole No. 1 through 3, but were not encountered in Test Hole No. 4 or 5, which were only excavated to a depth of 10 feet bgs. Groundwater was encountered at depths of 28 and 23 feet bgs, in Test Hole No. 2 and 3, respectively, but were not encountered in Test Hole No. 1 (which was excavated to a maximum depth of 30 feet), or Test Hole No. 4, or 5 (which were excavated to a maximum depth of 10 feet bgs).

The locations of the borings referenced in Reference No. 2 and 3 above are plotted on the enclosed Plot Plan. The borings logs for these prior borings are provided following the Exploration Logs (Plates A-1 through A-4) prepared by this firm. The referenced reports are presented at the end of this report for reference.

SEISMIC EVALUATION

REGIONAL GEOLOGIC SETTING

The subject property is located in the northern portion of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges are characterized by northwest-trending blocks of mountain ridges and sediment-floored valleys. The dominant geologic structural features are northwest trending fault zones that either die out to the northwest or terminate at east-trending reverse faults that form the southern margin of the Transverse Ranges.

REGIONAL FAULTING

Based on criteria established by the California Division of Mines and Geology (CDMG) now called California Geologic Survey (CGS), faults may be categorized as active, potentially active, or inactive. Active faults are those which show evidence of surface displacement within the last 11,000 years (Holocene-age). Potentially-active faults are those that show evidence of most recent surface displacement within the last 1.6 million years (Quaternary-age). Faults showing no evidence of surface displacement within the last 1.6 million years are considered inactive for most purposes, with the exception of design of some critical structures.

Buried thrust faults are faults without a surface expression but are a significant source of seismic activity. They are typically broadly defined based on the analysis of seismic wave recordings of hundreds of small and large earthquakes in the southern California area. Due to the buried nature of these thrust faults, their existence is usually not known until they produce an earthquake. The risk for surface rupture potential of these buried thrust faults is inferred to be low (Leighton, 1990). However, the seismic risk of these buried structures in terms of recurrence and maximum potential magnitude is not well established. Therefore, the potential for surface rupture on these surface-verging splays at magnitudes higher than 6.0 cannot be precluded.

SEISMIC HAZARDS AND DESIGN CONSIDERATIONS

The primary geologic hazard at the site is moderate to strong ground motion (acceleration) caused by an earthquake on any of the local or regional faults. The potential for other earthquake-induced hazards was also evaluated including surface rupture, liquefaction, dynamic settlement, inundation and landsliding.

Surface Rupture

In 1972, the Alquist-Priolo Special Studies Zones Act (now known as the Alquist-Priolo Earthquake Fault Zoning Act) was passed into law. The Act defines "active" and "potentially active" faults utilizing the same aging criteria as that used by California Geological Survey (CGS). However, established state policy has been to zone only those faults which have direct evidence of movement within the last 11,000 years. It is this recency of fault movement that the CGS considers as a characteristic for faults that have a relatively high potential for ground rupture in the future.

CGS policy is to delineate a boundary from 200 to 500 feet wide on each side of the known fault trace based on the location precision, the complexity, or the regional significance of the fault. If a site lies within an Earthquake Fault Zone, a geologic fault rupture investigation must be performed that demonstrates that the proposed building site is not threatened by surface displacement from the fault before development permits may be issued.

Ground rupture is defined as surface displacement which occurs along the surface trace of the causative fault during an earthquake. Based on research of available literature and results of site reconnaissance, no known active faults, or potentially active faults underlie the subject site. In addition, the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the subject site is considered low.

Liquefaction

Liquefaction is a phenomenon in which saturated silty to cohesionless soils below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic loading conditions such as those induced by an earthquake. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

The Seismic Hazards Maps of the State of California (CDMG, 1999), does not classify the site as part of the potentially "Liquefiable" area. This determination is based on groundwater depth records, soil type and distance to a fault capable of producing a substantial earthquake.

The project site is underlain by Older Alluvium and bedrock. Based on the dense nature of the underlying Older Alluvium and bedrock, the potential for liquefaction occurring at the site is considered to be remote.

Dynamic Dry Settlement

Seismically-induced settlement or compaction of dry or moist, cohesionless soils can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures.

Some seismically-induced settlement of the proposed structures should be expected as a result of strong ground-shaking, however, due to the uniform nature of the underlying geologic materials, excessive differential settlements are not expected to occur.

Tsunamis, Seiches and Flooding

Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. Review of the County of Los Angeles Flood and Inundation Hazards Map, Leighton (1990), indicates the site does not lie within the mapped tsunami inundation boundaries.

Seiches are oscillations generated in enclosed bodies of water which can be caused by ground shaking associated with an earthquake. No major water-retaining structures are located immediately up gradient from the project site. Therefore, the risk of flooding from a seismically-induced seiche is considered to be remote.

Review of the County of Los Angeles Flood and Inundation Hazards Map, Leighton (1990), indicates the site does not lie within mapped inundation boundaries due to a breached upgradient reservoir.

Landsliding

The probability of seismically-induced landslides occurring on the site is considered to be low due to the general lack of elevation difference slope geometry across or adjacent to the site.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the exploration, laboratory testing, and research, it is the preliminary finding of Geotechnologies, Inc. that construction of the proposed residential development is considered feasible from a geotechnical engineering standpoint provided the advice and recommendations presented herein are followed and implemented during construction.

This report is considered preliminary since the development is in the initial schematic design phase. Additional exploration will be necessary in order to achieve a thorough investigation of the site. A comprehensive report should be prepared when the site is available for additional exploration and the development plan achieves more refinement.

Between 5½ and 7½ feet of existing fill materials was encountered during exploration at the site. Due to the variable nature and the varying depths of the existing fill materials, the existing fill materials are considered to be unsuitable for support of the proposed foundations, floor slabs, or additional fill.

Due to the gently sloping nature of the site, the proposed subterranean levels will extend between 5 to 20 feet below the existing site grade. Excavations between 15 and 30 feet in depth will be required for the proposed subterranean parking levels and foundation elements. Preliminarily, it

is anticipated that excavation of the proposed subterranean levels will remove the existing fill materials and expose the underlying dense native soils and/or bedrock. The proposed towers may be supported on a mat foundation bearing in the underlying bedrock, and the podium parking structure may be supported on conventional foundations bearing in the underlying dense Older Alluvium.

Excavation of the proposed subterranean level will require shoring and dewatering measures to provide a stable and dry excavation due to the depth of the excavation, the presence of water seepage, and the proximity of adjacent structures.

The validity of the conclusions and design recommendations presented herein is dependent upon review of the geotechnical aspects of the proposed construction by this firm. The subsurface conditions described herein have been projected from borings on the site as indicated and should in no way be construed to reflect any variations which may occur between these borings or which may result from changes in subsurface conditions. Any changes in the design or location of any structure, as outlined in this report, should be reviewed by this office. The recommendations contained herein should not be considered valid until reviewed and modified or reaffirmed subsequent to such review.

SEISMIC DESIGN CONSIDERATIONS

2016 California Building Code Seismic Parameters

Based on information derived from the subsurface investigation, the subject site is classified as Site Class D, which corresponds to a "Stiff Soil" Profile, according to Table 20.3-1 of ASCE 7-10. This information and the site coordinates were input into the USGS U.S. Seismic Design Maps tool (Version 3.1.0) to calculate the ground motions for the site.

2016 CALIFORNIA BUILDING CODE SEISMIC PARAMETERS	
Site Class	D
Mapped Spectral Acceleration at Short Periods (S_S)	2.343g
Site Coefficient (F_a)	1.0
Maximum Considered Earthquake Spectral Response for Short Periods (S_{MS})	2.343g
Five-Percent Damped Design Spectral Response Acceleration at Short Periods (S_{DS})	1.562g
Mapped Spectral Acceleration at One-Second Period (S_1)	0.831g
Site Coefficient (F_v)	1.5
Maximum Considered Earthquake Spectral Response for One-Second Period (S_{M1})	1.246g
Five-Percent Damped Design Spectral Response Acceleration for One-Second Period (S_{D1})	0.831g

FILL SOILS

The maximum depth of fill encountered on the site was 7½ feet. This material and any fill generated during demolition should be removed during the excavation of the subterranean levels and wasted from the site.

EXPANSIVE SOILS

The onsite geologic materials are in the very low to (low, moderate, high) expansion range. The Expansion Index was found to be 54 for bulk samples remolded to 90 percent of the laboratory maximum density. Recommended reinforcing is noted in the "Foundation Design" and "Slabs-on-Grade" sections of this report.

WATER-SOLUBLE SULFATES

The Portland cement portion of concrete is subject to attack when exposed to water-soluble sulfates. Usually the two most common sources of exposure are from soil and marine environments. The source of natural sulfate minerals in soils includes the sulfates of calcium, magnesium, sodium, and potassium. When these minerals interact and dissolve in subsurface water, a sulfate concentration is created, which will react with exposed concrete. Over time sulfate attack will destroy improperly proportioned concrete well before the end of its intended service life.

The water-soluble sulfate content of the onsite geologic materials was tested by California Test 417. The water-soluble sulfate content was determined to be less than 0.1% percentage by weight for the soils tested. Based on American Concrete Institute (ACI) Standard 318-08, the sulfate exposure is considered to be negligible for geologic materials with less than 0.1% and Type I cement may be utilized for concrete foundations in contact with the site soils.

DEWATERING

Seepage of water was encountered at depths between 22 and 26½ feet in Boring Number 1 and 2, respectively. However, groundwater was not encountered in Boring Number 3 and 4, which were excavated to depths of 40 feet below the existing site grade.

The historically highest groundwater level was established by review of California Geological Survey Seismic Hazard Zone Report of the Hollywood Quadrangle. Review of this report indicates that the historically highest groundwater level is on the order of 20 feet below the existing site grade.

Due to the gently sloping nature of the site, the proposed subterranean levels will extend between 5 to 20 feet below the existing site grade. Based on the preliminary plans, the lowest

subterranean B2 Level will have a finished floor varying between 195.0 feet and 202.5 feet above Mean Sea Level (MSL). Currently, the lowest finished floor level will not extend below the historically highest groundwater level, and therefore, a permanent dewatering system below the structure is not required.

The subterranean walls of the building should be designed with subdrainage devices to relieve hydrostatic pressure as recommended in the "Retaining Wall Drainage" section below.

METHANE ZONES

Based on review of the Navigate LA (*http://navigatela.lacity.org/NavigateLA/*) website, maintained by the City of Los Angeles, the subject property is located within a Methane Buffer Zone as designated by the City. A qualified methane consultant should be retained to consider the requirements and implications of the City's Methane (Buffer) Zone designation. A copy of the portion of the map covering the Project Site is included herein.

GRADING GUIDELINES

The following grading guidelines may be utilized for any miscellaneous site grading which may be required as part of the proposed development.

Site Preparation

- A thorough search should be made for possible underground utilities and/or structures. Any existing or abandoned utilities or structures located within the footprint of the proposed grading should be removed or relocated as appropriate.
- All vegetation, existing fill, and soft or disturbed geologic materials should be removed from the areas to receive controlled fill. All existing fill materials and any disturbed geologic materials resulting from grading operations shall be completely removed and properly recompacted prior to foundation excavation.

- Any vegetation or associated root system located within the footprint of the proposed structures should be removed during grading.

- Subsequent to the indicated removals, the exposed grade shall be scarified to a depth of six inches, moistened to optimum moisture content, and recompacted in excess of the minimum required comparative density.

- The excavated areas shall be observed by the geotechnical engineer prior to placing compacted fill.

Compaction

The City of Los Angeles Department of Building and Safety requires a minimum 90 percent of the maximum density, except for cohesionless soils having less than 15 percent finer than 0.005 millimeters, which shall be compacted to a minimum 95 percent of the maximum density in accordance with the most recent revision of the Los Angeles Building Code.

All fill should be mechanically compacted in layers not more than 8 inches thick. All fill shall be compacted to at least 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum laboratory density for the materials used. The maximum density shall be determined by the laboratory operated by Geotechnologies, Inc. using the test method described in the most recent revision of ASTM D 1557.

Field observation and testing shall be performed by a representative of the geotechnical engineer during grading to assist the contractor in obtaining the required degree of compaction and the proper moisture content. Where compaction is less than required, additional compactive effort shall be made with adjustment of the moisture content, as necessary, until a minimum of 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) compaction is obtained.

Acceptable Materials

The excavated onsite materials are considered satisfactory for reuse in the controlled fills as long as any debris and/or organic matter is removed. Any imported materials shall be observed and tested by the representative of the geotechnical engineer prior to use in fill areas. Imported materials should contain sufficient fines so as to be relatively impermeable and result in a stable subgrade when compacted. Any required import materials should consist of geologic materials with an expansion index of less than 50. The water-soluble sulfate content of the import materials should be less than 0.1% percentage by weight.

Imported materials should be free from chemical or organic substances which could affect the proposed development. A competent professional should be retained in order to test imported materials and address environmental issues and organic substances which might affect the proposed development.

Utility Trench Backfill

Utility trenches should be backfilled with controlled fill. The utility should be bedded with clean sands at least one foot over the crown. The remainder of the backfill may be onsite soil compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the laboratory maximum density. Utility trench backfill should be tested by representatives of this firm in accordance with the most recent revision of ASTM D-1557.

Wet Soils

At the time of exploration, the soils which will be exposed during grading excavation were locally above optimum moisture content. It is anticipated that the excavated material to be placed as compacted fill, and the materials exposed at the bottom of excavated plane will require significant drying and aeration prior to recompaction.

Pumping (yielding or vertical deflection) of the high-moisture content soils at the bottom of the excavation may occur during operation of heavy equipment. Where pumping is encountered, angular minimum ¾-inch gravel should be placed and worked into the subgrade. The exact thickness of the gravel would be a trial and error procedure, and would be determined in the field. It would likely be on the order of 1 to 2 feet thick.

The gravel will help to densify the subgrade as well as function as a stabilization material upon which heavy equipment may operate. It is not recommended that rubber tire construction equipment attempt to operate directly on the pumping subgrade soils prior to placing the gravel. Direct operation of rubber tire equipment on the soft subgrade soils will likely result in excessive disturbance to the soils, which will result in a delay to the construction schedule since those disturbed soils would then have to be removed and properly recompacted. Extreme care should be utilized to place gravel as the subgrade becomes exposed.

Shrinkage

Shrinkage results when a volume of soil removed at one density is compacted to a higher density. A shrinkage factor between 5 and 15 percent should be anticipated when excavating and recompacting the existing fill and underlying native geologic materials on the site to an average comparative compaction of 92 percent.

Weather Related Grading Considerations

When rain is forecast all fill that has been spread and awaits compaction shall be properly compacted prior to stopping work for the day or prior to stopping due to inclement weather. These fills, once compacted, shall have the surface sloped to drain to an area where water can be removed.

Temporary drainage devices should be installed to collect and transfer excess water to the street in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope.

Work may start again, after a period of rainfall, once the site has been reviewed by a representative of this office. Any soils saturated by the rain shall be removed and aerated so that the moisture content will fall within three percent of the optimum moisture content.

Surface materials previously compacted before the rain shall be scarified, brought to the proper moisture content and recompacted prior to placing additional fill, if considered necessary by a representative of this firm.

Geotechnical Observations and Testing During Grading

Geotechnical observations and testing during grading are considered to be a continuation of the geotechnical investigation. It is critical that the geotechnical aspects of the project be reviewed by representatives of Geotechnologies, Inc. during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise this office at least twenty-four hours prior to any required site visit.

FOUNDATION DESIGN

It is recommended that the proposed towers be supported on a mat foundation bearing in the underlying bedrock, and the podium parking structure be supported on conventional foundations bearing in the underlying dense Older Alluvium.

Mat Foundation

The proposed towers will be constructed over 2 subterranean parking levels extending up to 20 feet below grade. Preliminarily, it is anticipated that the proposed towers will have an average bearing pressure between 5,000 and 6,000 pounds per square foot. Foundation bearing pressure will vary across the mat footings, with the highest concentrated loads located at the central cores of the mat foundations.

Given the size of the proposed mat foundations, the average bearing pressure of 6,000 pounds per square foot is well below the allowable bearing pressures, with factor of safety well exceeding 3. For design purposes, an average bearing pressure of 6,000 pounds per square foot, with locally higher pressures up to 10,000 pounds per square foot may be utilized in the mat foundation design. The mat foundation may be designed utilizing a modulus of subgrade reaction of 250 pounds per cubic inch. This value is a unit value for use with a one-foot square footing. The modulus should be reduced in accordance with the following equation when used with larger foundations.

$$K = K_1 * [(B + 1) / (2 * B)]^2$$

where K = Reduced Subgrade Modulus
K_1 = Unit Subgrade Modulus
B = Foundation Width (feet)

The bearing values indicated above are for the total of dead and frequently applied live loads, and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces. Since the recommended bearing value is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

Conventional

The podium parking structure may be supported on conventional foundations bearing in the underlying dense Older Alluvium.

Continuous foundations may be designed for a bearing capacity of 2,500 pounds per square foot, and should be a minimum of 12 inches in width, 18 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material.

Column foundations may be designed for a bearing capacity of 3,000 pounds per square foot, and should be a minimum of 24 inches in width, 18 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material.

The bearing capacity increase for each additional foot of width is 200 per square foot. The bearing capacity increase for each additional foot of depth is 500 pounds per square foot. The maximum recommended bearing capacity is 6,000 pounds per square foot.

A minimum factor of safety of 3 was utilized in determining the allowable bearing capacities. The bearing values indicated above are for the total of dead and frequently applied live loads, and may be increased by one third for short duration loading, which includes the effects of wind or seismic forces. Since the recommended bearing value is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

All continuous foundations should be reinforced with a minimum of four #4 steel bars. Two should be placed near the top of the foundation, and two should be placed near the bottom.

Miscellaneous Foundations

Foundations for small miscellaneous outlying structures, such as property line fence walls, planters, exterior canopies, and trash enclosures, which will not be tied-in to the proposed structure, may be supported on conventional foundations bearing in properly compacted fill and/or the native soils. Wall footings may be designed for a bearing value of 1,500 pounds per square foot, and should be a minimum of 12 inches in width, 18 inches in depth below the lowest adjacent grade and 18 inches into the recommended bearing material. No bearing value increases are recommended.

Since the recommended bearing capacity is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

Lateral Design

Resistance to lateral loading may be provided by friction acting at the base of foundations and by passive earth pressure. An allowable coefficient of friction of 0.3 may be used with the dead load forces.

Passive geologic pressure for the sides of foundations poured against undisturbed or recompacted soil may be computed as an equivalent fluid having a density of 250 pounds per cubic foot with a maximum earth pressure of 2,500 pounds per square foot. The passive and friction components may be combined for lateral resistance without reduction. A one-third increase in the passive value may be used for short duration loading such as wind or seismic forces.

Foundation Settlement

The majority of the foundation settlement is expected to occur on initial application of loading. Preliminarily, it is anticipated that total settlement between 2½ to 3 inches will occur below the more heavily loaded central core portions of the mat foundation beneath the tower. Settlement along the edges of the mat footing is estimated to be on the order of 1½ inches.

Total settlement of conventional spread footings bearing in the native soils is estimated to be on the order of 1 inch. Differential settlement of conventional spread footings is estimated to be ½ inch.

Additional exploration will be necessary in order to achieve a thorough investigation of the site. Additional settlement analyses will need to be performed when the project achieves more definition and structural loading conditions are available.

Foundation Observations

It is critical that all foundation excavations are observed by a representative of this firm to verify penetration into the recommended bearing materials. The observation should be performed prior to the placement of reinforcement. Foundations should be deepened to extend into satisfactory geologic materials, if necessary. Foundation excavations should be cleaned of all loose soils prior to placing steel and concrete. Any required foundation backfill should be mechanically compacted, flooding is not permitted.

RETAINING WALL DESIGN

Cantilever retaining walls supporting a level backslope may be designed utilizing a triangular distribution of active earth pressure. Restrained retaining walls may be designed utilizing a triangular distribution of at-rest earth pressure. Retaining walls may be designed utilizing the following table:

Height of Retaining Wall (feet)	Cantilever Retaining Wall Triangular Distribution of Active Earth Pressure (pcf)	Restrained Retaining Wall Triangular Distribution of At-Rest Earth Pressure (pcf)
10 feet	35 pcf	67 pcf
15 feet	42 pcf	67 pcf
20 feet	47 pcf	67 pcf

The lateral earth pressures recommended above for retaining walls assume that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures.

The upper ten feet of the retaining wall adjacent to streets, driveways or parking areas should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal street traffic. If the traffic is kept back at least ten feet from the retaining walls, the traffic surcharge may be neglected. Foundations may be designed using the allowable bearing capacities, friction, and passive earth pressure found in the "Foundation Design" section above.

Dynamic (Seismic) Earth Pressure

Retaining walls exceeding 6 feet in height shall be designed to resist the additional earth pressure caused by seismic ground shaking. A triangular pressure distribution should be utilized for the additional seismic loads, with an equivalent fluid pressure of 25 pounds per cubic foot. When using the code loading combination equations, the seismic earth pressure should be combined with the lateral active earth pressure for analyses of restrained basement walls under seismic loading condition.

Surcharge from Adjacent Structures

As indicated herein, additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures for retaining walls and shoring design.

The following surcharge equation provided in the LADBS Information Bulletin Document No. P/BC 2008-83, may be utilized to determine the surcharge loads on basement walls and shoring system for existing structures located within the 1:1 (h:v) surcharge influence zone of the excavation and basement.

Resultant lateral force: $R = (0.3*P*h^2)/(x^2+h^2)$

Location of lateral resultant: $d = x*[(x^2/h^2+1)*\tan^{-1}(h/x)-(x/h)]$

where:

R	=	resultant lateral force measured in pounds per foot of wall width.
P	=	resultant surcharge loads of continuous or isolated footings measured in pounds per foot of length parallel to the wall.
x	=	distance of resultant load from back face of wall measured in feet.
h	=	depth below point of application of surcharge loading to top of wall footing measured in feet.
d	=	depth of lateral resultant below point of application of surcharge loading measure in feet.
$\tan^{-1}(h/x)$	=	the angle in radians whose tangent is equal to h/x.

The structural engineer and shoring engineer may use this equation to determine the surcharge loads based on the loading of the adjacent structures located within the surcharge influence zone.

Waterproofing

Moisture effecting retaining walls is one of the most common post construction complaints. Poorly applied or omitted waterproofing can lead to efflorescence or standing water inside the building. Efflorescence is a process in which a powdery substance is produced on the surface of the concrete by the evaporation of water. The white powder usually consists of soluble salts

such as gypsum, calcite, or common salt. Efflorescence is common to retaining walls and does not affect their strength or integrity.

It is recommended that retaining walls be waterproofed. Waterproofing design and inspection of its installation is not the responsibility of the geotechnical engineer. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection to below grade walls.

Retaining Wall Drainage

All retaining walls shall be provided with a subdrain in order to minimize the potential for future hydrostatic pressure buildup behind the proposed retaining walls. Subdrains may consist of four-inch diameter perforated pipes, placed with perforations facing down. The pipe shall be encased in at least one-foot of gravel around the pipe. The gravel may consist of three-quarter inch to one inch crushed rocks.

A compacted fill blanket or other seal shall be provided at the surface. Retaining walls may be backfilled with gravel adjacent to the wall to within 2 feet of the ground surface. The onsite earth materials are acceptable for use as retaining wall backfill as long as they are compacted to a minimum of 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum density as determined by the most recent revision of ASTM D 1557.

Certain types of subdrain pipe are not acceptable to the various municipal agencies, it is recommended that prior to purchasing subdrainage pipe, the type and brand is cleared with the proper municipal agencies. Subdrainage pipes should outlet to an acceptable location.

Where retaining walls are to be constructed adjacent to property lines, there is usually not enough space for placement of a standard perforated pipe and gravel drainage system. Under

these circumstances, every other head joints may be left out, or 2-inch diameter weepholes may be placed at the 8 feet on center along the base of the wall. The wall shall be backfilled with a minimum of 1 foot of gravel above the base of the retaining wall. The gravel may consist of three-quarter inch to one inch crushed rocks.

Where retaining walls are to be constructed adjacent to property lines there is usually not enough space for emplacement of a standard pipe and gravel drainage system. Under these circumstances, the use of a flat drainage produce is acceptable.

The lateral earth pressures recommended above for retaining walls assume that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. If a drainage system is not provided, the walls should be designed to resist an external hydrostatic pressure due to water in addition to the lateral earth pressure. In any event, it is recommended that retaining walls be waterproofed.

Retaining Wall Backfill

Any required backfill should be mechanically compacted in layers not more than 8 inches thick, to at least 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum density obtainable by the latest revision of ASTM D1557. Flooding should not be permitted. Proper compaction of the backfill will be necessary to reduce settlement of overlying walks and paving. Some settlement of required backfill should be anticipated, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the structure.

Proper compaction of the backfill will be necessary to reduce settlement of overlying walks and paving. Some settlement of required backfill should be anticipated, and any utilities supported therein should be designed to accept differential settlement, particularly at the points of entry to the structure.

Sump Pump Design

The purpose of the recommended retaining wall backdrainage system is to relieve hydrostatic pressure. Seepage of water was encountered at depths between 22 and 26½ feet in Boring Number 1 and 2, respectively. However, groundwater was not encountered in Boring Number 3 and 4, which were excavated to depths of 40 feet below the existing site grade.

The historically highest groundwater level is on the order of 20 feet below the existing site grade. Preliminarily, the proposed lowest subterranean level is to be serviced by the backdrainage system will extend to a maximum depth of 20 feet below the existing site grade. It is anticipated that the only water which could affect the proposed retaining walls would be irrigation waters and precipitation. Additionally the site grading is such that all drainage is directed to the street and the structure has been designed with adequate non-erosive drainage devices.

Based on these considerations the retaining wall backdrainage system is not expected to experience an appreciable flow of water, and in particular, no groundwater will affect it. However, for the purposes of design, a flow of 20 gallons per minute may be assumed.

TEMPORARY EXCAVATIONS

It is anticipated that excavations on the order of 15 to 30 feet in vertical height will be required for the proposed subterranean levels and foundation elements. The excavations are expected to expose fill and dense native soils, which are suitable for vertical excavations up to 5 feet where not surcharged by adjacent traffic or structures. Excavations which will be surcharged by adjacent traffic, public way, properties, or structures should be shored.

Where sufficient space is available, temporary unsurcharged embankments could be sloped back without shoring. Excavations over 5 feet in height should may be excavated at a uniform 1:1 (h:v) slope gradient in its entirety to a maximum height of 20 feet. A uniform sloped excavation does not have a vertical component.

Where sloped embankments are utilized, the tops of the slopes should be barricaded to prevent vehicles and storage loads within seven feet of the tops of the slopes. If the temporary construction embankments are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces. The soils exposed in the cut slopes should be inspected during excavation by personnel from this office so that modifications of the slopes can be made if variations in the soil conditions occur.

It is critical that the soils exposed in the cut slopes are observed by a representative of this office during excavation so that modifications of the slopes can be made if variations in the earth material conditions occur. All excavations should be stabilized within 30 days of initial excavation. Water should not be allowed to pond on top of the excavation nor to flow towards it.

Temporary Dewatering

Seepage of water was encountered at depths between 22 and 26½ feet in Boring Number 1 and 2, respectively. However, groundwater was not encountered in Boring Number 3 and 4, which were excavated to depths of 40 feet below the existing site grade.

Preliminarily, it is anticipated that the proposed subterranean levels and foundation elements will extend on the order of 15 to 30 feet below existing site grades. Continuous groundwater is not expected, however, finite zones of perched groundwater could be encountered locally.

Temporary dewatering should be installed as necessary. Temporary dewatering should consist of gravel-filled drainage trenches leading to a sump area. The collected water should be pumped to an acceptable disposal area. Where the exposed subgrade is wet pumping may be encountered. Under these conditions please refer to the "Wet Soils" section of this report.

Excavation Observations

It is critical that the soils exposed in the cut slopes are observed by a representative of Geotechnologies, Inc. during excavation so that modifications of the slopes can be made if variations in the geologic material conditions occur. Many building officials require that temporary excavations should be made during the continuous observations of the geotechnical engineer. All excavations should be stabilized within 30 days of initial excavation.

SHORING DESIGN

The following information on the design and installation of the shoring is as complete as possible at this time. It is suggested that a review of the final shoring plans and specifications be made by this office prior to bidding or negotiating with a shoring contractor be made.

One method of shoring would consist of steel soldier piles, placed in drilled holes and backfilled with concrete. The soldier piles may be designed as cantilevers or laterally braced utilizing drilled tie-back anchors or raker braces.

Soldier Piles

Drilled cast-in-place soldier piles should be placed no closer than 2 diameters on center. The minimum diameter of the piles is 18 inches. Structural concrete should be used for the soldier piles below the excavation; lean-mix concrete may be employed above that level. As an alternative, lean-mix concrete may be used throughout the pile where the reinforcing consists of a wideflange section. The slurry must be of sufficient strength to impart the lateral bearing pressure developed by the wideflange section to the earth materials. For design purposes, an allowable passive value for the earth materials below the bottom plane of excavation may be assumed to be 600 pounds per square foot per foot. To develop the full lateral value, provisions should be implemented to assure firm contact between the soldier piles and the undisturbed earth materials.

The frictional resistance between the soldier piles and retained earth material may be used to resist the vertical component of the anchor load. The coefficient of friction may be taken as 0.3 based on uniform contact between the steel beam and lean-mix concrete and retained earth. The portion of soldier piles below the plane of excavation may also be employed to resist the downward loads. The downward capacity may be determined using a frictional resistance of 450 pounds per square foot. The minimum depth of embedment for shoring piles is 5 feet below the bottom of the footing excavation, or 7 feet below the bottom of excavated plane, whichever is deeper.

Casing may be required should caving be experienced in the saturated earth materials. If casing is used, extreme care should be employed so that the pile is not pulled apart as the casing is withdrawn. At no time should the distance between the surface of the concrete and the bottom of the casing be less than 5 feet.

Piles placed below the water level will require the use of a tremie to place the concrete into the bottom of the hole. A tremie shall consist of a water-tight tube having a diameter of not less than 10 inches with a hopper at the top. The tube shall be equipped with a device that will close the discharge end and prevent water from entering the tube while it is being charged with concrete. The tremie shall be supported so as to permit free movement of the discharge end over the entire top surface of the work and to permit rapid lowering when necessary to retard or stop the flow of concrete. The discharge end shall be closed at the start of the work to prevent water entering the tube and shall be entirely sealed at all times, except when the concrete is being placed. The tremie tube shall be kept full of concrete. The flow shall be continuous until the work is completed and the resulting concrete seal shall be monolithic and homogeneous. The tip of the tremie tube shall always be kept about five feet below the surface of the concrete and definite steps and safeguards should be taken to insure that the tip of the tremie tube is never raised above the surface of the concrete.

A special concrete mix should be used for concrete to be placed below water. The design shall provide for concrete with a strength of 1,000 psi over the initial job specification. An admixture that reduces the problem of segregation of paste/aggregates and dilution of paste shall be included. The slump shall be commensurate to any research report for the admixture, provided that it shall also be the minimum for a reasonable consistency for placing when water is present.

Lagging

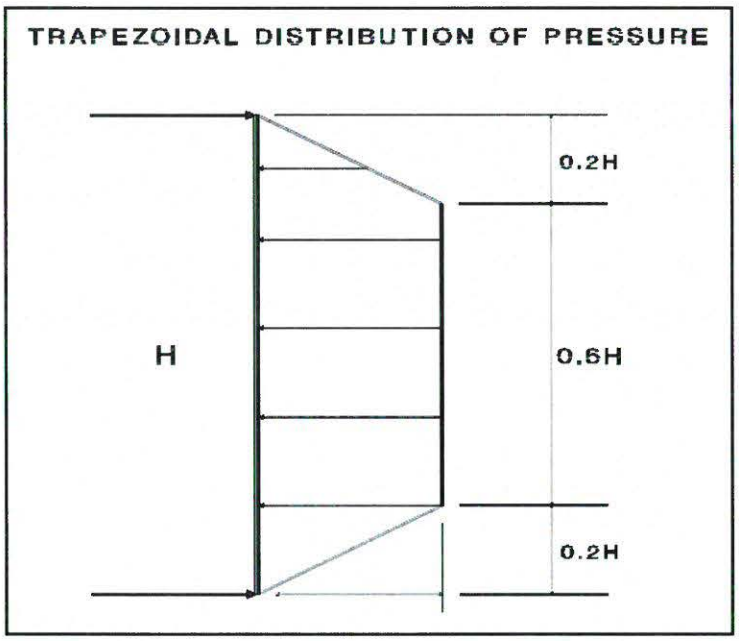
Soldier piles and anchors should be designed for the full anticipated pressures. Due to the cohesionless nature of the underlying earth materials, lagging will be required throughout the entire depth of the excavation. Due to arching in the geologic materials, the pressure on the lagging will be less. It is recommended that the lagging should be designed for the full design pressure but be limited to a maximum of 400 pounds per square foot. It is recommended that a representative of this firm observe the installation of lagging to insure uniform support of the excavated embankment.

Lateral Pressures

A triangular distribution of lateral earth pressure should be utilized for the design of cantilevered shoring system. A trapezoidal distribution of lateral earth pressure would be appropriate where shoring is to be restrained at the top by bracing or tie backs. The design of trapezoidal distribution of pressure is shown in the diagram below. Equivalent fluid pressures for the design of cantilevered and restrained shoring are presented in the following table:

Height of Shoring (feet)	Cantilever Shoring System Equivalent Fluid Pressure (pcf) Triangular Distribution of Pressure	Restrained Shoring System Lateral Earth Pressure (psf)* Trapezoidal Distribution of Pressure
20 feet	36 pcf	24H psf
25 feet	40 pcf	26H psf
30 feet	44 pcf	28H psf

*Where H is the height of the shoring in feet.



Where a combination of sloped embankment and shoring is utilized, the pressure will be greater and must be determined for each combination. Additional active pressures should be applied where the shoring will be surcharged by adjacent traffic or structures.

The upper ten feet of the retaining wall adjacent to streets, driveways or parking areas should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal street traffic. If the traffic is kept back at least ten feet from the retaining walls, the traffic surcharge may be neglected. Foundations may be designed using the allowable bearing capacities, friction, and passive earth pressure found in the "Foundation Design" section above.

Tied-Back Anchors

Tied-back anchors may be used to resist lateral loads. Friction anchors are recommended. For design purposes, it may be assumed that the active wedge adjacent to the shoring is defined by a

plane drawn 35 degrees with the vertical through the bottom plane of the excavation. Friction anchors should extend a minimum of 20 feet beyond the potentially active wedge.

Drilled friction anchors may be designed for a skin friction of 300 pounds per square foot. Pressure grouted anchor may be designed for a skin friction of 2,000 pounds per square foot. Where belled anchors are utilized, the capacity of belled anchors may be designed by assuming the diameter of the bonded zone is equivalent to the diameter of the bell. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads.

It is recommended that at least 3 of the initial anchors have their capacities tested to 200 percent of their design capacities for a 24-hour period to verify their design capacity. The total deflection during this test should not exceed 12 inches. The anchor deflection should not exceed 0.75 inches during the 24 hour period, measured after the 200 percent load has been applied.

All anchors should be tested to at least 150 percent of design load. The total deflection during this test should not exceed 12 inches. The rate of creep under the 150 percent test load should not exceed 0.1 inch over a 15 minute period in order for the anchor to be approved for the design loading.

After a satisfactory test, each anchor should be locked-off at the design load. This should be verified by rechecking the load in the anchor. The load should be within 10 percent of the design load. Where satisfactory tests are not attained, the anchor diameter and/or length should be increased or additional anchors installed until satisfactory test results are obtained. The installation and testing of the anchors should be observed by the geotechnical engineer. Minor caving during drilling of the anchors should be anticipated.

Anchor Installation

Tied-back anchors may be installed between 20 and 40 degrees below the horizontal. Caving of the anchor shafts, particularly within sand deposits, should be anticipated and the following provisions should be implemented in order to minimize such caving. The anchor shafts should be filled with concrete by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge. In order to minimize the chances of caving, it is recommended that the portion of the anchor shaft within the active wedge be backfilled with sand before testing the anchor. This portion of the shaft should be filled tightly and flush with the face of the excavation. The sand backfill should be placed by pumping; the sand may contain a small amount of cement to facilitate pumping.

Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized that some deflection will occur. It is estimated that the deflection could be on the order of one inch at the top of the shored embankment. If greater deflection occurs during construction, additional bracing may be necessary to minimize settlement of adjacent buildings and utilities in adjacent street and alleys. If desired to reduce the deflection, a greater active pressure could be used in the shoring design. Where internal bracing is used, the rakers should be tightly wedged to minimize deflection. The proper installation of the raker braces and the wedging will be critical to the performance of the shoring.

The City of Los Angeles Department of Building and Safety requires limiting shoring deflection to ½ inch at the top of the shored embankment where a structure is within a 1:1 plane projected up from the base of the excavation. A maximum deflection of 1-inch has been allowed provided there are no structures within a 1:1 plane drawn upward from the base of the excavation.

Monitoring

Because of the depth of the excavation, some mean of monitoring the performance of the shoring system is suggested. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all soldier piles and the lateral movement along the entire lengths of selected soldier piles. Also, some means of periodically checking the load on selected anchors will be necessary, where applicable.

Some movement of the shored embankments should be anticipated as a result of the relatively deep excavation. It is recommended that photographs of the existing buildings on the adjacent properties be made during construction to record any movements for use in the event of a dispute.

Shoring Observations

It is critical that the installation of shoring is observed by a representative of Geotechnologies, Inc. Many building officials require that shoring installation should be performed during continuous observation of a representative of the geotechnical engineer. The observations insure that the recommendations of the geotechnical report are implemented and so that modifications of the recommendations can be made if variations in the geologic material or groundwater conditions warrant. The observations will allow for a report to be prepared on the installation of shoring for the use of the local building official, where necessary.

SLABS ON GRADE

Concrete Slabs-on Grade

Concrete floor slabs should be a minimum of 5 inches in thickness, and should be reinforced with a minimum of #4 steel bars on 16-inch centers each way. Slabs-on-grade should be cast

over undisturbed natural geologic materials or properly controlled fill materials. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum dry density.

Outdoor concrete flatwork should be a minimum of 4 inches in thickness, and should be reinforced with a minimum of #3 steel bars on 18-inch centers each way. Outdoor concrete flatwork should be cast over undisturbed natural geologic materials or properly controlled fill materials. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum dry density.

Design of Slabs That Receive Moisture-Sensitive Floor Coverings

Geotechnologies, Inc. does not practice in the field of moisture vapor transmission evaluation and mitigation. Therefore it is recommended that a qualified consultant be engaged to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. The qualified consultant should provide recommendations for mitigation of potential adverse impacts of moisture vapor transmission on various components of the structure.

Where dampness would be objectionable, it is recommended that the floor slabs should be waterproofed. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection for concrete slabs-on-grade.

All concrete slabs-on-grade should be supported on vapor retarder. The design of the slab and the installation of the vapor retarder should comply with the most recent revisions of ASTM E 1643 and ASTM E 1745. The vapor retarder should comply with ASTM E 1745 Class A requirements.

Where a vapor retarder is used, a low-slump concrete should be used to minimize possible curling of the slabs. The barrier can be covered with a layer of trimable, compactible, granular fill, where it is thought to be beneficial. See ACI 302.2R-32, Chapter 7 for information on the placement of vapor retarders and the use of a fill layer.

Concrete Crack Control

The recommendations presented in this report are intended to reduce the potential for cracking of concrete slabs-on-grade due to settlement. However even where these recommendations have been implemented, foundations, stucco walls and concrete slabs-on-grade may display some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete cracking may be reduced and/or controlled by limiting the slump of the concrete used, proper concrete placement and curing, and by placement of crack control joints at reasonable intervals, in particular, where re-entrant slab corners occur.

For standard control of concrete cracking, a maximum crack control joint spacing of 10 feet should not be exceeded. Lesser spacing would provide greater crack control. Joints at curves and angle points are recommended. The crack control joints should be installed as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. Construction joints should be designed by a structural engineer.

Complete removal of the existing fill soils beneath outdoor flatwork such as walkways or patio areas, is not required, however, due to the rigid nature of concrete, some cracking, a shorter design life and increased maintenance costs should be anticipated. In order to provide uniform support beneath the flatwork it is recommended that a minimum of 12 inches of the exposed subgrade beneath the flatwork be scarified and recompacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) relative compaction.

PAVEMENTS

Prior to placing paving, the existing grade should be scarified to a depth of 12 inches, moistened as required to obtain optimum moisture content, and recompacted to 95 percent of the maximum density as determined by the most recent revision of ASTM D 1557. The client should be aware that removal of all existing fill in the area of new paving is not required, however, pavement constructed in this manner will most likely have a shorter design life and increased maintenance costs. The following pavement sections are recommended:

Service	Asphalt Pavement Thickness Inches	Base Course Inches
Passenger Cars	3	4
Moderate Truck	4	6
Heavy Truck	6	9

A subgrade modulus of 100 pounds per cubic inch may be assumed for design of concrete paving. Concrete paving for passenger cars and moderate truck traffic shall be a minimum of 6 inches in thickness, and shall be underlain by 4 inches of aggregate base. Concrete paving for heavy truck traffic shall be a minimum of 7½ inches in thickness, and shall be underlain by 6 inches of aggregate base. For standard crack control maximum expansion joint spacing of 10 feet should not be exceeded. Lesser spacing would provide greater crack control. Joints at curves and angle points are recommended.

Aggregate base should be compacted to a minimum of 95 percent of the most recent revision of ASTM D 1557 laboratory maximum dry density. Base materials should conform to Sections 200-2.2 or 200-2.4 of the "Standard Specifications for Public Works Construction", (Green Book), latest edition.

SITE DRAINAGE

Proper surface drainage is critical to the future performance of the project. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Proper site drainage should be maintained at all times.

All site drainage should be collected and transferred to the street in non-erosive drainage devices. The proposed structure should be provided with roof drainage. Discharge from downspouts, roof drains and scuppers should not be permitted on unprotected soils within five feet of the building perimeter. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Planters which are located within a distance equal to the depth of a retaining wall should be sealed to prevent moisture adversely affecting the wall. Planters which are located within five feet of a foundation should be sealed to prevent moisture affecting the earth materials supporting the foundation.

STORMWATER DISPOSAL

Preliminarily, it is anticipated that the proposed subterranean levels and foundation elements will extend between 15 and 30 feet below the existing site grade.

Bedrock is anticipated between 22 and 32 feet below the existing site grade. By nature, the underlying bedrock is relatively impermeable, and therefore, it is the opinion of this firm that stormwater infiltration is not feasible for the project site.

DESIGN REVIEW

Engineering of the proposed project should not begin until approval of the geotechnical report by the Building Official is obtained in writing. Significant changes in the geotechnical recommendations may result during the building department review process.

It is recommended that the geotechnical aspects of the project be reviewed by this firm during the design process. This review provides assistance to the design team by providing specific recommendations for particular cases, as well as review of the proposed construction to evaluate whether the intent of the recommendations presented herein are satisfied.

CONSTRUCTION MONITORING

Geotechnical observations and testing during construction are considered to be a continuation of the geotechnical investigation. It is critical that this firm review the geotechnical aspects of the project during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. All foundations should be observed by a representative of this firm prior to placing concrete or steel. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise Geotechnologies, Inc. at least twenty-four hours prior to any required site visit.

If conditions encountered during construction appear to differ from those disclosed herein, notify Geotechnologies, Inc. immediately so the need for modifications may be considered in a timely manner.

It is the responsibility of the contractor to ensure that all excavations and trenches are properly sloped or shored. All temporary excavations should be cut and maintained in accordance with applicable OSHA rules and regulations.

EXCAVATION CHARACTERISTICS

The exploration performed for this investigation is limited to the geotechnical excavations described. Direct exploration of the entire site would not be economically feasible. The owner, design team and contractor must understand that differing excavation and drilling conditions may be encountered based on boulders, gravel, oversize materials, groundwater and many other

conditions. Fill materials, especially when they were placed without benefit of modern grading codes, regularly contain materials which could impede efficient grading and drilling. Southern California sedimentary bedrock is known to contain variable layers which reflect differences in depositional environment. Such layers may include abundant gravel, cobbles and boulders. Similarly bedrock can contain concretions. Concretions are typically lenticular and follow the bedding. They are formed by mineral deposits. Concretions can be very hard. Excavation and drilling in these areas may require full size equipment and coring capability. The contractor should be familiar with the site and the geologic materials in the vicinity.

CLOSURE AND LIMITATIONS

The purpose of this report is to aid in the design and completion of the described project. Implementation of the advice presented in this report is intended to reduce certain risks associated with construction projects. The professional opinions and geotechnical advice contained in this report are sought because of special skill in engineering and geology and were prepared in accordance with generally accepted geotechnical engineering practice. Geotechnologies, Inc. has a duty to exercise the ordinary skill and competence of members of the engineering profession. Those who hire Geotechnologies, Inc. are not justified in expecting infallibility, but can expect reasonable professional care and competence.

The scope of the geotechnical services provided did not include any environmental site assessment for the presence or absence of organic substances, hazardous/toxic materials in the soil, surface water, groundwater, or atmosphere, or the presence of wetlands.

Proper compaction is necessary to reduce settlement of overlying improvements. Some settlement of compacted fill should be anticipated. Any utilities supported therein should be designed to accept differential settlement. Differential settlement should also be considered at the points of entry to the structure.

GEOTECHNICAL TESTING

Classification and Sampling

The soil is continuously logged by a representative of this firm and classified by visual examination in accordance with the Unified Soil Classification system. The field classification is verified in the laboratory, also in accordance with the Unified Soil Classification System. Laboratory classification may include visual examination, Atterberg Limit Tests and grain size distribution. The final classification is shown on the excavation logs.

Samples of the geologic materials encountered in the exploratory excavations were collected and transported to the laboratory. Undisturbed samples of soil are obtained at frequent intervals. Unless noted on the excavation logs as an SPT sample, samples acquired while utilizing a hollow-stem auger drill rig are obtained by driving a thin-walled, California Modified Sampler with successive 30-inch drops of a 140-pound hammer. The soil is retained in brass rings of 2.50 inches outside diameter and 1.00 inch in height. The central portion of the samples are stored in close fitting, waterproof containers for transportation to the laboratory. Samples noted on the excavation logs as SPT samples are obtained in accordance with the most recent revision of ASTM D 1586. Samples are retained for 30 days after the date of the geotechnical report.

Moisture and Density Relationships

The field moisture content and dry unit weight are determined for each of the undisturbed soil samples, and the moisture content is determined for SPT samples by the most recent revision of ASTM D 4959 or ASTM D 4643. This information is useful in providing a gross picture of the soil consistency between exploration locations and any local variations. The dry unit weight is determined in pounds per cubic foot and shown on the "Excavation Logs", A-Plates. The field moisture content is determined as a percentage of the dry unit weight.

Direct Shear Testing

Shear tests are performed by the most recent revision of ASTM D 3080 with a strain controlled, direct shear machine manufactured by Soil Test, Inc. or a Direct Shear Apparatus manufactured by GeoMatic, Inc. The rate of deformation is approximately 0.025 inches per minute. Each sample is sheared under varying confining pressures in order to determine the Mohr-Coulomb shear strength parameters of the cohesion intercept and the angle of internal friction. Samples are generally tested in an artificially saturated condition. Depending upon the sample location and future site conditions, samples may be tested at field moisture content. The results are plotted on the "Shear Test Diagram," B-Plates.

The most recent revision of ASTM 3080 limits the particle size to 10 percent of the diameter of the direct shear test specimen. The sheared sample is inspected by the laboratory technician running the test. The inspection is performed by splitting the sample along the sheared plane and observing the soils exposed on both sides. Where oversize particles are observed in the shear plane, the results are discarded and the test run again with a fresh sample.

Consolidation Testing

Settlement predictions of the soil's behavior under load are made on the basis of the consolidation tests using the most recent revision of ASTM D 2435. The consolidation apparatus is designed to receive a single one-inch high ring. Loads are applied in several increments in a geometric progression, and the resulting deformations are recorded at selected time intervals. Porous stones are placed in contact with the top and bottom of each specimen to permit addition and release of pore fluid. Samples are generally tested at increased moisture content to determine the effects of water on the bearing soil. The normal pressure at which the water is added is noted on the drawing. Results are plotted on the "Consolidation Test," C-Plates.

Expansion Index Testing

The expansion tests performed on the remolded samples are in accordance with the Expansion Index testing procedures, as described in the most recent revision of ASTM D4829. The soil sample is compacted into a metal ring at a saturation degree of 50 percent. The ring sample is then placed in a consolidometer, under a vertical confining pressure of 1 lbf/square inch and inundated with distilled water. The deformation of the specimen is recorded for a period of 24 hour or until the rate of deformation becomes less than 0.0002 inches/hour, whichever occurs first. The expansion index, EI, is determined by dividing the difference between final and initial height of the ring sample by the initial height, and multiplied by 1,000.

Laboratory Compaction Characteristics

The maximum dry unit weight and optimum moisture content of a soil are determined by use of the most recent revision of ASTM D 1557. A soil at a selected moisture content is placed in five layers into a mold of given dimensions, with each layer compacted by 25 blows of a 10 pound hammer dropped from a distance of 18 inches subjecting the soil to a total compactive effort of about 56,000 pounds per cubic foot. The resulting dry unit weight is determined. The procedure is repeated for a sufficient number of moisture contents to establish a relationship between the dry unit weight and the water content of the soil. The data when plotted represent a curvilinear relationship known as the compaction curve. The values of optimum moisture content and modified maximum dry unit weight are determined from the compaction curve.

Grain Size Distribution

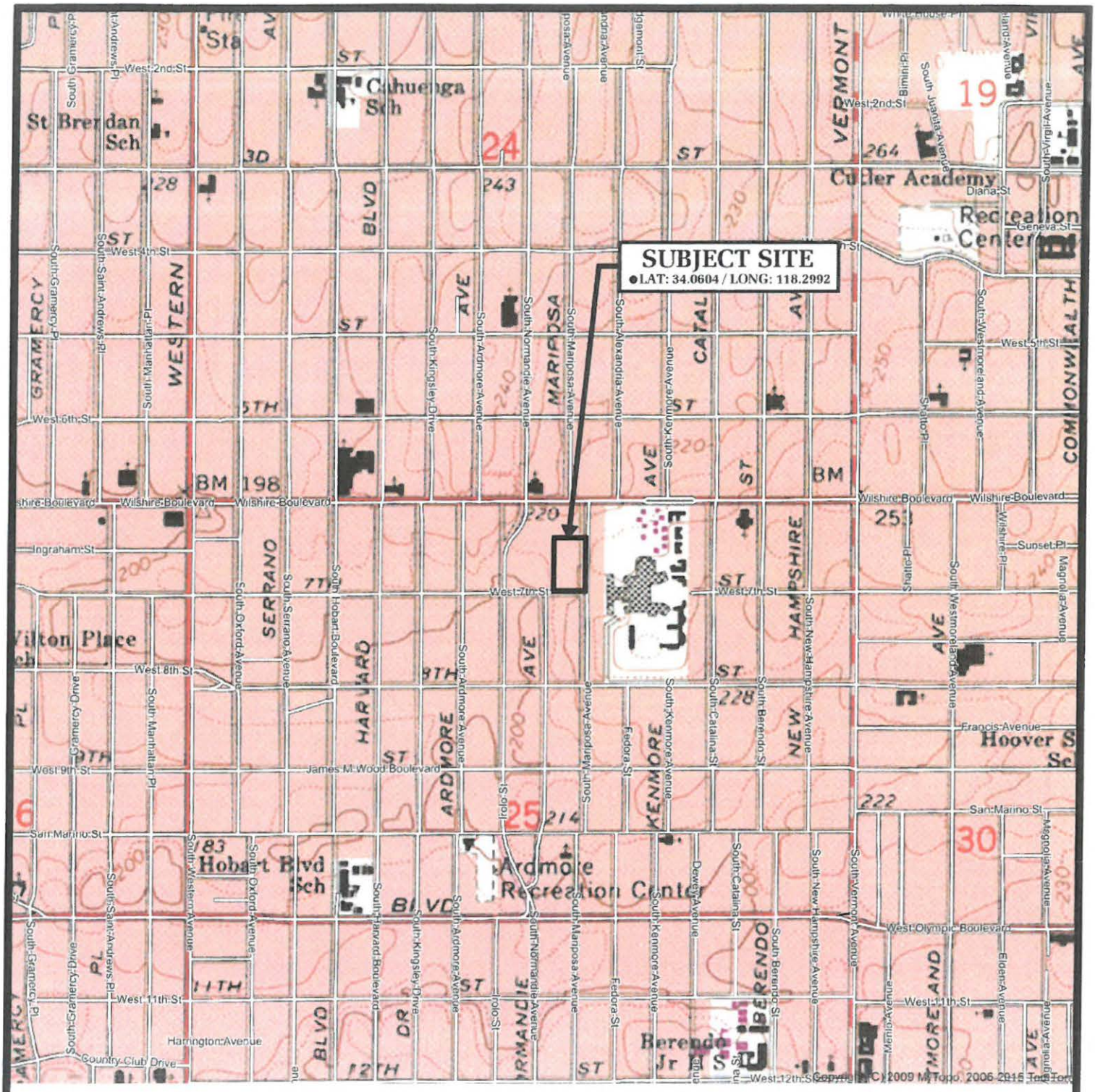
These tests cover the quantitative determination of the distribution of particle sizes in soils. Sieve analysis is used to determine the grain size distribution of the soil larger than the Number 200 sieve. The most recent revision of ASTM D 422 is used to determine particle sizes smaller than the Number 200 sieve. A hydrometer is used to determine the distribution of particle sizes by a sedimentation process. The grain size distributions are plotted on the E-Plates presented in the Appendix of this report.

REFERENCES

1. American Society of Civil Engineers, 1994, "Settlement Analysis," Technical Engineering and Design Guides, as adapted from the U.S. Army Corps of Engineers, No. 9.
2. Bartlett, S.F. and Youd, T.L., 1992, "Empirical Analysis of Horizontal Ground Displacement Generated by Liquefaction-Induced Lateral Spreads," Technical Report NCEER-92-0021, National Center for Earthquake Engineering Research, SUNY-Buffalo, Buffalo, NY.
3. Bartlett, S.F. and Youd, T.L., 1995, "Empirical Prediction of Liquefaction-Induced lateral Spread," Journal of Geotechnical Engineering, Vol. 121, No.4, April.
4. Bowles, Joseph E., 1977, "Foundation Analysis and Design," 2nd Edition, McGraw-Hill, New York.
5. California Division of Mines and Geology, 1997, Seismic Hazard Zone Map, map scale 1:24,000.
6. California Division of Mines and Geology, 1998, Seismic Hazard Evaluation Report for the Hollywood 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report 026.
7. California Geological Survey, 2008, "Guidelines for Evaluation and Mitigation of Seismic Hazards in California," CDMG Special Publication 117A.
8. City of Los Angeles, Department of Public Works, 2003, Methane and Methane Buffer Zones Map, Map Number A-20960.
9. Department of the Navy, NAVFAC Design Manual 7.1, 1982, "Soil Mechanics," Naval Facilities Engineering Command, May.
10. Department of the Navy, NAVFAC Design Manual 7.02, 1986, "Foundations and Earth Structures," Naval Facilities Engineering Command, September.
11. Dibblee, T.W., 1991, Geologic Map of the Hollywood and Burbank (South ½) 7.5-Minute Quadrangles, Map No DF-30, map scale 1: 24,000.
12. Leighton and Associates, Inc. (1990), Technical Appendix to the Safety Element of the Los Angeles County General Plan: Hazard Reduction in Los Angeles County.
13. Seed, H.B. , Idriss, I.M., and Arango, I., 1983, Evaluation of Liquefaction Potential Using Field Performance Data, Journal of the Geotechnical Engineering Division, American Society of Civil Engineers, vol. 109, no. 3, pp. 458-482.
14. Southern California Earthquake Center, 1999, "Recommended Procedures for Implementation of DMG Special Publication 117 - Guidelines for Analyzing and Mitigating Liquefaction in California," March.

REFERENCES - continued

15. Tinsley, J.C., Youd, T.L, Perkins, D.M., and Chen, A.T.F., 1985, Evaluating Liquefaction Potential: in Evaluating Earthquake Hazards in the Los Angeles Region-An earth Science Perspective, U.S. Geological Survey Professional Paper 1360, edited by J.I. Ziony, U.S. Government Printing Office, pp. 263-315.
16. Tokimatsu, K., and Yoshimi, Y., 1983, Empirical Correlation of Soil Liquefaction Based on SPT N-Value and Fines Content, Soils and Foundations, Japanese Society of Soil Mechanics and Foundation Engineering, vol. 23, no. 4, pp. 56-74.
17. Tokimatsu, K. and Seed, H. B., 1987, "Evaluation of Settlements in Sands Due to Earthquake Shaking," Journal of Geotechnical Engineering, ASCE, Vol. 113, No. 8, August.
18. United States Geological Survey, 2011, U.S.G.S. Ground Motion Parameter Calculator (Version 5.0.9a). http://earthquake.usgs.gov/hazards/designmaps/.
19. Youd, T.L., Hansen, C.M., and Bartlett, S.F., 2002, "Revised Multilinear Regression Equations for Prediction of Lateral Spread Displacement", Journal of Geotechnical Engineering, Vol. 128, No. 12, December.



SCALE 1:12000

0.0 0.1 0.2 0.3 0.4 0.5 0.6
MILES

0 1000 2000 3000
FEET

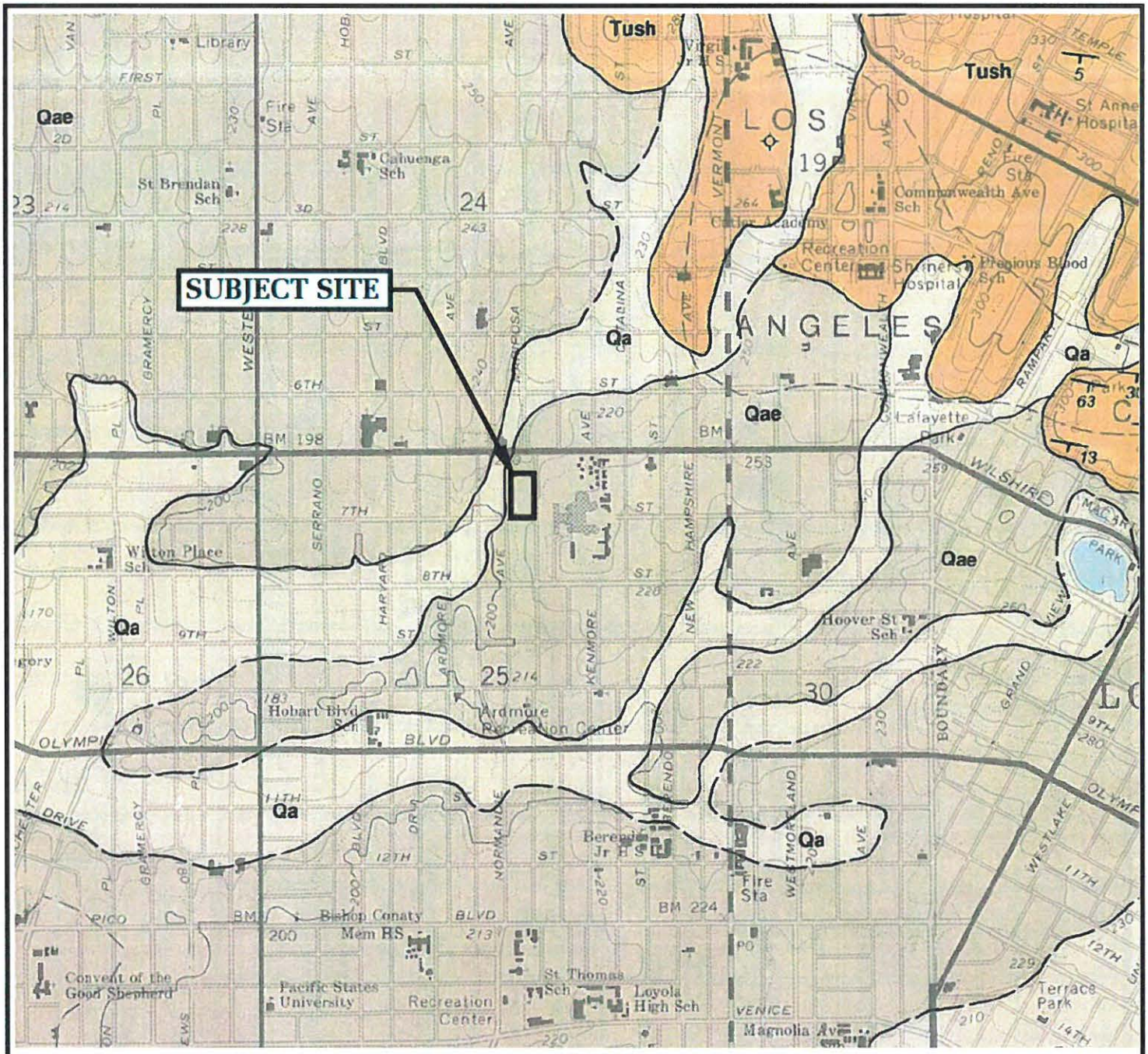
REFERENCE: U.S.G.S. TOPOGRAPHIC MAPS, 7.5 MINUTE SERIES, HOLLYWOOD, CA QUADRANGLE

VICINITY MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

JAMISON PROPERTIES
3440 WILSHIRE BLVD., LOS ANGELES

FILE NO. 21491



SCALE IN FEET

0 500 1000 2000

LEGEND

Qa: Surficial Sediments - alluvium; gravel, sand and clay

Qae: Older Surficial Sediments - similiar to Qa but slightly elevated and dissected

Tush: Unnamed Shale - gray to light brown, thin-bedded silty clay shale, soft and crumbly

—+— Folds - arrow on axial trace of fold indicates direction of plunge

—••••? Fault - dashed where indefinite or inferred, dotted where concealed, queried where existence is doubtful

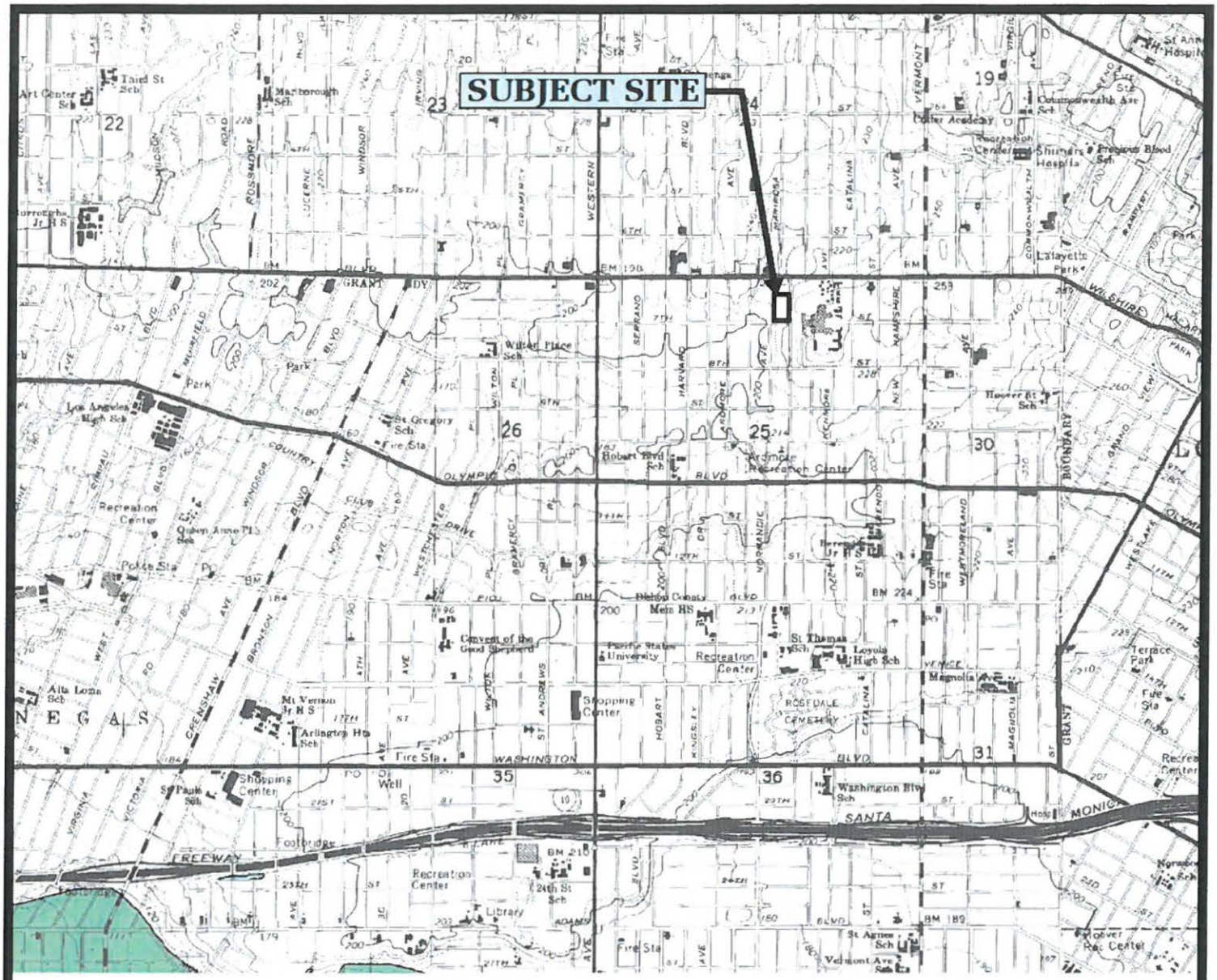
REFERENCE: DIBBLEE, T.W., (1991) GEOLOGIC MAP OF THE HOLLYWOOD & BURBANK (SOUTH HALF) QUADRANGLES (#DF-30)

LOCAL GEOLOGIC MAP - DIBBLEE

Geotechnologies, Inc.
Consulting Geotechnical Engineers

JAMISON PROPERTIES
3440 WILSHIRE BLVD., LOS ANGELES

FILE NO. 21491



SCALE 1:24,000

1 .5 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

LIQUEFACTION AREA

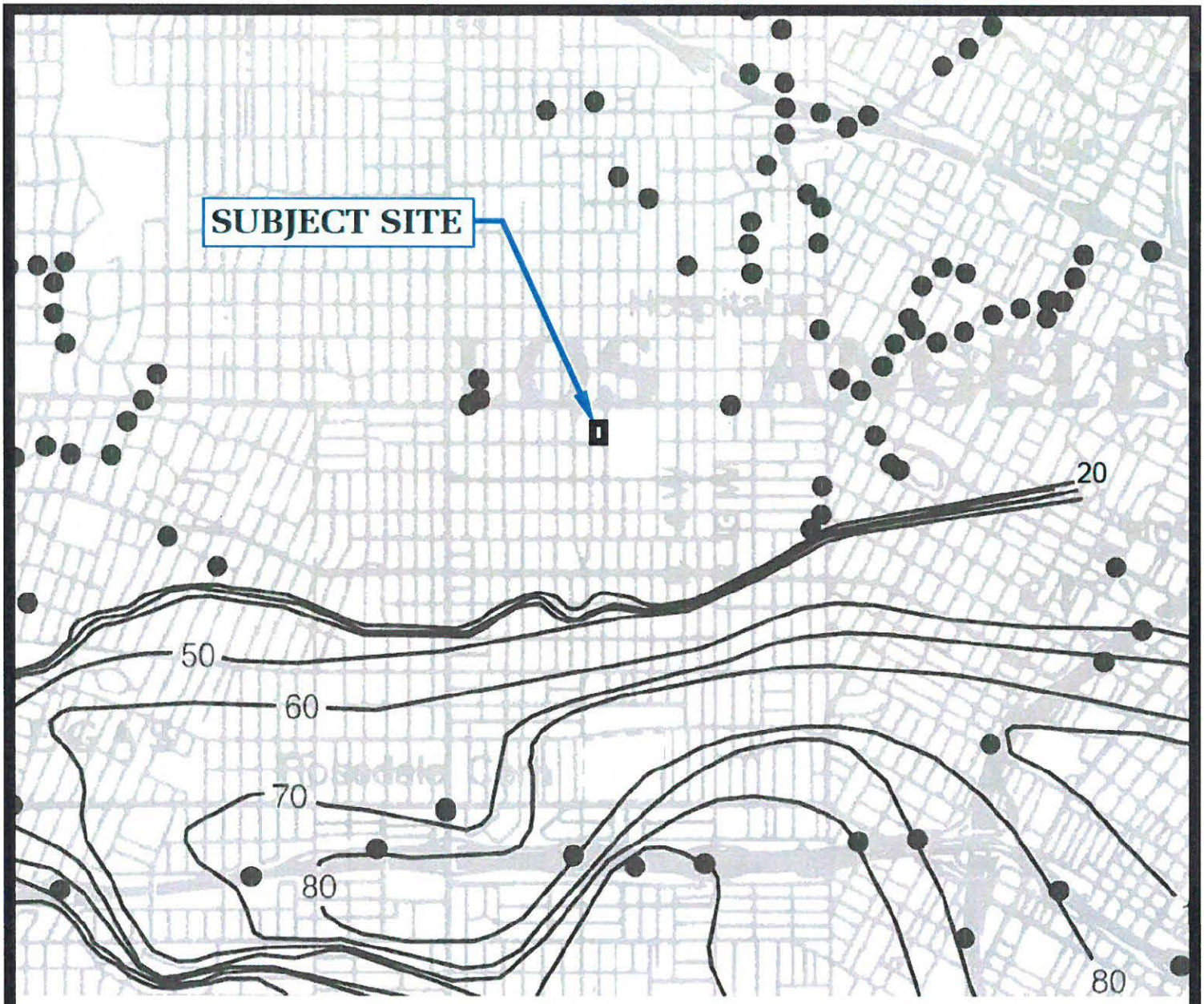
REFERENCE: SEISMIC HAZARD ZONES, HOLLYWOOD QUADRANGLE OFFICIAL MAP (CDMG, 1999)

SEISMIC HAZARD ZONE MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

JAMISON PROPERTIES
3440 WILSHIRE BLVD., LOS ANGELES

FILE NO. 21491



ONE MILE

SCALE

20 Depth to groundwater in feet

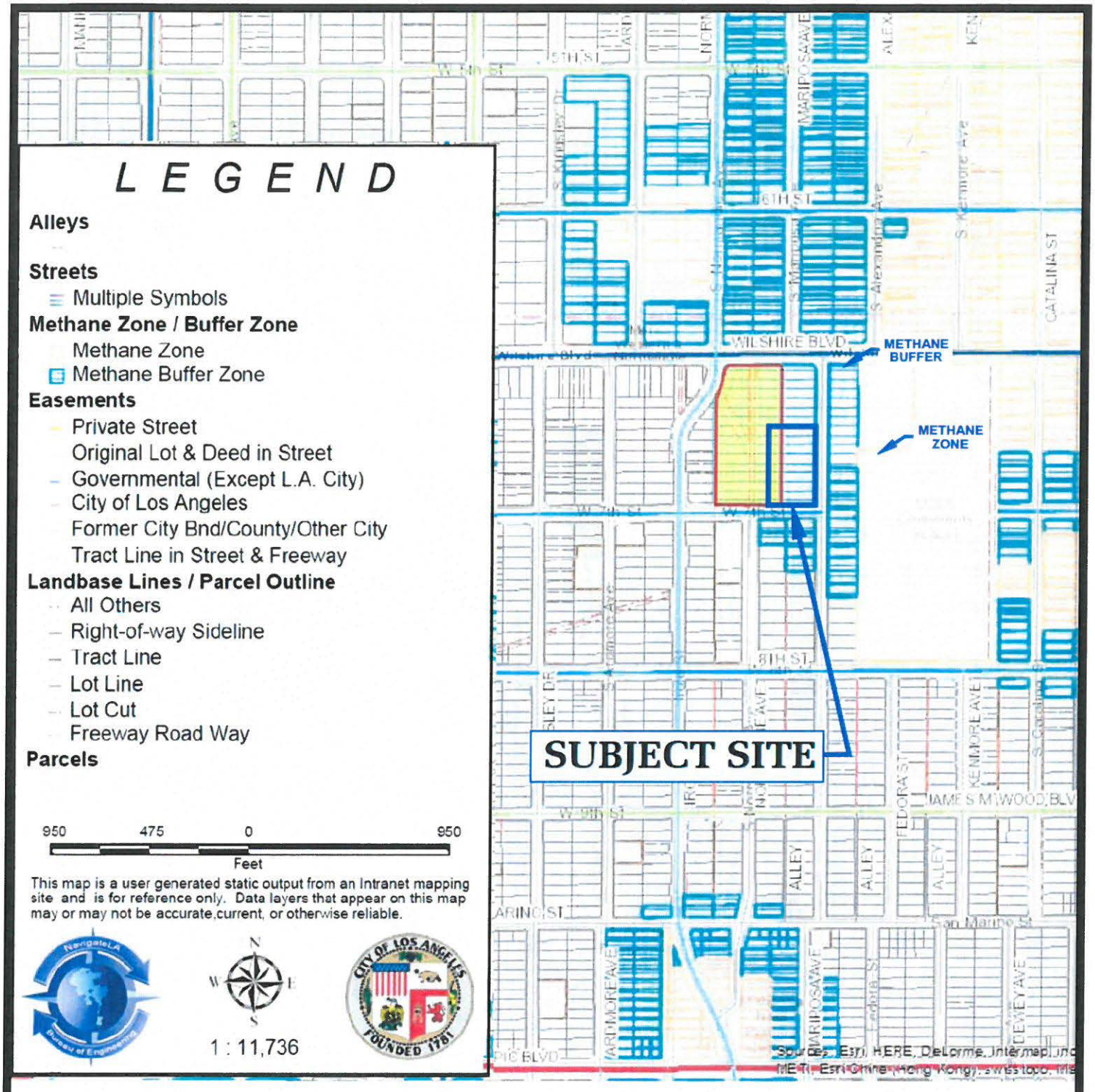
REFERENCE: CDMG, SEISMIC HAZARD ZONE REPORT, 026
HOLLYWOOD 7.5 - MINUTE QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA (1998, REVISED 2006)

HISTORICALLY HIGHEST GROUNDWATER LEVELS

Geotechnologies, Inc.
Consulting Geotechnical Engineers

JAMISON PROPERTIES
3440 WILSHIRE BLVD., LOS ANGELES

FILE NO. 21491



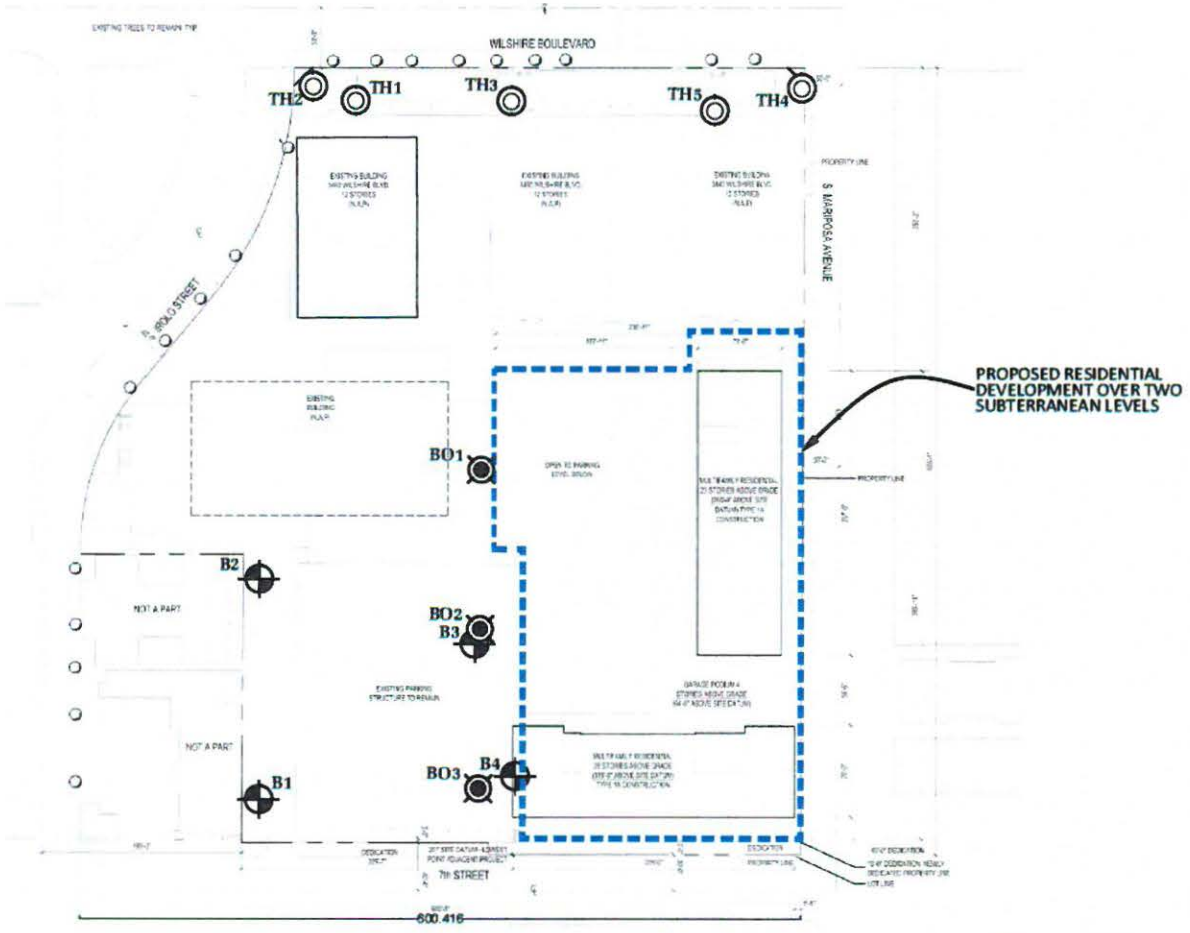
REFERENCE: http://navigatela.lacity.org/NavigateLA/

METHANE ZONE RISK MAP

Geotechnologies, Inc.
Consulting Geotechnical Engineers

JAMISON PROPERTIES
3440 WILSHIRE BLVD., LOS ANGELES

FILE NO. 21491



LEGEND

- B4 — LOCATION & NUMBER OF BORING (PREVIOUS INVESTIGATION, FILE NO. 21051)
- SUBJECT SITE
- BO3 — LOCATION & NUMBER OF BORING (PREVIOUS INVESTIGATION BY DAMES & MOORE, JOB NO. 979-0, DATED MAY 7, 1954)
- TH5 — LOCATION & NUMBER OF TEST HOLES (PREVIOUS INVESTIGATION BY EARTH SYSTEMS CONSULTANTS, DATED MARCH 13, 1992)

REFERENCE: PLOT PLAN PROVIDED BY CALLISON RTKL, INC. DATED AUGUST 11, 2017

PLOT PLAN

Geotechnologies, Inc.
Consulting Geotechnical Engineers

JAMISON PROPERTIES
3440 WILSHIRE BLVD., LOS ANGELES

FILE No. 21491 | DRAWN BY: TC

DATE: October 2017

BORING LOG NUMBER 1

Jamison Properties **Date: 09/29/15**

File No. 21051 **Method: 8-inch diameter Hollow Stem Auger**

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt
				0 --		3-inch Asphalt over 3-inch Base
				1 --		FILL: Silty Sand, dark brown to yellowish brown, slightly moist, medium dense to dense, fine to medium grained, occasional gravel, brick and concrete fragments
				2 --		
				3 --		
				4 --		
5	8	12.2	SPT	5 --		
				6 --		Clayey Sand to Sandy Clay, brown, slightly moist, loose to medium dense, medium firm, fine to coarse grained, slightly porous, with occasional gravel
				7 --		
7.5	20	12.1	107.6	8 --	SC	Clayey Sand, dark grayish brown, moist, dense, fine grained
				9 --		
10	14	15.7	SPT	10 --	CL	Sandy Clay, dark grayish brown, moist, medium firm to stiff, fine grained
				11 --		
				12 --		
12.5	15	23.0	96.0	13 --		
				14 --		
15	10	17.8	SPT	15 --		
				16 --		
				17 --		
17.5	11	24.3	95.3	18 --		
				19 --		
20	18	27.2	SPT	20 --		
				21 --		
				22 --		
22.5	22	23.3	98.1	23 --	SC	Clayey Sand, olive brown, wet, medium dense to dense, fine grained
				24 --		
25	20	24.5	SPT	25 --	CL	Sandy Clay, olive brown, wet, medium firm, fine grained

BORING LOG NUMBER 1

Jamison Properties

File No. 21051

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				26		
				27		
27.5	39	17.5	107.6	28	SM	Silty Sand, olive brown, wet, dense, fine grained
				29		
30	23	19.1	SPT	30		
				31		
				32		
32.5	22	30.4	95.9	33	CL	Sandy Clay, olive, very moist, stiff, fine grained
				34		
35	17	22.7	SPT	35		
				36		
				37		
37.5	50 50/6"	20.2	103.7	38	SM	Silty Sand, dark olive brown, wet, very dense, fine to medium grained
				39		
40	34	20.3	SPT	40		
				41		
				42		
42.5	41 50/6"	17.3	110.4	43		
				44		
45	34	25.9	SPT	45		
				46		BEDROCK: Siltstone to Shale, olive gray to dark gray, moist, moderately hard
				47		
47.5	61	21.6	106.4	48		
				49		
50	35	21.8	SPT	50		

BORING LOG NUMBER 1

Jamison Properties

File No. 21051

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				51 --		
				52 --		
52.5	48 50/3"	17.2	111.2	53 --		Sandstone to Siltstone, gray, moist, hard
				54 --		
55	47 50/3"	20.8	SPT	55 --		
				56 --		
				57 --		
57.5	100/7"	15.7	113.1	58 --		
				59 --		
60	49 50/5"	21.7	SPT	60 --		Total Depth 60 feet Water at 22 feet Fill to 7½ feet
				61 --		
				62 --		
				63 --		NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual.
				64 --		
				65 --		Used 8-inch diameter Hollow-Stem Auger 140-lb. Automatic Hammer, 30-inch drop Modified California Sampler used unless otherwise noted
				66 --		
				67 --		SPT=Standard Penetration Test
				68 --		
				69 --		
				70 --		
				71 --		
				72 --		
				73 --		
				74 --		
				75 --		

BORING LOG NUMBER 2

Jamison Properties **Date: 09/29/15**

File No. 21051 **Method: 8-inch diameter Hollow Stem Auger**

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt
				0 --		3-inch Asphalt over 3-inch Base
				-		
				1 --		FILL: Silty Sand, dark to yellowish brown, slightly moist, medium dense, fine to medium grained, with occasional gravel, brick and concrete fragments
				-		
				2 --		
				-		
				3 --		
				-		
				4 --		
				-		
5	22	13.8	111.0	5 --		
				-		
				6 --	SM	Silty Sand, dark brown, moist, medium dense to dense, fine to medium grained
				-		
				7 --		
7.5	11	10.8	103.5	-		
				8 --		
				-		
				9 --		
				-		
10	12	13.3	101.5	10 --		
				-		
				11 --		
				-		
				12 --		
				-		
				13 --		
				-		
				14 --		
				-		
15	34	14.5	112.4	15 --		
				-	CL	Sandy Clay, dark brown, moist, very stiff, fine grained
				16 --		
				-		
				17 --		
				-		
				18 --		
				-		
				19 --		
				-		
20	34	18.2	106.4	20 --		
				-		
				21 --		
				-		
				22 --		
				-		
				23 --		
				-		
				24 --		
				-		
25	33	17.1	105.8	25 --		
				-	SC	Clayey Sand, dark brown, moist, dense, fine to medium grained

BORING LOG NUMBER 2

Jamison Properties

File No. 21051

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				26		
				27		
				28		
				29		
30	18	35.7	91.0	30	CL	Sandy Clay, dark olive brown, very moist, very stiff, fine grained
				31		
				32		
				33		
				34		
35	53	20.3	104.9	35	SP	Sand, dark to yellowish brown, wet, very dense, fine to coarse grained
				36		
				37		
				38		
				39		
40	35	33.8	85.9	40		BEDROCK: Siltstone, olive gray, moist, moderately hard to hard
				41		
				42		
				43		
				44		
45	25 50/6"	30.0	91.0	45		
				46		
				47		NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual.
				48		Used 8-inch diameter Hollow-Stem Auger 140-lb. Automatic Hammer, 30-inch drop Modified California Sampler used unless otherwise noted
				49		
50	20 50/5"	32.1	89.8	50		Total Depth 50 feet Water at 26½ feet Fill to 5½ feet

BORING LOG NUMBER 3

Jamison Properties **Date: 09/30/15**

File No. 21051 **Method: 8-inch diameter Hollow Stem Auger**

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt
				0 --		4-inch Asphalt over 4-inch Base
				1 --		FILL: Silty Sand, dark brown, slightly moist, medium dense, fine to medium grained, occasional gravel, slightly porous
				2 --		
				3 --		
				4 --		
5	11	14.1	110.5	5 --		
				6 --	CL	Sandy Clay, dark brown, moist, medium firm to stiff, fine to medium grained
7.5	14	12.9	114.0	7 --		
				8 --		
				9 --		
10	25	14.0	115.4	10 --		
				11 --		stiff
				12 --		
				13 --		
				14 --		
15	58	14.5	114.2	15 --		
				16 --	SM	Silty Sand, dark to yellowish brown, moist, very dense, fine to medium grained
				17 --		
				18 --		
				19 --		
20	15	43.5	75.3	20 --		
				21 --	CL	Sandy Clay, grayish brown, moist to very moist, medium stiff
				22 --		
				23 --		
				24 --		
25	15	37.0	77.7	25 --		

BORING LOG NUMBER 3

Jamison Properties

File No. 21051

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				26 --		
				27 --		
				28 --		
				29 --		
30	60	34.0	85.5	30 --		BEDROCK: Shale, dark olive gray, moist, moderately hard to hard
				31 --		
				32 --		
				33 --		
				34 --		
35	29 50/5"	34.1	87.8	35 --		
				36 --		
				37 --		
				38 --		
				39 --		
40	31 50/6"	37.7	80.3	40 --		Total Depth 40 feet Water Seepage at 35 feet Fill to 5½ feet NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual. Used 8-inch diameter Hollow-Stem Auger 140-lb. Automatic Hammer, 30-inch drop Modified California Sampler used unless otherwise noted
				41 --		
				42 --		
				43 --		
				44 --		
				45 --		
				46 --		
				47 --		
				48 --		
				49 --		
				50 --		

BORING LOG NUMBER 4

Jamison Properties **Date: 09/30/15**

File No. 21051 **Method: 8-inch diameter Hollow Stem Auger**

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description Surface Conditions: Asphalt
				0 --		4-inch Asphalt over 4-inch Base
				1 --		FILL: Sandy Clay, dark brown, moist, medium firm to stiff, fine to medium grained
				2 --		
				3 --		
				4 --		
5	7	10.5	SPT	5 --		
				6 --		
				7 --	SC	Clayey Sand, dark brown, moist, medium dense to dense, fine grained
7.5	16	23.8	95.9	8 --		
				9 --		
10	12	20.0	SPT	10 --		
				11 --		
				12 --		
12.5	37	19.0	109.6	13 --		
				14 --		
15	11	22.1	SPT	15 --	CL	Sandy Clay, dark to yellowish brown, moist, stiff, fine grained
				16 --		
				17 --		
17.5	45	4.6	113.0	18 --	SM/SP	Silty Sand to Sand, yellowish brown, slightly moist, fine to coarse grained, with gravel
				19 --		
20	22	16.3	SPT	20 --		
				21 --		
				22 --		
22.5	57	28.3	94.2	23 --	CL	Sandy Clay, olive brown to orange brown, moist, very stiff, fine grained
				24 --		
25	18	37.6	SPT	25 --		

BORING LOG NUMBER 4

Jamison Properties

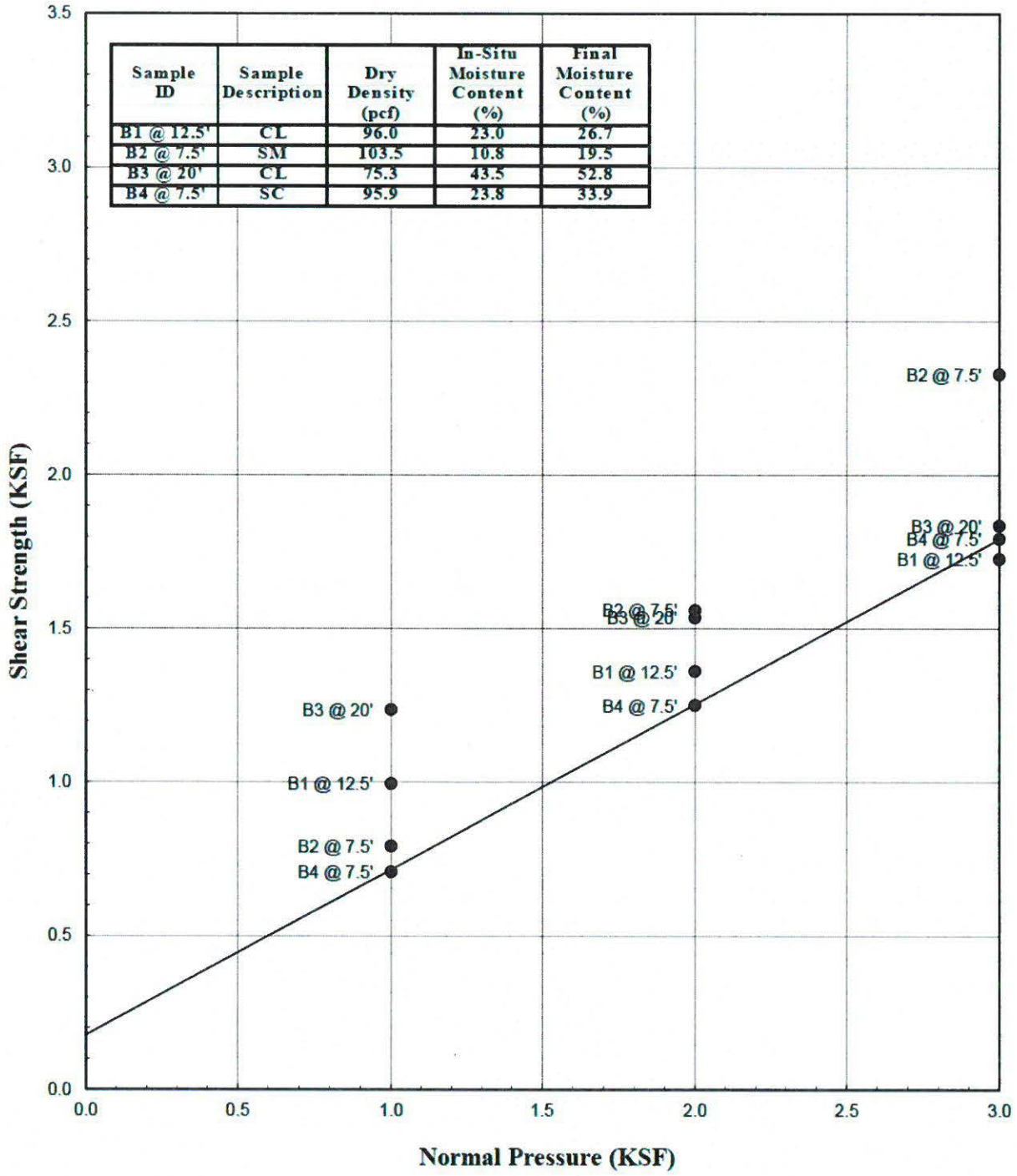
File No. 21051

km

Sample Depth ft.	Blows per ft.	Moisture content %	Dry Density p.c.f.	Depth in feet	USCS Class.	Description
				26 --		
				27 --		
27.5	58	34.2	85.0	28 --		BEDROCK: Shale to Siltstone, olive gray, moist, moderately hard to hard
				29 --		
30	32	34.4	SPT	30 --		
				31 --		
				32 --		
32.5	33 50/3"	35.6	81.7	33 --		
				34 --		
35	42 50/4"	42.7	77.7	35 --		
				36 --		
				37 --		
				38 --		
				39 --		
40	23 50/5"	37.6	82.0	40 --		Total Depth 40 feet No Water Fill to 6½ feet NOTE: The stratification lines represent the approximate boundary between earth types; the transition may be gradual. Used 8-inch diameter Hollow-Stem Auger 140-lb. Automatic Hammer, 30-inch drop Modified California Sampler used unless otherwise noted SPT=Standard Penetration Test
				41 --		
				42 --		
				43 --		
				44 --		
				45 --		
				46 --		
				47 --		
				48 --		
				49 --		
				50 --		

Saturated Shear

Sample ID	Sample Description	Dry Density (pcf)	In-Situ Moisture Content (%)	Final Moisture Content (%)
B1 @ 12.5'	CL	96.0	23.0	26.7
B2 @ 7.5'	SM	103.5	10.8	19.5
B3 @ 20'	CL	75.3	43.5	52.8
B4 @ 7.5'	SC	95.9	23.8	33.9



ϕ: 28.5 degrees
c: 185.0 psf

SHEAR TEST DIAGRAM

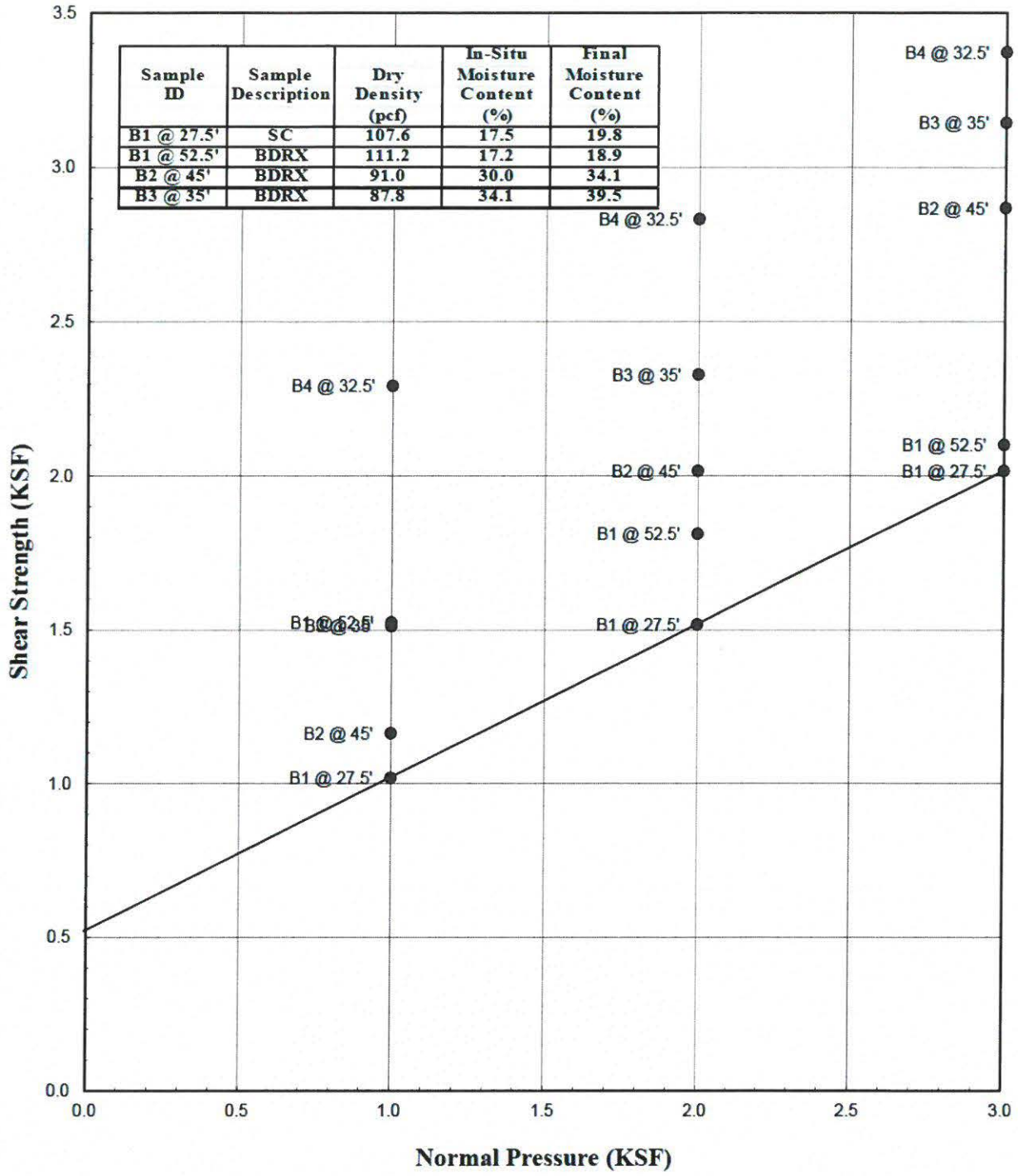
Geotechnologies, Inc.
Consulting Geotechnical Engineers

PROJECT: JAMISON PROPERTIES

FILE NO.: 21491 | PLATE: B-1

Saturated Shear

Sample ID	Sample Description	Dry Density (pcf)	In-Situ Moisture Content (%)	Final Moisture Content (%)
B1 @ 27.5'	SC	107.6	17.5	19.8
B1 @ 52.5'	BDRX	111.2	17.2	18.9
B2 @ 45'	BDRX	91.0	30.0	34.1
B3 @ 35'	BDRX	87.8	34.1	39.5



ϕ: 26.5 degrees
c: 520.0 psf

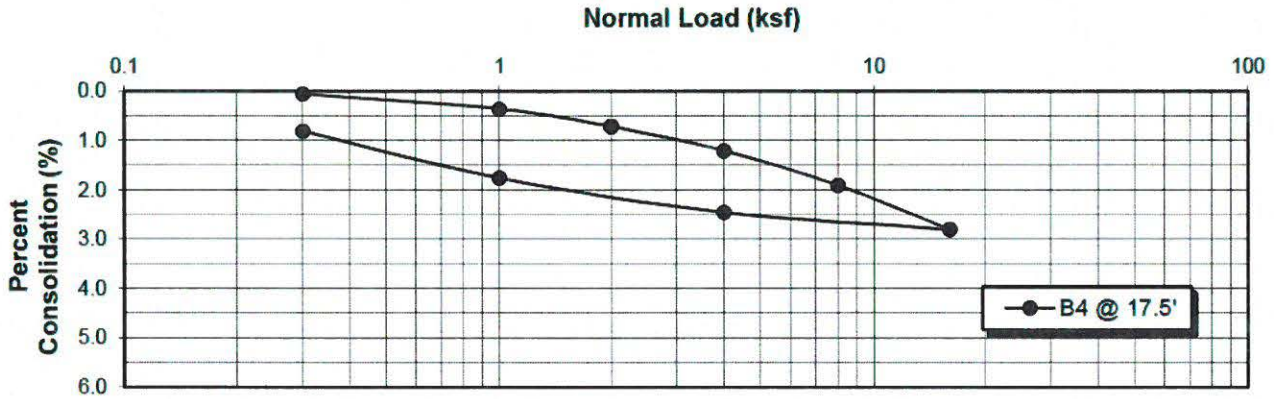
SHEAR TEST DIAGRAM

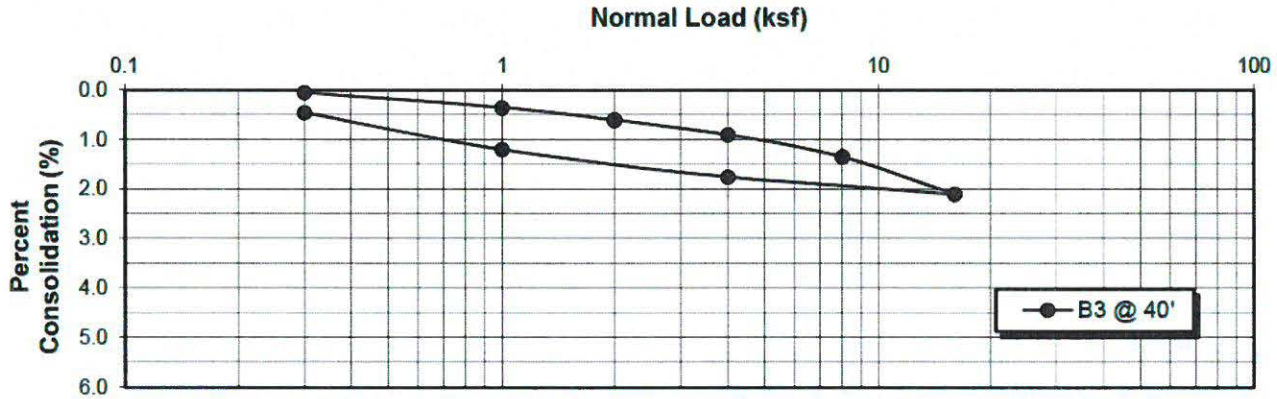
Geotechnologies, Inc.
Consulting Geotechnical Engineers

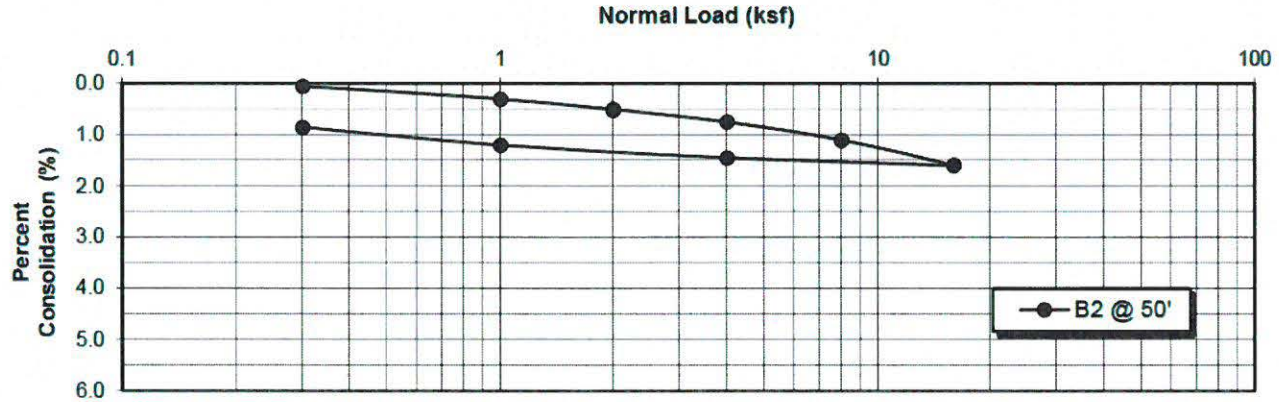
PROJECT: JAMISON PROPERTIES

FILE NO.: 21491

PLATE: B-2







Water added at 2 KSF

CONSOLIDATION

Geotechnologies, Inc.
CONSULTING GEOTECHNICAL ENGINEERS

PROJECT: JAMISON PROPERTIES

FILE NO. 21491 | PLATE: C-1

Geotechnologies, Inc.
Consulting Geotechnical Engineers
439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

Jamison Properties
File No. 21491

COMPACTION/EXPANSION/SULFATE DATA SHEET

ASTM D-1557

Sample	B1 @ 1' – 5'
Soil Type	SM
Maximum Density (pcf)	131.0
Optimum Moisture Content (percent)	10.0
Percent finer than 0.005mm (percent)	<15%

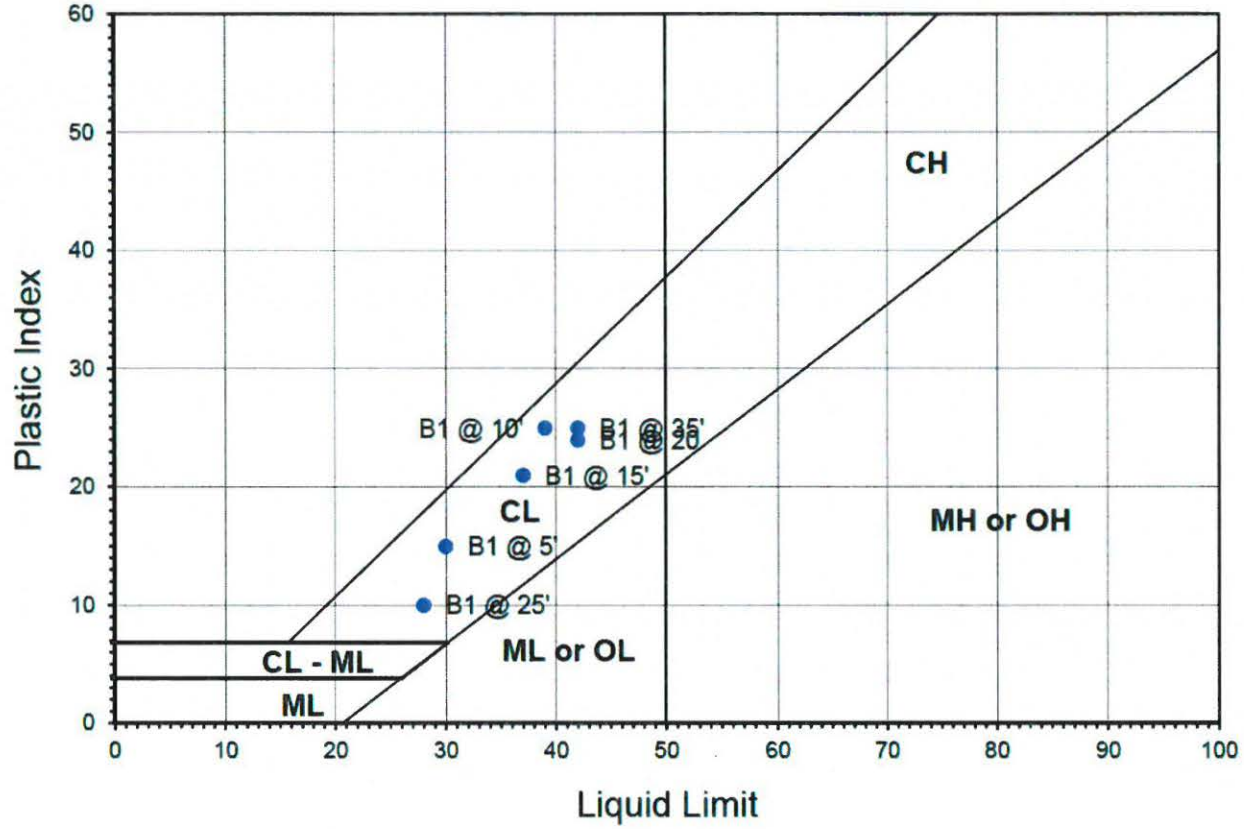
EXPANSION INDEX

Sample	B1 @ 1' – 5'
Soil Type	SM
Expansion Index – UBC Standard 18-2	54
Expansion Characteristic	Moderate

SULFATE CONTENT

Sample	B1 @ 1' – 5'
Sulfate Content (ppm)	<250

PLATE D



Sample ID	Descriptions	Passing #200	Liquid Limit	Plastic Limit	Plastic Index
B1 @ 5'	CL	51.5	30.0	15.0	15.0
B1 @ 10'	CL	64.3	39.0	14.0	25.0
B1 @ 15'	CL	54.2	37.0	16.0	21.0
B1 @ 20	CL	80.0	42.0	18.0	24.0
B1 @ 25'	CL	57.6	28.0	18.0	10.0
B1 @ 30'	SM	24.4			
B1 @ 35'	CL	84.5	42.0	17.0	25.0

ATTERBERG LIMITS

Geotechnologies, Inc.
CONSULTING GEOTECHNICAL ENGINEERS

PROJECT: JAMISON PROPERTIES

FILE NO. 21491 | PLATE: F

COPY

0330160017

[redacted]

[redacted]

Attention: Mr. Ray Atherton

Gentlemen:

Preliminary Report
Foundation Investigation
Proposed Commercial Buildings
Wilshire Boulevard and Mariposa Avenue
Los Angeles, California
For the Fishman Realty & Construction Company

SCOPE

In accordance with your recent request, foundation recommendations resulting from our investigation of the site of the Proposed Commercial Buildings that are to be constructed for the Fishman Realty & Construction Company on Wilshire Boulevard near Mariposa Avenue are submitted herewith. The recommendations and data contained herein will be substantiated and presented in more complete form in our forthcoming formal report.

The ultimate development of the site will occupy an area of approximately 445 by 465 feet in plan, and will consist of three 12-story buildings, two single-story buildings and two-level garage facilities. We have previously investigated the sites of one of the 12-story buildings, and the adjoining single-story building and garage structures.* The development with which this investigation is concerned will consist of two 12-story buildings and one single-story structure, the locations of which are shown on Plate 1, Plot Plan. On the basis of our previous investigation, the structures then planned were designed to be supported on drilled-and-belled caissons that penetrate to firm shale that underlies the site. The present investigation was undertaken to determine whether

---

*See our "Report of Foundation Investigation Proposed Commercial Development, Wilshire Boulevard and Mariposa Avenue, Los Angeles, California, for the Fishman Realty & Construction Company" dated September 25, 1953.

[redacted]

[redacted]

[redacted]

that the bottom of the caisson is at least twelve feet below the bottom of the floor slab. A minimum total penetration of eight feet below the bottom of the floor slab is required for caissons penetrating five feet into the shale.

The ultimate settlements of the 12-story buildings supported on the shale will be approximately one-half inch. Ultimate settlements of the foundations of the single-story structures will be approximately one-fourth inch. It is anticipated that the greater portion of the settlement will occur within six months after structural loads are applied.

Yours very truly,

[illegible]

By L. LeRoy Crandell
L. LeRoy Crandell

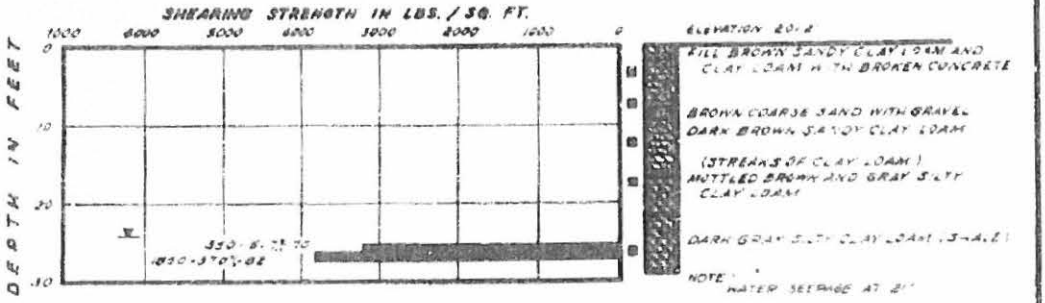
LLC-WDC RD

(3 copies submitted)
Attachments (4)
Via Messenger

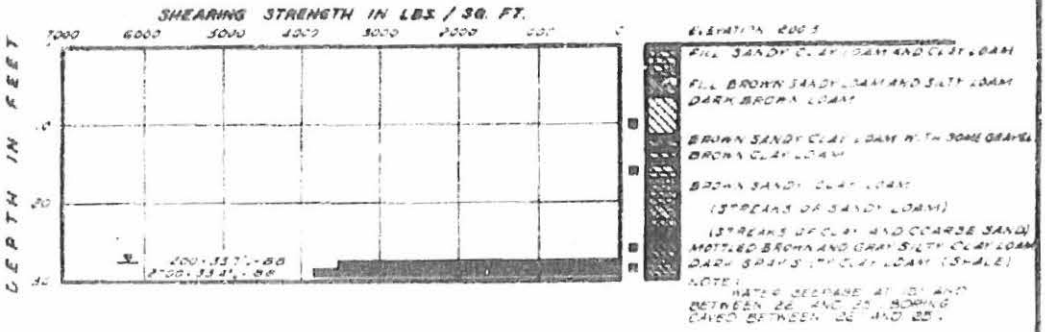
cc Claud Boelman, Architect (2)

0 3 3 0 1 6 0 0 1 8 0

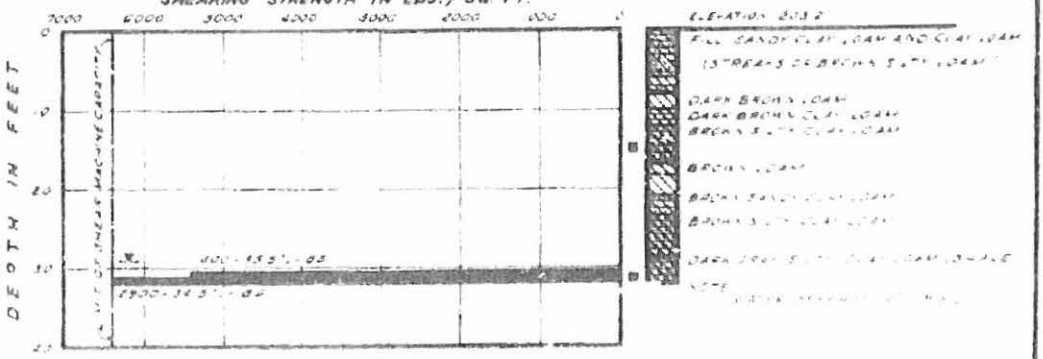
BORING 1



BORING 2



BORING 3

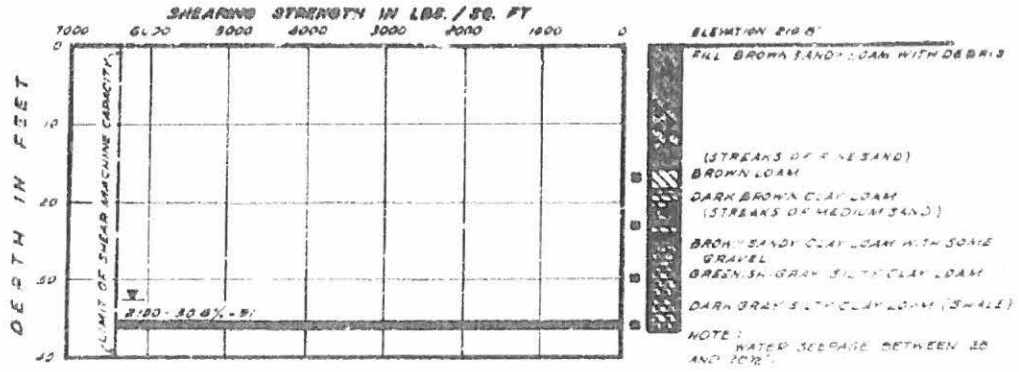


LOG OF BORINGS

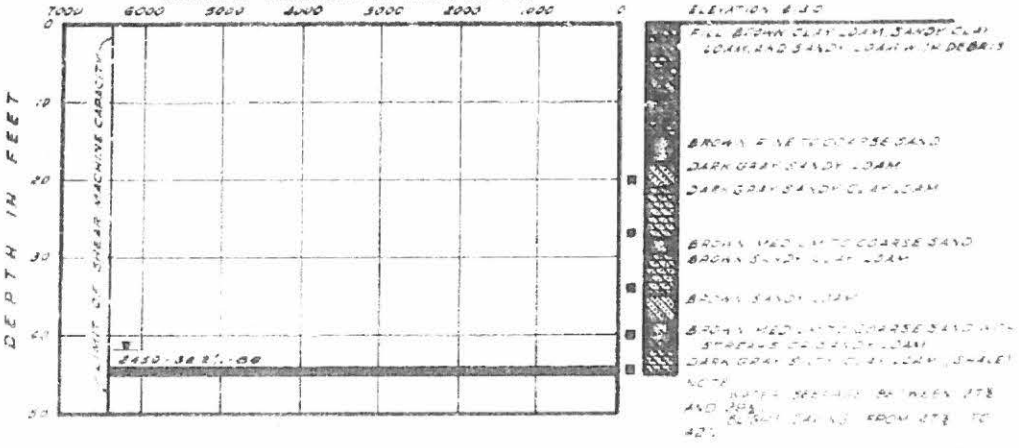
DAMES & MOORE
FOUNDATION ENGINEERS

PLATE A-14

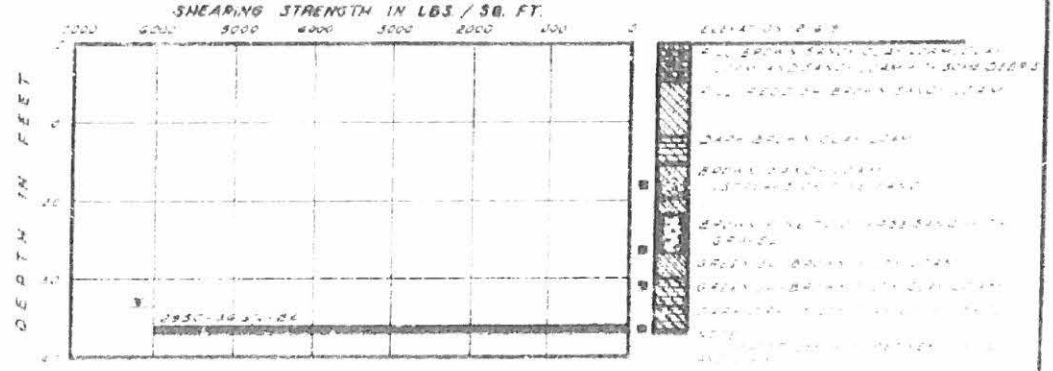
BORING 4



BORING 5



BORING 6



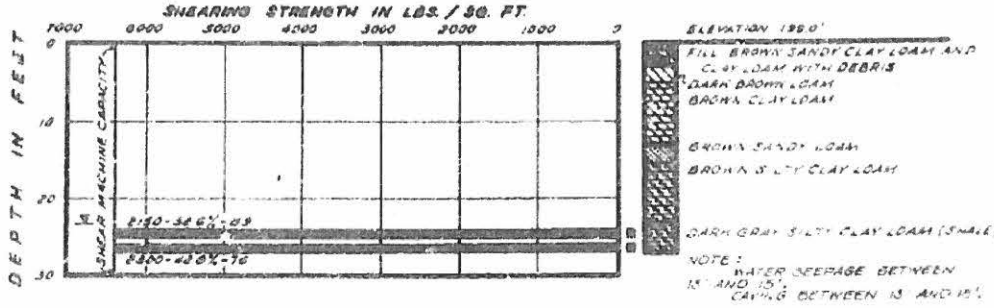
LOG OF BORINGS

DAMES & MOORE
FOUNDATION ENGINEERS

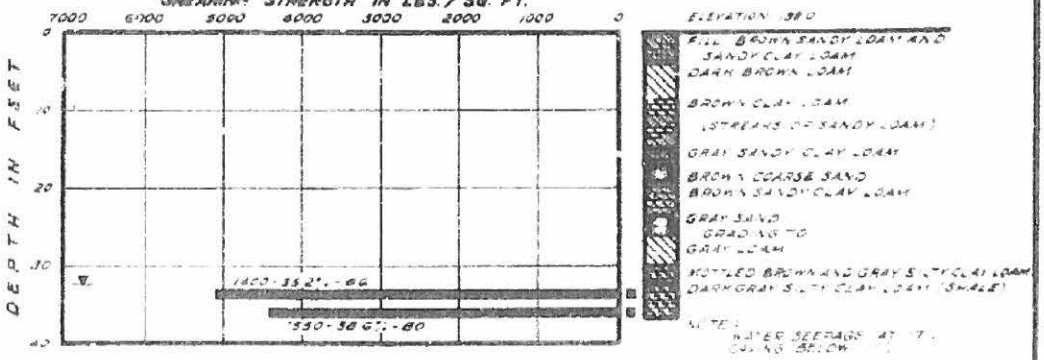
PLATE A-1B

DAMES & MOORE
JOB NO. 7776-03
JOB TITLE Foundation Investigation
LOCATION Los Angeles, California
CLIENT Hollywood Storage Center
DATE SUBMITTED 11-15-57
DRAWN BY A.M.L.
DATE 11-22-57
DATE 12-6-57
DATE 12-10-57

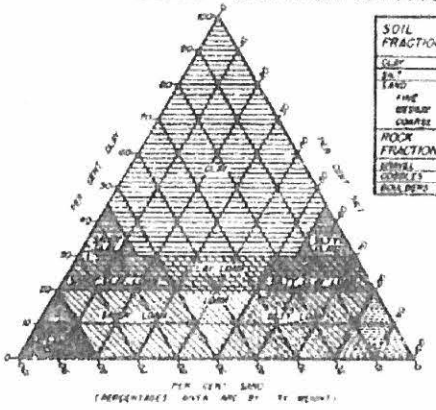
BORING 7



BORING 8

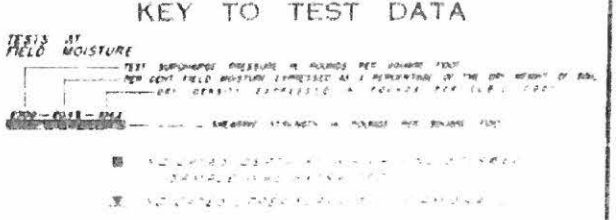


SOIL CLASSIFICATION CHART



SOIL FRACTION	PARTICLE SIZE			
	COARSE	FINE	COARSE	FINE
	BOULDERS	COBBLES	GRAVEL	GRAVEL
CLAY			.005	.005
SILT	.005	.005	.05	.05
SAND				
FINE	.05	.005	.25	.1
MEDIUM	.25	.05	.5	.25
COARSE	.5	.25	2.0	.5
ROCK FRACTION	THESE FRACTIONS ARE NOT DISCERNIBLE IN DETERMINING SOIL CLASSIFICATION.			
BOULDERS	8.0		3.0	
COBBLES	3.0		.75	
ROCK PIECES	.75			

KEY TO TEST DATA



LOG OF BORINGS

DAMES & MOORE
FOUNDATION ENGINEERS

PLATE A-10

A. C. Martin & Associates
[illegible]
Los Angeles 13, California

Attention: Mr. Norman Patten, Structural Engineer

Gentlemen:

Additional Foundation Explorations
Proposed Additional Parking Facilities
3440 Wilshire Boulevard
for Tishman Realty and Construction Company

This letter presents the results of exploration borings drilled for the Proposed Additional Parking Facilities to be constructed for the Tishman Realty and Construction Company at 3440 Wilshire Boulevard, Los Angeles, California. Several borings were previously drilled in a portion of this site during our foundation investigations for the Tishman Realty and Construction Company in 1950 and 1951. These additional explorations consisted of three borings drilled in a portion of the site not previously explored. The purpose of these borings was to determine the depths to shale, and to establish whether the shale is similar in strength to the shale encountered in the previous investigations.

The borings were drilled with 18-inch-diameter bucket-type drilling equipment at the locations shown on Plate 1, Plot Plan. Continuous observations of the soils encountered in the borings were recorded by our job engineer. Logs showing the soils encountered in the exploration borings are presented on Plates 2-A through 2-C. The method used in classifying the soils is shown on the Soil Classification Chart on Plate 3. Undisturbed core samples were obtained from the borings for examination in the laboratory.

The area in which the borings were drilled was at one time crossed in an approximate north-south direction by a drainage channel. As discussed in our report dated February 8, 1951, alluvial soils have been deposited in the channel, and fills have been placed over the alluvium. The shale was encountered at elevations varying from 168.4 to 183.5 feet. In the old channel, perched water overlies the shale. The perched water has caused the upper few feet of shale to become somewhat weaker than the underlying shale and also weaker than the upper shales encountered in the exploration borings away from the old channel.

The caissons should be founded at least three feet into the shale. The caissons may be designed to impose bearing pressures of 12,000 pounds per square foot. If the caissons are drilled five feet into shale, a bearing value of 16,000 pounds per square foot may be used. These bearing values apply to the total of all design loads, dead, live, and seismic. These recommendations are similar to those given in our report dated February 8, 1951.

Yours very truly,

DAMES & MOORE

Vernon A. Smoots

Vernon A. Smoots

VAS-LH MA

Attachments (5)

(3 copies submitted)

0 3 0 1 5 0 0 1 8 6

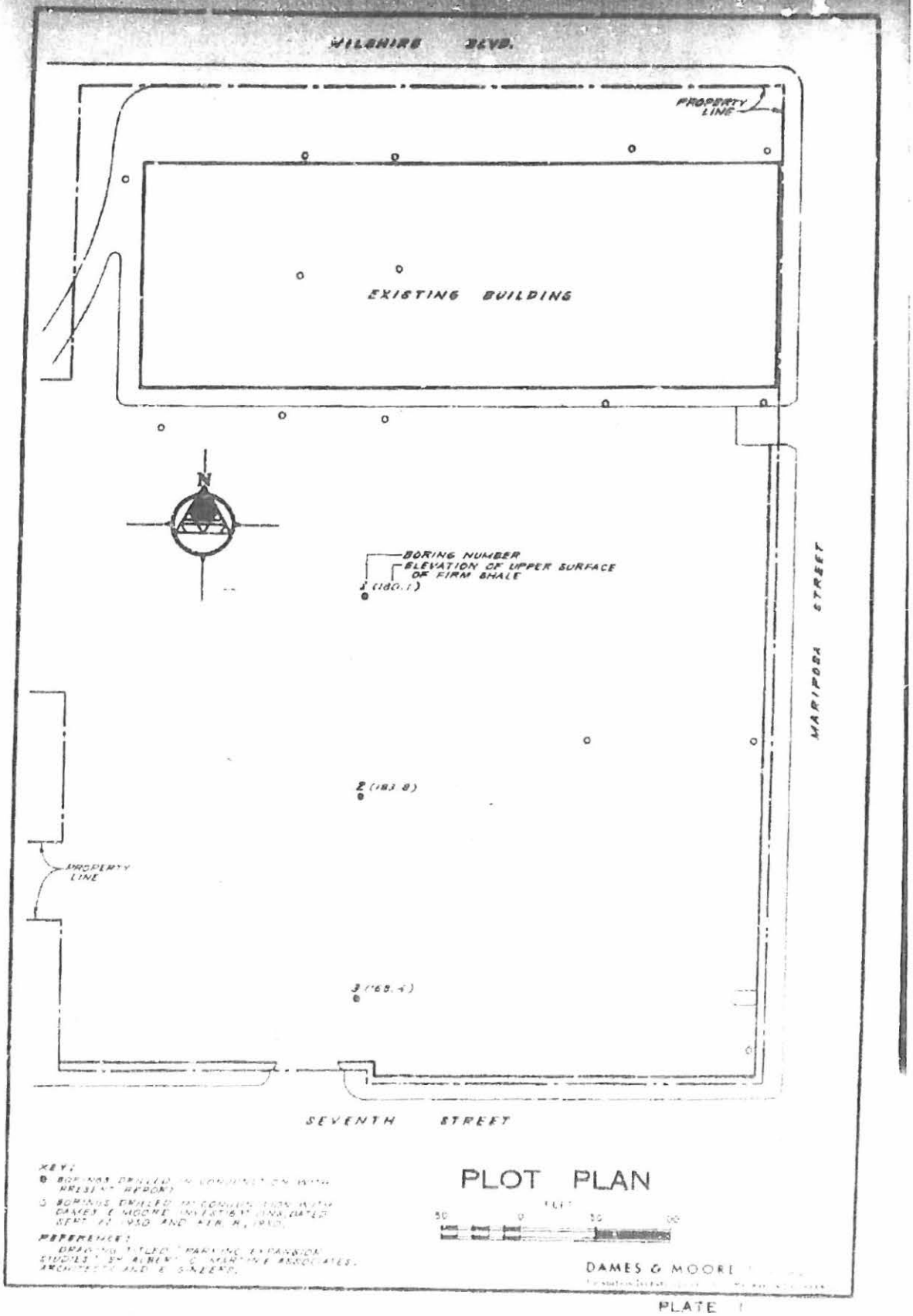
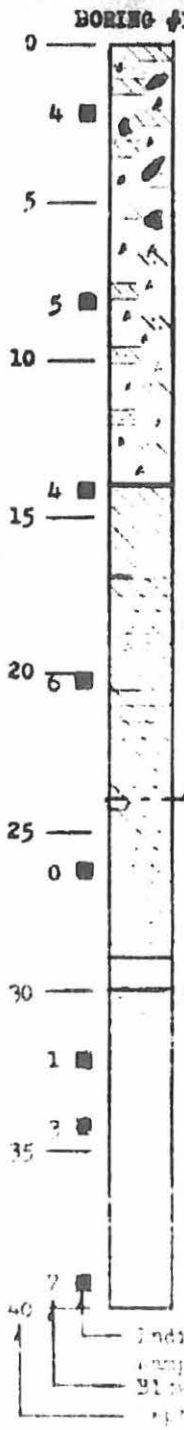

WILSHIRE BLVD.
PROPERTY LINE
EXISTING BUILDING
N
BORING NUMBER
ELEVATION OF UPPER SURFACE OF FIRM SHALE
1 (180.1)
2 (183.8)
3 (169.4)
MARIPOSA STREET
PROPERTY LINE
SEVENTH STREET
KEY:
B BORING DRILLED IN CONJUNCTION WITH PRESENT REPORT
O BORING DRILLED IN CONJUNCTION WITH DAMES & MOORE INVESTIGATION DATED SEPT. 17, 1950 AND FEB. 8, 1951.
REFERENCES:
DRAWING TITLED "PARKING EXPANSION STUDIES" BY ALBERT C. MARTIN ASSOCIATES, ARCHITECTS AND ENGINEERS.
PLOT PLAN
FEET
50 0 50 100
DAMES & MOORE

PLATE 1

LOG OF BORINGS



Fill- Brown sand and gravel with patches of clay loam and pieces of concrete

Patches of brown sandy loam and sandy clay loam

Dark brown loam

Grading to clay loam

Grading to mottled brown silty clay loam

Water seepage

Grey & reddish brown sand

Greenish grey & grey stratifications of decomposed shale (Silty clay)

Grading to bluish grey & dark brown

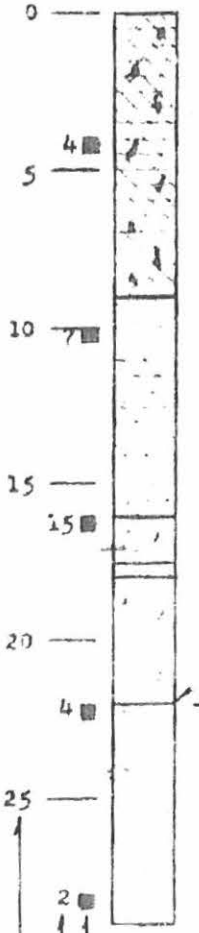
DAMES & MOORE

0330160018

0330130018

LOG OF BORINGS

BORING #2 ELEVATION 205.8'



Fill- Dark brown sandy clay loam with pieces of concrete and rock

Dark brown loam

Grading to sandy clay loam

Brown medium to coarse sand and gravel

Brown clay loam

Brown medium to coarse sand and gravel

Water seepage

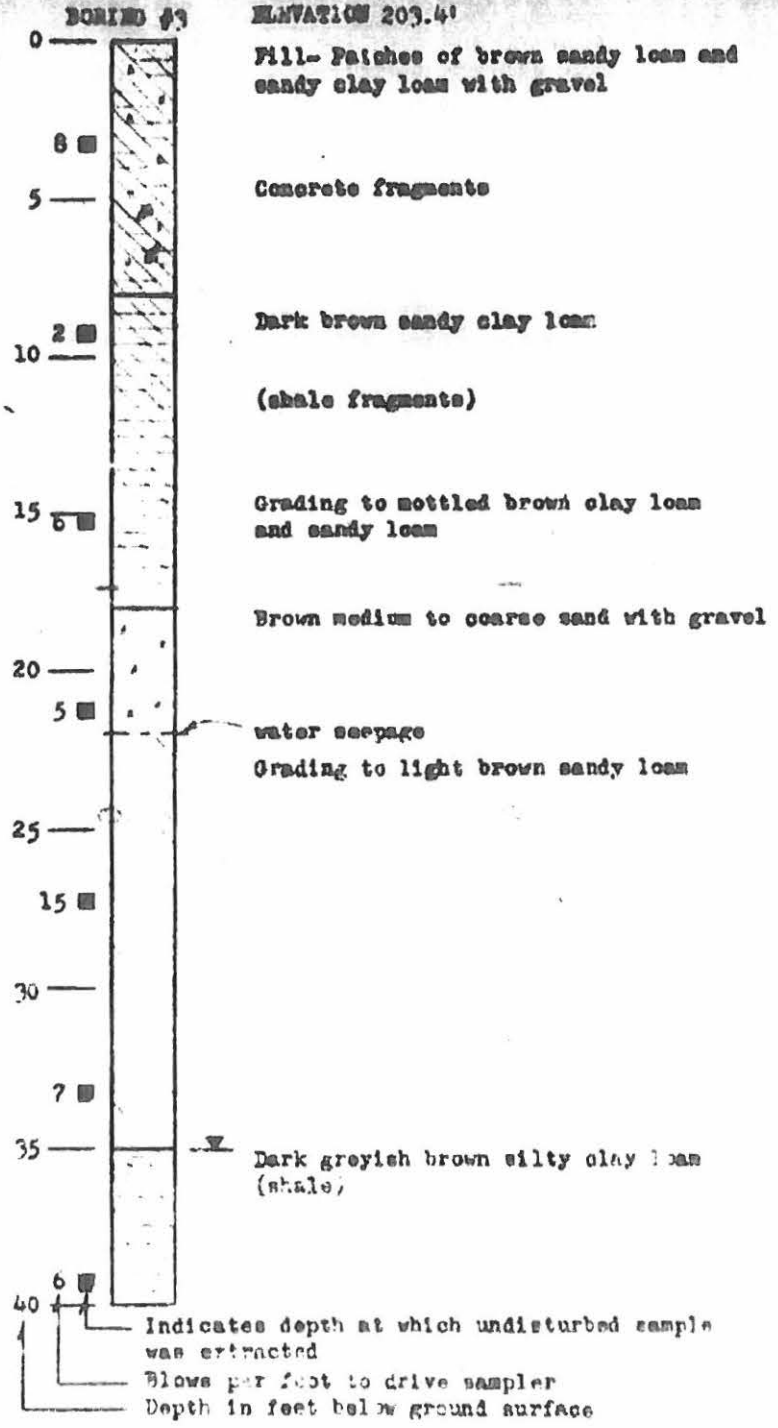
Brown and grey stratifications of decomposed shale (Silty clay)

Indicates depth at which undisturbed sample was extracted

Blows per foot to drive sampler

Depth in feet below ground surface

LOG OF BORINGS

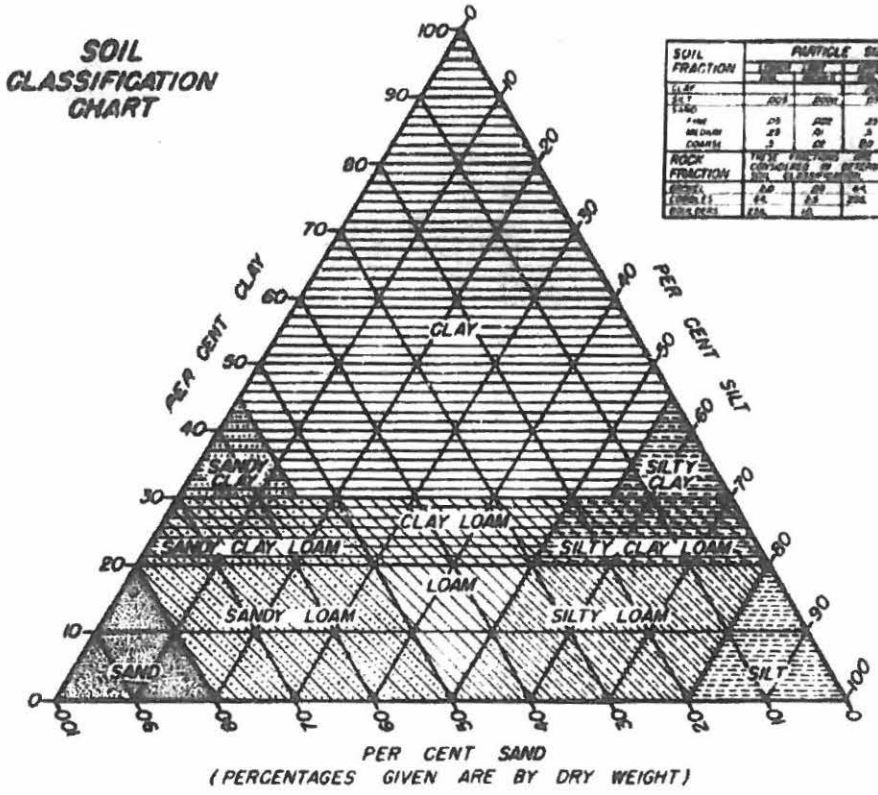


DAMES & MOORE

PLATE B-C

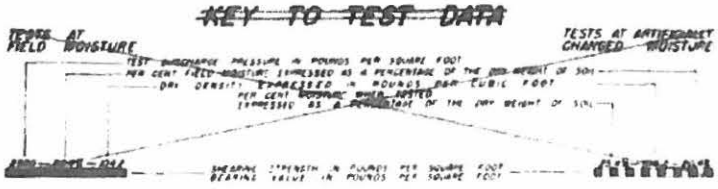
0330160001990

SOIL CLASSIFICATION CHART AND KEY TO TEST DATA



SOIL FRACTION	PARTICLE SIZE			
CLAY				
SILT				
SAND				
FINE				
MEDIUM				
COARSE				
ROCK FRACTION	THESE FRACTIONS ARE NOT CONSIDERED IN DETERMINING SOIL CLASSIFICATION			
GRAVEL				
COBBLES				
BOULDERS				

KEY TO TEST DATA



■ INDICATES DEPTH AT WHICH UNDISTURBED SAMPLE WAS EXTRACTED

0330160001911

DAMES & MOORE

PLATE

28161

Earth Systems Consultants
Southern California

Foundation Engineering Division
16344 Oxnard Street
Los Angeles, CA 91356
(818) 996-1600
(213) 873-5032
FAX (818) 996-8025

SOIL ENGINEERING REPORT

for

PROPOSED CANOPIES AND SIGN MONUMENTS

at

3450 Wilshire Boulevard
Los Angeles, California

REQUESTED BY

MR. DAVID WILLIS
ZUFU INVESTMENTS, INC.
dba
TOTAL PROPERTIES MANAGEMENT CO.
3450 WILSHIRE BOULEVARD, SUITE 400
LOS ANGELES, CALIFORNIA 90010

STRUCTURAL ENGINEER

MR. DON STRAND
BRANDOW & JOHNSTON ASSOCIATES
1660 West Third Street
Los Angeles, California 90017
(213) 484-8950

March 13, 1992

F-1537-

Earth Systems Consultants
Southern California

Foundation Engineering Division

18344 Oxnard Street
Los Angeles, CA 91356
(818) 996-1600
(213) 873-5032
FAX (818) 996-8025

SOIL ENGINEERING REPORT

Introduction

A soil engineering study has been conducted for three proposed canopies and two sign monuments to be located at 3450 Wilshire Boulevard, Los Angeles, California. The proposed canopies will be constructed in front of three high-rise structures which are addressed at 3440, 3450, and 3460 Wilshire Boulevard. The site is located at the southeast corner of the intersection of Wilshire Boulevard and Normandie Avenue.

The intent of this report is only to provide recommendations for foundation system of the proposed structures.

Surface Conditions

The vacant site, which is located between Wilshire Boulevard and the high-rise buildings, is approximately 50 feet wide and 420 feet long. Normandie and Maripose Avenues bord - the site on the west and east, respectively.

Ground surface elevation of the site almost matches the sidewalk elevation along the adjoining street.

Apparently, the site was previously used as a planting area which has recently been cleared.

The surficial soils consist of sandy clay and silty sand and are considered to be soft or loose. Apparently, most of the onsite soils consist of basement wall backfill of the high-rise structures. It is understood that the basement floors are at a depth of 16 feet.

Exploration

Five test holes were drilled to depths ranging between 10 and 35 feet near the locations of the proposed signs and canopies. All test holes were backfilled on completion of sampling. The approximate locations of the test holes are shown on the attached "Location of Test Holes" plan. The plan was prepared from available information, and our observations at the site. The plan should be considered as an approximate representation and is not intended to be used for construction.

Foundation Conditions

Our exploration revealed that the westerly and middle portions of the site are covered with deep (25± feet) deposits of soft, very moist fill. The fill was generally classified as sandy clay and clayey sand. The easterly part of the site, where observed, is covered by 1 to 2 feet of fill.

The fill is underlain by various types of natural soils. The natural soils were classified as sandy clay, clayey sand, sandy silt, silty sand, and sand. These soils are generally medium stiff or medium dense to stiff or dense.

Bedrock consisting of weathered mudstone and shale was encountered below the soils. The bedrock is considered to be dense.

As fill was encountered on a considerable portion of the site, it may be found at other locations in variable quantity and quality.

Groundwater or perched water was encountered at depths of 28 and 23 feet in Test Holes Nos. 2 and 3, respectively. The groundwater may rise above during periods of prolonged rainfall, or from other causes not evident during the exploration. Although the proposed structures will not be directly affected by the groundwater, consideration should be given to the effect of groundwater during construction.

Description of the Proposed Construction

The proposed canopies to be placed in the middle and westerly portions of the site will be supported by friction piles. The easterly canopy will be supported by spread footings.

In addition to the canopies, two sign monuments will be placed at the easterly and westerly ends of the site. The westerly sign will also be supported by friction piles.

According to the project structural engineer, the load on isolated foundations is approximately 3 kips. Also, the proposed foundations will not be used to resist lateral loads as the structures will be tied to the existing foundations of the buildings.

The approximate locations of the proposed structures are shown on the attached plan.

This report is intended only for construction described above. Changes must be reviewed for additional recommendations as recommendations contained in this report will not be valid for other uses.

Testing

Classification. Grading analysis, density and moisture content determinations were made on representative samples. The results of these tests are shown on the attached

logs. The logs are based on laboratory tests and visual observation by the engineer in the field. A legend describing the classification tests precedes the logs.

Penetrometer. Field tests were made to measure the consistency of the soils. The results of these tests are shown on the attached logs.

Expansion. An expansion index test was conducted on a sample of the near surface soil consisting of sandy clay. The test results indicate that the soil has an expansion index of 50. The soil is considered to have a medium high potential for expansion. Requirements concerning expansive soil are included in the **Recommendations** section of this report.

Shear Tests. These tests were conducted on representative samples of the foundation soils. The samples that were selected were considered to have the least strength for each of the types of soil. In general, these were the samples with the lowest density, the highest degree of plasticity, and the highest percentage of fines passing the No. 200 sieve. The results of the shear tests appear to be consistent with the conditions found in the field and with results of tests on similar soils. The test results of each direct shear test have been plotted graphically and are attached.

Descriptions of the test methods are attached.

Design Calculations

Bearing Piles. The capacity of friction piles was determined by calculating the skin friction along the surface of the pile for earth pressure at rest and a safety factor of 2. An additional safety factor is present in end bearing which is neglected in the calculations. Graphs of the allowable bearing capacity versus depth for 1.5 and 2 foot diameter piles are attached.

The bearing capacity of piles presented in the report was based, in part, by calculating the frictional resistance exerted by a 3 to 5 foot thick layer of soil underlain by bedrock. The weight of the fill (20 and 25 feet thick) overlying the soil was also considered in the calculations.

The settlement of piles is expected to be less than 1 inch. Differential settlement between any two piles is expected to be less than 1/4 of an inch.

Discussion

Exploration Limits. The recommendations in this report are based on the surface reconnaissance, limited exploration, and sampling described in the previous paragraphs. Geologic conditions and soil deposits may vary in type, consistency, and other properties across the site. Therefore, this report should be considered to be preliminary; its purpose is to provide recommendations for the grading and the general foundation system of the proposed structures described in the report. Earth Systems Consultants should be retained during construction to continue observations of the subsurface conditions and, if needed, provide additional recommendations for changes in design. Provision should be made for possible design and construction and construction changes during construction.

Variation in Pile Length. The length of piles may vary as a result of variations in the depth of fill deposits, natural soils, and bedrock. The length of piles should be given on the pla as estimated lengths. Provisions should be made for payment for shorter lengths and for longer lengths.

Fill. Our exploration was performed using small diameter equipment. It is difficult to detect depth of fill or thin soil layers in small diameter equipment. Therefore, the depth of fill or demarcation of soil profile presented on the attached logs should be

considered approximate. Also, provisions should be made for possible variations in soil conditions.

Seismic Conditions. It is generally acknowledged that, with its present tectonic setting and abundant active faults, California is one of the most seismically "alive" portions of the United States. The property lies within a seismically active portion of Southern California and should be expected to experience occasional shaking from moderate to large magnitude earthquakes during the life of the proposed structures. The subsurface conditions at the site are comparable to those within the nearby vicinity. Therefore, we believe that if the seismic conditions are recognized and provided for in the project's engineering design and construction, structural behavior will be comparable to similar structures within the vicinity which have undergone past, seismically-induced ground shaking.

Limitations. This report is issued with the understanding that it is the responsibility of the owner or his representatives to see that the information and recommendations contained herein are called to the attention of the other members of the design team for the project and that the applicable information is incorporated into the plans, and that the necessary steps are taken to see that the contractors and subcontractors carry out such recommendations. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated, wholly or in part, by changes outside of our control. The validity of the recommendations of this report assumes that Earth Systems Consultants will be retained to provide these services. The scope of our services did not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in the soil, surface water, groundwater or air, on or below or around this site.

Construction Responsibility. Representatives of Earth Systems Consultants will observe the work in progress, make tests of the soil, and examine the excavations. It should be understood that the contractor or others shall supervise and direct the work and that they shall be solely responsible for all construction means, methods, techniques, sequences and procedures, and they shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during the performance of the work. Periodic or continuous observation by Earth Systems Consultants will not, nor is intended to include verification of dimensions or review of the adequacy of the contractor's safety measures in, on, or near the construction site.

7 3 0 3 0 1 0 0 3 2

General Recommendations

It is recommended that the proposed middle canopy, westerly canopy, and westerly sign be supported on friction piles extending through the fill and embedded into firm natural material.

The easterly canopy and sign may be supported on spread footings embedded at least 18 inches into firm natural soil.

The recommendations contained in this report are intended to augment or to supersede certain sections of the Building Code. This report should be reviewed by the governing authorities as some of the recommendations exceed the allowable values provided in Code or may not conform to the reviewing agency's regulations.

It is recommended that the completed plans and specifications be submitted to us for review of the geotechnical aspects. The review would not include checking calculations by the structural engineer.

All work should be completed in accordance with the approved plans and specifications and the applicable provisions of the Building Code, safety ordinances, and the regulations of the Building Department. Periodic inspection during construction may be required by personnel from these agencies.

Additional recommendations for foundation design and construction are given in subsequent sections of the report.

Recommendations for Design

Spread Footings. Footings shall have a minimum width of 12 inches and the base of the footing shall be placed at a minimum depth of 18 inches below the lowest adjacent finished grade.

Footings having a width of 12 inches and a depth of 12 inches may be designed for a foundation pressure of 1000 pounds per square foot. An increase of 200 pounds per square foot for each additional foot of depth may be used. The foundation pressure should not exceed 3000 pounds per square foot.

The weight of the footing below the lowest adjacent grade can be neglected. The allowable foundation pressure may be increased by 1/3 of the given value for earthquakes or other temporary forces.

Piles. Pile capacity may be selected from the attached graphs. However, the actual length of pile may vary during placement due to changes in soil and bedrock elevations. Provision should be made for such variations. Without regard to the capacity selected from the attached chart, the piles supporting the westerly canopy and sign shall penetrate at least 5 feet into firm natural material.

Piles supporting the middle canopy should penetrate at least 10 feet into firm natural materials.

The load on the pile is the load at the top; the weight of the pile may be neglected.

Piles should be spaced at least 2-1/2 diameters apart, center to center, with a minimum spacing of 3 feet.

Piles may be cast-in-drilled-holes.

Site Drainage. The site should be graded to slope away from the structures. Areas where water could pond adjacent to the structures in planter areas, or where walks and drives would create depressed areas, should be eliminated by use of area drains. Area drains should not be placed next to or in contact with the structures.

Recommendations for Construction

A meeting between representatives of the contractor, the governmental agencies, the soil engineer, and the owner should be held at the job site at the time equipment is at the site and work is about to commence. The purpose of the meeting is to review the responsibilities of each member of the team.

Caving of the pile shafts may occur below groundwater. In that case, casing may be necessary to maintain the pile shafts open. After drilling the holes and placing the reinforcement, concrete may be tremied in the holes. The tremie shall be placed to within one foot of the bottom of the shaft. The tremie shall be kept filled with concrete while placing concrete in the bottom of the shaft and below the water. The tremie tip should be kept at least 3 feet into the concrete during placement.

All excavations for friction piles must be observed by Earth Systems Consultants during drilling. Friction piles shall be inspected during placing of concrete by a deputy concrete inspector approved by governmental agency having jurisdiction over the project.

Footing excavations should be examined by Earth Systems Consultants before the forms are set. A note regarding this should be placed on the plans.

7 3 0 0 1 0 9 2 7

3450 Wilshire Boulevard
Los Angeles, California

Conclusions

We conclude that the site will be suitable for the proposed construction described in this report, providing the design and construction are properly executed. Our recommendations are based on site conditions encountered during exploration, laboratory tests, and experience with similar sites, and are in accordance with generally accepted procedures of geotechnical engineering.

EARTH SYSTEMS CONSULTANTS
FOUNDATION ENGINEERING

Shaine Shahidi
Project Engineer

Jack W. Rolston
Geotechnical Engineer

REGISTERED PROFESSIONAL ENGINEER
JACK W. ROLSTON
784
EXP. 12/31/92
GEOTECHNICAL
STATE OF CALIFORNIA

SS:sp

March 13, 1992

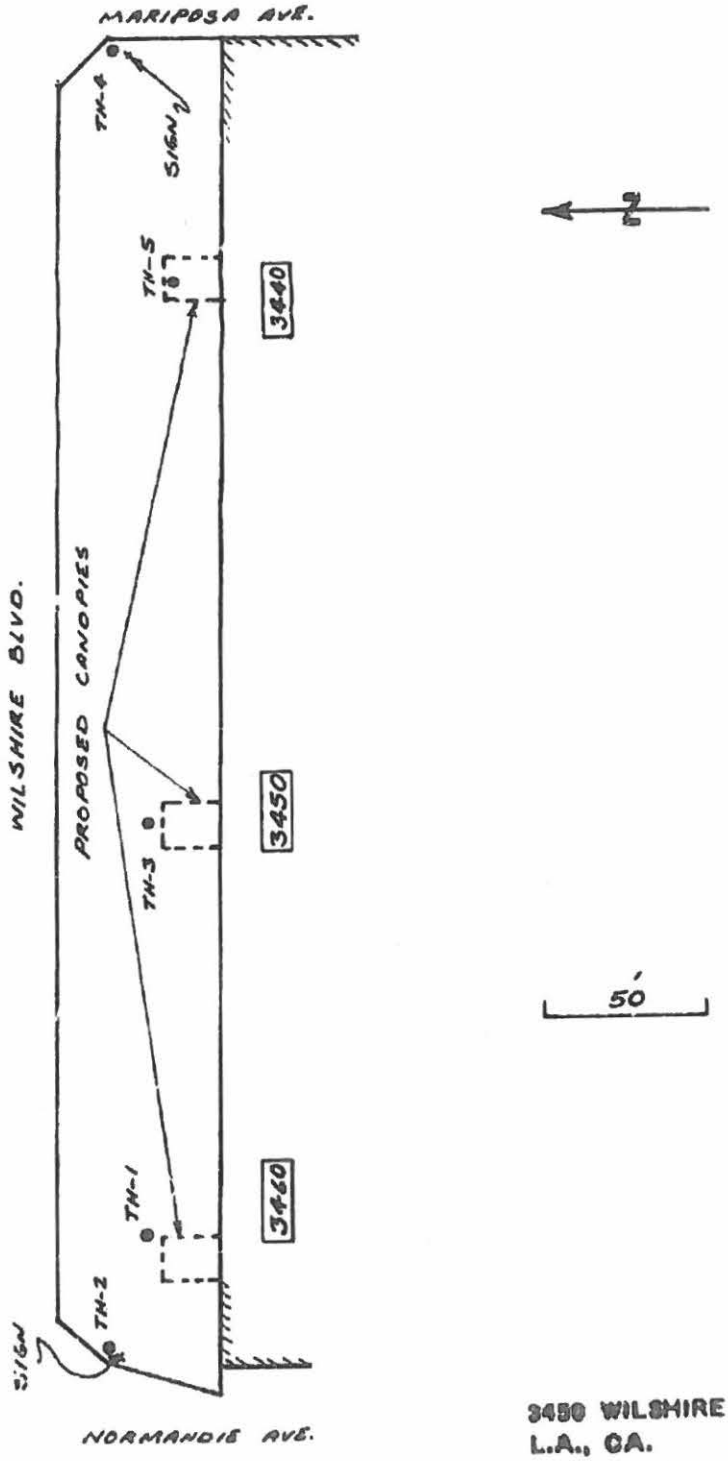
3450 Wilshire Boulevard
Los Angeles, California

List of Attachments

1 - Location of Test Holes
1 - Legend for Log of Test Holes
1 - Standard Penetrometer
4 pgs - Logs of Test Holes
1 pg - Description of Test Methods
3 pgs - Direct Shear Tests
2 pgs - Pile Capacity

7 3 3 0 1 0 0 3 2 9

LOCATION OF TEST HOLES



3450 WILSHIRE BL.
L.A., CA.

EARTH SYSTEMS CONSULTANTS

LEGEND FOR

LOG OF TEST HOLE

The Log of Test Hole indicates the geotechnical conditions at that location at that particular time. Soil and groundwater conditions can change with time. The stratification lines shown on the logs represent the approximate boundary between soil and rock types and the transition may be gradual or abrupt.

Relatively undisturbed samples are usually obtained by a thin wall sampler in accordance with the American Society for Testing and Materials (ASTM) Test Method D 1587 "Thin-walled Tube Sampling of Soils." Samples are sometimes obtained by ASTM D 3550 "Ring-lined Barrel Sampling of Soils." These samples are sealed and delivered to the laboratory for testing.

Numerous samples are selected primarily for classification tests. These samples are obtained in accordance with ASTM D 1412 "Soil Investigation and Sampling by Auger Borings." In some cases samples are obtained by ASTM Method D 1587 "Penetration Test and Split-Barrel Sampling of Soils." The soil is classified in the field by the engineer in accordance with ASTM D 2488 "Description of Soils (Visual-Manual Procedure)." While at the site, the engineer obtains other relevant information in general accordance with ASTM D-420 "Investigating and Sampling Soil and Rock for Engineering Purposes."

Classification tests are made in the laboratory on both undisturbed samples and disturbed samples in accordance with ASTM D 2487 "Classification of Soils for Engineering Purposes" and ASTM 2488. Only a broad classification of soils is given on the logs because the soils are variable. Therefore, the group symbol is not used. Fine grained soil is differentiated on the basis of ASTM D 2488. The logs are intended to portray easily identifiable changes in strata. When two soils are used as a soil classification, the last named in the predominate soil and the preceding soil type is the second most predominate soil. The shaded symbols are standard symbols and are not intended to indicate relative importance of soil components within a given classification.

An explanation of the symbols and values shown on the logs are as follows:

w	Moisture content, percent of Dry Density
D	Dry Density, pounds per cubic foot.
4	The percent of the material that will pass a no. 4 sieve (3/16"). The material larger than the no. 4 sieve and smaller than 3 inches would be designated as a gravel, and the material smaller than the no. 4 and larger than the no. 200 would be termed a sand. Cobbles range in size from 3 to 12 inches. Boulders are greater than 12 inches.
200	The percent of the material that will pass a no. 200 sieve (about the smallest that can be seen with the unaided eye.) The fraction finer than the 200 sieve is classed as a clay or silt.

STANDARD PENETROMETER

The standard penetrometer is used to provide a measure of the consistency of soil and to approximate the strength properties. With knowledge of the soil classification and penetration resistance, estimates of performance of the soil under influence of loads can be made. The oldest form of penetrometer testing, and the one most widely used, is called the "standard penetration test." This is performed in accordance with American Society for Testing and Materials (ASTM) test method D1586. It is performed by noting the number of blows (N) of a 140 lb. hammer falling 30 inches on a 2 inch (O.D.) sampler necessary to drive the sampler 12 inches, after seating the sampler 6 inches.

Gibbs & Holtz (1957) established that overburden pressure affected the blow count in cohesionless soils when tests were made in holes slightly larger than the penetrometer. Where penetrometer tests are made in the bottom of a test pit the values for zero depth should be used. Where penetrometer tests are made in a bucket auger hole a value between 0 and 15 feet should be used.

The following general relationships exist:

COHESIONLESS SOIL

Consistency	Depth				Relative Density %	ϕ (Deg.)
	0'	15'	30'	60'		
	Penetration Resistance N					
Loose	3	4	6	10	35	28-38
Medium Dense	6	12	20	30	65	30-42
Dense	12	24	30	50	85	32-45
Very Dense						

COHESIVE SOIL

Overburden does not significantly affect the penetration resistance according to Terzaghi (1948).

Consistency	N	Unconfined Compression TSF
Soft	4	0.5
Medium Stiff	8	1.0
Stiff	15	2.0
Very Stiff		

791111

Soil Engineering Report

3450 Wilshire Boulevard
Los Angeles, California

LOG OF TEST HOLE NO. 1

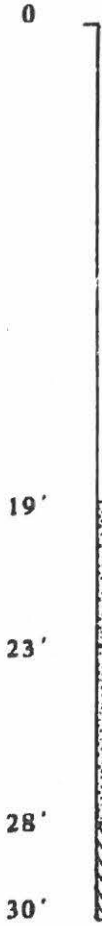
	N	w	D	4	200	DESCRIPTION
0						
						FILL; Silty Sand, gravelly, light brown.
						Sandy Clay, brown, moist.
						Sandy Silt, brown, moist.
	5	20		100	76	Sandy Clay, mottled brown, soft.
	4	25	94	100	78	
	2	16		100	48	Clayey Sand, very loose, moist, organic, orange veins.
19'	17	17	108	100	24	SILTY SAND; gray, shale pieces, medium coarse grained, medium dense.
24'	30	34	85	100	97	MUDSTONE; highly weathered, green-gray, dense.
	29	31		100	75	
30'						

Drilled 2/25/92
No groundwater

Soil Engineering Report

3450 Wilshire Boulevard
Los Angeles, California

LOG OF TEST HOLE NO. 2



	N	w	D	4	200	DESCRIPTION
0						
						FILL; Sandy Clay, brown, moist, soft.
	4	17		99	42	Clayey Sand, brown, loose.
	3	19		100	44	
	4	18		100	45	Few gravel, brown.
19'	47	5	112	100	8	SAND; light brown, coarse grained, dense, few gravel.
23'	39	29	89	100	58	SANDY SILT; mottled brown, very moist, stiff.
28'	41	34	86	100	98	MUDSTONE; light brown, highly weathered, blue gray.
30'						

Drilled 2/25/92
Groundwater 28 feet

Soil Engineering Report

3450 Wilshire Boulevard
Los Angeles, California

LOG OF TEST HOLE NO. 3

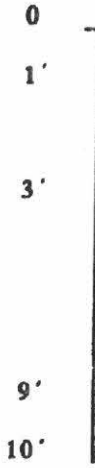
	N	w	D	4	200	DESCRIPTION
0						
		25	99	100	55	FILL; Sandy Clay, brown, soft, moist. Clayey Sand, dark gray, organic odor. Sandy Clay, brick pieces. AC pieces.
	5	21		100	51	
	8					No recovery. Sandy Clay, brown.
23'						
24'	10	21	105	100	55	SANDY CLAY; brown, medium stiff. Thin layer of Silty Sand.
28'	20	40	80	100	88	SANDY SILT; green-gray, clayey, stiff.
32'	44	35		100	65	SILTSTONE; mottled gray, stiff, organic odor.
35'						

Drilled 2/25/92
Groundwater 23 feet

Soil Engineering Report

3150 Wilshire Boulevard
Los Angeles, California

LOG OF TEST HOLE NO. 4



N	w	D	4	200	DESCRIPTION
					FILL; Sandy Clay
25	16	110	100	65	SANDY CLAY; brown, stiff, damp.
17	16		100	42	CLAYEY SAND; brown, fine grained, dense.
22	20	104	100	61	SANDY CLAY; brown, stiff.

LOG OF TEST HOLE NO. 5

N	w	D	4	200	DESCRIPTION
					FILL; Sandy Clay, brown, soft.
18	18	105	100	48	CLAYEY SAND; brown, damp, fine grained, dense.
17	20		100	47	
32	29		100	85	SANDY CLAY; brown, stiff.

Drilled 2/25/92
No groundwater

DIRECT SHEAR TESTS

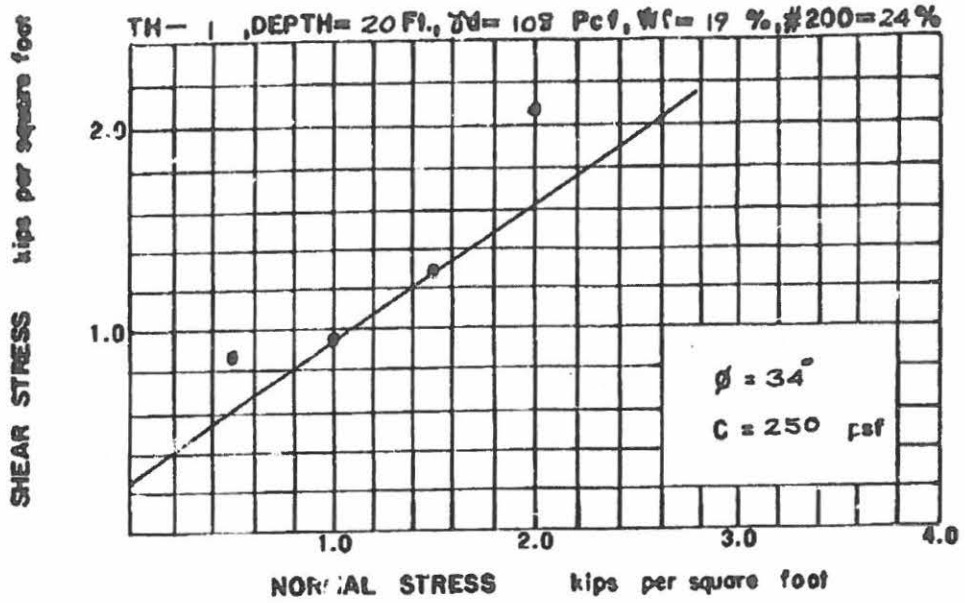
The shear test is to determine the strength of soil under various confining loads and moisture conditions. The direct shear test is in accordance with the American Society for Testing and Materials (ASTM) Test Method D 3080, Direct Shear Test of Soils under Consolidated Drained Conditions. The specimens were 2-1/2 inches in diameter and 1 inch in height. Specimens were flooded and allowed to consolidate under the normal load for 24 hours. The confining loads range from 500 to 4000 pounds per square foot. Shear loads were applied at the rate of 0.01 inch per minute while the specimen was immersed in water. The shear load was applied continuously until the end of the test in accordance with the generally accepted test procedure for the consolidated-undrained shear test (R). On completion of the test, the final moisture content was obtained to determine if approximately 100 percent saturation was attained.

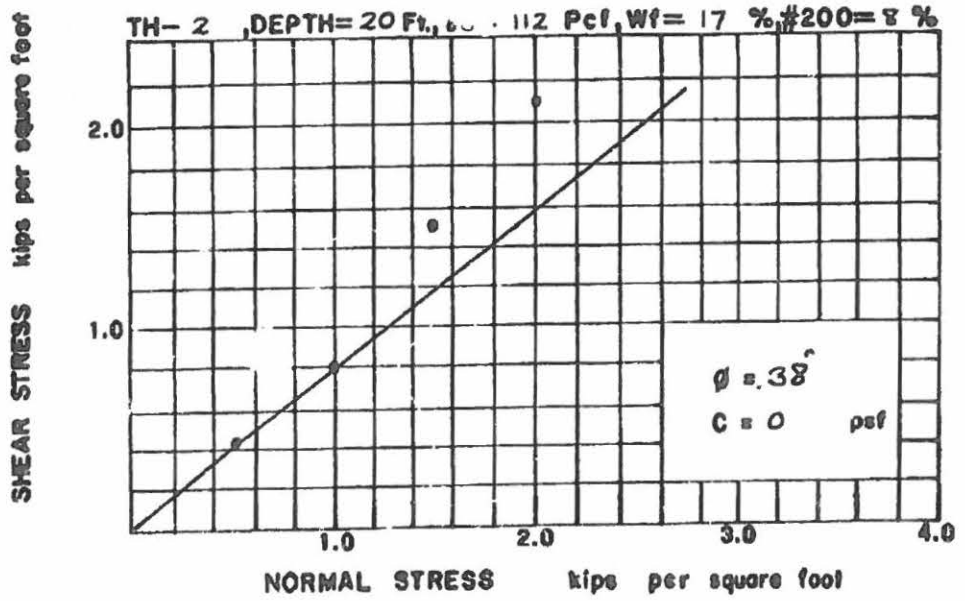
EXPANSION TEST

The expansion test is an index test to classify the expansive characteristics of a soil. The test is conducted in accordance with the Uniform Building Code Standard No. 29-2, Expansion Index Test. A moistened sample was compacted in 2 layers in a four inch diameter ring. Each layer is about 1 inch in height and compacted with 15 blows of a 5.5 pound hammer having a fall of 12 inches. If the degree of saturation ranged between 49 and 51 percent for an assumed specific gravity of 2.7, the specimen was loaded with 144 pounds per square foot and flooded. After 24 hours the expansion was noted and the expansion indices calculated. The expansion characteristics are given in the following table.

Expansion Index	Potential for Expansion
0 - 20	Very Low
21 - 50	Low
51 - 90	Medium
91 - 130	High
Above 130	Very High

DIRECT SHEAR TESTS

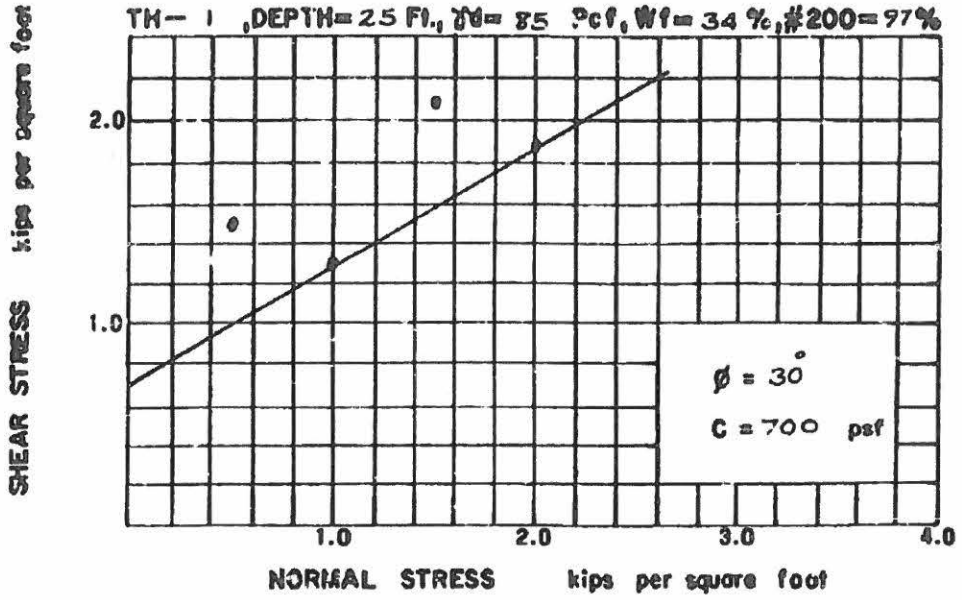


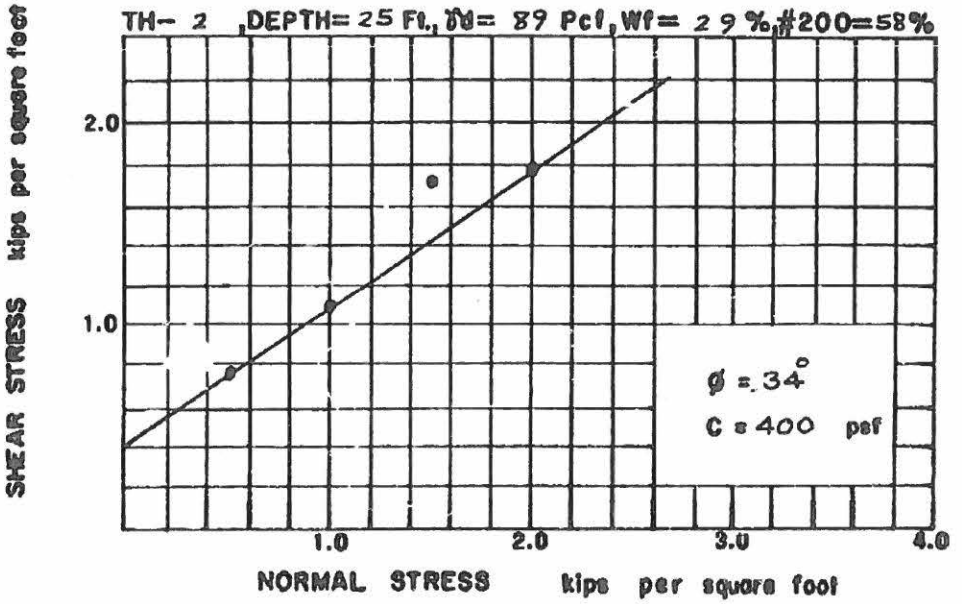


3450 WILSHIRE BL.
L.A., CA.

FOUNDATION ENGINEERING CO., INC.

DIRECT SHEAR TESTS

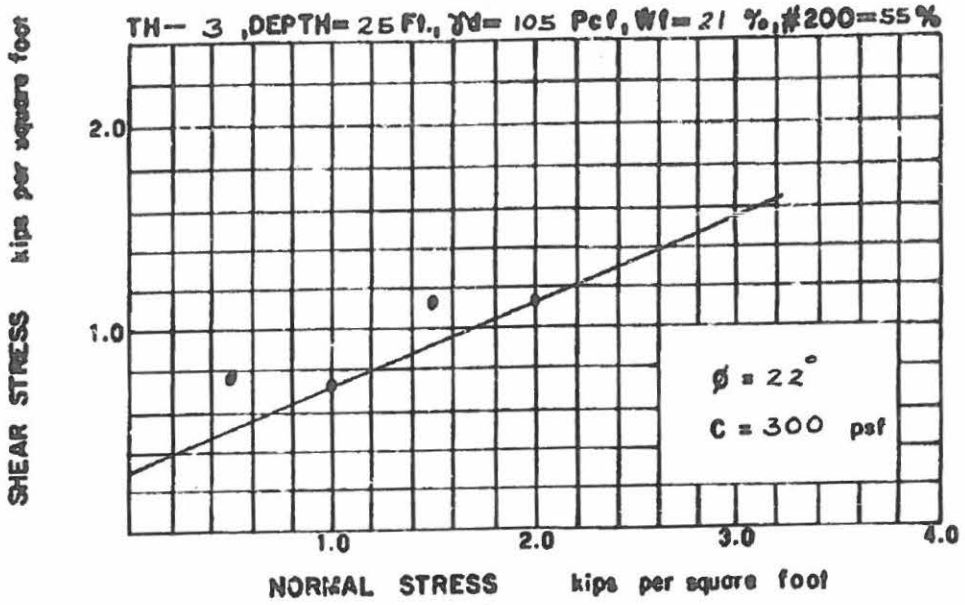


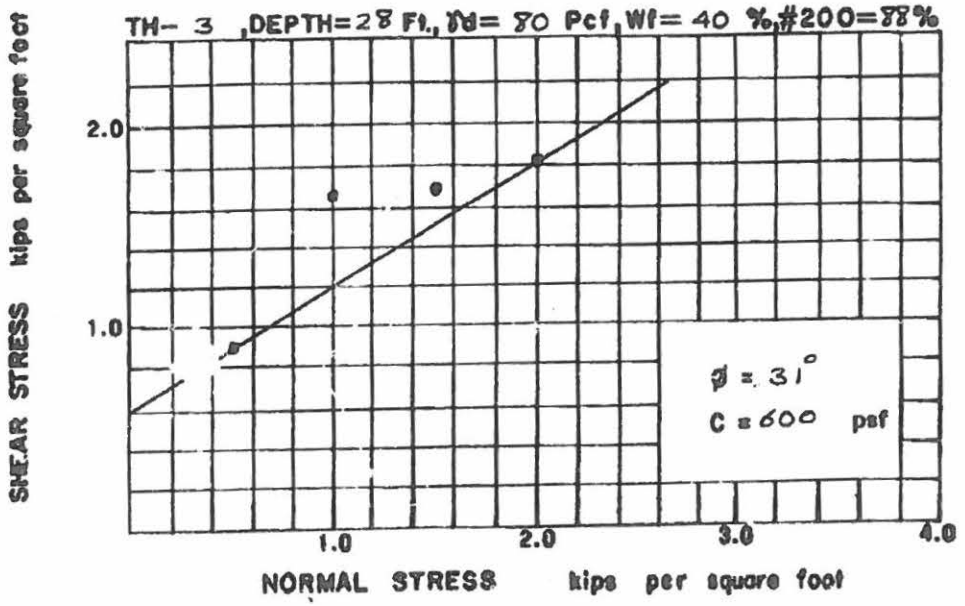


3450 WILSHIRE BL.
L.A., CA.

FOUNDATION ENGINEERING CO., INC.

DIRECT SHEAR TESTS



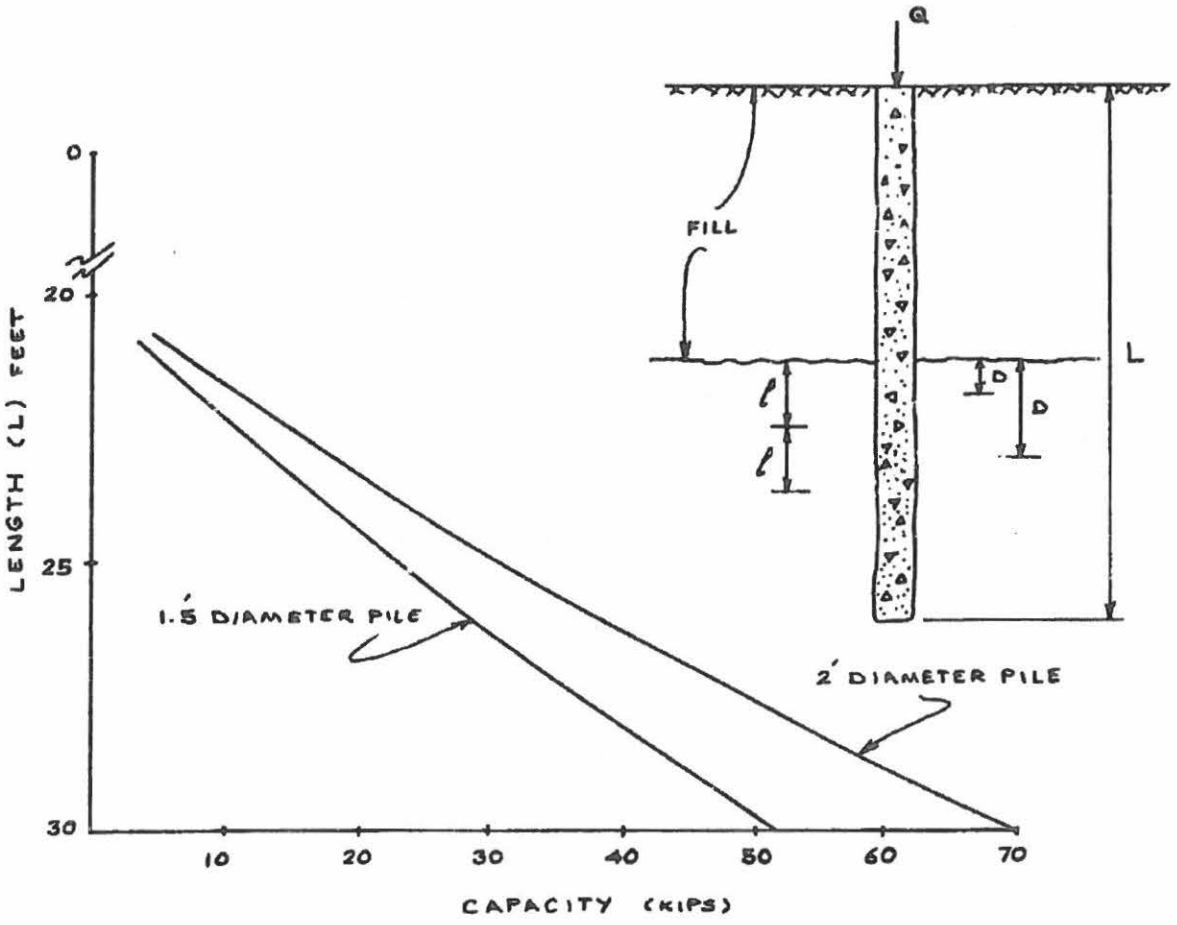


3450 WILSHIRE BL.
L.A., CA.

FOUNDATION ENGINEERING CO., INC.

PILE CAPACITY

WESTERLY CANOPY & SIGN



$$Q = \sum \frac{\pi d \ell}{SF} (C + \gamma D \tan \phi)$$

DESIG VALUES

	0-20'	20'-25'	25'-30'	
γ =	110	120	115	(PCF)
ϕ =	IGNORED	34	34	DEGREES
C =	IGNORED	250	400	(PSF)

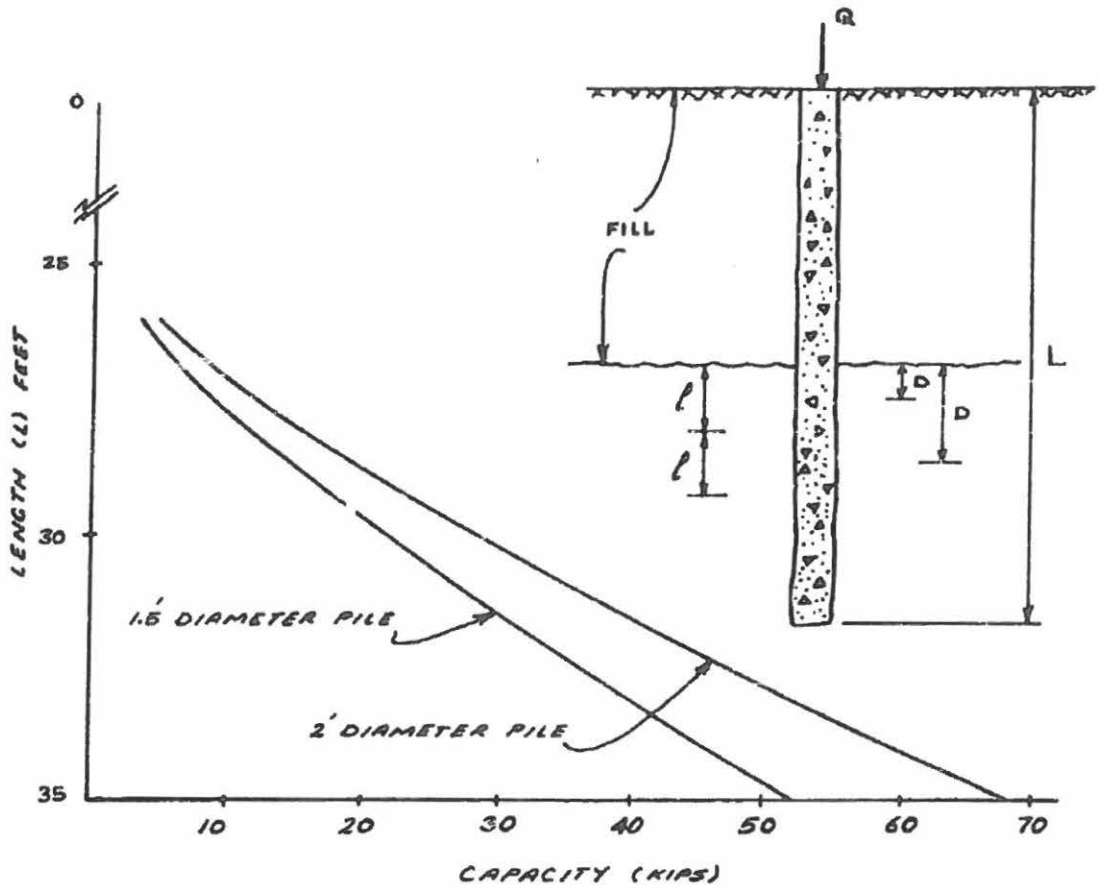
GROUNDWATER DEPTH = 28'

3450 WILSHIRE BL.
L.A., CA.

EARTH SYSTEMS CONSULTANTS

PILE CAPACITY

MIDDLE CANOPY



$$Q = \sum \frac{\pi d \ell}{SF} (c + \bar{\sigma} \tan \phi)$$

DESIGN VALUES

	0-25'	25'-28'	28'-35'	
γ =	110	125	115	(PCF)
ϕ =	IGNORED	22	31	(DEG.)
C =	IGNORED	300	600	(PSF)

GROUNDWATER DEPTH = 23'

3450 WILSHIRE BL.
L.A., CA.

EARTH SYSTEMS CONSULTANTS

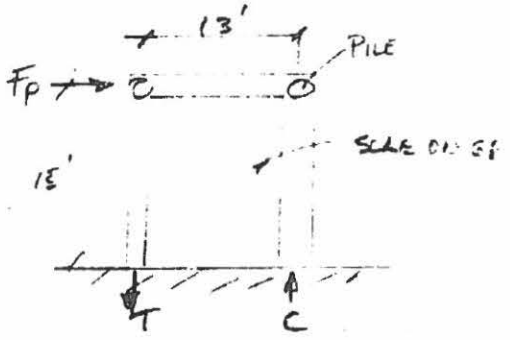
PROJECT	BRANDOW & JOHNSTON ASSOCIATES	SHEET NO.
CENTRAL PLAZA	CONSULTING STRUCTURAL ENGINEERS	5A
FOR LUCKMAN PARTNERSHIP	1660 W THIRD ST., LOS ANGELES, CALIFORNIA 90017	JOB NO. 91036
LOCATION 3440, 50 & 60 WILSHIRE	TELEPHONE 484-8950 AREA CODE 213	DATE 3/92
ITEM CANOPY FOUNDATIONS		ENGINEER DKS

SEE ATTACHED ORIG. CALCS 4 & 5

FOR NEW PILE FNDN - PER SOIL REPORT EARTH SYSTEMS 3/3/

$P_{max} = 3.6^K$

SEIS. $F_p = 1.88^K$



PLAN

TAKE SEISMIC INTO FTG

$T = C = \frac{1.88 \times 15}{13} = 2.17^K$

$A_s = \frac{2.17 \times 1.4}{.9 \times 40} = 0.084 \square''$

NOM. 2-#5 INTO EXISTG CONC. WALL OK

V_u wall $= \frac{1.88 \times 1.4}{13'} = 202$ PLF

$v_u = \frac{202}{.85 \times 4 \times 12} = 5$ psi MIN. MESH OK

NEW 18" ϕ PILE -

$P/A = \frac{3.6}{\frac{\pi}{4} \times 18^2} = 14$ psi $< .45\sqrt{3000} = 24.6$ psi

0.5% STL $= .005 \times \frac{\pi}{4} \times 18^2 = 1.27 \square'' < 4 \times .44 = 1.76$

PIL CAPAC. FOR 5' EMBED $> 15^K$

18" ϕ PILE w/ 4-#6 VERT

CANOPY LOAD $= 3.6^K$

PILE $\times 12'$ $= 3.2 = \frac{\pi}{4} \times 1.5^2 \times 12 \times .15$

GR. BM $= 4.7 = 2 \times 1.12 \times 14' \times .15$

$11.5^K < 15$ OK

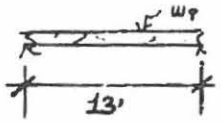
REGISTERED PROFESSIONAL ENGINEER DONALD R. STRAUB No. 1162 EXP. 12-31-92 STRUCTURAL STATE OF CALIFORNIA

PROJECT	BRANDOW & JOHNSTON ASSOCIATES	SHEET NO.
CENTRAL PLAZA	CONSULTING STRUCTURAL ENGINEERS	4
FOR LP	1360 W. THIRD ST., LOS ANGELES, CALIFORNIA 90017	JOB NO. 91026
LOCATION	TELEPHONE 484-8950 AREA CODE 213	DATE 2/91
ITEM: CANOPY SUPPORT		ENGINEER A.M.

LOADING

DL 10 psf } SKYLIGHT 20 psf { STUDS + 3/4 ~~CEMENT~~ STONE
LL 12 psf }

Check BEAM W10x22



Span = 13'

$w_T = (10psf_{DL} + 12psf_{LL}) \times 9' + 20psf \times 5' \times 2 = .4\ k/ft$

$M_{ax} = (.4\ k/ft \times 13^2)/8 = 8.5\ k\text{-}ft$

$\ell/r_t = (13' \times 12)/1.51 = 103.3 < \sqrt{\frac{510 \times 10^3 \times 1.0}{36}} = 119$

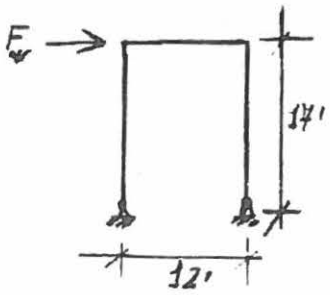
$> \sqrt{\frac{102 \times 10^3}{36}} = 53.23$

$F_b = \left[\frac{2}{3} - \frac{36(103.3)^2}{1530 \times 10^3}\right] \times 36\ ksi = 15\ ksi$

$S_{req} = (8.5\ k\text{-}ft \times 12)/15\ ksi = 6.8\ in^3 < 23.2\ in^3$ o.k.

$\boxed{\text{Use W10x22}}$

Check COLUMN



SEISMIC $F_p = .3\,(\overset{RF+BM}{15 \times 12' \times 7'} + \overset{WALL}{20 \times 25' \times 5 \times 2}) = 1.88^k$

WIND PRES: $E = C_e C_q q_s I$

$P = .7 \times 1.3 \times 13psf \times 1.0 = 11.83psf$

$F_w = 11.83\ psf \times 13' \times 8' \times 1/2 = 620^{\#}$

$P = .4\ k/ft \times 13'/2 = 2.6^k$

$\theta_{COL} = \frac{1.88^k/2 \times (17' \times 12)^2}{3 \times 23 \times 10^3 \times 170\ in^4} = .0026$

$.0026 + .00064 = .0024$

$\theta_{BEAM} = \frac{1.82^k \times (12' \times 12)^2}{12 \times 23 \times 10^3 \times 118\ in^3} = 0.00064$

$\Delta = 17' \times 12 \times (.0026 \times 10^{-3} + 6.4 \times 10^{-4}) = .6''$

73 0 0 1 0 0 3 4

PROJECT	BRANDOW & JOHNSTON ASSOCIATES	SHEET NO.
central plaza	CONSULTING STRUCTURAL ENGINEERS	5
FOR	1660 W. THIRD ST., LOS ANGELES, CALIFORNIA 90017	JOB NO. 91036
LOCATION	TELEPHONE 484-8950 AREA CODE 213	DATE 2/91
ITEM. CANOPY SUPPORT		ENGINEER A.M.

$Kl = 2.0 \times 13' = 26'$

TRY W10x22 $P_{all} = 56^k$

$H_{xx} = 1.88^k \times 1/2 \times 17' = 16\ k'$ $F_b = \left[\frac{2}{3} - \frac{36(131.6)^2}{1530 \times 10^9 \times 1.75}\right] \times 36 = 156$ ksi

$2.6^k/56^k + \frac{(16\ k' \times 12)/35\ in^3}{15.6\ ksi} = .39 < 1.0$ o.k.

$\boxed{\text{USE W10x33}}$

FOOTING

$P_{max} = 2.7^k + .62^k \times 17'/12' = 3.5^k$

$\text{width} = \frac{3600^{\#}}{3' \times 1000\ psf} = 1.2'$ OR $14.5''$

13" conc. column Design @ PARKING

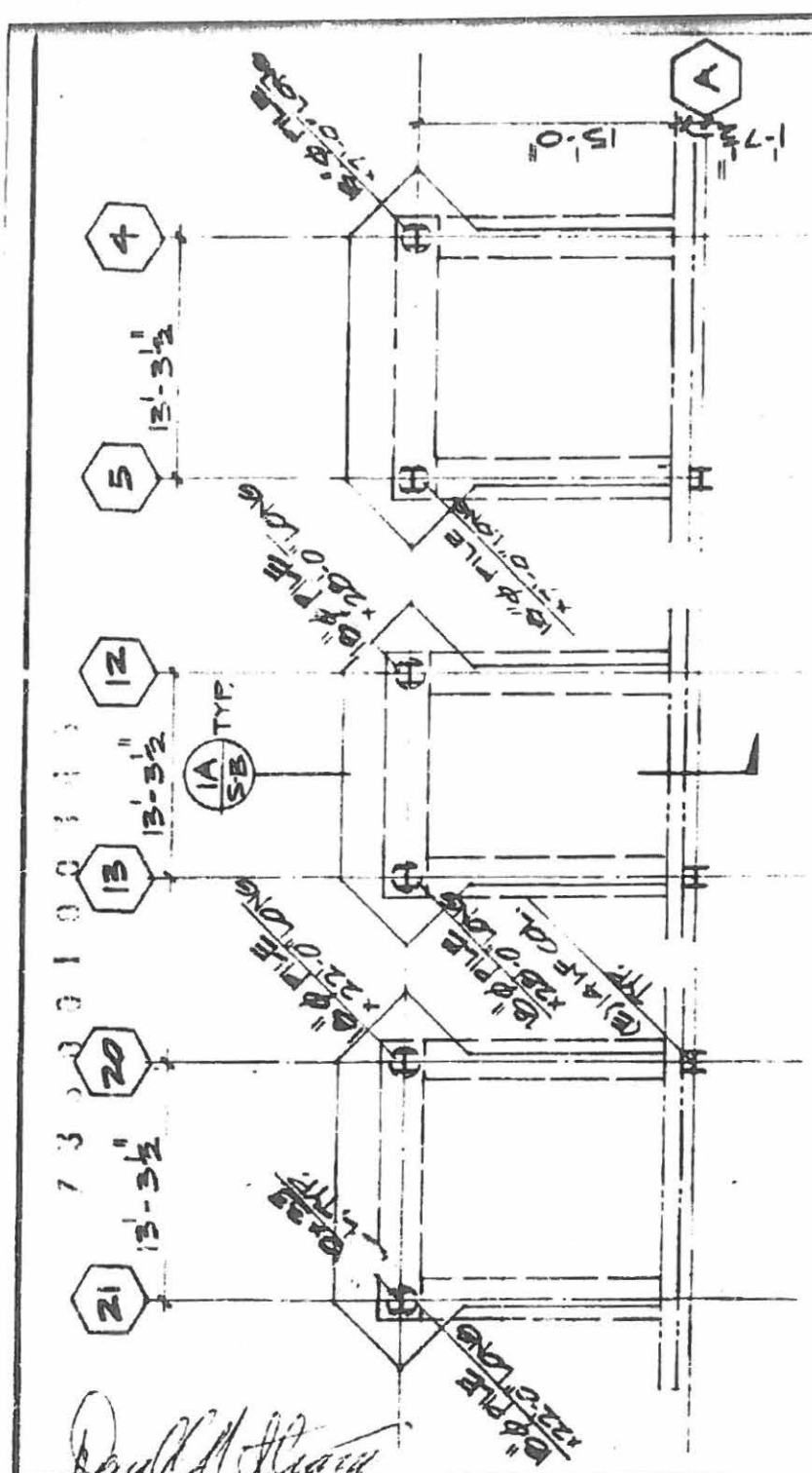
column length = 19' $K = 1.25$

$P_{ax} = \overbrace{28' \times \pi \times 1.083^2/4 \times 150^{\#}/ft^3}^{\text{column weight}} + \overbrace{2.2^k \times 2}^{\text{resist. from W10x22 PS}} + \overbrace{1.43^k \times 7.5' \times 1/9'}^{\text{column}} = 3.5^k$ see page 5A

use a 13" column w/ 5# 5 Bars & #3 spiral

Footing $A = 9.5^k/1\ ksf = 9.5\ ft^2 \Rightarrow W = D = 3\ ft$ use 3ft SQ. FTG w/ 3 #5 Bars E.W.

7 3 0 0 0 1 0 0 7 4



PARTIAL FIRST FLOOR AND FOUNDATION PLAN

SCALE: 1/8" = 1'-0" SEE SHT. S-1

REGISTERED PROFESSIONAL ENGINEER
DONALD L. STRAND
No. 1182
EXP. 12-31-92
STRUCTURAL
STATE OF CALIFORNIA

THIS DRAWING SHALL AMEND AND SUPPLEMENT ORIGINAL DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTS ONLY TO THE EXTENT SPECIFICALLY SHOWN OR NOTED

BRANDOW & JOHNSTON ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1055 E. 3RD ST., LOS ANGELES, CALIFORNIA 90017
TELEPHONE (213) 481-0555

SHEET TITLE: PARTIAL FIRST FLOOR & FOUNDATION PLAN

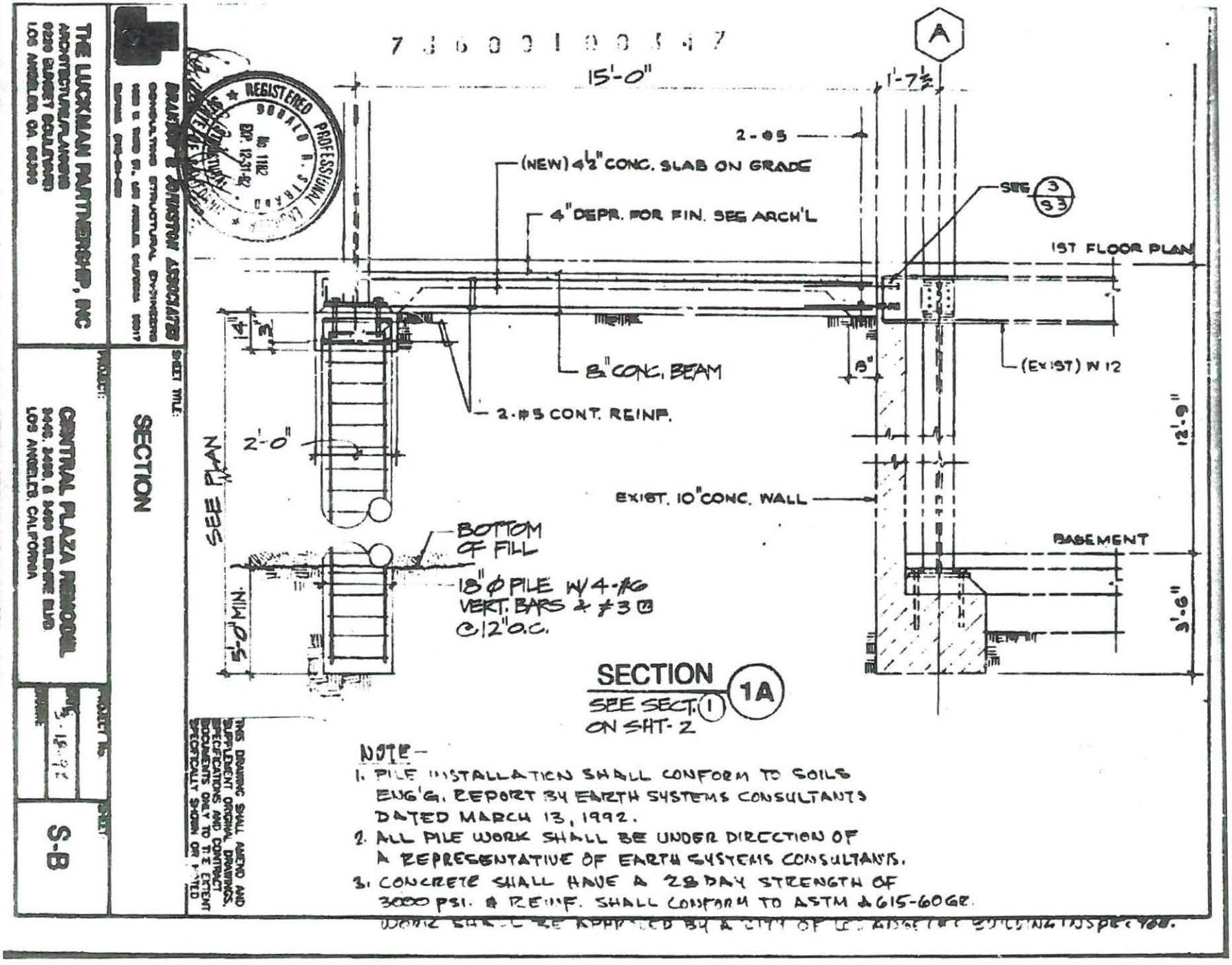
THE LUCKMAN PARTNERSHIP, INC
ARCHITECTURE/PLANNING
9220 SUNSET BOULEVARD
LOS ANGELES, CA 90069

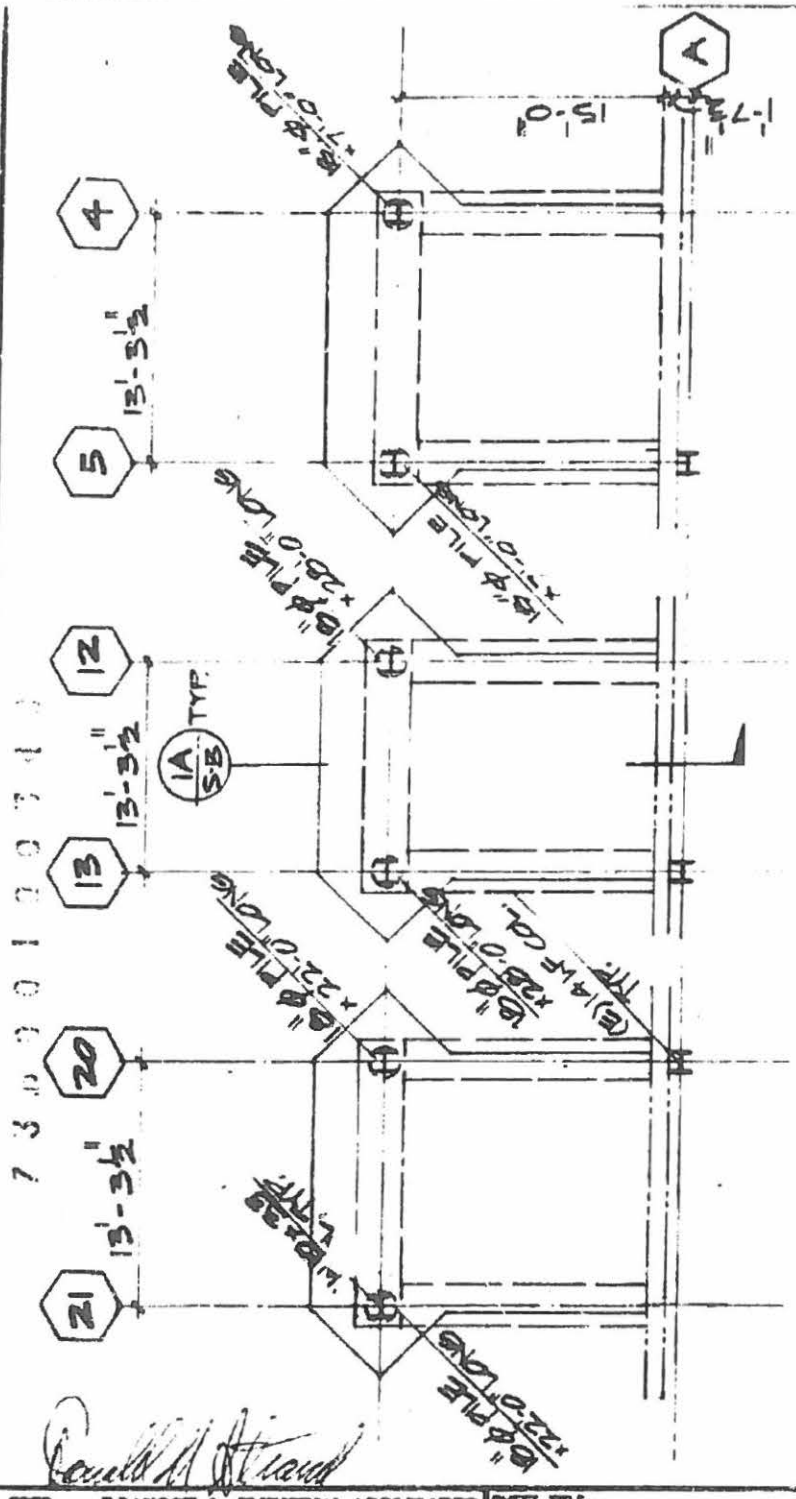
PROJECT: CENTRAL PLAZA REMODEL
3440, 3450, & 3460 WILSHIRE BLVD.
LOS ANGELES, CALIFORNIA

PROJECT No.

DATE: 3-18-92

SHEET: S-A


A
15'-0"
1'-7½"
2-#5
(NEW) 4½" CONC. SLAB ON GRADE
4" DEPR. FOR FIN. SEE ARCH'L
SEE 3/S3
1ST FLOOR PLAN
14"
3"
2'-0"
8" CONC. BEAM
2-#5 CONT. REINF.
8"
(EXIST) W 12
12'-9"
SEE PLAN
EXIST. 10" CONC. WALL
BASEMENT
BOTTOM OF FILL
18" ∅ PILE W/ 4-#6 VERT. BARS & #3 @ @ 12" O.C.
5'-0" MIN.
3'-6"
SECTION
SEE SECT. 1
ON SHT-2
1A
NOTE -
1. PILE INSTALLATION SHALL CONFORM TO SOILS ENG'G. REPORT BY EARTH SYSTEMS CONSULTANTS DATED MARCH 13, 1992.
2. ALL PILE WORK SHALL BE UNDER DIRECTION OF A REPRESENTATIVE OF EARTH SYSTEMS CONSULTANTS.
3. CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI. & REINF. SHALL CONFORM TO ASTM A615-60GR.
WORK SHALL BE APPROVED BY A CITY OF L.A. DEPARTMENT BUILDING INSPECTOR.
REGISTERED PROFESSIONAL ENGINEER
DONALD B. STARK
No. 11182
EXP. 12-31-92
THE LUCKMAN PARTNERSHIP, INC
ARCHITECTURE/PLANNING
9220 SUNSET BOULEVARD
LOS ANGELES, CA. 90069
BRANDOW & JOHNSTON ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
PROJECT:
CENTRAL PLAZA REMODEL
3440, 3450, & 3460 WILSHIRE BLVD
LOS ANGELES, CALIFORNIA
SHEET TITLE:
SECTION
PROJECT No.
SHEET
S-B
THIS DRAWING SHALL AMEND AND SUPPLEMENT ORIGINAL DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTS ONLY TO THE EXTENT SPECIFICALLY SHOWN OR NOTED



PARTIAL FIRST FLOOR AND FOUNDATION PLAN

SCALE: 1/8" = 1'-0" SEE SHT. S-1

REGISTERED PROFESSIONAL ENGINEER
DONALD R. STRAND
No 1182
EXP. 12-31-92
STRUCTURAL
STATE OF CALIFORNIA

THIS DRAWING SHALL AMEND AND SUPPLEMENT ORIGINAL DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTS ONLY TO THE EXTENT SPECIFICALLY SHOWN OR NOTED

BRANDOW & JOHNSTON ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1000 S. FIGUEROA ST., LOS ANGELES, CALIFORNIA 90017
TELEPHONE (213) 624-4990

SHEET TITLE: PARTIAL FIRST FLOOR & FOUNDATION PLAN

THE LUCKMAN PARTNERSHIP, INC
ARCHITECTURE/PLANNING
9220 SUNSET BOULEVARD
LOS ANGELES, CA 90069

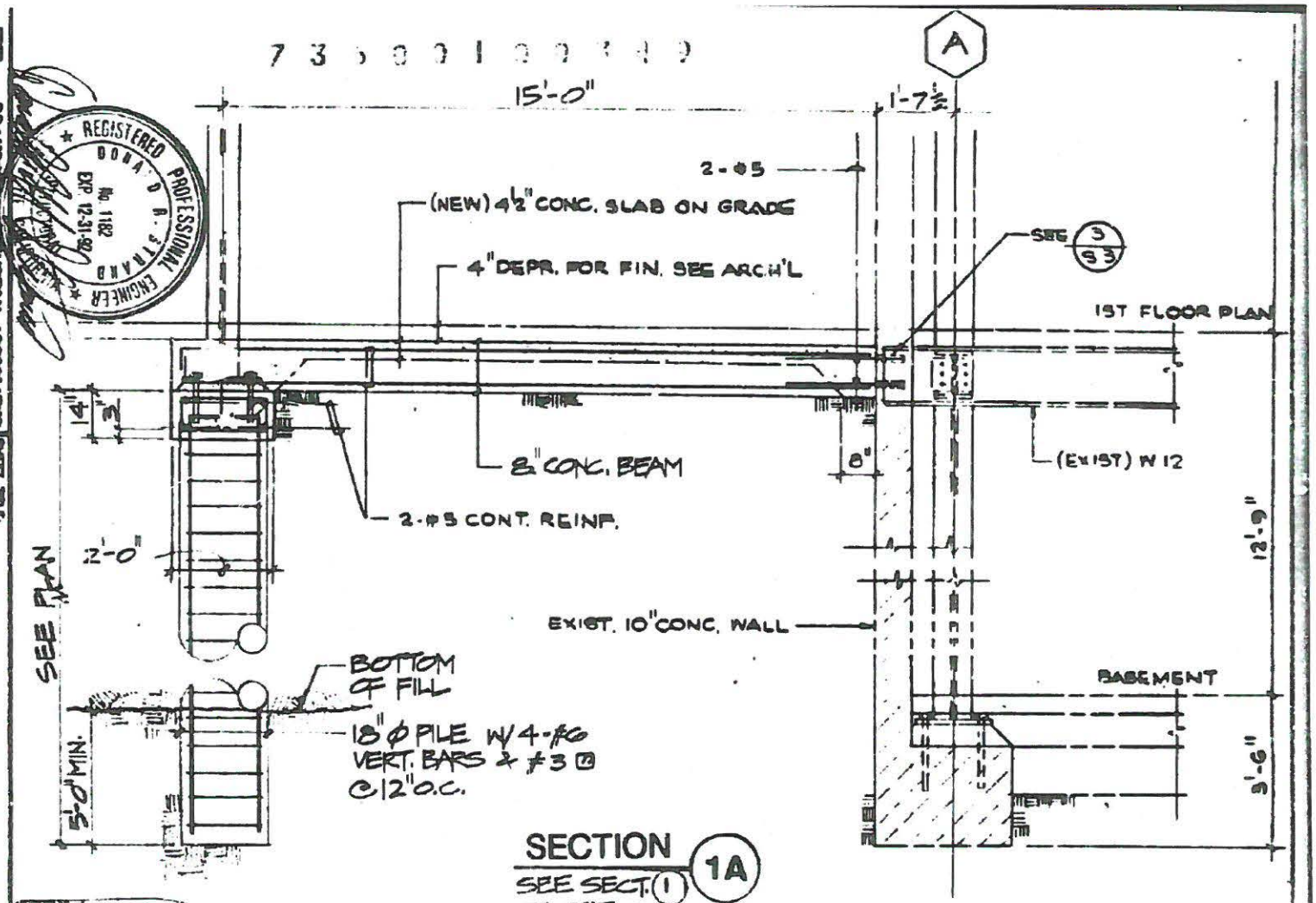
PROJECT: CENTRAL PLAZA REMODEL
3460, 3480, & 3490 WILSHIRE BLVD.
LOS ANGELES, CALIFORNIA

PROJECT NO.

DATE: 3-12-92

DRAWN:

SHEET: S-A



SECTION 1A

SEE SECT. 1 ON SHT-2

NOTE -

1. PILE INSTALLATION SHALL CONFORM TO SOILS ENG'G. REPORT BY EARTH SYSTEMS CONSULTANTS DATED MARCH 13, 1992.
2. ALL PILE WORK SHALL BE UNDER DIRECTION OF A REPRESENTATIVE OF EARTH SYSTEMS CONSULTANTS.
3. CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI. & REINF. SHALL CONFORM TO ASTM A615-60GR.

WORK SHALL BE APPROVED BY A CITY OF LOS ANGELES BUILDING INSPECTOR.

REGISTERED PROFESSIONAL ENGINEER DONALD R. STRAND No. 1182 EXP. 12-31-92

THIS DRAWING SHALL AMEND AND SUPPLEMENT ORIGINAL DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTS ONLY TO THE EXTENT SPECIFICALLY SHOWN OR NOTED.

BRANDON & JOHNSTON ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1100 W. THIRD ST., LOS ANGELES, CALIFORNIA 90017
PHONE: (213) 483-8000

THE LUCKMAN PARTNERSHIP, INC
ARCHITECTURE/PLANNING
9220 SUNSET BOULEVARD
LOS ANGELES, CA. 90069

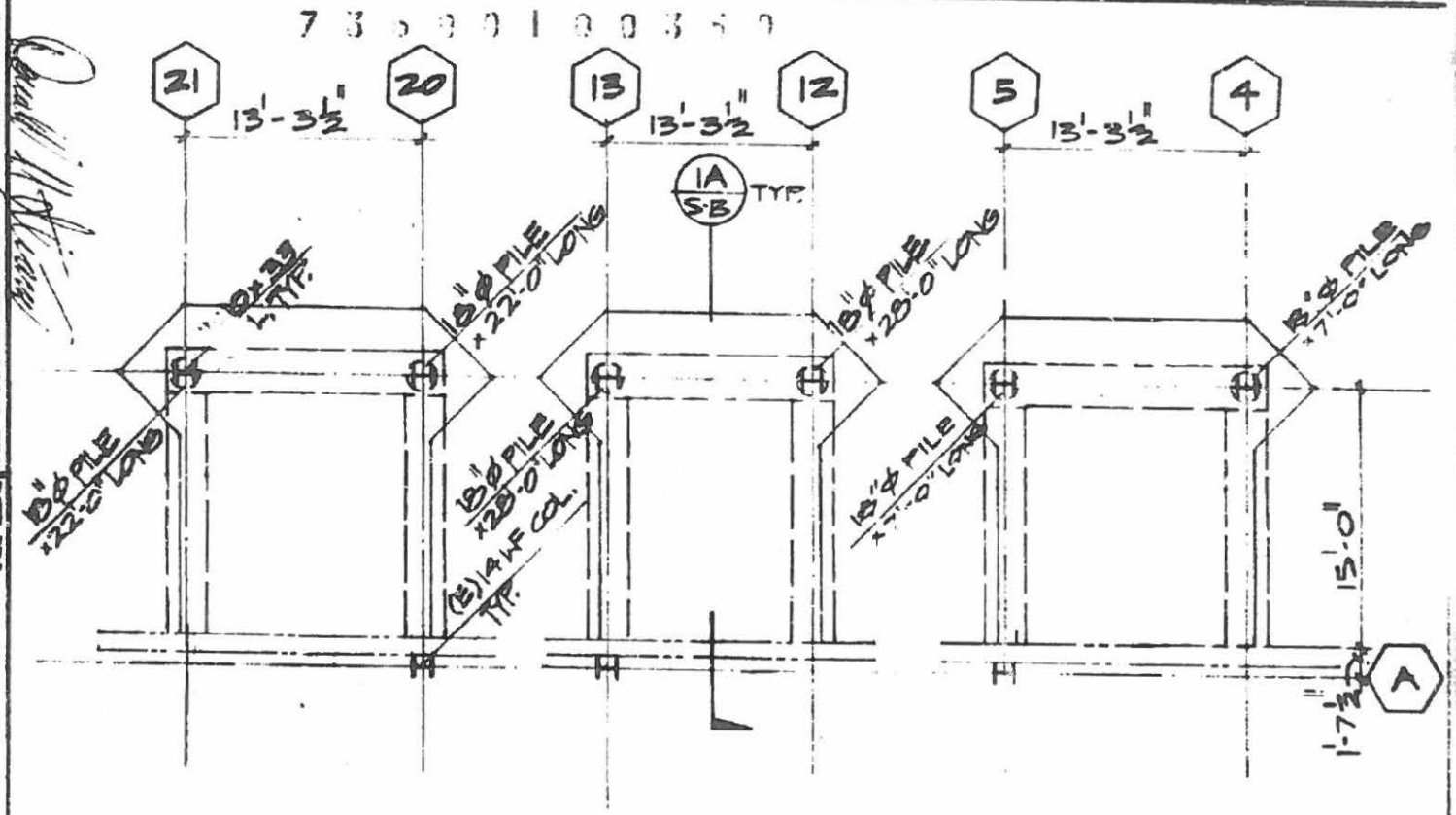
SHEET TITLE: SECTION

PROJECT: CENTRAL PLAZA REMODEL
3440, 3460, & 3480 WILSHIRE BLVD.
LOS ANGELES, CALIFORNIA

PROJECT No.

DATE: 3-18-92

SHEET: S-B



PARTIAL FIRST FLOOR AND FOUNDATION PLAN

SCALE: 1/8" = 1'-0" SEE SHT. S-1

THIS DRAWING SHALL AMEND AND SUPPLEMENT ORIGINAL DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTS ONLY TO THE EXTENT SPECIFICALLY SHOWN OR NOTED

REGISTERED PROFESSIONAL ENGINEER
DONALD R. STRAND
No. 1102
EXP. 12-31-92
STRUCTURAL
STATE OF CALIFORNIA

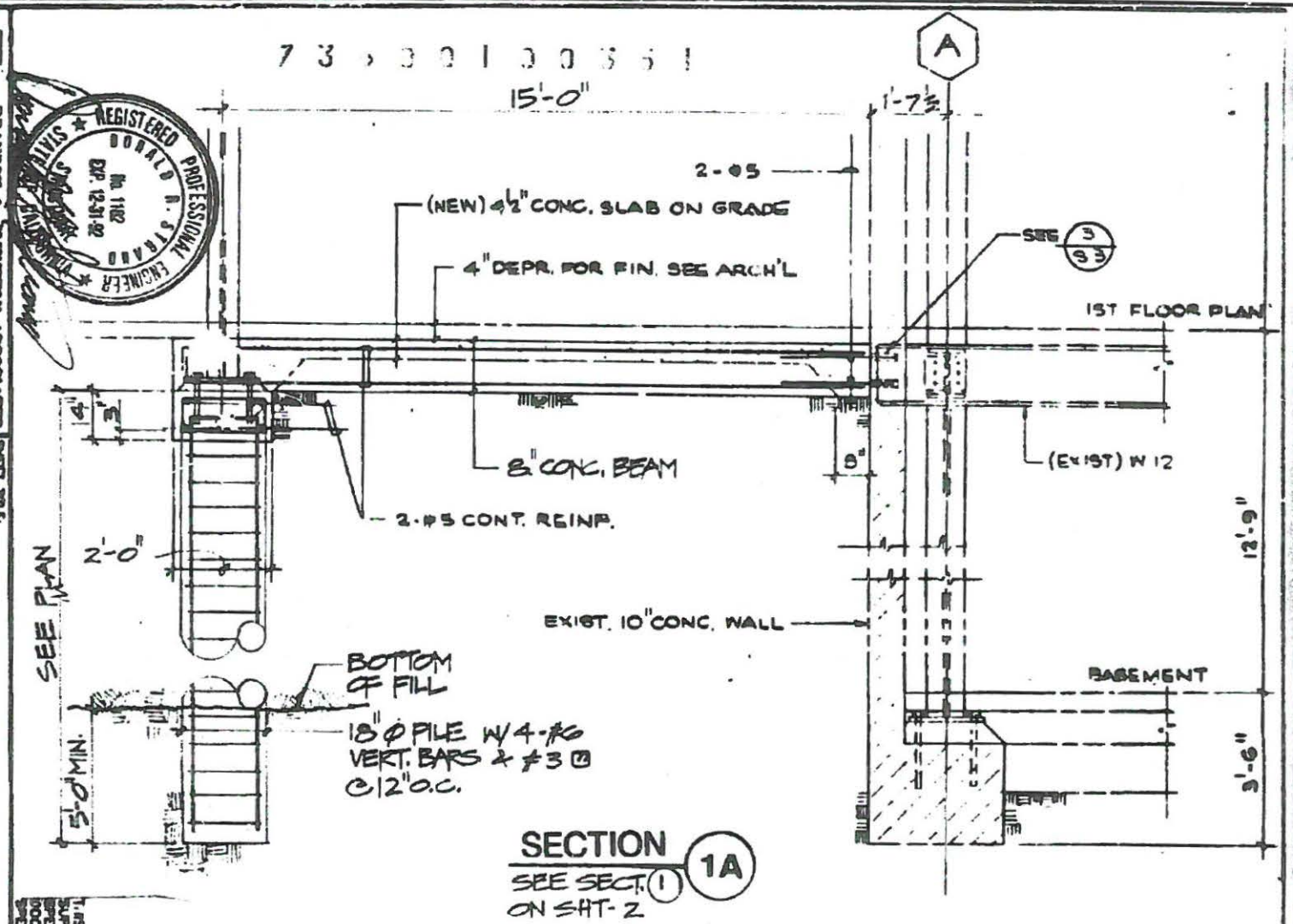
BRANDON & JOHNSTON ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1020 E. 2ND ST., LOS ANGELES, CALIFORNIA 90017
TELEPHONE (213) 626-2811

THE LUCKMAN PARTNERSHIP, INC
ARCHITECTURE/PLANNING
9220 SUNSET BOULEVARD
LOS ANGELES, CA. 90069

SHEET TITLE:
PARTIAL FIRST FLOOR & FOUNDATION PLAN

PROJECT:
CENTRAL PLAZA REMODEL
3440, 3460, & 3480 WILSHIRE BLVD.
LOS ANGELES, CALIFORNIA

PROJECT No.
DATE: 3-18-92
DRAWN:
SHEET: S-A



SECTION 1A
SEE SECT. 1 ON SHT-2

NOTE--

1. PILE INSTALLATION SHALL CONFORM TO SOILS ENG'G. REPORT BY EARTH SYSTEMS CONSULTANTS DATED MARCH 13, 1992.
2. ALL PILE WORK SHALL BE UNDER DIRECTION OF A REPRESENTATIVE OF EARTH SYSTEMS CONSULTANTS.
3. CONCRETE SHALL HAVE A 28 DAY STRENGTH OF 3000 PSI. & REINF. SHALL CONFORM TO ASTM A615-60GR.

WORK SHALL BE APPROVED BY A CITY OF LOS ANGELES BUILDING INSPECTOR.

REGISTERED PROFESSIONAL ENGINEER
DONALD R. STRAND
No. 1182
EXP. 12-31-92
STATE OF CALIFORNIA

BRANDOT & JOHNSTON ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
1100 W. THIRD ST., LOS ANGELES, CALIFORNIA 90017
PHONE: (213) 483-8000

THE LUCKMAN PARTNERSHIP, INC
ARCHITECTURE/PLANNING
8220 SUNSET BOULEVARD
LOS ANGELES, CA. 90069

SHEET TITLE: SECTION

PROJECT: CENTRAL PLAZA REMODEL
3400, 3450, & 3460 WILSHIRE BLVD.
LOS ANGELES, CALIFORNIA

PROJECT No.
DATE: 5-18-92
DRAWN:
SHEET: S-B

THIS DRAWING SHALL AMEND AND SUPPLEMENT ORIGINAL DRAWINGS, SPECIFICATIONS AND CONTRACT DOCUMENTS ONLY TO THE EXTENT SPECIFICALLY SHOWN OR NOTED

Earth Systems Consultants
Southern California

Foundation Engineering Division

18344 Oxnard Street
Los Angeles, CA 91356
(818) 996-1600
(213) 873-5032
FAX (818) 996-8025

March 13, 1992

F-1537-AP

Mr. David Willis
ZuFu Investments, Inc., dba
Total Properties Management Co.
3450 Wilshire Blvd., Suite 400
Los Angeles, CA 90010

PROPOSED CANOPIES/SIGN MONUMENTS
3450 WILSHIRE BOULEVARD
LOS ANGELES, CALIFORNIA

We are pleased to submit the enclosed Soil Engineering Report for the proposed canopies and sign monuments.

The proposed foundations for the westerly sign, westerly canopy, and middle canopy may consist of friction piles. The foundations for the easterly sign and canopy may be spread footings.

Caving of the pile shafts may occur during drilling. In that case, casing should be installed to maintain the holes open. Concrete may be tremied below water in the shaft.

Provision should be made for equitable payment to the contractor for variation in the depth of footings and length of piles because of expected variation in the character of the soil.

All excavations for piles must be inspected by a representative of Earth Systems Consultants during drilling. Piles shall be inspected during placing of concrete by a deputy concrete inspector.

Copies of the report and a copy of this letter with the related information have been distributed as indicated below.

Mr. David Willis
ZuTu Investments, Inc., dba
Total Properties Management Co.

Re: 3450 Wilshire Boulevard
Los Angeles, California

It has been a pleasure to work with you and the design team on this project. If there are any questions, please call.

Shaine Shahidi
Project Engineer

SS:sp

2 Copies of the Report Enclosed
4 Copies - Don Strand

LEGAL DESCRIPTION AND CORRESPONDING ADDRESS(ES)

Write a number in the first blank of the Legal Description and corresponding Address line to link up the legal(s) with the address(es) listed below. For example, if one address has two legal descriptions, write the number 1 in each of the first two legal description lines and the address line:

____	Tract	MP-8-113	Blk ____	Lot	Frac 93 arb 2 Frac 94-97 98 arb 1
____	Tract	____	Blk ____	Lot	____
____	Address	3450 Wilshire Blvd		Unit	____
____	Address	____		Unit	____
____	Address	____		Unit	____

DOCUMENT TYPE (Use a separate sheet for each doc type & include dates)

	Name	Document Date(s)	
___	Admin. Approval (11)	Dt ____	ENTER DATA FROM ADMN APPRVL FORM
___	Grdg Affidavit (14)	Dt ____	ENTER DATA FROM AFFIDAVIT FORM
___	Grdg Compaction File (5)	Ltr ____	Rpts ____
	Grdg Dept. Letter (7)		
___	Methane Control File	Ltr ____	Rpts ____
___	Contaminated Soil File	Ltr ____	Rpts ____
___	E.I.R. File	Ltr ____	Rpts ____
___	Other ____	Ltr ____	Rpts ____
___	Grdg Foundation File (1)	Ltr ____	Rpts ____
___	Grdg Responsibility Ltr (18)	____	
___	Grdg Seismology File (6)	Ltr ____	Rpts ____
___	Grdg Soils/Geo File (2)	Ltr 3-25-92	Rpts 3-13-92
		Rpts ____	
___	Grdg Storm Damage File (17)	Ltr ____	Rpts ____
___	Grdg Tent. Tract Doc. (51)	____	
___	Grdg Information Only (9)	____	
___	Grdg Oversized Doc (92)	X-Ref ____ Dt ____	;X-Ref ____ Dt ____

DAFS DATABASE COMMENT

Any comment printed on the line below will be typed in the DAFS Comment field:

____

DOCUMENT PREPARATION AND RETENTION

Reviewed by LM Document(s) Stored in Retention Box No. 1080

(PWP041591GIS/SWP) R5.30.91

4

B&S B-17 (R6/86)

CO REF #: MPR-113 132-B-197

City of Los Angeles

DEPARTMENT OF BUILDING AND SAFETY

Grading Division CDP 4 / LA

District WLA | Log No. 28161

ADDRESS APPROVED [signature] 3/23/92 Signature/Date

APPLICATION FOR REVIEW OF TECHNICAL REPORTS AND IMPORT-EXPORT ROUTES

INSTRUCTIONS

A. Address all communications to the Grading Division, Department of Building and Safety, Room 460A, City Hall, Los Angeles, California 90012-4869. Phone (Area Code 213) 485-3435.
B. Obtain address approval from the Department of Public Works prior to submittal.
C. Submit 2 copies (4 for fault study zone) of reports and 3 copies of application with items (1) through (10) completed.
D. Check should be made to the Department of Building and Safety. Note: Please Print

(1) LOT(S) Frac 9) & 6) of 17 & 18 Tract 32 | BLK. — | TRACT Wilshire Howard Heights | COUNTY MAP NO. MPR-113
A.I.N. [illegible] of NE¼ of SW¼ Sec. T1S R14W

PROJECT ADDRESS 3450 Wilshire Blvd

(2) APPLICANT Swinerton & Walberg Co.
Address 520 Wilshire Blvd. Ste 301
City Los Angeles
Phone (Daytime) 351-2770 Zip 90[illegible]

(3) OWNER Zen Investment Co., Total Properties, Inc.
Address 3450 Wilshire Blvd Suite 460
City Los Angeles Zip 90010
Phone (Daytime) 386-6336

(5) Report(s) Prepared by Earth Systems Consultants

(6) Report Date(s) March 13, 1992

(7) Status of project: ☐ Proposed ☑ Under Construction ☐ Storm Damage

(8) Previous site reports? ____ If yes, give date(s) of report(s) and name of company(s) who prepared report(s).

(9) Previous Department actions? ____ If yes, please give dates and attach a copy to expedite processing.
Dates

(10) Signature of applicant [signature] Position Project Engineer

(DEPARTMENT USE ONLY)

REVIEW REQUESTED & PROCESSING	FEES	REVIEW REQUESTED & PROCESSING	FEES
☐ Foundation Investigation		☐ Seismology report per 91.2305(d)	
☒ Soils Engineering	200	☐ Environmental Assessment	
☐ Geology		☐ Import-Export Route	
☐ Combined Soils Engr. & Geol.		☐ Division of Land	
☐ Supplemental		Sub-total	200
☐ Combined Supplemental		SYS 1 REC One-Stop Surcharge	16

THE REPORT IS ☒ APPROVED WITH CONDITIONS ☐ NOT APPROVED TOTAL FEE 216

DEPARTMENT ACTION BY: [signature] 3-25-92
For Geology Date For Soils & Foundation Date

☒ Conditions of Approval ☐ Reasons for Non-Approval ☐ See Attached letter ☒ Supplemental Sheet 1 Attached

(1) Existing fill shall not be used for vertical or lateral support.
(2) Conditions Nos. 2, 9, 20, 22, 24, 26, 27, 30 on the attached "Supplemental Conditions for Foundation Investigation Reports."

(Continued Over) (Cashier Use Only)

DEPARTMENT USE ONLY
Fee Due 216.00
Fee Verified
Date 5-23-92

DISTRIBUTION
☒ Owner
☒ Applicant
☐ ____

☒ Soil Engineer
☐ Geologist
☐ Board files
☒ Tract file

☒ LA Plan Check
☐ VN
☐ WLA
☐ SP/WLA

☒ LA Inspection
☐ VN ☐ BMI
☐ WLA ☐ BI
☐ SP/WLA

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

Log No. 28161
3450 WILSHIRE BL
3-25-92

SUPPLEMENTAL CONDITIONS FOR FOUNDATION INVESTIGATION REPORTS

1. A grading permit shall be obtained.

2. Existing uncertified fill shall not be used for support of footings, floor slab, or proposed fill.

3. No fill shall be placed until the City Grading Inspector has inspected and approved the bottom excavations.

4. The fill shall be placed under the inspection and approval of the responsible Engineer. A compaction report shall be submitted to the Department upon completion of the compaction.

5. If import soils are used, no footings shall be poured until the responsible Engineer has submitted a compaction report and in place shear test data and settlement data to the Department and obtained approval.

6. Compacted fill shall extend beyond the footings a minimum distance equal to the depth of the fill below the footings.

7. Prior to the issuance of any permit, the owner shall file a notarized Covenant and Agreement with the Office of the Los Angeles County Recorder acknowledging the proposed pavement will be constructed on uncertified fill and future settlement may occur.

8. The building design shall incorporate provision for anticipated differential settlements in excess of one-fourth inch.

9. The responsible Engineer shall review and approve the foundation plan and/or the Excavation/Shoring plan prior to the issuance of any permits.

10. A supplemental report shall be submitted to the Grading Division containing recommendations for shoring, underpinning and sequence of construction if any excavation would remove the lateral support of the public way or adjacent structures.

11. Prior to issuance of any permit, the owner of the subject site shall record a notarized affidavit with the office of the Los Angeles County Recorder which will inform future owners of the subject site that the lateral support of a portion of the building footings on the adjoining property is provided by the subterranean walls of the building on the subject site.

12. Approval from the Department of Public Works shall be obtained for any excavation that would remove the lateral support of the public way.

13. All roof and pad drainage shall be conducted to the street by gravity.

14. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted to the street in an acceptable manner and in a non-erosive device.

15. The design of the subdrainage system required to prevent possible hydrostatic pressure behind retaining/basement walls shall be approved by the responsible Engineer prior to issuance of the building permit. Installation of the subdrainage system shall be inspected and approved by the Soil Engineer.

16. Basement excavations shall be performed under the continuous inspection and approval of the responsible Engineer.

17. Installation of shoring, underpinning, and/or slot cutting excavations shall be performed under the continuous inspection and approval of the responsible Engineer.

September 1989

CITY OF LOS ANGELES
DEPARTMENT OF BUILDING AND SAFETY

18. Basement walls and slab shall be waterproofed with an L.A. City approved "Below-grade waterproofing" material with a research report number.

19. If the actual foundation design loads do not conform to the foundation loads assumed in the report, the responsible Engineer shall submit a supplementary report containing specific design recommendations for the heavier loads to the Department for review and approval prior to issuance of a permit.

20. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the State Construction Safety Orders enforced by the State Division of Industrial Safety.

21. Prior to the issuance of any permit which authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation.

22. A copy of the foundation report and/or supplements and this approval letter shall be attached to the District Office and field set of plans. Submit one copy of the above foundation report and/or supplements to the Building Department Plan Checker prior to issuance of the permit.

23. All pile driving shall be performed under continuous inspection and approval of the responsible Engineer. A log of pile driving shall be kept and a copy submitted to the Department along with written certification that the work supervised meets the conditions of the report. Such supervision does not waive the required inspection by the City Building Inspector.

24. All friction pile drilling and installation shall be performed under the continuous inspection and approval of the responsible Engineer.

25. Spread footings and slab-on-grade shall be designed for expansive soil conditions.

26. Pile and/or caisson foundation ties are required by Code Section 91.2312(j)3B. Exceptions and modification to this requirement are provided in Rule of General Application 662.

27. When water over 3 inches in depth is present in drilled pile holes, a concrete mix with a strength p.s.i. of 1000 over the design p.s.i. shall be tremied from the bottom up; an admixture that reduces the problem of segregation of paste/aggregates and dilution of paste shall be included.

28. The installation and testing of tie-back anchors shall comply with the attached sheets titled "Requirements for Tie-back Earth Anchors".

29. Provide a notarized letter from adjoining property owners allowing tie-back anchors on their property.

30. Prior to the pouring of concrete, a representative of the consulting Foundation Engineer shall inspect and approve the footing excavations. He shall post a notice on the job site for the City Building Inspector and the contractor stating that the work so inspected meets the conditions of the report, but that no concrete shall be poured until the City building Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Department upon completion of the work.

31. Prior to excavation, an initial inspection shall be called at where time sequence of shoring, protection fences and dust and traffic control will be scheduled.

BOARD OF
BUILDING AND SAFETY
COMMISSIONERS

VAN AMBATIELOS
PRESIDENT

E. FELICIA BRANNON
VICE PRESIDENT

JOSELYN GEAGA-ROSENTHAL
GEORGE HOVAGUIMIAN
JAVIER NUNEZ

CITY OF LOS ANGELES
CALIFORNIA

ERIC GARCETTI
MAYOR

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

FRANK M. BUSH
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

OSAMA YOUNAN, P.E.
EXECUTIVE OFFICER

SOILS REPORT APPROVAL LETTER

December 24, 2018

LOG # 106334
SOILS/GEOLOGY FILE - 2

Jamison Properties
3470 Wilshire Blvd., Suite 700
Los Angeles, CA 90010

TRACT:	NE 1/4 SEC 25 T1S R14W
LOT(S):	PT NE 1/4 SEC 25 T1S R14W
LOCATION:	3440 W. Wilshire Blvd.

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Soils Report	21491	12/05/2018	Geotechnologies, Inc.

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed two (23-story and 28-story) residential towers over 1 to 2 subterranean parking levels and 4 podium parking levels. The earth materials at the subsurface exploration locations consist of up to 7.5 feet of uncertified fill underlain by sandy to silty clays, and silty sands.

The consultants recommend to support the proposed towers on mat foundations bearing on competent bedrock and the podium structure on conventional foundations bearing on competent dense older alluvium.

The referenced report is acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2017 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. Provide a notarized letter from all adjoining property owners allowing tie-back anchors on their property (7006.6).

2. Prior to issuance of any building permits, a comprehensive soils report including additional exploration, testing, and engineering analysis shall be submitted to the Department for review and approval, as recommended on page 10 of the referenced report.

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

3. The soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included the recommendations contained in their reports (7006.1).

4. All recommendations of the report that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.

5. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.

6. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).

7. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.

8. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).

9. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).

10. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).

11. Temporary excavations that remove lateral support to the public way, adjacent property, or adjacent structures shall be supported by shoring. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)

12. Prior to the issuance of any permit that authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation (3307.1).

13. The soils engineer shall review and approve the shoring and/or underpinning plans prior to issuance of the permit (3307.3.2).

14. Prior to the issuance of the permits, the soils engineer and the structural designer shall evaluate all applicable surcharge loads for the design of the retaining walls and shoring.

15. Unsurcharged temporary excavation may be cut vertical up to 5 feet. Excavations over 5 feet to a maximum height of 20 feet shall be trimmed back at a uniform gradient not exceeding 1:1, from top to bottom of excavation, as recommended.

16. Shoring shall be designed for the lateral earth pressures specified in the section titled "Lateral Pressures" starting on page 31 of the referenced report; all surcharge loads shall be included into the design.

17. Shoring shall be designed for a maximum lateral deflection of 1 inch, provided there are no structures within a 1:1 plane projected up from the base of the excavation. Where a structure is within a 1:1 plane projected up from the base of the excavation, shoring shall be designed for a maximum lateral deflection of ½ inch, or to a lower deflection determined by the consultant that does not present any potential hazard to the adjacent structure.

18. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.

19. The proposed towers shall be supported on mat foundations bearing on competent bedrock and the podium structure shall be supported on conventional foundations bearing on competent dense older alluvium, as recommended and shall be approved by the geologist and soils engineer by inspection.

20. Slabs placed on approved compacted fill shall be at least 5 inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.

21. Concrete floor slabs placed on expansive soil shall be placed on a 4-inch fill of coarse aggregate or on a moisture barrier membrane.

22. The seismic design shall be based on a Site Class D as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.

23. Retaining walls shall be designed for the lateral earth pressures specified in the section titled "Retaining Wall Design" starting on page 22 of the referenced report. All surcharge loads shall be included into the design.

24. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted in a non-erosive device to the street in an acceptable manner (7013.11).

25. With the exception of retaining walls designed for hydrostatic pressure, all retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soils report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record (1805.4).

26. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).

27. Basement walls and floors shall be waterproofed/damp-proofed with an LA City approved "Below-grade" waterproofing/damp-proofing material with a research report number (104.2.6).

28. Prefabricated drainage composites (Miradrain, Geotextiles) may be only used in addition to traditionally accepted methods of draining retained earth.

29. All roof, pad and deck drainage shall be conducted to the street in an acceptable manner in non-erosive devices or other approved location in a manner that is acceptable to the LADBS and the Department of Public Works (7013.10).

30. An on-site storm water infiltration system at the subject site shall not be implemented, as recommended.

31. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).

32. Prior to issuance of a permit involving de-watering, clearance shall be obtained from the Department of Public Works and from the California Regional Water Quality Control Board to discharge water into a storm drain.

201 N. Figueroa Street 3rd Floor, LA	(213) 482-7045
320 W. 4th Street, Suite 200	(213) 576-6600 (LARWQB)

33. The soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading (7008 & 1705.6).

34. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)

35. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; [shoring; ABC slot cuts; underpinning; pile installation;] protection fences; and, dust and traffic control will be scheduled (108.9.1).

36. Installation of shoring, underpinning, slot cutting and/or pile excavations shall be performed under the inspection and approval of the soils engineer (1705.8).

37. The installation and testing of tie-back anchors shall comply with the recommendations included in the report or the standard sheets titled "Requirement for Tie-back Earth Anchors", whichever is more restrictive. [Research Report #23835]

38. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter

shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included (7011.3).

YING LIU
Geotechnical Engineer II

Log No. 106334
213-482-0480

cc: Geotechnologies, Inc., Project Consultant
LA District Office

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

20 July 2017

CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

Attn: Andrea Schultz, Head of Operations

re: Paleontological resources for the proposed Central Plaza Project, in the City of Los Angeles, Los Angeles County, project area

Dear Andrea:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Central Plaza Project, in the City of Los Angeles, Los Angeles County, project area as outlined on the portion of the Hollywood USGS topographic quadrangle map that you sent to me via e-mail on 6 July 2017. We do not have any vertebrate fossil localities that lie directly within the proposed project area boundaries, but we do have localities nearby from the same sedimentary deposits that occur subsurface in the proposed project area.

The entire proposed project area has surface deposits composed of younger Quaternary Alluvium, derived as alluvial fan deposits from the elevated terrain to the northeast. These deposits typically do not contain significant vertebrate fossils in the uppermost layers, but at varying depths there are older sedimentary deposits that do contain significant fossil vertebrate remains. Our closest vertebrate fossil locality from older Quaternary deposits, LACM 6204, occurs directly west of the northern-most part of the proposed project area near the intersection of Wilshire Boulevard and Serrano Avenue. Locality LACM 6204 produced a fossil specimen of mammoth, *Mammuthus*, at a depth of 65 feet below grade. North-northwest of the proposed project area, near the intersection of Western Avenue and Council Street, our locality LACM 5845, also from these older Quaternary sediments, produced a specimen of fossil mastodon,

Mammutidae, at a depth of only 5-6 feet below the surface. Northeast of the proposed project area, at about the intersection of Madison Avenue and Middlebury Street, our locality LACM 3250, produced a fossil specimen of mammoth, *Mammuthus*, at a depth of about eight feet below street level.

Beginning east-northeast of the proposed project area, west of Vermont Avenue between 5th Street and 6th Street, there are exposures of the marine late Miocene Puente Formation (also sometimes referred to as the Upper Modelo Formation or as an unnamed shale in this area), and these deposits probably underlie the Quaternary Alluvium in the proposed project area at depth. Just north of east of the proposed project area, around the intersection of Vermont Avenue and Wilshire Boulevard, we have the vertebrate fossil localities LACM 6202 and 6203 from the Puente Formation discovered during excavation for the Meterorail Wilshire / Vermont station at a depth of 60 to 80 feet beneath the surface. Fossil specimens of eels, Anguilliformes, and needlefishes, Belonidae, were recovered at locality LACM 6203. Locality LACM 6202, however, was an extremely productive locality that contained an extensive fauna of fossil fish. A list of the fossil fish taxa from locality LACM 6202 is provided in the attached appendix.

Very shallow excavations of only a few feet in the younger Quaternary Alluvium exposed throughout the proposed project area may not encounter any significant fossil vertebrate remains. Deeper excavations that extend down into older sedimentary deposits, however, may very well uncover significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples from the finer-grained deposits should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosures: appendix; invoice

Fossil fish taxa from LACM 6202, Metrorail Red Line Vermont / Wilshire Station

- Osteichthyes - bony fishes
  - Anguilliformes - eels
  - Atheriniformes
    - Belonidae - needlefishes
  - Beryciformes
    - Anoplogasteridae - fangtooths
      - *Anoplogaster*
    - Melamphaeidae - bigscales
      - *Scopelogadus*
  - Clupeiformes
    - Clupeidae - herrings
      - *Ganolytes cameo*
      - *Xyne grex*
  - Gadiformes
    - Gadidae - cods
      - *Physiculus*
    - Macrouridae - grenadiers
    - Merlucciidae - hakes
      - *Merluccius*
    - Moridae - flatnoses
  - Lophiiformes - frogfishes
    - Linophrynidae
    - Oneirodidae
      - *Oneirodes*
  - Myctophiformes
    - Myctophidae - lanternfishes
      - *Diaphus*
      - *Lampanyctus*
  - Perciformes
    - Carangidae - jacks
      - *Pseudoseriola*
    - Gempylidae - snake mackerals
      - *Thyrsocles*
    - Sciaenidae - croakers
      - *Lompoquia*
    - Scombridae - tunas & mackerals
      - *Sarda*
      - *Scomber*
    - Serranidae - groupers
    - Trichiuridae - cutlassfishes
  - Pleuronectiformes
    - Citharidae - sanddabs
      - *Citharichthys*
    - Pleuronectidae - fluonders & soles
      - *Hippoglossus*
      - *Pleuronichthys*
  - Salmoniformes
    - Alepocephalidae - slickheads
    - Argentinidae - argentinas
    - Bathylagidae - smoothtongues
      - *Bathylagus*
    - Opisthoproctidae - spookfishes
    - Searsiidae - tubeshoulders
  - Scorpaeniformes
    - Scorpaenidae - rockfishes
      - *Sebastes*
  - Stomiatiformes
    - Chauliodontidae - viperfishes
      - *Chauliodus eximius*
    - Gonostomidae - bristlemouths
      - *Cyclothone*
      - *Vinciguerria*
    - Sternoptychidae - hatchetfishes
      - *Argyropelecus*
    - Stomiatidae - dragonfishes
      - *Stomias*

PHASE I
ENVIRONMENTAL SITE ASSESSMENT

Central Plaza
3440-3470 Wilshire Boulevard 90010
Los Angeles, California 90010

Prepared for:
Deutsche Bank
New York, New York

October 22, 2014
IVI Project No.: PC41011347

IVI Assessment Services, Inc.

THIS REPORT IS THE PROPERTY OF IVI AND DEUTSCHE BANK AND WAS PREPARED FOR A SPECIFIC USE, PURPOSE, AND RELIANCE AS DEFINED WITHIN THE AGREEMENT BETWEEN IVI AND DEUTSCHE BANK AND WITHIN THIS REPORT. THERE SHALL BE NO THIRD PARTY BENEFICIARIES, INTENDED OR IMPLIED, UNLESS SPECIFICALLY IDENTIFIED HEREIN.

PROPERTY CONDITION & ENVIRONMENTAL DUE-DILIGENCE

IVI ASSESSMENT SERVICES, INC.
55 West Red Oak Lane
White Plains, New York 10604
(914) 694-9600 (tel)
(914) 694-1335 (fax)
www.ivi-intl.com

October 22, 2014

Mr. Scott Reiner
Deutsche Bank
60 Wall Street, MS NYC60-10-102
New York, New York 10005
(212) 250-4073 (tel)
scott.reiner@hanoverstcap.com

Re: Phase I Environmental Site Assessment
Central Plaza
3440-3470 Wilshire Boulevard
Los Angeles, California 90010
IVI Project No.: PC41011347

Dear Mr. Reiner:

IVI Assessment Services, Inc. ("IVI") is pleased to submit this copy of our Phase I Environmental Site Assessment on the above-referenced property. This report outlines the findings of IVI's site reconnaissance, historical land use research, review of governmental records, interviews, and our Pre-Survey Questionnaire.

I declare that, to the best of my professional knowledge and belief, I meet the definition of *environmental professional* as defined in § 312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the *subject property*. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Please contact the undersigned at **914.694.9600 (x-1936)** or by email at danielle.wing@ivi-intl.com should you have any questions.

Sincerely,

IVI Assessment Services, Inc.

Danielle Wing

Danielle Wing
Environmental Professional

TABLE OF CONTENTS

Cover Sheet
Transmittal Letter

Page

1.0 EXECUTIVE SUMMARY 1

2.0 INTRODUCTION 3

3.0 SALIENT ASSIGNMENT INFORMATION 8

4.0 SITE DESCRIPTION 9

5.0 HISTORICAL USE 14

6.0 REGULATORY REVIEW 19

7.0 SITE RECONNAISSANCE 31

8.0 INTERVIEWS 36

9.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS 41

10.0 LIMITING CONDITIONS 42

APPENDICES

Photographs ..... A
Pre-Survey Questionnaire ..... B
Maps and/or Historical Aerial Photographs C
Computerized Environmental Report ..... D
Correspondence and Supporting Documents ..... E
Previous Reports ..... F

This report documents IVI's findings from our Phase I Environmental Site Assessment on the Central Plaza, located at 3440-3470 Wilshire Boulevard, Los Angeles, California (the "Subject"). The property, which is situated in an urban area characterized by commercial office, retail, and residential development, consists of a 7.44-acre parcel improved with three, 12-story, 63 year-old (built in 1951), tower office buildings sitting atop a shared basement foundation, one 11-story, 47 year-old (built in 1967) office building, one 59 year-old (built in 1955) parking structure, and one 48 year-old (built in 1966) parking structure. Prior to the construction of the existing improvements, the site was primarily vacant land, with several residences on the western side.

The purpose of this Phase I Environmental Site Assessment was to assess existing site conditions and render an opinion as to the identified or potential presence of recognized environmental conditions in connection with the property within the scope and limitations of ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-13 and the limitations identified herein. Exceptions to or deletions from the scope of work are described in Section 2.0.

This assessment has revealed no evidence of recognized environmental conditions (RECs) in connection with the Subject; however, the following *historical* REC (HREC) was identified:

Historical Underground Storage Tanks (USTs)

As part of our previous assessment conducted on the Subject in 2007, IVI reviewed a *Tank Closure Report*, *Central Plaza, 3450 Wilshire Boulevard,* dated May 26, 1988, prepared by McLaren Environmental Engineering. This report indicated that in 1988, an 8,000-gallon fuel oil UST was removed from the Subject. This UST was reportedly installed in 1951 and was used as a backup fuel supply for the on-site boilers. The report indicated that petroleum impacted soils were encountered and excavated during tank removal activities. Soil samples collected after the excavation reportedly did not reveal any remaining contamination requiring further actions. The McLaren report recommended no additional actions be undertaken.

An Application for Permit; Abandonment By Removal Fire Department-City of Los Angeles, was also reviewed as part of our previous assessment, which discussed the removal of one waste oil UST and two gasoline USTs, dated June 8, 1988. It is suspected that these USTs were related to the gas & oil station noted on the 1961 Sanborn Map. It should also be noted that based on our regulatory review, the Subject was identified as a registered storage tank site featuring a "inactive" regulatory status for two previous on-site "regulated unleaded" USTs. These gasoline USTs are suspected to be associated with the removal of the aforementioned gasoline USTs noted in the permit.

Based on the foregoing, no further action is recommended at this time regarding the Subject's historical on-site USTs.

In addition, the following business environmental risk (BER) was identified, which warrants mention:

Asbestos-Containing Material (ACM)

Based on the age of the Subject, the friable acoustical ceiling tiles are suspected to contain asbestos. In addition, the non-friable resilient floor finish assemblies, wallboard assemblies, roofing materials, caulking, and mastics may contain asbestos. Since these materials were observed to be in good condition, no further action is recommended at this time other than maintaining same in good condition under an Asbestos Operations and Maintenance (O&M) Program. All activities involving ACM should be conducted in accordance with governmental regulations.

2.1 General

IVI was retained by Deutsche Bank ("Client" or "User") to prepare a Phase I Environmental Site Assessment, in conformance with ASTM International's Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process E 1527-13 and Deutsche Bank's Scope of Work on the Subject in accordance with our Agreement dated October 1, 2014.

This report has been prepared for the use of Deutsche Bank and any of its affiliates or subsidiaries, including but not necessarily limited to Deutsche Bank Trust Company Americas; Deutsche Bank Securities, Inc; Deutsche Bank AG; German American Capital Corp, collectively and hereafter referred to as Deutsche Bank.

This report is for use and benefit of, and may be relied upon by Deutsche Bank, or any of its co-lenders, syndicates, participants, affiliates, agents, advisors, successors and assigns, initial and subsequent holders from time to time of any debt, any indenture trustee, servicer or other agent acting on behalf of such holders of such debt and/or debt securities; any rating agencies; and the institutional provider(s) from time to time of any liquidity facility or credit support for such financings; and their respective successors and assigns.

As such, each of the parties described above, rating agencies and certain investors involved in the type of securitizations described below may use and rely on this report in its entirety, including reference to our name and the inclusion (whether in paper, digital, electronic, or any other form) or description of such reports in disclosure documents, and if such reports are included in the disclosure documents, the reference to our name under caption " Experts" in such disclosure documents, and this shall serve as a written consent to the foregoing, which consent may be filed with the Securities and Exchange Commission. Said securitizations may be either of the following two types:

a) A private placement Rule 144A offering to "qualified institutional buyers", as defined by Rule 144A ("Private Offering"), or
b) A publicly registered offering of securities ("Public Offering").

In the case of Public or Private Offering, Client may accurately disclose the results of this report and the identity of our firm in the Offering Document or private placement memorandum.

2.2 Purpose and Scope

2.2.1 Purpose

The purpose of this report is to identify Recognized Environmental Conditions in connection with the property, using the methodology recommended by ASTM International in order for a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser defenses to CERCLA liability and/or to help understand potential environmental conditions that could materially impact the operation of the business associated with the Subject. Specifically, this methodology is referred to as *Standard Practice for Environmental Site Assessments: Phase l Environmental Site Assessment Process* Designation: E 1527-13.

The term Recognized Environmental Conditions is defined by ASTM Standard E 1527-13 as "...the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions."

2.2.2 Scope

In general, the scope of this assessment consisted of reviewing readily available information and environmental data relating to the property; interviewing readily available persons knowledgeable about the site; reviewing readily available maps, aerial photographs and records maintained by federal, state, and local regulatory agencies; and conducting a site visit.

Of importance, the client is advised that federal, state, and local laws may impose environmental assessment obligations beyond the scope of this practice. Client is also notified that there are likely to be other legal obligations with regard to hazardous substances or petroleum products discovered on the Subject that are not addressed in this practice and that may pose risks of civil and/or criminal sanctions for non-compliance.

The specific scope of this assignment included the following:

2.2.2.1 Performing a site reconnaissance to characterize on-site conditions and assess the site's location with respect to surrounding property uses and natural surface features. In addition, IVI conducted a reconnaissance of the surrounding roads and readily accessible adjacent properties to identify

obvious potential environmental conditions on neighboring properties. Photographs taken as part of the site reconnaissance are provided in Appendix A.

The site visit was conducted on October 14, 2014, by Carol Noland representing IVI. The site was represented by Mr. Jonathan Kim, the Property Manager. It was sunny and the temperature was approximately 75° F at the time of our site survey. IVI conducted the site reconnaissance in a systematic manner focusing initially on the exterior, which was surveyed in a grid pattern. IVI also surveyed a representative sampling of the interior spaces in a systematic manner.

2.2.2.2 Interviewing persons familiar with the property to obtain information on present and previous on-site activities potentially resulting in the environmental degradation of the site or adjoining properties. A Pre-Survey Questionnaire to be filled out and returned to IVI by someone knowledgeable about the site was provided to Mr. Jonathan Kim. A completed copy of the Pre-Survey Questionnaire is provided in Appendix B.

The following table presents a summary of the individuals contacted or to whom requests for documentation were made as part of this assessment:

Name	Affiliation	Telephone No.
Yvonne Curtis	Los Angeles County Public Health Investigation	(323) 890-7801
Katie Rosas	Los Angeles City Fire Department	(213) 978-3700
Jonathan Kim	Subject Property	(213) 487-3770
Victor Catalan	Subject Property	(213) 487-3770

2.2.2.3 If provided, reviewing of information such as previously prepared appraisals, building plans and specifications, and environmental reports.

2.2.2.4 Reviewing readily available historical documents, such as topographic maps, aerial photographs, city directories, Sanborn Fire Insurance Maps and atlases, to identify previous activities on and in the vicinity of the Subject. Copies of these documents are included in Appendix C.

2.2.2.5 Reviewing readily available environmental databases maintained by federal, state, and local agencies within the approximate minimum search distances as described within the Regulatory

Review Section 6.0 of this report. A copy of the Computerized Environmental Report, provided by Environmental Data Resources, Inc. can be referenced in Appendix D.

2.2.2.6 Conducting a "Tier I" (non-intrusive) Vapor Encroachment Screening (VES) on the Subject in accordance with the methodology set forth in ASTM E 2600-10 "*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*". During the VES, the Area of Concern (AOC) was minimized using the methodology taught in the ASTM Screening for Vapor Encroachment onto Property Involved in Real Estate Transactions Training Course.

2.2.2.7 Conducting a visual survey of readily accessible common areas to identify the presence of the most obvious and common types of suspect asbestos containing materials (ACM). The basis for "suspect" determination is taken from the materials listed in Appendix G of the United States Environmental Protection Agency (USEPA) publication Managing Asbestos in Place (also known as the Green Book). All building materials listed within Appendix G of the Green Book are considered to be suspect ACMs at the Subject. This screening is not intended to be used for demolition, abatement, renovation, or repair work.

THIS LIMITED SURVEY IS NOT TO BE CONSTRUED AS A COMPREHENSIVE ASBESTOS SURVEY, WHICH OFTEN ENTAILS DESTRUCTIVE TESTING OR THE SURVEY OF AREAS BEHIND WALLS, ABOVE CEILINGS, IN TENANT SPACES AND IN OTHER TYPICALLY INACCESSIBLE AREAS. MOREOVER, IVI DOES NOT WARRANT THAT ALL ACMs AT THE SUBJECT HAVE BEEN IDENTIFIED.

2.2.2.8 Reviewing published radon occurrence maps to determine whether the site is located in an area with a propensity for elevated radon concentrations.

2.2.2.9 An analysis of mold and/or mold issues was beyond the scope of this report.

2.2.2.10 Assessing the age of the Subject to determine whether it is predisposed to contain lead-based paint. During our walkthrough survey, IVI noted the condition of the paint observed. Note, a compliance audit for lead paint was not conducted. NOTWITHSTANDING, THIS SCAN FOR LEAD-BASED PAINT SHOULD NOT BE CONSTRUED AS AN IN-DEPTH LEAD-BASED PAINT SURVEY.

2.2.2.11 Testing, if any, was designed solely to meet the requirements of the client's scope of work, not to meet any local, State or Federal regulations and shall not be utilized as such.

2.3 Data Gaps

According to § 3.2.21 of ASTM Standard E 1527-13, a data gap is a lack of or inability to obtain information required by the ASTM Standard despite good faith efforts to gather same. Data gaps may result from incompleteness in any of the activities required by the ASTM Standard. The following data gaps occurred in connection with this report:

Data Gap	Explanation	Significance of Gap
Site History	History not conducted back to a time when the site was undeveloped land (See § 5)	Low - not likely to alter Report's conclusions due to IVI's search of standard historical sources of information such as aerial photographs, historic topographic maps, city directory abstracts, Sanborn Fire Insurance Maps, reviews of previous investigations and interviews with knowledgeable individuals who were familiar with the property.
Site History	Site history not conducted in 5-year intervals (See § 5)	Low - not likely to alter Report's conclusions due to IVI's search of standard historical sources of information such as aerial photographs, historic topographic maps, city directory abstracts, Sanborn Fire Insurance Maps, reviews of previous investigations and interviews with knowledgeable individuals who were familiar with the property.
User Interview	AAI User Questionnaire not returned to IVI	Low - not likely to alter Report's conclusions
Former Owner or Operator Interview	Unable to interview former site owner or operator due to inability to locate	Low - not likely to alter Report's conclusions
Governmental Records	FOIAs not returned (See § 8.6)	Unknown - However, if receipt of FOIAs alters the Report's conclusion, the client will be notified

Salient Assignment Information	
IVI Project No.:	PC41011347
Project Name:	Central Plaza
Street Address:	3440-3470 Wilshire Boulevard
City, State and Zip:	Los Angeles, California 90010
Primary Use:	Office
Year Built and Age of Improvements:	1951; 63 Years-Old (3440, 3450, 3460 Wilshire) 1967; 47 Years-Old (3470 Wilshire) 1955; 59 Years-Old (southeast parking structure) 1966; 48 Years-Old (southwest parking structure)
Site Area:	7.44-Acres
Building Size:	816,345 SFG Total
Number of Buildings:	Four Office buildings Two Parking Structures

4.1 Property Location

The site is located at 3440-3470 Wilshire Boulevard in Los Angeles, Los Angeles County, California and is identified on local tax maps as Parcel No. 5094-002-011, 013, 015, 017, 019 and 020. The addresses of the retail business located on the ground floor include 3432 Wilshire through 3462 Wilshire Boulevard. The Subject is bounded by Wilshire Boulevard to the north, Mariposa Street to the east, 7th Street to the south, and South Normandie Avenue/Irolo Street to the west. Please refer to the Site Plan and maps provided within Appendix C.

4.2 Surrounding Land Use

The property is located in an urban setting characterized by commercial office, retail, and residential development. The following is a tabulation of surrounding property usage:

Direction	Adjacent Properties	Surrounding Properties
North	Across Wilshire Boulevard are the Equitable Tower office building (3435 Wilshire Boulevard), an office building containing the Indonesian Consulate (3457 Wilshire Boulevard), and the Oasis Christian Center (3471 Wilshire Avenue).The Line Hotel (3515 Wilshire Boulevard) is located to the northwest.	Commercial office and multi-tenant residential properties.
South	Across 7th Street are two apartment buildings.	Multi-tenant residential and commercial properties.
East	Across Mariposa Avenue are an office building (3424 Wilshire Boulevard) and two apartment buildings.	Los Angeles High School of the Arts, commercial office and multi-tenant residential properties.
West	The Piccadilly Hotel (682 Irolo Street) and a small shopping center (698 Irolo Street) are located adjacent to the southwest of the Subject. 20/20 Cleaners is located in the adjacent shopping center. Across Irolo Street/South Normandie Avenue are an apartment building, a parking garage, and a Food Court with several restaurants (3500 Wilshire Boulevard).	Commercial office properties.

4.3 Physical Site Setting

4.3.1 Size and Shape of Parcel

The property is irregular in shape and 7.44-acres in size.

4.3.2 Topography

The property slopes gently from the north to south from the office buildings toward the parking structures. In general, the topography of the area is best described as level. According to the United States Geological Survey (USGS) *Hollywood, CA* 7.5 Minute Series topographic map, the Subject's topographic elevation is approximately 215' above mean sea level (msl) on the north side, and 206' above msl on the south side.

4.3.3 Surface Waters and Wetlands

Surface Waters

There are no surface water bodies or streams on or adjacent to the Subject. The closest open surface water to the Subject is the MacArthur Park Lake, which is located approximately 1.12-miles to the east

Wetlands

IVI reviewed a wetlands map of the Subject area prepared using the US Department of the Interior, Fish and Wildlife Service's Internet Wetland Interactive Mapper. The source material used to produce the National Wetlands Inventory digital data for these maps was prepared primarily by stereoscopic analysis of high altitude aerial photographs. Based on this review, IVI did not identify any federally regulated wetlands on the Subject property. Additionally, IVI did not observe vegetation characteristic of wetlands on the Subject site.

4.3.4 Soils, Geology and Groundwater

Soils

According to the EDR report, which uses information issued by the United States Department of Agriculture, Soil Conservation Service, the soils of the area are referred to as Urban Land complex. Urban Land complex are those soils in which the soil's original structure and content have been so altered by human activities it has lost its original characteristics and is thus unidentifiable.

Geology

There are no predominant geological surface features such as rock outcroppings on the Subject. The site is located in the large area known as the northeastern structural block of the Los Angeles basin. The northeastern block, a nearly closed alluvial basin, is bound by the low, rolling Repetto, Merced, San Jose, and Puente Hills along the west and south margins, and the San Gabriel Mountains to the north and east.

Groundwater

Under natural, undisturbed conditions, shallow groundwater flow generally follows the topography of the land surface and on this basis, the topography suggests that groundwater flow across the site is in a southwesterly direction. However, localized conditions can alter flow direction and thus the presumed flow may not coincide with the actual in the Subject area. Shallow groundwater in the vicinity of the site is anticipated to be encountered at a depth of approximately 40' below ground surface.

4.4 Site Improvements

4.4.1 Utilities

The Subject is served with the following utilities:

Water:	Los Angeles Department of Water & Power
Sanitary Sewer:	City of Los Angeles Public Works Department
Storm Sewer:	City of Los Angeles Public Works Department
Electric:	Los Angeles Department of Water & Power
Natural Gas:	Southern California Gas Company

According to the most recent water quality report published by the Los Angeles Department of Water and Power, the water supplied to the Subject meets federal and state water quality standards.

Stormwater runoff collected by catch basins and roof drains is discharged into the municipal stormwater management system.

4.4.2 Building Description

The Subject is improved with three, 63 year-old, 12-story office buildings which sit atop a shared basement foundation, and one 47 year-old, 11-story office building. One 59 year-old, four-level concrete parking structure is located on the southeastern end of the Subject, and one 48 year-old, seven level concrete parking structure is located on the southwestern end of the Subject. The office buildings are comprised of cast-in-place concrete with steel frames. A concrete

basement which contains a central plant, connects all four office buildings. Parking garages consists of concrete columns and beams and cast concrete decks.

The offices buildings have a facade system predominantly of blue-reflective tinted glass with fixed glazing integral with the curtain wall fenestration system. There are dark beige jumbo brick exterior walls at the corners and at the center of the south elevation of the parking structures.

The roofing materials consist of a gravel surface built-up system at the 3470 Wilshire Boulevard building, and built-up systems with mineral surface cap sheets at the 3460, 3450 and 3440 Wilshire Boulevard buildings.

Interior finishes include floor coverings of carpet, resilient floor tile, and sheet vinyl; walls of painted and papered gypsumboard and concrete block; and ceilings of painted drywall and a suspended system with inlaid acoustical ceiling tiles.

Heating is provided by a gas-fired boiler. Air conditioning is provided by a chilled water system with rooftop cooling tower. Vertical transportation in the office buildings is provided by five traction passenger elevators each. The southwestern parking structure contains two hydraulic passenger elevators.

4.5 Current Property Use

The Subject is developed with a multi-tenant office buildings. Uses within the office buildings are typically professional offices, including four dental offices. Several commercial business are located on the first floor/plaza level of the Subject.

The following table summarizes the commercial tenants and their activities:

Tenant	Description of Operation
Wilshire Sports Club	Health club
TOGO's Sandwiches	Restaurant
Jerry's Boutique	Store
First Family Dental Group	Dental Office
Le Von's Hair Boutique	Hair salon
Happy Noodle	Restaurant
Verizon Wireless	Cell phone store
Avenue 2 Grill	Restaurant
McDonald's	Restaurant

Tenant	Description of Operation
Starbucks	Coffee house
GNC	Health and nutrition store
Robeks	Juice store
Andaman Thai	Restaurant
Wasabi Grill	Restaurant
Bank of America	Bank
Details Hair Studio	Hair salon
Numero Uno Pizza	Restaurant
Brass Monkey	Restaurant
Wilshire Health Club	Health club
Wilshire Women's Spa	Day Spa
Plaza Stationers	Stationary store
Deli In	Deli/convenience store

Based on the operations currently conducted at the Subject, significant quantities of hazardous waste are not generated. The current on-site activities are not suspected to have degraded the environmental quality of the Subject site.

Of note, there are four dental offices at the Subject. According to Jonathan Kim, the Property Manager, all of the dental offices use digital x-ray equipment.

4.6 Environmental Permits

The Subject has a permit issued by the South Coast Air Quality Management District (AQMD), Permit #F32244, for the operation of a diesel-fueled combustion engine for the emergency generator. The Subject also has an AQMD permit, #F32245, for the operation of a natural-gas fired boiler.

4.7 Plans and Specifications

Neither building drawings nor specifications were provided for our review.

5.1 Historical Summary

Prior to the construction of the existing improvements in 1950-1951, the site was primarily vacant land, with several residences on the western side.

5.2 Topographic Maps

IVI reviewed historic USGS *Hollywood, CA* 7.5 Minute Series topographic maps of the Subject area provided by EDR. The following maps were provided for our review:

Year	Subject Property	Surrounding Properties
1928	The map depicts vacant land and two residential structures on the Subject's northeastern corner, adjacent to Wilshire Boulevard.	The northern surrounding properties across Wilshire Boulevard are depicted with residential structures and vacant land. The southern and western surrounding properties are depicted as vacant land. The eastern surrounding property is depicted with the Ambassador Hotel is to the east.
1966	The Subject area is tinted red indicating highly urbanized development.	The surrounding area is tinted red indicating highly urbanized development. The Wilshire Catholic Church is depicted to the north.
1972	Similar to the previous topographic map reviewed.	Similar to the previous topographic map reviewed.
1981	Similar to the previous topographic map reviewed.	Similar to the previous topographic map reviewed.
1986	Similar to the previous topographic map reviewed.	Similar to the previous topographic map reviewed.
1994	Similar to the previous topographic map reviewed.	Similar to the previous topographic map reviewed.

The topographic 1966 through 1994 maps do not identify individual buildings or development on the Subject property due to the concentration of structures in the highly urbanized Los Angeles area, but rather shows the area to be shaded denoting urbanized land use, and identifies only landmarks as distinct structures. Nevertheless, the topographic maps do not identify any industrial complexes, landfills or wetlands on or adjacent to the Subject site.

5.3 Historical Maps

Sanborn Fire Insurance Maps (Sanborn Maps)

IVI had a search conducted for Sanborn Maps, which reference the property. The findings of this review are summarized below:

Year	Subject Property	Adjacent and Surrounding Properties
1921	The majority of the Subject is depicted as vacant land, however, several buildings are present near the northern end of the property, including a greenhouse and a store. In addition, several single-family dwellings with detached garages are located along the western end of the Subject.	This map does not depict the surrounding areas to the north, east, or south. The current alignment of South Normandie Avenue/Irolo Street is not depicted. Several single-family dwellings are depicted immediately adjacent to the west along Irolo Street.
1950	The three main office towers at 3440, 3450, and 3460 Wilshire Boulevard are depicted on the Subject. The map notes that the buildings were constructed in 1950-1951. Stores are depicted along Wilshire between each office tower. Single-family dwellings are present along the west end of the Subject. The remainder of the Subject is depicted as vacant land.	The Piccadilly Hotel is depicted adjacent to the southwest corner of the Subject. Apartment buildings are shown to the south across 7th Street. Apartments and vacant land are depicted to the east across Mariposa Street. The area to the north of Wilshire Boulevard is not depicted.
1954	The Subject is labeled as the Pacific Indemnity Building and contains numerous stores located between each of the office towers. Addresses include 3434-3460 Wilshire Boulevard. The residences previously located along the western end of the Subject are no longer present, and were likely removed to accommodate the current alignment of South Normandie Avenue/Irolo Street. The remainder of the Subject is depicted as vacant land.	The current alignment of South Normandie Avenue/Irolo Street is present to the west, across which is a commercial building. The Piccadilly Hotel is present adjacent to the southwest corner of the Subject. No other significant changes were noted.
1955	The parking structure presently occupying the southeastern section of the Subject is also depicted, and was noted as having been construed in 1954-1955. No other significant changes were noted.	Similar to the previous Sanborn map reviewed.
1961	The Subject is labeled as the Tishman's Pacific Indemnity Building. No other significant changes were noted to the tower portion of the property. A small building, labeled as gas & oil, is depicted adjacent to the west side of the existing parking structure on the southeast side of the Subject.	An office building labeled the IBM Building is depicted to the east across Mariposa Street. The properties to the north are not depicted. No other significant changes were noted.
1968	The Subject is identified as Tishman Plaza. The 3470 Wilshire office building is depicted on the western end of the Subject. The southwestern parking structure is also in-place immediately adjacent to the southeastern parking structure. The previously identified gas & oil station is no longer present, and appears to have been replaced by a concrete ramp leading to the upper levels of the newer parking structure.	Two single-family dwellings previously located adjacent to the southwest corner of the Subject have been removed and the area is labeled as a parking lot. No other significant changes to the surrounding area were noted.
1970	Similar to the previous Sanborn map reviewed.	Similar to the previous Sanborn map reviewed.

5.4 Aerial Photographs

Aerial photographs frequently provide visual documentation of site conditions at the time of the photographs. Activities such as dumping or industrial use of a site can often be discerned through the examination of aerial photographs. IVI reviewed historic aerial photographs provided by EDR. The following is a synopsis of the aerial photographs reviewed:

Year	Subject Property	Adjacent and Surrounding Properties
1928	The Subject is identified as vacant land, with the exception of a few dwellings along the western side of the property.	The northern surrounding properties across Wilshire Boulevard appear to be developed with a church building and commercial buildings. The southern and western surrounding properties appear to be developed with residential buildings. The eastern surrounding properties are identified as vacant land and what appears to be commercial buildings.
1938	Similar to the previous aerial photograph reviewed.	Similar to the previous aerial photograph reviewed.
1947	Similar to the previous aerial photograph reviewed.	Similar to the previous aerial photograph reviewed.
1956	The photograph identifies the three existing office buildings located along Wilshire Boulevard (3440, 3450, and 3460). The existing parking structure is identified on the southeastern portion of the Subject and a parking lot is identified along the western portion of the property.	The photograph identifies what appear to be high-rise commercial and residential buildings surrounding the property.
1965	Similar to the previous aerial photograph reviewed.	The photograph identifies an office tower and parking deck are now to the east and a parking lot to the southwest. No significant changes have occurred to the remaining surrounding properties since the previous photograph.
1976	The office building at 3470 Wilshire is present in this aerial, as is the parking structure on the southwestern end of the Subject. No other significant changes were noted.	Similar to the previous aerial photograph reviewed.
1989	Similar to the previous aerial photograph reviewed.	Similar to the previous aerial photograph reviewed.
2004	Similar to the previous aerial photograph reviewed.	Similar to the previous aerial photograph reviewed.
2009	Similar to the previous aerial photograph reviewed.	Similar to the previous aerial photograph reviewed.
2013	Similar to the previous aerial photograph reviewed.	Similar to the previous aerial photograph reviewed.

5.5 Chain-of-Ownership

A copy of the Subject's Chain-of-Title has not been provided to IVI for review.

5.6 Previous Reports

IVI previously conducted an environmental assessment on the Subject titled, *Phase I Environmental Site Assessment, Central Plaza, 3440-3470 Wilshire Boulevard, Los Angeles, California 90010,* dated June 7, 2007, on behalf of Wachovia. According to this report, the Subject contained vacant land and residential properties prior to construction of the existing improvements. Our previous report did not identify any recognized environmental conditions in connection with the Subject, but noted the presence of suspect asbestos-containing materials.

As part of our previous Phase I ESA, IVI reviewed the following previous environmental reports and documentation:

- Tank Removal Certificate dated May 7, 1988 for the removal of 8,000-gallon fuel oil UST

- Application for Permit, Abandonment By Removal Fire Department – City of Los Angeles, removal of 1 waste oil UST, removal of 2 gasoline USTs dated June 8, 1988.

- Tank Closure Report, Central Plaza, 3450 Wilshire Boulevard, Los Angeles, California, dated May 26, 1988, prepared by McLaren Environmental Engineering. This report documents the removal of an 8,000-gallon fuel oil UST that served as a backup fuel supply for the boilers at the Subject. This tank was installed in 1951 and was removed on May 7, 1988. Petroleum impacted soils were encountered during tank removal activities. These impacted soils were excavated and post-excavation soil samples did not reveal no remaining contamination requiring further actions. The McLaren report recommended no additional actions be undertaken.

- *Close-out Document for lobby, 3440 Wilshire Boulevard, CA*, dated October 17 1991, prepared by Hygienetics, Inc., on behalf of Total Properties Management. The report documents the asbestos abatement of asbestos from ducts, pipes and deck above the lobby.

- *Asbestos Abatement Compliance Document, 3450 Wilshire Boulevard Basement HVAC, Boiler and Storage Room, 3440 Wilshire Boulevard, CA*, dated March 1994, prepared by Asset., on behalf of Total Properties Management. The report documents asbestos abatement from the basement HVAC, boiler and Storage room.

5.7 City Directories

IVI reviewed historical city directories provided by EDR, which, which identified tenant listings at the Subject and surrounding properties by address. The Historical City Directory Abstract provided listings for the years 1920 through 2006. The Subject's addresses (3440-3470 Wilshire Boulevard) were identified as having numerous office-related businesses from 1951 until 2006. Although several oil companies were identified at the Subject, they appear to have been office purposes only.

Based upon this review, there were no previous uses of the Subject or surrounding properties which would be suspected of degrading the environmental quality of the Subject.

5.8 Interviews

According to Jonathan Kim, the Property Manager, who has been involved with the property for the past five years, the Subject was first developed in the 1950s.

5.9 Municipal Records

Tax Assessor Records

According to the tax assessor records reviewed, the Subject buildings were constructed at various times between 1951 and 1966 on a 7.44-acre parcel.

5.10 Internet Search

IVI conducted a cursory internet search for the Subject's name and address using the Google search engine on October 17, 2014. No environmentally related information was identified on the first page of the Google search results.

A copy of regulatory database information contained within a Computerized Environmental Report (CER) provided by Environmental Data Resources, Inc. (EDR) appears in Appendix D. The CER is a listing of sites identified on select federal and state standard source environmental databases within the approximate minimum search distance specified by ASTM Standard Practice for Environmental Site Assessments E 1527-13. IVI reviewed each environmental database to determine if certain sites identified in the CER are suspected to represent a material negative environmental impact to the Subject. The following table lists the number of sites by regulatory database within the prescribed minimum search distance appearing in the CER.

Databases Reviewed	Approximate Minimum Search Distance (AMSD)	Number of Sites Within AMSD
Federal National Priorities List (NPL) Site List	One-Mile	0
Federal Delisted NPL Site List	One-Half Mile	0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	One-Half Mile	0
Federal CERCLIS No Further Remedial Action Planned (NFRAP) Sites	One-Half Mile	1
Federal Resource Conservation and Recovery Information System (RCRIS) Treatment, Storage, and Disposal (TSD) List	One-Half Mile	0
Federal RCRIS Generators List	On-Site and Adjoining Properties	4
Federal Corrective Action Tracking System (CORRACTS)	One-Mile	0
Federal Emergency Response Notification System (ERNS) List	On-Site	0
Federal Institutional/Engineering Control Registries	On-Site	0
Facility Index System (FINDS)	On-Site	2
California and Tribal Lists of NPL Equivalent Hazardous Waste Sites Identified for Investigation and/or Remediation	One-Mile	0
California and Tribal Lists of CERCLIS Equivalent Hazardous Waste Sites Identified for Investigation and/or Remediation	One-Half Mile	9
California and Tribal Landfills or Solid Waste Facilities List	One-Half Mile	0
California and Tribal Registered Underground Storage Tank (RUST) Facility List	On-Site and Adjoining Properties	1
California and Tribal Leaking UST/Spill List	One-Half Mile	22
California and Tribal Institutional/Engineering Control Registries	On-Site	0
California and Tribal Voluntary Cleanup Sites	One-Half Mile	0
California and Tribal Brownfields Sites	One-Half Mile	0
California Haznet	On-Site	11

The CER identified 18 "Orphan Sites". "Orphan Sites" are those sites that could not be mapped or "geocoded" due to inadequate address information. Please refer to the CER for a list of these "Orphan Sites". IVI attempted to locate these sites via a review of street maps, vehicular reconnaissance and/or interviews with people familiar with the area. "Orphan Sites" that were identified in this manner were analyzed in their respective regulatory database below.

A description of the databases reviewed by IVI and an analysis of sites identified within the prescribed search area are presented below.

6.1 Federal Databases

NPL

The NPL database is a listing of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or "Superfund"). A site must be on the NPL to receive money from the Trust Fund for Remedial Action.

Analysis/Comment: The CER did not identify NPL sites within the AMSD.

Delisted NPL Site List

The EPA may delete a final NPL site if it determines that no further response is required to protect human health or the environment, under Section 300.425(e) of the National Contingency Plan (55 FR 8845, March 8, 1990). Sites that have been deleted from the NPL remain eligible for further Superfund-financed remedial action in the unlikely event that conditions in the future warrant such action. Partial deletions can also be conducted at NPL sites.

Analysis/Comment: The CER did not identify Delisted NPL sites within the AMSD.

CERCLIS

CERCLIS is the USEPA's system for tracking potential hazardous-waste sites within the Superfund program. A site's presence on CERCLIS does not imply a level of federal activity or progress at a site, nor does it indicate that hazardous conditions necessarily exist at the location. Within one year of being entered into CERCLIS, the USEPA performs a preliminary assessment of a site. Based upon the results of the preliminary assessment, the USEPA may conduct additional investigation, which could lead to a site being listed on the NPL.

Analysis/Comment: The CER did not identify CERCLA sites within the AMSD.

CERCLIS No Further Remedial Action Planned (NFRAP) Sites

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from the CERCLIS list. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to warrant Federal Superfund Action or NPL consideration.

Analysis/Comment: The CER identified the following CERCLA NFRAP site within the AMSD:

Property Name/ Address	Distance (Mile)	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
Berendo Shopping Center/3301-3317 W. Sixth Street	0.30 (corrected)	Northeast	Upgradient	NFRAP

According to the CER, a preliminary assessment was conducted at this location in 2000. Although the assessment report was not readily available, the site was granted a No Further Remedial Action Planned (NFRAP) status by the USEPA at that time. NFRAP sites may be sites where, following an initial investigation, no contamination was found, or the contamination was either abated or the contamination was not significant enough to warrant Federal Superfund Action or NPL consideration.

Notwithstanding, this site is located a sufficient distance from the Subject so as not to be reasonably suspect of having impacted same.

RCRIS TSD

The RCRIS TSD contains information pertaining to those facilities that treat, store, or dispose of hazardous waste. While these facilities represent some form of hazardous waste activity, they are most significant if determined to be out of compliance or to have violations.

Analysis/Comment: The CER did not identify RCRIS TSD facilities within the AMSD.

RCRIS Generators

IVI reviewed the list of sites, which have filed notification with the USEPA in accordance with RCRA requirements. These sites include generators of hazardous waste regulated under RCRA. Under RCRA, hazardous waste generators are classified by the quantity of hazardous waste generated in a calendar month into the following categories: Large Quantity Generator (LQG), greater than 1,000 kilograms (kg); Small Quantity Generator (SQG), 100 to 1,000

kg; and Conditionally-Exempt Small Quantity Generator (CESQG), less than 100 kg. RCRA Generators, while they represent some form of hazardous waste activity, are most significant if they are determined to have Class I Violations or to be non-compliant.

Analysis/Comment: The CER identified the Subject on the RCRA database:

Property Name/ Address	Direction	Presumed Hydro-geologic Relationship	Regulatory Status
Central Plaza 3450 Wilshire Blvd Suite #408	On-site	On-site	Compliant/No Violations
Pacific Bell 3470 Wilshire Blvd	On-site	On-site	Compliant/No Violations

According to the CER, asbestos, an unidentified aqueous solution, and PCB wastes were removed from the Subject. The above listings have no reported RCRA violations and it appears that wastes are associated with one time abatement/removal incidents. They are currently listed as non-generators. Based on the lack of reported RCRA violations and lack of reported releases, IVI concludes that these listings do not represent an environmental concern for the Subject.

Analysis/Comment: The CER identified the following RCRA Generators adjacent to the Subject:

Property Name/ Address	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
Equitable Plaza/3435 Wilshire Boulevard	Northeast	Upgradient	Compliant/No Violations

This site is listed as a small quantity generator for the removal of asbestos-containing material in 1993-1995. Inclusion of a site on the RCRA Generator list does not necessarily constitute environmental contamination, but instead merely indicates that a hazardous waste stream was or is generated. In any event, inasmuch as no violations or compliance infractions were identified in connection with the above-referenced RCRA site, it is not suspected that contamination originating at this site, if any exists, has encroached upon the Subject.

Property Name/ Address	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
20/20 Cleaners/698 S. Irolo Street	Southwest	Downgradient	Compliant/No Violations

This site is listed as a small quantity generator likely for the removal of dry cleaning solvents, such as PCE. Inclusion of a site on the RCRA Generator list does not necessarily constitute environmental contamination, but instead merely

indicates that a hazardous waste stream was or is generated. In any event, inasmuch as no violations or compliance infractions were identified in connection with the above-referenced RCRA site, it is not suspected that contamination originating at this site, if any exists, has encroached upon the Subject. Additionally, this site is located in a downgradient direction from the Subject, and groundwater is expected to flow away from the Subject. Furthermore, this site was not identified on any regulatory databases indicative of a contamination condition. IVI has no significant environmental concerns regarding same.

Corrective Action Tracking System (CORRACTS)

CORRACTS is a list of facilities that are found to have had hazardous waste releases and require RCRA corrective action activity, which can range from site investigations to remediation.

Analysis/Comment: The CER did not identify CORRACTS sites within the AMSD.

ERNS

The ERNS is a database of notifications of oil discharges and hazardous substance releases made to the Federal government. These notifications are used by "On-Scene Coordinators" to determine an emergency response and release prevention. When a call is made to the National Response Center or one of the 10 USEPA Regions, a report is created containing all of the release information that the caller provided. This report is transferred to an appropriate agency to evaluate the need for a response and the records are electronically transferred to the ERNS database. As such, if a reported release of oil or a hazardous substance is deemed to require a response, it should also be listed in the appropriate federal or state environmental database such as CERCLIS, state equivalent CERCLIS, or state leaking underground storage tank or spills lists.

Analysis/Comment: The CER did not identify the Subject on the ERNS database.

Federal Institutional Control/Engineering Control Registries

These Federal registries contain listings of those sites which have either engineering and/or institutional controls in place. Engineering controls include various physical control devices such as fences, caps, building slabs, paved areas, liners and treatment methods to eliminate pathways for regulated substances to enter the environment or affect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions (Activity and Use Limitations) are generally required as part of institutional controls.

Analysis/Comment: The CER did not identify the Subject on the Federal Institutional or Engineering Control registries.

FINDS

FINDS contains both facility information and "pointers" to other environment database sources that contain additional detail. These other databases include: RCRIS, PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]), CERCLIS, DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), FRDS (Federal Reporting Data System), SIA (Surface Impoundments), CICIS (TSCA Chemicals in Commerce Information System), PADS, RCRA-J (medical waste transporters/disposers), TRIS and TSCA.

***Analysis/Comment*:** The CER identified the Subject on the FINDS database, related to the previous RCRA listings for Central Plaza at 3450 Wilshire and Pacific Bell at 3470 Wilshire. These listings are discussed above.

Nevertheless, neither of these listings was cross-referenced on any regulatory databases that report releases or contamination conditions, such as the SHWS, LUST or SLIC databases. Based on the above information, these listings are not suspected to be of a significant environmental concern to the Subject.

6.2 California Environmental Protection Agency (Cal/EPA) Databases

Response and Tribal NPL Equivalent Hazardous Waste Sites (HWS)

The Response database is a list of confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Analysis/Comment: The CER did not identify sites within the AMSD.

Envirostor, HIST Cal-Sites, and Tribal CERCLIS Equivalent Hazardous Waste Sites (HWS)

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in

CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

The HIST Cal-Sites database is a list of facilities subject to investigation concerning likely or threatened releases of hazardous substances. These sites are either being actively remediated, or are currently under evaluation for further action, if necessary. This database has been replaced by Envirostor and is no longer being updated.

Tribal CERCLIS Equivalent HWS list is an inventory of toxic sites listed by Tribal Environmental and Health Authorities. These sites are either under remediation, or are currently under evaluation for further action, if necessary.

Analysis/Comment: The CER identified nine California and/or Tribal CERCLIS Equivalent Hazardous Waste sites within the AMSD of 0.5 mile. Eight of those sites are located over 0.20 mile from the Subject, a sufficient distance from the Subject so as not to be reasonably suspected of having impacted the same.

The closest listing to the Subject is discussed below:

Property Name/ Address	Distance (Mile)	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
Central Los Angeles Learning Center/3400 Wilshire Boulevard	0.04	East	Crossgradient	Certified for Operations and Maintenance

This 23-acre site was formerly occupied by the Ambassador Hotel and associated structures, three residential properties, and a parking lot. The Ambassador Hotel operated from 1922 until 1989. Between 1989 and 2005, the building was primarily used by film studios, small rental car agencies, and for police training purposes. The hotel was demolished in 2005.

Previous site investigations conducted in 2001 and 2002 revealed elevated levels of lead, arsenic, and volatile organic compounds. Areas of existing underground storage tanks were identified, as was an area of elevated levels of methane near a corehole. A Removal Action Workplan (RAW) was prepared to address these chemical of concerns, and was approved by DTSC on January 28, 2003. The RAW included the closure of the USTs, removal of hydrocarbon-impacted soil, removal of lead-impacted soil, and the re-abandonment of the corehole. Approximately 251 cubic yards of soil were excavated and removed from the site in 2003. A methane gas mitigation system was installed at the site in preparation for the construction of a school.

The site was certified in 2011 by the State Department of Toxic Substances Control (DTSC) as having been remediated, but was placed under an Operations and Maintenance program due to its current use as a school campus, which was constructed in 2010. IVI has no significant environmental concerns regarding same.

California and/or Tribal Solid Waste Facilities (SWF) List

The SWF list is an inventory of active, closed and inactive landfills and other sites that manage solid wastes.

Analysis/Comment: The CER did not identify SWF sites within the AMSD.

California and/or Tribal Registered Underground Storage Tanks (UST), HIST USTs and SWEEPS UST Facility Lists

The UST facility list is an inventory of registered liquid bulk storage tanks. The HIST UST database, aka the Hazardous Substance Storage Container Database, is a historical listing of UST sites. The SWEEPS UST database, aka the Statewide Environmental Evaluation and Planning System, is a list of USTs that was updated and maintained by a company contacted by the State Regional Water Quality Control Board in the early 1980's. This listing is no longer updated or maintained but has historical significance.

Inclusion of a site on these lists does not necessarily constitute environmental contamination, but instead merely indicates the presence of registered bulk storage tanks.

Analysis/Comment: The CER identified the following Registered Storage Tank sites within the AMSD:

Property Name/ Address	Distance	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
Central Plaza/3450 Wilshire Boulevard	On-Site	NA	NA	Inactive

The Subject is a registered storage tank site featuring an inactive regulatory status, identified as previously having two USTs. This listing is likely related to the two gasoline USTs which were identified in the 2007 Phase I ESA from a review of Los Angeles City Fire Department files. The Subject is not listed on other environmental databases indicative of contamination such as the leaking underground storage tank list or the inventory of Hazardous Waste Sites. Please refer to Section 7.2 for further discussion.

California and Tribal Leaking Underground Storage Tanks (LUST) List and Spills, Leaks, Investigations and Cleanups (SLIC) Records

The LUST list is an inventory of reported spills and leaks, both active and inactive maintained by the various California Regional Water Quality Control Boards. It includes stationary and non-stationary source spills reported to state and federal agencies, including remediated and contaminated leaking UST sites. SLIC records, which are maintained by the various Regional Water Quality Control Boards, document unauthorized discharges from spills and leaks from sources other than UST and other regulated sites.

Analysis/Comment: The CER identified 22 LUST/SLIC cases within the AMSD, 17 of which have been issued a Case Closed status. A Case Closed status is granted to those sites that do not exhibit levels of contamination requiring clean-up, have been remediated to the satisfaction of the lead regulatory agency, or are not suspected to represent a significant threat to human health or the environment. As such, absent additional information to the contrary, it is unlikely that contamination originating at sites with a Case Closed status have had a significant negative environmental impact on the Subject.

Of the five open cases, four are located at distances of over 0.45 mile, a sufficient distance from the Subject so as not to be reasonably suspected of having impacted same.

The nearest LUST site is discussed below:

Property Name/ Address	Distance (Mile)	Direction	Presumed Hydrogeologic Relationship	Regulatory Status
Chevron Station #95294/549 S. Normandie Avenue	0.16 (corrected)	North-northwest	Upgradient Crossgradient	Under remediation

This site is a former Chevron station which operated until 1986, when the station was demolished and the site was redeveloped as a commercial strip mall with restaurants and retail shops. In 1986, two 10,000-gallon and one 5,000-gallon product USTs, and one waste oil UST were removed from the site, along with three dispenser islands, associated product piping and the station building.

Subsurface investigations conducted between 1986 and 2001 revealed elevated levels of petroleum hydrocarbons and BTEX in the soil and groundwater. Groundwater was encountered at approximately 35 to 55 feet bgs, with a southwesterly flow direction.

Several remediation events have occurred at the site, including free product removal, soil vapor extraction, and dual-phase extraction for the soil and groundwater. Although the site is still undergoing monitoring, contamination does

not appear to have migrated off-site. In addition, since groundwater at this site is anticipated to flow to the southwest, away from the Subject, it is not anticipated that contamination originating at this site will impact the Subject.

California Deed Restriction Listing and Tribal Institutional Control/Engineering Control Registries

The DTSC SMBRP list includes sites remediated under the program's oversight that have active deed restrictions. The DTSC Hazardous Waste Management Program Facility Sites (HWMP) list includes current and former hazardous waste facilities with deed/Land Use Restrictions that have been recorded with the County. The type of land use restrictions includes deed notices, deed restrictions, or a land use restriction that binds current and future owners.

The Tribal Institutional Control/Engineering Control Registries contain listings of those sites which have either engineering and/or institutional controls in place. Engineering controls include various physical control devices such as fences, caps, building slabs, paved areas, liners and treatment methods to eliminate pathways for regulated substances to enter the environment or effect human health. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions (Activity and Use Limitations) are generally required as part of institutional controls.

Analysis/Comment: The CER did not identify the Subject on the SMBRP, HWMP or Tribal Institutional or Engineering Control registries.

California and Tribal Voluntary Cleanup Program (VCP) Sites

The California VCP properties list includes "low" threat level properties with either confirmed or unconfirmed releases and the project proponents have requested that the DTSC oversee the investigation and cleanup.

Analysis/Comment: The CER did not identify VCP sites within the AMSD

California and Tribal Brownfield Sites

A Brownfield site was defined in the 2002 Small Business Liability Relief and Brownfields Revitalization Act (Brownfields Law) as "real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant". In connection with the passage of the Brownfields Law, the Environmental Protection Agency grants awards to states and tribes for activities under Section 128 (a).

Analysis/Comment: The CER did not identify Brownfield sites within the AMSD.

California HAZNET

The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Analysis/Comment: The Subject addresses are listed on the HAZNET database several times for the removal of asbestos-containing waste, an unspecified solvent mixture, an unspecified alkaline solution, PCB-containing materials, and inorganic solid waste at various times from 1994 through 2011. It appears that the identified wastes are related to one-time abatement/removal incidents associated with typical building maintenance activities. In addition, a tenant, Mark Laska, DDS, in 3460 Wilshire Boulevard, Suite 104, was issued an EPA ID number in 1996 for the removal of photochemical/photoprocessing wastes likely associated with x-ray developing. Currently, only digital x-ray equipment is used at the site. All of the EPA ID numbers identified are listed as inactive on the State DTSC Hazardous Waste Tracking System.

Of note, the Subject was not identified on any regulatory databases that report releases or contamination conditions, such as the SHWS, LUST or SLIC databases. Based on the above information, these listings are not suspected to be of a significant environmental concern to the Subject.

6.3 EDR Proprietary Databases

EDR Manufactured Gas Plants

This database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to the 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of wastes. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

***Analysis/Comment*:** The CER did not identify the Subject or any adjacent properties on the manufactured gas plant database.

EDR Historic Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

***Analysis/Comment*:** The CER identified the Subject on the historical auto stations database. Specifically, MJ's Automotive was listed at 3440 Wilshire Boulevard in 2006, Majestic Mobility Conversions was listed at 3470 Wilshire Boulevard in 2006, and Majestic Auto House was listed at 3450 Wilshire Boulevard in 2009. However, it is possible that these listings were for office purposes only, as there are no automotive repair facilities located at the Subject.

Since the Subject does not appear on any lists of known or reported releases, these listings are not anticipated to be of significant environmental concern to the Subject.

EDR Historic Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

***Analysis/Comment*:** The CER identified the Subject on the historical cleaners database. Specifically, Soon Hui Kim Cleaning Company was listed at 3432 Wilshire Boulevard in 2001. That retail suite located on the ground floor of the Subject, and is currently occupied by Numero Uno Pizza. Of note, it is not known if this location was specifically a dry cleaners or was a janitorial/cleaning business. However, that address does not appear on the State Hazardous Waste Tracking System database, which tracks businesses that generate hazardous waste, such as drycleaners. This would suggest that a drycleaner did not operate at the Subject, and as such, this listing is not anticipated to be of significant environmental concern to the Subject.

7.1 Chemical Storage and Usage

With the exception of chemicals customarily used for routine building maintenance and cleaning, IVI did not observe any hazardous chemicals stored on-site. For the most part, the maintenance chemicals are stored in storage cabinets located in the basement. Of note, floor drains were not observed in the vicinity of the chemical storage areas. In addition, housekeeping was generally considered satisfactory. The chemicals, which are stored in their original containers, do not appear to represent an impact to the environmental quality of the site provided that they are used as intended, properly handled, and the regulations pertaining to their usage are followed.

7.2 Bulk Storage Tanks

Underground Storage Tanks (USTs)

No USTs were identified on the Subject property and no common indicators of USTs such as vent pipes, fill ports, manways, pavement cuts, fuel gauges or dispensers were observed. In addition, according to Jonathan Kim, there are no USTs on-site. However, the Subject was identified on the California list of registered UST facilities. Specifically, the Subject was identified as a registered storage tank site featuring a "inactive" regulatory status for two previous on-site "regulated unleaded" USTs. These gasoline USTs are suspected to be associated with the removal of two gasoline USTs in 1988, discussed below.

As part of our previous assessment conducted on the Subject, IVI reviewed a *Tank Closure Report*, *Central Plaza, 3450 Wilshire Boulevard,* dated May 26, 1988, prepared by McLaren Environmental Engineering. This report indicated that in 1988, an 8,000-gallon fuel oil UST was removed from the Subject. This UST was reportedly installed in 1951 and was used as a backup fuel supply for the on-site boilers. The report indicated that petroleum impacted soils were encountered and excavated during tank removal activities. Soil samples collected after the excavation reportedly did not reveal any remaining contamination requiring further actions. The McLaren report recommended no additional actions be undertaken. Based on the above, IVI has no significant environmental concerns regarding this historical 8,000-gallon fuel oil UST.

An Application for Permit; Abandonment By Removal Fire Department-City of Los Angeles, was also reviewed, which discussed the removal of one waste oil UST and two gasoline USTs, dated June 8, 1988. It is suspected that these USTs were related to the gas & oil station noted on the 1961 Sanborn described in Section 5.3.

Aboveground Storage Tanks (ASTs)

ASTs per the following schedule were observed:

Tank No.	Location	Capacity (Gallons)	Product	Visible Condition	Secondary Containment
1	next to emergency generator in parking garage	500	Diesel	Good	Yes

There is diesel AST on-site, used to fuel the on-site generator. The tank, which is provided with secondary containment, appeared to be in good condition and void of obvious leaks. The secondary containment structure appears to be in good condition, void of breaches.

7.3 Site Waste and Wastewater

Solid Waste

Non-hazardous solid waste is disposed of in dumpsters and is removed from the Subject on a regular basis by United Pacific. Potential sources of contamination, such as waste oil or automobile batteries, were not observed in the vicinity of the dumpsters.

Sanitary Sewage

Sanitary sewage disposal is provided by the City of Los Angeles Public Works Department. IVI did not observe any sources of wastewater or liquid discharge into the sewer other than sanitary sewage.

Hazardous Waste

No hazardous waste was observed or reported to be generated on the Subject. Furthermore, IVI's review of the USEPA's database of sites regulated under RCRA did not identify the Subject as a generator of hazardous waste.

7.4 Stained Soil, Stained Pavement, or Stressed Vegetation

There was no evidence of significant soil staining, stained pavement, or stressed vegetation observed on-site.

7.5 Liquid Discharges

No visible evidence of liquid discharges, suspected to represent an environmental concern were observed during our survey.

7.6 Pools of Liquid

IVI did not observe significant standing surface water or pools containing liquids likely to be hazardous substances or petroleum products.

7.7 Pits, Ponds, or Lagoons

No pits, ponds or lagoons suspected of containing hazardous substances or petroleum products were identified on-site.

7.8 Wells

IVI did not identify on-site dry wells, irrigation wells, injection wells, observation wells, monitoring wells, potable water wells, recovery wells or abandoned wells.

7.9 On-Site Fill

Based on our observations, other than typical engineered fill used in foundation construction, it does not appear that a significant amount of fill has been imported onto the Subject.

7.10 Drums and Containers for Storing Waste

With the exception of non-hazardous solid waste containers, IVI did not identify containers suspected of storing waste. With respect to the non-hazardous solid waste containers, no significant environmental concerns were noted.

7.11 Floor Drains and Sumps

IVI did not identify any floor drains or sumps that were stained, emitting foul odors, or connected to an on-site sewage disposal system, or located adjacent to chemical storage areas. A sump is located in the central plant area of the basement and is used for blowdown from the boiler. Sumps for storm water drainage are also located in the bottom level of the parking structures.

7.12 Odors

IVI did not identify strong, pungent, or noxious odors suspected to represent an environmental concern.

7.13 Air Emissions

IVI did not identify processes or equipment that emit noticeable vapors or fumes.

7.14 Polychlorinated Biphenyls (PCBs)

Transformers

A locked transformer station, owned by the Los Angeles Department of Water & Power (LADWP), is located in the basement of the building. The room was inaccessible at the time of the inspection, based on their presumed age, it is possible that the transformers contain PCBs.

Regardless, in accordance with *Title 40—Protection of Environment, Chapter 1—Environmental Protection Agency, Subchapter R—Toxic Substance Control Act (TSCA), Part 761—Polychlorinated Biphenyls (PCBs), Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions*, the owner of the transformers, LADWP is responsible for the transformers' maintenance and remediation in the event of a leak.

Elevators

There are two hydraulic elevator located in the parking structure. The elevator equipment room was inaccessible. However, Jonathan Kim, the Property Manager, indicated that the elevators are serviced regularly by Schindler and that no significant issues have been reported regarding the elevator equipment.

Trash Compactor

IVI observed one hydraulic solid waste compactor near the loading dock on the south side of the building. Based on the age of the site improvements, the compactor's hydraulic components are not suspected to contain PCBs. In any event, the compactor was observed to be in good condition, with no evidence of releases.

7.15 Asbestos-Containing Material (ACM)

Based on the age of the site improvements, the potential on-site use of ACMs exists. The following materials were observed, which are suspected to contain asbestos:

Material	Location	Condition	Potential For Disturbance	Friable (Y/N)	Asbestos Containing?
Resilient Floor Finish Assemblies	Throughout the buildings	Good	Low	No	Suspect
Acoustic ceiling tiles	Throughout the buildings	Good	Low	Yes	Suspect
Wallboard Assemblies	Throughout the buildings	Good	Low	No	Suspect

Material	Location	Condition	Potential For Disturbance	Friable (Y/N)	Asbestos Containing?
Roofing Materials	Roofs	Good	Low	No	Suspect
Mastics	Throughout the buildings	Good	Low	No	Suspect

The resilient floor finish assemblies, wallboard assemblies, built-up roofing materials and mastics were observed to be in good condition at the time of our site walkthrough.

Of note, our previous 2007 Phase I ESA identified reports from 1991 and 1994 documenting the removal of asbestos from ducts, pipes, and decking above the lobby, as well as from the basement HVAC, boiler and storage room.

7.16 Lead-in-Drinking Water

Based on our conversations with utility personnel, the water at the Subject is not expected to contain elevated levels of lead.

7.17 Radon

Based on statistical information maintained within the U.S. Department of the Interior and U.S. Geological Survey's *Geologic Radon Potential,* dated 1993, radon concentrations in Los Angeles County average 1.9 picocuries per liter (pCi/L), which is below the 4.0 pCi/L action level established by the USEPA and places the Subject in an EPA Radon Zone 3. Based solely on this data, it is unlikely that radon represents an environmental concern at this time.

7.18 Lead-Based Paint (LBP)

Since the Subject was constructed prior to the Consumer Product Safety Commission's 1978 ban on the sale of LBP to consumers and the use of LBP in residences, there is a potential that LBP may have been applied at the Subject. Painted surfaces appeared to be in good condition, with no evidence of significant peeling or cracking. In any event, the Subject is used exclusively for commercial purposes and children do not frequent same. As such, IVI has no significant environmental concerns regarding LBP at this time.

8.1 Questionnaires

IVI sent a Pre-Survey Questionnaire and an AAI User Questionnaire to the site contact and the User, respectively. The purpose of these questionnaires was to disclose any previous or existing hazardous waste or toxic material conditions, which may not have been apparent at the time of our site reconnaissance and to satisfy the User interview all appropriate inquiry requirements.

The completed Pre-Survey Questionnaire is attached hereto as Appendix B. The questionnaire did not identify any recognized environmental conditions in connection with the Subject. However, the User has not returned a completed AAI Questionnaire. Notwithstanding, this is not considered a significant data gap since the User is neither the owner nor operator of the Subject.

8.2 User

8.2.1 Title Records

A copy of the Subject's Chain-of-Title has not been provided to IVI for review.

8.2.2 Environmental Clean Up Liens and Activity and Use Limitations (AULs)

The User has not returned the AAI User Questionnaire.

8.2.3 Specialized Knowledge

The User has not returned the AAI User Questionnaire.

8.2.4 Relationship of Purchase Price to Fair Market Value Due to Contamination in Connection with the Subject

The User has not returned the AAI User Questionnaire.

8.2.5 Common Knowledge or Reasonably Ascertainable Information

The User has not returned the AAI User Questionnaire.

8.2.6 Purpose for Conducting the Phase I Environmental Site Assessment

The User has not returned the AAI User Questionnaire.

8.2.7 Proceedings Involving the Property

The User has not returned the AAI User Questionnaire.

8.3 Key Site Manager

8.3.1 Historic Site Use

According to Jonathan Kim, the site contact, who has been involved with the property for the past five years, the original Subject buildings were constructed in the 1950s.

8.3.2 Proceedings Involving the Property

Mr. Kim had no knowledge of pending, threatened, or past litigation, administrative proceedings, or notices from governmental agencies regarding violations of environmental laws regarding hazardous substances or petroleum products.

8.4 Occupants

No occupants, other than the Property Manager, were interviewed.

8.5 Past Owners

IVI was unable to locate the site's former owner.

8.6 Local Regulatory Agency Interviews and/or File Reviews

Fire Department

IVI has sent a request to the Los Angeles City Fire Department (LACFD) for environmental information pertaining to the Subject property. As of this writing, the Fire Department has not responded to our request. Should receipt of a response from the Fire Department change the conclusions of this report, the Client will be notified in writing by IVI. Of note, IVI previously reviewed available files from the LACFD, which are summarized in Section 5.6.

Health Department

IVI has sent a request to the Los Angeles County Public Health Investigation for environmental information pertaining to the Subject property. As of this writing, the Health Department has not responded to our request. Should receipt of a response from the Health Department change the conclusions of this report, the Client will be notified in writing by IVI.

Tax Assessor

A cursory review of property tax files did not identify any environmental liens with respect to the subject property.

Department of Planning and Zoning

Review of available zoning records maintained by the City of Los Angeles Planning Department indicates that the Subject has three zoning codes: C4-2 Commercial; PB-2 Parking Building; and P-2 Automobile Parking.

IVI conducted a "Tier I" (non-intrusive) Vapor Encroachment Screening (VES) on the Subject in accordance with the methodology set forth in ASTM E 2600-10 "*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*". During the VES, the Area of Concern (AOC) was minimized using the methodology taught in the ASTM Screening for Vapor Encroachment onto Property Involved in Real Estate Transactions Training Course. The purpose of the Tier I VES is to conduct an initial screen to identify, to the extent feasible, the potential for a vapor encroachment condition (VEC) in connection with the Subject with respect to chemicals of concern that may migrate as vapors into the subsurface of the Subject as a result of contaminated soil and groundwater on or near the property.

This VES utilized readily available data sources previously discussed in this Phase I ESA to include the type of soils, geology and groundwater characteristics of the Subject area (refer to Section 4.3) as well as known or potentially contaminated sites as identified on Federal, State, tribal and local databases. IVI also utilized previously discussed standard historical sources of information to identify potential historical sources of contamination on the Subject and surrounding properties which may be indicative of a VEC. This data collection and analysis was coupled with our site reconnaissance of the Subject and surrounding properties. Based upon the results of our data collection, reconnaissance and analysis, a summary of our Tier I VES findings is presented in the table below:

Potential for Vapor Encroachment to Impact the Subject	
Area of Concern	**Conclusion**
Subject Property Operations or Existing Conditions	None identified (Refer to Sections 4.0 Site Description and 7.0 Site Reconnaissance)
Historical Uses of the Subject Property	Previous gasoline station identified (Refer to Section 5.0 Historical Use)
Adjoining Property Operations or Existing Conditions	None identified (Refer to Section 4.2 Surrounding Land Use)
Historical Uses of Adjoining Properties or Nearby Properties	None identified (Refer to Section 5.0 Historical Use)
Regulatory Review of sites identified on Federal, State, tribal and Local Environmental Databases which were located in Approximate Minimum Search Distance (AMSD)	Several Identified (Detailed within Section 6.0 Regulatory Review), but none of concern.

A gas & oil station was depicted near the center of the Subject, on the west side of the southeastern parking structure, on the 1961 Sanborn map, as discussed in Section 5.3.

As part of our previous assessment conducted on the Subject in 2007, IVI reviewed a *Tank Closure Report*, *Central Plaza, 3450 Wilshire Boulevard,* dated May 26, 1988, prepared by McLaren Environmental Engineering. This report indicated that in 1988, an 8,000-gallon fuel oil UST was removed from the Subject. This UST was reportedly installed in 1951 and was used as a backup fuel supply for the on-site boilers. The report indicated that petroleum impacted soils were encountered and excavated during tank removal activities. Soil samples collected after the excavation reportedly did not reveal any remaining contamination requiring further actions. The McLaren report recommended no additional actions be undertaken.

An Application for Permit; Abandonment By Removal Fire Department-City of Los Angeles, was also reviewed as part of our previous assessment, which discussed the removal of one waste oil UST and two gasoline USTs, dated June 8, 1988. It is suspected that these USTs were related to the gas & oil station noted on the 1961 Sanborn Map. It should also be noted that based on our regulatory review, the Subject was identified as a registered storage tank site featuring a "inactive" regulatory status for two previous on-site "regulated unleaded" USTs. These gasoline USTs are suspected to be associated with the removal of the aforementioned gasoline USTs noted in the permit.

Based on the foregoing, no further action is recommended at this time regarding the Subject's historical on-site USTs. Furthermore, it should be noted that based on the location of these previous on-site USTs, in conjunction to the office structures, a VEC can be ruled out.

Several impacted properties were identified in IVI's regulatory database review. However, based upon hydrogeology, groundwater flow direction and the furthest known extents of the contamination, none of these properties are suspected of having petroleum or chemical contaminant plumes that would be identified as a VEC and as such, a VEC can be ruled out.

IVI has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Standard Practice E1527-13 of 3440-3470 Wilshire Boulevard, Los Angeles, California. Any exceptions to, or deletions from, the standard practice are described within Section 2.0 of this report.

This assessment has revealed no evidence of RECs in connection with the Subject; however, the following HREC was identified:

Historical Underground Storage Tanks (USTs)

As part of our previous assessment conducted on the Subject in 2007, IVI reviewed a *Tank Closure Report*, *Central Plaza, 3450 Wilshire Boulevard,* dated May 26, 1988, prepared by McLaren Environmental Engineering. This report indicated that in 1988, an 8,000-gallon fuel oil UST was removed from the Subject. This UST was reportedly installed in 1951 and was used as a backup fuel supply for the on-site boilers. The report indicated that petroleum impacted soils were encountered and excavated during tank removal activities. Soil samples collected after the excavation reportedly did not reveal any remaining contamination requiring further actions. The McLaren report recommended no additional actions be undertaken.

An Application for Permit; Abandonment By Removal Fire Department-City of Los Angeles, was also reviewed as part of our previous assessment, which discussed the removal of one waste oil UST and two gasoline USTs, dated June 8, 1988. It is suspected that these USTs were related to the gas & oil station noted on the 1961 Sanborn Map. It should also be noted that based on our regulatory review, the Subject was identified as a registered storage tank site featuring a "inactive" regulatory status for two previous on-site "regulated unleaded" USTs. These gasoline USTs are suspected to be associated with the removal of the aforementioned gasoline USTs noted in the permit.

Based on the foregoing, no further action is recommended at this time regarding the Subject's historical on-site USTs.

In addition, the following business environmental risk (BER) was identified, which warrants mention:

Asbestos-Containing Material (ACM)

Based on the age of the Subject, the friable acoustical ceiling tiles are suspected to contain asbestos. In addition, the non-friable resilient floor finish assemblies, wallboard assemblies, roofing materials, caulking, and mastics may contain asbestos. Since these materials were observed to be in good condition, no further action is recommended at this time other than maintaining same in good condition under an Asbestos Operations and Maintenance (O&M) Program. All activities involving ACM should be conducted in accordance with governmental regulations..

11.1 This report has been prepared in compliance with the ASTM standard entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" E1527-13.

11.2 The observations described in this report were made under the conditions stated herein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services within the constraints imposed by the client. The work described in this report was carried out in accordance with the Terms and Conditions of the contract.

11.3 In preparing this report, IVI has relied on certain information provided by federal, state, and local officials and other parties referenced therein, and on information contained in the files of governmental agencies, that were readily available to IVI at the time of this assessment. Although there may have been some degree of overlap in the information provided by these various sources, IVI did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this site assessment. Observations were made of the site and of the structures on the site as indicated in this report. Where access to portions of the site or to structures on the site was unavailable or limited, IVI renders no opinion as to the presence of direct or indirect evidence relating to petroleum substances, hazardous substances, or both, in that portion of the site and structure. In addition, IVI renders no opinion as to the presence of indirect evidence relating to hazardous material or oil, where direct observation of the ground surface, interior walls, floors, ceiling or a structure is obstructed by objects or materials, including snow, covering on or over these surfaces.

11.4 As part of this assessment, IVI submitted requests for information via the Freedom of Information Act (FOIA) to various governmental agencies. As of the preparation of this report these requests may not have been fulfilled. The conclusions of this report are subject to change upon receipt of a response from these FOIA requests.

11.5 IVI does not represent that the site referred to herein contains no petroleum or hazardous or toxic substances or other conditions beyond those observed by IVI during the site walkthrough.

11.6 IVI has produced this document under an agreement between IVI and Deutsche Bank. All terms and conditions of that agreement are included within this document by reference. Any reliance upon this document, or upon IVI's performance of services in preparing this document, is conditioned upon the relying party's acceptance and acknowledgement of the limitations, qualifications, terms, conditions and indemnities set forth in that agreement, and property ownership/management disclosure limitations, if any. It is not to be relied upon by any party other than Deutsche Bank nor used for any purpose other than that specifically stated in our Agreement or within this Report's Introduction section without IVI's advance and express written consent. The Phase I report is only valid if completed within 180 days of an acquisition or the transaction necessitating the report.

11.7 **TIME LIMITATION TO ENACT CLAIM AGAINST IVI** If in the opinion of the client, or any third party claiming reliance on IVI's report or services, that IVI was negligent or in breach of contract, such aforementioned parties shall have one year from the date of IVI's site visit to make a claim.

11.8 Unless specifically identified within Section 2, Chinese drywall, indoor air quality and any other non-ASTM scope issues as identified in ASTM E1527-13, Section 13.1.5, are excluded from the scope of this assessment.

1

Subject fronting Wilshire Boulevard

2

Subject fronting Wilshire Boulevard

3

Ground level retail businesses

4

3470 Wilshire Boulevard building

5

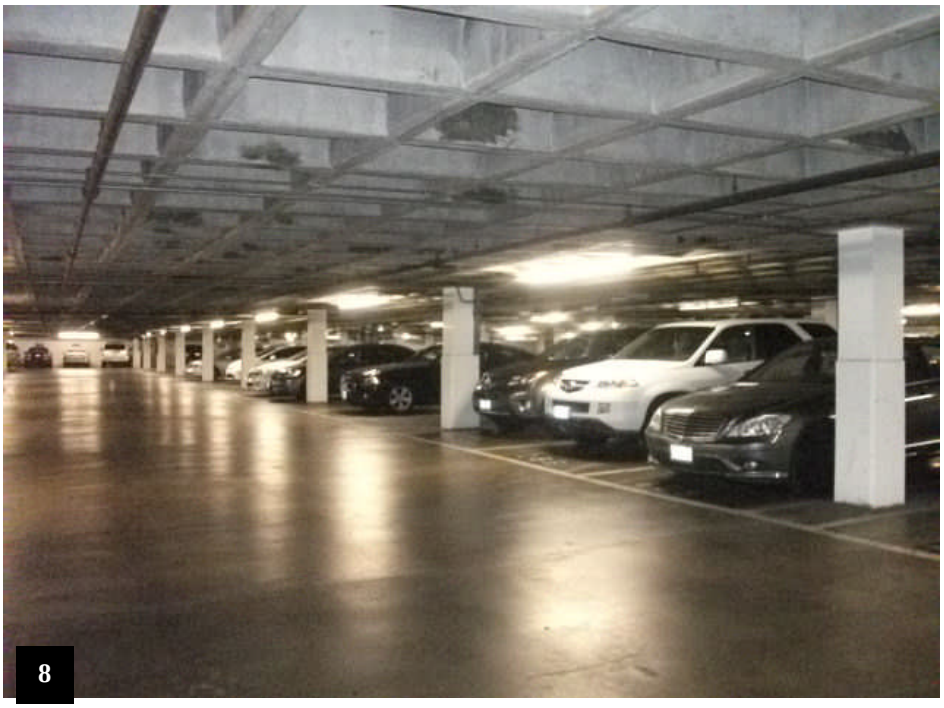
Ground level retail businesses

6

Southeast parking garage

7

Southwestern parking garage



8

Interior parking garage

9

Trash dumpster

10

Trash compactor

11

Diesel AST and emergency generator

12

Water treatment chemicals

13

Boiler room sump

14

DWP transformer room

15

Elevator lobby

16

Overhead traction elevator equipment

17

Adjacent properties to north

18

Adjacent commercial property to west

19

Adjacent Piccadilly Hotel to southwest

20

Adjacent shopping center to southwest

21

Adjacent properties to south

22

Adjacent properties to east

IVI Assessment Services, Inc.

PROPERTY CONDITION & ENVIRONMENTAL
DUE-DILIGENCE
55 West Red Oak Lane
White Plains, New York 10604
914.694.1900 (tel)
914.694.8549 (fax)

Phase I Environmental Site Assessment
Pre-Survey Questionnaire

Someone familiar with the site should complete this questionnaire prior to our site visit. For those questions that are not applicable, please respond "N/A", and "U/K" for those questions in which the answer is not known. If you have any questions about how to answer any of the questions, please call IVI. If additional pages for responses are necessary, please attach hereto and reference it to the appropriate question number. Upon completing this form, please fax it to the above fax number. This document and your written response will be included as an exhibit in the final report.

Subject Name: Central Plaza Office

Project Manager: Carol Noland

Street: 3440-3470 Wilshire Boulevard

IVI Project No.: PC41011347

City/State: Los Angeles, California

Date: October 9, 2014

Key Site Contact: Jonathan Kim

Telephone: (213) 487-3770

Fax: (213) 487-3941

A. GENERAL

PREPARER

1. Name, title and telephone number of person completing this questionnaire:

Jonathan Kim / Victor Catalan
Name
Leasing & Operations Manager / Chief Engineer
Title
Signature
(213) 487-3770
Telephone Number

2. How long has the preparer been familiar with the site or facility?
If less than five years, who held the position prior?

3. Property Owner/Occupant Information

Central Plaza, LLC
Owner's Name
3450 Wilshire Blvd. Suite 1200
Owner's Address

Occupant's Name

Occupant's Address

VALUATION REDUCTION

Was/is the purchase price of the Subject property significantly less than the purchase price of comparable properties due to environmental conditions? Yes ☐ No ☐ U/K ■

If yes, please explain below.

B. Property Description

1. **Land**

a. Size of Parcel? _____ Acres

b. Shape of Parcel? ■ Rectangular ☐ Irregular ☐ Other

c. Are there any surface waters or wetlands on the site? Yes ☐ No ■ U/K ☐

d. Is there a well on the site? Yes ☐ No ■ U/K ☐

If so, what type of well is it?:

Drinking Water	☐
Irrigation	☐
Monitoring	☐
Dry Well	☐

Have contaminants in excess of governmental guidelines been identified in the water? Yes ☐ No ☐

e. Was or is there a septic system on the property? Yes ☐ No ☐ U/K ■

If so, is the septic system currently in use? Yes ☐ No ■

f. Has fill been imported onto the Subject? Yes ☐ No ☐ U/K ■

g. Are there currently or has there previously been waste treatment or disposal pits, ponds, or lagoons on the site? Yes ☐ No ☐ U/K ■

h. Where is the site's stormwater discharged to? Sewer

B. PROPERTY DESCRIPTION – continued

2. **Site Improvements** This includes all buildings ☐ N/A

a. Describe the size (square foot) of the existing building(s).

b. How old is the building(s)? 3440/3450/3460 - 1951 & 3470 - 1964

c. Describe the heating and cooling system. – Double duct system; Central plant;

d. Who provides the following utilities?

Water:	Los Angeles Department of Water & Power
Sanitary Sewer:	Los Angeles Department of Water & Power
Storm Drainage:	Los Angeles Department of Water & Power
Natural Gas:	Southern California Gas Company
Electric:	Los Angeles Department of Water & Power

e. Are there any floor drains on the site? Yes ■ No ☐ U/K ☐

If so, where do they discharge to? Sewer

3. **Site History**

a. Were there any buildings or other improvements on the property prior to the existing improvements? Yes ☐ No ■ U/K ☐

If so, what were they?

b. Is or has the property been used for industrial or agricultural purposes, or as a gasoline station, auto repair, dry cleaner, junkyard, or landfill? Yes ☐ No ■ U/K ☐

If so, please describe.

B. PROPERTY DESCRIPTION – continued

4. Site Operations

To the best of your knowledge, do any of the following operations take place on the Subject or have ever taken place on the Subject:

• Dry Cleaning:	Yes ☐	No ■
• Battery Storage/Sales:	Yes ☐	No ■
• Paint Storage/Sales:	Yes ☐	No ■
• Petroleum Storage/Sales:	Yes ☐	No ■
• Photo or X-Ray Finishing:	Yes ☐	No ■
• Electronic Equipment Assembly or Manufacturing:	Yes ☐	No ■
• Solvent Storage or Sales:	Yes ☐	No ■
• Chemical Manufacturing/Sales:	Yes ☐	No ■
• Automobile Storage, Repair, or Disposal:	Yes ☐	No ■
• Agriculture:	Yes ☐	No ■
• Medical or Dental Offices:	Yes ■	No ☐

5. Previous Studies/Documentation

a. Do you have any knowledge of previously prepared Environmental Site Assessment Reports, asbestos surveys, lead-based paint studies or testing (soil, groundwater, tank tightness testing, lead-based paint testing, asbestos testing, indoor air quality, mold (bacteria and fungi testing), etc.) conducted on the site? If so, please either provide copies of the reports or list the title, date, preparer and recipient of such report(s) below:

■ I have no knowledge of any environmental related studies or reports prepared on the Subject.

b. Are you in possession of a title report, site drawings, building drawings and specifications and/or a survey for the site? Yes ☐ No ■

If so, please provide copies of same.

Please provide all available environmental information from yours or your Client's records including, but not limited to, documentation in connection with any pending or threatened public or private proceedings or litigation with respect to environmental liability, environmental permits and permit applications, underground and above ground tank registration and information (including removal and testing of such tanks), environmental reports, asbestos, lead-based paint or indoor air quality studies, spill information and compliance information and programs.

C. SURROUNDING PROPERTIES

1. Has any adjoining properties been used for industrial purposes, or as a gasoline station, auto repair shop, junkyard, dry cleaner or landfill? Yes ☐ No ■ U/K ☐

If so, please explain.

2. Are you aware of any contamination conditions on adjoining or nearby properties? Yes ☐ No ■ U/K ☐

3. Are there any open surface waters or wetlands adjacent to the site? Yes ☐ No ■ U/K ☐

4. Are you aware of any active or former waste treatment or disposal pits, ponds, or lagoons on adjacent or nearby sites? Yes ☐ No ■ U/K ☐

5. Is any neighboring property engaged in the storing, transporting or disposal of hazardous waste, or chemicals? Yes ☐ No ■ U/K ☐

D. REGULATORY

1. Are you aware of any pending, threatened, or past litigation relevant to *harardouse substances* or *petroleum products* in, on, or from the *property*? Yes ☐ No ■ U/K ☐

   If so, please explain.

2. Are you aware of any pending, threatened, or past administrative proceedings relevant to *hazardous substances* or *petroleum products* in, on, or from the *property*? Yes ☐ No ■ U/K ☐

If so, please state the circumstances.

3. Are you aware of any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to *hazardous substances* or *petroleum products*? Yes ☐ No ■ U/K ☐

   If so, please explain.

E. ASBESTOS

1. Do you have knowledge of any materials or substances on the site that are known or suspected to contain asbestos? Yes ☐ No ☐ U/K ■

   If so, what materials and where are they located?

E. ASBESTOS – continued

2.	Has an inspection for asbestos ever been conducted on the Subject?	Yes ■	No ☐ U/K ☐
3.	Has asbestos been removed from the Subject?	Yes ■	No ☐ U/K ☐
4.	Does the building have:		
	• Spray-on or troweled-on fireproofing, insulation or finishes?	Yes ■	No ☐ U/K ☐
	• Insulation on piping, boilers, tanks, chillers, or other mechanical equipment?	Yes ■	No ☐ U/K ☐
	• Transite used in cooling towers, exterior walls, ceilings fascia panels, etc.?	Yes ☐	No ☐ U/K ■
	• Resilient floor tile?	Yes ☐	No ☐ U/K ■
	• Suspended acoustical ceiling tiles?	Yes ☐	No ☐ U/K ■
	• A built-up or rolled roofing system?	Yes ☐	No ☐ U/K ■

F. PCBs

1.	Are there any on-site electrical transformers?	Yes ■	No ☐ U/K ☐
	If so, do any of the transformers contain PCBs?	Yes ☐	No ☐ U/K ■
	Who owns the transformers and where are they located?	Los Angeles Department of Water & Power	
2.	Did any on-site transformers formerly contain PCBs, but later had the dielectric fluid replaced?	Yes ☐	No ☐ U/K ■
3.	Is there any hydraulic equipment such as elevators or automotive lifts on-site?	Yes ■	No ☐ U/K ☐
	If so, who services the equipment?	Schindler	
	Are you aware of any hydraulic fluid leaks or evidence of leakage such as unexplained fluid loss in connection with the hydraulic equipment?	Yes ☐	No ☐ U/K ■

F. Storage Tanks

1. Are there any (active or inactive) Underground Storage Tanks (UST) or Aboveground Storage Tanks (AST) on the site? Yes ■ No ☐ U/K ☐

If so, please fill out the following schedule:

Active or Inactive Tanks

Location of Tank	Size of Tank (Gallons)	AST or UST	Tank Contents	Age of Tank (Years)	Does the Tank Have Corrosion Protection? (Yes/No)	Does the Tank Have Leak Detection? (Yes/No)	Is the Tank In-Use? (Yes/No)
Next to 3450 Parking Structure	500 Gallons	AST	Diesel	~ 24 Years	Yes	Yes	Yes

Have any of the tanks been tightness tested? Yes ☐ No ☐ U/K ■

1. Do you have any knowledge of tanks that were either removed or closed in-place at the site? Yes ☐ No ☐ U/K ■

If so, please fill out the following schedule:

Tanks Removed or Closed In-Place

Location of Former Tank	Size of Tank (Gallons)	AST or UST	Tank Contents	Tank Removal Company	Year Tank Was Removed

H. LEAD

1. Are you aware of any lead-based paint (LBP) applications on the site? Yes ☐ No ☐ U/K ■

2. Has LBP testing been conducted? Yes ☐ No ☐ U/K ■

3. Have there been any reported incidences of children with elevated blood lead levels residing at the site? Yes ☐ No ☐ U/K ■

4. Are there any children younger than 7 years old residing at the site or frequenting the site on a daily basis? Yes ☐ No ☐ U/K ■

5. Have any LBP abatements been conducted? Yes ☐ No ☐ U/K ■

6. Has the water been tested for lead? Yes ☐ No ☐ U/K ■

   If so, please provide a copy of the results

I. HAZARDOUS MATERIALS

1. Are hazardous materials or chemicals stored or used on-site? Yes ☐ No ☐ U/K ■

   If so, please fill out the following schedule (attach separate page if more room is required):

Schedule of Hazardous or Toxic Substances Stored On-Site

Material Type	Quantity (Gallons)	Location

2. Are there any hazardous or medical waste or fluids generated or used that employ an outside service for their periodic supply and removal? Yes ☐ No ☐ U/K ■

   If so, please provide the name, address, & telephone number of the disposal company and the facility generating the waste.

J. INDOOR AIR QUALITY

1. Have strong mold odors and/or mold staining been observed onsite? Yes ☐ No ☐ U/K ■

2. Has there been any employee or tenant reports of symptoms consistent with mold contamination or other indoor air quality concerns? Yes ☐ No ☐ U/K ■

3. Are you aware of elevated radon gas concentrations on-site? Yes ☐ No ☐ U/K ■

K. AAI USER QUESTIONNAIRE

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfield's Revitalization Act of 2001 (the "*Brownfield's Amendments*"), the user must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30 and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The *user* should provide the following information to the *environmental professional*. Failure to conduct these inquiries could result in a determination that "*all appropriate inquiries*" is not complete.

1. Did a search of recorded land title records (or judicial records where Appropriate, See Note 1 below) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law? **Yes** ☐ **No** ☐ **NA** ☐

Note 1 – In certain jurisdictions, federal, tribal, state or local statutes, or regulations specify that environmental liens and Activity and Use Limitations (AULs) be filed in judicial records rather than in land title records. In such cases, judicial records must be searched for environmental liens and AULs.

2. Did a search of recorded land title records (or judicial records where appropriate, see Note 1 above) identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law? **Yes** ☐ **No** ☐ **NA** ☐

3. Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business? **Yes** ☐ **No** ☐ **NA** ☐

4. Does the purchase price paid for this property reasonably reflect the fair market value of the property? **Yes** ☐ **No** ☐ **NA** ☐

   If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? **Yes** ☐ **No** ☐ **NA** ☐

5. Are you aware of commonly known or reasonably ascertainable information about the properly that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example:

   (a.) Do you know the past uses of the property? **Yes** ☐ **No** ☐ **NA** ☐

   (b.) Do you know of specific chemicals that are present or once were present at the property? **Yes** ☐ **No** ☐ **NA** ☐

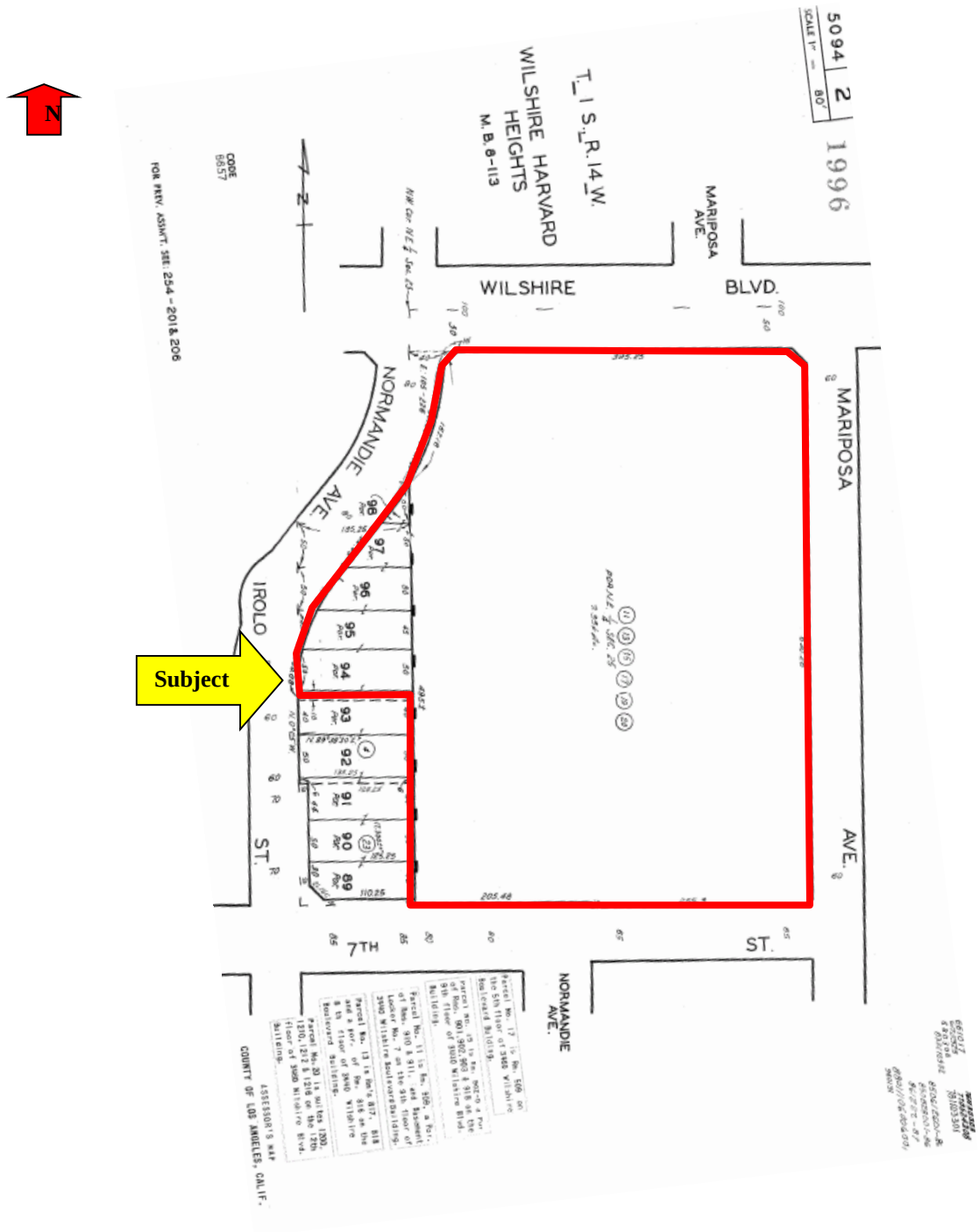
   (c.) Do you know of spills or other chemical releases that have taken place at the property? **Yes** ☐ **No** ☐ **NA** ☐

   (d.) Do you know of any environmental cleanups that have taken place at the property? **Yes** ☐ **No** ☐ **NA** ☐

6. Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property? **Yes** ☐ **No** ☐ **NA** ☐

SITE PLAN

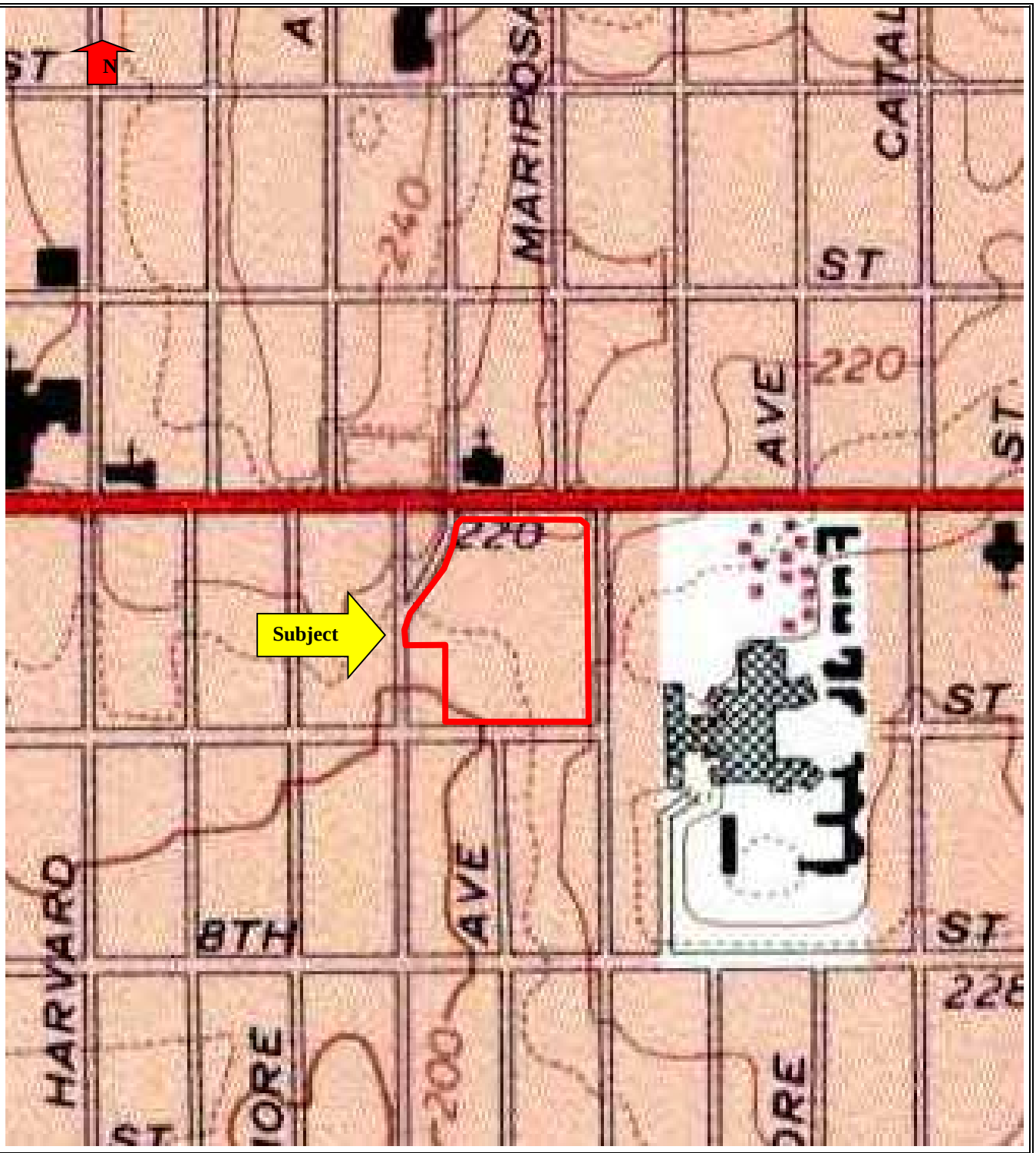
Central Plaza 3440-3470 Wilshire Boulevard Los Angeles, CA	IVI ASSESSMENT SERVICES, INC. 55 WEST RED OAK LANE WHITE PLAINS, NY 10604 (914) 694-9600 (TEL) (914) 694-3727 (FAX)	Project No: PC41011347 Boundaries are approximate. Not to scale



Tax Map

Source: Tax Assessor

Project Name: Central Plaza
Los Angeles, California
Project Number: PC41011347

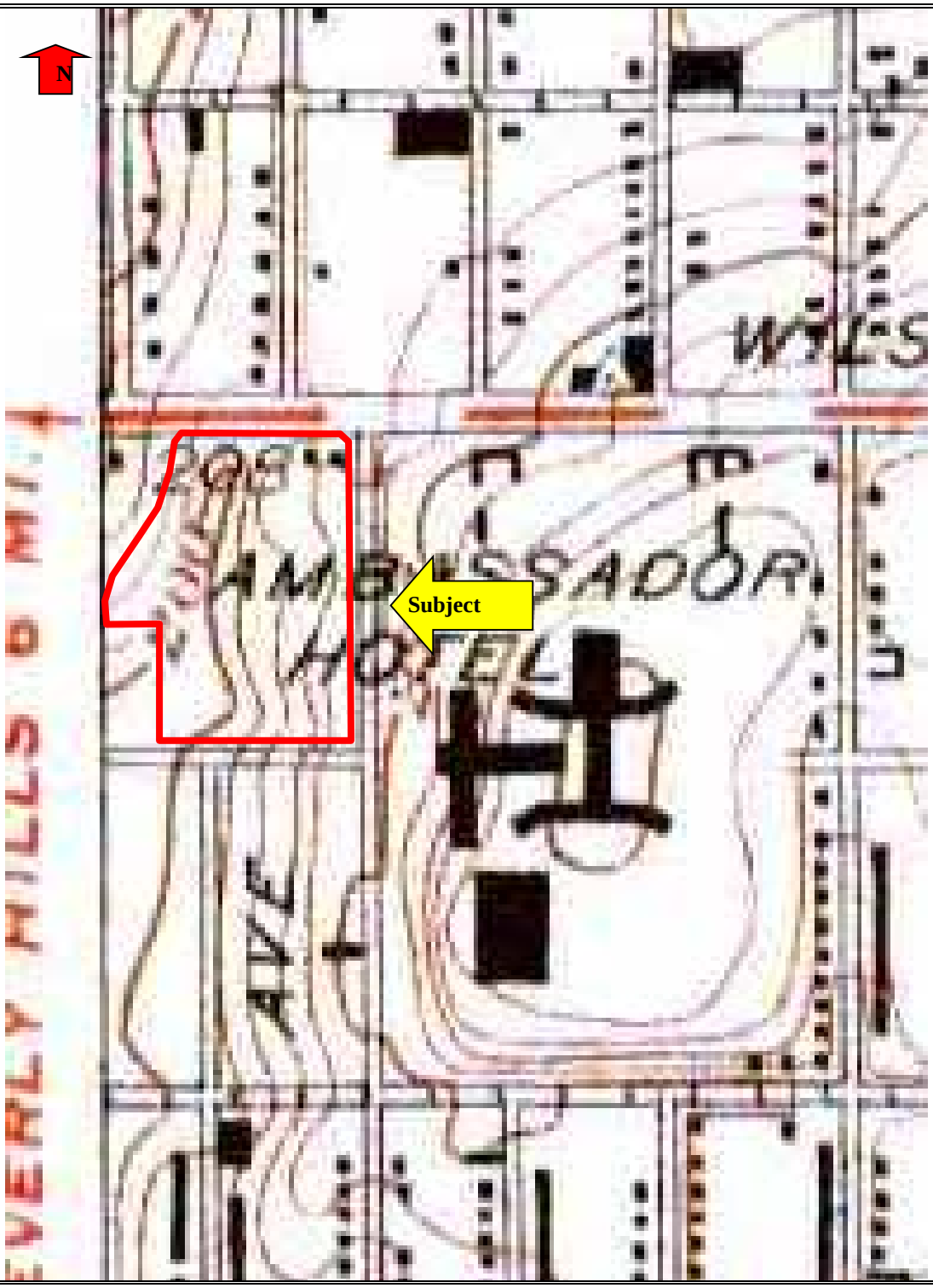


USGS Topographic Map

Source: 7.5' USGS Quadrangle
Hollywood, CA
Dates: 1966
Photo-revised: 1994

Project Name: Central Plaza
Los Angeles, California
Project Number: PC41011347

IVI

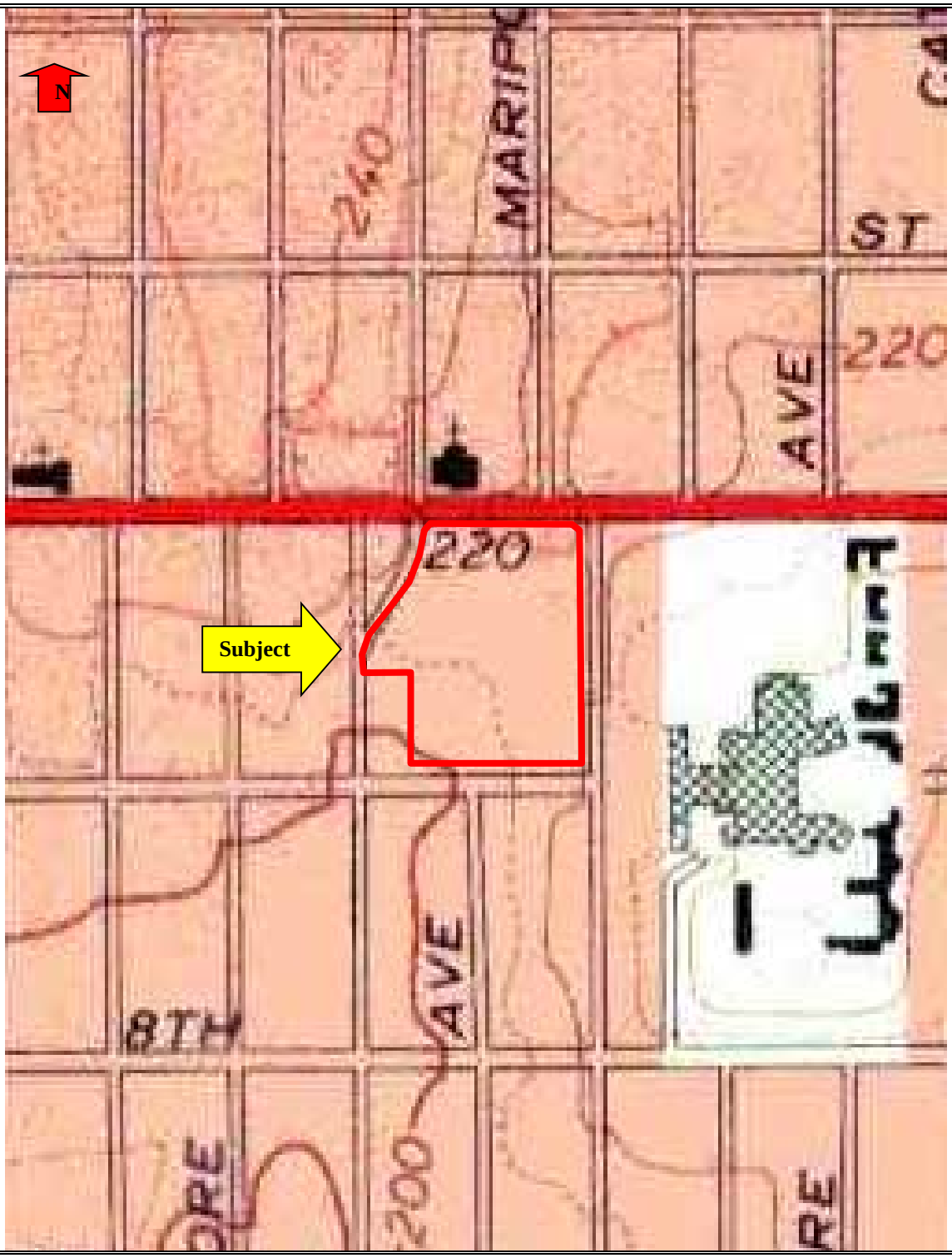


Historic USGS Topographic Map

Source: 7.5' USGS Quadrangle
Hollywood, CA
Dates: 1928

Project Name: Central Plaza
Los Angeles, California
Project Number: PC41011347

IVI

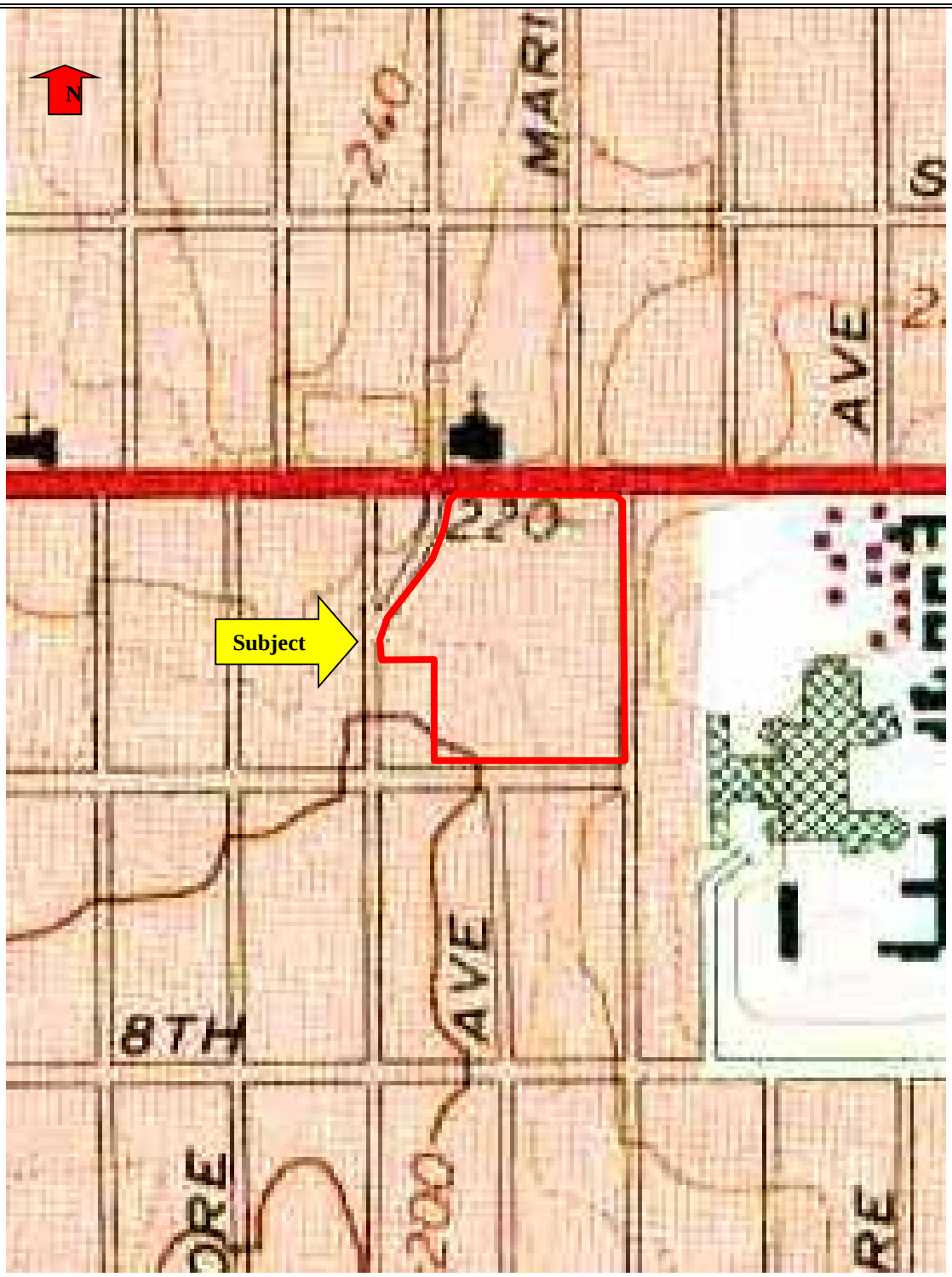


Historic USGS Topographic Map

Source: 7.5' USGS Quadrangle
Hollywood, CA
Dates: 1966

Project Name: Central Plaza
Los Angeles, California
Project Number: PC41011347

IVI

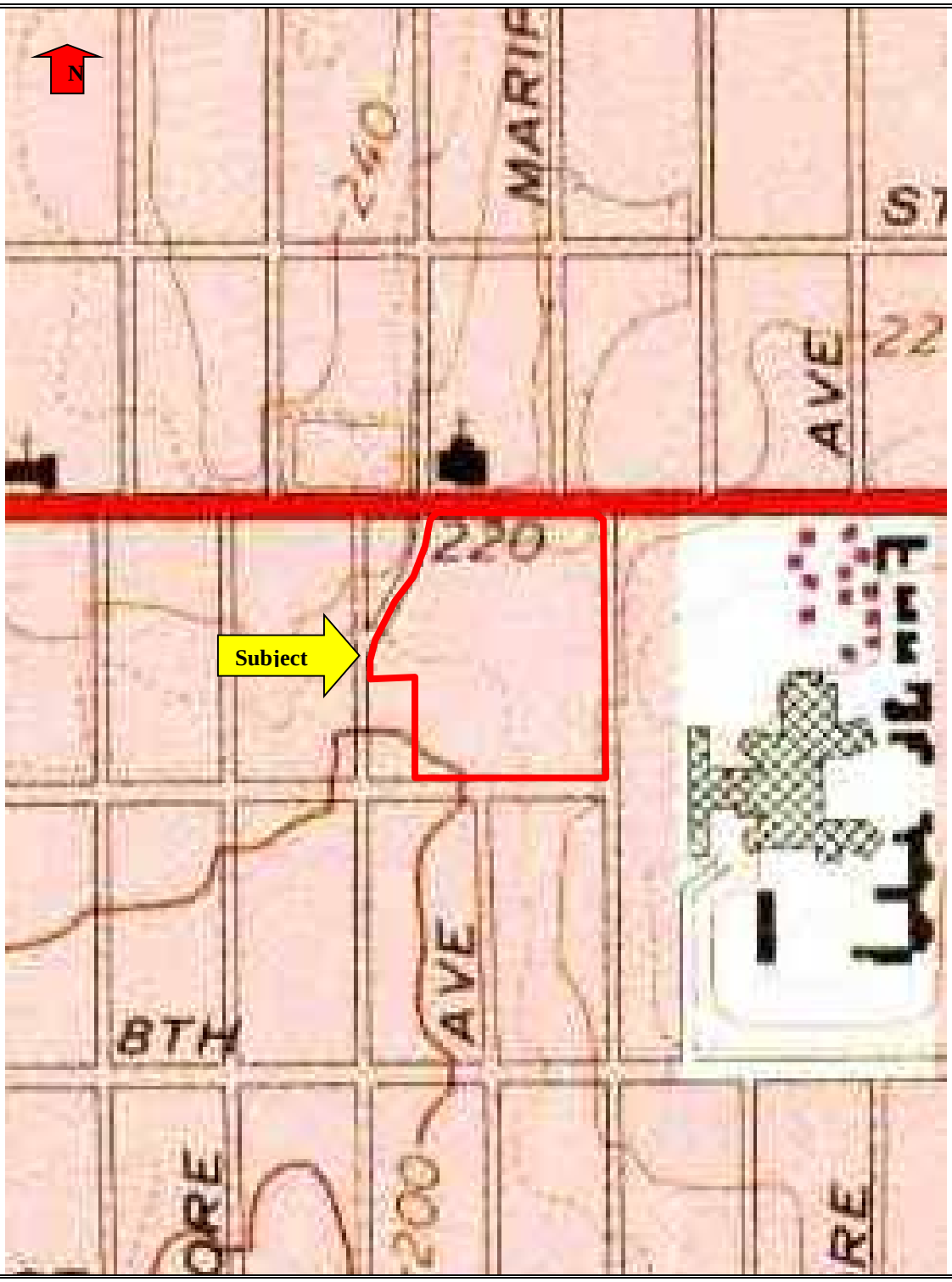


Historic USGS Topographic Map

Source: 7.5' USGS Quadrangle
Hollywood, CA
Dates: 1972

Project Name: Central Plaza
Los Angeles, California
Project Number: PC41011347

IVI

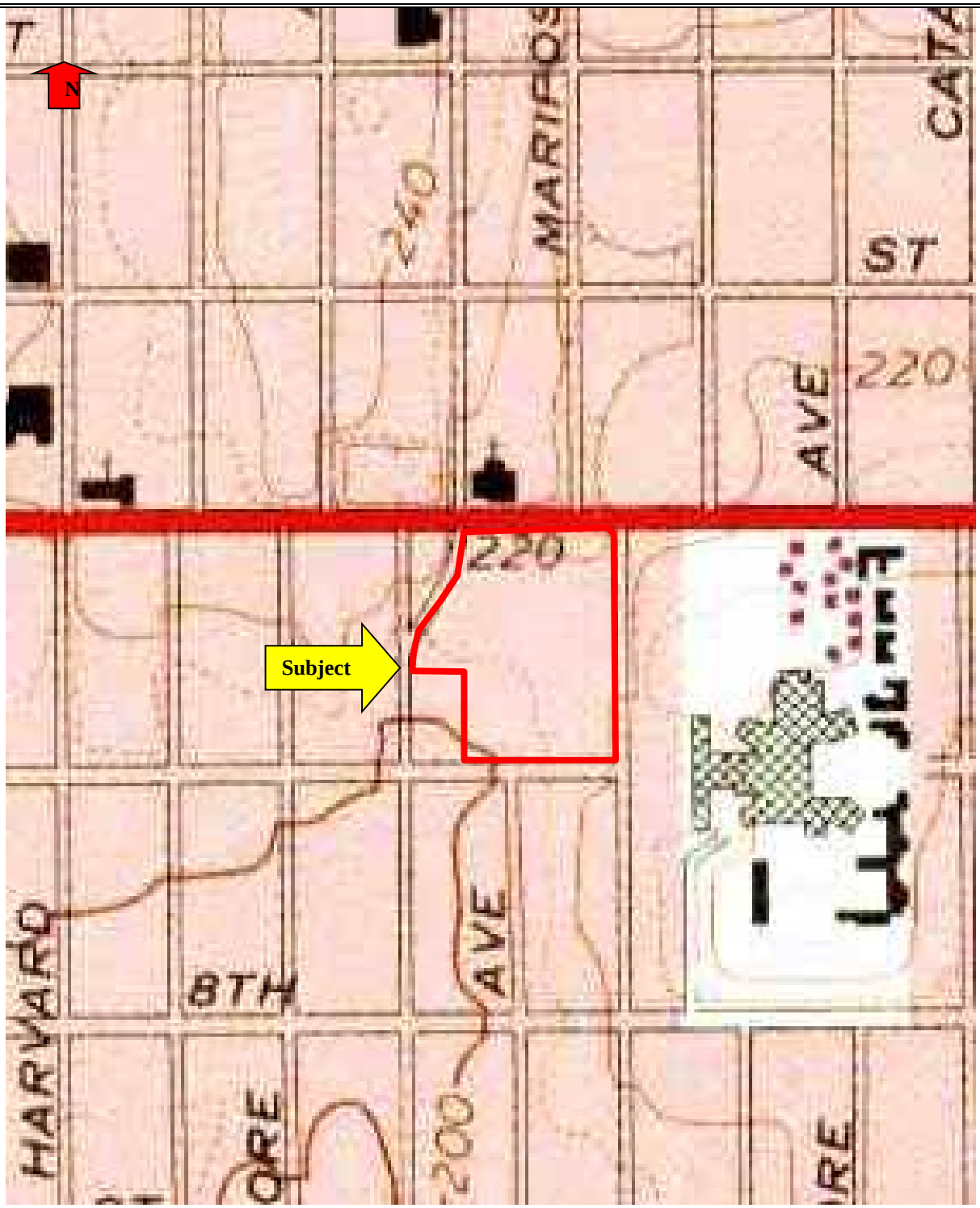


Historic USGS Topographic Map

Source: 7.5' USGS Quadrangle
Hollywood, CA
Dates: 1981

Project Name: Central Plaza
Los Angeles, California
Project Number: PC41011347

IVI

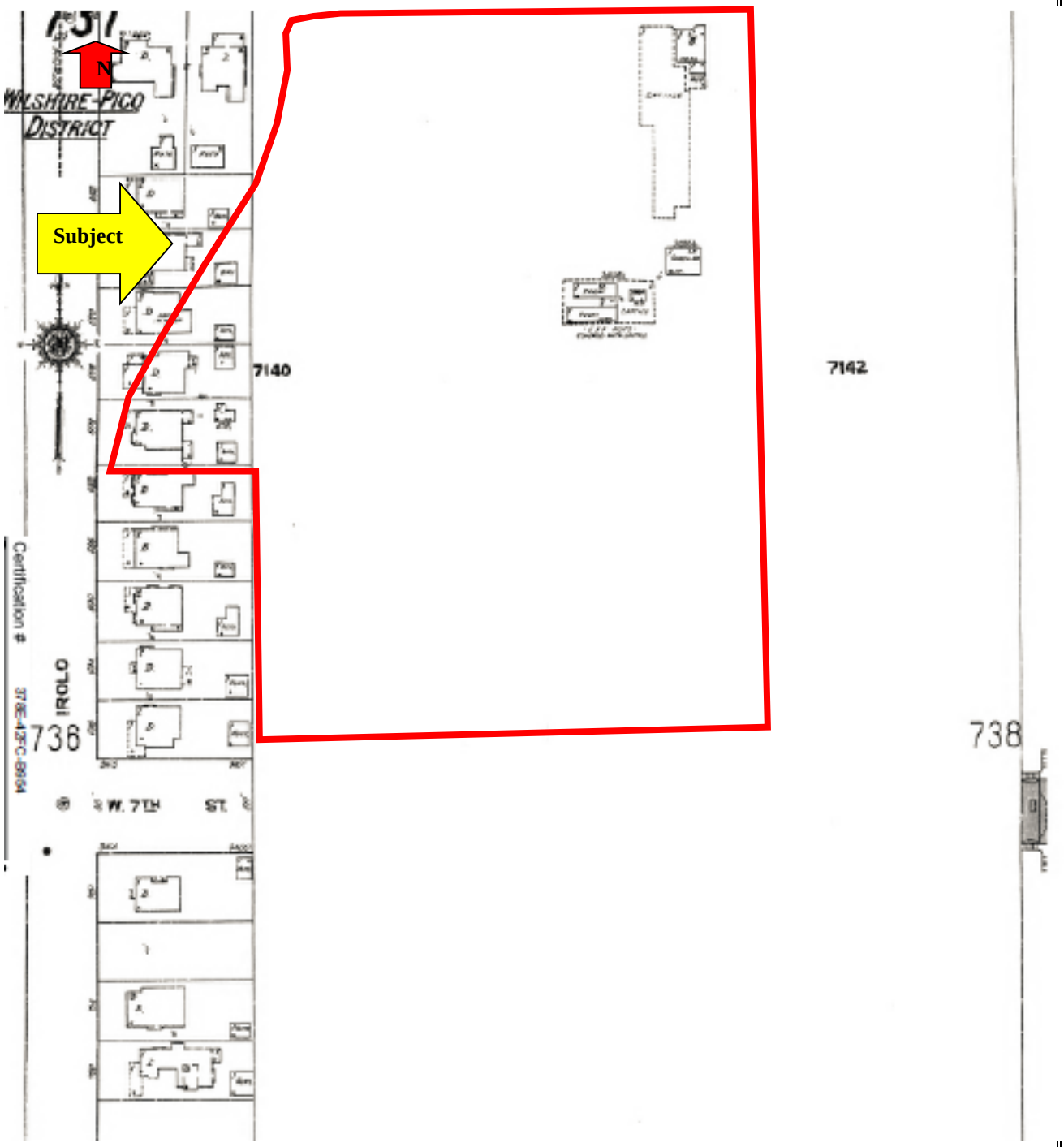


Historic USGS Topographic Map

Source: 7.5' USGS Quadrangle
Hollywood, CA
Dates: 1986

Project Name: Central Plaza
Los Angeles, California
Project Number: PC41011347

IVI

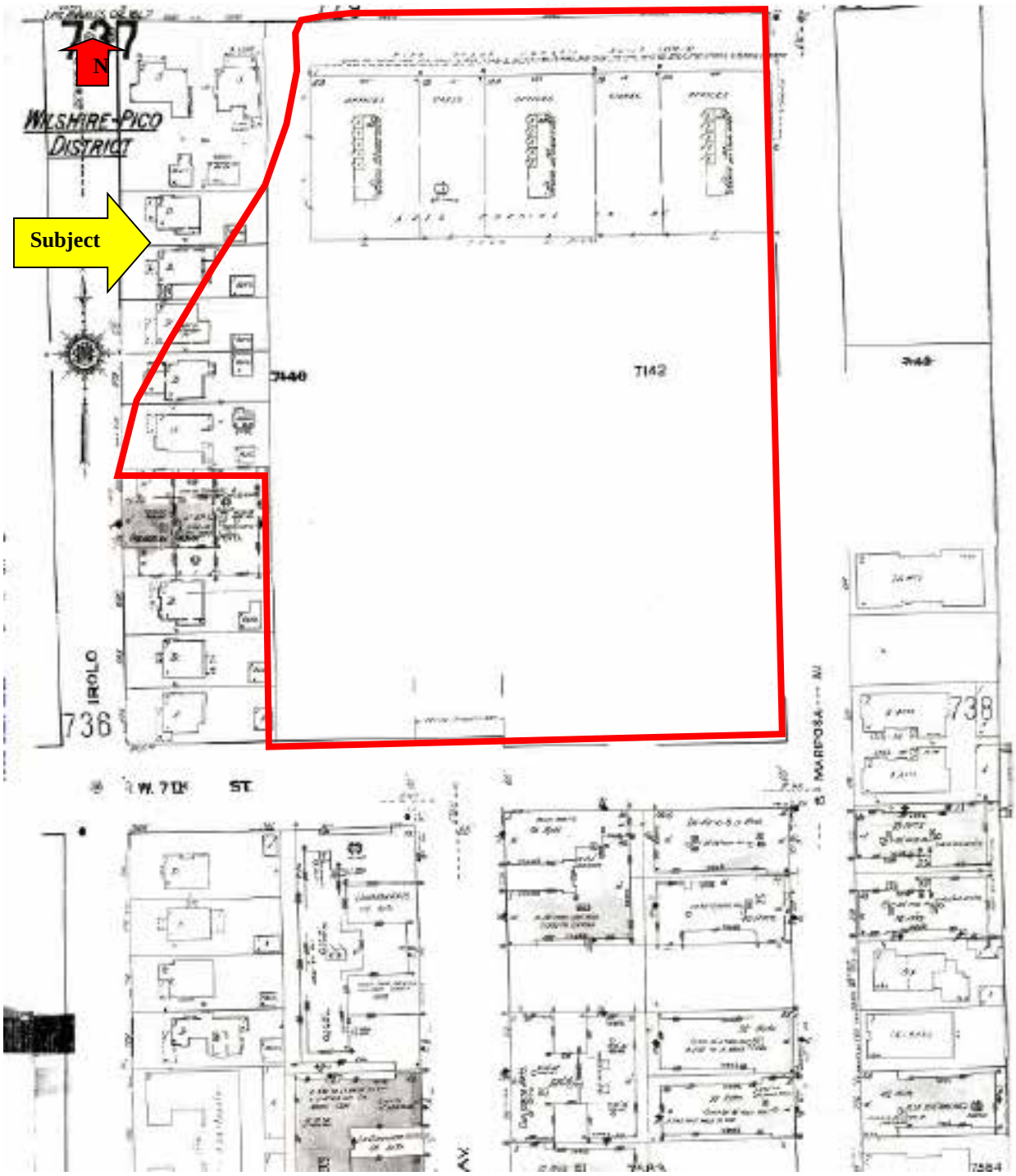


Historical Sanborn Map

1921

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

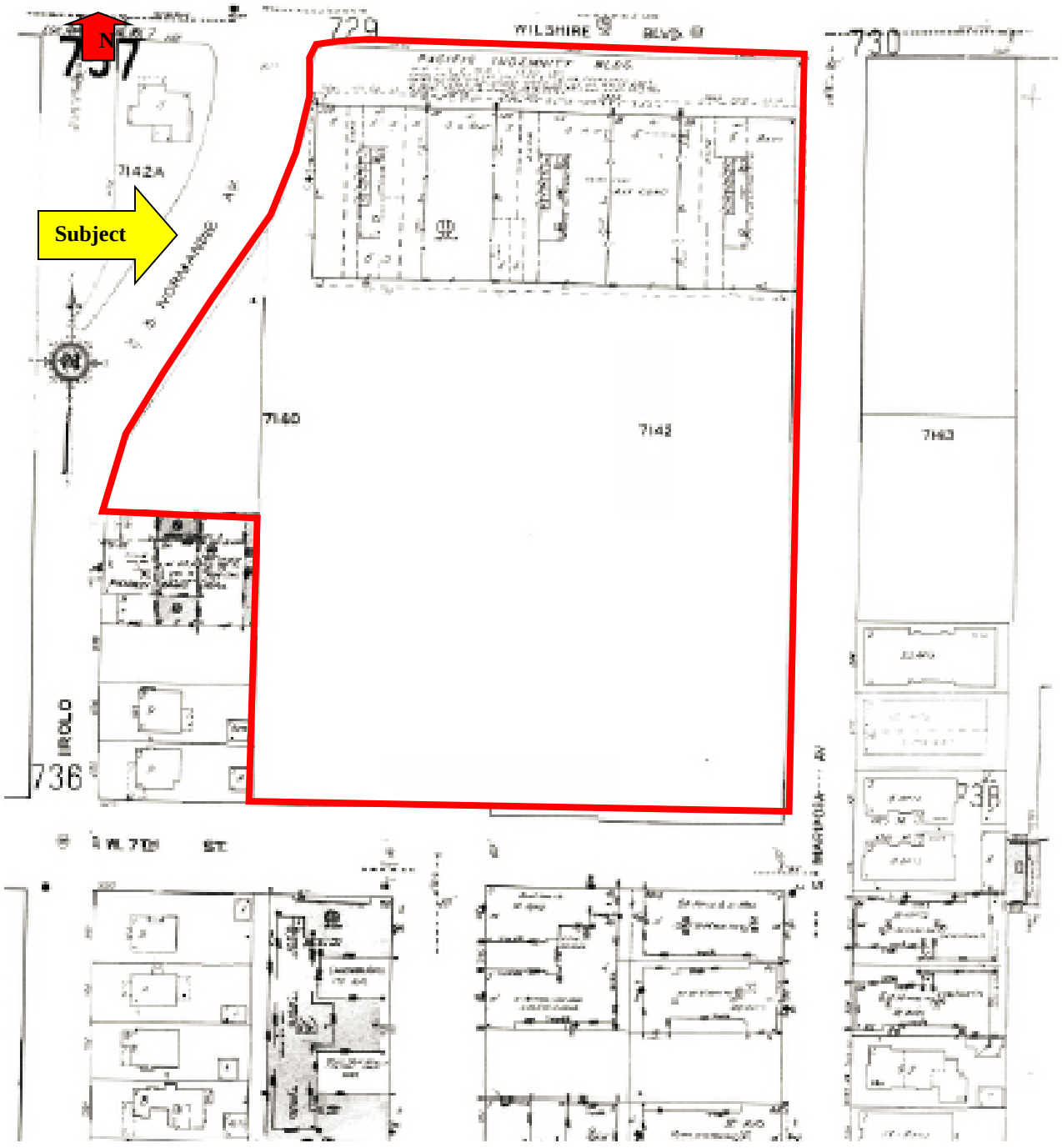


Historical Sanborn Map

1950

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

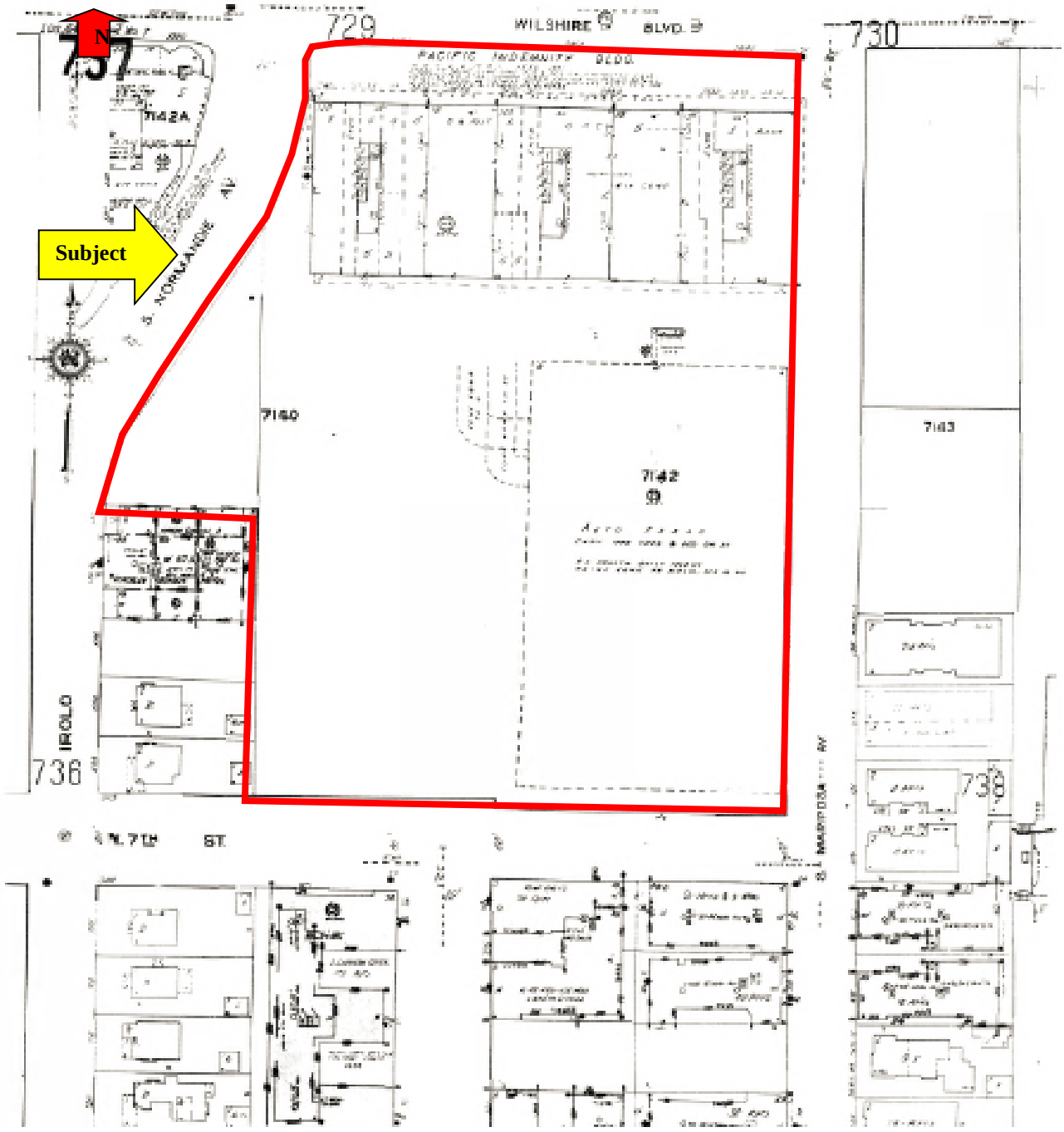


Historical Sanborn Map

1954

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

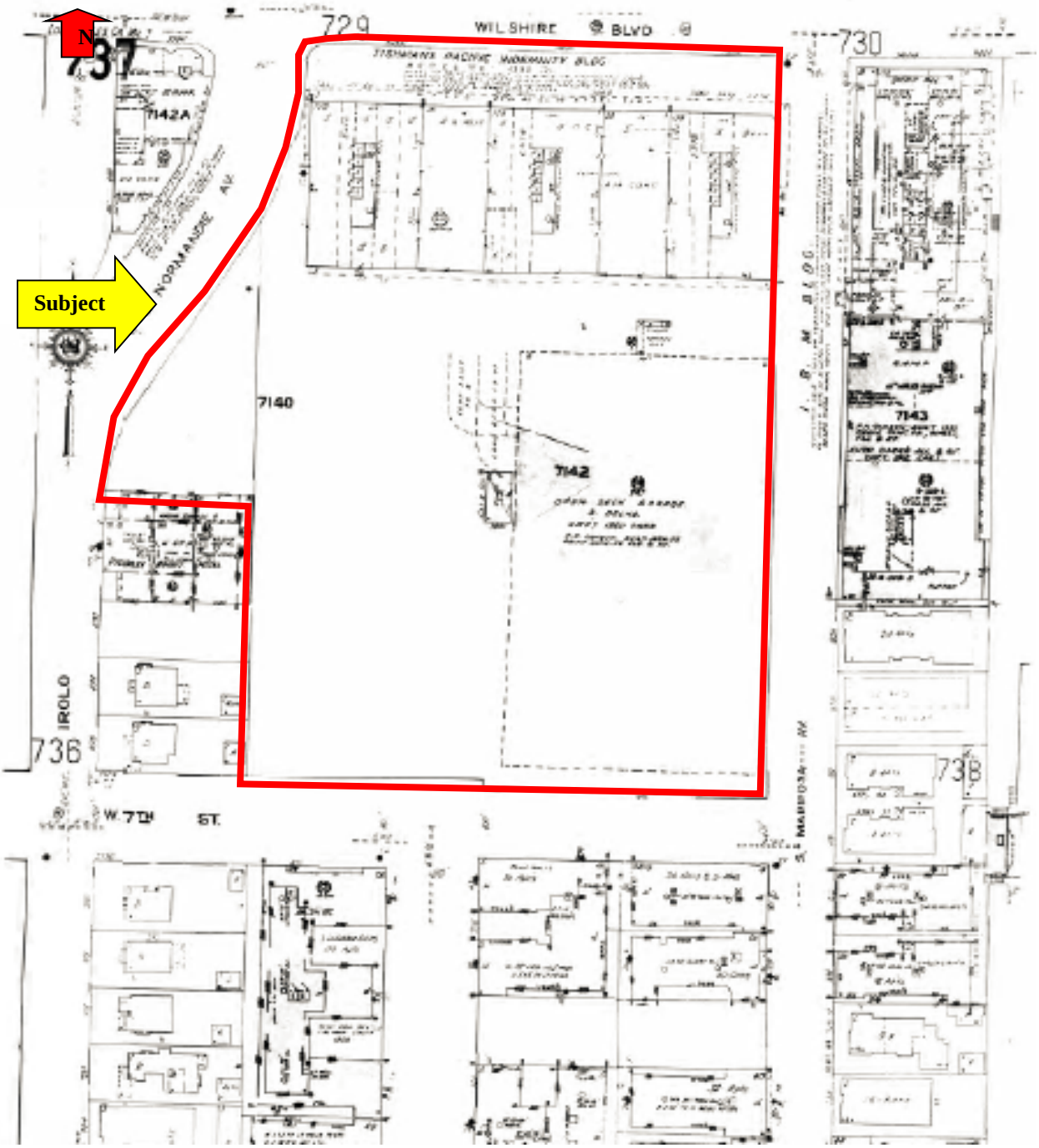


Historical Sanborn Map

1955

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

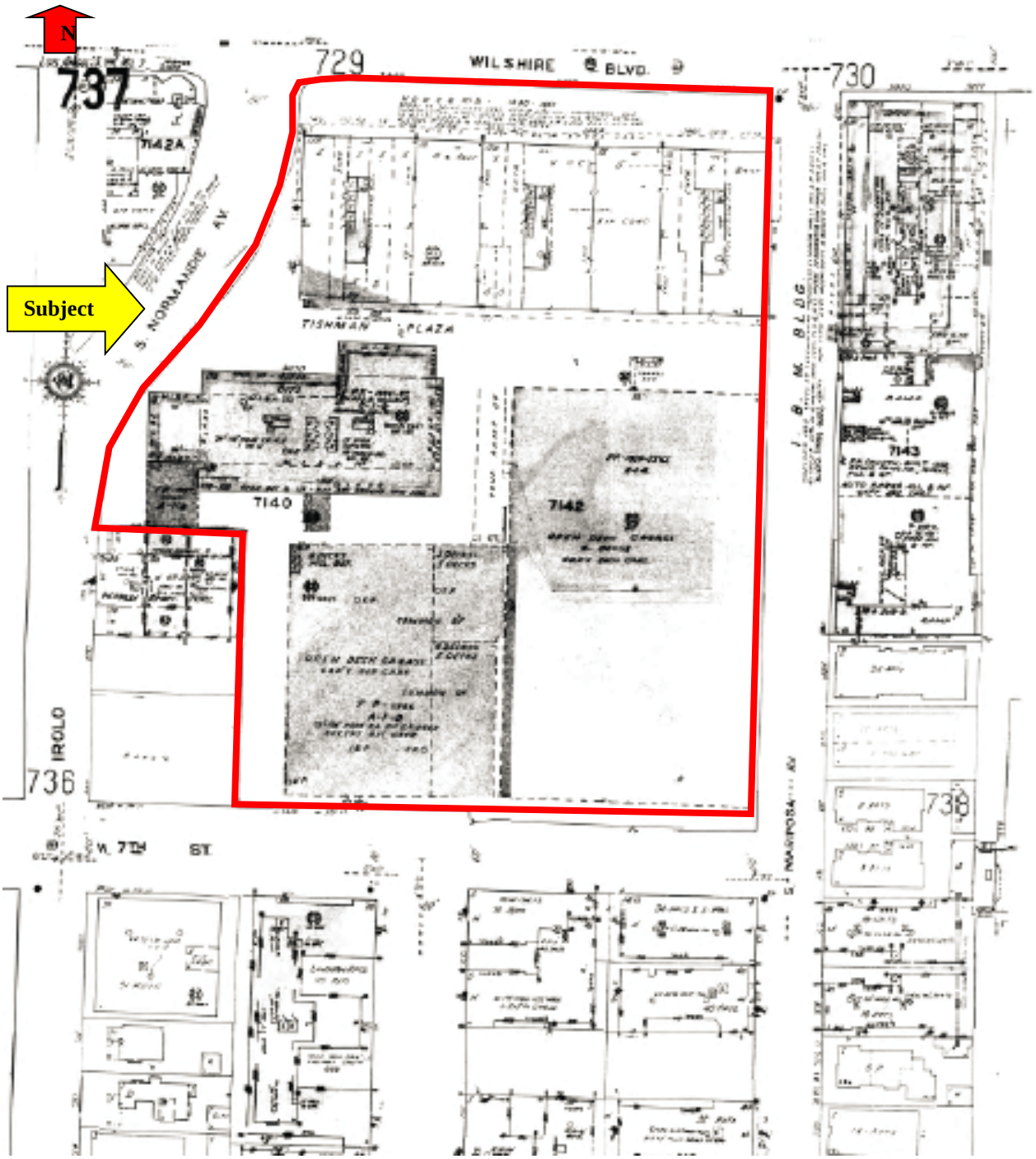


Historical Sanborn Map

1961

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

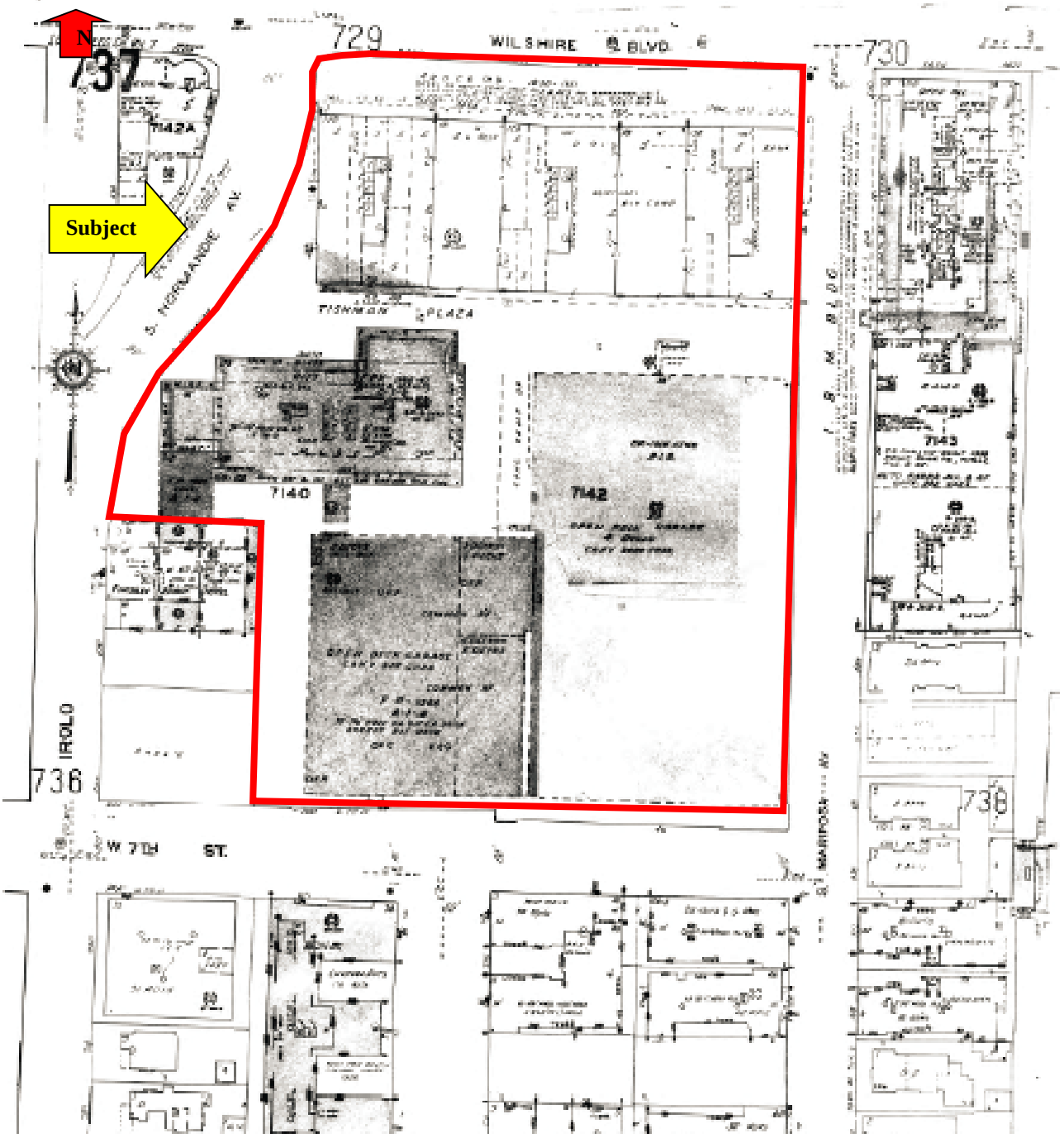


Historical Sanborn Map

1968

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI



Historical Sanborn Map

1970

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

Historical Aerial Photograph
1928

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

Historical Aerial Photograph

1938

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

Historical Aerial Photograph
1947

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

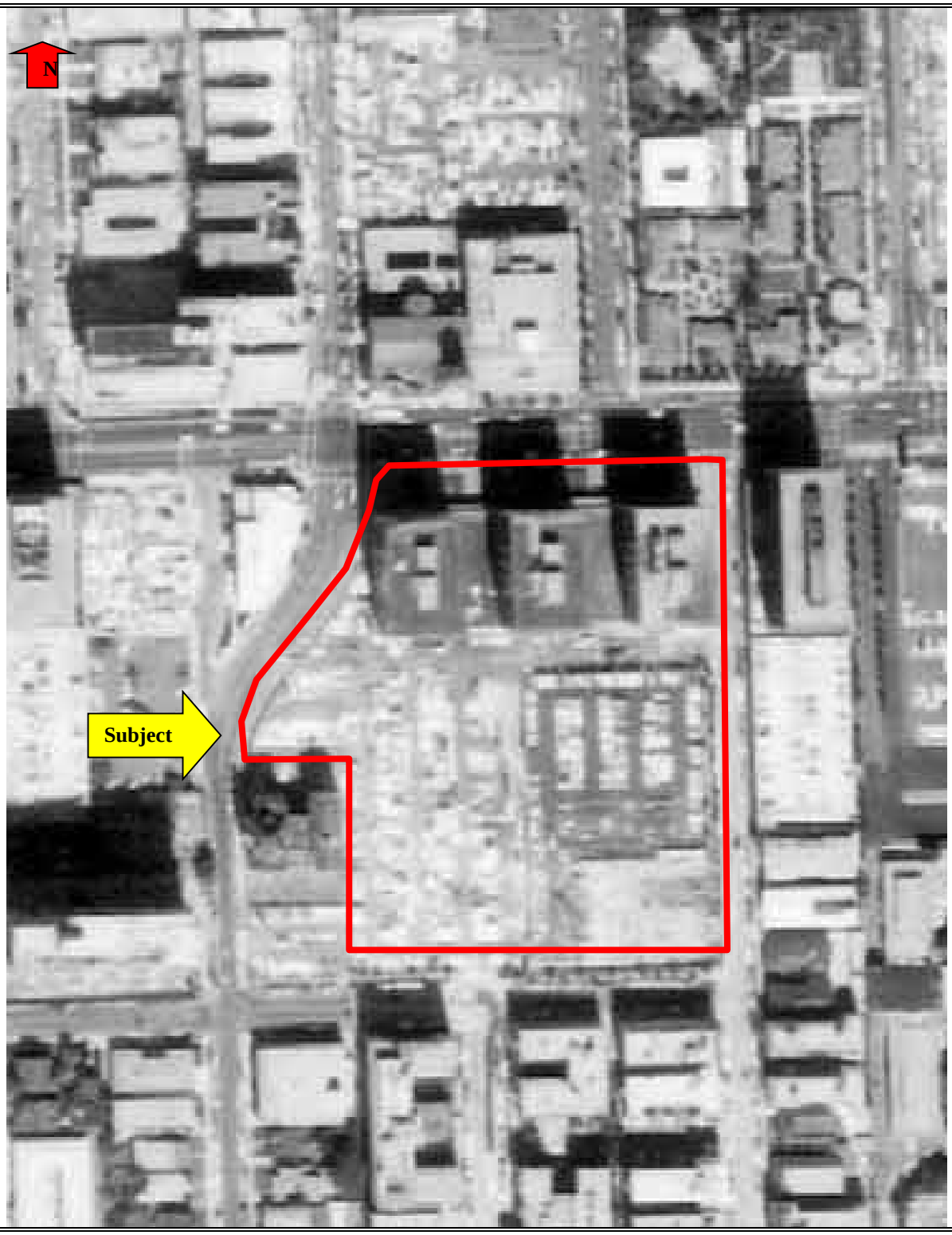
IVI

Historical Aerial Photograph

1956

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI



Historical Aerial Photograph

1965

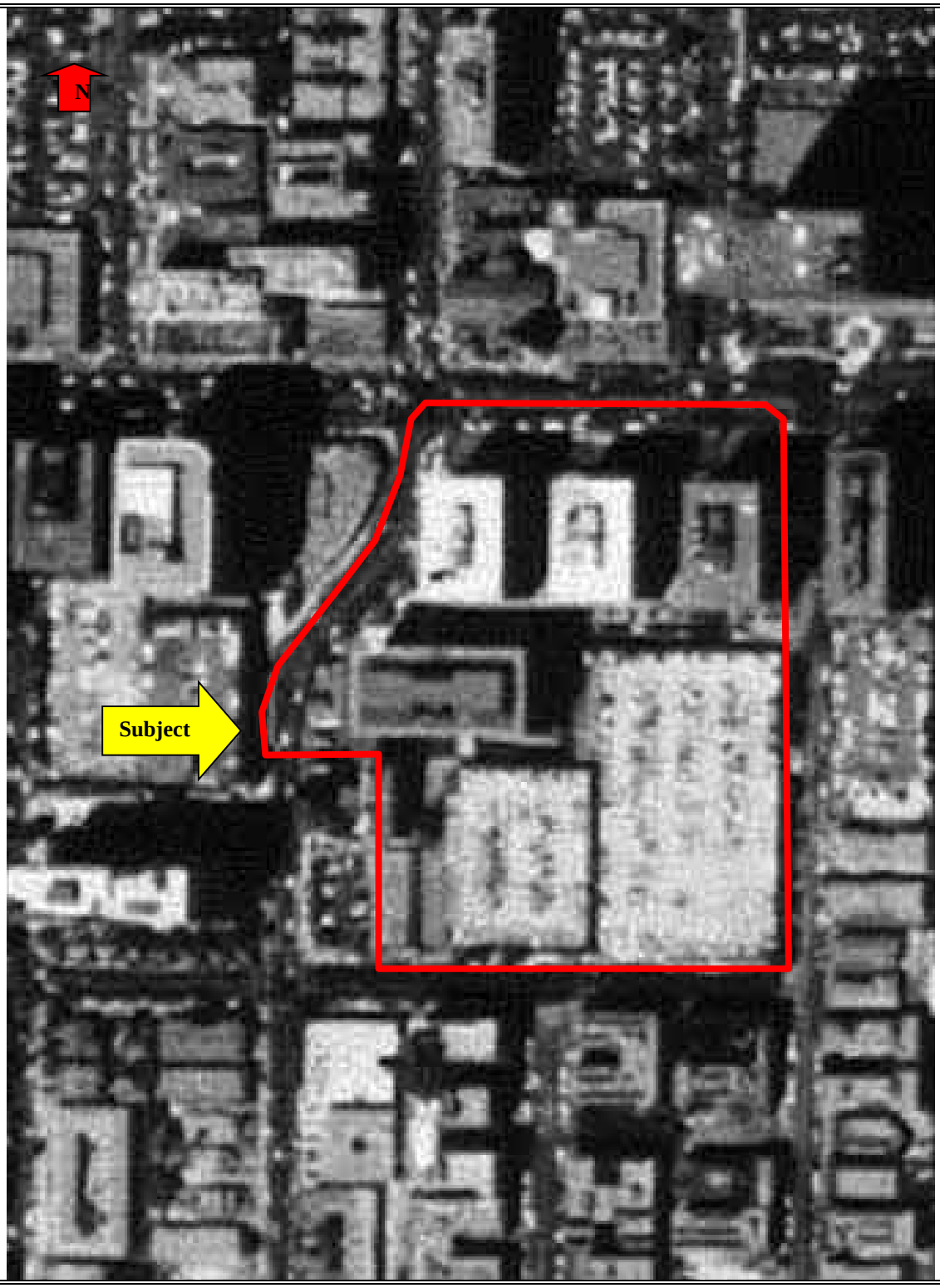
Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

Historical Aerial Photograph
1976

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

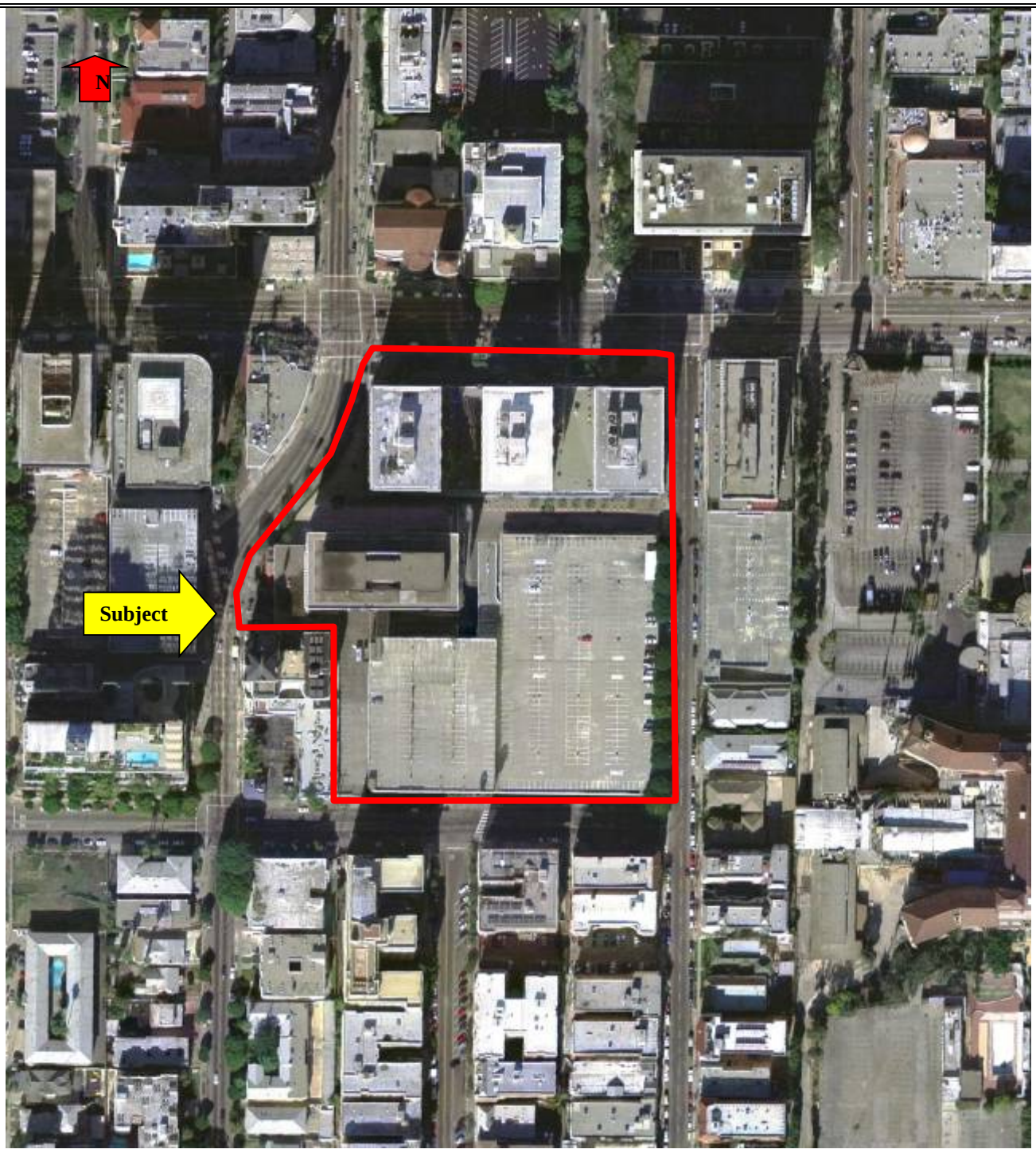


Historical Aerial Photograph

1989

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI



Historical Aerial Photograph
2004

Project Number: PC41011347	Project Name: Central Plaza Los Angeles, California

IVI

Central Plaza Office
3440, 3450, 3460 and 3470 Wilshire Boulevard
Los Angeles, CA 90005

Inquiry Number: 04110183.3r
October 20, 2014

The EDR Radius Map™ Report

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	300
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

GeoCheck - Not Requested

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, Inc. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. **NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, INC. BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF ENVIRONMENTAL DATA RESOURCES, INC. IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT.** Purchaser accepts this Report "AS IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

Copyright 2014 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, Inc. or its affiliates. All other trademarks used herein are the property of their respective owners.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

3440, 3450, 3460 AND 3470 WILSHIRE BOULEVARD
LOS ANGELES, CA 90005

COORDINATES

Latitude (North):	34.0607000 - 34° 3' 38.52''
Longitude (West):	118.2997000 - 118° 17' 58.92''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	380054.4
UTM Y (Meters):	3769453.8
Elevation:	212 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	34118-A3 HOLLYWOOD, CA
Most Recent Revision:	1994

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120428, 20120505
Source:	USDA

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
CENTRAL PLAZA 3450 WILSHIRE BLVD LOS ANGELES, CA 90010	HAZNET	N/A
CENTRAL PLAZA 3450 WILSHIRE BLVD SUITE #408 LOS ANGELES, CA 90010	RCRA NonGen / NLR FINDS CA FID UST SWEEPS UST	CAD981455223
CENTRAL PLAZA LLC 3470 WILSHIRE BLVD LOS ANGELES, CA 90010	HAZNET	N/A
JAMISON SERVICES 3470 WILSHIRE BLVD LOS ANGELES, CA 90010	HAZNET	N/A

EXECUTIVE SUMMARY

1X ZUFU PROPERTIES COMPANY, LTD. 3450 WILSHIRE BLVD. LOS ANGELES, CA 90010	HAZNET	N/A
PACIFIC BELL 3470 WILSHIRE LOS ANGELES, CA 90010	RCRA NonGen / NLR FINDS	CAT080023229
JAMISON SERVICES INC 3470 WILSHIRE BLVD STE 812 LOS ANGELES, CA 90010	HAZNET	N/A
CENTRAL PLAZA 3450 WILSHIRE BLVD STE 420 LOS ANGELES, CA 90010	HAZNET	N/A
3450 WILSHIRE BLVD 3450 WILSHIRE BLVD LOS ANGELES, CA 90010	EDR US Hist Auto Stat	N/A
PACIFIC TELEPHONE AND TELEGRAPH C 3470 WILSHIRE LOS ANGELES, CA 90010	HAZNET	N/A
3470 WILSHIRE BLVD 3470 WILSHIRE BLVD LOS ANGELES, CA 90010	EDR US Hist Auto Stat	N/A
SUNG B WANG DDS 3450 WILSHIRE BLVD STE 410 LOS ANGELES, CA 90010	HAZNET	N/A
CENTRAL PLAZA LLC 3470 WILSHIRE BLVD LOS ANGELES, CA 90010	HAZNET	N/A
3440 WILSHIRE BLVD 3440 WILSHIRE BLVD LOS ANGELES, CA 90010	EDR US Hist Auto Stat	N/A
MARK S LASKA 3460 WILSHIRE BLVD #104 LOS ANGELES, CA 90010	HAZNET	N/A
CENTRAL PLAZA (JAMISON PROPERTIES 3450 WILSHIRE BLVD LOS ANGELES, CA 90010	HAZNET	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---------- Federal Facility Site Information listing

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-CESQG ---------- RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROL ---------- Sites with Institutional Controls
LUCIS ---------- Land Use Control Information System

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP ---------- Voluntary Cleanup Program Properties
INDIAN VCP ---------- Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
WMUDS/SWAT ---------- Waste Management Unit Database

Local Lists of Hazardous waste / Contaminated Sites

US CDL ---------- Clandestine Drug Labs
HIST Cal-Sites ---------- Historical Calsites Database
Toxic Pits ---------- Toxic Pits Cleanup Act Sites
AOCONCERN ---------- San Gabriel Valley Areas of Concern
CDL ---------- Clandestine Drug Labs
US HIST CDL ---------- National Clandestine Laboratory Register

Local Land Records

LIENS 2 ---------- CERCLA Lien Information
LIENS ---------- Environmental Liens Listing
DEED ---------- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---------- Hazardous Materials Information Reporting System
CHMIRS ---------- California Hazardous Material Incident Report System
LDS ---------- Land Disposal Sites Listing
MCS ---------- Military Cleanup Sites Listing
SPILLS 90 ---------- SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS ---------- Incident and Accident Data

EXECUTIVE SUMMARY

DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
US MINES	Mines Master Index File
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS	Section 7 Tracking Systems
ICIS	Integrated Compliance Information System
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
CA BOND EXP. PLAN	Bond Expenditure Plan
UIC	UIC Listing
NPDES	NPDES Permits Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
Notify 65	Proposition 65 Records
LA Co. Site Mitigation	Site Mitigation List
LOS ANGELES CO. HMS	HMS: Street Number List
WIP	Well Investigation Program Case List
ENF	Enforcement Action Listing
EMI	Emissions Inventory Data
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
Financial Assurance	Financial Assurance Information Listing
PCB TRANSFORMER	PCB Transformer Registration Database
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
MWMP	Medical Waste Management Program Listing
COAL ASH DOE	Steam-Electric Plant Operation Data
PROC	Certified Processors Database
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
LEAD SMELTERS	Lead Smelter Sites
WDS	Waste Discharge System
US AIRS	Aerometric Information Retrieval System Facility Subsystem
PRP	Potentially Responsible Parties
HWT	Registered Hazardous Waste Transporter Database
HWP	EnviroStor Permitted Facilities Listing
US FIN ASSUR	Financial Assurance Information

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

EXECUTIVE SUMMARY

RGA LF..... Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BERENDO SHOPPING CENTER	3301-3317 W. SIXTH ST.	NE 1/4 - 1/2 (0.277 mi.)	Y117	136

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 06/10/2014 has revealed that there are 3 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ROBERT F KENNEDY COMMUNITY OF	3400 WILSHIRE BLVD	NE 0 - 1/8 (0.044 mi.)	B28	27
AMBSDR GLOBAL EDUC	3201 W 8TH ST	SSE 1/8 - 1/4 (0.156 mi.)	P75	84
AMBASSADOR SCHOOL OF GLOBAL LE	701 S CATALINA ST	ESE 1/8 - 1/4 (0.189 mi.)	S83	89

EXECUTIVE SUMMARY

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 06/10/2014 has revealed that there are 12 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EQUITABLE PLAZA	*3435 WILSHIRE BLVD*	*NE 0 - 1/8 (0.018 mi.)*	*B21*	*20*
RITE AID NO 5428	*3420 WILSHIRE*	*ENE 0 - 1/8 (0.026 mi.)*	*B25*	*25*
YUNAN RADIOLOGY MEDICAL GRP	*3545 WILSHIRE BLVD 109*	*WNW 0 - 1/8 (0.083 mi.)*	*D34*	*56*
PARAMOUNT PLAZA	*3550 WILSHIRE BLVD SUIT*	*WNW 0 - 1/8 (0.107 mi.)*	*G42*	*63*
COMMUTER TRANSPORTATION SERVIC	*3550 WILSHIRE BL STE 30*	*WNW 0 - 1/8 (0.107 mi.)*	*G43*	*64*
DR CHO CHIROPRACTIC CLINIC	*3242 W 8TH ST STE 201*	*SSE 1/8 - 1/4 (0.147 mi.)*	*L62*	*75*
MOTCCH	*664 S CATALINA AVE*	*E 1/8 - 1/4 (0.191 mi.)*	*85*	*90*
CHEVRON STATION 9 5294	*549 S NORMANDIE AVE*	*N 1/8 - 1/4 (0.197 mi.)*	*T89*	*95*

Lower Elevation	Address	Direction / Distance	Map ID	Page
20/20 CLEANERS	*698 S IROLO ST*	*SW 0 - 1/8 (0.025 mi.)*	*C23*	*23*
ANDRESEN TYPOGRAPHICS	*3501 W 6TH ST*	*NNE 1/8 - 1/4 (0.138 mi.)*	*I51*	*69*
KINGSLEY AUTO BODY	*3385 W 8TH ST*	*SW 1/8 - 1/4 (0.196 mi.)*	*R87*	*92*
KINGSLEY AUTO TEXACO	*3401 W 8TH ST*	*SW 1/8 - 1/4 (0.211 mi.)*	*R96*	*105*

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 08/05/2014 has revealed that there are 26 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CENTRAL LOS ANGELES LEARNING C	*3400 WILSHIRE BOULEVARD*	*NE 0 - 1/8 (0.044 mi.)*	*B29*	*29*
Status: Certified / Operation & Maintenance				
CAHUENGA ELEMENTARY SITE NO. 1	*MARIPOSA AVENUE/FIFTH S*	*NNE 1/8 - 1/4 (0.250 mi.)*	*115*	*130*
Status: Inactive - Needs Evaluation				
BELMONT NEW ELEMENTARY SCHOOL	*WILSHIRE BOULEVARD/HOBA*	*WNW 1/4 - 1/2 (0.272 mi.)*	*Z116*	*132*
Status: Inactive - Needs Evaluation				
HOBART/WILTON PRIMARY SCHOOL N	*SAN MARINO ST/OLYMPIC B*	*S 1/4 - 1/2 (0.366 mi.)*	*121*	*149*
Status: Inactive - Needs Evaluation				
CENTRAL LOS ANGELES MIDDLE SCH	*VERMONT AVENUE/WILSHIRE*	*ENE 1/4 - 1/2 (0.409 mi.)*	*AA128*	*181*
Status: Certified				

EXECUTIVE SUMMARY

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CAHUENGA ELEM #11/CDE	***HARVARD BOULEVARD/THIRD***	***NNW 1/2 - 1 (0.532 mi.)***	***137***	***222***
Status: Inactive - Needs Evaluation				
SAV-MOR OIL COMPANY	***4217 WEST THIRD STREET***	***NNW 1/2 - 1 (0.603 mi.)***	***138***	***225***
Status: Refer: Other Agency				
CAMINO NUEVO CHARTER ACADEMY P	***3400 WEST 3RD STREET***	***NE 1/2 - 1 (0.742 mi.)***	***143***	***236***
Status: No Further Action				
MONSENOR OSCAR ROMERO CHARTER	***1157 SOUTH BERENDO ST***	***SSE 1/2 - 1 (0.743 mi.)***	***144***	***240***
Status: Active				
HOOVER STREET ELEMENTARY	***2726 FRANCIS AVE***	***ESE 1/2 - 1 (0.819 mi.)***	***147***	***248***
Status: Certified				
COMMONWEALTH ELEMENTARY SCHOOL	***213 SOUTH COMMONWEALTH***	***NE 1/2 - 1 (0.950 mi.)***	***151***	***264***
Status: Certified / Operation & Maintenance				
CENTRAL REGION ELEMENTARY SCHO	***COUNCIL STREET/JUANITA***	***NNE 1/2 - 1 (0.966 mi.)***	***152***	***273***
Status: Active				
BELMONT NEW ELEMENTARY NO. 6	***NORTH VERMONT AVENUE/CO***	***NNE 1/2 - 1 (0.971 mi.)***	***153***	***293***
Status: Certified				

Lower Elevation	Address	Direction / Distance	Map ID	Page
HOBART/WILTON PRIMARY SCHOOL N	***7TH STREET/HOBART BOULE***	***WSW 1/8 - 1/4 (0.215 mi.)***	***98***	***113***
Status: Inactive - Withdrawn				
HOBART/WILTON PRIMARY SCHOOL N	***SERRANO AVENUE/EIGHTH S***	***WSW 1/4 - 1/2 (0.382 mi.)***	***122***	***151***
Status: Inactive - Needs Evaluation				
HOBART ELEMENTARY SCHOOL ADDIT	***3336 SAN MARINO STREET***	***SSW 1/4 - 1/2 (0.428 mi.)***	***130***	***188***
Status: Certified				
LOS ANGELES PRIMARY CENTER NO.	***WEST OLYMPIC BOULEVARDS***	***S 1/4 - 1/2 (0.497 mi.)***	***AC136***	***214***
Status: Certified				
HOBART/WILTON PRIMARY SCHOOL N	***800,820,826 ST. ANDREWS***	***WSW 1/2 - 1 (0.617 mi.)***	***AD139***	***226***
Status: Inactive - Withdrawn				
HOBART/WILTON PRIMARY SCHOOL N	***9TH STREET/SAINT ANDREW***	***WSW 1/2 - 1 (0.623 mi.)***	***AD140***	***229***
Status: Inactive - Withdrawn				
HOBART/WILTON PRIMARY SCHOOL N	***WILSHIRE BOULEVARD/BRON***	***W 1/2 - 1 (0.720 mi.)***	***AE141***	***231***
Status: Inactive - Needs Evaluation				
HOBART/WILTON PRIMARY SCHOOL N	***SAN MARINO ST/SAINT AND***	***WSW 1/2 - 1 (0.729 mi.)***	***142***	***234***
Status: Inactive - Withdrawn				
LOS ANGELES ELEMENTARY SCHOOL	***WILSHIRE BOULEVARD/WILT***	***W 1/2 - 1 (0.772 mi.)***	***AE145***	***242***
Status: Certified				
LOS ANGELES NEW PRIMARY CENTER	***WILSHIRE BLVD./INGRAHAM***	***W 1/2 - 1 (0.773 mi.)***	***AE146***	***246***
Status: Inactive - Withdrawn				
HOBART/WILTON PRIMARY SCHOOL N	***WILSHIRE BOULEVARD/BRON***	***W 1/2 - 1 (0.863 mi.)***	***148***	***253***
Status: Inactive - Withdrawn				
Status: Inactive - Needs Evaluation				
LOS ANGELES PRIMARY CENTER NO.	***WILSHIRE BOULEVARD/INGR***	***W 1/2 - 1 (0.924 mi.)***	***AF149***	***258***
Status: Inactive - Withdrawn				
HOBART/WILTON PRIMARY SCHOOL N	***INGRAHAM STREET/7TH STR***	***W 1/2 - 1 (0.934 mi.)***	***AF150***	***261***
Status: Inactive - Withdrawn				

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 07/30/2014 has revealed that there are 19 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CENTRAL LOS ANGELES LEARNING C	***3400 WILSHIRE BOULEVARD***	***NE 0 - 1/8 (0.044 mi.)***	***B29***	***29***
Status: Completed - Case Closed				
AMBASSADOR HOTEL (FORMER)	3400 WILSHIRE BLVD	NE 0 - 1/8 (0.044 mi.)	B32	54
JAMISON PROPERTY	3550 6TH ST. W.	N 0 - 1/8 (0.120 mi.)	H44	65
Status: Completed - Case Closed				
CHEVRON STATION 9 5294	***549 S NORMANDIE AVE***	***N 1/8 - 1/4 (0.197 mi.)***	***T89***	***95***
Status: Open - Remediation				
G & C MAINTENANCE (FORMER) ARC	3325 6TH ST. W.	NE 1/8 - 1/4 (0.249 mi.)	Y111	121
Status: Completed - Case Closed				
ARCO #0020	***3325 006TH ST W***	***NE 1/8 - 1/4 (0.249 mi.)***	***Y113***	***127***
Status: Completed - Case Closed				
CATELLUS DEVELOPMENT CORP	***3324 006TH ST W***	***NE 1/4 - 1/2 (0.281 mi.)***	***Y118***	***136***
Status: Completed - Case Closed				
ARCO #5355	***3675 WILSHIRE BLVD***	***WNW 1/4 - 1/2 (0.315 mi.)***	***Z120***	***139***
Status: Completed - Case Closed				
TEXACO STATION	***3201 WILSHIRE BLVD***	***E 1/4 - 1/2 (0.403 mi.)***	***AA123***	***154***
Status: Completed - Case Closed				
TEXACO SVC STA	***3201 WILSHIRE BLVD***	***E 1/4 - 1/2 (0.403 mi.)***	***AA124***	***159***
TOSCO - 76 STATION #5283 (FORM	703 VERMONT AVE S	E 1/4 - 1/2 (0.406 mi.)	AB126	165
Status: Completed - Case Closed				
SHELL #204-4539-5906	***700 VERMONT AVE S***	***E 1/4 - 1/2 (0.408 mi.)***	***AB127***	***172***
Status: Completed - Case Closed				
HERTZ CORPORATION	***643 VERMONT AVE S***	***ENE 1/4 - 1/2 (0.409 mi.)***	***AA129***	***185***
Status: Completed - Case Closed				
CHEVRON STATION 93674	***561 S VERMONT AVE***	***ENE 1/4 - 1/2 (0.444 mi.)***	***131***	***192***
Status: Completed - Case Closed				
WILSHIRE CAR WASH	***505 VERMONT AVE S***	***NE 1/4 - 1/2 (0.474 mi.)***	***132***	***196***
Status: Open - Eligible for Closure				

Lower Elevation	Address	Direction / Distance	Map ID	Page
CENTURY INDUSTRIES	***761 NORMANDIE AVE S***	***S 0 - 1/8 (0.091 mi.)***	***F38***	***59***
Status: Completed - Case Closed				
KINGSLEY AUTO TEXACO	***3401 W 8TH ST***	***SW 1/8 - 1/4 (0.211 mi.)***	***R96***	***105***
Status: Completed - Case Closed				
LAUSD	***2957 OLYMPIC BLVD. W.***	***S 1/4 - 1/2 (0.496 mi.)***	***AC134***	***210***
EXXON SERVICE STATION #7-6996	***2950 OLYMPIC BLVD W***	***S 1/4 - 1/2 (0.497 mi.)***	***AC135***	***212***
Status: Completed - Case Closed				

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 07/30/2014 has revealed that there are 3 SLIC sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
DFK CORP. Facility Status: Completed - Case Closed	3278 WILSHIRE BLVD	ENE 1/4 - 1/2 (0.293 mi.)	119	139

Lower Elevation	Address	Direction / Distance	Map ID	Page
KOREAN DRYCLEANERS & LAUNDRY Facility Status: Open - Site Assessment	3807 WILSHIRE BLVD. #72	W 1/4 - 1/2 (0.489 mi.)	133	210
LAUSD Facility Status: Open - Site Assessment	***2957 OLYMPIC BLVD. W.***	***S 1/4 - 1/2 (0.496 mi.)***	***AC134***	***210***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 07/30/2014 has revealed that there are 4 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
METROPLEX WILSHIRE	3530 WILSHIRE BLVD	WNW 0 - 1/8 (0.040 mi.)	D27	27
AMBASSADOR HOTEL	***3400 WILSHIRE BLVD***	***NE 0 - 1/8 (0.044 mi.)***	***B30***	***53***
K F I INC	***610 S ARDMORE AVE***	***NNW 1/8 - 1/4 (0.141 mi.)***	***K56***	***73***
ARCO AM PM MINI MARKET #20	3325 W 6TH ST	NE 1/8 - 1/4 (0.249 mi.)	Y114	129

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 08/05/2014 has revealed that there are 3 SCH sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CENTRAL LOS ANGELES LEARNING C	***3400 WILSHIRE BOULEVARD***	***NE 0 - 1/8 (0.044 mi.)***	***B29***	***29***
CAHUENGA ELEMENTARY SITE NO. 1	***MARIPOSA AVENUE/FIFTH S***	***NNE 1/8 - 1/4 (0.250 mi.)***	***115***	***130***

Lower Elevation	Address	Direction / Distance	Map ID	Page
HOBART/WILTON PRIMARY SCHOOL N	***7TH STREET/HOBART BOULE***	***WSW 1/8 - 1/4 (0.215 mi.)***	***98***	***113***

Local Lists of Registered Storage Tanks

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 8 CA FID UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BUSINESS PROPERTIES	***3530 WILSHIRE BLVD***	***WNW 0 - 1/8 (0.040 mi.)***	***D26***	***26***
AMBASSADOR HOTEL	3400 WILSHIRE BLVD	NE 0 - 1/8 (0.044 mi.)	B31	54
INNER CITY EQUITIES	***3377 WILSHIRE BLVD***	***ENE 0 - 1/8 (0.083 mi.)***	***E35***	***57***
K F I INC	610 S ARDMORE AVE	NNW 1/8 - 1/4 (0.141 mi.)	K54	72
TEXACO STATION	***3350 WILSHIRE BLVD***	***ENE 1/8 - 1/4 (0.156 mi.)***	***J74***	***82***
ARCO AM PM MINI MARKET	***3325 W 6TH ST***	***NE 1/8 - 1/4 (0.249 mi.)***	***Y108***	***118***

Lower Elevation	Address	Direction / Distance	Map ID	Page
U-LOCK SELF STORAGE	***761 S NORMANDIE AVE***	***S 0 - 1/8 (0.091 mi.)***	***F37***	***58***
CHUL JAE LEE/CHU CHA LEE	***3401 W 8TH ST***	***SW 1/8 - 1/4 (0.211 mi.)***	***R95***	***104***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 5 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TEXACO U.S.A.	3350 WILSHIRE BLVD	ENE 1/8 - 1/4 (0.139 mi.)	J52	70
TEXACO INC.	3350 WILSHIRE BLVD	ENE 1/8 - 1/4 (0.139 mi.)	J53	71
KFI-KOST STUDIO	610 S ARDMORE AVE	NNW 1/8 - 1/4 (0.141 mi.)	K55	72
95294	549 S NORMANDIE AVE	N 1/8 - 1/4 (0.196 mi.)	T88	94
SAEED KOHANOFF	3325 W 6TH ST	NE 1/8 - 1/4 (0.249 mi.)	Y112	126

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 8 SWEEPS UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BUSINESS PROPERTIES	***3530 WILSHIRE BLVD***	***WNW 0 - 1/8 (0.040 mi.)***	***D26***	***26***
AMBASSADOR HOTEL	***3400 WILSHIRE BLVD***	***NE 0 - 1/8 (0.044 mi.)***	***B30***	***53***
INNER CITY EQUITIES	***3377 WILSHIRE BLVD***	***ENE 0 - 1/8 (0.083 mi.)***	***E35***	***57***
K F I INC	***610 S ARDMORE AVE***	***NNW 1/8 - 1/4 (0.141 mi.)***	***K56***	***73***
TEXACO STATION	***3350 WILSHIRE BLVD***	***ENE 1/8 - 1/4 (0.156 mi.)***	***J74***	***82***
ARCO AM PM MINI MARKET	***3325 W 6TH ST***	***NE 1/8 - 1/4 (0.249 mi.)***	***Y108***	***118***

Lower Elevation	Address	Direction / Distance	Map ID	Page
U-LOCK SELF STORAGE	***761 S NORMANDIE AVE***	***S 0 - 1/8 (0.091 mi.)***	***F37***	***58***
CHUL JAE LEE/CHU CHA LEE	***3401 W 8TH ST***	***SW 1/8 - 1/4 (0.211 mi.)***	***R95***	***104***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/10/2014 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LOPAPA INSTITUTE INC	3435 WILSHIRE BLVD	NE 0 - 1/8 (0.018 mi.)	B20	19

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 14 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CENTRAL LOS ANGELES LEARNING C	***3400 WILSHIRE BOULEVARD***	***NE 0 - 1/8 (0.044 mi.)***	***B29***	***29***
CHEVRON STATION 9 5294	***549 S NORMANDIE AVE***	***N 1/8 - 1/4 (0.197 mi.)***	***T89***	***95***
ARCO #0020	***3325 006TH ST W***	***NE 1/8 - 1/4 (0.249 mi.)***	***Y113***	***127***
CATELLUS DEVELOPMENT CORP	***3324 006TH ST W***	***NE 1/4 - 1/2 (0.281 mi.)***	***Y118***	***136***
ARCO #5355	***3675 WILSHIRE BLVD***	***WNW 1/4 - 1/2 (0.315 mi.)***	***Z120***	***139***
TEXACO STATION	***3201 WILSHIRE BLVD***	***E 1/4 - 1/2 (0.403 mi.)***	***AA123***	***154***
TOSCO/76 PRODUCTS STATION	703 VERMONT	E 1/4 - 1/2 (0.406 mi.)	AB125	164
SHELL #204-4539-5906	***700 VERMONT AVE S***	***E 1/4 - 1/2 (0.408 mi.)***	***AB127***	***172***
HERTZ CORPORATION	***643 VERMONT AVE S***	***ENE 1/4 - 1/2 (0.409 mi.)***	***AA129***	***185***
CHEVRON STATION 93674	***561 S VERMONT AVE***	***ENE 1/4 - 1/2 (0.444 mi.)***	***131***	***192***
WILSHIRE CAR WASH	***505 VERMONT AVE S***	***NE 1/4 - 1/2 (0.474 mi.)***	***132***	***196***

Lower Elevation	Address	Direction / Distance	Map ID	Page
CENTURY INDUSTRIES	***761 NORMANDIE AVE S***	***S 0 - 1/8 (0.091 mi.)***	***F38***	***59***
KINGSLEY AUTO TEXACO	***3401 W 8TH ST***	***SW 1/8 - 1/4 (0.211 mi.)***	***R96***	***105***
EXXON SERVICE STATION #7-6996	***2950 OLYMPIC BLVD W***	***S 1/4 - 1/2 (0.497 mi.)***	***AC135***	***212***

DRYCLEANERS: A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaners' agents; linen supply; coin-operated laundries and cleaning; drycleaning plants except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

A review of the DRYCLEANERS list, as provided by EDR, and dated 06/28/2014 has revealed that there are 4 DRYCLEANERS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHAPMAN PARK CLEANERS	3450 W 6TH ST	NE 1/8 - 1/4 (0.175 mi.)	Q81	88

Lower Elevation	Address	Direction / Distance	Map ID	Page
20/20 CLEANER CORP	698 IROLO ST	SW 0 - 1/8 (0.025 mi.)	C24	25

Lower Elevation	Address	Direction / Distance	Map ID	Page
ONE HOUR CLEANER	***3330 W 8TH ST***	***SSW 1/8 - 1/4 (0.149 mi.)***	***M67***	***77***
MARTINIZING CERTIFIES CLEANING	***3330 W 8TH ST***	***SSW 1/8 - 1/4 (0.149 mi.)***	***M69***	***80***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 24 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	3435 WILSHIRE BLVD	NE 0 - 1/8 (0.018 mi.)	B18	18
Not reported	3530 WILSHIRE BLVD	NW 0 - 1/8 (0.057 mi.)	D33	55
Not reported	3550 WILSHIRE BLVD	WNW 0 - 1/8 (0.096 mi.)	G40	62
MATHIS ROBT	3351 WILSHIRE BLVD	ENE 1/8 - 1/4 (0.128 mi.)	E45	67
MORRIS DONNELLEY	3580 W 6TH ST	N 1/8 - 1/4 (0.131 mi.)	H47	68
Not reported	3580 WILSHIRE BLVD	WNW 1/8 - 1/4 (0.132 mi.)	G48	68
HOLT ARTH	3601 W 6TH ST	N 1/8 - 1/4 (0.134 mi.)	H50	69
GOLDEN BEAR SERVICE STATION	3600 WILSHIRE BLVD	WNW 1/8 - 1/4 (0.149 mi.)	N66	77
Not reported	690 S CATALINA ST	E 1/8 - 1/4 (0.190 mi.)	S84	90
JARRETT JOS	3618 WILSHIRE BLVD	WNW 1/8 - 1/4 (0.198 mi.)	N90	103
MATTERN C J	3424 W 6TH ST	NE 1/8 - 1/4 (0.202 mi.)	Q92	103
Not reported	620 S CATALINA ST	ENE 1/8 - 1/4 (0.210 mi.)	V94	104
Not reported	553 S KENMORE AVE	NE 1/8 - 1/4 (0.223 mi.)	W100	116
Not reported	550 S KENMORE AVE	NE 1/8 - 1/4 (0.226 mi.)	W101	116
MORSE H K	604 S CATALINA ST	NE 1/8 - 1/4 (0.227 mi.)	V102	117
MC COY J W	3400 W 6TH ST	NE 1/8 - 1/4 (0.229 mi.)	V103	117
MARTIN J P	3401 W 6TH ST	NE 1/8 - 1/4 (0.230 mi.)	V104	117
Not reported	3727 W 6TH ST	NW 1/8 - 1/4 (0.232 mi.)	X105	117
DAVIS O L	3325 W 6TH ST	NE 1/8 - 1/4 (0.249 mi.)	Y109	120
KOHANOFF ARCO AM PM MINI MARKE	3325 W 6TH	NE 1/8 - 1/4 (0.249 mi.)	Y110	120

Lower Elevation	Address	Direction / Distance	Map ID	Page
FAILAS CLARK	3531 W 6TH ST	NNE 1/8 - 1/4 (0.130 mi.)	I46	68
THETIEN H T	770 S KINGSLEY DR	SW 1/8 - 1/4 (0.183 mi.)	R82	89
Not reported	3385 W 8TH ST	SW 1/8 - 1/4 (0.196 mi.)	R86	92
ROBLICK GENE	3401 W 8TH ST	SW 1/8 - 1/4 (0.211 mi.)	R97	112

EXECUTIVE SUMMARY

EDR US Hist Cleaners: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Cleaners list, as provided by EDR, has revealed that there are 30 EDR US Hist Cleaners sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	3435 WILSHIRE BLVD	NE 0 - 1/8 (0.018 mi.)	B19	18
Not reported	3540 WILSHIRE BLVD	WNW 0 - 1/8 (0.085 mi.)	D36	58
Not reported	3550 WILSHIRE BLVD	WNW 0 - 1/8 (0.096 mi.)	G39	61
LEVINE HARRIS	3265 W 8TH ST	S 1/8 - 1/4 (0.145 mi.)	L57	73
LAZARUS CHAS	3283 W 8TH ST	S 1/8 - 1/4 (0.145 mi.)	L58	74
PATTIG HYMAN	3285 W 8TH ST	S 1/8 - 1/4 (0.145 mi.)	L59	74
Not reported	3600 WILSHIRE BLVD	WNW 1/8 - 1/4 (0.149 mi.)	N65	76
BLACKWELL D E MRS	3204 W 8TH ST	SSE 1/8 - 1/4 (0.156 mi.)	P73	82
Not reported	3663 W 6TH ST	NNW 1/8 - 1/4 (0.166 mi.)	K77	86
SAMUELS MAX	3186 W 8TH ST	SE 1/8 - 1/4 (0.168 mi.)	P78	86
Not reported	3450 W 6TH ST	NE 1/8 - 1/4 (0.174 mi.)	Q80	87
SCHWARTZ RUDOLPH	3425 W 6TH ST	NE 1/8 - 1/4 (0.201 mi.)	Q91	103
Not reported	3150 W 8TH ST	SE 1/8 - 1/4 (0.206 mi.)	U93	103
Not reported	3727 W 6TH ST	NW 1/8 - 1/4 (0.232 mi.)	X106	118
LAPPIN MORRIS	3127 W 8TH ST	SE 1/8 - 1/4 (0.245 mi.)	U107	118

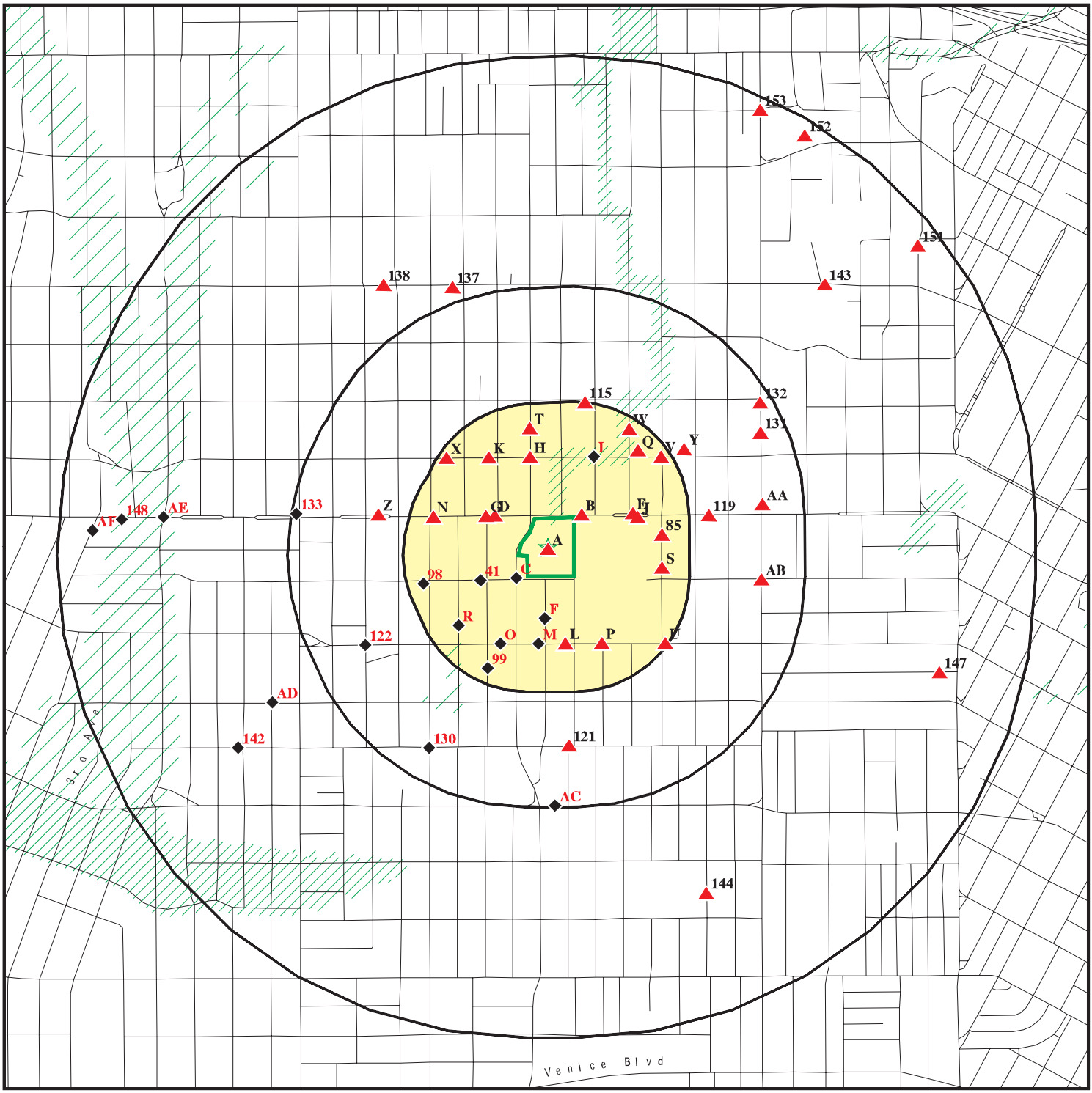
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	3432 WILSHIRE BLVD	NE 0 - 1/8 (0.003 mi.)	B17	18
Not reported	698 IROLO ST	SW 0 - 1/8 (0.025 mi.)	C22	23
Not reported	3460 W 7TH ST	WSW 0 - 1/8 (0.098 mi.)	41	62
FANSET DYE WORKS	3510 W 6TH ST	NNE 1/8 - 1/4 (0.132 mi.)	I49	68
LEE H	3305 W 8TH ST	S 1/8 - 1/4 (0.146 mi.)	L60	74
KINEMA CLEANERS	3307 W 8TH ST	S 1/8 - 1/4 (0.146 mi.)	M61	74
LEE QUONG	3312 W 8TH ST	S 1/8 - 1/4 (0.148 mi.)	M63	76
Not reported	3318 W 8TH ST	S 1/8 - 1/4 (0.148 mi.)	M64	76
Not reported	3330 W 8TH ST	SSW 1/8 - 1/4 (0.149 mi.)	M68	79
Not reported	3332 W 8TH ST	SSW 1/8 - 1/4 (0.149 mi.)	M70	81
Not reported	3339 W 8TH ST	SSW 1/8 - 1/4 (0.154 mi.)	O71	82
COSTANTINE HARRY	3341 W 8TH ST	SSW 1/8 - 1/4 (0.155 mi.)	O72	82
LEE KIM	3343 W 8TH ST	SSW 1/8 - 1/4 (0.157 mi.)	O76	85
Not reported	3360 W 8TH ST	SSW 1/8 - 1/4 (0.171 mi.)	O79	87
Not reported	840 S ARDMORE AVE	SSW 1/8 - 1/4 (0.217 mi.)	99	116

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 18 records.

Site Name	Database(s)
ALODOWN PLAZA	RGA LUST
ATHERTON PLAZA	RGA LUST
BUNDY CENTRAL OFFICE	RGA LUST
BUNDY CENTRAL OFFICE	RGA LUST
10 UNIVERSAL CITY PLAZA	RGA LUST
MOBIL STATION #10-KDQ	HIST CORTESE, WMUDS/SWAT
CHEVRON USA INC ALISO CYN	CERC-NFRAP
WARD'S DUMP	SWF/LF
LEDGER #2	SWF/LF
PENMAR GOLF COURSE	SWF/LF
S.F. & BRAZIL	SWF/LF
PAK'S WESTERN PLAZA LLC	LUST
HOVSEP YACOUBIAN	UST
HONOR RANCHO GASOLINE PLANT	HIST UST
PARAMOUNT PLAZA, LLC	HAZNET
PLAZA DE LEON APARTMENTS	HAZNET
CENTRAL REGION ES 13	HAZNET
LOIS M FISHER TRUST FISHER PROPERT	RCRA-LQG

OVERVIEW MAP - 04110183.3R



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

Areas of Concern

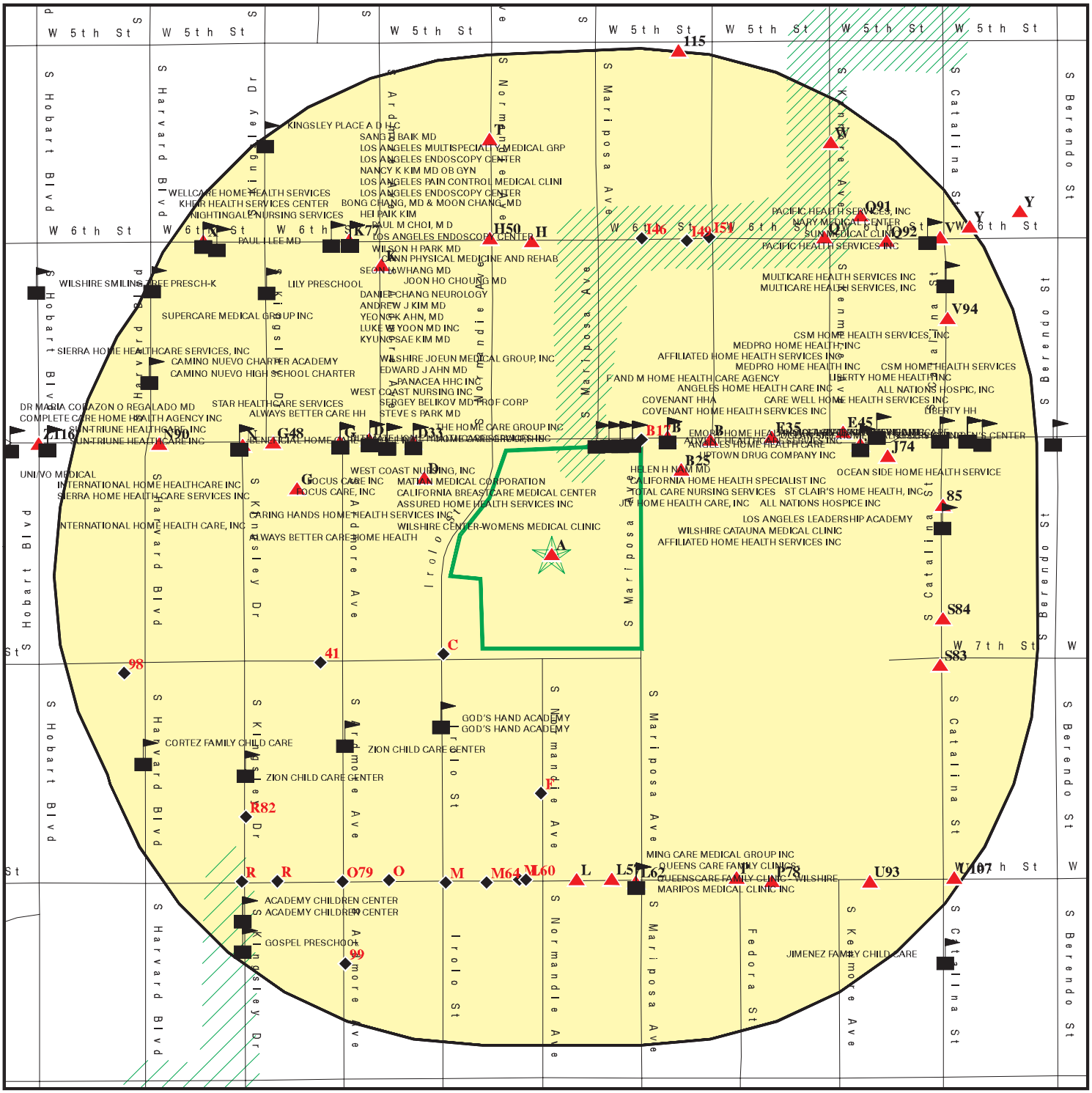
N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Central Plaza Office	CLIENT: IVI Assessment Services, Inc.
ADDRESS: 3440, 3450, 3460 and 3470 Wilshire Boulevard Los Angeles CA 90005	CONTACT: Sara Wagner
LAT/LONG: 34.0607 / 118.2997	INQUIRY #: 04110183.3r DATE: October 20, 2014 3:33 pm

Copyright © 2014 EDR, Inc. © 2010 Tele Atlas Rel. 07/2009.

DETAIL MAP - 04110183.3R



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Central Plaza Office	CLIENT: IVI Assessment Services, Inc.
ADDRESS: 3440, 3450, 3460 and 3470 Wilshire Boulevard Los Angeles CA 90005	CONTACT: Sara Wagner
LAT/LONG: 34.0607 / 118.2997	INQUIRY #: 04110183.3r DATE: October 20, 2014 3:36 pm

Copyright © 2014 EDR, Inc. © 2010 Tele Atlas Rel. 07/2009.

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	1	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		1	2	NR	NR	NR	3
RCRA-SQG	0.250		6	6	NR	NR	NR	12
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		1	2	6	17	NR	26
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		4	4	11	NR	NR	19

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500		0	0	3	NR	NR	3
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250		2	2	NR	NR	NR	4
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		1	2	NR	NR	NR	3
Toxic Pits	1.000		0	0	0	0	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250	1	4	4	NR	NR	NR	9
HIST UST	0.250		0	5	NR	NR	NR	5
SWEEPS UST	0.250	1	4	4	NR	NR	NR	9
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250	2	1	0	NR	NR	NR	3
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP	2	NR	NR	NR	NR	NR	2
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500		2	3	9	NR	NR	14
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	TP		NR	NR	NR	NR	NR	0
DRYCLEANERS	0.250		1	3	NR	NR	NR	4
LOS ANGELES CO. HMS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	11	NR	NR	NR	NR	NR	11
EMI	TP		NR	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
US AIRS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250	3	3	21	NR	NR	NR	27
EDR US Hist Cleaners	0.250		6	24	NR	NR	NR	30
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LUST	TP		NR	NR	NR	NR	NR	0
RGA LF	TP		NR	NR	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **CENTRAL PLAZA** **HAZNET** **S112899928**
Target **3450 WILSHIRE BLVD** **N/A**
Property **LOS ANGELES, CA 90010**

Site 1 of 16 in cluster A

Actual:
212 ft.

HAZNET:

Year:	1999
Gepaid:	CAC002136113
Contact:	CENTRAL PLAZA
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	3450 WILSHIRE BLVD #400
Mailing City,St,Zip:	LOS ANGELES, CA 900100000
Gen County:	Not reported
TSD EPA ID:	CAD089446710
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Transfer Station
Tons:	1.0450
Facility County:	Los Angeles

Year:	1999
Gepaid:	CAC002136113
Contact:	CENTRAL PLAZA
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	3450 WILSHIRE BLVD #400
Mailing City,St,Zip:	LOS ANGELES, CA 900100000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Disposal, Land Fill
Tons:	29.4980
Facility County:	Los Angeles

Year:	1999
Gepaid:	CAC002136113
Contact:	CENTRAL PLAZA
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	3450 WILSHIRE BLVD #400
Mailing City,St,Zip:	LOS ANGELES, CA 900100000
Gen County:	Not reported
TSD EPA ID:	CAD089446710
TSD County:	Not reported
Waste Category:	Unspecified alkaline solution
Disposal Method:	Transfer Station
Tons:	.2250
Facility County:	Los Angeles

Year:	1999
Gepaid:	CAC002136113
Contact:	CENTRAL PLAZA
Telephone:	0000000000
Mailing Name:	Not reported
Mailing Address:	3450 WILSHIRE BLVD #400
Mailing City,St,Zip:	LOS ANGELES, CA 900100000

CENTRAL PLAZA (Continued) **S112899928**

Gen County: Not reported
TSD EPA ID: AZR000005454
TSD County: Not reported
Waste Category: Polychlorinated biphenyls and material containing PCBs
Disposal Method: Not reported
Tons: .6000
Facility County: Los Angeles

Year: 1999
Gepaid: CAC002136113
Contact: CENTRAL PLAZA
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3450 WILSHIRE BLVD #400
Mailing City,St,Zip: LOS ANGELES, CA 900100000
Gen County: Not reported
TSD EPA ID: CAD089446710
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Tons: .0600
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
2 additional CA_HAZNET: record(s) in the EDR Site Report.

A2 Target Property **CENTRAL PLAZA**
3450 WILSHIRE BLVD SUITE #408
LOS ANGELES, CA 90010

RCRA NonGen / NLR **1000419140**
FINDS **CAD981455223**
CA FID UST
SWEEPS UST

Site 2 of 16 in cluster A

Actual: 212 ft.

RCRA NonGen / NLR:
Date form received by agency: 09/08/2000
Facility name: CENTRAL PLAZA
Facility address: 3450 WILSHIRE BLVD SUITE #408
LOS ANGELES, CA 90010
EPA ID: CAD981455223
Contact: PAUL KIM
Contact address: 3450 WILSHIRE BLVD SUITE 400
LOS ANGELES, CA 90010
Contact country: US
Contact telephone: (213) 487-3770
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: B SCHLESINGER E MAYER
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported

CENTRAL PLAZA (Continued) **1000419140**

Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002713234

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CA FID UST:
Facility ID: 19013518
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 3450 WILSHIRE BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900100000
Contact: Not reported
Contact Phone: Not reported

CENTRAL PLAZA (Continued) **1000419140**

DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

SWEEPS UST:
Status: Not reported
Comp Number: 5515
Number: Not reported
Board Of Equalization: 44-013223
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-005515-000001
Tank Status: Not reported
Capacity: 1
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Status: Not reported
Comp Number: 5515
Number: Not reported
Board Of Equalization: 44-013223
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-005515-000002
Tank Status: Not reported
Capacity: 1
Active Date: Not reported
Tank Use: M.V. FUEL
STG: PRODUCT
Content: REG UNLEADED
Number Of Tanks: Not reported

A3 **CENTRAL PLAZA LLC** **HAZNET** **S112990375**
Target **3470 WILSHIRE BLVD** **N/A**
Property **LOS ANGELES, CA 90010**

Site 3 of 16 in cluster A

Actual:
212 ft.

HAZNET:
Year: 2011
Gepaid: CAC002672013
Contact: VICTOR CATLAN
Telephone: 2134873770
Mailing Name: Not reported
Mailing Address: 3450 WILSHIRE BLVD STE 420
Mailing City,St,Zip: LOS ANGELES, CA 900102214
Gen County: Not reported
TSD EPA ID: CAD009007626

CENTRAL PLAZA LLC (Continued) **S112990375**

TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 3.6
Facility County: Los Angeles

A4 **JAMISON SERVICES** **HAZNET** **S113778759**
Target **3470 WILSHIRE BLVD** **N/A**
Property **LOS ANGELES, CA 90010**

Site 4 of 16 in cluster A

Actual:
212 ft.

HAZNET:
Year: 2012
Gepaid: CAC002692377
Contact: JOSEPH AHN
Telephone: 2137854013
Mailing Name: Not reported
Mailing Address: 3450 WILSHIRE BLVD STE 420
Mailing City,St,Zip: LOS ANGELES, CA 90010
Gen County: Los Angeles
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 0.8
Facility County: Los Angeles

A5 **1X ZUFU PROPERTIES COMPANY, LTD.** **HAZNET** **S112838126**
Target **3450 WILSHIRE BLVD.** **N/A**
Property **LOS ANGELES, CA 90010**

Site 5 of 16 in cluster A

Actual:
212 ft.

HAZNET:
Year: 1994
Gepaid: CAC000523624
Contact: ZUFU PROPERTIES COMPANY, LTD.
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 3450 WILSHIRE BLVD.
Mailing City,St,Zip: LOS ANGELES, CA 900100000
Gen County: Not reported
TSD EPA ID: CAD067786749
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 20.2272
Facility County: Los Angeles

Year: 1994
Gepaid: CAC000523624
Contact: ZUFU PROPERTIES COMPANY, LTD.
Telephone: 0000000000

1X ZUFU PROPERTIES COMPANY, LTD. (Continued) **S112838126**

Mailing Name: Not reported
Mailing Address: 3450 WILSHIRE BLVD.
Mailing City,St,Zip: LOS ANGELES, CA 900100000
Gen County: Not reported
TSD EPA ID: CAD067786749
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Not reported
Tons: .8428
Facility County: Los Angeles

A6 **PACIFIC BELL** **RCRA NonGen / NLR** **1000250358**
Target **3470 WILSHIRE** **FINDS** **CAT080023229**
Property **LOS ANGELES, CA 90010**

Site 6 of 16 in cluster A

Actual: 212 ft.

RCRA NonGen / NLR:
Date form received by agency: 09/02/1997
Facility name: PACIFIC BELL
Facility address: 3470 WILSHIRE
LOS ANGELES, CA 90010
EPA ID: CAT080023229
Mailing address: 170 N FAIR OAKS RM 104
PASADENA, CA 91103
Contact: ENVIRONMENTAL MANAGER
Contact address: 3470 WILSHIRE
LOS ANGELES, CA 90010
Contact country: US
Contact telephone: (213) 578-2827
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
LOS ANGELES, CA 90010
Owner/operator country: Not reported
Owner/operator telephone: (213) 578-2827
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

PACIFIC BELL (Continued) **1000250358**

Handler Activities Summary:
- U.S. importer of hazardous waste: No
- Mixed waste (haz. and radioactive): No
- Recycler of hazardous waste: No
- Transporter of hazardous waste: No
- Treater, storer or disposer of HW: No
- Underground injection activity: No
- On-site burner exemption: No
- Furnace exemption: No
- Used oil fuel burner: No
- Used oil processor: No
- User oil refiner: No
- Used oil fuel marketer to burner: No
- Used oil Specification marketer: No
- Used oil transfer facility: No
- Used oil transporter: No

Historical Generators:
- Date form received by agency: 09/01/1996
- Site name: PACIFIC BELL
- Classification: Small Quantity Generator

- Date form received by agency: 01/19/1981
- Site name: PACIFIC BELL
- Classification: Large Quantity Generator

- Violation Status: No violations found

FINDS:

- Registry ID: 110002951315

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A7 **JAMISON SERVICES INC** **HAZNET** **S112956316**
Target **3470 WILSHIRE BLVD STE 812** **N/A**
Property **LOS ANGELES, CA 90010**

Site 7 of 16 in cluster A

Actual:
212 ft.

HAZNET:
- Year: 2006
- Gepaid: CAC002608257
- Contact: PETER HONG/MGR
- Telephone: 2134873770
- Mailing Name: Not reported
- Mailing Address: 3450 WILSHIRE BLVD STE 420
- Mailing City,St,Zip: LOS ANGELES, CA 90010
- Gen County: Not reported
- TSD EPA ID: CAD028409019

JAMISON SERVICES INC (Continued) **S112956316**

TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons: 0.3
Facility County: Los Angeles

A8 **CENTRAL PLAZA** **HAZNET** **S112954162**
Target Property **3450 WILSHIRE BLVD STE 420** **N/A**
LOS ANGELES, CA 90010

Site 8 of 16 in cluster A

Actual: 212 ft.

HAZNET:
Year: 2006
Gepaid: CAC002604705
Contact: VICTOR CATALAN
Telephone: 2134873770
Mailing Name: Not reported
Mailing Address: 3450 WILSHIRE BLVD STE 420
Mailing City,St,Zip: LOS ANGELES, CA 900102214
Gen County: Not reported
TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 6.48
Facility County: Los Angeles

A9 **EDR US Hist Auto Stat** **1015439889**
Target Property **3450 WILSHIRE BLVD** **N/A**
LOS ANGELES, CA 90010

Site 9 of 16 in cluster A

Actual: 212 ft.

EDR Historical Auto Stations:
Name: MAJESTIC AUTO HOUSE
Year: 2009
Address: 3450 WILSHIRE BLVD

A10 **PACIFIC TELEPHONE AND TELEGRAPH CO** **HAZNET** **S113179964**
Target Property **3470 WILSHIRE** **N/A**
LOS ANGELES, CA 90010

Site 10 of 16 in cluster A

Actual: 212 ft.

HAZNET:
Year: 2000
Gepaid: CAT080023229
Contact: UNDELIVERABLE PER SURVEY
Telephone: --
Mailing Name: Not reported
Mailing Address: 170 N FAIR OAKS RM 104
Mailing City,St,Zip: PASADENA, CA 911030000
Gen County: Not reported

PACIFIC TELEPHONE AND TELEGRAPH CO (Continued) **S113179964**

TSD EPA ID: CAD008364432
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Disposal, Land Fill
Tons: 0.84
Facility County: Los Angeles

A11 **EDR US Hist Auto Stat** **1015440693**
Target Property **3470 WILSHIRE BLVD** **N/A**
LOS ANGELES, CA 90010

Site 11 of 16 in cluster A

Actual: 212 ft.

EDR Historical Auto Stations:
Name: MAJESTIC MOBILITY CONVERSION
Year: 2006
Address: 3470 WILSHIRE BLVD

A12 **SUNG B WANG DDS** **HAZNET** **S113112352**
Target Property **3450 WILSHIRE BLVD STE 410** **N/A**
LOS ANGELES, CA 90010

Site 12 of 16 in cluster A

Actual: 212 ft.

HAZNET:
Year: 2002
Gepaid: CAL000222737
Contact: DR WANG
Telephone: 2133810035
Mailing Name: Not reported
Mailing Address: 3450 WILSHIRE BLVD STE 410
Mailing City,St,Zip: LOS ANGELES, CA 900100485
Gen County: Not reported
TSD EPA ID: CAL000212588
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Not reported
Tons: 0
Facility County: Los Angeles

A13 **CENTRAL PLAZA LLC** **HAZNET** **S112966520**
Target Property **3470 WILSHIRE BLVD** **N/A**
LOS ANGELES, CA 90010

Site 13 of 16 in cluster A

Actual: 212 ft.

HAZNET:
Year: 2007
Gepaid: CAC002624636
Contact: VICTOR CATLAN
Telephone: 2134873770
Mailing Name: Not reported
Mailing Address: 3450 WILSHIRE BLVD STE 420
Mailing City,St,Zip: LOS ANGELES, CA 900102214
Gen County: Not reported

CENTRAL PLAZA LLC (Continued) **S112966520**

TSD EPA ID: CAD009007626
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 2
Facility County: Los Angeles

A14 **EDR US Hist Auto Stat** **1015439288**
Target Property **3440 WILSHIRE BLVD** **N/A**
LOS ANGELES, CA 90010

Site 14 of 16 in cluster A

Actual: 212 ft.

EDR Historical Auto Stations:
Name: M J S AUTOMOTIVE
Year: 2006
Address: 3440 WILSHIRE BLVD

A15 **MARK S LASKA** **HAZNET** **S113167105**
Target Property **3460 WILSHIRE BLVD #104** **N/A**
LOS ANGELES, CA 90010

Site 15 of 16 in cluster A

Actual: 212 ft.

HAZNET:
Year: 1996
Gepaid: CAL921924760
Contact: MARK LASKA
Telephone: 2133863348
Mailing Name: Not reported
Mailing Address: 3460 WILSHIRE BLVD STE 104
Mailing City,St,Zip: LOS ANGELES, CA 900102221
Gen County: Not reported
TSD EPA ID: CAD108040858
TSD County: Not reported
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Tons: .0208
Facility County: Los Angeles

A16 **CENTRAL PLAZA (JAMISON PROPERTIES INC)** **HAZNET** **S112944702**
Target Property **3450 WILSHIRE BLVD** **N/A**
LOS ANGELES, CA 90010

Site 16 of 16 in cluster A

Actual: 212 ft.

HAZNET:
Year: 2007
Gepaid: CAC002589049
Contact: VICTOR CATALAN/CHIEF ENG
Telephone: 2134873770
Mailing Name: Not reported
Mailing Address: 3440 WILSHIRE BLVD STE 200
Mailing City,St,Zip: LOS ANGELES, CA 90010

CENTRAL PLAZA (JAMISON PROPERTIES INC) (Continued) **S112944702**

Gen County: Not reported
TSD EPA ID: TXD077603371
TSD County: Not reported
Waste Category: Liquids with halogenated organic compounds >= 1,000 Mg./L
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.12
Facility County: Los Angeles

B17 **EDR US Hist Cleaners** **1015046862**
NE **3432 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.003 mi.
18 ft. **Site 1 of 11 in cluster B**

Relative:
Lower

Actual:
209 ft.

EDR Historical Cleaners:
Name: SOON HUI KIM CLEANING CO
Year: 2001
Address: 3432 WILSHIRE BLVD

B18 **EDR US Hist Auto Stat** **1015438997**
NE **3435 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.018 mi.
95 ft. **Site 2 of 11 in cluster B**

Relative:
Higher

Actual:
216 ft.

EDR Historical Auto Stations:
Name: YUMAX CORTEZ AUTO TRANSPORT INC
Year: 2002
Address: 3435 WILSHIRE BLVD

Name: CRASH LAND COLLISION CTR INC
Year: 2005
Address: 3435 WILSHIRE BLVD

Name: CRASH LAND COLLISION CENTER INC
Year: 2006
Address: 3435 WILSHIRE BLVD

B19 **EDR US Hist Cleaners** **1015046901**
NE **3435 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.018 mi.
95 ft. **Site 3 of 11 in cluster B**

Relative:
Higher

Actual:
216 ft.

EDR Historical Cleaners:
Name: ON TARGET LAUNDRY LLC
Year: 2005
Address: 3435 WILSHIRE BLVD

Name: YOUNGS CLEANERS
Year: 2007
Address: 3435 WILSHIRE BLVD

Name: YOUNGS CLEANERS
Year: 2008

(Continued) **1015046901**

Address: 3435 WILSHIRE BLVD

Name: YOUNGS CLEANERS
Year: 2010
Address: 3435 WILSHIRE BLVD

B20 **LOPAPA INSTITUTE INC** **RCRA NonGen / NLR** **1000153952**
NE **3435 WILSHIRE BLVD** **CAD072272396**
< 1/8 **LOS ANGELES, CA 90010**
0.018 mi.
95 ft. **Site 4 of 11 in cluster B**

Relative:
Higher

Actual:
216 ft.

RCRA NonGen / NLR:
Date form received by agency: 08/15/1980
Facility name: LOPAPA INSTITUTE INC
Facility address: 3435 WILSHIRE BLVD
LOS ANGELES, CA 90010
EPA ID: CAD072272396
Mailing address: PO BOX 92765 WORLDWAY POSTAL
LOS ANGELES, CA 90009
Contact: ENVIRONMENTAL MANAGER
Contact address: 3435 WILSHIRE BLVD
LOS ANGELES, CA 90010
Contact country: US
Contact telephone: (213) 413-2552
Contact email: Not reported
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: DR ALBERTO LOPAPA
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No

LOPAPA INSTITUTE INC (Continued) **1000153952**

Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B21 **EQUITABLE PLAZA** **RCRA-SQG** **1000263934**
NE **3435 WILSHIRE BLVD** **FINDS** **CAD982042111**
< 1/8 **LOS ANGELES, CA 90010** **HAZNET**
0.018 mi.
95 ft. **Site 5 of 11 in cluster B**

Relative:
Higher

Actual:
216 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	EQUITABLE PLAZA
Facility address:	3435 WILSHIRE BLVD LOS ANGELES, CA 90010
EPA ID:	CAD982042111
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	Not reported
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	RREEF USA FUND 1 CA GRP TRUST
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported

EQUITABLE PLAZA (Continued) **1000263934**

Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 04/16/1990
Site name: RREEF _ EQUITABLE PLAZA
Classification: Large Quantity Generator

Date form received by agency: 09/21/1987
Site name: EQUITABLE PLAZA
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110009543137

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:
Year: 1995
Gepaid: CAD982042111
Contact: RREEF USA FUND I-A CA GRP TRUS
Telephone: 2133833435
Mailing Name: Not reported
Mailing Address: 3435 WILSHIRE BLVD STE 2400
Mailing City,St,Zip: LOS ANGELES, CA 900102010
Gen County: Not reported
TSD EPA ID: CAL000027741
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill

EQUITABLE PLAZA (Continued) **1000263934**

Tons: 8.4280
Facility County: Los Angeles

Year: 1994
Gepaid: CAD982042111
Contact: RREEF USA FUND I-A CA GRP TRUS
Telephone: 2133833435
Mailing Name: Not reported
Mailing Address: 3435 WILSHIRE BLVD STE 2400
Mailing City,St,Zip: LOS ANGELES, CA 900102010
Gen County: Not reported
TSD EPA ID: CAL000027741
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 885.3614
Facility County: Los Angeles

Year: 1994
Gepaid: CAD982042111
Contact: RREEF USA FUND I-A CA GRP TRUS
Telephone: 2133833435
Mailing Name: Not reported
Mailing Address: 3435 WILSHIRE BLVD STE 2400
Mailing City,St,Zip: LOS ANGELES, CA 900102010
Gen County: Not reported
TSD EPA ID: CAD990794133
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Not reported
Tons: 195.5296
Facility County: Los Angeles

Year: 1994
Gepaid: CAD982042111
Contact: RREEF USA FUND I-A CA GRP TRUS
Telephone: 2133833435
Mailing Name: Not reported
Mailing Address: 3435 WILSHIRE BLVD STE 2400
Mailing City,St,Zip: LOS ANGELES, CA 900102010
Gen County: Not reported
TSD EPA ID: CAL000027741
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Not reported
Tons: 410.4436
Facility County: Los Angeles

Year: 1993
Gepaid: CAD982042111
Contact: RREEF USA FUND I-A CA GRP TRUS
Telephone: 2133833435
Mailing Name: Not reported
Mailing Address: 3435 WILSHIRE BLVD STE 2400
Mailing City,St,Zip: LOS ANGELES, CA 900102010
Gen County: Not reported
TSD EPA ID: CAL000027741

EQUITABLE PLAZA (Continued) **1000263934**

TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Disposal, Land Fill
Tons: 503.151599999
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access
1 additional CA_HAZNET: record(s) in the EDR Site Report.

C22 **EDR US Hist Cleaners** **1015087990**
SW **698 IROLO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90005**
0.025 mi.
132 ft. **Site 1 of 3 in cluster C**

Relative:
Lower

Actual:
201 ft.

EDR Historical Cleaners:

Name: TWENTY TWENTY CLEANERS
Year: 1999
Address: 698 IROLO ST

Name: TWENTY TWENTY CLEANERS
Year: 1999
Address: 698 IROLO ST

Name: TWENTY TWENTY CLEANERS
Year: 2010
Address: 698 IROLO ST

Name: TWENTY TWENTY CLEANERS
Year: 2011
Address: 698 IROLO ST

Name: TWENTY TWENTY CLEANERS
Year: 2012
Address: 698 IROLO ST

C23 **20/20 CLEANERS** **RCRA-SQG** **1001075646**
SW **698 S IROLO ST** **FINDS** **CAR000007344**
< 1/8 **LOS ANGELES, CA 90005**
0.025 mi.
132 ft. **Site 2 of 3 in cluster C**

Relative:
Lower

Actual:
201 ft.

RCRA-SQG:

Date form received by agency: 12/07/1995
Facility name: 20/20 CLEANERS
Facility address: 698 S IROLO ST
LOS ANGELES, CA 90005
EPA ID: CAR000007344
Mailing address: S IROLO ST
LOS ANGELES, CA 90005
Contact: SERGIO IGDAL
Contact address: 698 S IROLO ST
LOS ANGELES, CA 90005
Contact country: US
Contact telephone: (213) 387-7832
Contact email: Not reported

20/20 CLEANERS (Continued) **1001075646**

EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: SERGIO IGDAL
Owner/operator address: 698 S IROLO ST
LOS ANGELES, CA 90005
Owner/operator country: Not reported
Owner/operator telephone: (213) 387-7832
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002909238

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

C24 **20/20 CLEANER CORP** **DRYCLEANERS** **S102809293**
SW **698 IROLO ST** **N/A**
< 1/8 **LOS ANGELES, CA 90005**
0.025 mi.
132 ft. **Site 3 of 3 in cluster C**

Relative:
Lower

Actual:
201 ft.

DRYCLEANERS:

EPA Id:	CAL000003216
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	03/14/2003
Facility Active:	Yes
Inactive Date:	Not reported
Facility Addr2:	Not reported
Owner Name:	20/20 CLEANERS, INC
Owner Address:	698 IROLO ST STE 104
Owner Address 2:	Not reported
Owner Telephone:	2133877832
Contact Name:	Efrain Parada
Contact Address:	698 Irolo St. STE 104
Contact Address 2:	Not reported
Contact Telephone:	2133877832
Mailing Name:	20/20 CLEANER CORP
Mailing Address 1:	698 IROLO ST STE 104
Mailing Address 2:	Not reported
Mailing City:	LOS ANGELES
Mailing State:	CA
Mailing Zip:	900052373
Owner Fax:	Not reported
Region Code:	3

B25 **RITE AID NO 5428** **RCRA-SQG** **1000857151**
ENE **3420 WILSHIRE** **FINDS** **CA0000063933**
< 1/8 **LOS ANGELES, CA 90010**
0.026 mi.
136 ft. **Site 6 of 11 in cluster B**

Relative:
Higher

Actual:
223 ft.

RCRA-SQG:

Date form received by agency:	07/25/1997
Facility name:	RITE AID NO 5428
Facility address:	3420 WILSHIRE LOS ANGELES, CA 90010
EPA ID:	CA0000063933
Contact:	GAIL RATAJCZAK
Contact address:	8795 FOLSOM BLVD STE 108 SACRAMENTO, CA 95826
Contact country:	US
Contact telephone:	(800) 769-5845
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

RITE AID NO 5428 (Continued) **1000857151**

Owner/Operator Summary:
- Owner/operator name: RITE AID
- Owner/operator address: 30 HUNTER LN
  CAMP HILL, PA 17011
- Owner/operator country: Not reported
- Owner/operator telephone: (717) 761-2633
- Legal status: Private
- Owner/Operator Type: Owner
- Owner/Op start date: Not reported
- Owner/Op end date: Not reported

Handler Activities Summary:
- U.S. importer of hazardous waste: No
- Mixed waste (haz. and radioactive): No
- Recycler of hazardous waste: No
- Transporter of hazardous waste: No
- Treater, storer or disposer of HW: No
- Underground injection activity: No
- On-site burner exemption: No
- Furnace exemption: No
- Used oil fuel burner: No
- Used oil processor: No
- User oil refiner: No
- Used oil fuel marketer to burner: No
- Used oil Specification marketer: No
- Used oil transfer facility: No
- Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002612085

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

D26 **BUSINESS PROPERTIES** **CA FID UST S101588027**
WNW **3530 WILSHIRE BLVD** **SWEEPS UST N/A**
< 1/8 **LOS ANGELES, CA 90005**
0.040 mi.
213 ft. **Site 1 of 5 in cluster D**

Relative:
Higher

Actual:
224 ft.

CA FID UST:
- Facility ID: 19056259
- Regulated By: UTNKA
- Regulated ID: Not reported
- Cortese Code: Not reported
- SIC Code: Not reported
- Facility Phone: 2130000000
- Mail To: Not reported

BUSINESS PROPERTIES (Continued) **S101588027**

Mailing Address: 3530 WILSHIRE BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900050000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 6513
Number: 1
Board Of Equalization: Not reported
Referral Date: 02-25-93
Action Date: 02-25-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

D27 **METROPLEX WILSHIRE** **UST** **U003780111**
WNW **3530 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.040 mi.
213 ft. **Site 2 of 5 in cluster D**

Relative:
Higher

Actual:
224 ft.

UST:
Facility ID: 23587
Latitude: 34.0628603
Longitude: -118.2997321
Permitting Agency: LOS ANGELES, CITY OF

B28 **ROBERT F KENNEDY COMMUNITY OF SCHOOLS** **RCRA-LQG** **1006805527**
NE **3400 WILSHIRE BLVD** **CAR000128868**
< 1/8 **LOS ANGELES, CA 90010**
0.044 mi.
234 ft. **Site 7 of 11 in cluster B**

Relative:
Higher

Actual:
220 ft.

RCRA-LQG:
Date form received by agency: 08/21/2012
Facility name: ROBERT F KENNEDY COMMUNITY OF SCHOOLS
Facility address: 3400 WILSHIRE BLVD
LOS ANGELES, CA 90010
EPA ID: CAR000128868
Mailing address: 333 S BEAUDRY AVE
28TH FLOOR
LOS ANGELES, CA 90017

ROBERT F KENNEDY COMMUNITY OF SCHOOLS (Continued) **1006805527**

Contact:	SOE AUNG
Contact address:	333 S BEAUDRY AVE 28TH FLOOR LOS ANGELES, CA 90017
Contact country:	US
Contact telephone:	213-241-3904
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	ROBERT F KENNEDY COMMUNITY OF SCHOOLS
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Operator
Owner/Op start date:	03/04/2003
Owner/Op end date:	Not reported

Owner/operator name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Owner/operator address:	333 S BEAUDRY AVE 28TH FLOOR LOS ANGELES, CA 90017
Owner/operator country:	US
Owner/operator telephone:	213-241-3199
Legal status:	District
Owner/Operator Type:	Owner
Owner/Op start date:	03/04/2003
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No

ROBERT F KENNEDY COMMUNITY OF SCHOOLS (Continued) **1006805527**

Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/07/2006
Site name: LAUSD-CENTRAL LA NEW LC #1
Classification: Small Quantity Generator

Date form received by agency: 02/07/2006
Site name: LAUSD-CENTRAL LA NEW LC #1
Classification: Large Quantity Generator

Date form received by agency: 09/25/2002
Site name: BELMONT NEW E S NO 10
Classification: Large Quantity Generator

Hazardous Waste Summary:
Waste code: 181
Waste name: 181

Waste code: D008
Waste name: LEAD

Violation Status: No violations found

B29 **CENTRAL LOS ANGELES LEARNING CTR. NO. 1** **SCH** **S100932025**
NE **3400 WILSHIRE BOULEVARD** **HIST CORTESE** **N/A**
< 1/8 **LOS ANGELES, CA 90010** **LUST**
0.044 mi. **ENVIROSTOR**
234 ft. **Site 8 of 11 in cluster B**

Relative: Higher

Actual: 220 ft.

SCH:

Facility ID: 19700001
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 23.9
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Rana Georges
Supervisor: Yolanda Garza
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304236
Assembly: 53
Senate: 26
Special Program Status: Not reported
Status: Certified / Operation & Maintenance
Status Date: 06/30/2011
Restricted Use: NO
Funding: School District
Latitude: 34.06218
Longitude: -118.2986
APN: 5502-030-014, 5502030014
Past Use: HOTEL
Potential COC: Benzene, Lead, Methane, TPH-diesel, TPH-gas, Hydrogen sulfide

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Confirmed COC: Benzene, Lead, Methane, 30024-NO, TPH-gas, Hydrogen sulfide
Potential Description: SOIL
Alias Name: Ambassador
Alias Type: Alternate Name
Alias Name: CENTRAL LOS ANGELES HIGH SCH. #8 (PROP)
Alias Type: Alternate Name
Alias Name: CENTRAL LOS ANGELES HIGH SCHOOL #8
Alias Type: Alternate Name
Alias Name: CENTRAL LOS ANGELES LEARNING CENTER #1
Alias Type: Alternate Name
Alias Name: CENTRAL LOS ANGELES LEARNING CTR. NO. 1
Alias Type: Alternate Name
Alias Name: CLALC#1
Alias Type: Alternate Name
Alias Name: LAUSD CLA LC #1
Alias Type: Alternate Name
Alias Name: LAUSD-CENTRAL LA LEARNING CENTER # 1
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: RFK CS
Alias Type: Alternate Name
Alias Name: Robert F. Kennedy CS
Alias Type: Alternate Name
Alias Name: Robert F. Kennedy Community Schools
Alias Type: Alternate Name
Alias Name: 5502-030-014
Alias Type: APN
Alias Name: 5502030014
Alias Type: APN
Alias Name: 110033619555
Alias Type: EPA (FRS #)
Alias Name: 304236
Alias Type: Project Code (Site Code)
Alias Name: 19700001
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 12/14/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 12/02/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/29/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Document Type: Removal Action Completion Report
Completed Date: 07/21/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 01/28/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/04/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 02/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/19/2005
Comments: No formal approval due to field work moblization

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/12/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 07/26/2002
Comments: Notification of limited arsenic removal 2 cubic yards of soil, not part of RAW

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 11/05/2002
Comments: 3rd Quarter 2002 Monitoring Reportno determination on document

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/03/2003
Comments: 4th Qtr Monitoring no determination made on this document

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 05/13/2003

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Comments: Tavern Parcel conducted separately

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/24/2004
Comments: Approved workplan for passive venting system

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/05/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 10/14/2005
Comments: Approved soil vapor investigation/monitoring field work 10/14-21/05

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 04/05/2005
Comments: No formal concurrance since field work to comments 4/18/05

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 01/26/2006
Comments: Approved results from lead sampling and the hot sot removal of lead impacted soil of three cells in accordance with existing RAW.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 02/08/2006
Comments: Export report expected when soil movement executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 09/22/2005
Comments: Reviewed Closure Report (Tank T-6 and T-7) no comments issued report accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/27/2004
Comments: Quarterly Monitoring Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 02/23/2004
Comments: Quarterly Monitoring report.

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Tank Removal Report
Completed Date: 05/22/2003
Comments: Documentation to fire department on Tank removal Tanks 1-4, impacted soils being addressed in RAW

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 11/21/2006
Comments: draft RAP approved on 6/27/2006

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/27/2006
Comments: RACR #5 approved with comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/21/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Mitigation Monitoring Report
Completed Date: 11/21/2006
Comments: approved and sent to State clearinghouse for ten day review.

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/25/2007
Comments: Final grade confirmation sampling approved on 5/25/2007

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/08/2007
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 06/07/2007
Comments: Remedial design drawings approved by Jesus Sotelo

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 08/01/2007
Comments: Phase II RDD approved on 8/1/2007

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Document Type: Design/Implementation Workplan
Completed Date: 04/24/2009
Comments: Approved

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/24/2009
Comments: Not reported

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 04/27/2009
Comments: - fieldwork completed by John Naginis, P.G., CH.G. on 4/27/2009

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 07/07/2009
Comments: Phase I RACR approved. Phase encompasses K-5 portion of campus.

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 07/09/2009
Comments: Phase 1 O&M plan approved.

Completed Area Name: Wilshire Park
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 02/25/2010
Comments: RACR for Wilshire Park approved on 2/25/2010. Note: Due to the size of Appendices C-H, hardcopies are not available. They are located on the CD associated with the document. These appendices are also located on Envirostor.

Completed Area Name: Wilshire Park
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 12/08/2009
Comments: Start-up workplan for Wilshire Public Park approved on 12/8/2009.

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 05/13/2010
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 11/18/2010
Comments: The current Operations & Maintenance Plan covers all phases of the project; Phase I (K-3), Phase II (middle/high school & parking structure), and Phase III (Wilshire Public Park). The Operations & Maintenance Agreement associated with this school project is

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

currently under review with OLC.

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 02/25/2010
Comments: Not reported

Completed Area Name: Wilshire Park
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/08/2009
Comments: Start-up Workplan approved for implementation on April 8, 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/13/2011
Comments: DTSC concurred with conclusions of the soil gas monitoring report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/09/2012
Comments: Monitoring report approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/31/2011
Comments: Monitoring Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/19/2012
Comments: DTSC approved quarterly monitoring report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/17/2011
Comments: Quarterly monitoring report submitted to Chatsworth office.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/26/2012
Comments: DTSC approved the soil gas report with recommendation to reduce the reporting schedule.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/15/2012
Comments: DTSC concurred with the Annual O&M Report conclusion.

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/28/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/16/2013
Comments: O&M Report review/concurrence letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/12/2013
Comments: DTSC reviewed the O&M Report and issued comments to be considered during the next round of monitoring. No changes to the report were necessary.

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/18/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/11/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 04/08/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/28/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 04/08/2002
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/07/2008
Comments: Not reported

Completed Area Name: Phase 2

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/23/2008
Comments: Not reported

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/02/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/10/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/17/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/05/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/31/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/13/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/25/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/26/2008

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/21/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/13/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/20/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/08/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/24/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/29/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/30/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/15/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/26/2008
Comments: Not reported

Completed Area Name: Phase 2

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/07/2008
Comments: Not reported

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/22/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/12/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/21/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/05/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/12/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/26/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/25/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 05/19/2011
Comments: Fully executed emailed to District; sent to District by overnight mail on 05/23/11.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Date: 06/30/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 04/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/07/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 04/28/2014
Comments: Notification summary report received.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/08/2014
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2015
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 05/15/2014
Schedule Revised Date: 05/15/2015
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: 5 Year Review Reports
Schedule Due Date: 12/17/2014
Schedule Revised Date: Not reported

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900100070

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

LUST:

Region:	STATE
Global Id:	T0603700489
Latitude:	34.0617325
Longitude:	-118.2975498
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	12/18/1997
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	Not reported
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900100070
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700489
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700489
Status:	Completed - Case Closed
Status Date:	12/18/1997
Global Id:	T0603700489
Status:	Open - Case Begin Date
Status Date:	12/20/1996
Global Id:	T0603700489
Status:	Open - Site Assessment
Status Date:	12/20/1996
Global Id:	T0603700489
Status:	Open - Site Assessment
Status Date:	07/23/1997

Regulatory Activities:

Global Id:	T0603700489
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery
Global Id:	T0603700489
Action Type:	Other
Date:	01/01/1950

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Action: Leak Reported

ENVIROSTOR:

Facility ID:	19700001
Status:	Certified / Operation & Maintenance
Status Date:	06/30/2011
Site Code:	304236
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	23.9
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Rana Georges
Supervisor:	Yolanda Garza
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	53
Senate:	26
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.06218
Longitude:	-118.2986
APN:	5502-030-014, 5502030014
Past Use:	HOTEL
Potential COC:	Benzene Lead Methane TPH-diesel TPH-gas Hydrogen sulfide
Confirmed COC:	Benzene Lead Methane 30024-NO TPH-gas Hydrogen sulfide
Potential Description:	SOIL
Alias Name:	Ambassador
Alias Type:	Alternate Name
Alias Name:	CENTRAL LOS ANGELES HIGH SCH. #8 (PROP)
Alias Type:	Alternate Name
Alias Name:	CENTRAL LOS ANGELES HIGH SCHOOL #8
Alias Type:	Alternate Name
Alias Name:	CENTRAL LOS ANGELES LEARNING CENTER #1
Alias Type:	Alternate Name
Alias Name:	CENTRAL LOS ANGELES LEARNING CTR. NO. 1
Alias Type:	Alternate Name
Alias Name:	CLALC#1
Alias Type:	Alternate Name
Alias Name:	LAUSD CLA LC #1
Alias Type:	Alternate Name
Alias Name:	LAUSD-CENTRAL LA LEARNING CENTER # 1
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	RFK CS
Alias Type:	Alternate Name
Alias Name:	Robert F. Kennedy CS
Alias Type:	Alternate Name
Alias Name:	Robert F. Kennedy Community Schools
Alias Type:	Alternate Name
Alias Name:	5502-030-014
Alias Type:	APN
Alias Name:	5502030014

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Alias Type: APN
Alias Name: 110033619555
Alias Type: EPA (FRS #)
Alias Name: 304236
Alias Type: Project Code (Site Code)
Alias Name: 19700001
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 12/14/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 12/02/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/29/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/21/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 01/28/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/04/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 02/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/19/2005
Comments: No formal approval due to field work moblization

Completed Area Name: PROJECT WIDE

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/12/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 07/26/2002
Comments: Notification of limited arsenic removal 2 cubic yards of soil, not part of RAW

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 11/05/2002
Comments: 3rd Quarter 2002 Monitoring Reportno determination on document

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/03/2003
Comments: 4th Qtr Monitoring no determination made on this document

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 05/13/2003
Comments: Tavern Parcel conducted separately

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 08/24/2004
Comments: Approved workplan for passive venting system

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/05/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 10/14/2005
Comments: Approved soil vapor investigation/monitoring field work 10/14-21/05

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 04/05/2005
Comments: No formal concurrance since field work to comments 4/18/05

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Date: 01/26/2006
Comments: Approved results from lead sampling and the hot sot removal of lead impacted soil of three cells in accordance with existing RAW.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 02/08/2006
Comments: Export report expected when soil movement executed.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 09/22/2005
Comments: Reviewed Closure Report (Tank T-6 and T-7) no comments issued report accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/27/2004
Comments: Quarterly Monitoring Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 02/23/2004
Comments: Quarterly Monitoring report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Tank Removal Report
Completed Date: 05/22/2003
Comments: Documentation to fire department on Tank removal Tanks 1-4, impacted soils being addressed in RAW

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Plan
Completed Date: 11/21/2006
Comments: draft RAP approved on 6/27/2006

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/27/2006
Comments: RACR #5 approved with comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 07/21/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Mitigation Monitoring Report

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Date: 11/21/2006
Comments: approved and sent to State clearinghouse for ten day review.

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/25/2007
Comments: Final grade confirmation sampling approved on 5/25/2007

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/08/2007
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 06/07/2007
Comments: Remedial design drawings approved by Jesus Sotelo

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 08/01/2007
Comments: Phase II RDD approved on 8/1/2007

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/24/2009
Comments: Approved

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 04/24/2009
Comments: Not reported

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 04/27/2009
Comments: - fieldwork completed by John Naginis, P.G., CH.G. on 4/27/2009

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 07/07/2009
Comments: Phase I RACR approved. Phase encompasses K-5 portion of campus.

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 07/09/2009
Comments: Phase 1 O&M plan approved.

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Area Name: Wilshire Park
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 02/25/2010
Comments: RACR for Wilshire Park approved on 2/25/2010. Note: Due to the size of Appendices C-H, hardcopies are not available. They are located on the CD associated with the document. These appendices are also located on Envirostor.

Completed Area Name: Wilshire Park
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 12/08/2009
Comments: Start-up workplan for Wilshire Public Park approved on 12/8/2009.

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 05/13/2010
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 11/18/2010
Comments: The current Operations & Maintenance Plan covers all phases of the project; Phase I (K-3), Phase II (middle/high school & parking structure), and Phase III (Wilshire Public Park). The Operations & Maintenance Agreement associated with this school project is currently under review with OLC.

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 02/25/2010
Comments: Not reported

Completed Area Name: Wilshire Park
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 04/08/2009
Comments: Start-up Workplan approved for implementation on April 8, 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/13/2011
Comments: DTSC concurred with conclusions of the soil gas monitoring report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/09/2012
Comments: Monitoring report approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Document Type: Operations and Maintenance Report
Completed Date: 01/31/2011
Comments: Monitoring Report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/19/2012
Comments: DTSC approved quarterly monitoring report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/17/2011
Comments: Quarterly monitoring report submitted to Chatsworth office.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/26/2012
Comments: DTSC approved the soil gas report with recommendation to reduce the reporting schedule.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/15/2012
Comments: DTSC concurred with the Annual O&M Report conclusion.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/28/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/16/2013
Comments: O&M Report review/concurrence letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/12/2013
Comments: DTSC reviewed the O&M Report and issued comments to be considered during the next round of monitoring. No changes to the report were necessary.

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/18/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/11/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 04/08/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/28/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 04/08/2002
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/07/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/23/2008
Comments: Not reported

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/02/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/10/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/17/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/05/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/31/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/13/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/25/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/26/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/21/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/13/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/20/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/08/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Date: 07/24/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/29/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/30/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/15/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/26/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/07/2008
Comments: Not reported

Completed Area Name: Phase 1
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/22/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/12/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/21/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/05/2008
Comments: Not reported

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/12/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/26/2008
Comments: Not reported

Completed Area Name: Phase 2
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/25/2008
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 05/19/2011
Comments: Fully executed emailed to District; sent to District by overnight mail on 05/23/11.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/30/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 04/26/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/07/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 04/28/2014
Comments: Notification summary report received.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/08/2014
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported

CENTRAL LOS ANGELES LEARNING CTR. NO. 1 (Continued) **S100932025**

Future Document Type:	Operations and Maintenance Report
Future Due Date:	2015
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Future Area Name:	PROJECT WIDE
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	05/15/2014
Schedule Revised Date:	05/15/2015
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	5 Year Review Reports
Schedule Due Date:	12/17/2014
Schedule Revised Date:	Not reported

B30 **AMBASSADOR HOTEL** **UST** **U003781443**
NE **3400 WILSHIRE BLVD** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.044 mi.
234 ft. **Site 9 of 11 in cluster B**

Relative:
Higher

Actual:
220 ft.

UST:

Facility ID:	25152
Latitude:	34.06175
Longitude:	-118.29798
Permitting Agency:	LOS ANGELES, CITY OF

SWEEPS UST:

Status:	Active
Comp Number:	5034
Number:	9
Board Of Equalization:	Not reported
Referral Date:	09-29-93
Action Date:	09-29-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

B31 **AMBASSADOR HOTEL** **CA FID UST** **S101583984**
NE **3400 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.044 mi.
234 ft. **Site 10 of 11 in cluster B**

Relative:
Higher

Actual:
220 ft.

CA FID UST:

Facility ID:	19007763
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2133877011
Mail To:	Not reported
Mailing Address:	3400 WILSHIRE BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900100000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

B32 **AMBASSADOR HOTEL (FORMER)** **LUST** **S103281913**
NE **3400 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.044 mi.
234 ft. **Site 11 of 11 in cluster B**

Relative:
Higher

Actual:
220 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900100070	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700489	
W Global ID:	Not reported	
Staff:	MSH	
Local Agency:	19050	
Cross Street:	KENMORE AVE	
Enforcement Type:	Not reported	
Date Leak Discovered:	2/18/1997	
Date Leak First Reported:		2/19/1997
Date Leak Record Entered:	11/18/1997	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		11/6/1997
Date the Case was Closed:		12/18/1997
How Leak Discovered:	Subsurface Monitoring	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	

AMBASSADOR HOTEL (FORMER) (Continued) **S103281913**

Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	4021.539852052287488332198079
Source of Cleanup Funding:	UNK
Preliminary Site Assessment Workplan Submitted:	12/20/1996
Preliminary Site Assessment Began:	7/23/1997
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	TRUMP WILSHIRE ASSOCS.
RP Address:	3400 WILSHIRE BLVD., LOS ANGELES, CA 90010
Program:	LUST
Lat/Long:	34.0616 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	VACANT SITE GW @ 45' BGS. BTEX 0.7/1.5/290/560 UG/L, TPH 9500 MG/KG, TPH(DIESEL)4800 MG/KG

D33 **EDR US Hist Auto Stat** **1015444965**
NW **3530 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.057 mi.
300 ft. **Site 3 of 5 in cluster D**

Relative:
Higher

Actual:
226 ft.

EDR Historical Auto Stations:

Name:	MILLION AUTO BODY INC
Year:	2003
Address:	3530 WILSHIRE BLVD
Name:	SOLO BARGAIN STATION INC
Year:	2005
Address:	3530 WILSHIRE BLVD

D34 YUNAN RADIOLOGY MEDICAL GRP **RCRA-SQG 1000685769**
WNW 3545 WILSHIRE BLVD 109 **FINDS CAD983624008**
< 1/8 LOS ANGELES, CA 90010
0.083 mi.
436 ft. **Site 4 of 5 in cluster D**

Relative:
Higher

Actual:
231 ft.

RCRA-SQG:

Date form received by agency:	03/18/1992
Facility name:	YUNAN RADIOLOGY MEDICAL GRP
Facility address:	3545 WILSHIRE BLVD 109 LOS ANGELES, CA 900102368
EPA ID:	CAD983624008
Mailing address:	WILSHIRE BLVD 109 LOS ANGELES, CA 900102368
Contact:	DENNIS APPLEWHITE
Contact address:	3545 WILSHIRE BLVD 109 LOS ANGELES, CA 900102368
Contact country:	US
Contact telephone:	(213) 388-9658
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	YUNAN RADIOLOGY MEDICAL GRP
Owner/operator address:	3545 WILSHIRE BLVD 109 LOS ANGELES, CA 90010
Owner/operator country:	Not reported
Owner/operator telephone:	(213) 388-9658
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

YUNAN RADIOLOGY MEDICAL GRP (Continued) **1000685769**

FINDS:

Registry ID: 110002871492

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

E35 **INNER CITY EQUITIES** **CA FID UST** **S101586521**
ENE **3377 WILSHIRE BLVD** **SWEEPS UST** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.083 mi.
438 ft. **Site 1 of 2 in cluster E**

Relative: Higher

Actual: 227 ft.

CA FID UST:

Facility ID:	19053178
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	3377 WILSHIRE BLVD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900100000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Not reported
Comp Number:	6833
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

D36
WNW
< 1/8
0.085 mi.
447 ft.

EDR US Hist Cleaners **1015048417**
N/A

3540 WILSHIRE BLVD
LOS ANGELES, CA 90010

Site 5 of 5 in cluster D

Relative:
Higher

Actual:
230 ft.

EDR Historical Cleaners:

Name:	VIC CLEANERS
Year:	2001
Address:	3540 WILSHIRE BLVD
Name:	VIC CLEANERS
Year:	2002
Address:	3540 WILSHIRE BLVD
Name:	VIC CLEANERS
Year:	2004
Address:	3540 WILSHIRE BLVD
Name:	VIC CLEANERS
Year:	2007
Address:	3540 WILSHIRE BLVD
Name:	VIC CLEANERS
Year:	2008
Address:	3540 WILSHIRE BLVD

F37
South
< 1/8
0.091 mi.
481 ft.

CA FID UST **S101582959**
SWEEPS UST **N/A**

U-LOCK SELF STORAGE
761 S NORMANDIE AVE
LOS ANGELES, CA 90005

Site 1 of 2 in cluster F

Relative:
Lower

Actual:
209 ft.

CA FID UST:

Facility ID:	19002042
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2133882323
Mail To:	Not reported
Mailing Address:	761 S NORMANDIE AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	LOS ANGELES 900050000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

SWEEPS UST:

Status:	Not reported
Comp Number:	7292
Number:	Not reported
Board Of Equalization:	Not reported
Referral Date:	Not reported
Action Date:	Not reported

U-LOCK SELF STORAGE (Continued) **S101582959**

Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

F38 **CENTURY INDUSTRIES** **HIST CORTESE** **S101297178**
South **761 NORMANDIE AVE S** **LUST** **N/A**
< 1/8 **LOS ANGELES, CA 90005**
0.091 mi.
481 ft. **Site 2 of 2 in cluster F**

Relative:
Lower

Actual:
209 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900050025

LUST:

Region:	STATE
Global Id:	T0603700464
Latitude:	34.0584838
Longitude:	-118.2998398
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/19/1995
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900050025
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700464
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700464
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780

CENTURY INDUSTRIES (Continued) **S101297178**

City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700464
Status: Open - Case Begin Date
Status Date: 06/29/1989

Global Id: T0603700464
Status: Open - Site Assessment
Status Date: 06/29/1989

Global Id: T0603700464
Status: Completed - Case Closed
Status Date: 09/19/1995

Regulatory Activities:
Global Id: T0603700464
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900050025	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700464	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	008 STREET	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		6/29/1989
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		9/19/1995
Date the Case was Closed:		9/19/1995
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		4665.554171110696057998740124

CENTURY INDUSTRIES (Continued) **S101297178**

Source of Cleanup Funding:	Not reported
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	6/29/1989
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	CENTURY INDUSTRIES
RP Address:	761 NORMANDIE AVE., S., LOS ANGELES, CA 90005
Program:	LUST
Lat/Long:	34.0584121 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	SDP LETTER OF INQUIRY SENT TO RP 10-13-94.

G39 **EDR US Hist Cleaners** **1015048562**
WNW **3550 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.096 mi.
508 ft. **Site 1 of 5 in cluster G**

Relative:
Higher

Actual:
230 ft.

EDR Historical Cleaners:

Name:	YAHOO CLEANERS & TAILOR
Year:	2001
Address:	3550 WILSHIRE BLVD
Name:	YAHOO CLEANERS & TAILOR
Year:	2002
Address:	3550 WILSHIRE BLVD
Name:	YAHOO CLEANERS & TAILOR
Year:	2004
Address:	3550 WILSHIRE BLVD
Name:	YAHOO CLEANERS
Year:	2006
Address:	3550 WILSHIRE BLVD
Name:	YAHOO CLEANERS & TAILOR
Year:	2007
Address:	3550 WILSHIRE BLVD
Name:	ROSEMARY CLEANER
Year:	2010
Address:	3550 WILSHIRE BLVD

(Continued) **1015048562**

Name: ROSEMARY CLEANER
Year: 2011
Address: 3550 WILSHIRE BLVD

Name: ROSEMARY CLEANER
Year: 2012
Address: 3550 WILSHIRE BLVD

G40 **EDR US Hist Auto Stat** **1015445960**
WNW **3550 WILSHIRE BLVD** **N/A**
< 1/8 **LOS ANGELES, CA 90010**
0.096 mi.
508 ft. **Site 2 of 5 in cluster G**

Relative: Higher

Actual: 230 ft.

EDR Historical Auto Stations:

Name: BPI EXPRESS REMITTANCE CORP
Year: 2003
Address: 3550 WILSHIRE BLVD

Name: NATIONAL AIDS MARATHON TRAINING PROG
Year: 2008
Address: 3550 WILSHIRE BLVD

---

41 **EDR US Hist Cleaners** **1015047187**
WSW **3460 W 7TH ST** **N/A**
< 1/8 **LOS ANGELES, CA 90005**
0.098 mi.
519 ft.

Relative: Lower

Actual: 207 ft.

EDR Historical Cleaners:

Name: WILSHIRE TOWER CLNR & ALTRTN
Year: 2001
Address: 3460 W 7TH ST

Name: WILSHIRE TOWER CLNR & ALTRTN
Year: 2002
Address: 3460 W 7TH ST

Name: WILSHIRE TOWER CLNR & ALTRTN
Year: 2003
Address: 3460 W 7TH ST

Name: TOWER CLEANERS
Year: 2004
Address: 3460 W 7TH ST

G42 **PARAMOUNT PLAZA** **RCRA-SQG** **1000149982**
WNW **3550 WILSHIRE BLVD SUITE 1620** **FINDS** **CAD981981012**
< 1/8 **LOS ANGELES, CA 90010**
0.107 mi.
565 ft. **Site 3 of 5 in cluster G**

Relative:
Higher

Actual:
225 ft.

RCRA-SQG:

Date form received by agency:	04/08/1987
Facility name:	PARAMOUNT PLAZA
Facility address:	3550 WILSHIRE BLVD SUITE 1620 LOS ANGELES, CA 90010
EPA ID:	CAD981981012
Mailing address:	WILSHIRE BLVD SUITE 1620 LOS ANGELES, CA 90010
Contact:	ENVIRONMENTAL MANAGER
Contact address:	3550 WILSHIRE BLVD SUITE 1620 LOS ANGELES, CA 90010
Contact country:	US
Contact telephone:	(213) 383-9522
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	MID WILSHIRE ASSOCIATES
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

PARAMOUNT PLAZA (Continued) **1000149982**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002763616

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

G43 **COMMUTER TRANSPORTATION SERVICE** **RCRA-SQG** **1000820550**
WNW **3550 WILSHIRE BL STE 300** **FINDS** **CAD983666108**
< 1/8 **LOS ANGELES, CA 90010**
0.107 mi.
565 ft. **Site 4 of 5 in cluster G**

Relative:
Higher

Actual:
225 ft.

RCRA-SQG:
Date form received by agency: 04/27/1993
Facility name: COMMUTER TRANSPORTATION SERVICE
Facility address: 3550 WILSHIRE BL STE 300
LOS ANGELES, CA 90010
EPA ID: CAD983666108
Mailing address: WILSHIRE BL STE 300
LOS ANGELES, CA 90010
Contact: EDYTHE MICHAELIS
Contact address: 3550 WILSHIRE BL STE 300
LOS ANGELES, CA 90010
Contact country: US
Contact telephone: (213) 365-6900
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: COMMUTER TRANSPORTATION SERVICES INC
Owner/operator address: 3550 WILSHIRE BL STE 300
LOS ANGELES, CA 90010
Owner/operator country: Not reported
Owner/operator telephone: (213) 380-7750
Legal status: Private

COMMUTER TRANSPORTATION SERVICE (Continued) **1000820550**

Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110009551074

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

H44 **JAMISON PROPERTY** **LUST** **S109517607**
North **3550 6TH ST. W.** **N/A**
< 1/8 **LOS ANGELES, CA 90020**
0.120 mi.
633 ft. **Site 1 of 3 in cluster H**

Relative:
Higher

Actual:
217 ft.

LUST:
Region: STATE
Global Id: T10000000738
Latitude: 34.0635498
Longitude: -118.2992253
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/13/2010
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: JH
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900200161
LOC Case Number: 36809
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline

JAMISON PROPERTY (Continued) **S109517607**

Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000000738
Contact Type:	Regional Board Caseworker
Contact Name:	JAY HUANG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	jhuang@waterboards.ca.gov
Phone Number:	2135766711

Global Id:	T10000000738
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T10000000738
Status:	Open - Site Assessment
Status Date:	06/09/2009

Global Id:	T10000000738
Status:	Open - Verification Monitoring
Status Date:	02/05/2009

Global Id:	T10000000738
Status:	Open - Case Begin Date
Status Date:	02/05/2009

Global Id:	T10000000738
Status:	Completed - Case Closed
Status Date:	07/13/2010

Global Id:	T10000000738
Status:	Open - Referred
Status Date:	05/20/2009

Regulatory Activities:

Global Id:	T10000000738
Action Type:	ENFORCEMENT
Date:	06/15/2010
Action:	Notification - Preclosure

Global Id:	T10000000738
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Soil and Water Investigation Workplan

Global Id:	T10000000738
Action Type:	ENFORCEMENT

JAMISON PROPERTY (Continued) **S109517607**

Date: 09/21/2009
Action: Staff Letter

Global Id: T10000000738
Action Type: ENFORCEMENT
Date: 07/13/2010
Action: Closure/No Further Action Letter

Global Id: T10000000738
Action Type: ENFORCEMENT
Date: 06/09/2009
Action: Referral to Regional Board

Global Id: T10000000738
Action Type: ENFORCEMENT
Date: 08/25/2009
Action: Staff Letter

Global Id: T10000000738
Action Type: REMEDIATION
Date: 01/01/1950
Action: Excavation

Global Id: T10000000738
Action Type: RESPONSE
Date: 12/01/2009
Action: Soil and Water Investigation Report

Global Id: T10000000738
Action Type: RESPONSE
Date: 08/03/2009
Action: Other Report / Document

Global Id: T10000000738
Action Type: ENFORCEMENT
Date: 06/09/2009
Action: Staff Letter

E45 **MATHIS ROBT** **EDR US Hist Auto Stat** **1009084784**
ENE **3351 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.128 mi.
677 ft. **Site 2 of 2 in cluster E**

Relative:
Higher

Actual:
234 ft.

EDR Historical Auto Stations:
Name: MATHIS ROBT
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

I46 **FAILAS CLARK** **EDR US Hist Auto Stat** **1009084737**
NNE **3531 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.130 mi.
688 ft. **Site 1 of 3 in cluster I**

Relative: **Lower**
Actual: **200 ft.**

EDR Historical Auto Stations:
Name: FAILAS CLARK
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

H47 **MORRIS DONNELLEY** **EDR US Hist Auto Stat** **1009079773**
North **3580 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.131 mi.
693 ft. **Site 2 of 3 in cluster H**

Relative: **Higher**
Actual: **222 ft.**

EDR Historical Auto Stations:
Name: MORRIS DONNELLEY
Year: 1924
Type: AUTOMOBILE REPAIRING

G48 **EDR US Hist Auto Stat** **1015447096**
WNW **3580 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90010**
0.132 mi.
696 ft. **Site 5 of 5 in cluster G**

Relative: **Higher**
Actual: **229 ft.**

EDR Historical Auto Stations:
Name: AUTO TECH AUTO REPAIR
Year: 2002
Address: 3580 WILSHIRE BLVD

I49 **FANSET DYE WORKS** **EDR US Hist Cleaners** **1009190347**
NNE **3510 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.132 mi.
698 ft. **Site 2 of 3 in cluster I**

Relative: **Lower**
Actual: **202 ft.**

EDR Historical Cleaners:
Name: POTTERF J L
Year: 1929
Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS

Name: POTTERF J L
Year: 1929
Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS

Name: FANSET DYE WORKS
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

H50 **HOLT ARTH** **EDR US Hist Auto Stat** **1009083109**
North **3601 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.134 mi.
710 ft. **Site 3 of 3 in cluster H**

Relative:
Higher

Actual:
229 ft.

EDR Historical Auto Stations:
Name: HOLT ARTH
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

I51 **ANDRESEN TYPOGRAPHICS** **RCRA-SQG** **1000356436**
NNE **3501 W 6TH ST** **FINDS** **CAD981372451**
1/8-1/4 **LOS ANGELES, CA 90020**
0.138 mi.
729 ft. **Site 3 of 3 in cluster I**

Relative:
Lower

Actual:
205 ft.

RCRA-SQG:
Date form received by agency: 02/05/1986
Facility name: ANDRESEN TYPOGRAPHICS
Facility address: 3501 W 6TH ST
LOS ANGELES, CA 90020
EPA ID: CAD981372451
Mailing address: W SIXTH ST
LOS ANGELES, CA 90020
Contact: ENVIRONMENTAL MANAGER
Contact address: 3501 W SIXTH ST
LOS ANGELES, CA 90020
Contact country: US
Contact telephone: (213) 655-3359
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: ANDREW ANDRESEN JR
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

ANDRESEN TYPOGRAPHICS (Continued) **1000356436**

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002684569

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

J52 **TEXACO U.S.A.** **HIST UST** **U001560462**
ENE **3350 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90010**
0.139 mi.
733 ft. **Site 1 of 3 in cluster J**

Relative: Higher

Actual: 236 ft.

HIST UST:
Region: STATE
Facility ID: 00000017007
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0001
Contact Name: Not reported
Telephone: 8002313102
Owner Name: TEXACO U.S.A.
Owner Address: 3350 WILSHIRE BLVD
Owner City,St,Zip: LOS ANGELES, CA 90010

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00005000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

TEXACO U.S.A. (Continued) **U001560462**

Tank Num: 002
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 003
Container Num: 3
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 004
Container Num: 4
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 005
Container Num: 5
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

Tank Num: 006
Container Num: 6
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: Not reported
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Not reported

J53 **TEXACO INC.** **HIST UST** **U001560461**
ENE **3350 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90010**
0.139 mi.
733 ft. **Site 2 of 3 in cluster J**

Relative:
Higher

Actual:
236 ft.

HIST UST:
Region: STATE
Facility ID: 00000006344
Facility Type: Other
Other Type: OFFICE BUILDING
Total Tanks: 0001
Contact Name: R. E. FREEMAN, MANAGER

TEXACO INC. (Continued) **U001560461**

Telephone: 2137397301
Owner Name: TEXACO INC.
Owner Address: 3350 WILSHIRE BLVD.,
Owner City,St,Zip: LOS ANGELES, CA 90010

Tank Num: 001
Container Num: 1
Year Installed: 1958
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: Not reported
Tank Construction: Not reported
Leak Detection: Visual, Stock Inventor

K54 **K F I INC** **CA FID UST** **S101584804**
NNW **610 S ARDMORE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.141 mi.
745 ft. **Site 1 of 4 in cluster K**

Relative:
Higher

Actual:
247 ft.

CA FID UST:
Facility ID: 19015763
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2133850101
Mail To: Not reported
Mailing Address: 610 S ARDMORE AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900050000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

K55 **KFI-KOST STUDIO** **HIST UST** **U001560344**
NNW **610 S ARDMORE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.141 mi.
745 ft. **Site 2 of 4 in cluster K**

Relative:
Higher

Actual:
247 ft.

HIST UST:
Region: STATE
Facility ID: 00000068775
Facility Type: Other
Other Type: AM-FM BROADCASTING
Total Tanks: 0001
Contact Name: MARVIN COLLINS CHIEF ENGINEER
Telephone: 2133850101
Owner Name: KFI INC
Owner Address: 610 SOUTH ARDMORE AVENUE
Owner City,St,Zip: LOS ANGELES, CA 90005

KFI-KOST STUDIO (Continued) **U001560344**

Tank Num: 001
Container Num: 1
Year Installed: 1975
Tank Capacity: 00002000
Tank Used for: WASTE
Type of Fuel: 4
Tank Construction: Unkown inches
Leak Detection: None

K56 **K F I INC** **UST** **U003780855**
NNW **610 S ARDMORE AVE** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.141 mi.
745 ft. **Site 3 of 4 in cluster K**

Relative:
Higher

Actual:
247 ft.

UST:
Facility ID: 24424
Latitude: 34.06318
Longitude: -118.30159
Permitting Agency: LOS ANGELES, CITY OF

SWEEPS UST:
Status: Active
Comp Number: 7277
Number: 1
Board Of Equalization: Not reported
Referral Date: 03-08-93
Action Date: 03-08-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

L57 **LEVINE HARRIS** **EDR US Hist Cleaners** **1009190220**
South **3265 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.145 mi.
766 ft. **Site 1 of 5 in cluster L**

Relative:
Higher

Actual:
221 ft.

EDR Historical Cleaners:
Name: LEVINE HARRIS
Year: 1929
Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS

L58 **LAZARUS CHAS** **EDR US Hist Cleaners** **1009194434**
South **3283 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.145 mi.
767 ft. **Site 2 of 5 in cluster L**

Relative: EDR Historical Cleaners:
Higher Name: LAZARUS CHAS
Year: 1937
Actual: Type: CLOTHES PRESSERS AND CLEANERS
212 ft.

L59 **PATTIG HYMAN** **EDR US Hist Cleaners** **1009192472**
South **3285 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.145 mi.
768 ft. **Site 3 of 5 in cluster L**

Relative: EDR Historical Cleaners:
Higher Name: PATTIG HYMAN
Year: 1933
Actual: Type: CLOTHES PRESSERS AND CLEANERS
212 ft.

L60 **LEE H** **EDR US Hist Cleaners** **1009189531**
South **3305 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.146 mi.
769 ft. **Site 4 of 5 in cluster L**

Relative: EDR Historical Cleaners:
Lower Name: LEE H
Year: 1933
Actual: Type: LAUNDRIES CHINESE
205 ft.

Name: LEE HENRY
Year: 1937
Type: LAUNDRIES CHINESE

M61 **KINEMA CLEANERS** **EDR US Hist Cleaners** **1009193591**
South **3307 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.146 mi.
769 ft. **Site 1 of 7 in cluster M**

Relative: EDR Historical Cleaners:
Lower Name: KINEMA CLEANERS
Year: 1933
Actual: Type: CLOTHES PRESSERS AND CLEANERS
204 ft.

Name: COHEN BARNEY
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

L62 **DR CHO CHIROPRACTIC CLINIC** **RCRA-SQG** **1000818699**
SSE **3242 W 8TH ST STE 201** **FINDS** **CAD983646084**
1/8-1/4 **LOS ANGELES, CA 90005**
0.147 mi.
776 ft. **Site 5 of 5 in cluster L**

Relative:
Higher

Actual:
225 ft.

RCRA-SQG:

Date form received by agency:	08/18/1992
Facility name:	DR CHO CHIROPRACTIC CLINIC
Facility address:	3242 W 8TH ST STE 201 LOS ANGELES, CA 90005
EPA ID:	CAD983646084
Mailing address:	W 8TH ST STE 201 LOS ANGELES, CA 90005
Contact:	YANG CHO
Contact address:	3242 W 8TH ST STE 201 LOS ANGELES, CA 90005
Contact country:	US
Contact telephone:	(213) 381-0116
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	DR CHONG M WON
Owner/operator address:	3242 W 8TH ST STE 105 LOS ANGELES, CA 90005
Owner/operator country:	Not reported
Owner/operator telephone:	(213) 487-6000
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

DR CHO CHIROPRACTIC CLINIC (Continued) **1000818699**

FINDS:

Registry ID: 110002883103

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

M63 **LEE QUONG** **EDR US Hist Cleaners** **1009193470**
South **3312 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.148 mi.
779 ft. **Site 2 of 7 in cluster M**

Relative:
Lower

Actual:
202 ft.

EDR Historical Cleaners:
Name: LEE QUONG
Year: 1942
Type: LAUNDRIES ORIENTAL

M64 **EDR US Hist Cleaners** **1015044878**
South **3318 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.148 mi.
779 ft. **Site 3 of 7 in cluster M**

Relative:
Lower

Actual:
202 ft.

EDR Historical Cleaners:
Name: PCY COIN LAUNDRY
Year: 2001
Address: 3318 W 8TH ST

Name: PCY COIN LAUNDRY
Year: 2011
Address: 3318 W 8TH ST

Name: PCY COIN LAUNDRY
Year: 2012
Address: 3318 W 8TH ST

N65 **EDR US Hist Cleaners** **1015049193**
WNW **3600 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA 90010**
0.149 mi.
785 ft. **Site 1 of 3 in cluster N**

Relative:
Higher

Actual:
228 ft.

EDR Historical Cleaners:
Name: JET CLEANER
Year: 2007
Address: 3600 WILSHIRE BLVD

(Continued) **1015049193**

Name: JET CLEANER
Year: 2008
Address: 3600 WILSHIRE BLVD

Name: FILLMORE CLEANERS
Year: 2009
Address: 3600 WILSHIRE BLVD

Name: JET CLEANER
Year: 2010
Address: 3600 WILSHIRE BLVD

Name: JGT CLEANER
Year: 2011
Address: 3600 WILSHIRE BLVD

Name: JET CLEANER
Year: 2012
Address: 3600 WILSHIRE BLVD

N66 **GOLDEN BEAR SERVICE STATION** **EDR US Hist Auto Stat** **1009078268**
WNW **3600 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.149 mi.
785 ft. **Site 2 of 3 in cluster N**

Relative:
Higher

Actual:
228 ft.

EDR Historical Auto Stations:
Name: GOLDEN BEAR SERVICE STATION
Year: 1929
Type: GASOLINE AND OIL SERVICE STATION

Name: COBANISS R J
Year: 1933
Type: GASOLINE AND OIL SERVICE STATIONS

Name: ROHLICK L E
Year: 1937
Type: GASOLINE AND OIL SERVICE STATIONS

M67 **ONE HOUR CLEANER** **DRYCLEANERS** **S113135651**
SSW **3330 W 8TH ST** **HAZNET** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.149 mi.
785 ft. **Site 4 of 7 in cluster M**

Relative:
Lower

Actual:
201 ft.

DRYCLEANERS:
EPA Id: CAL000385114
NAICS Code: 81232
NAICS Description: Drycleaning and Laundry Services (except Coin-Operated)
SIC Code: 7211
SIC Description: Power Laundries, Family and Commercial
Create Date: 05/06/2013
Facility Active: Yes
Inactive Date: Not reported
Facility Addr2: Not reported
Owner Name: CHARLES PARK

ONE HOUR CLEANER (Continued) **S113135651**

Owner Address:	3330 W 8TH ST
Owner Address 2:	Not reported
Owner Telephone:	2133837990
Contact Name:	JOO RIM
Contact Address:	3330 W 8TH ST
Contact Address 2:	Not reported
Contact Telephone:	2133837990
Mailing Name:	Not reported
Mailing Address 1:	3330 W 8TH ST
Mailing Address 2:	Not reported
Mailing City:	LOS ANGELES
Mailing State:	CA
Mailing Zip:	90005
Owner Fax:	Not reported
Region Code:	3

HAZNET:

Year:	2008
Gepaid:	CAL000290445
Contact:	TAE HYUN KIM
Telephone:	2133837990
Mailing Name:	Not reported
Mailing Address:	3330 W 8TH ST
Mailing City,St,Zip:	LOS ANGELES, CA 90005
Gen County:	Not reported
TSD EPA ID:	NVR000076158
TSD County:	Not reported
Waste Category:	Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method:	Solvents Recovery
Tons:	0.22935
Facility County:	Los Angeles

Year:	2007
Gepaid:	CAL000290445
Contact:	TAE HYUN KIM
Telephone:	2133837990
Mailing Name:	Not reported
Mailing Address:	3330 W 8TH ST
Mailing City,St,Zip:	LOS ANGELES, CA 90005
Gen County:	Not reported
TSD EPA ID:	NVR000076158
TSD County:	Not reported
Waste Category:	Not reported
Disposal Method:	Solvents Recovery
Tons:	Not reported
Facility County:	Los Angeles

Year:	2007
Gepaid:	CAL000290445
Contact:	TAE HYUN KIM
Telephone:	2133837990
Mailing Name:	Not reported
Mailing Address:	3330 W 8TH ST
Mailing City,St,Zip:	LOS ANGELES, CA 90005
Gen County:	Not reported
TSD EPA ID:	NVR000076158

ONE HOUR CLEANER (Continued) **S113135651**

TSD County: Not reported
Waste Category: Halogenated solvents (chloroforms, methyl chloride, perchloroethylene, etc)
Disposal Method: Solvents Recovery
Tons: 0.2
Facility County: Los Angeles

M68 **EDR US Hist Cleaners** **1015045196**
SSW **3330 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.149 mi.
785 ft. **Site 5 of 7 in cluster M**

Relative:
Lower

Actual:
201 ft.

EDR Historical Cleaners:

Name: ONE HOUR CLEANER
Year: 1999
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANER
Year: 2001
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANER
Year: 2002
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANER
Year: 2003
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANER
Year: 2004
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANER
Year: 2005
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANER
Year: 2006
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANER
Year: 2007
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANER
Year: 2008
Address: 3330 W 8TH ST

Name: ONE HOUR CLEANERS
Year: 2010
Address: 3330 W 8TH ST

Name: K TOWN CLEANER
Year: 2011
Address: 3330 W 8TH ST

(Continued) **1015045196**

Name: K TOWN CLEANER
Year: 2012
Address: 3330 W 8TH ST

M69 **MARTINIZING CERTIFIES CLEANING** **DRYCLEANERS** **S103980044**
SSW **3330 W 8TH ST** **EMI** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.149 mi.
785 ft. **Site 6 of 7 in cluster M**

Relative:
Lower

Actual:
201 ft.

DRYCLEANERS:

EPA Id:	CAL000290445
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	01/24/2005
Facility Active:	No
Inactive Date:	06/30/2007
Facility Addr2:	Not reported
Owner Name:	KENKO USA INC
Owner Address:	3330 W 8TH ST
Owner Address 2:	Not reported
Owner Telephone:	0000000000
Contact Name:	TAE HYUN KIM
Contact Address:	3330 W 8TH ST
Contact Address 2:	Not reported
Contact Telephone:	2133837990
Mailing Name:	Not reported
Mailing Address 1:	3330 W 8TH ST
Mailing Address 2:	Not reported
Mailing City:	LOS ANGELES
Mailing State:	CA
Mailing Zip:	90005
Owner Fax:	Not reported
Region Code:	3

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	42632
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	19

MARTINIZING CERTIFIES CLEANING (Continued) **S103980044**

Air Basin:	SC
Facility ID:	61836
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	2
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	19
Air Basin:	SC
Facility ID:	61836
Air District Name:	SC
SIC Code:	7216
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

M70 **EDR US Hist Cleaners** **1015045221**
SSW **3332 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.149 mi.
788 ft. **Site 7 of 7 in cluster M**

Relative:
Lower

Actual:
200 ft.

EDR Historical Cleaners:

Name:	PCY COIN LAUNDRY
Year:	2007
Address:	3332 W 8TH ST
Name:	PCY COIN LAUNDRY
Year:	2010
Address:	3332 W 8TH ST

O71 **EDR US Hist Cleaners** **1015045315**
SSW **3339 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.154 mi.
811 ft. **Site 1 of 4 in cluster O**

Relative: **Lower**
Actual: **199 ft.**

EDR Historical Cleaners:
Name: DUST BUNNIES CLEANING
Year: 2002
Address: 3339 W 8TH ST

O72 **COSTANTINE HARRY** **EDR US Hist Cleaners** **1009185186**
SSW **3341 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.155 mi.
821 ft. **Site 2 of 4 in cluster O**

Relative: **Lower**
Actual: **199 ft.**

EDR Historical Cleaners:
Name: COSTANTINE HARRY
Year: 1929
Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS

P73 **BLACKWELL D E MRS** **EDR US Hist Cleaners** **1009189884**
SSE **3204 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.156 mi.
823 ft. **Site 1 of 3 in cluster P**

Relative: **Higher**
Actual: **231 ft.**

EDR Historical Cleaners:
Name: BLACKWELL D E MRS
Year: 1929
Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS

Name: BLACKWELL JAS
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Name: INZERELLA JOHN
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

J74 **TEXACO STATION** **CA FID UST** **S101585614**
ENE **3350 WILSHIRE BLVD** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 91406**
0.156 mi.
824 ft. **Site 3 of 3 in cluster J**

Relative: **Higher**
Actual: **239 ft.**

CA FID UST:
Facility ID: 19026245
Regulated By: UTNKA
Regulated ID: 00017400
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2130000000
Mail To: Not reported
Mailing Address: 3350 WILSHIRE BLVD
Mailing Address 2: Not reported

TEXACO STATION (Continued) **S101585614**

Mailing City,St,Zip: LOS ANGELES 914060000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Not reported
Comp Number: 1206
Number: Not reported
Board Of Equalization: 44-000217
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001206-000001
Tank Status: Not reported
Capacity: 12000
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: UNKNOWN
Number Of Tanks: 4

Status: Not reported
Comp Number: 1206
Number: Not reported
Board Of Equalization: 44-000217
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001206-000002
Tank Status: Not reported
Capacity: 6000
Active Date: Not reported
Tank Use: CHEMICAL
STG: PRODUCT
Content: UNKNOWN
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 1206
Number: Not reported
Board Of Equalization: 44-000217
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001206-000003
Tank Status: Not reported
Capacity: 12000
Active Date: Not reported
Tank Use: CHEMICAL

TEXACO STATION (Continued) **S101585614**

STG:	PRODUCT
Content:	UNKNOWN
Number Of Tanks:	Not reported
Status:	Not reported
Comp Number:	1206
Number:	Not reported
Board Of Equalization:	44-000217
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001206-000004
Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported
Tank Use:	CHEMICAL
STG:	PRODUCT
Content:	UNKNOWN
Number Of Tanks:	Not reported

P75 **AMBSDR GLOBAL EDUC** **RCRA-LQG** **1014915638**
SSE **3201 W 8TH ST** **CAR000220830**
1/8-1/4 **LOS ANGELES, CA 90005**
0.156 mi.
825 ft. **Site 2 of 3 in cluster P**

Relative:
Higher

Actual:
231 ft.

RCRA-LQG:

Date form received by agency:	07/25/2011
Facility name:	AMBSDR GLOBAL EDUC
Facility address:	3201 W 8TH ST LOS ANGELES, CA 90005
EPA ID:	CAR000220830
Mailing address:	333 S BEAUDRY AVE LAUSD OEHS 27TH FLOOR LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	333 S BEAUDRY AVE 27TH FL LOS ANGELES, CA 90017
Contact country:	US
Contact telephone:	213-241-3904
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

AMBSDR GLOBAL EDUC (Continued) **1014915638**

Owner/Operator Summary:
Owner/operator name: AMBSDR GLOBAL EDUC
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: District
Owner/Operator Type: Operator
Owner/Op start date: 07/18/2011
Owner/Op end date: Not reported

Owner/operator name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Owner/operator address: 333 S BEAUDRY AVE 27TH FLOOR
LOS ANGELES, CA 90017
Owner/operator country: US
Owner/operator telephone: 213-241-3199
Legal status: District
Owner/Operator Type: Owner
Owner/Op start date: 07/18/2011
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: 181
Waste name: 181

Waste code: D008
Waste name: LEAD

Violation Status: No violations found

O76 **LEE KIM** **EDR US Hist Cleaners** **1009189536**
SSW **3343 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.157 mi.
831 ft. **Site 3 of 4 in cluster O**

Relative:
Lower

Actual:
199 ft.

EDR Historical Cleaners:
Name: KIM LEE
Year: 1933
Type: LAUNDRIES CHINESE

LEE KIM (Continued) **1009189536**

Name: LEE KIM
Year: 1937
Type: LAUNDRIES CHINESE

Name: LEE KIM
Year: 1942
Type: LAUNDRIES ORIENTAL

K77 **EDR US Hist Cleaners** **1015050045**
NNW **3663 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90020**
0.166 mi.
874 ft. **Site 4 of 4 in cluster K**

Relative:
Higher

Actual:
246 ft.

EDR Historical Cleaners:
Name: AM/PM COIN LAUNDRY
Year: 2002
Address: 3663 W 6TH ST

Name: AM/PM COIN LAUNDRY
Year: 2003
Address: 3663 W 6TH ST

Name: AM PM COIN LAUNDRY
Year: 2005
Address: 3663 W 6TH ST

Name: AM PM COIN LAUNDRY
Year: 2006
Address: 3663 W 6TH ST

Name: AM PM COIN LAUNDRY
Year: 2007
Address: 3663 W 6TH ST

Name: AM PM COIN LAUNDRY
Year: 2009
Address: 3663 W 6TH ST

P78 **SAMUELS MAX** **EDR US Hist Cleaners** **1009186280**
SE **3186 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.168 mi.
887 ft. **Site 3 of 3 in cluster P**

Relative:
Higher

Actual:
231 ft.

EDR Historical Cleaners:
Name: KAFKA SAML
Year: 1929
Type: CLOTHES PRESSERS CLEANERS AND REPAIRERS

Name: SAMUELS MAX
Year: 1933
Type: CLOTHES PRESSERS AND CLEANERS

Name: SAMUEL MAX
Year: 1937

SAMUELS MAX (Continued) **1009186280**

Type: CLOTHES PRESSERS AND CLEANERS

O79 **EDR US Hist Cleaners** **1015045644**
SSW **3360 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.171 mi.
905 ft. **Site 4 of 4 in cluster O**

Relative:
Lower

Actual:
197 ft.

EDR Historical Cleaners:

Name: KIMS CLEANERS
Year: 1999
Address: 3360 W 8TH ST

Name: KIMS CLEANERS
Year: 2003
Address: 3360 W 8TH ST

Name: KIMS CLEANERS
Year: 2004
Address: 3360 W 8TH ST

Name: PRINCESS CLEANERS
Year: 2007
Address: 3360 W 8TH ST

Name: PRINCESS CLEANERS
Year: 2009
Address: 3360 W 8TH ST

Name: KIMS CLEANERS
Year: 2010
Address: 3360 W 8TH ST

Name: KIMS CLEANERS
Year: 2011
Address: 3360 W 8TH ST

Name: KIMS CLEANERS
Year: 2012
Address: 3360 W 8TH ST

Q80 **EDR US Hist Cleaners** **1009126492**
NE **3450 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90020**
0.174 mi.
918 ft. **Site 1 of 4 in cluster Q**

Relative:
Higher

Actual:
215 ft.

EDR Historical Cleaners:

Name: CHAPMAN CLEANERS
Year: 1994
Type: Not reported

Name: CHAPMAN CLEANERS
Year: 2005
Address: 3450 W 6TH ST

(Continued) **1009126492**

Name: CHAPMAN CLEANERS
Year: 2006
Address: 3450 W 6TH ST

Name: CHAPMAN CLEANERS
Year: 2007
Address: 3450 W 6TH ST

Name: CHAPMAN CLEANERS
Year: 2008
Address: 3450 W 6TH ST

Name: CHAPMAN CLEANERS
Year: 2010
Address: 3450 W 6TH ST

Name: CHAPMAN CLEANERS
Year: 2011
Address: 3450 W 6TH ST

Name: CHAPMAN CLEANERS
Year: 2012
Address: 3450 W 6TH ST

Q81 **CHAPMAN PARK CLEANERS** **DRYCLEANERS** **S103955548**
NE **3450 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90020**
0.175 mi.
924 ft. **Site 2 of 4 in cluster Q**

Relative:
Higher

Actual:
215 ft.

DRYCLEANERS:

EPA Id:	CAL000026538
NAICS Code:	81232
NAICS Description:	Drycleaning and Laundry Services (except Coin-Operated)
SIC Code:	7211
SIC Description:	Power Laundries, Family and Commercial
Create Date:	12/03/2009
Facility Active:	Yes
Inactive Date:	Not reported
Facility Addr2:	Not reported
Owner Name:	CHOE IK HYUN
Owner Address:	3450 W 6TH ST
Owner Address 2:	Not reported
Owner Telephone:	2133866816
Contact Name:	CHOE IK HYUN
Contact Address:	3450 W 6TH ST
Contact Address 2:	Not reported
Contact Telephone:	2133866816
Mailing Name:	Not reported
Mailing Address 1:	3450 W 6TH ST
Mailing Address 2:	Not reported
Mailing City:	LOS ANGELES
Mailing State:	CA
Mailing Zip:	900200000
Owner Fax:	Not reported
Region Code:	3

R82
SW
1/8-1/4
0.183 mi.
967 ft.

THETIEN H T
770 S KINGSLEY DR
LOS ANGELES, CA

Site 1 of 6 in cluster R

EDR US Hist Auto Stat **1009083401**
N/A

Relative:
Lower

Actual:
200 ft.

EDR Historical Auto Stations:

Name:	THETIEN H T
Year:	1937
Type:	GASOLINE AND OIL SERVICE STATIONS

S83
ESE
1/8-1/4
0.189 mi.
996 ft.

AMBASSADOR SCHOOL OF GLOBAL LEADERSHIP
701 S CATALINA ST
LOS ANGELES, CA 90005

Site 1 of 2 in cluster S

RCRA-LQG **1014465280**
CAR000217257

Relative:
Higher

Actual:
241 ft.

RCRA-LQG:

Date form received by agency:	03/21/2011
Facility name:	AMBASSADOR SCHOOL OF GLOBAL LEADERSHIP
Facility address:	701 S CATALINA ST LOS ANGELES, CA 90005
EPA ID:	CAR000217257
Mailing address:	333 S BEAUDRY AVE LAUSD OEHS 27TH FLOOR LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	333 S BEAUDRY AVE 27TH FLOOR LOS ANGELES, CA 90017
Contact country:	US
Contact telephone:	213-241-3904
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	AMBASSADOR SCHOOL OF GLOBAL LEADERSHIP
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Operator
Owner/Op start date:	03/16/2011
Owner/Op end date:	Not reported
Owner/operator name:	LOS ANGELES UNIFIED SCHOOL DISTRICT

AMBASSADOR SCHOOL OF GLOBAL LEADERSHIP (Continued) **1014465280**

Owner/operator address: 333 S BEAUDRY AVE 27TH FLOOR
LOS ANGELES, CA 90017
Owner/operator country: US
Owner/operator telephone: 213-241-3199
Legal status: District
Owner/Operator Type: Owner
Owner/Op start date: 03/16/2011
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Hazardous Waste Summary:
Waste code: 181
Waste name: 181

Waste code: D008
Waste name: LEAD

Violation Status: No violations found

S84 **EDR US Hist Auto Stat** **1015601231**
East **690 S CATALINA ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.190 mi.
1005 ft. **Site 2 of 2 in cluster S**

Relative:
Higher

Actual:
243 ft.

EDR Historical Auto Stations:
Name: ACE AUTO TRANS
Year: 2005
Address: 690 S CATALINA ST

---

85 **MOTCCH** **RCRA-SQG** **1000595653**
East **664 S CATALINA AVE** **FINDS** **CAD983596040**
1/8-1/4 **LOS ANGELES, CA 90005**
0.191 mi.
1006 ft.

Relative:
Higher

Actual:
244 ft.

RCRA-SQG:
Date form received by agency: 08/26/1991
Facility name: MOTCCH
Facility address: 664 S CATALINA AVE

MOTCCH (Continued) **1000595653**

LOS ANGELES, CA 90020
EPA ID: CAD983596040
Mailing address: S CATALINA AVE
LOS ANGELES, CA 90020
Contact: SIEBE HARTENDORP
Contact address: 664 S CATALINA AVE
LOS ANGELES, CA 90020
Contact country: US
Contact telephone: (213) 389-3568
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: C E PENNY CO JOE KHAIR
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

MOTCCH (Continued) **1000595653**

Violation Status: No violations found

FINDS:

Registry ID: 110002853797

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

R86
SW
1/8-1/4
0.196 mi.
1033 ft.
Site 2 of 6 in cluster R

Relative:
Lower

Actual:
196 ft.

3385 W 8TH ST
LOS ANGELES, CA 90005

EDR US Hist Auto Stat **1009084725**
N/A

EDR Historical Auto Stations:
Name: ELLWANGER RAY
Year: 1942
Type: GASOLINE AND OIL SERVICE STATIONS

Name: PALGA MOTORS GROUP
Year: 2002
Address: 3385 W 8TH ST

R87
SW
1/8-1/4
0.196 mi.
1033 ft.
Site 3 of 6 in cluster R

Relative:
Lower

Actual:
196 ft.

KINGSLEY AUTO BODY
3385 W 8TH ST
LOS ANGELES, CA 90005

RCRA-SQG **1000237103**
FINDS **CAD981970908**

RCRA-SQG:
Date form received by agency: 05/18/1987
Facility name: KINGSLEY AUTO BODY
Facility address: 3385 W 8TH ST
LOS ANGELES, CA 90005
EPA ID: CAD981970908
Mailing address: W 8TH ST
LOS ANGELES, CA 90005
Contact: ENVIRONMENTAL MANAGER
Contact address: 3385 W 8TH ST
LOS ANGELES, CA 90005
Contact country: US
Contact telephone: (213) 387-0986
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

KINGSLEY AUTO BODY (Continued) **1000237103**

Owner/Operator Summary:

Owner/operator name:	M YUNG LEE
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED
	NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002760192

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

T88 **95294** **HIST UST** **U001560339**
North **549 S NORMANDIE AVE** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.196 mi.
1035 ft. **Site 1 of 2 in cluster T**

Relative:
Higher

Actual:
236 ft.

HIST UST:

Region:	STATE
Facility ID:	00000062738
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	JOHNSON,RONALD M
Telephone:	2134808213
Owner Name:	CHEVRON U.S.A. INC.
Owner Address:	575 MARKET
Owner City,St,Zip:	SAN FRANCISCO, CA 94105

Tank Num:	001
Container Num:	1
Year Installed:	1971
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor

Tank Num:	002
Container Num:	2
Year Installed:	1971
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor

Tank Num:	003
Container Num:	3
Year Installed:	1971
Tank Capacity:	00010000
Tank Used for:	PRODUCT
Type of Fuel:	Not reported
Tank Construction:	0000250 unknown
Leak Detection:	Stock Inventor

Tank Num:	004
Container Num:	4
Year Installed:	1971
Tank Capacity:	00001000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Tank Construction:	0000130 unknown
Leak Detection:	Stock Inventor

T89 **CHEVRON STATION 9 5294** **RCRA-SQG** **1000820280**
North **549 S NORMANDIE AVE** **FINDS** **CAD983663147**
1/8-1/4 **LOS ANGELES, CA 90005** **HIST CORTESE**
0.197 mi. **LUST**
1039 ft. **Site 2 of 2 in cluster T**

Relative:
Higher

Actual:
237 ft.

RCRA-SQG:

Date form received by agency:	03/26/1993
Facility name:	CHEVRON STATION 9 5294
Facility address:	549 S NORMANDIE AVE LOS ANGELES, CA 90005
EPA ID:	CAD983663147
Mailing address:	P O BOX 2833 LA HABRA, CA 90632
Contact:	DESIREE CLOSS
Contact address:	P O BOX 2833 LA HABRA, CA 90632
Contact country:	US
Contact telephone:	(310) 694-7452
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	CHEVRON USA PRODUCTS CO
Owner/operator address:	P O BOX 2833 LA HABRA, CA 90063
Owner/operator country:	Not reported
Owner/operator telephone:	(310) 694-7452
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

CHEVRON STATION 9 5294 (Continued) **1000820280**

FINDS:

Registry ID: 110002895430

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900200025

LUST:

Region:	STATE
Global Id:	T0603700629
Latitude:	34.0637567243276
Longitude:	-118.300529122353
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	09/25/2008
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DMB
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900200025
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700629
Contact Type:	Regional Board Caseworker
Contact Name:	DAVID M. BJOSTAD
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4th Street, Suite 200
City:	Los Angeles
Email:	dbjostad@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700629
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org

CHEVRON STATION 9 5294 (Continued) **1000820280**

Phone Number: Not reported

Status History:
Global Id: T0603700629
Status: Open - Remediation
Status Date: 08/01/2000

Global Id: T0603700629
Status: Open - Remediation
Status Date: 01/31/2001

Global Id: T0603700629
Status: Open - Verification Monitoring
Status Date: 10/20/2004

Global Id: T0603700629
Status: Open - Remediation
Status Date: 04/18/2007

Global Id: T0603700629
Status: Open - Site Assessment
Status Date: 06/16/1988

Global Id: T0603700629
Status: Open - Case Begin Date
Status Date: 01/01/1983

Global Id: T0603700629
Status: Open - Remediation
Status Date: 09/25/2008

Regulatory Activities:
Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: ENFORCEMENT
Date: 02/08/2001
Action: Staff Letter

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

CHEVRON STATION 9 5294 (Continued) **1000820280**

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: REMEDIATION
Date: 01/01/1950
Action: Other (Use Description Field)

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700629
Action Type: RESPONSE

CHEVRON STATION 9 5294 (Continued) **1000820280**

Date: 07/15/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: ENFORCEMENT
Date: 01/06/2013
Action: Technical Correspondence / Assistance / Other

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 10/17/2008
Action: Interim Remedial Action Plan

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/11/2008
Action: Interim Remedial Action Plan

Global Id: T0603700629
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

CHEVRON STATION 9 5294 (Continued) **1000820280**

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/17/2007
Action: Interim Remedial Action Plan

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE

CHEVRON STATION 9 5294 (Continued) **1000820280**

Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 04/30/2014
Action: Soil and Water Investigation Workplan - Regulator Responded

Global Id: T0603700629
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: REMEDIATION
Date: 01/01/1950
Action: Free Product Removal

Global Id: T0603700629
Action Type: REMEDIATION
Date: 01/01/1950
Action: Other (Use Description Field)

Global Id: T0603700629
Action Type: RESPONSE
Date: 10/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700629
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

LUST REG 4:
Region: 4
Regional Board: 04

CHEVRON STATION 9 5294 (Continued) **1000820280**

County:	Los Angeles	
Facility Id:	900200025	
Status:	Remedial action (cleanup) Underway	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Remove Free Product
Global ID:	T0603700629	
W Global ID:	Not reported	
Staff:	TCS	
Local Agency:	19050	
Cross Street:	6TH	
Enforcement Type:	SEL	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		1/1/1983
Date Leak Record Entered:	12/31/1986	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		9/19/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		2655.913087689156940697425964
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		6/16/1988
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		11/24/1997
Post Remedial Action Monitoring Began:		1/1/1983
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/3/2001
Hist Max MTBE Conc in Groundwater:		1350
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	Y. M. TUAN	
RP Address:	P.O. BOX 2833	
Program:	LUST	
Lat/Long:	34.0644299 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	8/1/00 2ND QTR GW MON RPT; 10/2/00 DUAL-PHASE EXTRACTION TEST; 10/24/00 3RD QTR GW MON RPT 2000; 1/16/01 4TH QTR GW MON RPT 2000;	

CHEVRON STATION 9 5294 (Continued) **1000820280**

4/10/01 1ST QTR GW MON RPT 2001

N90 **JARRETT JOS** **EDR US Hist Auto Stat** **1009077089**
WNW **3618 WILSHIRE BLVD** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.198 mi.
1048 ft. **Site 3 of 3 in cluster N**

Relative:
Higher

Actual:
224 ft.

EDR Historical Auto Stations:

Name:	JARRETT JOS
Year:	1929
Type:	GASOLINE AND OIL SERVICE STATION
Name:	WILSHIRE SUPER SERVICE STATION
Year:	1933
Type:	GASOLINE AND OIL SERVICE STATIONS

Q91 **SCHWARTZ RUDOLPH** **EDR US Hist Cleaners** **1009190503**
NE **3425 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.201 mi.
1060 ft. **Site 3 of 4 in cluster Q**

Relative:
Higher

Actual:
215 ft.

EDR Historical Cleaners:

Name:	SCHWARTZ RUDOLPH
Year:	1933
Type:	LAUNDRIES HAND
Name:	SCHWARTZ RUDOLPH
Year:	1937
Type:	LAUNDRIES HAND

Q92 **MATTERN C J** **EDR US Hist Auto Stat** **1009084785**
NE **3424 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.202 mi.
1065 ft. **Site 4 of 4 in cluster Q**

Relative:
Higher

Actual:
217 ft.

EDR Historical Auto Stations:

Name:	MATTERN C J
Year:	1942
Type:	GASOLINE AND OIL SERVICE STATIONS

U93 **EDR US Hist Cleaners** **1015041526**
SE **3150 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.206 mi.
1086 ft. **Site 1 of 2 in cluster U**

Relative:
Higher

Actual:
231 ft.

EDR Historical Cleaners:

Name:	KIMS DRY CLEANING AGENCY
Year:	2002
Address:	3150 W 8TH ST

V94 **EDR US Hist Auto Stat** **1015579566**
ENE **620 S CATALINA ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.210 mi.
1107 ft. **Site 1 of 4 in cluster V**

Relative:
Higher

Actual:
225 ft.

EDR Historical Auto Stations:
Name: RAULS AUTO REPAIR
Year: 1999
Address: 620 S CATALINA ST

R95 **CHUL JAE LEE/CHU CHA LEE** **CA FID UST** **S101585968**
SW **3401 W 8TH ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.211 mi.
1115 ft. **Site 4 of 6 in cluster R**

Relative:
Lower

Actual:
196 ft.

CA FID UST:
Facility ID: 19035006
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2133893080
Mail To: Not reported
Mailing Address: 3401 W 8TH ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900050000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 4630
Number: 3
Board Of Equalization: Not reported
Referral Date: 02-25-93
Action Date: 02-25-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

R96
SW
1/8-1/4
0.211 mi.
1115 ft.

KINGSLEY AUTO TEXACO
3401 W 8TH ST
LOS ANGELES, CA 90005

Site 5 of 6 in cluster R

RCRA-SQG
FINDS
HIST CORTESE
LUST

1000596508
CAD983604802

Relative:
Lower

Actual:
196 ft.

RCRA-SQG:

Date form received by agency:	09/04/1991
Facility name:	KINGSLEY AUTO TEXACO
Facility address:	3401 W 8TH ST LOS ANGELES, CA 90005
EPA ID:	CAD983604802
Contact:	CHARLIE LEE
Contact address:	3401 W 8TH ST LOS ANGELES, CA 90005
Contact country:	US
Contact telephone:	(213) 389-4047
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	ROBERT M LAWSON
Owner/operator address:	3445 W 8TH ST LOS ANGELES, CA 90005
Owner/operator country:	Not reported
Owner/operator telephone:	(213) 389-1164
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110002860155

KINGSLEY AUTO TEXACO (Continued) **1000596508**

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900050061

LUST:

Region:	STATE
Global Id:	T0603700468
Latitude:	34.0577231
Longitude:	-118.3031749
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/06/2010
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	Not reported
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900050061
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700468
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700468
Status:	Open - Site Assessment
Status Date:	03/28/2000
Global Id:	T0603700468
Status:	Open - Remediation
Status Date:	02/27/2004
Global Id:	T0603700468
Status:	Open - Remediation

KINGSLEY AUTO TEXACO (Continued) **1000596508**

Status Date: 06/17/2004

Global Id: T0603700468
Status: Open - Remediation
Status Date: 01/08/2008

Global Id: T0603700468
Status: Completed - Case Closed
Status Date: 08/06/2010

Global Id: T0603700468
Status: Open - Site Assessment
Status Date: 09/11/1995

Global Id: T0603700468
Status: Open - Case Begin Date
Status Date: 09/11/1995

Global Id: T0603700468
Status: Open - Site Assessment
Status Date: 03/06/1996

Regulatory Activities:

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 06/17/2002
Action: Staff Letter

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 01/11/1999
Action: Staff Letter

Global Id: T0603700468
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 01/15/2008
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0603700468
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 12/31/2003
Action: CAP/RAP - Final Remediation / Design Plan

KINGSLEY AUTO TEXACO (Continued) **1000596508**

Global Id: T0603700468
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 06/25/2002
Action: Staff Letter

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 04/03/2003
Action: Staff Letter

Global Id: T0603700468
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 02/11/2004
Action: Other Workplan

Global Id: T0603700468
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700468
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 01/08/2004
Action: Well Installation Report

Global Id: T0603700468
Action Type: RESPONSE
Date: 04/15/2004
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603700468
Action Type: RESPONSE

KINGSLEY AUTO TEXACO (Continued) **1000596508**

Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 07/15/2004
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 05/08/2008
Action: Staff Letter

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 04/15/2008
Action: Staff Letter

Global Id: T0603700468
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 08/06/2010
Action: Closure/No Further Action Letter

Global Id: T0603700468
Action Type: RESPONSE
Date: 07/31/2002
Action: Other Report / Document

Global Id: T0603700468
Action Type: RESPONSE
Date: 04/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 01/07/2003
Action: Staff Letter

Global Id: T0603700468
Action Type: ENFORCEMENT
Date: 02/07/2008
Action: Staff Letter

KINGSLEY AUTO TEXACO (Continued) **1000596508**

Global Id:	T0603700468
Action Type:	RESPONSE
Date:	07/15/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603700468
Action Type:	RESPONSE
Date:	10/15/2002
Action:	CAP/RAP - Final Remediation / Design Plan
Global Id:	T0603700468
Action Type:	RESPONSE
Date:	10/17/2008
Action:	Clean Up Fund - 5-Year Review Summary
Global Id:	T0603700468
Action Type:	RESPONSE
Date:	01/15/2005
Action:	Soil and Water Investigation Report
Global Id:	T0603700468
Action Type:	RESPONSE
Date:	10/15/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0603700468
Action Type:	RESPONSE
Date:	01/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603700468
Action Type:	RESPONSE
Date:	03/18/2003
Action:	Other Workplan
Global Id:	T0603700468
Action Type:	RESPONSE
Date:	07/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603700468
Action Type:	ENFORCEMENT
Date:	02/27/2004
Action:	Staff Letter
Global Id:	T0603700468
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped
Global Id:	T0603700468
Action Type:	ENFORCEMENT
Date:	03/02/2010
Action:	Staff Letter
Global Id:	T0603700468
Action Type:	RESPONSE

KINGSLEY AUTO TEXACO (Continued) **1000596508**

Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 02/28/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700468
Action Type: RESPONSE
Date: 08/31/2002
Action: CAP/RAP - Final Remediation / Design Plan

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900050061
Status: Remediation Plan
Substance: Hydrocarbons
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Not reported
Global ID: T0603700468
W Global ID: Not reported
Staff: MSH
Local Agency: 19050
Cross Street: MARIPOSA AVE
Enforcement Type: SEL
Date Leak Discovered: 9/11/1995
Date Leak First Reported: 9/11/1995
Date Leak Record Entered: 3/21/1996
Date Confirmation Began: Not reported
Date Leak Stopped: 9/11/1995
Date Case Last Changed on Database: 8/13/2002
Date the Case was Closed: Not reported
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: Not reported
Leak Source: Not reported

KINGSLEY AUTO TEXACO (Continued) **1000596508**

Operator:	Not reported
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	4645.715697223792289184078 4269
Source of Cleanup Funding:	Not reported
Preliminary Site Assessment Workplan Submitted:	9/11/1995
Preliminary Site Assessment Began:	3/6/1996
Pollution Characterization Began:	3/28/2000
Remediation Plan Submitted:	2/27/2004
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	9/11/1995
Enforcement Action Date:	1/11/1999
Historical Max MTBE Date:	1/10/2002
Hist Max MTBE Conc in Groundwater:	117
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	=
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	WILLIAM LAWSON
RP Address:	3750 SHADOW GROVE RD.
Program:	LUST
Lat/Long:	34.0577231 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	QUARTERLY GW MONITORING ; 2/20/00 DEC 1999 GW MON RPT; 4/15/00 1ST QTR GW MON RPT 2000; 8/7/00 2ND QTR GW MON RPT 2000; 10/15/00 3RD QTR GW MON RPT; 1/15/01 4TH QTR GW MON RPT 2000

R97 **ROBLICK GENE** **EDR US Hist Auto Stat** **1009083067**
SW **3401 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.211 mi.
1115 ft. **Site 6 of 6 in cluster R**

Relative:
Lower

Actual:
196 ft.

EDR Historical Auto Stations:

Name:	ROBLICK GENE
Year:	1942
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	KINGSLEY AUTO TEXACO
Year:	1999
Address:	3401 W 8TH ST
Name:	KINGSLEY AUTO TEXACO
Year:	2001
Address:	3401 W 8TH ST
Name:	KINGSLEY AUTO SERVICE
Year:	2002
Address:	3401 W 8TH ST
Name:	KINGSLEY AUTO TEXACO SERVICE

ROBLICK GENE (Continued) **1009083067**

Year: 2004
Address: 3401 W 8TH ST

Name: KINGSLEY AUTO SERVICE INC
Year: 2005
Address: 3401 W 8TH ST

Name: KINGSLEY AUTO SERVICE
Year: 2006
Address: 3401 W 8TH ST

Name: KINGSLEY AUTO SERVICE
Year: 2007
Address: 3401 W 8TH ST

Name: KINGSLEY AUTO SERVICE
Year: 2008
Address: 3401 W 8TH ST

Name: KINGSLEY AUTO SERVICE
Year: 2009
Address: 3401 W 8TH ST

Name: KINGSLEY AUTO SVC
Year: 2010
Address: 3401 W 8TH ST

Name: KINGSLY AUTO SERVICE
Year: 2011
Address: 3401 W 8TH ST

Name: KINGSLY AUTO SERVICE
Year: 2012
Address: 3401 W 8TH ST

98
WSW
1/8-1/4
0.215 mi.
1133 ft.

HOBART/WILTON PRIMARY SCHOOL NO. 9 **SCH** **S107736465**
7TH STREET/HOBART BOULEVARD/HARVARD BOULEVARD **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90005

Relative:
Lower

Actual:
209 ft.

SCH:

Facility ID: 19590015
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1.81
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304154
Assembly: 53
Senate: 26

HOBART/WILTON PRIMARY SCHOOL NO. 9 (Continued) **S107736465**

Special Program Status:	Not reported
Status:	Inactive - Withdrawn
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.05961
Longitude:	-118.3044
APN:	NONE SPECIFIED
Past Use:	* RETIAL - MISC.
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #9
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #9/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #9/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304064
Alias Type:	Project Code (Site Code)
Alias Name:	304154
Alias Type:	Project Code (Site Code)
Alias Name:	19590015
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

HOBART/WILTON PRIMARY SCHOOL NO. 9 (Continued) **S107736465**

Facility ID: 19590015
Status: Inactive - Withdrawn
Status Date: 08/20/2002
Site Code: 304154
Site Type: School Investigation
Site Type Detailed: School
Acres: 1.81
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.05961
Longitude: -118.3044
APN: NONE SPECIFIED
Past Use: * RETIAL - MISC.
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #9
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #9/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #9/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304064
Alias Type: Project Code (Site Code)
Alias Name: 304154
Alias Type: Project Code (Site Code)
Alias Name: 19590015
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000

HOBART/WILTON PRIMARY SCHOOL NO. 9 (Continued) **S107736465**

Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

99
SSW
1/8-1/4
0.217 mi.
1145 ft.

840 S ARDMORE AVE
LOS ANGELES, CA 90005

EDR US Hist Cleaners **1015100501**
N/A

Relative:
Lower

Actual:
200 ft.

EDR Historical Cleaners:
Name: BLUE MOON CLEANING SERVICES
Year: 2004
Address: 840 S ARDMORE AVE

W100
NE
1/8-1/4
0.223 mi.
1175 ft.

553 S KENMORE AVE
LOS ANGELES, CA 90020
Site 1 of 2 in cluster W

EDR US Hist Auto Stat **1015551421**
N/A

Relative:
Higher

Actual:
214 ft.

EDR Historical Auto Stations:
Name: 24 HOUR AUTO GLASS
Year: 2010
Address: 553 S KENMORE AVE

W101
NE
1/8-1/4
0.226 mi.
1191 ft.

550 S KENMORE AVE
LOS ANGELES, CA 90020
Site 2 of 2 in cluster W

EDR US Hist Auto Stat **1015550077**
N/A

Relative:
Higher

Actual:
214 ft.

EDR Historical Auto Stations:
Name: A AUTO GLASS
Year: 2010
Address: 550 S KENMORE AVE

V102 **MORSE H K** **EDR US Hist Auto Stat** **1009080464**
NE **604 S CATALINA ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.227 mi.
1197 ft. **Site 2 of 4 in cluster V**

Relative:
Higher

Actual:
219 ft.

EDR Historical Auto Stations:

Name:	MORSE H K
Year:	1933
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	MC CONNELL VERNON
Year:	1937
Type:	GASOLINE AND OIL SERVICE STATIONS

V103 **MC COY J W** **EDR US Hist Auto Stat** **1009082130**
NE **3400 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.229 mi.
1210 ft. **Site 3 of 4 in cluster V**

Relative:
Higher

Actual:
218 ft.

EDR Historical Auto Stations:

Name:	MC COY J W
Year:	1937
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	MC COY J W
Year:	1942
Type:	GASOLINE AND OIL SERVICE STATIONS

V104 **MARTIN J P** **EDR US Hist Auto Stat** **1009079795**
NE **3401 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.230 mi.
1215 ft. **Site 4 of 4 in cluster V**

Relative:
Higher

Actual:
218 ft.

EDR Historical Auto Stations:

Name:	BENOIT G F
Year:	1933
Type:	GASOLINE AND OIL SERVICE STATIONS
Name:	MARTIN J P
Year:	1937
Type:	GASOLINE AND OIL SERVICE STATIONS

X105 **EDR US Hist Auto Stat** **1015455292**
NW **3727 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90020**
0.232 mi.
1226 ft. **Site 1 of 2 in cluster X**

Relative:
Higher

Actual:
231 ft.

EDR Historical Auto Stations:

Name:	DYNAMIC TRANSMISSION
Year:	2004
Address:	3727 W 6TH ST

X106 **EDR US Hist Cleaners** **1015050938**
NW **3727 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90020**
0.232 mi.
1226 ft. **Site 2 of 2 in cluster X**

Relative:
Higher

Actual:
231 ft.

EDR Historical Cleaners:
Name: KIM CARPET CLEANING
Year: 2001
Address: 3727 W 6TH ST

U107 **LAPPIN MORRIS** **EDR US Hist Cleaners** **1009194431**
SE **3127 W 8TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.245 mi.
1291 ft. **Site 2 of 2 in cluster U**

Relative:
Higher

Actual:
231 ft.

EDR Historical Cleaners:
Name: LAPPIN MORRIS
Year: 1937
Type: CLOTHES PRESSERS AND CLEANERS

Y108 **ARCO AM PM MINI MARKET** **CA FID UST** **S101586123**
NE **3325 W 6TH ST** **SWEEPS UST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.249 mi.
1316 ft. **Site 1 of 9 in cluster Y**

Relative:
Higher

Actual:
220 ft.

CA FID UST:
Facility ID: 19038850
Regulated By: UTNKA
Regulated ID: 00026466
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2133813810
Mail To: Not reported
Mailing Address: 515 S FLOWER ST
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900050000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 1555
Number: 1
Board Of Equalization: 44-000506
Referral Date: 03-03-93
Action Date: 03-03-93
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001555-000001
Tank Status: A

ARCO AM PM MINI MARKET (Continued) **S101586123**

Capacity:	12000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	5

Status:	Active
Comp Number:	1555
Number:	1
Board Of Equalization:	44-000506
Referral Date:	03-03-93
Action Date:	03-03-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001555-000002
Tank Status:	A
Capacity:	12000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1555
Number:	1
Board Of Equalization:	44-000506
Referral Date:	03-03-93
Action Date:	03-03-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001555-000003
Tank Status:	A
Capacity:	12000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1555
Number:	1
Board Of Equalization:	44-000506
Referral Date:	03-03-93
Action Date:	03-03-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001555-000004
Tank Status:	A
Capacity:	4000
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

ARCO AM PM MINI MARKET (Continued) **S101586123**

Status:	Active
Comp Number:	1555
Number:	1
Board Of Equalization:	44-000506
Referral Date:	03-03-93
Action Date:	03-03-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001555-000006
Tank Status:	A
Capacity:	Not reported
Active Date:	04-20-88
Tank Use:	CHEMICAL
STG:	P
Content:	UNKNOWN
Number Of Tanks:	Not reported

Y109 **DAVIS O L** **EDR US Hist Auto Stat** **1009082692**
NE **3325 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA**
0.249 mi.
1316 ft. **Site 2 of 9 in cluster Y**

Relative:
Higher

Actual:
220 ft.

EDR Historical Auto Stations:

Name:	DAVIS O L
Year:	1942
Type:	GASOLINE AND OIL SERVICE STATIONS

Y110 **KOHANOFF ARCO AM PM MINI MARKET** **EDR US Hist Auto Stat** **1008996115**
NE **3325 W 6TH** **N/A**
1/8-1/4 **LOS ANGELES, CA 90000**
0.249 mi.
1316 ft. **Site 3 of 9 in cluster Y**

Relative:
Higher

Actual:
220 ft.

EDR Historical Auto Stations:

Name:	KOHANOFF ARCO AM PM MINI MARKET
Year:	1994
Type:	Not reported
Name:	KOHANOFF ARCO AM PM MARKET
Year:	1999
Address:	3325 W 6TH ST
Name:	KOHANOFF ARCO AM PM MARKET
Year:	2001
Address:	3325 W 6TH ST
Name:	KOHANOFF ARCO AM PM MARKET
Year:	2002
Address:	3325 W 6TH ST
Name:	6TH & CATALINA CHEVRON INC
Year:	2003
Address:	3325 W 6TH ST
Name:	KOHANOFF ARCO AM PM MARKET

KOHANOFF ARCO AM PM MINI MARKET (Continued) **1008996115**

Year: 2004
Address: 3325 W 6TH ST

Name: CHEVRON
Year: 2005
Address: 3325 W 6TH ST

Name: CHEVRON
Year: 2006
Address: 3325 W 6TH ST

Name: CHEVRON
Year: 2007
Address: 3325 W 6TH ST

Y111 **G & C MAINTENANCE (FORMER) ARCO #0020** **LUST** **S106116224**
NE **3325 6TH ST. W.** **N/A**
1/8-1/4 **LOS ANGELES, CA 90020**
0.249 mi.
1316 ft. **Site 4 of 9 in cluster Y**

Relative:
Higher

Actual:
220 ft.

LUST:

Region:	STATE
Global Id:	T0603776621
Latitude:	34.063831
Longitude:	-118.295
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/23/2010
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DMB
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900200052A
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603776621
Contact Type:	Regional Board Caseworker
Contact Name:	DAVID M. BJOSTAD
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4th Street, Suite 200
City:	Los Angeles
Email:	dbjostad@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603776621
Contact Type:	Local Agency Caseworker
Contact Name:	TBD
Organization Name:	LOS ANGELES, CITY OF
Address:	200 N. MAIN ST. RM. 970
City:	LOS ANGELES
Email:	Not reported

G & C MAINTENANCE (FORMER) ARCO #0020 (Continued) **S106116224**

Phone Number: 2134826528

Status History:
Global Id: T0603776621
Status: Open - Site Assessment
Status Date: 04/07/2003

Global Id: T0603776621
Status: Open - Verification Monitoring
Status Date: 11/14/2003

Global Id: T0603776621
Status: Open - Site Assessment
Status Date: 09/28/1988

Global Id: T0603776621
Status: Completed - Case Closed
Status Date: 02/23/2010

Global Id: T0603776621
Status: Open - Case Begin Date
Status Date: 09/28/1988

Regulatory Activities:
Global Id: T0603776621
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603776621
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE

G & C MAINTENANCE (FORMER) ARCO #0020 (Continued) **S106116224**

Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603776621
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 05/01/2008
Action: Conceptual Site Model

Global Id: T0603776621
Action Type: ENFORCEMENT
Date: 07/09/2003
Action: Staff Letter

G & C MAINTENANCE (FORMER) ARCO #0020 (Continued) **S106116224**

Global Id: T0603776621
Action Type: ENFORCEMENT
Date: 10/28/2009
Action: Technical Correspondence / Assistance / Other

Global Id: T0603776621
Action Type: ENFORCEMENT
Date: 11/05/2009
Action: Site Visit / Inspection / Sampling

Global Id: T0603776621
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603776621
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 03/30/2009
Action: Request for Closure

Global Id: T0603776621
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: ENFORCEMENT
Date: 02/23/2010
Action: Closure/No Further Action Letter

Global Id: T0603776621
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: ENFORCEMENT
Date: 02/03/2010
Action: Notification - Preclosure

Global Id: T0603776621
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603776621
Action Type: RESPONSE

G & C MAINTENANCE (FORMER) ARCO #0020 (Continued) **S106116224**

Date:	10/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603776621
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603776621
Action Type:	RESPONSE
Date:	01/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603776621
Action Type:	RESPONSE
Date:	04/15/2008
Action:	Monitoring Report - Quarterly
Global Id:	T0603776621
Action Type:	RESPONSE
Date:	09/15/2003
Action:	Other Report / Document

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900200052A	
Status:	Leak being confirmed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Undefined	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603776621	
W Global ID:	Not reported	
Staff:	TCS	
Local Agency:	19050	
Cross Street:	CATALINA	
Enforcement Type:	SEL	
Date Leak Discovered:	6/25/2002	
Date Leak First Reported:		6/25/2002
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	4/7/2003	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		Not reported
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		Not reported
Source of Cleanup Funding:		Not reported

G & C MAINTENANCE (FORMER) ARCO #0020 (Continued) **S106116224**

Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	3/9/2004
Hist Max MTBE Conc in Groundwater:	770
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	=
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	MR. SAEED KOHANOFF
RP Address:	3325 W. 6TH ST.
Program:	LUST
Lat/Long:	0 / 0
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

Y112 **SAEED KOHANOFF** **HIST UST** **U001560347**
NE **3325 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90005**
0.249 mi.
1316 ft. **Site 5 of 9 in cluster Y**

Relative:
Higher

Actual:
220 ft.

HIST UST:

Region:	STATE
Facility ID:	00000026466
Facility Type:	Gas Station
Other Type:	Not reported
Total Tanks:	0004
Contact Name:	Not reported
Telephone:	0000000000
Owner Name:	ARCO PETROLEUM PRODUCTS CO.
Owner Address:	515 SOUTH FLOWER STREET
Owner City,St,Zip:	LOS ANGELES, CA 90071
Tank Num:	001
Container Num:	0000000001
Year Installed:	1966
Tank Capacity:	00004000
Tank Used for:	PRODUCT
Type of Fuel:	06
Tank Construction:	0000167 inches
Leak Detection:	Stock Inventor, 10
Tank Num:	002
Container Num:	0000000002
Year Installed:	1971
Tank Capacity:	00006000

SAEED KOHANOFF (Continued) **U001560347**

Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000240 inches
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 0000000003
Year Installed: 1971
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000240 inches
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 0000000004
Year Installed: 1966
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: 06
Tank Construction: 0000167 inches
Leak Detection: Stock Inventor, 10

Y113 **ARCO #0020** **HIST CORTESE** **S100929952**
NE **3325 006TH ST W** **LUST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90020**
0.249 mi.
1316 ft. **Site 6 of 9 in cluster Y**

Relative:
Higher

Actual:
220 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900200052

LUST:
Region: STATE
Global Id: T0603700632
Latitude: 34.063629
Longitude: -118.2944857
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 12/05/1996
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900200052
LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700632
Contact Type: Regional Board Caseworker

ARCO #0020 (Continued) **S100929952**

Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700632
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700632
Status:	Open - Case Begin Date
Status Date:	10/30/1989

Global Id:	T0603700632
Status:	Open - Site Assessment
Status Date:	10/01/1991

Global Id:	T0603700632
Status:	Completed - Case Closed
Status Date:	12/05/1996

Global Id:	T0603700632
Status:	Open - Site Assessment
Status Date:	10/30/1989

Regulatory Activities:

Global Id:	T0603700632
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	900200052
Status:	Case Closed
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Groundwater
Abatement Method Used at the Site:	Excavate and Dispose
Global ID:	T0603700632
W Global ID:	Not reported
Staff:	UNK
Local Agency:	19050
Cross Street:	CATALINA ST

ARCO #0020 (Continued) **S100929952**

Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		10/30/1989
Date Leak Record Entered:	11/22/1989	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		10/18/1996
Date the Case was Closed:		12/5/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		4196.5120828392269240338759573
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		10/30/1989
Pollution Characterization Began:		10/1/1991
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	ARCO PRODUCTS COMPANY	
RP Address:	P.O. BOX 5077, BUENA PARK, CA 90622-5077	
Program:	LUST	
Lat/Long:	34.063629 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

Y114 **ARCO AM PM MINI MARKET #20** **UST** **U003982086**
NE **3325 W 6TH ST** **N/A**
1/8-1/4 **LOS ANGELES, CA 90020**
0.249 mi.
1316 ft. **Site 7 of 9 in cluster Y**

Relative:
Higher

Actual:
220 ft.

UST:

Facility ID:	25146
Latitude:	34.0651673
Longitude:	-118.2937067
Permitting Agency:	LOS ANGELES, CITY OF

115
NNE
1/8-1/4
0.250 mi.
1320 ft.

CAHUENGA ELEMENTARY SITE NO. 12
MARIPOSA AVENUE/FIFTH STREET/ALEXANDRIA AVENUE
LOS ANGELES, CA 90020

SCH
ENVIROSTOR

S107735991
N/A

Relative:
Higher

Actual:
219 ft.

SCH:

Facility ID:	19890016
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2.5
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304143
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	02/11/2000
Restricted Use:	NO
Funding:	School District
Latitude:	34.06531
Longitude:	-118.2983
APN:	NONE SPECIFIED
Past Use:	* UNKNOWN
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAHUENGA ELEMENTARY SITE #12
Alias Type:	Alternate Name
Alias Name:	LAUSD-CAHUENGA ELEM #12/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-CAHUENGA ELEM #12/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304061
Alias Type:	Project Code (Site Code)
Alias Name:	304143
Alias Type:	Project Code (Site Code)
Alias Name:	19890016
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo

CAHUENGA ELEMENTARY SITE NO. 12 (Continued) **S107735991**

Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/22/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19890016
Status: Inactive - Needs Evaluation
Status Date: 02/11/2000
Site Code: 304143
Site Type: School Investigation
Site Type Detailed: School
Acres: 2.5
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.06531
Longitude: -118.2983
APN: NONE SPECIFIED
Past Use: * UNKNOWN
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAHUENGA ELEMENTARY SITE #12
Alias Type: Alternate Name
Alias Name: LAUSD-CAHUENGA ELEM #12/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-CAHUENGA ELEM #12/VCA

CAHUENGA ELEMENTARY SITE NO. 12 (Continued) **S107735991**

Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304061
Alias Type: Project Code (Site Code)
Alias Name: 304143
Alias Type: Project Code (Site Code)
Alias Name: 19890016
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/22/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Z116 **BELMONT NEW ELEMENTARY SCHOOL NO. 9** **SCH** **S107735903**
WNW **WILSHIRE BOULEVARD/HOBART BOULEVARD** **ENVIROSTOR** **N/A**
1/4-1/2 **LOS ANGELES, CA 90020**
0.272 mi.
1436 ft. **Site 1 of 2 in cluster Z**

Relative: Higher

Actual: 219 ft.

SCH:

Facility ID: 19550023
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1.5

BELMONT NEW ELEMENTARY SCHOOL NO. 9 (Continued) **S107735903**

National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304296
Assembly:	53
Senate:	22
Special Program Status:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	08/11/2004
Restricted Use:	NO
Funding:	School District
Latitude:	34.05227
Longitude:	-118.2527
APN:	NONE SPECIFIED
Past Use:	* RETAIL - AUTO DEALERS & SERVICE STATIONS
Potential COC:	Arsenic, Arsenic, Xylenes, Ethylbenzene, Benzene, Toluene
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	BELMONT NEW ELEMENTARY SCHOOL #9
Alias Type:	Alternate Name
Alias Name:	BELMONT NEW ELEMENTARY SCHOOL #9 (PROP)
Alias Type:	Alternate Name
Alias Name:	BELMONT NEW ELEMENTARY SCHOOL NO. 9
Alias Type:	Alternate Name
Alias Name:	LAUSD-BELMONT NEW ES#9
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304296
Alias Type:	Project Code (Site Code)
Alias Name:	19550023
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	01/25/2002
Comments:	DTSC has submitted an approval to Proposed Belmont New Elem. School No. 9, however past activities at the site(including gasoline service stations, automotive shops and a dry cleaner establishment) have impacted soil and groundwater at the site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	04/20/2001
Comments:	Not reported

BELMONT NEW ELEMENTARY SCHOOL NO. 9 (Continued) **S107735903**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/17/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/14/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/28/2007
Comments: CRU Memo completed

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19550023
Status: Inactive - Needs Evaluation
Status Date: 08/11/2004
Site Code: 304296
Site Type: School Investigation
Site Type Detailed: School
Acres: 1.5
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 22
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.05227
Longitude: -118.2527
APN: NONE SPECIFIED
Past Use: * RETAIL - AUTO DEALERS & SERVICE STATIONS
Potential COC: Arsenic Xylenes Ethylbenzene Benzene Toluene
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: BELMONT NEW ELEMENTARY SCHOOL #9
Alias Type: Alternate Name

BELMONT NEW ELEMENTARY SCHOOL NO. 9 (Continued) **S107735903**

Alias Name: BELMONT NEW ELEMENTARY SCHOOL #9 (PROP)
Alias Type: Alternate Name
Alias Name: BELMONT NEW ELEMENTARY SCHOOL NO. 9
Alias Type: Alternate Name
Alias Name: LAUSD-BELMONT NEW ES#9
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304296
Alias Type: Project Code (Site Code)
Alias Name: 19550023
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 01/25/2002
Comments: DTSC has submitted an approval to Proposed Belmont New Elem. School No. 9, however past activities at the site(including gasoline service stations, automotive shops and a dry cleaner establishment) have impacted soil and groundwater at the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 04/20/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/17/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 05/14/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/28/2007
Comments: CRU Memo completed

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported

BELMONT NEW ELEMENTARY SCHOOL NO. 9 (Continued) **S107735903**

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Y117 **BERENDO SHOPPING CENTER** **CERC-NFRAP** **1003879929**
NE **3301-3317 W. SIXTH ST.** **CA0000187989**
1/4-1/2 **LOS ANGELES, CA 90020**
0.277 mi.
1463 ft. **Site 8 of 9 in cluster Y**

Relative:
Higher

Actual:
224 ft.

CERC-NFRAP:
Site ID: 0904995
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13289536.00000
Person ID: 13003854.00000

Contact Sequence ID: 13295131.00000
Person ID: 13003858.00000

Contact Sequence ID: 13300989.00000
Person ID: 13004003.00000

CERCLIS-NFRAP Assessment History:
Action: DISCOVERY
Date Started: / /
Date Completed: 03/25/94
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 03/29/00
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 03/31/00
Priority Level: Not reported

Y118 **CATELLUS DEVELOPMENT CORP** **HIST CORTESE** **S104406281**
NE **3324 006TH ST W** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90020**
0.281 mi.
1484 ft. **Site 9 of 9 in cluster Y**

Relative:
Higher

Actual:
224 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900200134

CATELLUS DEVELOPMENT CORP (Continued) **S104406281**

LUST:

Region:	STATE
Global Id:	T0603700640
Latitude:	34.063629
Longitude:	-118.2944727
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/11/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900200134
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700640
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700640
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700640
Status:	Completed - Case Closed
Status Date:	09/11/1996

Global Id:	T0603700640
Status:	Open - Case Begin Date
Status Date:	12/12/1990

Global Id:	T0603700640
Status:	Open - Site Assessment
Status Date:	12/12/1990

Global Id:	T0603700640
Status:	Open - Remediation
Status Date:	11/05/1992

CATELLUS DEVELOPMENT CORP (Continued) **S104406281**

Regulatory Activities:
Global Id: T0603700640
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900200134
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Not reported
Global ID: T0603700640
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: Not reported
Enforcement Type: Not reported
Date Leak Discovered: Not reported
Date Leak First Reported: 12/12/1990
Date Leak Record Entered: 1/23/1991
Date Confirmation Began: 12/12/1990
Date Leak Stopped: Not reported
Date Case Last Changed on Database: 6/4/1999
Date the Case was Closed: 9/11/1996
How Leak Discovered: Not reported
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: OLD#012391-02
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 4199.71715700391926163617 18714
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: 11/5/1992
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: CATELLUS DEVELOPMENT CORP

CATELLUS DEVELOPMENT CORP (Continued) **S104406281**

RP Address:	201 MISSION ST, SAN FRANCISCO CA 94105
Program:	LUST
Lat/Long:	34.063629 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	6/3/99 WP MONITORING WELL ABANDONMENT

---

119 **DFK CORP.** **SLIC** **S104405045**
ENE **3278 WILSHIRE BLVD** **N/A**
1/4-1/2 **LOS ANGELES, CA 90010**
0.293 mi.
1546 ft.

Relative:
Higher

Actual:
249 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	03/15/1996
Global Id:	SLT43286284
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.061708
Longitude:	-118.293221
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	Not reported
RB Case Number:	0486
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 4:

Region:	4
Facility Status:	No further action required
SLIC:	0486
Substance:	TPH
Staff:	Not reported

Z120 **ARCO #5355** **HIST CORTESE** **S101297367**
WNW **3675 WILSHIRE BLVD** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90010** **ENF**
0.315 mi.
1664 ft. **Site 2 of 2 in cluster Z**

Relative:
Higher

Actual:
213 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900100025

ARCO #5355 (Continued) **S101297367**

LUST:

Region:	STATE
Global Id:	T0603700485
Latitude:	34.0617919
Longitude:	-118.305628
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/24/2008
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DPP
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900100025
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700485
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700485
Contact Type:	Regional Board Caseworker
Contact Name:	DANIEL PIROTTON
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	Not reported
City:	R4 UNKNOWN
Email:	dpirotton@waterboards.ca.gov
Phone Number:	2135766714

Status History:

Global Id:	T0603700485
Status:	Open - Site Assessment
Status Date:	05/21/2004

Global Id:	T0603700485
Status:	Open - Remediation
Status Date:	04/15/2004

Global Id:	T0603700485
Status:	Open - Remediation
Status Date:	06/23/2004

Global Id:	T0603700485
Status:	Open - Site Assessment
Status Date:	05/08/1990

Global Id:	T0603700485

ARCO #5355 (Continued) **S101297367**

Status: Open - Remediation
Status Date: 06/21/2006

Global Id: T0603700485
Status: Completed - Case Closed
Status Date: 09/24/2008

Global Id: T0603700485
Status: Open - Site Assessment
Status Date: 08/21/1988

Global Id: T0603700485
Status: Open - Case Begin Date
Status Date: 06/16/1987

Global Id: T0603700485
Status: Open - Site Assessment
Status Date: 12/05/1997

Regulatory Activities:
Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 06/24/2004
Action: Staff Letter

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 12/12/2005
Action: 13267 Requirement

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 09/06/2002
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603700485
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 06/15/2004
Action: Soil and Water Investigation Workplan

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 10/05/2005
Action: 13267 Requirement

Global Id: T0603700485
Action Type: ENFORCEMENT

ARCO #5355 (Continued) **S101297367**

Date: 08/06/2002
Action: Staff Letter

Global Id: T0603700485
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700485
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 12/31/2006
Action: Well Installation Report

Global Id: T0603700485
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2005
Action: Interim Remedial Action Report

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2005
Action: Risk Assessment Report

Global Id: T0603700485
Action Type: RESPONSE
Date: 12/31/2006
Action: Well Installation Report

Global Id: T0603700485
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

ARCO #5355 (Continued) **S101297367**

Global Id: T0603700485
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603700485
Action Type: REMEDIATION
Date: 01/01/1950
Action: Excavation

Global Id: T0603700485
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 07/14/2005
Action: Staff Letter

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 06/28/2006
Action: 13267 Requirement

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 04/06/2004
Action: Staff Letter

Global Id: T0603700485
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 09/30/2004
Action: Soil and Water Investigation Report

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE

ARCO #5355 (Continued) **S101297367**

Date: 04/15/2006
Action: Well Installation Report

Global Id: T0603700485
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 02/22/2006
Action: Preparation of Record for Appeal/Referral/Petition

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 09/24/2008
Action: Closure/No Further Action Letter

Global Id: T0603700485
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 12/15/2004
Action: Staff Letter

Global Id: T0603700485
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Global Id: T0603700485
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

ARCO #5355 (Continued) **S101297367**

Global Id: T0603700485
Action Type: RESPONSE
Date: 10/15/2005
Action: Soil and Water Investigation Report

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 06/14/1999
Action: Staff Letter

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 08/23/2004
Action: Site Visit / Inspection / Sampling

Global Id: T0603700485
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: REMEDIATION
Date: 01/01/1950
Action: Excavation

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 09/08/2008
Action: Notification - Preclosure

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 09/12/2008
Action: Site Visit / Inspection / Sampling

Global Id: T0603700485
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 04/15/2006
Action: CAP/RAP - Other Report

Global Id: T0603700485
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE

ARCO #5355 (Continued) **S101297367**

Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: ENFORCEMENT
Date: 11/20/2002
Action: Staff Letter

Global Id: T0603700485
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700485
Action Type: RESPONSE
Date: 06/15/2004
Action: Unknown

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900100025
Status: Remedial action (cleanup) Underway
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Remove Free Product
Global ID: T0603700485
W Global ID: Not reported
Staff: DP
Local Agency: 19050
Cross Street: HOBART BLVD
Enforcement Type: SEL
Date Leak Discovered: 6/16/1987
Date Leak First Reported: 6/16/1987
Date Leak Record Entered: 8/5/1987
Date Confirmation Began: Not reported
Date Leak Stopped: 6/16/1987
Date Case Last Changed on Database: 9/6/2002
Date the Case was Closed: Not reported
How Leak Discovered: OM
How Leak Stopped: Not reported
Cause of Leak: Structure Failure
Leak Source: Piping
Operator: Not reported
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 3093.4997811158339246666439196
Source of Cleanup Funding: Piping
Preliminary Site Assessment Workplan Submitted: 8/21/1988
Preliminary Site Assessment Began: 5/8/1990
Pollution Characterization Began: 5/21/2004
Remediation Plan Submitted: 4/15/2004
Remedial Action Underway: 6/23/2004

ARCO #5355 (Continued) **S101297367**

Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	3/28/1997
Hist Max MTBE Conc in Groundwater:	27000
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Yes
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	RAY THUN
RP Address:	4 CENTER POINT DR.
Program:	LUST
Lat/Long:	34.0617919 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

ENF:

Region:	4
Facility Id:	206213
Agency Name:	BP Product North America Inc
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	34.061705000000
Place Longitude:	-118.306068
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS

ARCO #5355 (Continued) **S101297367**

Program Category2:	TANKS
# Of Programs:	1
WDID:	900100025
Reg Measure Id:	167360
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	229776
Region:	4
Order / Resolution Number:	UNKNOWN
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	11/17/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	11/17/1999
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 900100025
Description:	Level 1 enforcement letter sent 11/17/99 for FTS groundwater monitoring report.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

121
South
1/4-1/2
0.366 mi.
1933 ft.

HOBART/WILTON PRIMARY SCHOOL NO. 4
SAN MARINO ST/OLYMPIC BLVD/MARIPOSA AVE/NORMANDIE AVE
LOS ANGELES, CA 90006

SCH
ENVIROSTOR

S107736464
N/A

Relative:
Higher

Actual:
215 ft.

SCH:

Facility ID:	19750097
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	Not reported
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304153
Assembly:	53
Senate:	22
Special Program Status:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.05452
Longitude:	-118.2989
APN:	NONE SPECIFIED
Past Use:	VEHICLE MAINTENANCE
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #4
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #4/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #4/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304073
Alias Type:	Project Code (Site Code)
Alias Name:	304153
Alias Type:	Project Code (Site Code)
Alias Name:	19750097
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo

HOBART/WILTON PRIMARY SCHOOL NO. 4 (Continued) **S107736464**

Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19750097
Status: Inactive - Needs Evaluation
Status Date: 08/20/2002
Site Code: 304153
Site Type: School Investigation
Site Type Detailed: School
Acres: Not reported
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 22
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.05452
Longitude: -118.2989
APN: NONE SPECIFIED
Past Use: VEHICLE MAINTENANCE
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #4
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #4/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #4/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304073
Alias Type: Project Code (Site Code)
Alias Name: 304153

HOBART/WILTON PRIMARY SCHOOL NO. 4 (Continued) **S107736464**

Alias Type: Project Code (Site Code)
Alias Name: 19750097
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

122
WSW
1/4-1/2
0.382 mi.
2015 ft.

HOBART/WILTON PRIMARY SCHOOL NO. 10 **SCH** **S107736457**
SERRANO AVENUE/EIGHTH STREET **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90005

Relative:
Lower

Actual:
199 ft.

SCH:

Facility ID: 19590016
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 0
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304148
Assembly: 53
Senate: 26
Special Program Status: Not reported
Status: Inactive - Needs Evaluation

HOBART/WILTON PRIMARY SCHOOL NO. 10 (Continued) **S107736457**

Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.05758
Longitude:	-118.3056
APN:	NONE SPECIFIED
Past Use:	* RETIAL - MISC.
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #10
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #10/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #10/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304065
Alias Type:	Project Code (Site Code)
Alias Name:	304148
Alias Type:	Project Code (Site Code)
Alias Name:	19590016
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	COMPLETED: LAUSD MASTER OVERSIGHT AGREEMENT (DOCKET NO. HSA-A 99/00-051) EXECUTED ON 2/10/00. As part of the Master Oversight Agreement between DTSC and the Los Angeles Unified School District (LAUSD), DTSC will provide oversight for a Preliminary Endangerment Assessment (PEA) for the proposed Hobart/Wilton Primary School #10 site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

HOBART/WILTON PRIMARY SCHOOL NO. 10 (Continued) **S107736457**

ENVIROSTOR:

Facility ID:	19590016
Status:	Inactive - Needs Evaluation
Status Date:	08/20/2002
Site Code:	304148
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	0
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	53
Senate:	26
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.05758
Longitude:	-118.3056
APN:	NONE SPECIFIED
Past Use:	* RETIAL - MISC.
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #10
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #10/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #10/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304065
Alias Type:	Project Code (Site Code)
Alias Name:	304148
Alias Type:	Project Code (Site Code)
Alias Name:	19590016
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	COMPLETED: LAUSD MASTER OVERSIGHT AGREEMENT (DOCKET NO. HSA-A 99/00-051) EXECUTED ON 2/10/00. As part of the Master Oversight Agreement between DTSC and the Los Angeles Unified School District (LAUSD), DTSC will provide oversight for a Preliminary Endangerment

HOBART/WILTON PRIMARY SCHOOL NO. 10 (Continued) **S107736457**

Assessment (PEA) for the proposed Hobart/Wilton Primary School #10 site.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AA123 **TEXACO STATION** **HIST CORTESE** **S100853136**
East **3201 WILSHIRE BLVD** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90010**
0.403 mi.
2127 ft. **Site 1 of 4 in cluster AA**

Relative:
Higher

Actual:
255 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900100016

LUST:

Region:	STATE
Global Id:	T0603700484
Latitude:	34.062109
Longitude:	-118.292051
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/25/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900100016
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700484
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles

TEXACO STATION (Continued) **S100853136**

Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700484
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700484
Status: Completed - Case Closed
Status Date: 10/25/1996

Global Id: T0603700484
Status: Open - Case Begin Date
Status Date: 07/01/1987

Global Id: T0603700484
Status: Open - Remediation
Status Date: 10/05/1987

Global Id: T0603700484
Status: Open - Remediation
Status Date: 04/05/1989

Regulatory Activities:
Global Id: T0603700484
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603700484
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700484
Action Type: Other
Date: 01/01/1950
Action: Leak Stopped

Region: STATE
Global Id: T0603712843
Latitude: 34.06211
Longitude: -118.292688
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 01/19/2011
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: JH
Local Agency: LOS ANGELES, CITY OF

TEXACO STATION (Continued) **S100853136**

RB Case Number: 900100016A
LOC Case Number: 30305
File Location: Regional Board
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603712843
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Global Id: T0603712843
Contact Type: Regional Board Caseworker
Contact Name: JAY HUANG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 WEST 4TH STREET, SUITE 200
City: LOS ANGELES
Email: jhuang@waterboards.ca.gov
Phone Number: 2135766711

Status History:
Global Id: T0603712843
Status: Open - Site Assessment
Status Date: 05/17/2006

Global Id: T0603712843
Status: Open - Site Assessment
Status Date: 01/14/2009

Global Id: T0603712843
Status: Open - Case Begin Date
Status Date: 04/25/2005

Global Id: T0603712843
Status: Completed - Case Closed
Status Date: 01/19/2011

Regulatory Activities:
Global Id: T0603712843
Action Type: Other
Date: 01/01/1950
Action: Leak Discovery

Global Id: T0603712843
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603712843

TEXACO STATION (Continued) **S100853136**

Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Excavation
Global Id:	T0603712843
Action Type:	RESPONSE
Date:	05/11/2009
Action:	Well Installation Report
Global Id:	T0603712843
Action Type:	ENFORCEMENT
Date:	05/25/2006
Action:	Staff Letter
Global Id:	T0603712843
Action Type:	ENFORCEMENT
Date:	06/15/2009
Action:	Staff Letter
Global Id:	T0603712843
Action Type:	RESPONSE
Date:	07/15/2006
Action:	Other Report / Document
Global Id:	T0603712843
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603712843
Action Type:	RESPONSE
Date:	04/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603712843
Action Type:	RESPONSE
Date:	08/11/2008
Action:	Well Installation Workplan
Global Id:	T0603712843
Action Type:	RESPONSE
Date:	01/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603712843
Action Type:	RESPONSE
Date:	01/15/2008
Action:	Soil and Water Investigation Report
Global Id:	T0603712843
Action Type:	RESPONSE
Date:	10/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603712843
Action Type:	ENFORCEMENT
Date:	12/30/2010

TEXACO STATION (Continued) **S100853136**

Action: Notification - Preclosure

Global Id: T0603712843
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603712843
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603712843
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603712843
Action Type: RESPONSE
Date: 10/21/2010
Action: Request for Closure

Global Id: T0603712843
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603712843
Action Type: RESPONSE
Date: 07/12/2010
Action: Pilot Study/ Treatability Report

Global Id: T0603712843
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603712843
Action Type: REMEDIATION
Date: 01/01/1950
Action: Excavation

Global Id: T0603712843
Action Type: ENFORCEMENT
Date: 01/19/2011
Action: Closure/No Further Action Letter

Global Id: T0603712843
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603712843
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Semi-Annually

TEXACO STATION (Continued) **S100853136**

Global Id: T0603712843
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

AA124 **TEXACO SVC STA** **RCRA-SQG** **1000144848**
East **3201 WILSHIRE BLVD** **LUST** **CAD981436298**
1/4-1/2 **LOS ANGELES, CA 90010** **HIST UST**
0.403 mi. **SWEEPS UST**
2127 ft. **Site 2 of 4 in cluster AA** **EMI**

Relative:
Higher

Actual:
255 ft.

RCRA-SQG:
Date form received by agency: 09/01/1996
Facility name: TEXACO SVC STA
Facility address: 3201 WILSHIRE BLVD
LOS ANGELES, CA 90010
EPA ID: CAD981436298
Mailing address: 10 UNIVERSAL CITY PLAZA
UNIVERSAL CITY, CA 91608
Contact: Not reported
Contact address: Not reported
Not reported
Contact country: Not reported
Contact telephone: Not reported
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: TEXACO REF MKTG INC
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No

TEXACO SVC STA (Continued) **1000144848**

Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/11/1992
Site name: TEXACO SERVICE STATION
Classification: Not a generator, verified

Date form received by agency: 09/03/1986
Site name: TEXACO SVC STA
Classification: Large Quantity Generator

Violation Status: No violations found

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900100016
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Pump and Treat Groundwater
Global ID: T0603700484
W Global ID: Not reported
Staff: UNK
Local Agency: 19050
Cross Street: VERMONT
Enforcement Type: Not reported
Date Leak Discovered: 8/5/1987
Date Leak First Reported: 7/1/1987
Date Leak Record Entered: 8/13/1987
Date Confirmation Began: Not reported
Date Leak Stopped: 8/5/1987
Date Case Last Changed on Database: 2/28/1997
Date the Case was Closed: 10/25/1996
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: Tank
Operator: WARK, R.J.
Water System: Not reported
Well Name: Not reported

TEXACO SVC STA (Continued) **1000144848**

Approx. Dist To Production Well (ft): 5260.185765683009302974154 6507
Source of Cleanup Funding: Tank
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: Not reported
Remediation Plan Submitted: 10/5/1987
Remedial Action Underway: 4/5/1989
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Yes
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: TEXACO REFINING & MARKETING
RP Address: 10 UNIVERSAL CITY PLAZA, UNIVERSAL CITY CA 91608
Program: LUST
Lat/Long: 34.0618451 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: WASTE DISCHARGE REQUIREMENTS PENDING FOR PUBLIC HEARING ON 04/24/89. SOIL IS REMEDIATED BY VAPOR EXTRACTION. SOIL CLEANUP COMPLETE 12/23/93.

HIST UST:
Region: STATE
Facility ID: 00000017369
Facility Type: Gas Station
Other Type: Not reported
Total Tanks: 0006
Contact Name: TED JOACHIM
Telephone: 2133849938
Owner Name: TEXACO U.S.A.
Owner Address: P. O. BOX 3756 - 3350 WILSHIRE
Owner City,St,Zip: LOS ANGELES, CA 90010

Tank Num: 001
Container Num: 2
Year Installed: 1965
Tank Capacity: 00000550
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

Tank Num: 002
Container Num: 3
Year Installed: 1965
Tank Capacity: 00004000
Tank Used for: PRODUCT

TEXACO SVC STA (Continued) **1000144848**

Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 003
Container Num: 4
Year Installed: 1970
Tank Capacity: 00008000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 004
Container Num: 5
Year Installed: 1959
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 005
Container Num: 6
Year Installed: 1959
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: REGULAR
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

Tank Num: 006
Container Num: 1
Year Installed: 1965
Tank Capacity: 00004000
Tank Used for: PRODUCT
Type of Fuel: PREMIUM
Tank Construction: Not reported
Leak Detection: Stock Inventor, 10

SWEEPS UST:
Status: Not reported
Comp Number: 1189
Number: Not reported
Board Of Equalization: 44-000217
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001189-000001
Tank Status: Not reported
Capacity: 550
Active Date: Not reported
Tank Use: OIL
STG: WASTE
Content: WASTE OIL
Number Of Tanks: 6

TEXACO SVC STA (Continued) **1000144848**

Status:	Not reported
Comp Number:	1189
Number:	Not reported
Board Of Equalization:	44-000217
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001189-000002
Tank Status:	Not reported
Capacity:	4000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1189
Number:	Not reported
Board Of Equalization:	44-000217
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001189-000003
Tank Status:	Not reported
Capacity:	8000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1189
Number:	Not reported
Board Of Equalization:	44-000217
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001189-000004
Tank Status:	Not reported
Capacity:	4000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1189
Number:	Not reported
Board Of Equalization:	44-000217
Referral Date:	Not reported
Action Date:	Not reported

TEXACO SVC STA (Continued) **1000144848**

Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001189-000005
Tank Status:	Not reported
Capacity:	4000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1189
Number:	Not reported
Board Of Equalization:	44-000217
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001189-000006
Tank Status:	Not reported
Capacity:	4000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

EMI:

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	56056
Air District Name:	SC
SIC Code:	2911
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

AB125 **TOSCO/76 PRODUCTS STATION** **HIST CORTESE** **S104406266**
East **703 VERMONT** **N/A**
1/4-1/2 **LOS ANGELES, CA 90005**
0.406 mi.
2144 ft. **Site 1 of 3 in cluster AB**

Relative:
Higher

Actual:
236 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900050089

AB126 **TOSCO - 76 STATION #5283 (FORMER)** **LUST** **S104532748**
East **703 VERMONT AVE S** **N/A**
1/4-1/2 **LOS ANGELES, CA 90005**
0.406 mi.
2144 ft. **Site 2 of 3 in cluster AB**

Relative:
Higher

Actual:
236 ft.

LUST:

Region:	STATE
Global Id:	T0603700470
Latitude:	34.0595952
Longitude:	-118.2917586
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	10/07/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DPP
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900050089
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700470
Contact Type:	Regional Board Caseworker
Contact Name:	DANIEL PIROTTON
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	Not reported
City:	R4 UNKNOWN
Email:	dpirotton@waterboards.ca.gov
Phone Number:	2135766714

Global Id:	T0603700470
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700470
Status:	Open - Site Assessment
Status Date:	04/27/1999

Global Id:	T0603700470
Status:	Open - Site Assessment
Status Date:	05/11/2001

Global Id:	T0603700470
Status:	Open - Site Assessment
Status Date:	03/30/2007

Global Id:	T0603700470

TOSCO - 76 STATION #5283 (FORMER) (Continued) **S104532748**

Status: Open - Eligible for Closure
Status Date: 12/18/2012

Global Id: T0603700470
Status: Completed - Case Closed
Status Date: 10/07/2013

Global Id: T0603700470
Status: Open - Case Begin Date
Status Date: 09/12/1997

Regulatory Activities:

Global Id: T0603700470
Action Type: RESPONSE
Date: 03/30/2007
Action: Soil and Water Investigation Workplan

Global Id: T0603700470
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/28/2009
Action: Pilot Study/ Treatability Report

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700470
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: ENFORCEMENT
Date: 01/29/2003
Action: Staff Letter

Global Id: T0603700470
Action Type: ENFORCEMENT
Date: 05/11/2001
Action: Staff Letter

TOSCO - 76 STATION #5283 (FORMER) (Continued) **S104532748**

Global Id:	T0603700470
Action Type:	RESPONSE
Date:	01/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	10/15/2004
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	07/15/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	04/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	10/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	01/15/2003
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Excavation
Global Id:	T0603700470
Action Type:	REMEDIATION
Date:	01/01/1950
Action:	Other (Use Description Field)
Global Id:	T0603700470
Action Type:	ENFORCEMENT
Date:	06/17/2003
Action:	Staff Letter
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	01/24/2012
Action:	Request for Closure
Global Id:	T0603700470
Action Type:	RESPONSE

TOSCO - 76 STATION #5283 (FORMER) (Continued) **S104532748**

Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700470
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700470
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700470
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700470
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 11/05/2007
Action: Well Installation Report

Global Id: T0603700470
Action Type: RESPONSE
Date: 12/01/2008
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0603700470
Action Type: RESPONSE
Date: 09/12/2008
Action: Interim Remedial Action Plan

Global Id: T0603700470
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603700470
Action Type: RESPONSE
Date: 04/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

TOSCO - 76 STATION #5283 (FORMER) (Continued) **S104532748**

Global Id:	T0603700470
Action Type:	RESPONSE
Date:	10/24/2002
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	ENFORCEMENT
Date:	10/31/2003
Action:	Staff Letter
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	04/15/2005
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	10/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	11/23/2009
Action:	Pilot Study / Treatability Workplan
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	01/15/2009
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	10/20/2010
Action:	Well Installation Report
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	01/15/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Monitoring Report - Semi-Annually
Global Id:	T0603700470
Action Type:	RESPONSE
Date:	03/15/2003
Action:	Soil and Water Investigation Workplan
Global Id:	T0603700470
Action Type:	RESPONSE

TOSCO - 76 STATION #5283 (FORMER) (Continued) **S104532748**

Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: ENFORCEMENT
Date: 07/25/2013
Action: Notification - Preclosure

Global Id: T0603700470
Action Type: ENFORCEMENT
Date: 10/07/2013
Action: Closure/No Further Action Letter

Global Id: T0603700470
Action Type: RESPONSE
Date: 12/05/2012
Action: Request for Closure - Regulator Responded

Global Id: T0603700470
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 01/10/2004
Action: Well Installation Report

Global Id: T0603700470
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

TOSCO - 76 STATION #5283 (FORMER) (Continued) **S104532748**

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 12/02/2009
Action: Soil and Water Investigation Report

Global Id: T0603700470
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700470
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700470
Action Type: RESPONSE
Date: 01/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700470
Action Type: RESPONSE
Date: 01/15/2014
Action: Well Destruction Report

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900050089
Status: Pollution Characterization
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Not reported
Global ID: T0603700470
W Global ID: Not reported
Staff: DP
Local Agency: 19050
Cross Street: 7TH ST
Enforcement Type: DLSEL
Date Leak Discovered: 9/12/1997
Date Leak First Reported: 9/12/1997
Date Leak Record Entered: 3/10/1998
Date Confirmation Began: Not reported

TOSCO - 76 STATION #5283 (FORMER) (Continued) **S104532748**

Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/15/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	OM	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	Not reported	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5763.5560049198167575942631487
Source of Cleanup Funding:		Not reported
Preliminary Site Assessment Workplan Submitted:		4/27/1999
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		3/19/2003
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		1/1/1965
Hist Max MTBE Conc in Groundwater:		27600
Hist Max MTBE Conc in Soil:		25.8
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	MS. SHARI LONDON	
RP Address:	3611 HARBOR BL., STE. #200	
Program:	LUST	
Lat/Long:	34.0595952 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	5/12/99 TRANSM. OF UST & PIPING REMOVAL RPT; 5/5/00 WORKPLAN FOR SUBSURFACE INVESTIGATION	

AB127 **SHELL #204-4539-5906** **HIST CORTESE S101297321**
East **700 VERMONT AVE S** **LUST N/A**
1/4-1/2 **LOS ANGELES, CA 90005**
0.408 mi.
2154 ft. **Site 3 of 3 in cluster AB**

Relative:
Higher

Actual:
235 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900050016

LUST:

Region:	STATE
Global Id:	T0603700463
Latitude:	34.0596512
Longitude:	-118.2914936

SHELL #204-4539-5906 (Continued) **S101297321**

Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/22/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DPP
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900050016
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700463
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700463
Contact Type:	Regional Board Caseworker
Contact Name:	DANIEL PIROTTON
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	Not reported
City:	R4 UNKNOWN
Email:	dpirotton@waterboards.ca.gov
Phone Number:	2135766714

Status History:

Global Id:	T0603700463
Status:	Open - Site Assessment
Status Date:	10/15/2002

Global Id:	T0603700463
Status:	Open - Remediation
Status Date:	12/18/2003

Global Id:	T0603700463
Status:	Open - Eligible for Closure
Status Date:	12/18/2012

Global Id:	T0603700463
Status:	Completed - Case Closed
Status Date:	07/22/2013

Global Id:	T0603700463
Status:	Open - Case Begin Date
Status Date:	05/07/1986

Global Id:	T0603700463
Status:	Open - Site Assessment

SHELL #204-4539-5906 (Continued) **S101297321**

Status Date: 12/06/1996

Global Id: T0603700463
Status: Open - Site Assessment
Status Date: 02/12/1997

Regulatory Activities:
Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2012
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 11/29/2012
Action: Notification - Preclosure

Global Id: T0603700463
Action Type: REMEDIATION
Date: 01/01/1950
Action: Other (Use Description Field)

Global Id: T0603700463
Action Type: RESPONSE
Date: 06/20/2011
Action: Soil and Water Investigation Report

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/31/2003
Action: Interim Remedial Action Report

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 07/03/2002
Action: Staff Letter

SHELL #204-4539-5906 (Continued) **S101297321**

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 04/16/2003
Action: Staff Letter

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 04/24/2002
Action: Staff Letter

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 03/15/2004
Action: Interim Remedial Action Report

Global Id: T0603700463
Action Type: RESPONSE
Date: 01/31/2012
Action: Request for Closure

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE

SHELL #204-4539-5906 (Continued) **S101297321**

Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 07/22/2013
Action: Closure/No Further Action Letter

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 08/19/2002
Action: Well Installation Report

Global Id: T0603700463
Action Type: RESPONSE
Date: 08/19/2002
Action: CAP/RAP - Feasibility Study Report

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0603700463
Action Type: RESPONSE
Date: 01/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700463
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

SHELL #204-4539-5906 (Continued) **S101297321**

Global Id: T0603700463
Action Type: RESPONSE
Date: 01/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 09/03/2010
Action: Other Workplan

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/31/2002
Action: Other Report / Document

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 08/27/1998
Action: Staff Letter

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 01/28/2003
Action: Staff Letter

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 02/03/2004
Action: Staff Letter

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2013
Action: Well Destruction Report

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700463
Action Type: RESPONSE

SHELL #204-4539-5906 (Continued) **S101297321**

Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: REMEDIATION
Date: 01/01/1950
Action: Other (Use Description Field)

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 01/21/2011
Action: Soil and Water Investigation Workplan

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 11/03/2003
Action: Staff Letter

Global Id: T0603700463
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

SHELL #204-4539-5906 (Continued) **S101297321**

Global Id: T0603700463
Action Type: RESPONSE
Date: 11/15/2005
Action: Soil and Water Investigation Report

Global Id: T0603700463
Action Type: ENFORCEMENT
Date: 07/19/2013
Action: Health and Safety Code Section 25296.10(c)

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 02/28/2003
Action: Soil and Water Investigation Workplan

Global Id: T0603700463
Action Type: RESPONSE
Date: 12/31/2003
Action: Interim Remedial Action Report

Global Id: T0603700463
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2002
Action: Interim Remedial Action Plan

Global Id: T0603700463
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700463
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603700463
Action Type: RESPONSE

SHELL #204-4539-5906 (Continued) **S101297321**

Date: 01/15/2004
Action: Monitoring Report - Quarterly

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900050016	
Status:	Pollution Characterization	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700463	
W Global ID:	Not reported	
Staff:	DP	
Local Agency:	19050	
Cross Street:	7TH	
Enforcement Type:	SEL	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		5/7/1986
Date Leak Record Entered:	12/31/1986	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		8/19/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	Piping	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		5809.172249560170373888868515 6
Source of Cleanup Funding:		Piping
Preliminary Site Assessment Workplan Submitted:		12/6/1996
Preliminary Site Assessment Began:		2/12/1997
Pollution Characterization Began:		2/26/2003
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		5/7/1986
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		9/30/1998
Hist Max MTBE Conc in Groundwater:		33000
Hist Max MTBE Conc in Soil:		1.9
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	=	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	MS. DEBORAH PRYOR	
RP Address:	P.O. BOX 7869	
Program:	LUST	
Lat/Long:	34.0596512 / -1	
Local Agency Staff:	PEJ	

SHELL #204-4539-5906 (Continued) **S101297321**

Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

AA128 **CENTRAL LOS ANGELES MIDDLE SCHOOL NO. 3** **SCH** **S107736104**
ENE **VERMONT AVENUE/WILSHIRE BOULEVARD** **ENVIROSTOR** **N/A**
1/4-1/2 **LOS ANGELES, CA 90020**
0.409 mi.
2161 ft. **Site 3 of 4 in cluster AA**

Relative:
Higher

Actual:
256 ft.

SCH:

Facility ID:	19650018
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2.64
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304307
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Certified
Status Date:	01/03/2007
Restricted Use:	NO
Funding:	School District
Latitude:	34.06162
Longitude:	-118.2918
APN:	5077-009-900, 5077-009-903, 5077-009-906, 5077-009-907, 5077-009-908
Past Use:	PAINT/DEPAINT FACILITY
Potential COC:	Lead
Confirmed COC:	Lead
Potential Description:	SOIL
Alias Name:	CENTRAL LOS ANGELES MIDDLE SCHOOL #3
Alias Type:	Alternate Name
Alias Name:	CENTRAL LOS ANGELES MIDDLE SCHOOL NO. 3
Alias Type:	Alternate Name
Alias Name:	LAUSD - MIDDLE SCHOOL #3
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	5077-009-900
Alias Type:	APN
Alias Name:	5077-009-903
Alias Type:	APN
Alias Name:	5077-009-906
Alias Type:	APN
Alias Name:	5077-009-907
Alias Type:	APN

CENTRAL LOS ANGELES MIDDLE SCHOOL NO. 3 (Continued) **S107736104**

Alias Name: 5077-009-908
Alias Type: APN
Alias Name: 110033619369
Alias Type: EPA (FRS #)
Alias Name: 304307
Alias Type: Project Code (Site Code)
Alias Name: 19650018
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/30/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 07/17/2006
Comments: Approved the SSI with recommendation for a RAW. The SSI defined the vertical and lateral extent of the lead impacted soil.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 08/02/2006
Comments: Issued the final RAW approval letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/28/2006
Comments: Approved Lead-Based Paint RACR Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.14 Request
Completed Date: 03/14/2005
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 01/03/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/12/2007
Comments: Issued CRU Memo

CENTRAL LOS ANGELES MIDDLE SCHOOL NO. 3 (Continued) **S107736104**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

Facility ID:	19650018
Status:	Certified
Status Date:	01/03/2007
Site Code:	304307
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	2.64
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	53
Senate:	26
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.06162
Longitude:	-118.2918
APN:	5077-009-900, 5077-009-903, 5077-009-906, 5077-009-907, 5077-009-908
Past Use:	PAINT/DEPAINT FACILITY
Potential COC:	Lead
Confirmed COC:	Lead
Potential Description:	SOIL
Alias Name:	CENTRAL LOS ANGELES MIDDLE SCHOOL #3
Alias Type:	Alternate Name
Alias Name:	CENTRAL LOS ANGELES MIDDLE SCHOOL NO. 3
Alias Type:	Alternate Name
Alias Name:	LAUSD - MIDDLE SCHOOL #3
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	5077-009-900
Alias Type:	APN
Alias Name:	5077-009-903
Alias Type:	APN
Alias Name:	5077-009-906
Alias Type:	APN
Alias Name:	5077-009-907
Alias Type:	APN
Alias Name:	5077-009-908
Alias Type:	APN
Alias Name:	110033619369
Alias Type:	EPA (FRS #)

CENTRAL LOS ANGELES MIDDLE SCHOOL NO. 3 (Continued) **S107736104**

Alias Name: 304307
Alias Type: Project Code (Site Code)
Alias Name: 19650018
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 12/30/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 07/17/2006
Comments: Approved the SSI with recommendation for a RAW. The SSI defined the vertical and lateral extent of the lead impacted soil.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 08/02/2006
Comments: Issued the final RAW approval letter.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/28/2006
Comments: Approved Lead-Based Paint RACR Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.14 Request
Completed Date: 03/14/2005
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 01/03/2007
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/12/2007
Comments: Issued CRU Memo

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported

CENTRAL LOS ANGELES MIDDLE SCHOOL NO. 3 (Continued) **S107736104**

Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AA129 **HERTZ CORPORATION** **HIST CORTESE** **S101629772**
ENE **643 VERMONT AVE S** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90005** **CA FID UST**
0.409 mi. **SWEEPS UST**
2161 ft. **Site 4 of 4 in cluster AA**

Relative:
Higher

Actual:
256 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900050043

LUST:

Region:	STATE
Global Id:	T0603700466
Latitude:	34.062439
Longitude:	-118.292035
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/24/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900050043
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700466
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0603700466
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

HERTZ CORPORATION (Continued) **S101629772**

Status History:

Global Id:	T0603700466
Status:	Completed - Case Closed
Status Date:	07/24/1996
Global Id:	T0603700466
Status:	Open - Site Assessment
Status Date:	08/25/1987
Global Id:	T0603700466
Status:	Open - Case Begin Date
Status Date:	08/03/1987
Global Id:	T0603700466
Status:	Open - Remediation
Status Date:	06/29/1989

Regulatory Activities:

Global Id:	T0603700466
Action Type:	Other
Date:	01/01/1950
Action:	Leak Discovery
Global Id:	T0603700466
Action Type:	Other
Date:	01/01/1950
Action:	Leak Reported
Global Id:	T0603700466
Action Type:	Other
Date:	01/01/1950
Action:	Leak Stopped

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900050043	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Pump and Treat Groundwater
Global ID:	T0603700466	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	6TH, WILSHIRE	
Enforcement Type:	Not reported	
Date Leak Discovered:	8/3/1987	
Date Leak First Reported:		8/25/1987
Date Leak Record Entered:	11/16/1987	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	8/3/1987	

HERTZ CORPORATION (Continued) **S101629772**

Date Case Last Changed on Database: 11/25/1996
Date the Case was Closed: 7/24/1996
How Leak Discovered: Tank Closure
How Leak Stopped: Not reported
Cause of Leak: Corrosion
Leak Source: Tank
Operator: MITCH GREENBERG
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 5207.77513945001730059767035l9
Source of Cleanup Funding: Tank
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: Not reported
Pollution Characterization Began: 8/25/1987
Remediation Plan Submitted: Not reported
Remedial Action Underway: 6/29/1989
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: Not reported
Significant Interim Remedial Action Taken: Yes
GW Qualifier: Not reported
Soil Qualifier: Not reported
Organization: Not reported
Owner Contact: Not reported
Responsible Party: GAGNON, D.
RP Address: 660 MADISON AVE, NEW YORK, NY 10021
Program: LUST
Lat/Long: 34.0619961 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: 2ND LEAK REPORTED 03/10/89. HERTZ CORP. NJ, CONTACT SUE KLINGENSTEIN TEL (201)307-2547 SOIL CLEANUP COMPLETE 10/31/94.

CA FID UST:
Facility ID: 19001454
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 2134825365
Mail To: Not reported
Mailing Address: 643 S VERMONT AVE
Mailing Address 2: Not reported
Mailing City,St,Zip: LOS ANGELES 900050000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported

HERTZ CORPORATION (Continued) **S101629772**

Status: Active

SWEEPS UST:
Status: Active
Comp Number: 3754
Number: 1
Board Of Equalization: Not reported
Referral Date: 09-22-93
Action Date: 10-07-93
Created Date: 02-29-88
Owner Tank Id: 0000003754
SWRCB Tank Id: 19-050-003754-000001
Tank Status: A
Capacity: 10000
Active Date: 09-30-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 1

130
SSW
1/4-1/2
0.428 mi.
2262 ft.

HOBART ELEMENTARY SCHOOL ADDITION **SCH** **S105628524**
3336 SAN MARINO STREET **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90006

Relative:
Lower

Actual:
201 ft.

SCH:
Facility ID: 19650013
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: .44
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304261
Assembly: 53
Senate: 22
Special Program Status: Not reported
Status: Certified
Status Date: 02/04/2002
Restricted Use: NO
Funding: School District
Latitude: 34.0482
Longitude: -118.2942
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: Lead
Confirmed COC: Lead
Potential Description: SOIL
Alias Name: 3336 SAN MARINO STREET
Alias Type: Alternate Name

HOBART ELEMENTARY SCHOOL ADDITION (Continued) **S105628524**

Alias Name: HOBART ELEMENTARY SCHOOL ADDITION
Alias Type: Alternate Name
Alias Name: LA USD/HOBART ELEMENTARY ADDITION/VCA
Alias Type: Alternate Name
Alias Name: LAUSD-3336 SAN MARINO ST
Alias Type: Alternate Name
Alias Name: LAUSD-3336 SAN MARINO ST/VCA
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART ES ADDITION
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 110033614890
Alias Type: EPA (FRS #)
Alias Name: 304037
Alias Type: Project Code (Site Code)
Alias Name: 304130
Alias Type: Project Code (Site Code)
Alias Name: 304202
Alias Type: Project Code (Site Code)
Alias Name: 304261
Alias Type: Project Code (Site Code)
Alias Name: 19650013
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/09/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/04/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 02/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 11/26/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

HOBART ELEMENTARY SCHOOL ADDITION (Continued) **S105628524**

Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 11/26/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/04/2002
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19650013
Status: Certified
Status Date: 02/04/2002
Site Code: 304261
Site Type: School Cleanup
Site Type Detailed: School
Acres: .44
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 22
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.0482
Longitude: -118.2942
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: Lead
Confirmed COC: Lead
Potential Description: SOIL
Alias Name: 3336 SAN MARINO STREET
Alias Type: Alternate Name
Alias Name: HOBART ELEMENTARY SCHOOL ADDITION
Alias Type: Alternate Name

HOBART ELEMENTARY SCHOOL ADDITION (Continued) **S105628524**

Alias Name: LA USD/HOBART ELEMENTARY ADDITION/VCA
Alias Type: Alternate Name
Alias Name: LAUSD-3336 SAN MARINO ST
Alias Type: Alternate Name
Alias Name: LAUSD-3336 SAN MARINO ST/VCA
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART ES ADDITION
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 110033614890
Alias Type: EPA (FRS #)
Alias Name: 304037
Alias Type: Project Code (Site Code)
Alias Name: 304130
Alias Type: Project Code (Site Code)
Alias Name: 304202
Alias Type: Project Code (Site Code)
Alias Name: 304261
Alias Type: Project Code (Site Code)
Alias Name: 19650013
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/09/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/04/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 02/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 11/26/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/04/2002

HOBART ELEMENTARY SCHOOL ADDITION (Continued) **S105628524**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 11/26/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/04/2002
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

131
ENE
1/4-1/2
0.444 mi.
2344 ft.

CHEVRON STATION 93674
561 S VERMONT AVE
LOS ANGELES, CA 90020

RCRA-SQG **1000857400**
FINDS **CAD983668328**
HIST CORTESE
LUST

Relative:
Higher

Actual:
247 ft.

RCRA-SQG:
Date form received by agency: 05/17/1993
Facility name: CHEVRON STATION 93674
Facility address: 561 S VERMONT AVE
LOS ANGELES, CA 90020
EPA ID: CAD983668328
Mailing address: P O BOX 2833
LA HABRA, CA 90632
Contact: DESIREE CLOSS
Contact address: P O BOX 2833
LA HABRA, CA 90632
Contact country: US
Contact telephone: (310) 694-7452
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: CHEVRON USA PRODUCTS CO
Owner/operator address: P O BOX 2833
LA HABRA, CA 90632
Owner/operator country: Not reported

CHEVRON STATION 93674 (Continued) **1000857400**

Owner/operator telephone: (310) 694-7452
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002899187

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HIST CORTESE:
Region: CORTESE
Facility County Code: 19
Reg By: LTNKA
Reg Id: 900200107

LUST:
Region: STATE
Global Id: T0603700637
Latitude: 34.0642081
Longitude: -118.2916744
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 07/26/1995
Lead Agency: LOS ANGELES RWQCB (REGION 4)
Case Worker: YR
Local Agency: LOS ANGELES, CITY OF
RB Case Number: 900200107

CHEVRON STATION 93674 (Continued) **1000857400**

LOC Case Number: Not reported
File Location: Not reported
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

Contact:
Global Id: T0603700637
Contact Type: Regional Board Caseworker
Contact Name: YUE RONG
Organization Name: LOS ANGELES RWQCB (REGION 4)
Address: 320 W. 4TH ST., SUITE 200
City: Los Angeles
Email: yrong@waterboards.ca.gov
Phone Number: Not reported

Global Id: T0603700637
Contact Type: Local Agency Caseworker
Contact Name: ELOY LUNA
Organization Name: LOS ANGELES, CITY OF
Address: 200 North Main Street, Suite 1780
City: LOS ANGELES
Email: eloy.luna@lacity.org
Phone Number: Not reported

Status History:
Global Id: T0603700637
Status: Open - Site Assessment
Status Date: 03/18/1992

Global Id: T0603700637
Status: Open - Verification Monitoring
Status Date: 07/21/1995

Global Id: T0603700637
Status: Open - Case Begin Date
Status Date: 02/20/1991

Global Id: T0603700637
Status: Open - Remediation
Status Date: 07/16/1992

Global Id: T0603700637
Status: Completed - Case Closed
Status Date: 07/26/1995

Regulatory Activities:
Global Id: T0603700637
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:

CHEVRON STATION 93674 (Continued) **1000857400**

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900200107	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Groundwater	
Abatement Method Used at the Site:		Remove Free Product
Global ID:	T0603700637	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	006TH ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		2/20/1991
Date Leak Record Entered:	7/23/1991	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		7/26/1995
Date the Case was Closed:		7/26/1995
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		4778.241167647951460432847784 3
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		3/18/1992
Remediation Plan Submitted:		7/16/1992
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		7/21/1995
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Yes
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	BLANK RP	
RP Address:	C	
Program:	LUST	
Lat/Long:	34.064264 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	

CHEVRON STATION 93674 (Continued) **1000857400**

Summary: Not reported

132
NE
1/4-1/2
0.474 mi.
2505 ft.

WILSHIRE CAR WASH **HIST CORTESE** **S104159570**
505 VERMONT AVE S **LUST** **N/A**
LOS ANGELES, CA 90020 **ENF**

Relative:
Higher

Actual:
246 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900200070

LUST:

Region:	STATE
Global Id:	T0603700634
Latitude:	34.0652419
Longitude:	-118.2917816
Case Type:	LUST Cleanup Site
Status:	Open - Eligible for Closure
Status Date:	02/20/2013
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	DPP
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900200070
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700634
Contact Type:	Regional Board Caseworker
Contact Name:	DANIEL PIROTTON
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	Not reported
City:	R4 UNKNOWN
Email:	dpirotton@waterboards.ca.gov
Phone Number:	2135766714

Global Id:	T0603700634
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603700634
Status:	Open - Site Assessment
Status Date:	11/27/2000

WILSHIRE CAR WASH (Continued) **S104159570**

Global Id: T0603700634
Status: Open - Site Assessment
Status Date: 09/18/1991

Global Id: T0603700634
Status: Open - Remediation
Status Date: 03/26/2002

Global Id: T0603700634
Status: Open - Remediation
Status Date: 08/19/2003

Global Id: T0603700634
Status: Open - Remediation
Status Date: 11/19/2003

Global Id: T0603700634
Status: Open - Remediation
Status Date: 02/11/2004

Global Id: T0603700634
Status: Open - Remediation
Status Date: 05/24/2004

Global Id: T0603700634
Status: Open - Site Assessment
Status Date: 07/31/2007

Global Id: T0603700634
Status: Open - Verification Monitoring
Status Date: 04/17/1991

Global Id: T0603700634
Status: Open - Case Begin Date
Status Date: 04/17/1991

Global Id: T0603700634
Status: Open - Eligible for Closure
Status Date: 02/20/2013

Global Id: T0603700634
Status: Open - Remediation
Status Date: 08/18/2004

Global Id: T0603700634
Status: Open - Remediation
Status Date: 01/24/2008

Global Id: T0603700634
Status: Open - Site Assessment
Status Date: 04/17/1991

Regulatory Activities:
Global Id: T0603700634
Action Type: ENFORCEMENT
Date: 08/20/2001
Action: 13267 Requirement

WILSHIRE CAR WASH (Continued) **S104159570**

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2008
Action: Well Installation Report

Global Id: T0603700634
Action Type: REMEDIATION
Date: 01/01/1950
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0603700634
Action Type: REMEDIATION
Date: 01/01/1950
Action: Soil Vapor Extraction (SVE)

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2003
Action: Remedial Progress Report

Global Id: T0603700634
Action Type: RESPONSE
Date: 10/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 10/15/2009
Action: Other Report / Document

Global Id: T0603700634
Action Type: RESPONSE
Date: 10/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 10/15/2003
Action: Remedial Progress Report

Global Id: T0603700634
Action Type: ENFORCEMENT
Date: 06/15/2009
Action: Staff Letter

Global Id: T0603700634
Action Type: RESPONSE

WILSHIRE CAR WASH (Continued) **S104159570**

Date: 01/17/2012
Action: Remedial Progress Report

Global Id: T0603700634
Action Type: RESPONSE
Date: 04/15/2004
Action: Remedial Progress Report

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700634
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2010
Action: Interim Remedial Action Report

Global Id: T0603700634
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 05/16/2011
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2004
Action: Remedial Progress Report

Global Id: T0603700634
Action Type: RESPONSE
Date: 04/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

WILSHIRE CAR WASH (Continued) **S104159570**

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T0603700634
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/31/2007
Action: Soil and Water Investigation Workplan

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Semi-Annually

Global Id: T0603700634
Action Type: RESPONSE
Date: 02/25/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603700634
Action Type: RESPONSE
Date: 08/15/2002
Action: Soil and Water Investigation Report

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE

WILSHIRE CAR WASH (Continued) **S104159570**

Date: 10/15/2002
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 04/15/2003
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: ENFORCEMENT
Date: 03/15/2007
Action: 13267 Requirement

Global Id: T0603700634
Action Type: ENFORCEMENT
Date: 10/04/2007
Action: Staff Letter

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2008
Action: Remedial Progress Report

Global Id: T0603700634
Action Type: ENFORCEMENT
Date: 03/26/2002
Action: Staff Letter

Global Id: T0603700634
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2005
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: ENFORCEMENT
Date: 02/09/2010
Action: Staff Letter

Global Id: T0603700634
Action Type: RESPONSE
Date: 11/23/2010
Action: Remedial Progress Report

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2004
Action: Remedial Progress Report

WILSHIRE CAR WASH (Continued) **S104159570**

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0603700634
Action Type: RESPONSE
Date: 06/26/2009
Action: Correspondence

Global Id: T0603700634
Action Type: ENFORCEMENT
Date: 07/30/2007
Action: Site Visit / Inspection / Sampling

Global Id: T0603700634
Action Type: RESPONSE
Date: 05/02/2012
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0603700634
Action Type: RESPONSE
Date: 07/15/2004
Action: Monitoring Report - Quarterly

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2011
Action: Remedial Progress Report

Global Id: T0603700634
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 900200070
Status: Remedial action (cleanup) Underway
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Groundwater
Abatement Method Used at the Site: Remove Free Product
Global ID: T0603700634
W Global ID: Not reported
Staff: MSH
Local Agency: 19050
Cross Street: Not reported

WILSHIRE CAR WASH (Continued) **S104159570**

Enforcement Type:	DLSEL	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		4/17/1991
Date Leak Record Entered:	9/16/1991	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		8/26/2002
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		4622.52979460444543961489298 29
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		4/17/1991
Preliminary Site Assessment Began:		9/18/1991
Pollution Characterization Began:		11/27/2000
Remediation Plan Submitted:		3/26/2002
Remedial Action Underway:		11/19/2003
Post Remedial Action Monitoring Began:		4/17/1991
Enforcement Action Date:		8/20/2001
Historical Max MTBE Date:		12/9/1998
Hist Max MTBE Conc in Groundwater:		12400
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	ALLEN BRODY	
RP Address:	600 S. SPRING ST., STE. 1700	
Program:	LUST	
Lat/Long:	34.0652419 / -1	
Local Agency Staff:	PEJ	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	CALLED 9/14/99, RE: DELIQUENT QMR199, CHANGED CONSULTAN, WILL SUBMIT QMR199 BY 10/15/99; 5/17/00 QTR MON STATUS RPT; 10/18/00 3RD QTR GW MON RPT; 4/9/01 QTRLY MON RPT MARCH 2001	

ENF:

Region:	4
Facility Id:	272717
Agency Name:	L & R INVESTMENT CO
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Not reported
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	34.065306
Place Longitude:	-118.291653

WILSHIRE CAR WASH (Continued) **S104159570**

SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	900200070
Reg Measure Id:	167903
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	324354
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation

WILSHIRE CAR WASH (Continued) **S104159570**

Effective Date:	03/15/2007
Adoption/Issuance Date:	03/15/2007
Achieve Date:	Not reported
Termination Date:	03/15/2007
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	NOV sent 3/15/07 for 2 overdue groundwater monitoring reports.
Description:	NOV sent 3/15/07 for 2 overdue groundwater monitoring reports (3Q06 & 4Q06).
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	4
Facility Id:	272717
Agency Name:	L & R INVESTMENT CO
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Not reported
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	34.065306
Place Longitude:	-118.291653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1

WILSHIRE CAR WASH (Continued) **S104159570**

WDID:	900200070
Reg Measure Id:	167903
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	235524
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	04/20/2001
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	07/24/2001
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	NOV sent 4/20/01 for overdue site plan & technical report.
Description:	Notice of Violation sent 4/20/01 for overdue technical reports. Site plan due 5/4/01 & technical report due 7/15/01.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0
Region:	4
Facility Id:	272717
Agency Name:	L & R INVESTMENT CO
Place Type:	Facility

WILSHIRE CAR WASH (Continued) **S104159570**

Place Subtype:	Not reported
Facility Type:	Not reported
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	34.065306
Place Longitude:	-118.291653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	900200070
Reg Measure Id:	167903
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I

WILSHIRE CAR WASH (Continued) **S104159570**

Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	229772
Region:	4
Order / Resolution Number:	Staff enforcement letter
Enforcement Action Type:	Staff Enforcement Letter
Effective Date:	11/09/1999
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	01/24/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Staff enforcement letter sent 11/9/99 for 3 overdue groundwater monitoring repor
Description:	Level 1 enforcement letter sent 11/9/99 for FTS 3 groundwater monitoring reports.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Region:	4
Facility Id:	272717
Agency Name:	L & R INVESTMENT CO
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Not reported
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	34.065306
Place Longitude:	-118.291653
SIC Code 1:	Not reported
SIC Desc 1:	Not reported
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported

WILSHIRE CAR WASH (Continued) **S104159570**

Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	900200070
Reg Measure Id:	167903
Reg Measure Type:	Unregulated
Region:	4
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	229585
Region:	4
Order / Resolution Number:	NOV
Enforcement Action Type:	Notice of Violation
Effective Date:	01/24/2000
Adoption/Issuance Date:	Not reported
Achieve Date:	2000-02-07
Termination Date:	02/07/2000
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	NOV sent 1/24/00 for 3 overdue groundwater monitoring reports.
Description:	Notice of Violation sent 1/24/00 for FTS 3 groundwater monitoring reports.
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0

WILSHIRE CAR WASH (Continued) **S104159570**

Total $ Paid/Completed Amount: 0

133
West
1/4-1/2
0.489 mi.
2584 ft.

KOREAN DRYCLEANERS & LAUNDRY **SLIC** **S106485352**
3807 WILSHIRE BLVD. #720 **N/A**
LOS ANGELES, CA 90010

Relative:
Lower

Actual:
202 ft.

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	10/01/1999
Global Id:	SL603799574
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.06162
Longitude:	-118.309474
Case Type:	Cleanup Program Site
Case Worker:	GJH
Local Agency:	Not reported
RB Case Number:	116.0007
File Location:	Not reported
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

AC134
South
1/4-1/2
0.496 mi.
2621 ft.

LAUSD **LUST** **S106116251**
2957 OLYMPIC BLVD. W. **SLIC** **N/A**
LOS ANGELES, CA 90006

Site 1 of 3 in cluster AC

Relative:
Lower

Actual:
197 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900060116	
Status:	Leak being confirmed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Undefined	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603741009	
W Global ID:	Not reported	
Staff:	TOX	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	DLSEL	
Date Leak Discovered:	12/13/2002	
Date Leak First Reported:		12/13/2002
Date Leak Record Entered:	Not reported	
Date Confirmation Began:	4/7/2003	
Date Leak Stopped:	Not reported	

LAUSD (Continued) **S106116251**

Date Case Last Changed on Database:		Not reported
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		Not reported
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		Not reported
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported
Enforcement Action Date:		Not reported
Historical Max MTBE Date:		Not reported
Hist Max MTBE Conc in Groundwater:		Not reported
Hist Max MTBE Conc in Soil:		Not reported
Significant Interim Remedial Action Taken:		Not reported
GW Qualifier:	Not reported	
Soil Qualifier:	Not reported	
Organization:	Not reported	
Owner Contact:	Not reported	
Responsible Party:	MR. TOM WATSON	
RP Address:	350 S. GRAND AVE.	
Program:	TX	
Lat/Long:	0 / 0	
Local Agency Staff:	Not reported	
Beneficial Use:	Not reported	
Priority:	Not reported	
Cleanup Fund Id:	Not reported	
Suspended:	Not reported	
Assigned Name:	Not reported	
Summary:	Not reported	

SLIC:

Region:	STATE
Facility Status:	**Open - Site Assessment**
Status Date:	04/07/2003
Global Id:	T0603741009
Lead Agency:	DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Lead Agency Case Number:	19790002
Latitude:	34.052826
Longitude:	-118.299562
Case Type:	Cleanup Program Site
Case Worker:	Not reported
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	Not reported
File Location:	DTSC
Potential Media Affected:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LAUSD (Continued) **S106116251**

Click here to access the California GeoTracker records for this facility:

AC135 **EXXON SERVICE STATION #7-6996** **HIST CORTESE** **S104164083**
South **2950 OLYMPIC BLVD W** **LUST** **N/A**
1/4-1/2 **LOS ANGELES, CA 90006**
0.497 mi.
2622 ft. **Site 2 of 3 in cluster AC**

Relative:
Lower

Actual:
196 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	900060025

LUST:

Region:	STATE
Global Id:	T0603700471
Latitude:	34.0525865
Longitude:	-118.2989657
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	07/19/1996
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Case Worker:	YR
Local Agency:	LOS ANGELES, CITY OF
RB Case Number:	900060025
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603700471
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603700471
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603700471
Status:	Completed - Case Closed

EXXON SERVICE STATION #7-6996 (Continued) **S104164083**

Status Date: 07/19/1996

Global Id: T0603700471
Status: Open - Site Assessment
Status Date: 09/18/1988

Global Id: T0603700471
Status: Open - Case Begin Date
Status Date: 07/12/1985

Regulatory Activities:
Global Id: T0603700471
Action Type: Other
Date: 01/01/1950
Action: Leak Reported

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	900060025	
Status:	Case Closed	
Substance:	Gasoline	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603700471	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	Not reported	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		7/12/1985
Date Leak Record Entered:	12/31/1986	
Date Confirmation Began:	Not reported	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		3/27/1992
Date the Case was Closed:		7/19/1996
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	UNK	
Leak Source:	UNK	
Operator:	Not reported	
Water System:	Not reported	
Well Name:	Not reported	
Approx. Dist To Production Well (ft):		6804.9934987842371650330271348
Source of Cleanup Funding:		UNK
Preliminary Site Assessment Workplan Submitted:		Not reported
Preliminary Site Assessment Began:		Not reported
Pollution Characterization Began:		9/18/1988
Remediation Plan Submitted:		Not reported
Remedial Action Underway:		Not reported
Post Remedial Action Monitoring Began:		Not reported

EXXON SERVICE STATION #7-6996 (Continued) **S104164083**

Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Yes
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	EXXON COMPANY
RP Address:	P.O. BOX 4388, HOUSTON TX 77210-4388
Program:	LUST
Lat/Long:	34.0524674 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	*INITIAL INVESTIGATION ANS. SOIL HAS BEEN REMOVED

AC136 **LOS ANGELES PRIMARY CENTER NO. 5** **SCH** **S105954505**
South **WEST OLYMPIC BOULEVARD/NORMANDIE** **ENVIROSTOR** **N/A**
1/4-1/2 **LOS ANGELES, CA 90006**
0.497 mi.
2625 ft. **Site 3 of 3 in cluster AC**

Relative:
Lower

Actual:
195 ft.

SCH:

Facility ID:	19790002
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.93
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304233
Assembly:	53
Senate:	22
Special Program Status:	Not reported
Status:	Certified
Status Date:	04/23/2003
Restricted Use:	NO
Funding:	School District
Latitude:	34.05258
Longitude:	-118.2999
APN:	5078-002-007, 5078-002-008, 5078-002-009, 5078-002-010, 5078-002-014, 5078-002-015, 5078-002-017, 5078-002-018, 5078-002-019, 5078-002-031
Past Use:	RECREATION SERVICES
Potential COC:	Arsenic, Lead, TPH-diesel
Confirmed COC:	TPH-diesel, Arsenic, Lead
Potential Description:	OTH, SOIL
Alias Name:	LAUSD-PRPSD L.A. PRIMARY CENTER # 5

LOS ANGELES PRIMARY CENTER NO. 5 (Continued) **S105954505**

Alias Type: Alternate Name
Alias Name: LOS ANGELES PRIMARY CENTER #5
Alias Type: Alternate Name
Alias Name: LOS ANGELES PRIMARY CENTER #5 (PROPOSED)
Alias Type: Alternate Name
Alias Name: LOS ANGELES PRIMARY CENTER NO. 5
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 5078-002-007
Alias Type: APN
Alias Name: 5078-002-008
Alias Type: APN
Alias Name: 5078-002-009
Alias Type: APN
Alias Name: 5078-002-010
Alias Type: APN
Alias Name: 5078-002-014
Alias Type: APN
Alias Name: 5078-002-015
Alias Type: APN
Alias Name: 5078-002-017
Alias Type: APN
Alias Name: 5078-002-018
Alias Type: APN
Alias Name: 5078-002-019
Alias Type: APN
Alias Name: 5078-002-031
Alias Type: APN
Alias Name: 110033608139
Alias Type: EPA (FRS #)
Alias Name: T0603741009
Alias Type: GeoTracker Global ID
Alias Name: 304233
Alias Type: Project Code (Site Code)
Alias Name: 19790002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/15/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 04/02/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 05/28/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE

LOS ANGELES PRIMARY CENTER NO. 5 (Continued) **S105954505**

Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 06/24/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 04/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/17/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/16/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 01/25/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/18/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 01/30/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 05/17/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 04/23/2003

LOS ANGELES PRIMARY CENTER NO. 5 (Continued) **S105954505**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/23/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/06/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 05/28/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 05/22/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 05/15/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/15/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 04/05/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE

LOS ANGELES PRIMARY CENTER NO. 5 (Continued) **S105954505**

Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 03/26/2003
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19790002
Status: Certified
Status Date: 04/23/2003
Site Code: 304233
Site Type: School Cleanup
Site Type Detailed: School
Acres: 1.93
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 22
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.05258
Longitude: -118.2999
APN: 5078-002-007, 5078-002-008, 5078-002-009, 5078-002-010, 5078-002-014, 5078-002-015, 5078-002-017, 5078-002-018, 5078-002-019, 5078-002-031
Past Use: RECREATION SERVICES
Potential COC: Arsenic Lead TPH-diesel
Confirmed COC: TPH-diesel Arsenic Lead
Potential Description: OTH, SOIL
Alias Name: LAUSD-PRPSD L.A. PRIMARY CENTER # 5
Alias Type: Alternate Name
Alias Name: LOS ANGELES PRIMARY CENTER #5
Alias Type: Alternate Name
Alias Name: LOS ANGELES PRIMARY CENTER #5 (PROPOSED)
Alias Type: Alternate Name
Alias Name: LOS ANGELES PRIMARY CENTER NO. 5
Alias Type: Alternate Name

LOS ANGELES PRIMARY CENTER NO. 5 (Continued) **S105954505**

Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 5078-002-007
Alias Type: APN
Alias Name: 5078-002-008
Alias Type: APN
Alias Name: 5078-002-009
Alias Type: APN
Alias Name: 5078-002-010
Alias Type: APN
Alias Name: 5078-002-014
Alias Type: APN
Alias Name: 5078-002-015
Alias Type: APN
Alias Name: 5078-002-017
Alias Type: APN
Alias Name: 5078-002-018
Alias Type: APN
Alias Name: 5078-002-019
Alias Type: APN
Alias Name: 5078-002-031
Alias Type: APN
Alias Name: 110033608139
Alias Type: EPA (FRS #)
Alias Name: T0603741009
Alias Type: GeoTracker Global ID
Alias Name: 304233
Alias Type: Project Code (Site Code)
Alias Name: 19790002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/15/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 04/02/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 05/28/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 06/24/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

LOS ANGELES PRIMARY CENTER NO. 5 (Continued) **S105954505**

Completed Document Type: Technical Report
Completed Date: 04/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 01/17/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 10/16/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 01/25/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/18/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 01/30/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 05/17/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 04/23/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 08/23/2003
Comments: Not reported

LOS ANGELES PRIMARY CENTER NO. 5 (Continued) **S105954505**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/04/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/06/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 05/28/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 05/22/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 05/15/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 11/15/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 04/05/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/18/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)

LOS ANGELES PRIMARY CENTER NO. 5 (Continued) **S105954505**

Completed Date:	03/26/2003
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

137
NNW
1/2-1
0.532 mi.
2811 ft.

CAHUENGA ELEM #11/CDE **SCH** **S107735990**
HARVARD BOULEVARD/THIRD STREET/HOBART BOULEVARD **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90020

Relative:
Higher

Actual:
232 ft.

SCH:

Facility ID:	19890015
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	3
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304138
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.06893
Longitude:	-118.3033
APN:	NONE SPECIFIED
Past Use:	* UNKNOWN
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAHUENGA ELEMENTARY SCHOOL SITE #11
Alias Type:	Alternate Name
Alias Name:	LAUSD-CAHUENGA ELEM #11/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-CAHUENGA ELEM #11/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304060
Alias Type:	Project Code (Site Code)

CAHUENGA ELEM #11/CDE (Continued) **S107735990**

Alias Name: 304138
Alias Type: Project Code (Site Code)
Alias Name: 19890015
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/22/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19890015
Status: Inactive - Needs Evaluation
Status Date: 08/20/2002
Site Code: 304138
Site Type: School Investigation
Site Type Detailed: School
Acres: 3
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported

CAHUENGA ELEM #11/CDE (Continued) **S107735990**

Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.06893
Longitude: -118.3033
APN: NONE SPECIFIED
Past Use: * UNKNOWN
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAHUENGA ELEMENTARY SCHOOL SITE #11
Alias Type: Alternate Name
Alias Name: LAUSD-CAHUENGA ELEM #11/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-CAHUENGA ELEM #11/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304060
Alias Type: Project Code (Site Code)
Alias Name: 304138
Alias Type: Project Code (Site Code)
Alias Name: 19890015
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/22/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported

CAHUENGA ELEM #11/CDE (Continued) **S107735990**

Schedule Revised Date: Not reported

138
NNW
1/2-1
0.603 mi.
3186 ft.

SAV-MOR OIL COMPANY
4217 WEST THIRD STREET
LOS ANGELES, CA 90004

SLIC **S106483761**
ENVIROSTOR **N/A**

Relative:
Higher

Actual:
234 ft.

SLIC:

Region:	STATE
Facility Status:	**Completed - Case Closed**
Status Date:	06/01/1997
Global Id:	SL184651448
Lead Agency:	LOS ANGELES RWQCB (REGION 4)
Lead Agency Case Number:	Not reported
Latitude:	34.068922
Longitude:	-118.30466
Case Type:	Cleanup Program Site
Case Worker:	DH
Local Agency:	Not reported
RB Case Number:	0616
File Location:	Not reported
Potential Media Affected:	Not reported
Potential Contaminants of Concern:	Not reported
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

ENVIROSTOR:

Facility ID:	71003651
Status:	Refer: Other Agency
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Chatsworth
Assembly:	53
Senate:	26
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.06909
Longitude:	-118.3061
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD000152376
Alias Type:	EPA Identification Number

SAV-MOR OIL COMPANY (Continued) **S106483761**

Alias Name: 71003651
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AD139 **HOBART/WILTON PRIMARY SCHOOL NO. 3** **SCH** **S107736463**
WSW **800,820,826 ST. ANDREWS PLACE/EIGHT ST/MANHATTAN PLACE** **ENVIROSTOR** **N/A**
1/2-1 **LOS ANGELES, CA 90019**
0.617 mi.
3256 ft. **Site 1 of 2 in cluster AD**

Relative:
Lower

Actual:
181 ft.

SCH:

Facility ID: 19880073
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304152
Assembly: 53
Senate: 26
Special Program Status: Not reported
Status: Inactive - Withdrawn
Status Date: 08/20/2002
Restricted Use: NO
Funding: School District
Latitude: 34.05587
Longitude: -118.3101
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #3
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #3/CDE

HOBART/WILTON PRIMARY SCHOOL NO. 3 (Continued) **S107736463**

Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #3/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304072
Alias Type: Project Code (Site Code)
Alias Name: 304152
Alias Type: Project Code (Site Code)
Alias Name: 19880073
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19880073
Status: Inactive - Withdrawn
Status Date: 08/20/2002
Site Code: 304152
Site Type: School Investigation
Site Type Detailed: School
Acres: 2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26

HOBART/WILTON PRIMARY SCHOOL NO. 3 (Continued) **S107736463**

Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.05587
Longitude: -118.3101
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #3
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #3/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #3/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304072
Alias Type: Project Code (Site Code)
Alias Name: 304152
Alias Type: Project Code (Site Code)
Alias Name: 19880073
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AD140
WSW
1/2-1
0.623 mi.
3290 ft.

HOBART/WILTON PRIMARY SCHOOL NO. 1
9TH STREET/SAINT ANDREWS PLACE/MANHATTAN PLACE
LOS ANGELES, CA 90019

Site 2 of 2 in cluster AD

SCH
ENVIROSTOR

S107736456
N/A

Relative:
Lower

Actual:
180 ft.

SCH:

Facility ID:	19880071
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.5
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304147
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Inactive - Withdrawn
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.05583
Longitude:	-118.3102
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #1
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #1/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #1/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304070
Alias Type:	Project Code (Site Code)
Alias Name:	304147
Alias Type:	Project Code (Site Code)
Alias Name:	19880071
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo

HOBART/WILTON PRIMARY SCHOOL NO. 1 (Continued) **S107736456**

Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/04/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19880071
Status: Inactive - Withdrawn
Status Date: 08/20/2002
Site Code: 304147
Site Type: School Investigation
Site Type Detailed: School
Acres: 1.5
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.05583
Longitude: -118.3102
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #1
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #1/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #1/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304070
Alias Type: Project Code (Site Code)
Alias Name: 304147

HOBART/WILTON PRIMARY SCHOOL NO. 1 (Continued) **S107736456**

Alias Type: Project Code (Site Code)
Alias Name: 19880071
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/04/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

AE141 **HOBART/WILTON PRIMARY SCHOOL NO. 15** **SCH** **S107736461**
West **WILSHIRE BOULEVARD/BRONSON AVENUE/WILTON PLACE** **ENVIROSTOR** **N/A**
1/2-1 **LOS ANGELES, CA 90010**
0.720 mi.
3802 ft. **Site 1 of 3 in cluster AE**

Relative:
Lower

Actual:
198 ft.

SCH:

Facility ID: 19880065
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 4.4
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304149
Assembly: 53
Senate: 26
Special Program Status: Not reported
Status: Inactive - Needs Evaluation

HOBART/WILTON PRIMARY SCHOOL NO. 15 (Continued) **S107736461**

Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.06160
Longitude:	-118.3133
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #15
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #15/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #15/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304059
Alias Type:	Project Code (Site Code)
Alias Name:	304149
Alias Type:	Project Code (Site Code)
Alias Name:	19880065
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

Facility ID:	19880065
Status:	Inactive - Needs Evaluation

HOBART/WILTON PRIMARY SCHOOL NO. 15 (Continued) **S107736461**

Status Date: 08/20/2002
Site Code: 304149
Site Type: School Investigation
Site Type Detailed: School
Acres: 4.4
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.06160
Longitude: -118.3133
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #15
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #15/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #15/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304059
Alias Type: Project Code (Site Code)
Alias Name: 304149
Alias Type: Project Code (Site Code)
Alias Name: 19880065
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

HOBART/WILTON PRIMARY SCHOOL NO. 15 (Continued) **S107736461**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

142
WSW
1/2-1
0.729 mi.
3849 ft.

HOBART/WILTON PRIMARY SCHOOL NO. 2 **SCH** **S107736462**
SAN MARINO ST/SAINT ANDREWS PLACE/GRAMERCY DR **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90019

Relative:
Lower

Actual:
180 ft.

SCH:

Facility ID:	19880072
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.5
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304150
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Inactive - Withdrawn
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.05445
Longitude:	-118.3114
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #2
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #2/CDE
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304071
Alias Type:	Project Code (Site Code)
Alias Name:	304150
Alias Type:	Project Code (Site Code)
Alias Name:	19880072
Alias Type:	Envirostor ID Number

HOBART/WILTON PRIMARY SCHOOL NO. 2 (Continued) **S107736462**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

Facility ID:	19880072
Status:	Inactive - Withdrawn
Status Date:	08/20/2002
Site Code:	304150
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	1.5
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	53
Senate:	26
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.05445
Longitude:	-118.3114
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED

HOBART/WILTON PRIMARY SCHOOL NO. 2 (Continued) **S107736462**

Alias Name: HOBART/WILTON PRIMARY SCHOOL #2
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #2/CDE
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304071
Alias Type: Project Code (Site Code)
Alias Name: 304150
Alias Type: Project Code (Site Code)
Alias Name: 19880072
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

143
NE
1/2-1
0.742 mi.
3919 ft.

CAMINO NUEVO CHARTER ACADEMY PLANNED SCHOOL **SCH** **S111290791**
3400 WEST 3RD STREET **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90020

Relative:
Higher

Actual:
274 ft.

SCH:

Facility ID: 60001568
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 2.2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP

CAMINO NUEVO CHARTER ACADEMY PLANNED SCHOOL (Continued) **S111290791**

Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Aslam Shareef
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304635
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	11/27/2012
Restricted Use:	NO
Funding:	Responsible Party
Latitude:	34.06858
Longitude:	-118.2891
APN:	5501-024-013
Past Use:	AGRICULTURAL - ORCHARD
Potential COC:	Arsenic, Chlordane, DDD, DDE, DDT, Lead
Confirmed COC:	30001-NO, 30004-NO, 30006-NO, 30007-NO, 30008-NO, Lead
Potential Description:	SOIL
Alias Name:	5501-024-013
Alias Type:	APN
Alias Name:	304635
Alias Type:	Project Code (Site Code)
Alias Name:	60001568
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1 Addendum
Completed Date:	11/17/2011
Comments:	DTSC issued a PEA required determination based on the Phase I Addendum report
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Tech Memo
Completed Date:	02/13/2012
Comments:	DTSC approved the Preliminary Environmental Assessment Technical Memorandum for implementation.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/11/2012
Comments:	DTSC approved the PEA with a Further Action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	11/06/2012
Comments:	DTSC concurred with the methane mitigation design plans
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	11/21/2012
Comments:	DTSC approved the SSI report with no Further Action determination

CAMINO NUEVO CHARTER ACADEMY PLANNED SCHOOL (Continued) **S111290791**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 12/16/2011
Comments: Fully executed EOA sent (FedEx) to District 12/19/2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/27/2012
Comments: DTSC prepared project close out Cost Recovery Unit Memorandum

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 07/11/2012
Comments: The District requested DTSC to review Methane Design plans--not required by DTSC.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 60001568
Status: No Further Action
Status Date: 11/27/2012
Site Code: 304635
Site Type: School Investigation
Site Type Detailed: School
Acres: 2.2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Aslam Shareef
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Responsible Party
Latitude: 34.06858
Longitude: -118.2891
APN: 5501-024-013
Past Use: AGRICULTURAL - ORCHARD
Potential COC: Arsenic Chlordane DDD DDE DDT Lead
Confirmed COC: 30001-NO 30004-NO 30006-NO 30007-NO 30008-NO Lead
Potential Description: SOIL
Alias Name: 5501-024-013

CAMINO NUEVO CHARTER ACADEMY PLANNED SCHOOL (Continued) **S111290791**

Alias Type: APN
Alias Name: 304635
Alias Type: Project Code (Site Code)
Alias Name: 60001568
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1 Addendum
Completed Date: 11/17/2011
Comments: DTSC issued a PEA required determination based on the Phase I Addendum report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Tech Memo
Completed Date: 02/13/2012
Comments: DTSC approved the Preliminary Environmental Assessment Technical Memorandum for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/11/2012
Comments: DTSC approved the PEA with a Further Action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 11/06/2012
Comments: DTSC concurred with the methane mitigation design plans

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/21/2012
Comments: DTSC approved the SSI report with no Further Action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 12/16/2011
Comments: Fully executed EOA sent (FedEx) to District 12/19/2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/27/2012
Comments: DTSC prepared project close out Cost Recovery Unit Memorandum

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 07/11/2012
Comments: The District requested DTSC to review Methane Design plans--not required by DTSC.

CAMINO NUEVO CHARTER ACADEMY PLANNED SCHOOL (Continued) **S111290791**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

144
SSE
1/2-1
0.743 mi.
3925 ft.

MONSENOR OSCAR ROMERO CHARTER SCHOOL **SCH** **S116490702**
1157 SOUTH BERENDO ST **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90006

Relative: Higher

Actual: 219 ft.

SCH:

Facility ID:	60001988
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	2.36
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Johnson Abraham
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404896
Assembly:	53
Senate:	22
Special Program Status:	Not reported
Status:	Active
Status Date:	03/17/2014
Restricted Use:	NO
Funding:	School District
Latitude:	34.04948
Longitude:	-118.2954
APN:	5078-024-916
Past Use:	AGRICULTURAL - ORCHARD, SCHOOL - MIDDLE
Potential COC:	Arsenic, DDD, DDE, DDT, Lead
Confirmed COC:	30001-NO, 30006-NO, 30007-NO, 30008-NO, 30013-NO
Potential Description:	SOIL
Alias Name:	Berendo Middle School
Alias Type:	Alternate Name
Alias Name:	OSCAR ROMERO
Alias Type:	Alternate Name
Alias Name:	OSCAR ROMERO CHARTER
Alias Type:	Alternate Name
Alias Name:	5078-024-916
Alias Type:	APN
Alias Name:	404896
Alias Type:	Project Code (Site Code)
Alias Name:	60001988
Alias Type:	Envirostor ID Number

MONSENOR OSCAR ROMERO CHARTER SCHOOL (Continued) **S116490702**

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 04/08/2014
Comments: DTSC concurred with the recommendation that a Phase I Addendum is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1 Addendum
Completed Date: 09/11/2014
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Endangerment Assessment Report
Schedule Due Date: 04/30/2015
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 60001988
Status: Active
Status Date: 03/17/2014
Site Code: 404896
Site Type: School Investigation
Site Type Detailed: School
Acres: 2.36
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Johnson Abraham
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 22
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.04948
Longitude: -118.2954
APN: 5078-024-916
Past Use: AGRICULTURAL - ORCHARD, SCHOOL - MIDDLE
Potential COC: Arsenic DDD DDE DDT Lead
Confirmed COC: 30001-NO 30006-NO 30007-NO 30008-NO 30013-NO
Potential Description: SOIL
Alias Name: Berendo Middle School
Alias Type: Alternate Name
Alias Name: OSCAR ROMERO
Alias Type: Alternate Name
Alias Name: OSCAR ROMERO CHARTER

MONSENOR OSCAR ROMERO CHARTER SCHOOL (Continued) **S116490702**

Alias Type: Alternate Name
Alias Name: 5078-024-916
Alias Type: APN
Alias Name: 404896
Alias Type: Project Code (Site Code)
Alias Name: 60001988
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 04/08/2014
Comments: DTSC concurrent with the recommendation that a Phase I Addendum is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1 Addendum
Completed Date: 09/11/2014
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Preliminary Endangerment Assessment Report
Schedule Due Date: 04/30/2015
Schedule Revised Date: Not reported

AE145 **LOS ANGELES ELEMENTARY SCHOOL NO. 1** **SCH** **S107736635**
West **WILSHIRE BOULEVARD/WILTON PLACE** **ENVIROSTOR** **N/A**
1/2-1 **LOS ANGELES, CA 90010**
0.772 mi.
4076 ft. **Site 2 of 3 in cluster AE**

Relative:
Lower

Actual:
197 ft.

SCH:

Facility ID: 19880026
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 2
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304290
Assembly: 53
Senate: 26
Special Program Status: Not reported
Status: Certified
Status Date: 02/11/2005

LOS ANGELES ELEMENTARY SCHOOL NO. 1 (Continued) **S107736635**

Restricted Use:	NO
Funding:	School District
Latitude:	34.06179
Longitude:	-118.3142
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	Diethyl phthalate, Diethyl phthalate, Trichloroethylene (TCE, Chloroform, Mercury (elemental, Chromium VI
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL
Alias Name:	LAUSD-LOS ANGELES PC #1
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES NEW PRIMARY CENTER #1 (PROP)
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	110033608111
Alias Type:	EPA (FRS #)
Alias Name:	304290
Alias Type:	Project Code (Site Code)
Alias Name:	19880026
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Site added to LAUSD MASTER OVERSIGHT AGREEMENT (DOCKET NO. HSA-A 99/00-051) EXECUTED ON 2/10/00.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* CEQA
Completed Date:	11/12/2004
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	06/07/2005
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	02/28/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	11/12/2004
Comments:	DTSC approved the RAW.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report

LOS ANGELES ELEMENTARY SCHOOL NO. 1 (Continued) **S107736635**

Completed Date: 03/10/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/30/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 02/11/2005
Comments: DTSC approved the RACR.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/11/2005
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19880026
Status: Certified
Status Date: 02/11/2005
Site Code: 304290
Site Type: School Cleanup
Site Type Detailed: School
Acres: 2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.06179
Longitude: -118.3142
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: Diethyl phthalate Trichloroethylene (TCE Chloroform Mercury (elemental Chromium VI

LOS ANGELES ELEMENTARY SCHOOL NO. 1 (Continued) **S107736635**

Confirmed COC: NONE SPECIFIED
Potential Description: SOIL
Alias Name: LAUSD-LOS ANGELES PC #1
Alias Type: Alternate Name
Alias Name: LOS ANGELES NEW PRIMARY CENTER #1 (PROP)
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 110033608111
Alias Type: EPA (FRS #)
Alias Name: 304290
Alias Type: Project Code (Site Code)
Alias Name: 19880026
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Site added to LAUSD MASTER OVERSIGHT AGREEMENT (DOCKET NO. HSA-A 99/00-051) EXECUTED ON 2/10/00.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * CEQA
Completed Date: 11/12/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/07/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/28/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 11/12/2004
Comments: DTSC approved the RAW.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/10/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/30/2004
Comments: Not reported

LOS ANGELES ELEMENTARY SCHOOL NO. 1 (Continued) **S107736635**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	02/11/2005
Comments:	DTSC approved the RACR.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	02/11/2005
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AE146 **LOS ANGELES NEW PRIMARY CENTER NO. 1A** **SCH** **S105628630**
West **WILSHIRE BLVD./INGRAHAM STREET** **ENVIROSTOR** **N/A**
1/2-1 **LOS ANGELES, CA 90005**
0.773 mi.
4083 ft. **Site 3 of 3 in cluster AE**

Relative:
Lower

Actual:
197 ft.

SCH:

Facility ID:	60000010
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304372
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Inactive - Withdrawn
Status Date:	02/20/2013
Restricted Use:	NO
Funding:	School District
Latitude:	34.06128
Longitude:	-118.3157
APN:	NONE SPECIFIED
Past Use:	* UNKNOWN
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	LAUSD-PROPOSED LA PC NO. 1 EXPANSION

LOS ANGELES NEW PRIMARY CENTER NO. 1A (Continued) **S105628630**

Alias Type: Alternate Name
Alias Name: 304372
Alias Type: Project Code (Site Code)
Alias Name: 60000010
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/21/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/10/2003
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 60000010
Status: Inactive - Withdrawn
Status Date: 02/20/2013
Site Code: 304372
Site Type: School Investigation
Site Type Detailed: School
Acres: 1
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.06128
Longitude: -118.3157

LOS ANGELES NEW PRIMARY CENTER NO. 1A (Continued) **S105628630**

APN: NONE SPECIFIED
Past Use: * UNKNOWN
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: LAUSD-PROPOSED LA PC NO. 1 EXPANSION
Alias Type: Alternate Name
Alias Name: 304372
Alias Type: Project Code (Site Code)
Alias Name: 60000010
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 05/21/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/10/2003
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

147
ESE
1/2-1
0.819 mi.
4322 ft.

HOOVER STREET ELEMENTARY
2726 FRANCIS AVE
LOS ANGELES, CA 90005

RCRA-SQG **1005415540**
FINDS **CAR000112441**
SCH
ENVIROSTOR

Relative:
Higher

Actual:
265 ft.

RCRA-SQG:
Date form received by agency: 02/12/2002
Facility name: HOOVER STREET ELEMENTARY
Facility address: 2726 FRANCIS AVE
LOS ANGELES, CA 90005
EPA ID: CAR000112441
Mailing address: 1449 S SAN PEDRO ST
LOS ANGELES, CA 90015
Contact: SOE AUNG
Contact address: 1449 S SAN PEDRO ST
LOS ANGELES, CA 90015

HOOVER STREET ELEMENTARY (Continued) **1005415540**

Contact country: US
Contact telephone: (213) 743-5086
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: L A UNIFIED SCHOOL DISTRICT
Owner/operator address: 1449 S SAN PEDRO ST
LOS ANGELES, CA 90015
Owner/operator country: Not reported
Owner/operator telephone: (213) 743-5086
Legal status: District
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 02/12/2002
Site name: HOOVER STREET ELEMENTARY
Classification: Small Quantity Generator

Hazardous Waste Summary:
Waste code: D000
Waste name: Not Defined

Waste code: D008
Waste name: LEAD

Violation Status: No violations found

FINDS:

Registry ID: 110012247899

HOOVER STREET ELEMENTARY (Continued) **1005415540**

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

SCH:

Facility ID:	19700002
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	.64
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304347
Assembly:	53
Senate:	22
Special Program Status:	Not reported
Status:	Certified
Status Date:	03/12/2004
Restricted Use:	NO
Funding:	School District
Latitude:	34.05652
Longitude:	-118.2861
APN:	5077026912
Past Use:	HOTEL, HOTEL, RESIDENTIAL AREA
Potential COC:	Lead, Lead
Confirmed COC:	Lead
Potential Description:	SOIL, SOIL
Alias Name:	HOOVER ELEMENTARY SCHOOL EXPANSION
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOOVER ES
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	5077026912
Alias Type:	APN
Alias Name:	110033614952
Alias Type:	EPA (FRS #)
Alias Name:	304347
Alias Type:	Project Code (Site Code)
Alias Name:	19700002
Alias Type:	Envirostor ID Number

HOOVER STREET ELEMENTARY (Continued) **1005415540**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	03/29/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	01/23/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	12/22/2003
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	12/12/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	02/26/2004
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	03/12/2004
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

ENVIROSTOR:

Facility ID:	19700002
Status:	Certified

HOOVER STREET ELEMENTARY (Continued) **1005415540**

Status Date: 03/12/2004
Site Code: 304347
Site Type: School Cleanup
Site Type Detailed: School
Acres: .64
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 22
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.05652
Longitude: -118.2861
APN: 5077026912
Past Use: HOTEL, HOTEL, RESIDENTIAL AREA
Potential COC: Lead Lead
Confirmed COC: Lead
Potential Description: SOIL, SOIL
Alias Name: HOOVER ELEMENTARY SCHOOL EXPANSION
Alias Type: Alternate Name
Alias Name: LAUSD-HOOVER ES
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 5077026912
Alias Type: APN
Alias Name: 110033614952
Alias Type: EPA (FRS #)
Alias Name: 304347
Alias Type: Project Code (Site Code)
Alias Name: 19700002
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 03/29/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 01/23/2002
Comments: Not reported

HOOVER STREET ELEMENTARY (Continued) **1005415540**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 12/22/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 12/12/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 02/26/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 03/12/2004
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

148
West
1/2-1
0.863 mi.
4557 ft.

HOBART/WILTON PRIMARY SCHOOL NO. 14A **SCH** **S107736459**
WILSHIRE BOULEVARD/BRONSON AVENUE/NORTON AVE **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90010

Relative:
Lower

Actual:
202 ft.

SCH:

Facility ID: 19880068
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 1.3
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304146
Assembly: 53
Senate: 26
Special Program Status: Not reported

HOBART/WILTON PRIMARY SCHOOL NO. 14A (Continued) **S107736459**

Status:	Inactive - Withdrawn
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.06163
Longitude:	-118.3169
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #14A
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #14A/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #14A/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304067
Alias Type:	Project Code (Site Code)
Alias Name:	304146
Alias Type:	Project Code (Site Code)
Alias Name:	19880068
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported
Facility ID:	19880069
Site Type:	School Investigation

HOBART/WILTON PRIMARY SCHOOL NO. 14A (Continued) **S107736459**

Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.6
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304151
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Inactive - Needs Evaluation
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.06163
Longitude:	-118.3158
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #14B
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #14B/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #14B/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304068
Alias Type:	Project Code (Site Code)
Alias Name:	304151
Alias Type:	Project Code (Site Code)
Alias Name:	19880069
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported

HOBART/WILTON PRIMARY SCHOOL NO. 14A (Continued) **S107736459**

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19880068
Status: Inactive - Withdrawn
Status Date: 08/20/2002
Site Code: 304146
Site Type: School Investigation
Site Type Detailed: School
Acres: 1.3
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.06163
Longitude: -118.3169
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #14A
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #14A/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #14A/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304067
Alias Type: Project Code (Site Code)
Alias Name: 304146
Alias Type: Project Code (Site Code)
Alias Name: 19880068
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000

HOBART/WILTON PRIMARY SCHOOL NO. 14A (Continued) **S107736459**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 19880069
Status: Inactive - Needs Evaluation
Status Date: 08/20/2002
Site Code: 304151
Site Type: School Investigation
Site Type Detailed: School
Acres: 1.6
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.06163
Longitude: -118.3158
APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #14B
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #14B/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #14B/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT

HOBART/WILTON PRIMARY SCHOOL NO. 14A (Continued) **S107736459**

Alias Type:	Alternate Name
Alias Name:	304068
Alias Type:	Project Code (Site Code)
Alias Name:	304151
Alias Type:	Project Code (Site Code)
Alias Name:	19880069
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	08/20/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/11/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AF149 **LOS ANGELES PRIMARY CENTER NO. 1B** **SCH** **S107736637**
West **WILSHIRE BOULEVARD/INGRAHAM STREET/NORTON AVENUE** **ENVIROSTOR** **N/A**
1/2-1 **LOS ANGELES, CA 90005**
0.924 mi.
4879 ft. **Site 1 of 2 in cluster AF**

Relative:
Lower

Actual:
206 ft.

SCH:

Facility ID:	19670001
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.4
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304408

LOS ANGELES PRIMARY CENTER NO. 1B (Continued) **S107736637**

Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Inactive - Withdrawn
Status Date:	02/20/2013
Restricted Use:	NO
Funding:	School District
Latitude:	34.06128
Longitude:	-118.3169
APN:	NONE SPECIFIED
Past Use:	* HOLDING & OTHER INVESTMENT OFFICES
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	LAUSD-LOS ANGELES PRIMARY CENTER NO. 1B
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES PRIMARY CENTER NO. 1B
Alias Type:	Alternate Name
Alias Name:	304408
Alias Type:	Project Code (Site Code)
Alias Name:	19670001
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	06/05/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	4.14 Request
Completed Date:	10/27/2003
Comments:	Approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/14/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

LOS ANGELES PRIMARY CENTER NO. 1B (Continued) **S107736637**

ENVIROSTOR:

Facility ID:	19670001
Status:	Inactive - Withdrawn
Status Date:	02/20/2013
Site Code:	304408
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	1.4
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	53
Senate:	26
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.06128
Longitude:	-118.3169
APN:	NONE SPECIFIED
Past Use:	* HOLDING & OTHER INVESTMENT OFFICES
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	LAUSD-LOS ANGELES PRIMARY CENTER NO. 1B
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES PRIMARY CENTER NO. 1B
Alias Type:	Alternate Name
Alias Name:	304408
Alias Type:	Project Code (Site Code)
Alias Name:	19670001
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	06/05/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	4.14 Request
Completed Date:	10/27/2003
Comments:	Approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/14/2003
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

LOS ANGELES PRIMARY CENTER NO. 1B (Continued) **S107736637**

Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AF150 **HOBART/WILTON PRIMARY SCHOOL NO. 13** **SCH S107736458**
West **INGRAHAM STREET/7TH STREET/NORTON AVENUE** **ENVIROSTOR N/A**
1/2-1 **LOS ANGELES, CA 90005**
0.934 mi.
4933 ft. **Site 2 of 2 in cluster AF**

Relative: **Lower**

Actual: **204 ft.**

SCH:

Facility ID:	19880067
Site Type:	School Investigation
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	1.8
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Mark Malinowski
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304145
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Inactive - Withdrawn
Status Date:	08/20/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.06082
Longitude:	-118.3171
APN:	NONE SPECIFIED
Past Use:	RESIDENTIAL AREA
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	HOBART/WILTON PRIMARY SCHOOL #13
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #13/CDE
Alias Type:	Alternate Name
Alias Name:	LAUSD-HOBART/WILTON PRIMARY #13/VCA
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	304066

HOBART/WILTON PRIMARY SCHOOL NO. 13 (Continued) **S107736458**

Alias Type: Project Code (Site Code)
Alias Name: 304145
Alias Type: Project Code (Site Code)
Alias Name: 19880067
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19880067
Status: Inactive - Withdrawn
Status Date: 08/20/2002
Site Code: 304145
Site Type: School Investigation
Site Type Detailed: School
Acres: 1.8
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Mark Malinowski
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.06082
Longitude: -118.3171

HOBART/WILTON PRIMARY SCHOOL NO. 13 (Continued) **S107736458**

APN: NONE SPECIFIED
Past Use: RESIDENTIAL AREA
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: HOBART/WILTON PRIMARY SCHOOL #13
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #13/CDE
Alias Type: Alternate Name
Alias Name: LAUSD-HOBART/WILTON PRIMARY #13/VCA
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 304066
Alias Type: Project Code (Site Code)
Alias Name: 304145
Alias Type: Project Code (Site Code)
Alias Name: 19880067
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 08/20/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 02/11/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

151
NE
1/2-1
0.950 mi.
5014 ft.

COMMONWEALTH ELEMENTARY SCHOOL ADDITION
213 SOUTH COMMONWEALTH AVENUE
LOS ANGELES, CA 90004

SCH
ENVIROSTOR

S105628566
N/A

Relative:
Higher

Actual:
287 ft.

SCH:

Facility ID:	19820033
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	0.7
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Christine Chiu
Supervisor:	Yolanda Garza
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304263
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Certified / Operation & Maintenance
Status Date:	12/29/2009
Restricted Use:	NO
Funding:	School District
Latitude:	34.07015
Longitude:	-118.2858
APN:	NONE SPECIFIED
Past Use:	* EDUCATIONAL SERVICES
Potential COC:	Methane
Confirmed COC:	Methane
Potential Description:	SV, IA
Alias Name:	COMMONWEALTH ELEMENTARY SCHOOL ADDITION
Alias Type:	Alternate Name
Alias Name:	Commonwealth Avenue Elementary School
Alias Type:	Alternate Name
Alias Name:	LAUSD-COMMONWEALTH ELEMENTARY SCHOOL
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	110033613542
Alias Type:	EPA (FRS #)
Alias Name:	304263
Alias Type:	Project Code (Site Code)
Alias Name:	19820033
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Workplan
Completed Date:	10/04/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Completed Date: 07/20/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 08/17/2006
Comments: OMP approved in conjunction with RACR.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/19/2006
Comments: CH4 mitigation system start-up testing wp approved 6/19/2006.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/26/2006
Comments: commonwealth start-up testing workplan approved on 6/26/2006

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/17/2006
Comments: Approval of RACR.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/28/2009
Comments: DTSC reviewed the Operation and Maintenance report and noted that certain activities be incorporated in future O&M reports.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/28/2009
Comments: DTSC reviewed the Operation and Maintenance report and noted that certain activities be incorporated in future O&M reports.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/01/2009
Comments: DTSC reviewed the Operation and Maintenance report and requested that its comments be addressed by 09/15/2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/21/2009
Comments: DTSC reviewed the Operation and Maintenance Report and noted that an action should be taken prior to the next monitoring event. In addition, DTSC noted it had not received a response to comments on the previous O&M report and requested a response by September 24, 2009.

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/10/2009
Comments: DTSC concurred with the recommendations of the Operation and Maintenance Report and requested a response to one comment by December 31, 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/01/2010
Comments: DTSC concurred with the recommendations of the Operation and Maintenance Report and requested a response to four comments by March 15, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 05/01/2002
Comments: DTSC approved the Public Participation Plan, dated May 2002.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 08/14/2006
Comments: Mailed fully executed O&M Agreement, signed 8/14/2006, to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/28/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/24/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 08/02/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/02/2002
Comments: Not reported

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 08/02/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/15/2010
Comments: DTSC concurred with the recommendations of the Operation and Maintenance Report and noted discrepancies between the paper and electronic copies of the Report. DTSC pointed out that the paper copy and the electronic copy of all submittals provided to DTSC be accurate and consistent with each other.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/17/2010
Comments: DTSC concurred with the recommendations of the Operation and Maintenance Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 06/15/2011
Comments: DTSC provided two comments on the Report that should be addressed in future reports. DTSC also concurred with the recommendations to reduce O&M activities to an annual basis and to remove soil vapor probe MW-1-28 from routine monitoring activities; however, monitoring should continue at soil vapor probe MW-4-15.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/15/2011
Comments: DTSC provided two comments on the Report that should be addressed in future reports. DTSC also concurred with the recommendations to reduce O&M activities to an annual basis and to remove soil vapor probe MW-1-28 from routine monitoring activities; however, monitoring should continue at soil vapor probe MW-4-15.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/19/2012
Comments: DTSC concurred with the Report recommendations: 1) no further modifications to the routine O&M activities are recommended; and 2) LAUSD have a technician inspect and service the ventilation equipment located in the electrical and elevator equipment rooms of the parking garage.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/10/2013

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Comments: DTSC provided comments on the Report and requested such be addressed during field work and/or in monitoring reports. DTSC also concurred with the recommendation to continue O&M activities on an annual basis (with the next event to be conducted in December 2013).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 04/02/2014
Comments: DTSC provided comments on the Report and requested such be addressed during field work and/or in monitoring reports. DTSC also concurred with the recommendations to continue O&M activities on an annual basis (with the next event to be conducted during winter recess at the end of 2014).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 06/06/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 05/09/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 12/29/2009
Comments: DTSC certified that response action according to the DTSC-approved RAW is complete. Operation and maintenance is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/08/2014
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 05/16/2015
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19820033
Status: Certified / Operation & Maintenance

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Status Date: 12/29/2009
Site Code: 304263
Site Type: School Cleanup
Site Type Detailed: School
Acres: 0.7
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Christine Chiu
Supervisor: Yolanda Garza
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 26
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.07015
Longitude: -118.2858
APN: NONE SPECIFIED
Past Use: * EDUCATIONAL SERVICES
Potential COC: Methane
Confirmed COC: Methane
Potential Description: SV, IA
Alias Name: COMMONWEALTH ELEMENTARY SCHOOL ADDITION
Alias Type: Alternate Name
Alias Name: Commonwealth Avenue Elementary School
Alias Type: Alternate Name
Alias Name: LAUSD-COMMONWEALTH ELEMENTARY SCHOOL
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 110033613542
Alias Type: EPA (FRS #)
Alias Name: 304263
Alias Type: Project Code (Site Code)
Alias Name: 19820033
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 10/04/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 07/20/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 08/17/2006
Comments: OMP approved in conjunction with RACR.

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/19/2006
Comments: CH4 mitigation system start-up testing wp approved 6/19/2006.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Design - Preliminary/Intermediate
Completed Date: 06/26/2006
Comments: commonwealth start-up testing workplan approved on 6/26/2006

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 08/17/2006
Comments: Approval of RACR.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/28/2009
Comments: DTSC reviewed the Operation and Maintenance report and noted that certain activities be incorporated in future O&M reports.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/28/2009
Comments: DTSC reviewed the Operation and Maintenance report and noted that certain activities be incorporated in future O&M reports.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/01/2009
Comments: DTSC reviewed the Operation and Maintenance report and requested that its comments be addressed by 09/15/2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/21/2009
Comments: DTSC reviewed the Operation and Maintenance Report and noted that an action should be taken prior to the next monitoring event. In addition, DTSC noted it had not received a response to comments on the previous O&M report and requested a response by September 24, 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/10/2009
Comments: DTSC concurred with the recommendations of the Operation and Maintenance Report and requested a response to one comment by December 31, 2009.

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/01/2010
Comments: DTSC concurred with the recommendations of the Operation and Maintenance Report and requested a response to four comments by March 15, 2010.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Participation Plan / Community Relations Plan
Completed Date: 05/01/2002
Comments: DTSC approved the Public Participation Plan, dated May 2002.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 08/14/2006
Comments: Mailed fully executed O&M Agreement, signed 8/14/2006, to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/28/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 09/24/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 08/02/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 04/02/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 08/02/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/15/2010
Comments: DTSC concurred with the recommendations of the Operation and Maintenance Report and noted discrepancies between the paper and electronic copies of the Report. DTSC pointed out that the paper copy and the electronic copy of all submittals provided to DTSC be accurate and consistent with each other.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/17/2010
Comments: DTSC concurred with the recommendations of the Operation and Maintenance Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 06/15/2011
Comments: DTSC provided two comments on the Report that should be addressed in future reports. DTSC also concurred with the recommendations to reduce O&M activities to an annual basis and to remove soil vapor probe MW-1-28 from routine monitoring activities; however, monitoring should continue at soil vapor probe MW-4-15.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/15/2011
Comments: DTSC provided two comments on the Report that should be addressed in future reports. DTSC also concurred with the recommendations to reduce O&M activities to an annual basis and to remove soil vapor probe MW-1-28 from routine monitoring activities; however, monitoring should continue at soil vapor probe MW-4-15.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/19/2012
Comments: DTSC concurred with the Report recommendations: 1) no further modifications to the routine O&M activities are recommended; and 2) LAUSD have a technician inspect and service the ventilation equipment located in the electrical and elevator equipment rooms of the parking garage.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/10/2013
Comments: DTSC provided comments on the Report and requested such be addressed during field work and/or in monitoring reports. DTSC also concurred with the recommendation to continue O&M activities on an annual basis (with the next event to be conducted in December 2013).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

COMMONWEALTH ELEMENTARY SCHOOL ADDITION (Continued) **S105628566**

Completed Document Type: Operations and Maintenance Report
Completed Date: 04/02/2014
Comments: DTSC provided comments on the Report and requested such be addressed during field work and/or in monitoring reports. DTSC also concurred with the recommendations to continue O&M activities on an annual basis (with the next event to be conducted during winter recess at the end of 2014).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 06/06/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: * Public Participation
Completed Date: 05/09/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 12/29/2009
Comments: DTSC certified that response action according to the DTSC-approved RAW is complete. Operation and maintenance is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/08/2014
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Schedule Area Name: PROJECT WIDE
Schedule Sub Area Name: Not reported
Schedule Document Type: Operations and Maintenance Report
Schedule Due Date: 05/16/2015
Schedule Revised Date: Not reported

152
NNE
1/2-1
0.966 mi.
5103 ft.

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 **SCH** **S109034303**
COUNCIL STREET/JUANITA AVE & MADISON AVE/EASTERN PORTION OF **DEED** **N/A**
LOS ANGELES, CA 90004 **ENVIROSTOR**

Relative: Higher

Actual: 286 ft.

SCH:

Facility ID: 60000872
Site Type: School Cleanup
Site Type Detail: School

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Site Mgmt. Req.:	NONE SPECIFIED
Acres:	8.13
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Amit Pathak
Supervisor:	Yolanda Garza
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	401556
Assembly:	53
Senate:	26
Special Program Status:	Not reported
Status:	Active
Status Date:	04/08/2008
Restricted Use:	YES
Funding:	School District
Latitude:	34.0737
Longitude:	-118.29
APN:	NONE SPECIFIED
Past Use:	DEGREASING FACILITY, ENGINE TESTING/REPAIR, EQUIPMENT/INSTRUMENT REPAIR, FUEL HYDRANT PUMPING STATIONS, MACHINE SHOP, OIL FIELD, VEHICLE MAINTENANCE, TRANSPORTATION - WAREHOUSING
Potential COC:	Benzene, Lead, Methane, Tetrachloroethylene (PCE, TPH-diesel, TPH-gas, TPH-JET FUEL, TPH-MOTOR OIL, 1,1,1-Trichloroethane (TCA, Trichloroethylene (TCE, Vinyl chloride, Hydrogen sulfide
Confirmed COC:	Benzene, Tetrachloroethylene (PCE, TPH-diesel, TPH-gas, 30026-NO, Hydrogen sulfide, 3002501-NO, TPH-MOTOR OIL, Trichloroethylene (TCE, Vinyl chloride, Lead, Methane
Potential Description:	AQUI, SOIL, SV
Alias Name:	Sammy Lee Elementary School
Alias Type:	Alternate Name
Alias Name:	304599
Alias Type:	Project Code (Site Code)
Alias Name:	401556
Alias Type:	Project Code (Site Code)
Alias Name:	60000872
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	05/27/2009
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Plan
Completed Date:	11/30/2009
Comments:	DTSC approved the Remedial Action plan for implementation
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Community Profile
Completed Date:	06/01/2009
Comments:	Community Profile Completed

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/27/2009
Comments: Fact Sheet Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 06/01/2009
Comments: Public Notice was reviewed and accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/21/2009
Comments: DTSC concurred with the information in the report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 07/27/2009
Comments: DTSC signed Form 4.15 in response to District's request

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 10/22/2009
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Design
Completed Date: 06/15/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/24/2010
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 11/10/2010
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/27/2010
Comments: The SSI was performed this time because there were access issues before. The new findings have beeen incorporate in to Northern Area Remedial Design.

Completed Area Name: PROJECT WIDE

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/11/2010
Comments: This Report will be part of RACR.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 01/03/2011
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 10/04/2011
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/23/2011
Comments: DTSC approved gas mitigation system test procedure.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/29/2011
Comments: Approved the Tech Memo for Off Site Investigation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/23/2011
Comments: Concurred with the Report

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/14/2011
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/16/2011
Comments: Concurred with the Report with comments. The comments will be addressed in the Remedial Completion Report.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 12/05/2011
Comments: Approved the soil RACR. Additional off site investigation will be done as a separate activity.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Document Type: Other Report
Completed Date: 08/01/2012
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/11/2012
Comments: Reviewed with comments.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/12/2012
Comments: DTSC concurred with the Report.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/03/2012
Comments: Concurred with some commments.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/03/2012
Comments: Concurred...

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/01/2012
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 05/28/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/07/2012
Comments: Concurred with the Tech Memo with comments.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/20/2012
Comments: Concurred with comments.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/12/2012
Comments: Concurred with the Report with comments.

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/20/2013
Comments: Concurred with comments.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/15/2013
Comments: Approved with Comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 04/04/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 06/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/11/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 10/25/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 06/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 04/09/2008
Comments: Accepted as a background information

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 05/15/2008
Comments: DTSC concurred with the project scoping document

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Date: 05/15/2008
Comments: DTSC concurred with the Adequacy of the Groundwater investigation Technical Memorandum for implementation provided DTSC comments are incorporated in future work/reports.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/14/2008
Comments: DTSC approved the PEA with Further Action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 09/02/2008
Comments: DTSC approved the Suplemental Site Investigation Technical Memorandum for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 11/06/2008
Comments: SSI TM is approved for the field work.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/01/2008
Comments: Accepted the Report. DTSC will hold comments on hydrogeology/Groundwater Monitoring Report until the review of the third quarter 2008 gw report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/04/2009
Comments: The Third Qarter Groundwater Monitoring Report is accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 02/11/2009
Comments: DTSC concurrs with Further Action required fot Northern and Central Area and No Further Action Required for Southern Area.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/31/2013
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/19/2013
Comments: Concurrance with comments for future reporting/field work.

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/05/2013
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/16/2013
Comments: Concurred with comments

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/18/2013
Comments: Concurred with comments for future.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/14/2013
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/31/2013
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/25/2014
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/07/2014
Comments: DTSC concurs with the Report from LAUSD prepared for SCAQMD.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/17/2014
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/16/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Date: 06/18/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/05/2014
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/05/2014
Comments: Concurred with the Report.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/05/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
Completed Date: 05/21/2009
Comments: CEQA process completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
Completed Date: 11/20/2009
Comments: Draft Final

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 08/18/2009
Comments: Rec'd signed agreement from district

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 02/13/2012
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 11/07/2011
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: IC Public Advisory
Completed Date: 12/20/2010
Comments: Not reported

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 04/08/2014
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 04/22/2014
Comments: Recorded LUC uploaded.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 03/20/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 04/01/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/08/2014
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2015
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2015
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2015
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: Central Area
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Future Due Date:	2015
Future Area Name:	Northern Area
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2015
Future Area Name:	Northern Area
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Future Area Name:	Northern Area
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	02/14/2015
Schedule Revised Date:	Not reported
Schedule Area Name:	Northern Area
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	04/14/2015
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	04/14/2015
Schedule Revised Date:	Not reported
Schedule Area Name:	Central Area
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	04/14/2015
Schedule Revised Date:	Not reported
Schedule Area Name:	Central Area
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	02/14/2015
Schedule Revised Date:	Not reported

DEED:

Area:	NORTHERN AREA
Sub Area:	Not reported
Site Type:	SCHOOL CLEANUP
Status:	ACTIVE
Agency:	Not reported
Covenant Uploaded:	Not reported
Deed Date(s):	02/13/2012
EDR Link ID:	60000872

Area:	CENTRAL AREA
Sub Area:	Not reported
Site Type:	SCHOOL CLEANUP
Status:	ACTIVE
Agency:	Not reported
Covenant Uploaded:	Not reported
Deed Date(s):	04/22/2014
EDR Link ID:	60000872

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

ENVIROSTOR:

Facility ID:	60000872
Status:	Active
Status Date:	04/08/2008
Site Code:	401556
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	8.13
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Amit Pathak
Supervisor:	Yolanda Garza
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	53
Senate:	26
Special Program:	Not reported
Restricted Use:	YES
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.0737
Longitude:	-118.29
APN:	NONE SPECIFIED
Past Use:	DEGREASING FACILITY, ENGINE TESTING/REPAIR, EQUIPMENT/INSTRUMENT REPAIR, FUEL HYDRANT PUMPING STATIONS, MACHINE SHOP, OIL FIELD, VEHICLE MAINTENANCE, TRANSPORTATION - WAREHOUSING
Potential COC:	Benzene Lead Methane Tetrachloroethylene (PCE TPH-diesel TPH-gas TPH-JET FUEL TPH-MOTOR OIL 1,1,1-Trichloroethane (TCA Trichloroethylene (TCE Vinyl chloride Hydrogen sulfide
Confirmed COC:	Benzene Tetrachloroethylene (PCE TPH-diesel TPH-gas 30026-NO Hydrogen sulfide 3002501-NO TPH-MOTOR OIL Trichloroethylene (TCE Vinyl chloride Lead Methane
Potential Description:	AQUI, SOIL, SV
Alias Name:	Sammy Lee Elementary School
Alias Type:	Alternate Name
Alias Name:	304599
Alias Type:	Project Code (Site Code)
Alias Name:	401556
Alias Type:	Project Code (Site Code)
Alias Name:	60000872
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	05/27/2009
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Remedial Action Plan
Completed Date:	11/30/2009
Comments:	DTSC approved the Remedial Action plan for implementation
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Document Type: Community Profile
Completed Date: 06/01/2009
Comments: Community Profile Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 05/27/2009
Comments: Fact Sheet Completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 06/01/2009
Comments: Public Notice was reviewed and accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/21/2009
Comments: DTSC concurred with the information in the report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 07/27/2009
Comments: DTSC signed Form 4.15 in response to District's request

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 10/22/2009
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Design
Completed Date: 06/15/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/24/2010
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Design/Implementation Workplan
Completed Date: 11/10/2010
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/27/2010
Comments: The SSI was performed this time because there were access issues

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

before. The new findings have beeen incorporate in to Northern Area Remedial Design.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 10/11/2010
Comments: This Report will be part of RACR.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 01/03/2011
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 10/04/2011
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 02/23/2011
Comments: DTSC approved gas mitigation system test procedure.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/29/2011
Comments: Approved the Tech Memo for Off Site Investigation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/23/2011
Comments: Concurred with the Report

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/14/2011
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 05/16/2011
Comments: Concurred with the Report with comments. The comments will be addressed in the Remedial Completion Report.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 12/05/2011
Comments: Approved the soil RACR. Additional off site investigation will be

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

done as a separate activity.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 08/01/2012
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/11/2012
Comments: Reviewed with comments.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 01/12/2012
Comments: DTSC concurred with the Report.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/03/2012
Comments: Concurred with some commments.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/03/2012
Comments: Concurred...

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/01/2012
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 05/28/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Technical Workplan
Completed Date: 09/07/2012
Comments: Concurred with the Tech Memo with comments.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/20/2012
Comments: Concurred with comments.

Completed Area Name: Northern Area

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/12/2012
Comments: Concurred with the Report with comments.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/20/2013
Comments: Concurred with comments.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 03/15/2013
Comments: Approved with Comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 04/04/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 06/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 06/11/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Plan
Completed Date: 10/25/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Remedial Action Completion Report
Completed Date: 06/28/2013
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 04/09/2008
Comments: Accepted as a background information

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 05/15/2008

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Comments: DTSC concurred with the project scoping document

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 05/15/2008
Comments: DTSC concurred with the Adequacy of the Groundwater investigation Technical Memorandum for implementation provided DTSC comments are incorporated in future work/reports.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 10/14/2008
Comments: DTSC approved the PEA with Further Action determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 09/02/2008
Comments: DTSC approved the Suplemental Site Investigation Technical Memorandum for implementation.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 11/06/2008
Comments: SSI TM is approved for the field work.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/01/2008
Comments: Accepted the Report. DTSC will hold comments on hydrogeology/Groundwater Monitoring Report until the review of the third quarter 2008 gw report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/04/2009
Comments: The Third Qarter Groundwater Monitoring Report is accepted.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 02/11/2009
Comments: DTSC concurrs with Further Action required fot Northern and Central Area and No Further Action Required for Southern Area.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/31/2013
Comments: Not reported

Completed Area Name: Northern Area

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/19/2013
Comments: Concurrance with comments for future reporting/field work.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/05/2013
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/16/2013
Comments: Concurred with comments

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/18/2013
Comments: Concurred with comments for future.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/14/2013
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/31/2013
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/25/2014
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/07/2014
Comments: DTSC concurs with the Report from LAUSD prepared for SCAQMD.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/17/2014
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/16/2014

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/18/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/05/2014
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/05/2014
Comments: Concurred with the Report.

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/05/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
Completed Date: 05/21/2009
Comments: CEQA process completed

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Initial Study/ Environmental Impact Report
Completed Date: 11/20/2009
Comments: Draft Final

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 08/18/2009
Comments: Rec'd signed agreement from district

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 02/13/2012
Comments: Not reported

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 11/07/2011
Comments: Not reported

Completed Area Name: Northern Area

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Completed Sub Area Name: Not reported
Completed Document Type: IC Public Advisory
Completed Date: 12/20/2010
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 04/08/2014
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Land Use Restriction
Completed Date: 04/22/2014
Comments: Recorded LUC uploaded.

Completed Area Name: Northern Area
Completed Sub Area Name: Not reported
Completed Document Type: * Land Use Restriction Monitoring Report
Completed Date: 03/20/2013
Comments: Not reported

Completed Area Name: Central Area
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 04/01/2014
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 09/08/2014
Comments: Not reported

Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: 5 Year Review Reports
Future Due Date: 2015
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2015
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2015
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported
Future Document Type: Operations and Maintenance Report
Future Due Date: 2016
Future Area Name: PROJECT WIDE
Future Sub Area Name: Not reported

CENTRAL REGION ELEMENTARY SCHOOL #20 SITE 11 (Continued) **S109034303**

Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Future Area Name:	Central Area
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2015
Future Area Name:	Northern Area
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2015
Future Area Name:	Northern Area
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Future Area Name:	Northern Area
Future Sub Area Name:	Not reported
Future Document Type:	Operations and Maintenance Report
Future Due Date:	2016
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	02/14/2015
Schedule Revised Date:	Not reported
Schedule Area Name:	Northern Area
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	04/14/2015
Schedule Revised Date:	Not reported
Schedule Area Name:	PROJECT WIDE
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	04/14/2015
Schedule Revised Date:	Not reported
Schedule Area Name:	Central Area
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	04/14/2015
Schedule Revised Date:	Not reported
Schedule Area Name:	Central Area
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Operations and Maintenance Report
Schedule Due Date:	02/14/2015
Schedule Revised Date:	Not reported

153
NNE
1/2-1
0.971 mi.
5128 ft.

BELMONT NEW ELEMENTARY NO. 6 **SCH** **S107735902**
NORTH VERMONT AVENUE/COUNCIL STREET **ENVIROSTOR** **N/A**
LOS ANGELES, CA 90004

Relative: Higher

Actual: 289 ft.

SCH:

Facility ID:	19590008
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	3
National Priorities List:	NO

BELMONT NEW ELEMENTARY NO. 6 (Continued) **S107735902**

Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Not reported
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	304217
Assembly:	53
Senate:	22
Special Program Status:	Not reported
Status:	Certified
Status Date:	03/26/2007
Restricted Use:	NO
Funding:	School District
Latitude:	34.07435
Longitude:	-118.2918
APN:	NONE SPECIFIED
Past Use:	* RETIAL - MISC.
Potential COC:	Methane, Methane, Carbon disulfide, Hydrogen sulfide, Lead
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL, SV, SURFW
Alias Name:	BELMONT NEW ELEMENTARY SCHOOL #6
Alias Type:	Alternate Name
Alias Name:	LA USD-BELMONT NEW ELEMENTARY #6
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	110033618119
Alias Type:	EPA (FRS #)
Alias Name:	304217
Alias Type:	Project Code (Site Code)
Alias Name:	19590008
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	02/10/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	02/06/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	08/11/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	06/21/2002
Comments:	Not reported

BELMONT NEW ELEMENTARY NO. 6 (Continued) **S107735902**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 05/31/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 10/13/2004
Comments: Approved Supplemental Subsurface Investigation and Construction Activities Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/31/2006
Comments: Approved the PEA workplan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 07/28/2005
Comments: UST found during construction was removed under DTSC and LAFD oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/26/2007
Comments: DTSC concured with the Undergound storage tank (UST) Closure Report that that no further investigation is necssary in the UST area.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 06/19/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/24/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/21/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 05/31/2002
Comments: Not reported

BELMONT NEW ELEMENTARY NO. 6 (Continued) **S107735902**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/02/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/16/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/07/2007
Comments: Project Complete.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

ENVIROSTOR:
Facility ID: 19590008
Status: Certified
Status Date: 03/26/2007
Site Code: 304217
Site Type: School Cleanup
Site Type Detailed: School
Acres: 3
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 53
Senate: 22
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 34.07435
Longitude: -118.2918
APN: NONE SPECIFIED
Past Use: * RETIAL - MISC.
Potential COC: Methane Carbon disulfide Hydrogen sulfide Lead
Confirmed COC: NONE SPECIFIED
Potential Description: SOIL, SV, SURFW
Alias Name: BELMONT NEW ELEMENTARY SCHOOL #6
Alias Type: Alternate Name

BELMONT NEW ELEMENTARY NO. 6 (Continued) **S107735902**

Alias Name: LA USD-BELMONT NEW ELEMENTARY #6
Alias Type: Alternate Name
Alias Name: LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: 110033618119
Alias Type: EPA (FRS #)
Alias Name: 304217
Alias Type: Project Code (Site Code)
Alias Name: 19590008
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/06/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1
Completed Date: 08/11/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 06/21/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Action Memorandum (if <$1M)
Completed Date: 05/31/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 10/13/2004
Comments: Approved Supplemental Subsurface Investigation and Construction Activities Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 10/31/2006
Comments: Approved the PEA workplan

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork

BELMONT NEW ELEMENTARY NO. 6 (Continued) **S107735902**

Completed Date: 07/28/2005
Comments: UST found during construction was removed under DTSC and LAFD oversight.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/26/2007
Comments: DTSC concured with the Undergound storage tank (UST) Closure Report that that no further investigation is necssary in the UST area.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 06/19/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 07/24/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 06/21/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 05/31/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/02/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/16/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 06/07/2007
Comments: Project Complete.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported

BELMONT NEW ELEMENTARY NO. 6 (Continued) **S107735902**

Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 18 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CASTAIC	U001560451	HONOR RANCHO GASOLINE PLANT	24000 HIGHWAY 99	90010	HIST UST
LOS ANGELES	S103441660	MOBIL STATION #10-KDQ	HWY 126		HIST CORTESE, WMUDS/SWAT
LOS ANGELES	S112894304	PARAMOUNT PLAZA, LLC	3550 & 3580 WILSHIRE BLVD	90010	HAZNET
LOS ANGELES	1014387924	LOIS M FISHER TRUST FISHER PROPERT	3824 W 6TH ST	90010	RCRA-LQG
LOS ANGELES	S114570455	ALODOWN PLAZA	8448 ALONDRA BLVD		RGA LUST
LOS ANGELES	S112923131	PLAZA DE LEON APARTMENTS	630 S ALVERADO ST	90057	HAZNET
LOS ANGELES	S109422338	WARD'S DUMP	186 AND VERMONT AVE.		SWF/LF
LOS ANGELES	S114578669	ATHERTON PLAZA	5500 ATHERTON ST		RGA LUST
LOS ANGELES	S114588172	BUNDY CENTRAL OFFICE	450 BUNDY DRIVE S.		RGA LUST
LOS ANGELES	S114588170	BUNDY CENTRAL OFFICE	450 BUNDY DR S		RGA LUST
LOS ANGELES	S111075979	LEDGER #2	10403 GLENOAKS BOULEVARD		SWF/LF
LOS ANGELES	S114565756	10 UNIVERSAL CITY PLAZA	3838 LANKERSHIM BLVD		RGA LUST
LOS ANGELES	S109422348	PENMAR GOLF COURSE	1233 ROSE AVE.		SWF/LF
LOS ANGELES	S109422337	S.F. & BRAZIL	SAN FERNANDO AND BRAZIL		SWF/LF
LOS ANGELES	1003878601	CHEVRON USA INC ALISO CYN	SEC 16 T3N R16 SBB & M	90010	CERC-NFRAP
LOS ANGELES	S112943991	CENTRAL REGION ES 13	2516 1/2 WASHINGTON BLVD	90006	HAZNET
LOS ANGELES	S116741859	PAK'S WESTERN PLAZA LLC	833 WESTERN AVE W	90005	LUST
LOS ANGELES COUNTY	U003780493	HOVSEP YACOUBIAN	412 W 6TH		UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 10/08/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 10/08/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 01/28/2014
Number of Days to Update: 78

Source: EPA
Telephone: N/A
Last EDR Contact: 10/08/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 08/28/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 07/08/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 45

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 10/07/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 08/28/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/01/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/01/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/01/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/01/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/01/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 06/23/2014
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 65

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 06/23/2014
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 65

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2014
Date Data Arrived at EDR: 05/30/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 18

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/14/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/30/2013
Date Data Arrived at EDR: 10/01/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 66

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/30/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 08/05/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 09/26/2014
Number of Days to Update: 51

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/06/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 08/05/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 09/26/2014
Number of Days to Update: 51

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/06/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/18/2014
Date Data Arrived at EDR: 08/18/2014
Date Made Active in Reports: 10/03/2014
Number of Days to Update: 46

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/18/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 07/31/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/17/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 07/31/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 25

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/17/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 05/20/2014
Date Data Arrived at EDR: 06/10/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 73

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/13/2014
Date Data Arrived at EDR: 08/15/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 7

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 05/22/2014
Date Data Arrived at EDR: 08/22/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 27

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/14/2014
Date Data Arrived at EDR: 05/15/2014
Date Made Active in Reports: 07/15/2014
Number of Days to Update: 61

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/20/2014
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/22/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 184

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/01/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 08/04/2014
Date Data Arrived at EDR: 08/05/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 17
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013
Date Data Arrived at EDR: 03/01/2013
Date Made Active in Reports: 04/12/2013
Number of Days to Update: 42
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Quarterly

State and tribal registered storage tank lists

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 07/31/2014
Date Made Active in Reports: 08/20/2014
Number of Days to Update: 20
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/19/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 10/03/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 07/28/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 25
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 08/20/2014
Date Data Arrived at EDR: 08/22/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 27
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 08/13/2014
Date Data Arrived at EDR: 08/15/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 7

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/14/2014
Date Data Arrived at EDR: 08/15/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 7

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Quarterly

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 271

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 08/01/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/04/2014
Date Data Arrived at EDR: 08/05/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 17

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/28/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/22/2014
Next Scheduled EDR Contact: 08/11/2014
Data Release Frequency: Semi-Annually

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/20/2014
Date Data Arrived at EDR: 06/10/2014
Date Made Active in Reports: 08/15/2014
Number of Days to Update: 66

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/10/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 05/30/2014
Date Data Arrived at EDR: 07/01/2014
Date Made Active in Reports: 08/15/2014
Number of Days to Update: 45

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 10/01/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/05/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 09/26/2014
Number of Days to Update: 51

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/06/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 07/03/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 25

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/23/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137
Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/25/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39
Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 06/16/2014
Date Data Arrived at EDR: 06/17/2014
Date Made Active in Reports: 07/11/2014
Number of Days to Update: 24
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/17/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 02/20/2014
Date Made Active in Reports: 03/27/2014
Number of Days to Update: 35
Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/14/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52
Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 08/01/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Varies

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30
Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 08/07/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/28/2014
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 07/15/2014
Number of Days to Update: 25
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 09/03/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21
Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/05/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 09/26/2014
Number of Days to Update: 51
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/06/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27
Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2014
Date Data Arrived at EDR: 09/02/2014
Date Made Active in Reports: 09/24/2014
Number of Days to Update: 22
Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/10/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/28/2014
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 07/15/2014
Number of Days to Update: 25

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 09/03/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/28/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/19/2014
Date Data Arrived at EDR: 08/20/2014
Date Made Active in Reports: 10/06/2014
Number of Days to Update: 47

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/09/2014
Date Data Arrived at EDR: 06/11/2014
Date Made Active in Reports: 07/09/2014
Number of Days to Update: 28

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 09/10/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/30/2014
Date Data Arrived at EDR: 07/01/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 79

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 10/01/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/26/2014
Date Data Arrived at EDR: 07/28/2014
Date Made Active in Reports: 09/15/2014
Number of Days to Update: 49

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/28/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 07/31/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 22

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/17/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 07/30/2014
Date Data Arrived at EDR: 07/31/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 25

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/17/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 07/02/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 78

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 10/01/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/06/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/15/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 09/10/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/24/2014
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 31

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 09/30/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/09/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/20/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 01/30/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 07/15/2014
Number of Days to Update: 132

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 09/04/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/31/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 44

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/29/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006
Date Data Arrived at EDR: 09/29/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 64

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/26/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/19/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/19/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 05/06/2014
Date Data Arrived at EDR: 05/16/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 10/10/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2013
Date Data Arrived at EDR: 07/17/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 107

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/15/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 11/01/2013
Number of Days to Update: 91

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2014
Date Data Arrived at EDR: 07/10/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 18

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/08/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 11/18/2013
Date Data Arrived at EDR: 02/27/2014
Date Made Active in Reports: 03/12/2014
Number of Days to Update: 13

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/10/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 05/23/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 66

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/29/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 08/18/2014
Date Data Arrived at EDR: 08/18/2014
Date Made Active in Reports: 10/06/2014
Number of Days to Update: 49

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/18/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: Quarterly

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 01/15/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/17/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Varies

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/30/2014
Date Data Arrived at EDR: 07/01/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 27
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/30/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List
The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76
Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 09/22/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: No Update Planned

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/28/2014
Date Data Arrived at EDR: 07/03/2014
Date Made Active in Reports: 08/21/2014
Number of Days to Update: 49
Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Annually

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/29/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 08/11/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 09/30/2014
Number of Days to Update: 49

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/08/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 07/16/2013
Date Made Active in Reports: 08/26/2013
Number of Days to Update: 41

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 10/15/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 03/25/2014
Date Made Active in Reports: 04/28/2014
Number of Days to Update: 34

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/26/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/15/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 07/25/2014
Next Scheduled EDR Contact: 11/03/2014
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/19/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/14/2014
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 13

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 10/15/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Quarterly

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/23/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 30

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/29/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Annually

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/23/2013
Date Data Arrived at EDR: 11/06/2013
Date Made Active in Reports: 12/06/2013
Number of Days to Update: 30

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/29/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Annually

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/26/2014
Date Data Arrived at EDR: 08/26/2014
Date Made Active in Reports: 10/06/2014
Number of Days to Update: 41

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/26/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Quarterly

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013
Date Data Arrived at EDR: 07/03/2013
Date Made Active in Reports: 09/13/2013
Number of Days to Update: 72

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 09/30/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/19/2014
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 38

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 08/14/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/14/2014
Date Data Arrived at EDR: 08/18/2014
Date Made Active in Reports: 10/06/2014
Number of Days to Update: 49

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/14/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 07/31/2014
Date Data Arrived at EDR: 08/05/2014
Date Made Active in Reports: 09/26/2014
Number of Days to Update: 52

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/25/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/01/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 03/14/2014
Date Data Arrived at EDR: 06/11/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 47

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/10/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 06/04/2014
Date Data Arrived at EDR: 06/12/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 46

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/06/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Varies

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011
Date Data Arrived at EDR: 05/18/2012
Date Made Active in Reports: 05/25/2012
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/15/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Varies

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/15/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/16/2014
Date Data Arrived at EDR: 06/17/2014
Date Made Active in Reports: 07/10/2014
Number of Days to Update: 23

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/17/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/23/2014
Date Data Arrived at EDR: 06/13/2014
Date Made Active in Reports: 07/09/2014
Number of Days to Update: 26

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 09/10/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 10/17/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/15/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: N/A

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 07/28/2014
Date Made Active in Reports: 09/15/2014
Number of Days to Update: 49

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/29/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/25/2014
Date Data Arrived at EDR: 07/28/2014
Date Made Active in Reports: 08/20/2014
Number of Days to Update: 23

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 09/29/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List

Cupa Facility List

Date of Government Version: 09/08/2014
Date Data Arrived at EDR: 09/09/2014
Date Made Active in Reports: 09/24/2014
Number of Days to Update: 15

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing

Cupa facility list.

Date of Government Version: 08/01/2013
Date Data Arrived at EDR: 08/02/2013
Date Made Active in Reports: 08/22/2013
Number of Days to Update: 20

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/10/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 07/02/2014
Date Data Arrived at EDR: 07/03/2014
Date Made Active in Reports: 07/30/2014
Number of Days to Update: 27

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 09/29/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/11/2014
Date Data Arrived at EDR: 06/13/2014
Date Made Active in Reports: 07/07/2014
Number of Days to Update: 24

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 08/08/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/11/2014
Date Data Arrived at EDR: 08/14/2014
Date Made Active in Reports: 10/09/2014
Number of Days to Update: 56

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 08/05/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 07/31/2014
Date Data Arrived at EDR: 08/05/2014
Date Made Active in Reports: 09/26/2014
Number of Days to Update: 52

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/30/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 08/25/2014
Date Data Arrived at EDR: 08/26/2014
Date Made Active in Reports: 09/29/2014
Number of Days to Update: 34

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 08/05/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/30/2014
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 08/19/2014
Number of Days to Update: 35

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 10/10/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 09/10/2014
Date Data Arrived at EDR: 09/11/2014
Date Made Active in Reports: 09/25/2014
Number of Days to Update: 14

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/20/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 07/28/2014
Date Data Arrived at EDR: 07/30/2014
Date Made Active in Reports: 09/15/2014
Number of Days to Update: 47

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/25/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List

Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/20/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/08/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/21/2014
Date Data Arrived at EDR: 08/26/2014
Date Made Active in Reports: 09/29/2014
Number of Days to Update: 34

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 08/20/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 07/23/2014
Date Data Arrived at EDR: 07/25/2014
Date Made Active in Reports: 08/22/2014
Number of Days to Update: 28

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/18/2014
Next Scheduled EDR Contact: 11/03/2014
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 09/22/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/31/2014
Date Data Arrived at EDR: 06/06/2014
Date Made Active in Reports: 07/17/2014
Number of Days to Update: 41

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/14/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/21/2014
Date Data Arrived at EDR: 07/21/2014
Date Made Active in Reports: 08/19/2014
Number of Days to Update: 29

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/21/2014
Next Scheduled EDR Contact: 11/03/2014
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/17/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/07/2014
Date Data Arrived at EDR: 02/25/2014
Date Made Active in Reports: 03/25/2014
Number of Days to Update: 28

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/17/2014
Next Scheduled EDR Contact: 02/02/2015
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 07/23/2014
Date Data Arrived at EDR: 07/28/2014
Date Made Active in Reports: 08/20/2014
Number of Days to Update: 23

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/18/2014
Next Scheduled EDR Contact: 11/03/2014
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 07/28/2014
Date Data Arrived at EDR: 07/28/2014
Date Made Active in Reports: 08/20/2014
Number of Days to Update: 23

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/25/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/13/2014
Date Data Arrived at EDR: 03/27/2014
Date Made Active in Reports: 04/28/2014
Number of Days to Update: 32

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/10/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/09/2014
Date Data Arrived at EDR: 06/11/2014
Date Made Active in Reports: 06/27/2014
Number of Days to Update: 16

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/26/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 07/02/2014
Date Data Arrived at EDR: 07/07/2014
Date Made Active in Reports: 08/18/2014
Number of Days to Update: 42

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 10/03/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 08/20/2014
Date Data Arrived at EDR: 08/26/2014
Date Made Active in Reports: 09/30/2014
Number of Days to Update: 35

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 08/20/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List
CUPA Facility List

Date of Government Version: 09/02/2014
Date Data Arrived at EDR: 09/05/2014
Date Made Active in Reports: 09/24/2014
Number of Days to Update: 19

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 09/02/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/09/2014
Date Data Arrived at EDR: 06/11/2014
Date Made Active in Reports: 07/09/2014
Number of Days to Update: 28

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 08/26/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/28/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/28/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 09/16/2014
Date Data Arrived at EDR: 09/18/2014
Date Made Active in Reports: 09/25/2014
Number of Days to Update: 7

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 09/16/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 10/03/2014
Number of Days to Update: 52

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 09/26/2014
Number of Days to Update: 45

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 08/20/2014
Number of Days to Update: 8

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/07/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Quarterly

PLACER COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/09/2014
Date Data Arrived at EDR: 06/10/2014
Date Made Active in Reports: 07/09/2014
Number of Days to Update: 29

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 09/22/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/08/2014
Date Data Arrived at EDR: 07/11/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/22/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 07/08/2014
Date Data Arrived at EDR: 07/11/2014
Date Made Active in Reports: 08/18/2014
Number of Days to Update: 38

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/22/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/06/2014
Date Data Arrived at EDR: 04/08/2014
Date Made Active in Reports: 04/29/2014
Number of Days to Update: 21

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/06/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/05/2014
Date Data Arrived at EDR: 07/17/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 11

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 10/06/2014
Next Scheduled EDR Contact: 01/19/2015
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/06/2014
Date Data Arrived at EDR: 08/07/2014
Date Made Active in Reports: 09/30/2014
Number of Days to Update: 54

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/07/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 10/03/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2013
Date Data Arrived at EDR: 11/19/2013
Date Made Active in Reports: 12/31/2013
Number of Days to Update: 42

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/22/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 08/07/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 08/07/2014
Next Scheduled EDR Contact: 11/27/2014
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/20/2014
Date Data Arrived at EDR: 06/23/2014
Date Made Active in Reports: 07/11/2014
Number of Days to Update: 18
Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/22/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 08/22/2014
Date Data Arrived at EDR: 08/26/2014
Date Made Active in Reports: 10/01/2014
Number of Days to Update: 36
Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/20/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 07/07/2014
Date Data Arrived at EDR: 08/12/2014
Date Made Active in Reports: 10/03/2014
Number of Days to Update: 52
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/15/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/16/2014
Date Data Arrived at EDR: 06/19/2014
Date Made Active in Reports: 07/10/2014
Number of Days to Update: 21
Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/15/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28
Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 10/03/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 08/22/2014
Date Data Arrived at EDR: 08/26/2014
Date Made Active in Reports: 10/03/2014
Number of Days to Update: 38

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/22/2014
Next Scheduled EDR Contact: 09/15/2014
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 09/02/2014
Next Scheduled EDR Contact: 12/15/2014
Data Release Frequency: Annually

Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/14/2014
Date Data Arrived at EDR: 08/18/2014
Date Made Active in Reports: 10/03/2014
Number of Days to Update: 46

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 08/08/2014
Next Scheduled EDR Contact: 11/24/2014
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List
CUPA facility listing.

Date of Government Version: 09/09/2014
Date Data Arrived at EDR: 09/11/2014
Date Made Active in Reports: 09/25/2014
Number of Days to Update: 14

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/10/2014
Date Data Arrived at EDR: 06/12/2014
Date Made Active in Reports: 06/20/2014
Number of Days to Update: 8

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/26/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/19/2014
Date Data Arrived at EDR: 06/26/2014
Date Made Active in Reports: 07/25/2014
Number of Days to Update: 29

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/15/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/19/2014
Date Data Arrived at EDR: 06/26/2014
Date Made Active in Reports: 07/25/2014
Number of Days to Update: 29

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/15/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 06/26/2014
Date Data Arrived at EDR: 08/20/2014
Date Made Active in Reports: 10/06/2014
Number of Days to Update: 47

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/29/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 07/03/2014
Date Made Active in Reports: 07/28/2014
Number of Days to Update: 25

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/29/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 06/09/2014
Date Data Arrived at EDR: 06/11/2014
Date Made Active in Reports: 07/17/2014
Number of Days to Update: 36

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 09/08/2014
Next Scheduled EDR Contact: 12/22/2014
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 08/13/2014
Date Data Arrived at EDR: 08/15/2014
Date Made Active in Reports: 10/03/2014
Number of Days to Update: 49

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 08/08/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/28/2014
Date Data Arrived at EDR: 08/18/2014
Date Made Active in Reports: 09/26/2014
Number of Days to Update: 39

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/14/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/03/2014
Next Scheduled EDR Contact: 01/12/2015
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/13/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 06/26/2014
Date Data Arrived at EDR: 07/31/2014
Date Made Active in Reports: 09/15/2014
Number of Days to Update: 46

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/28/2014
Next Scheduled EDR Contact: 11/10/2014
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/27/2014
Date Data Arrived at EDR: 06/17/2014
Date Made Active in Reports: 07/11/2014
Number of Days to Update: 24

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/17/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 06/30/2014
Date Data Arrived at EDR: 07/07/2014
Date Made Active in Reports: 08/18/2014
Number of Days to Update: 42

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/22/2014
Next Scheduled EDR Contact: 01/05/2015
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 08/05/2014
Date Data Arrived at EDR: 08/07/2014
Date Made Active in Reports: 10/06/2014
Number of Days to Update: 60

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/31/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/19/2014
Next Scheduled EDR Contact: 12/01/2014
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 07/19/2012
Date Made Active in Reports: 08/28/2012
Number of Days to Update: 40

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/10/2014
Next Scheduled EDR Contact: 01/26/2015
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2014
Date Data Arrived at EDR: 08/07/2014
Date Made Active in Reports: 10/17/2014
Number of Days to Update: 71

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/07/2014
Next Scheduled EDR Contact: 11/17/2014
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/21/2014
Date Made Active in Reports: 08/25/2014
Number of Days to Update: 35

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/18/2014
Next Scheduled EDR Contact: 11/03/2014
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/15/2014
Date Made Active in Reports: 08/13/2014
Number of Days to Update: 29

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/26/2014
Next Scheduled EDR Contact: 12/08/2014
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/20/2014
Date Made Active in Reports: 08/07/2014
Number of Days to Update: 48

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/15/2014
Next Scheduled EDR Contact: 12/29/2014
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)
Source: United States Geologic Survey
A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

© 2010 Tele Atlas North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 East Copley Drive, Diamond Bar, CA 91765

PERMIT TO OPERATE

Permit No.
F32244
A/N 366921

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

Legal Owner
or Operator:

CENTRAL PLAZA LLC
3450 WILSHIRE BLVD NO 400
LOS ANGELES, CA 90012

ID 122337

Equipment Location: SAME AS ABOVE

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION, MODEL 3508 TA, TURBOCHARGED, AFTERCOOLED, 8 CYLINDERS, 1486 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
3. THIS ENGINE SHALL NOT BE USED IN CONJUNCTION WITH ANY UTILITY VOLUNTARY DEMAND REDUCTION PROGRAM.
4. A TIMER SHALL BE MAINTAINED SO AS TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
5. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 92 HOURS IN ANY ONE YEAR.
6. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE ELAPSED TIME, IN HOURS, AND THE REASON FOR OPERATION SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
7. THE SULFUR CONTENT OF DIESEL FUEL SUPPLIED TO THE ENGINE SHALL NOT EXCEED 0.05% BY WEIGHT.
8. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE SET AND MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO STANDARD TIMING.

FILE COPY

PERMIT TO OPERATE

CONTINUATION OF PERMIT TO OPERATE

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

Dorris M Bailey

By Dorris M. Bailey/nd
07/05/00

FILE COPY

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 East Copley Drive, Diamond Bar, CA 91765

PERMIT TO OPERATE

Permit No.
F32245
A/N 366922

This initial permit must be renewed ANNUALLY unless the equipment is moved, or changes ownership.
If the billing for annual renewal fee (Rule 301.f) is not received by the expiration date, contact the District.

Legal Owner
or Operator:

CENTRAL PLAZA LLC
3450 WILSHIRE BLVD STE 400
LOS ANGELES, CA 90012

ID 122337

Equipment Location: SAME AS ABOVE

Equipment Description:

BOILER NO. 2, KEWANEE, MODEL NO. 7L286FLGO, SERIAL NO. N1617, WITH ONE BURNER, KEWANEE, MODEL NO. KFL14-GO-50.4, 6,294,000 BTU PER HOUR, NATURAL GAS FIRED, A 5 H.P. COMBUSTION AIR BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
3. THIS BOILER SHALL BE FIRED WITH NATURAL GAS ONLY.
4. THIS BOILER SHALL BE EQUIPPED WITH NON-RESETTABLE, TOTALIZING FLOW METER.
5. THE TOTAL QUANTITY OF FUEL GAS CONSUMED SHALL NOT EXCEED 90,000 THERMS IN ANY ONE YEAR.
6. RECORDS OF NATURAL GAS USAGE SHALL BE KEPT FOR AT LEAST 2 YEARS AND MADE AVAILABLE TO THE DISTRICT PERSONNEL UPON REQUEST.

FILE COPY

PERMIT TO OPERATE

CONTINUATION OF PERMIT TO OPERATE

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR COPY SHALL BE POSTED ON OR WITHIN 8 METERS OF THE EQUIPMENT.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT CANNOT BE CONSIDERED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF OTHER GOVERNMENT AGENCIES.

EXECUTIVE OFFICER

Dorris M Bailey

By Dorris M. Bailey/nd
07/05/00

FILE COPY

LOS ANGELES FIRE DEPARTMENT
UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS
ADDRESS: 200 NORTH MAIN ST., 17TH FLR.RM.1700
NEW OFFICE# - 213-978-3700 NEW FAX# - 213-978-3707

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY - PER SHEET

↓ COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED ↓

PHONE NO: (805) 574 0048 FAX #/EMAIL: ( ) Carol.Nuland@IVI-INTL.com

NAME OF REQUESTER (PLEASE PRINT): Carol Nuland

REPRESENTING (COMPANY NAME): IVI

SIGNATURE: [signature] DATE: 10 / 8 / 14

DRIVER LIC NO: A5450178 EXP: 1/13/19

ADDRESS FOR WHICH RECORDS ARE REQUESTED: 3440 Wilshire Blvd.

REASON FOR REQUEST: Ph 1 ESA

NO COPY SERVICES ALLOWED

FOR OFFICE USE ONLY:

☐ REVIEW ONLY (NO COPIES)

☐ REQUEST COPIES

NUMBER OF PAGES: _____

X .10 ¢

= _____

+ $11.00

TOTAL FEE AMOUNT: _____

BILLING & ACCOUNTS RECEIVABLE
16TH FL, 200 N. MAIN (REV CODE #3887)

LOS ANGELES FIRE DEPARTMENT
UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS
ADDRESS: 200 NORTH MAIN ST., 17TH FLR. RM. 1700
NEW OFFICE# - 213-978-3700 NEW FAX# - 213-978-3707

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY - PER SHEET

↓ COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED ↓

PHONE NO: (805) 574 0048 FAX #/EMAIL: ( ) Carol.Nuland@IVI-INTL.com

NAME OF REQUESTER (PLEASE PRINT): Carol Nuland

REPRESENTING (COMPANY NAME): IVI

SIGNATURE: [signature] DATE: 10 / 8 / 14

DRIVER LIC NO: A5450178 EXP: 1/13/19

ADDRESS FOR WHICH RECORDS ARE REQUESTED: 3450 Wilshire Blvd.

REASON FOR REQUEST: Phase I ESA

NO COPY SERVICES ALLOWED

FOR OFFICE USE ONLY:

☐ REVIEW ONLY (NO COPIES)

☐ REQUEST COPIES

NUMBER OF PAGES: _____

X .10 ¢

= _____

+ $11.00

TOTAL FEE AMOUNT: _____

BILLING & ACCOUNTS RECEIVABLE
16TH FL, 200 N. MAIN (REV CODE #3887)

LOS ANGELES FIRE DEPARTMENT
UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS
ADDRESS: 200 NORTH MAIN ST., 17TH FLR. RM. 1700
NEW OFFICE# - 213-978-3700 NEW FAX# - 213-978-3707

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY - PER SHEET

↓ COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED ↓

PHONE NO: (805) 574 0048 FAX #/EMAIL: ( ) Carol.Nieland@IVI-INTL.com

NAME OF REQUESTER (PLEASE PRINT): Carol Nieland

REPRESENTING (COMPANY NAME): IVI

SIGNATURE: [signature] DATE: 10 / 8 / 14

DRIVER LIC NO: A8450178 EXP: 1/13/19

ADDRESS FOR WHICH RECORDS ARE REQUESTED: 3460 Wilshire Blvd.

REASON FOR REQUEST: Phase I ESA

NO COPY SERVICES ALLOWED

FOR OFFICE USE ONLY:

☐ REVIEW ONLY (NO COPIES)

☐ REQUEST COPIES

NUMBER OF PAGES: _____

X .10 ¢

= _____

+ $11.00

TOTAL FEE AMOUNT: _____

BILLING & ACCOUNTS RECEIVABLE
16TH FL, 200 N. MAIN (REV CODE #3887)

LOS ANGELES FIRE DEPARTMENT
UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS
ADDRESS: 200 NORTH MAIN ST., 17TH FLR. RM. 1700
NEW OFFICE# - 213-978-3700 NEW FAX# - 213-978-3707

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY - PER SHEET

↓ COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED ↓

PHONE NO: (805) 574 0048 FAX #/EMAIL: ( ) Carol.Nuland@IVI-INTL.com

NAME OF REQUESTER (PLEASE PRINT): Carol Nuland

REPRESENTING (COMPANY NAME): IVI

SIGNATURE: [signature] DATE: 10 / 8 / 14

DRIVER LIC NO: A8450179 EXP: 1/13/19

ADDRESS FOR WHICH RECORDS ARE REQUESTED: 3470 Wilshire Blvd.

REASON FOR REQUEST: Phase I ESA

NO COPY SERVICES ALLOWED

FOR OFFICE USE ONLY:

☐ REVIEW ONLY (NO COPIES)

☐ REQUEST COPIES

NUMBER OF PAGES: _____

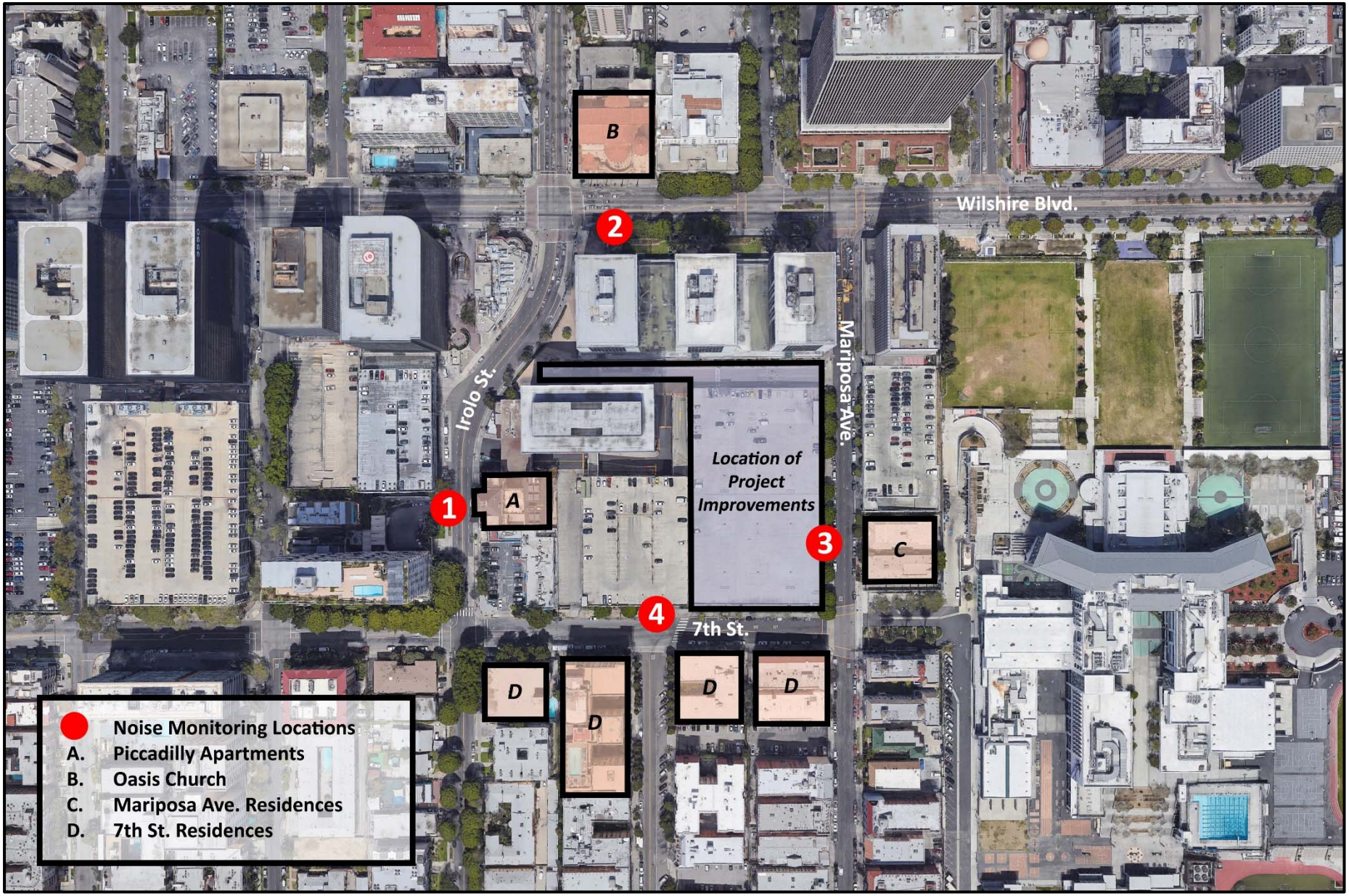
X .10 ¢

= _____

+ $11.00

TOTAL FEE AMOUNT: _____

BILLING & ACCOUNTS RECEIVABLE
16TH FL, 200 N. MAIN (REV CODE #3887)



DKA Planning

NOISE RECEPTOR & MONITORING LOCATION MAP

Central Plaza Project

Imagery via Google

1. Irolo Street

9/4/2018

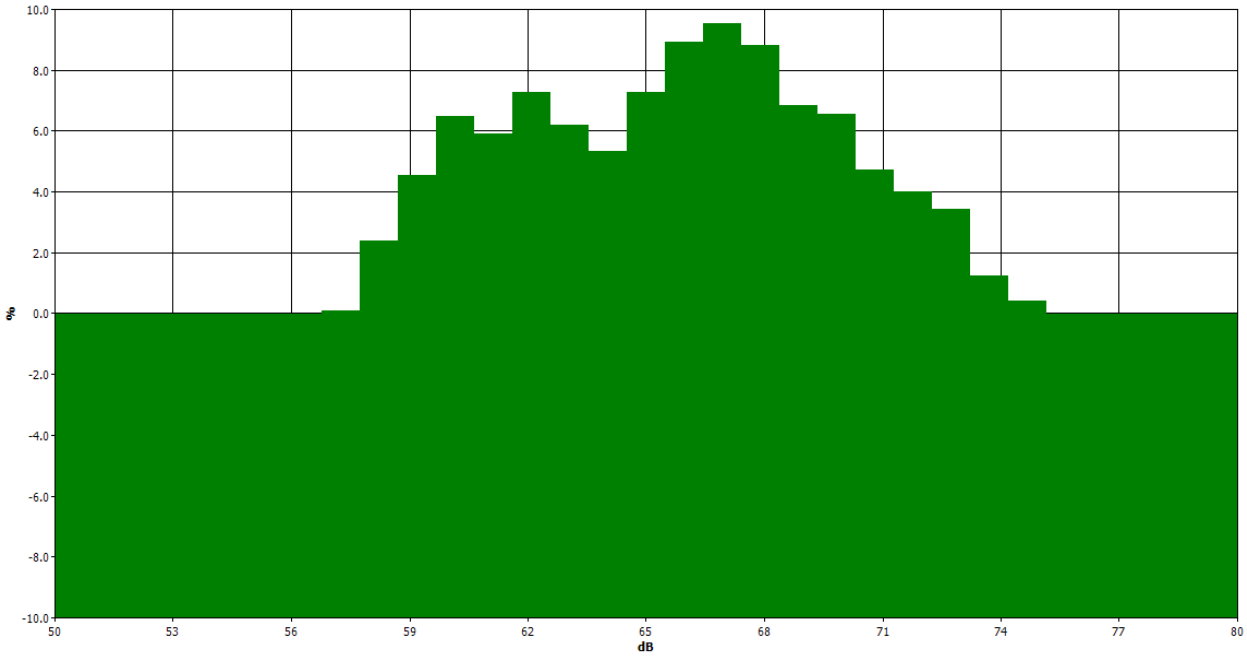
Information Panel

Name	S630_BIJ050019_10092018_153407
Start Time	Tuesday, September 4, 2018, 1:14pm
Stop Time	Tuesday, September 4, 2018, 1:29pm
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	68.0dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

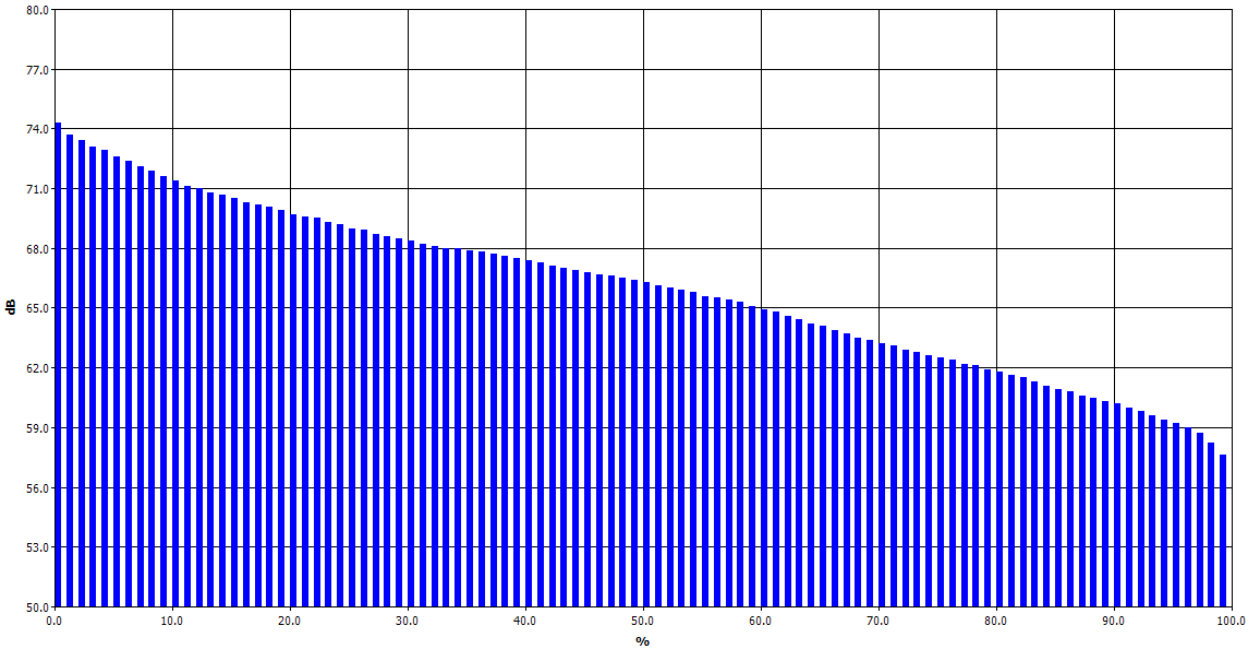
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.05	0.10
58	0.10	0.32	0.25	0.38	0.18	0.18	0.11	0.12	0.38	0.35	2.38
59	0.28	0.36	0.44	0.56	0.64	0.39	0.49	0.48	0.41	0.48	4.55
60	0.54	0.55	0.67	0.72	0.57	0.72	0.85	0.66	0.55	0.66	6.49
61	0.64	0.54	0.53	0.54	0.53	0.65	0.51	0.63	0.66	0.66	5.90
62	0.79	0.65	0.77	0.52	0.80	0.72	0.78	0.82	0.66	0.77	7.27
63	0.63	0.68	0.70	0.67	0.60	0.61	0.58	0.63	0.53	0.57	6.21
64	0.53	0.56	0.56	0.47	0.49	0.55	0.48	0.46	0.62	0.61	5.33
65	0.79	0.74	0.62	0.39	0.63	0.80	0.91	0.91	0.60	0.87	7.26
66	0.85	0.81	0.86	0.74	0.86	0.87	1.01	0.88	1.05	0.97	8.91
67	0.91	0.88	0.87	0.81	0.78	0.75	0.92	1.02	1.46	1.15	9.54
68	0.99	1.14	1.15	0.83	0.90	0.65	0.81	0.82	0.86	0.68	8.83
69	0.63	0.66	0.64	0.62	0.78	0.86	0.79	0.77	0.55	0.53	6.83
70	0.69	0.62	0.71	0.68	0.73	0.64	0.57	0.61	0.63	0.67	6.56
71	0.68	0.60	0.58	0.29	0.42	0.45	0.44	0.47	0.39	0.39	4.71
72	0.38	0.53	0.36	0.32	0.40	0.40	0.34	0.44	0.36	0.49	4.02
73	0.39	0.47	0.39	0.33	0.39	0.33	0.38	0.30	0.25	0.21	3.43
74	0.20	0.22	0.14	0.09	0.09	0.14	0.07	0.09	0.10	0.11	1.25
75	0.04	0.03	0.09	0.07	0.04	0.06	0.07	0.03	0.00	0.00	0.43
76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

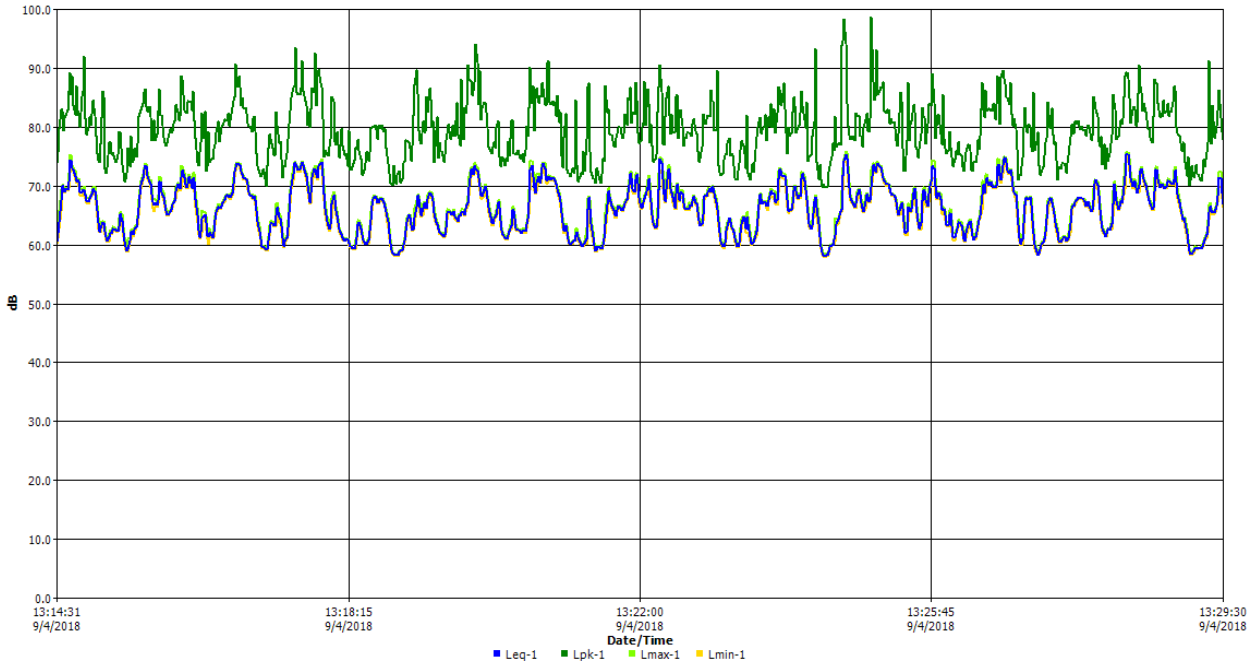
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		74.3	73.7	73.4	73.1	72.9	72.6	72.4	72.1	71.9
10%	71.6	71.4	71.1	71	70.8	70.7	70.5	70.3	70.2	70.1
20%	69.9	69.7	69.6	69.5	69.3	69.2	69	68.9	68.7	68.6
30%	68.5	68.4	68.2	68.1	68	68	67.9	67.8	67.7	67.6
40%	67.5	67.4	67.3	67.1	67	66.9	66.8	66.7	66.6	66.5
50%	66.4	66.3	66.1	66	65.9	65.8	65.6	65.5	65.4	65.3
60%	65.1	64.9	64.8	64.6	64.4	64.2	64.1	63.9	63.7	63.5
70%	63.4	63.2	63.1	62.9	62.8	62.6	62.5	62.4	62.2	62.1
80%	61.9	61.8	61.6	61.5	61.3	61.1	60.9	60.8	60.6	60.5
90%	60.3	60.2	60	59.8	59.6	59.4	59.2	59	58.7	58.2
100%	57.6									

Logged Data Chart



2. Wilshire Blvd.

9/4/2018

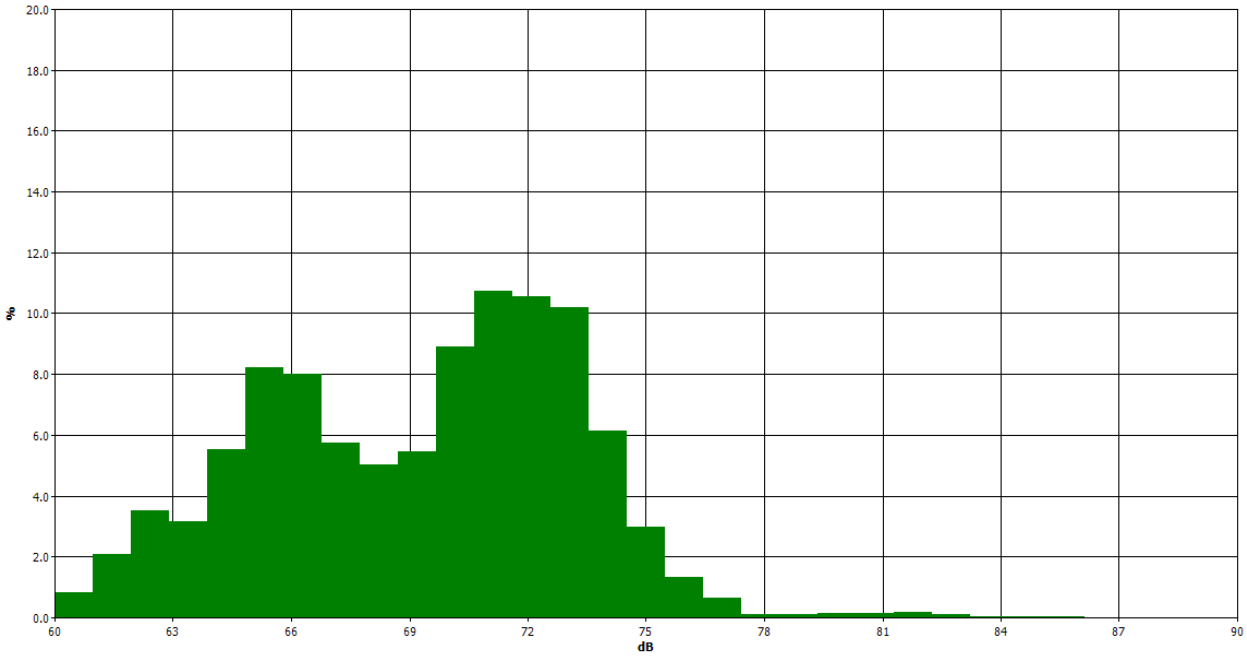
Information Panel

Name	S631_BIJ050019_10092018_153408
Start Time	Tuesday, September 4, 2018, 1:35pm
Stop Time	Tuesday, September 4, 2018, 1:48pm
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	71.4dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

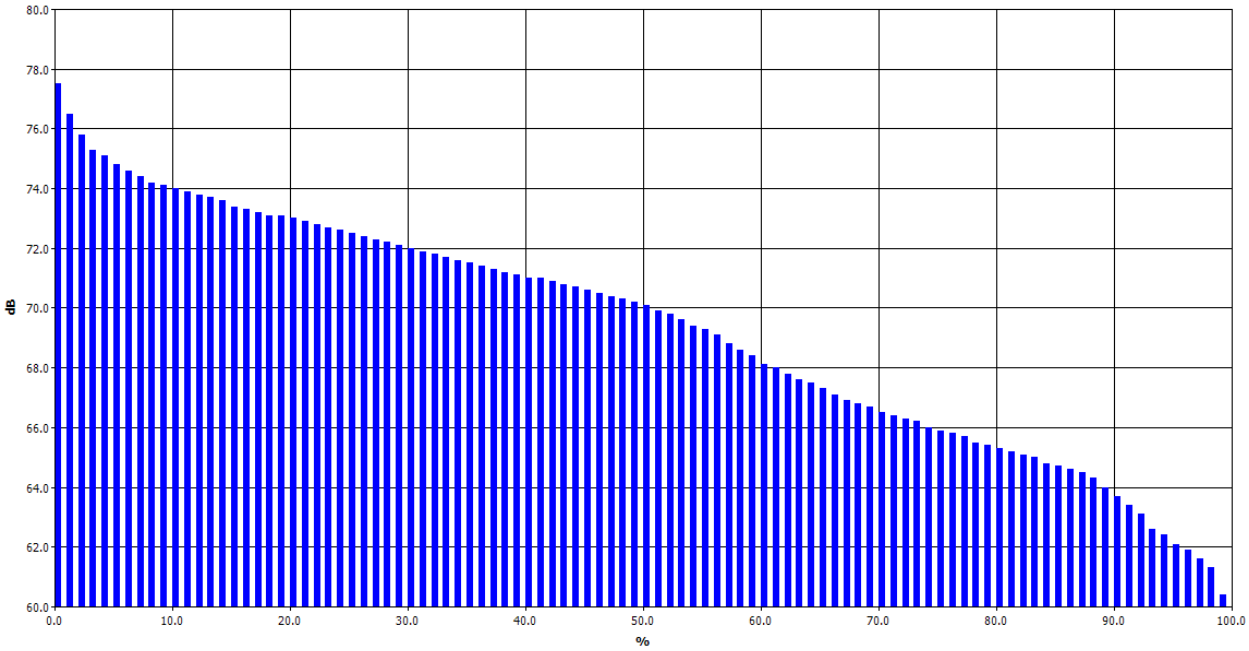
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
60	0.00	0.00	0.00	0.00	0.00	0.15	0.31	0.16	0.09	0.12	0.82
61	0.03	0.02	0.02	0.11	0.15	0.26	0.22	0.38	0.39	0.49	2.07
62	0.62	0.40	0.31	0.17	0.58	0.38	0.44	0.27	0.18	0.18	3.53
63	0.17	0.20	0.21	0.14	0.36	0.65	0.49	0.28	0.33	0.33	3.17
64	0.18	0.29	0.31	0.37	0.36	0.51	0.59	1.18	0.96	0.77	5.54
65	0.68	0.81	1.11	0.68	0.92	0.99	0.81	0.56	0.70	0.95	8.22
66	0.90	0.91	0.70	0.75	0.80	0.83	0.85	0.80	0.81	0.66	8.01
67	0.76	0.56	0.51	0.52	0.52	0.67	0.64	0.55	0.54	0.47	5.75
68	0.70	0.83	0.47	0.24	0.48	0.52	0.49	0.46	0.45	0.37	5.01
69	0.26	0.32	0.40	0.70	0.76	0.61	0.53	0.63	0.55	0.70	5.47
70	0.55	0.57	0.62	0.78	1.03	1.16	0.99	1.06	1.06	1.09	8.90
71	1.27	1.50	1.28	0.77	0.93	1.09	0.91	0.95	1.01	1.02	10.73
72	0.99	1.17	0.94	1.13	1.08	1.06	0.97	1.07	1.06	1.09	10.56
73	0.95	1.15	1.17	1.16	0.90	0.90	0.84	0.96	1.17	1.01	10.20
74	0.85	0.67	0.88	0.63	0.72	0.65	0.51	0.37	0.42	0.45	6.15
75	0.41	0.40	0.39	0.35	0.33	0.24	0.20	0.21	0.22	0.26	3.00
76	0.14	0.11	0.12	0.11	0.11	0.17	0.13	0.13	0.20	0.11	1.33
77	0.07	0.07	0.06	0.06	0.08	0.14	0.07	0.01	0.03	0.04	0.63
78	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.11
79	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.10
80	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.13
81	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.15
82	0.01	0.01	0.05	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.19
83	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.12
84	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.05
85	0.01	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.05
86	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.02
87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

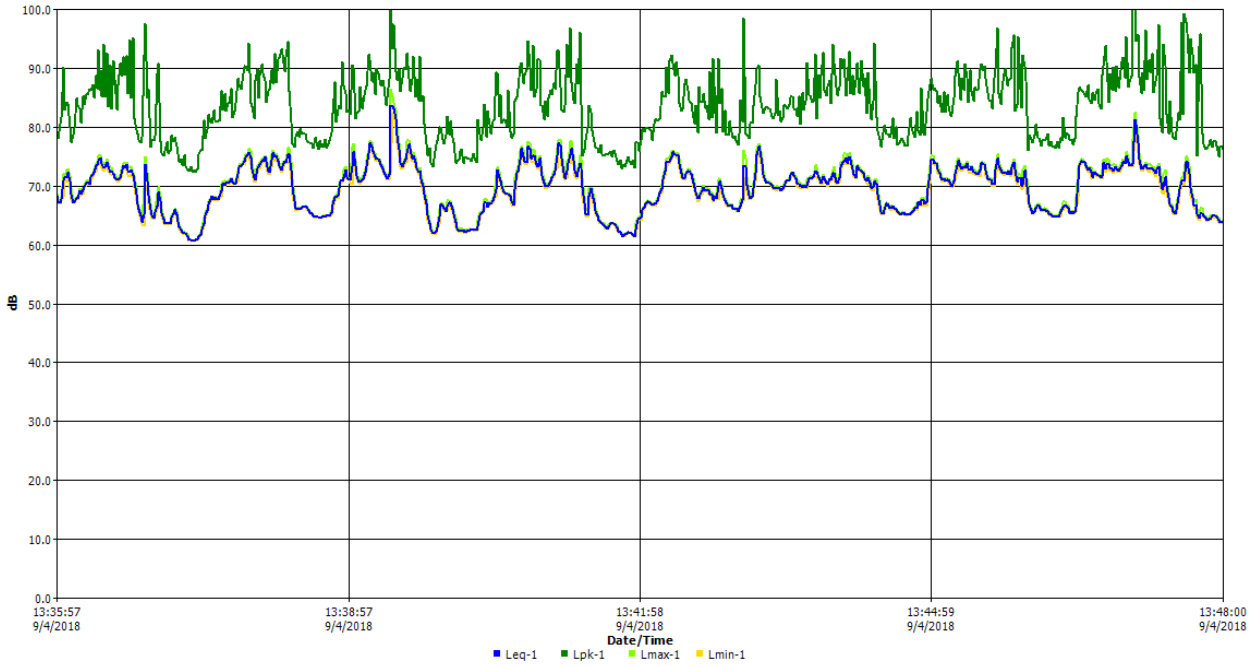
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		77.5	76.5	75.8	75.3	75.1	74.8	74.6	74.4	74.2
10%	74.1	74	73.9	73.8	73.7	73.6	73.4	73.3	73.2	73.1
20%	73.1	73	72.9	72.8	72.7	72.6	72.5	72.4	72.3	72.2
30%	72.1	72	71.9	71.8	71.7	71.6	71.5	71.4	71.3	71.2
40%	71.1	71	71	70.9	70.8	70.7	70.6	70.5	70.4	70.3
50%	70.2	70.1	69.9	69.8	69.6	69.4	69.3	69.1	68.8	68.6
60%	68.4	68.1	68	67.8	67.6	67.5	67.3	67.1	66.9	66.8
70%	66.7	66.5	66.4	66.3	66.2	66	65.9	65.8	65.7	65.5
80%	65.4	65.3	65.2	65.1	65	64.8	64.7	64.6	64.5	64.3
90%	64	63.7	63.4	63.1	62.6	62.4	62.1	61.9	61.6	61.3
100%	60.4									

Logged Data Chart



3. Mariposa Ave.

9/4/2018

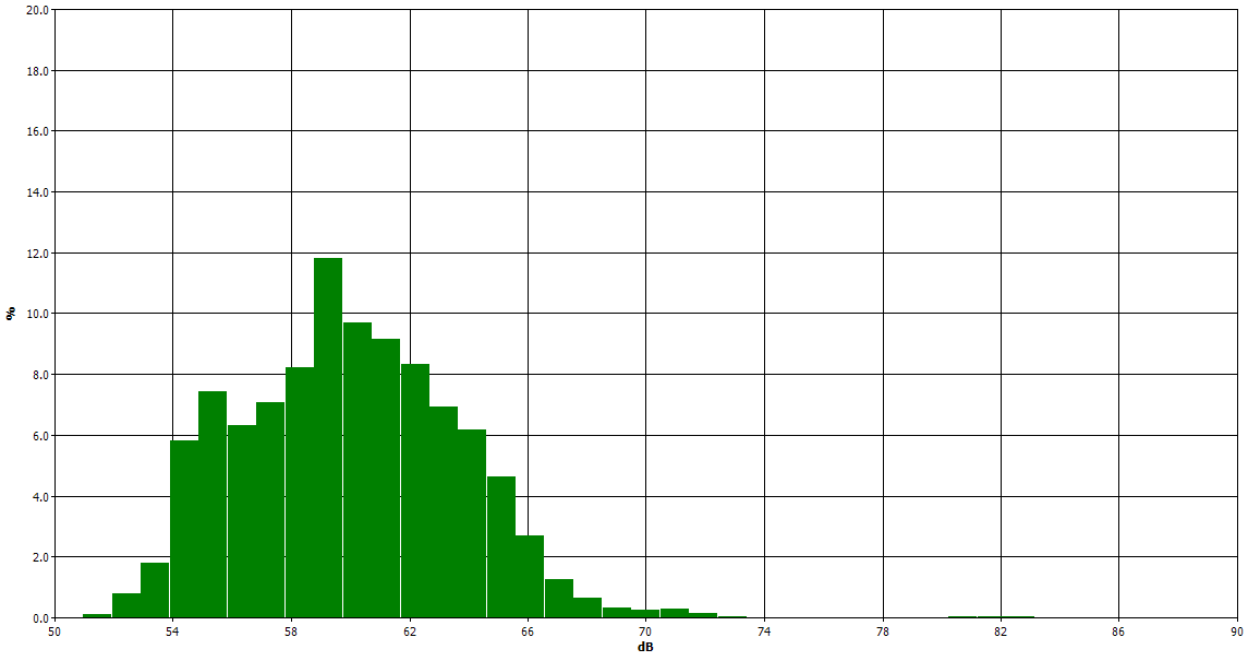
Information Panel

Name	S632_BIJ050019_10092018_153408
Start Time	Tuesday, September 4, 2018, 1:52pm
Stop Time	Tuesday, September 4, 2018, 2:07pm
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	62.2dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

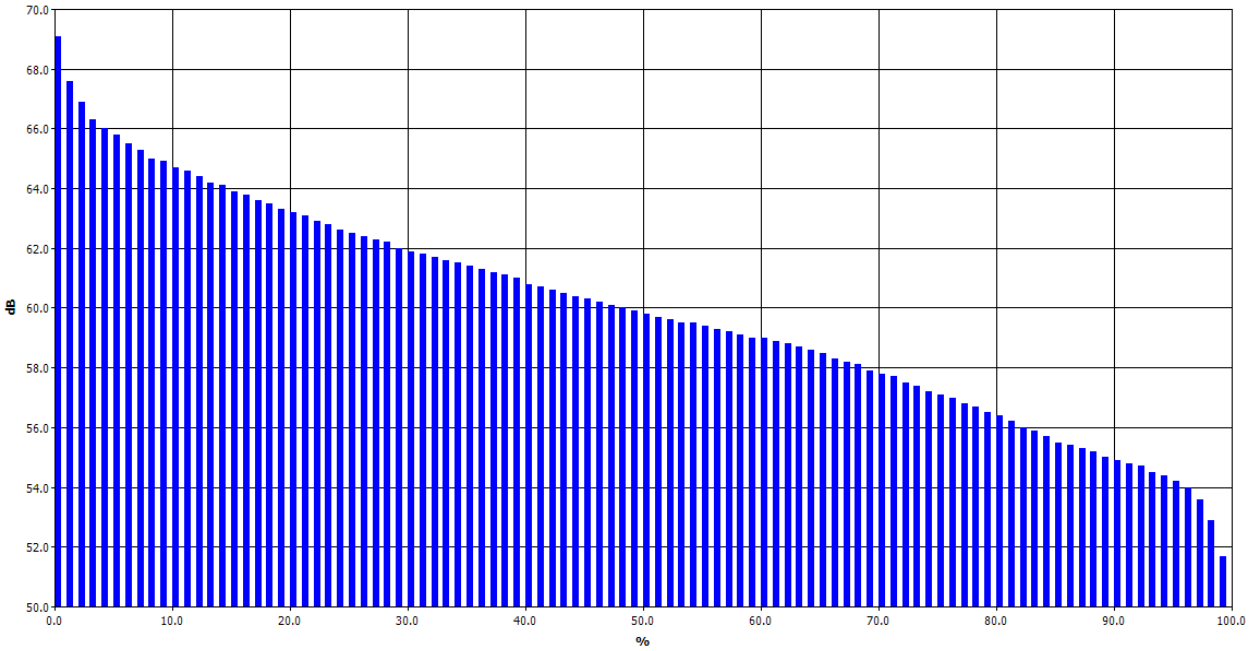
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.11
52	0.06	0.08	0.14	0.07	0.13	0.08	0.06	0.05	0.05	0.07	0.78
53	0.18	0.17	0.04	0.11	0.14	0.19	0.12	0.30	0.21	0.32	1.78
54	0.29	0.40	0.46	0.57	0.59	0.59	0.53	0.73	0.80	0.84	5.80
55	0.88	0.86	0.73	0.82	0.87	0.78	0.66	0.60	0.59	0.65	7.45
56	0.61	0.64	0.44	0.65	0.65	0.67	0.71	0.65	0.70	0.60	6.33
57	0.70	0.68	0.63	0.83	0.73	0.72	0.68	0.71	0.75	0.65	7.06
58	0.76	0.74	0.78	0.77	0.69	0.93	0.76	0.85	0.94	1.03	8.24
59	1.15	1.44	0.96	1.02	1.18	1.26	1.46	1.06	1.15	1.13	11.82
60	1.02	0.93	0.99	1.01	0.92	0.99	0.93	1.09	0.95	0.87	9.71
61	0.78	0.78	0.84	0.97	0.89	0.88	0.87	1.13	1.05	0.96	9.16
62	0.93	0.98	0.82	0.52	0.95	0.89	0.95	0.87	0.69	0.75	8.35
63	0.69	0.74	0.74	0.63	0.77	0.70	0.61	0.71	0.65	0.67	6.93
64	0.62	0.66	0.70	0.66	0.66	0.58	0.54	0.56	0.56	0.64	6.18
65	0.65	0.68	0.59	0.38	0.38	0.39	0.45	0.41	0.37	0.33	4.63
66	0.29	0.47	0.36	0.33	0.23	0.22	0.21	0.18	0.17	0.21	2.69
67	0.18	0.14	0.11	0.13	0.11	0.10	0.16	0.15	0.12	0.06	1.25
68	0.08	0.07	0.12	0.06	0.09	0.05	0.04	0.05	0.04	0.06	0.64
69	0.05	0.03	0.04	0.02	0.03	0.04	0.02	0.03	0.03	0.03	0.31
70	0.02	0.02	0.02	0.03	0.04	0.03	0.02	0.02	0.02	0.03	0.25
71	0.02	0.03	0.04	0.04	0.04	0.03	0.02	0.01	0.02	0.02	0.27
72	0.03	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.14
73	0.01	0.01	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.03
83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

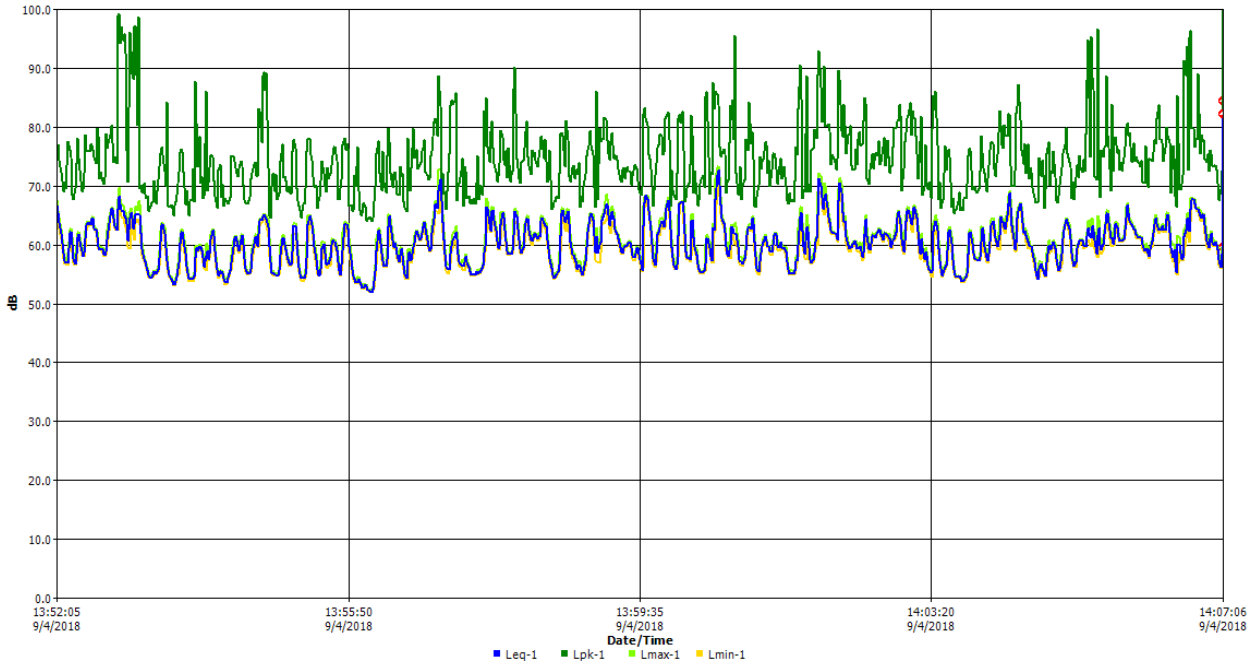
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		69.1	67.6	66.9	66.3	66	65.8	65.5	65.3	65
10%	64.9	64.7	64.6	64.4	64.2	64.1	63.9	63.8	63.6	63.5
20%	63.3	63.2	63.1	62.9	62.8	62.6	62.5	62.4	62.3	62.2
30%	62	61.9	61.8	61.7	61.6	61.5	61.4	61.3	61.2	61.1
40%	61	60.8	60.7	60.6	60.5	60.4	60.3	60.2	60.1	60
50%	59.9	59.8	59.7	59.6	59.5	59.5	59.4	59.3	59.2	59.1
60%	59	59	58.9	58.8	58.7	58.6	58.5	58.3	58.2	58.1
70%	57.9	57.8	57.7	57.5	57.4	57.2	57.1	57	56.8	56.7
80%	56.5	56.4	56.2	56	55.9	55.7	55.5	55.4	55.3	55.2
90%	55	54.9	54.8	54.7	54.5	54.4	54.2	54	53.6	52.9
100%	51.7									

Logged Data Chart



4. 7th St.

9/4/2018

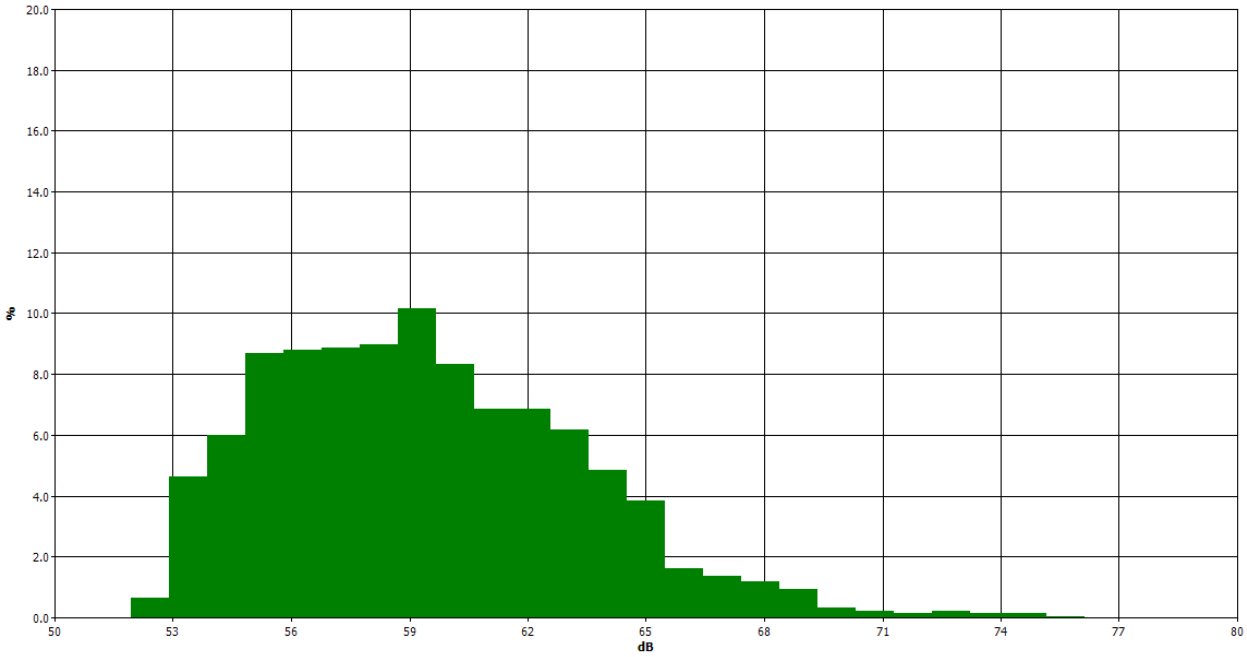
Information Panel

Name	S634_BIJ050019_10092018_153409
Start Time	Tuesday, September 4, 2018, 2:13pm
Stop Time	Tuesday, September 4, 2018, 2:28pm
Device Model Type	SoundPro DL

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	61.9dB	Exchange Rate	1	3dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3dB
Weighting	2	C	Response	2	SLOW

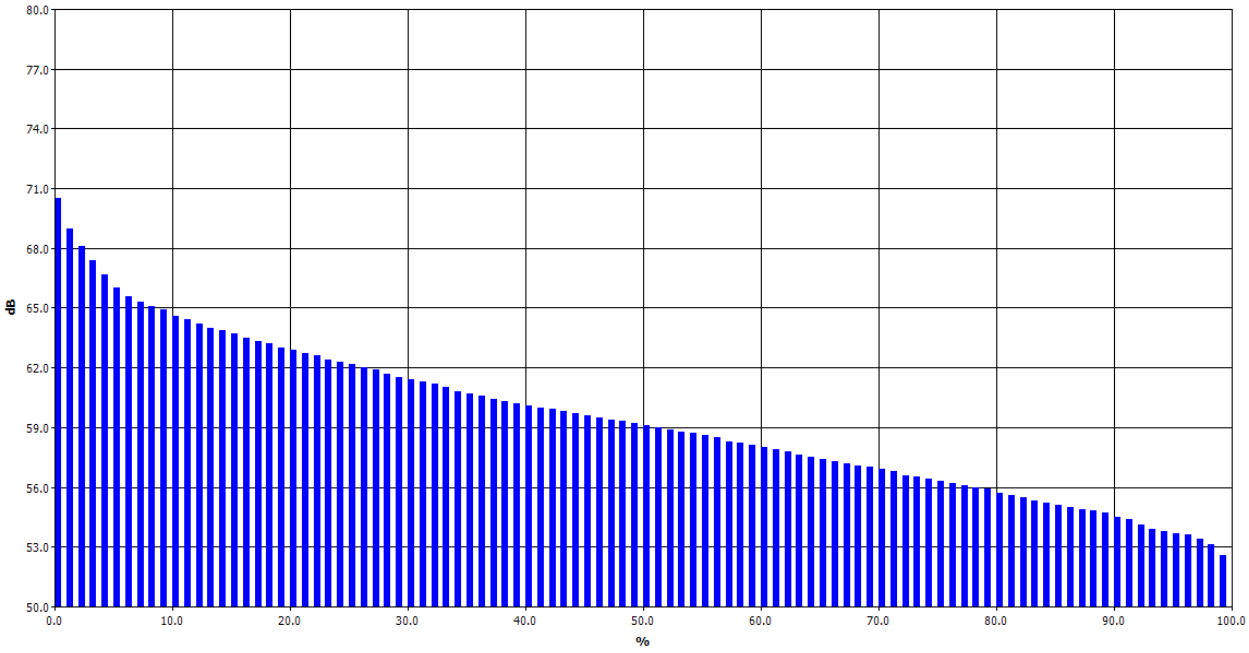
Statistics Chart



Statistics Table

dB	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	%
50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.26	0.17	0.63
53	0.13	0.12	0.26	0.31	0.25	0.58	0.65	0.69	0.85	0.80	4.64
54	0.81	0.54	0.50	0.41	0.37	0.61	0.63	0.63	0.69	0.82	6.01
55	1.08	0.97	1.04	0.93	0.72	0.71	0.78	0.78	0.91	0.77	8.68
56	0.75	0.90	0.69	0.96	1.10	0.98	0.84	0.88	0.88	0.82	8.80
57	1.07	1.08	1.00	0.91	0.72	0.80	0.97	0.79	0.80	0.73	8.87
58	0.82	0.81	0.92	0.95	1.13	0.74	0.74	0.79	1.10	0.99	8.98
59	1.01	1.38	0.86	0.94	0.93	0.93	1.03	0.95	0.96	1.16	10.15
60	0.98	0.82	0.80	0.91	1.07	0.78	0.77	0.73	0.69	0.76	8.32
61	0.57	0.59	0.74	0.74	0.78	0.80	0.72	0.61	0.76	0.55	6.86
62	0.60	0.73	0.64	0.46	0.79	0.84	0.67	0.78	0.67	0.67	6.85
63	0.76	0.69	0.67	0.58	0.58	0.49	0.57	0.60	0.59	0.65	6.18
64	0.51	0.58	0.52	0.48	0.60	0.55	0.45	0.43	0.43	0.28	4.84
65	0.51	0.47	0.65	0.34	0.35	0.43	0.32	0.30	0.23	0.25	3.85
66	0.19	0.21	0.19	0.15	0.15	0.16	0.13	0.16	0.15	0.13	1.62
67	0.11	0.14	0.14	0.13	0.16	0.13	0.11	0.12	0.12	0.20	1.36
68	0.11	0.11	0.15	0.14	0.13	0.11	0.12	0.10	0.13	0.10	1.20
69	0.11	0.07	0.08	0.05	0.09	0.13	0.16	0.11	0.11	0.02	0.93
70	0.03	0.02	0.02	0.03	0.04	0.04	0.05	0.04	0.02	0.02	0.32
71	0.02	0.03	0.03	0.01	0.02	0.02	0.02	0.02	0.02	0.03	0.21
72	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.14
73	0.04	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.22
74	0.02	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.02	0.15
75	0.02	0.03	0.02	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.16
76	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

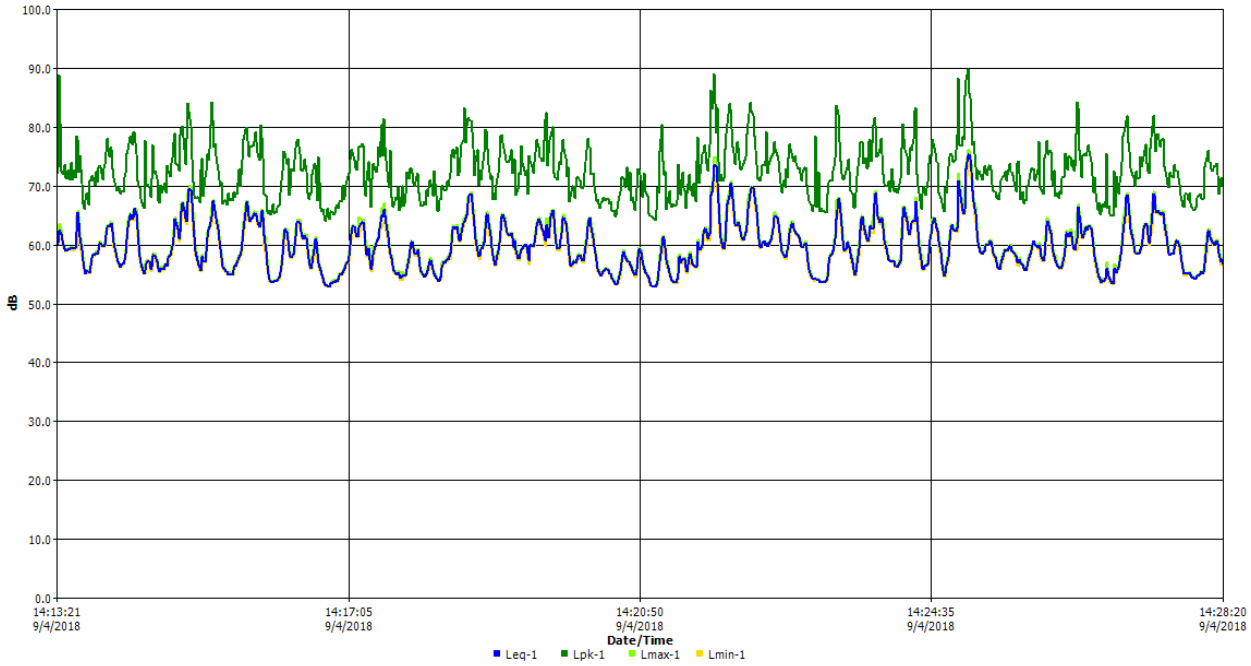
Exceedance Chart



Exceedance Table

	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%
0%		70.5	69	68.1	67.4	66.7	66	65.6	65.3	65.1
10%	64.9	64.6	64.4	64.2	64	63.9	63.7	63.5	63.3	63.2
20%	63	62.9	62.7	62.6	62.4	62.3	62.2	62	61.9	61.7
30%	61.5	61.4	61.3	61.2	61	60.8	60.7	60.6	60.4	60.3
40%	60.2	60.1	60	59.9	59.8	59.7	59.6	59.5	59.4	59.3
50%	59.2	59.1	59	58.9	58.8	58.7	58.6	58.5	58.3	58.2
60%	58.1	58	57.9	57.8	57.6	57.5	57.4	57.3	57.2	57.1
70%	57	56.9	56.8	56.6	56.5	56.4	56.3	56.2	56.1	56
80%	55.9	55.7	55.6	55.5	55.3	55.2	55.1	55	54.9	54.8
90%	54.7	54.5	54.4	54.1	53.9	53.8	53.7	53.6	53.4	53.1
100%	52.6									

Logged Data Chart



Central Plaza Project

Construction Vibration - PPV

Receptor: Parking Structure - 680 S. Mariposa Ave.
Equipment: Large Dozer, Auger Drill

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1.5
Distance (ft)	65
Unmitigated Vibration Level (in/sec)	**0.021**

Receptor: Mariposa Avenue Residences
Equipment: Large Dozer, Auger Drill

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1.5
Distance (ft)	65
Unmitigated Vibration Level (in/sec)	**0.021**

Receptor: 7th Street Residences
Equipment: Large Dozer, Auger Drill

Source PPV (in/sec)	0.089
Reference Distance (ft)	25
Ground Factor (N)	1.5
Distance (ft)	65
Unmitigated Vibration Level (in/sec)	**0.021**

Sources

California Department of Transportation (Caltrans), *Transportation and Construction Vibration Guidance Manual* , September 2013.
Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment* , May 2006.

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X11: AM Ex + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
W of Mariposa	2	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X11: AM Ex
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
W of Mariposa	2	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X11: AM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
W of Mariposa	2	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X11: AM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
W of Mariposa	2	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X11: PM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
W of Mariposa	2	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X11: PM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
W of Mariposa	2	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X11: PM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
W of Mariposa	2	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X11: PM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
W of Mariposa	2	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X12: AM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
S of Mariposa	2	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X12: AM Ex
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
S of Mariposa	2	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X12: AM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
S of Mariposa	2	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X12: AM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
S of Mariposa	2	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X12: PM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
S of Mariposa	2	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X12: PM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
S of Mariposa	2	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X12: PM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
S of Mariposa	2	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X12: PM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
E of Mariposa	1	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
S of Mariposa	2	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X6: AM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc		LAeq1h	Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
S of 7th St	1	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
N of 7th St	2	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X6: AM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
S of 7th St	1	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
N of 7th St	2	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski

13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X6: AM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
S of 7th St	1	1	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
N of 7th St	2	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X6: AM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
S of 7th St	1	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
N of 7th St	2	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X6: PM Existing + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
S of 7th St	1	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
N of 7th St	2	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X6: PM Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
S of 7th St	1	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
N of 7th St	2	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X6: PM Future + Project
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
S of 7th St	1	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
N of 7th St	2	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

DKA Planning
Noah Tanski
13 September 2018
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Central Plaza
RUN: X6: PM Future
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
S of 7th St	1	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
N of 7th St	2	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	2	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

LOS ANGELES UNIFIED SCHOOL DISTRICT

Facilities Services Division

DATE: July 12, 2017

TO: Andrea Schultz, Head of Operations
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

FROM: Rena Perez, Director
Master Planning & Demographics

SUBJECT: Environmental Impact Report Information Requested for: ***CENTRAL PLAZA PROJECT,*** *located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90005-90010 in the Wilshire Community Plan. The site is bounded on the north by Wilshire Boulevard, on the west by Irolo Street, on the south by 7th Street, and on the east by Mariposa Avenue. This mixed-use project will include approximately 641 apartment units, and commercial use.*

Included please find a ***LAUSD Schools Enrollments and Capacities Report*** for the schools that may be impacted by the development project(s) in question. This report contains data on each school's current and projected capacities, enrollments, and school calendars, and is designed to address any questions pertaining to overcrowding and factors related to school capacity.

Please note that *no new school construction is planned* and the data in this report *already take into account* portable classrooms on site, additions being built onto existing schools, student permits and transfers, specific educational programs running at the schools, and any other operational activities or educational programming that affects the capacities and enrollments of LAUSD's schools.

Additional information on LAUSD's Capital Improvement programs can be found on LAUSD's Facilities Services Division main webpage at www.laschools.org.

MASTER PLANNING AND DEMOGRAPHICS RESPONSE TO SPECIFIC QUESTIONS

Questions: 1-2 The project is located in an **Elementary, Middle, and High School** attendance choice/option area. Please see LAUSD Schools Enrollments and Capacities Report details;

Question: 3 Please contact the LAUSD Developer Fee Program Office (DFPO) at (213) 241-0715 for more information regarding fees and student generation rates.

ATTACHMENTS

1. LAUSD SCHOOLS ENROLLMENTS AND CAPACITIES REPORT
2. BOUNDARY DESCRIPTIONS FOR SCHOOLS SERVING PROPOSED PROJECT
   Boundary descriptions for existing schools identified as serving the proposed project

Sincerely,

Rena Perez, Director V. MAFFEI FOR R. PEREZ

Los Angeles Unified School District - Facilities Services Division: School Management Services, Master Planning and Demographics
333 S. Beaudry Ave., 23rd Floor, Los Angeles, CA 90017
Telephone (213) 241-8044 • Fax (213) 241-2077

LAUSD SCHOOLS ENROLLMENTS AND CAPACITIES

PROJECT SERVED: CENTRAL PLAZA PROJECT, located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90005-90010 in the Wilshire Community Plan. The site is bounded on the north by Wilshire Boulevard, on the west by Irolo Street, on the south by 7th Street, and on the east by Mariposa Avenue. This mixed-use project will include approximately 641 apartment units, and commercial use.

SCHOOL YEAR: 2016-2017

(Current and projected enrollments/capacities reflect data from School Year (SY) 2016-17.)

1	2	3	4	5	6	7	8	9	10	11	12
Cost Center Code	School Name	Current Calendar	Current Capacity	Resident Enrollment	Actual Enrollment	**Current seating overage/(shortage)**	Overcrowded **Now**?	Projected Capacity	Projected Enrollment	**Projected seating overage/(shortage)**	Overcrowding Projected in **Future**?
a	**SCHOOL CHOICE AREA TOTALS (schools listed below)**	**-**	**4532**	**3473**	**4082**	**1059**	**Yes**	**4212**	**3431**	**781**	**No**
	RFK ZONE OF CHOICE										
1236901	RFK Ambsdr Glbl Edu	1 TRK	435	-	375	-	-	392	-	-	-
1777101	RFK Ambsdr Glbl Ldsh	1 TRK	709	-	628	-	-	659	-	-	-
1778001	RFK UCLA Comm Sch	1 TRK	1099	-	978	-	-	1022	-	-	-
1778301	RFK New Open Wld	1 TRK	1273	-	1199	-	-	1184	-	-	-
1820601	RFK Sch Vis Arts/Hum	1 TRK	534	-	445	-	-	502	-	-	-
1850101	RFK LA SH Arts	1 TRK	482	-	457	-	-	453	-	-	-

[a] Schools & programs that are part of a "school choice area" pull enrollments from the school(s) that have resident areas, as defined by attendance boundaries.

The individual school and calculated total capacities and enrollments for school choice areas are reported to show current and projected seating overage/shortage and overcrowding (shaded green color).

If any of the school choice area schools is multi-track, then the service area is considered overcrowded.

Schools Planned to Relieve Known Overcrowding

NONE

NOTES:

[1] School's ID code.

[2] School's name

[3] The current calendar the school is operating on. Schools operate on a 'multi-track' calendar (listed as 4 TRK), because of overcrowded conditions.

[4] School's current operating capacity, or the maximum number of students the school can serve while operating on its current calendar. Excludes capacity allocated to charter co-locations. Includes capacity for magnet program.

[5] The total number of students living in the school's attendance area and who are eligible to attend the school plus students enrolled at any on-site magnet centers.
-Multi-track calendars are utilized as one method of providing relief to overcrowded schools by increasing enrollment capacities.
-A key goal of the Superintendent and Board of Education is to return all schools to a traditional 2-semester calendar (1 TRK).

[6] The number of students actually attending the school now, including magnet students.

[7] Current seating overage or (shortage): equal to (current capacity) - (resident enrollment).

[8] Current overcrowding status of school. The school is currently overcrowded if any of these conditions exist:
-School is currently on a multi-track calendar.
-There is currently a seating shortage.
-There is currently a seating overage of LESS THAN or EQUAL TO a 'safety margin' of 20 seats.

[9] School planning capacity. Formulated from a baseline calculation of the number of eligible classrooms after implementing LAUSD operational goals and shifting to a 2-semester (1 TRK) calendar. Includes capacity allocated to by charter co-locations. Includes capacity for magnet programs.

[10] Projected 5-year total number of students living in the school's attendance area and who are eligible to attend the school. Includes magnet students.

[11] Projected seating overage or (shortage): equal to (projected capacity) - (projected enrollment).

[12] Projected overcrowding status of school. The school will be considered overcrowded in the future if any of these conditions exist:
-School remains on a multi-track calendar.
-There is a seating shortage in the future.
-There is a seating overage of LESS THAN or EQUAL TO a 'safety margin' of 20 seats in the future.

* Independent Charter: Capacity and/or enrollment information may not be reported for some independent charters.

‡ Magnet Schools with Resident Kindergarten Enrollment: Resident enrollment is reported for Kindergarten only. Actual enrollment is reported for all grades in school. Projected capacities and enrollments not reported.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 8064 **COST CENTER:** 1806401

SUBJECT: NEW SERVICE BOUNDARY DESCRIPTION FOR YOUNG OAK KIM ACADEMY MIDDLE SCHOOL EFFECTIVE JULY 1, 2010.

The area described below has been approved as the attendance area served by the above-mentioned school. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This boundary supersedes boundary effective July 1, 2009 (name change 7-7-2009).

This is an official copy for your file.

(GRADES 6 - 8)

OPTIONAL: KIM ACADEMY AND BERENDO MIDDLE SCHOOLS (Young Oak Kim Academy by Application Only)

AREA I

WILSHIRE BOULEVARD * HOBART BOULEVARD * SEVENTH STREET TO NORMANDIE AVENUE * SEVENTH STREET (BOTH SIDES EXCLUDED) * MARIPOSA AVENUE (BOTH SIDES EXCLUDED) * EIGHTH STREET (BOTH SIDES EXCLUDED) * FEDORA AVENUE (BOTH SIDES EXCLUDED) * JAMES M. WOOD BOULEVARD * CATALINA STREET * SAN MARINO STREET * CATALINA STREET * OLYMPIC BOULEVARD * SERRANO AVENUE (BOTH SIDES) * SAN MARINO STREET * SERRANO AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * WESTERN AVENUE.

AREA II

WILSHIRE BOULEVARD * WILSHIRE PLACE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * HOOVER STREET * SAN MARINO STREET * ELDEN AVENUE (BOTH SIDES EXCLUDED) * OLYMPIC BOULEVARD (BOTH SIDES EXCLUDED) TO WESTMORELAND AVENUE * OLYMPIC BOULEVARD * VERMONT AVENUE * SAN MARINO STREET * WESTMORELAND AVENUE (BOTH SIDES) AND EXTENSION.

OPTIONAL: KIM ACADEMY, AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, NEW OPEN WORLD ACADEMY, OR UCLA COMMUNITY MIDDLE SCHOOLS (Young Oak Kim Academy by Application Only)

FIFTH STREET TO ALEXANDRIA AVENUE * FIFTH STREET (BOTH SIDES) * KENMORE AVENUE (BOTH SIDES) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WESTMORELAND AVENUE AND EXTENSION (BOTH SIDES EXCLUDED) * SAN MARINO STREET * VERMONT AVENUE * OLYMPIC BOULEVARD * CATALINA STREET * SAN MARINO STREET * CATALINA STREET * JAMES M. WOOD BOULEVARD * FEDORA STREET (BOTH SIDES) * EIGHTH STREET (BOTH SIDES) * MARIPOSA AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) TO NORMANDIE AVENUE * SEVENTH STREET * HOBART BOULEVARD.

(OVER)

OPTIONAL: KIM ACADEMY AND VIRGIL MIDDLE SCHOOLS (Young Oak Kim Academy by Application Only)

BEVERLY BOULEVARD * KINGSLEY DRIVE * THIRD STREET * ALEXANDRIA AVENUE (BOTH SIDES EXCLUDED) * FOURTH STREET * KENMORE AVENUE (BOTH SIDES EXCLUDED) * FIFTH STREET (BOTH SIDES EXCLUDED) TO ALEXANDRIA AVENUE * FIFTH STREET * HOBART BOULEVARD * WILSHIRE BOULEVARD * WESTERN AVENUE.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: JAMES SOHN, Chief Facilities Executive, Facilities Services Division

DISTRIBUTION: School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 2369 **COST CENTER:** 1236901

SUBJECT: NEW SERVICE BOUNDARY DESCRIPTION FOR AMBASSADOR SCHOOL for GLOBAL EDUCATION at ROBERT F. KENNEDY COMMUNITY of SCHOOLS EFFECTIVE JULY 1, 2010.

The area described below has been approved as the attendance area served by the above-mentioned school. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This boundary supersedes boundary effective (New School).

This is an official copy for your file.

(GRADES K - 5)

OPTIONAL: AMBASSADOR SCHOOL for GLOBAL EDUCATION, NEW OPEN WORLD ACADEMY SCHOOL, OR UCLA COMMUNITY SCHOOL

FIFTH STREET TO ALEXANDRIA AVENUE * FIFTH STREET (BOTH SIDES) * KENMORE AVENUE (BOTH SIDES) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WESTMORELAND AVENUE (BOTH SIDES EXCLUDED) * SAN MARINO STREET * VERMONT AVENUE * OLYMPIC BOULEVARD * CATALINA STREET * SAN MARINO STREET * CATALINA STREET * JAMES M. WOOD BOULEVARD * FEDORA STREET (BOTH SIDES) * EIGHTH STREET (BOTH SIDES) * MARIPOSA AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) TO NORMANDIE AVENUE * SEVENTH STREET * HOBART BOULEVARD.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: JAMES SOHN, Chief Facilities Executive, Facilities Services Division

DISTRIBUTION:
School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 7771 **COST CENTER: 1777101**

SUBJECT: UPDATE BOUNDARY DESCRIPTION FOR AMBASSADOR SCHOOL of GLOBAL LEADERSHIP at ROBERT F. KENNEDY COMMUNITY of SCHOOLS EFFECTIVE JULY 1, 2010 (UPDATED 7-1-2011).

Reconfiguration has changed the grade levels serviced by this school and the boundary description has been updated to reflect this change. This updating does not change the intent of the boundary as it was approved on July 1, 2010. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

(GRADES 6 - 8)

OPTIONAL: AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, NEW OPEN WORLD ACADEMY, UCLA ACADEMY, OR KIM ACADEMY MIDDLE SCHOOLS (Young Oak Kim Academy by Application Only)

FIFTH STREET TO ALEXANDRIA AVENUE * FIFTH STREET (BOTH SIDES) * KENMORE AVENUE (BOTH SIDES) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WESTMORELAND AVENUE (BOTH SIDES EXCLUDED) * SAN MARINO STREET * VERMONT AVENUE * OLYMPIC BOULEVARD * CATALINA STREET * SAN MARINO STREET * CATALINA STREET * JAMES M. WOOD BOULEVARD * FEDORA STREET (BOTH SIDES) * EIGHTH STREET (BOTH SIDES) * MARIPOSA AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) TO NORMANDIE AVENUE * SEVENTH STREET * HOBART BOULEVARD.

(GRADES 9 - 12)

OPTIONAL: AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, LOS ANGELES HIGH SCHOOL for the ARTS, NEW OPEN WORLD ACADEMY HIGH SCHOOL, SCHOOL of VISUAL ARTS and HUMANITIES, OR UCLA ACADEMY HIGH SCHOOL

BEVERLY BOULEVARD * KINGSLEY DRIVE * THIRD STREET * ALEXANDRIA AVENUE (BOTH SIDES EXCLUDED) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WILSHIRE PLACE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * HOOVER STREET * SAN MARINO STREET TO ELDEN AVENUE * SAN MARINO STREET (BOTH SIDES) * WESTMORELAND AVENUE (BOTH SIDES) * OLYMPIC BOULEVARD * SERRANO AVENUE (BOTH SIDES) * SAN MARINO STREET * SERRANO AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * WESTERN AVENUE.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: KELLY SCHMADER, Interim Chief Facilities Executive, Facilities Services Division

DISTRIBUTION: School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 8501 **COST CENTER:** 1850101

SUBJECT: CLARIFICATION OF THE BOUNDARY DESCRIPTION FOR LOS ANGELES HIGH SCHOOL for the ARTS at ROBERT F. KENNEDY COMMUNITY of SCHOOLS EFFECTIVE JULY 1, 2010 (CLARIFIED 7-1-2011).

This clarification of the existing boundary description does not change the intent of the boundary as it was approved on July 1, 2010. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

(GRADES 9 - 12)

OPTIONAL: LOS ANGELES HIGH SCHOOL for the ARTS, AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, NEW OPEN WORLD ACADEMY HIGH SCHOOL, SCHOOL of VISUAL ARTS and HUMANITIES, OR UCLA COMMUNITY HIGH SCHOOL

BEVERLY BOULEVARD * KINGSLEY DRIVE * THIRD STREET * ALEXANDRIA AVENUE (BOTH SIDES EXCLUDED) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WILSHIRE PLACE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * HOOVER STREET * SAN MARINO STREET TO ELDEN AVENUE * SAN MARINO STREET (BOTH SIDES) * WESTMORELAND AVENUE (BOTH SIDES) * OLYMPIC BOULEVARD * SERRANO AVENUE (BOTH SIDES) * SAN MARINO STREET * SERRANO AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * WESTERN AVENUE.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 893-6850.

APPROVED: KELLY SCHMADER, Interim Chief Facilities Executive, Facilities Services Division

DISTRIBUTION:
School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 7783 **COST CENTER:** 1778301

SUBJECT: UPDATE BOUNDARY DESCRIPTION FOR NEW OPEN WORLD ACADEMY SCHOOL at ROBERT F. KENNEDY COMMUNITY of SCHOOLS EFFECTIVE JULY 1, 2010 (UPDATED 7-1-2011).

Reconfiguration has changed the grade levels serviced by this school and the boundary description has been updated to reflect this change. This updating does not change the intent of the boundary as it was approved on July 1, 2010. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

(GRADES K - 5)

OPTIONAL: NEW OPEN WORLD ACADEMY SCHOOL, AMBASSADOR SCHOOL for GLOBAL EDUCATION, OR UCLA COMMUNITY SCHOOL

FIFTH STREET TO ALEXANDRIA AVENUE * FIFTH STREET (BOTH SIDES) * KENMORE AVENUE (BOTH SIDES) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WESTMORELAND AVENUE (BOTH SIDES EXCLUDED) * SAN MARINO STREET * VERMONT AVENUE * OLYMPIC BOULEVARD * CATALINA STREET * SAN MARINO STREET * CATALINA STREET * JAMES M. WOOD BOULEVARD * FEDORA STREET (BOTH SIDES) * EIGHTH STREET (BOTH SIDES) * MARIPOSA AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) TO NORMANDIE AVENUE * SEVENTH STREET * HOBART BOULEVARD.

(GRADES 6 - 8)

OPTIONAL: NEW OPEN WORLD ACADEMY, AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, KIM ACADEMY, OR UCLA COMMUNITY MIDDLE SCHOOLS (Young Oak Kim Academy by Application Only)

FIFTH STREET TO ALEXANDRIA AVENUE * FIFTH STREET (BOTH SIDES) * KENMORE AVENUE (BOTH SIDES) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WESTMORELAND AVENUE (BOTH SIDES EXCLUDED) * SAN MARINO STREET * VERMONT AVENUE * OLYMPIC BOULEVARD * CATALINA STREET * SAN MARINO STREET * CATALINA STREET * JAMES M. WOOD BOULEVARD * FEDORA STREET (BOTH SIDES) * EIGHTH STREET (BOTH SIDES) * MARIPOSA AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) TO NORMANDIE AVENUE * SEVENTH STREET * HOBART BOULEVARD.

(OVER)

(GRADES 9 - 12)

OPTIONAL: NEW OPEN WORLD ACADEMY HIGH SCHOOL, AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, LOS ANGELES HIGH SCHOOL for the ARTS, SCHOOL of VISUAL ARTS and HUMANITIES, OR UCLA COMMUNITY HIGH SCHOOL

BEVERLY BOULEVARD * KINGSLEY DRIVE * THIRD STREET * ALEXANDRIA AVENUE (BOTH SIDES EXCLUDED) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WILSHIRE PLACE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * HOOVER STREET * SAN MARINO STREET TO ELDEN AVENUE * SAN MARINO STREET (BOTH SIDES) * WESTMORELAND AVENUE (BOTH SIDES) * OLYMPIC BOULEVARD * SERRANO AVENUE (BOTH SIDES) * SAN MARINO STREET * SERRANO AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * WESTERN AVENUE.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: KELLY SCHMADER, Interim Chief Facilities Executive, Facilities Services Division

DISTRIBUTION:
School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 8206 **COST CENTER:** 1820601

SUBJECT: CLARIFICATION OF THE BOUNDARY DESCRIPTION FOR SCHOOL for the VISUAL ARTS and HUMANITIES at ROBERT F. KENNEDY COMMUNITY of SCHOOLS EFFECTIVE JULY 1, 2010 (CLARIFIED 7-1-2011).

This clarification of the existing boundary description does not change the intent of the boundary as it was approved on July 1, 2010. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

(GRADES 9 - 12)

OPTIONAL: SCHOOL for the VISUAL ARTS and HUMANITIES, AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, LOS ANGELES HIGH SCHOOL for the ARTS, NEW OPEN WORLD ACADEMY HIGH SCHOOL, OR UCLA COMMUNITY HIGH SCHOOL

BEVERLY BOULEVARD * KINGSLEY DRIVE * THIRD STREET * ALEXANDRIA AVENUE (BOTH SIDES EXCLUDED) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WILSHIRE PLACE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * HOOVER STREET * SAN MARINO STREET TO ELDEN AVENUE * SAN MARINO STREET (BOTH SIDES) * WESTMORELAND AVENUE (BOTH SIDES) * OLYMPIC BOULEVARD * SERRANO AVENUE (BOTH SIDES) * SAN MARINO STREET * SERRANO AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * WESTERN AVENUE.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 893-6850.

APPROVED: KELLY SCHMADER, Interim Chief Facilities Executive, Facilities Services Division

DISTRIBUTION:
School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 7780 **COST CENTER:** 1778001

SUBJECT: UPDATE BOUNDARY DESCRIPTION FOR UCLA ACADEMY SCHOOL at ROBERT F. KENNEDY COMMUNITY of SCHOOLS EFFECTIVE JULY 1, 2010 (UPDATED 7-1-2011).

Reconfiguration has changed the grade levels serviced by this school and the boundary description has been updated to reflect this change. This updating does not change the intent of the boundary as it was approved on July 1, 2010. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

(GRADES K - 5)

OPTIONAL: UCLA ACADEMY SCHOOL, AMBASSADOR SCHOOL for GLOBAL EDUCATION, OR NEW OPEN WORLD ACADEMY SCHOOL

FIFTH STREET TO ALEXANDRIA AVENUE * FIFTH STREET (BOTH SIDES) * KENMORE AVENUE (BOTH SIDES) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WESTMORELAND AVENUE (BOTH SIDES EXCLUDED) * SAN MARINO STREET * VERMONT AVENUE * OLYMPIC BOULEVARD * CATALINA STREET * SAN MARINO STREET * CATALINA STREET * JAMES M. WOOD BOULEVARD * FEDORA STREET (BOTH SIDES) * EIGHTH STREET (BOTH SIDES) * MARIPOSA AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) TO NORMANDIE AVENUE * SEVENTH STREET * HOBART BOULEVARD.

(GRADES 6 - 8)

OPTIONAL: UCLA ACADEMY, AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, KIM ACADEMY, OR NEW OPEN WORLD ACADEMY MIDDLE SCHOOLS (Young Oak Kim Academy by Application Only

FIFTH STREET TO ALEXANDRIA AVENUE * FIFTH STREET (BOTH SIDES) * KENMORE AVENUE (BOTH SIDES) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WESTMORELAND AVENUE (BOTH SIDES EXCLUDED) * SAN MARINO STREET * VERMONT AVENUE * OLYMPIC BOULEVARD * CATALINA STREET * SAN MARINO STREET * CATALINA STREET * JAMES M. WOOD BOULEVARD * FEDORA STREET (BOTH SIDES) * EIGHTH STREET (BOTH SIDES) * MARIPOSA AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) TO NORMANDIE AVENUE * SEVENTH STREET * HOBART BOULEVARD.

(OVER)

(GRADES 9 - 12)

OPTIONAL: UCLA ACADEMY HIGH SCHOOL, AMBASSADOR SCHOOL of GLOBAL LEADERSHIP, LOS ANGELES HIGH SCHOOL for the ARTS, NEW OPEN WORLD ACADEMY HIGH SCHOOL, OR SCHOOL of VISUAL ARTS and HUMANITIES

BEVERLY BOULEVARD * KINGSLEY DRIVE * THIRD STREET * ALEXANDRIA AVENUE (BOTH SIDES EXCLUDED) * FOURTH STREET TO CATALINA STREET * FOURTH STREET (BOTH SIDES EXCLUDED) * WESTMORELAND AVENUE (BOTH SIDES) * WILSHIRE BOULEVARD * WILSHIRE PLACE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * HOOVER STREET * SAN MARINO STREET TO ELDEN AVENUE * SAN MARINO STREET (BOTH SIDES) * WESTMORELAND AVENUE (BOTH SIDES) * OLYMPIC BOULEVARD * SERRANO AVENUE (BOTH SIDES) * SAN MARINO STREET * SERRANO AVENUE (BOTH SIDES) * SEVENTH STREET (BOTH SIDES) * WESTERN AVENUE.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: KELLY SCHMADER, Interim Chief Facilities Executive, Facilities Services Division

DISTRIBUTION:
School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

DEPARTMENT OF RECREATION AND PARKS

BOARD OF COMMISSIONERS

SYLVIA PATSAOURAS
PRESIDENT

LYNN ALVAREZ
VICE PRESIDENT

MELBA CULPEPPER
MISTY M. SANFORD
PILAR DIAZ

ARMANDO X. BENCOMO
BOARD SECRETARY (213) 202-2640

CITY OF LOS ANGELES

CALIFORNIA

ERIC GARCETTI
MAYOR

MICHAEL A. SHULL
GENERAL MANAGER

ANTHONY-PAUL (AP) DIAZ, ESQ.
EXECUTIVE OFFICER &
CHIEF OF STAFF

VICKI ISRAEL
ASSISTANT GENERAL MANAGER

RAMON BARAJAS
ASSISTANT GENERAL MANAGER

221 N. FIGUEROA STREET
3RD FLOOR, SUITE 350
LOS ANGELES, CA 90012

(213) 202-2633, FAX (213) 202-2614

LAPARKS.ORG
Park Proud LA

August 16, 2017

CAJA Environmental Services, LLC
Andrea Schultz, Head of Operations
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

REQUEST FOR INFORMATION REGARDING RECREATIONAL AND PARK SERVICES FOR THE CENTRAL PLAZA PROJECT IN THE CITY OF LOS ANGELES

Dear Ms. Schultz:

The following has been prepared in response to your request for Recreation and Parks information relative to the proposed Central Plaza Project. This project proposes the development of 641 residential units and 18,454 square feet of commercial space on a site located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, in the Wilshire Community Plan Area of the City of Los Angeles.

1. Which parks and recreational facilities would serve the proposed project?

The following Department of Recreation and Parks facilities are classified as neighborhood parks and are located within a two-mile radius of the project site:

- Alvarado Terrace Park, located at 1342 S. Alvarado Terrace.
- Harold A. Henry Park, located at 890 S. Lucerne Avenue.
- Hope and Peace Park, located at 843 Bonnie Brae Street.
- Los Angeles High Memorial Park, located at 4625 W. Olympic Avenue.
- Madison West Park, located at 464 N. Madison Avenue.
- Pico Union Park, located at 1827 S. Hoover Street.
- Robert L. Burns Park, located at 4900 Beverly Boulevard.
- Unidad Park, located at 1644-48 Beverly Boulevard.
- Wilton Place Park, located at 1015 S. Wilton Place.

The following Department of Recreation and Parks facilities are classified as community parks and are located within a five-mile radius of the project site:

- Aliso-Pico Recreation Center, located at 370 S. Clarence Street.
- Alpine Recreation Center, located at 817 Yale Street.
- Baldwin Hills Recreation Center, located at 5401 Highlight Place.
- Bellevue Recreation Center, located at 826 Lucille Avenue.
- Central Recreation Center, located at 1357 E. 22nd Street.

- Claude Pepper Senior Citizens Center, located at 1762 S. La Cienega Boulevard.
- Cypress Recreation Center, located at 2630 Pepper Avenue.
- Denker Recreation Center, located at 1550 W. 35th Place.
- Downey Pool, located at 1775 N. Spring Street.
- Downey Recreation Center, located at 1772 N. Spring Street.
- Echo Park, located at 751 Echo Park Boulevard.
- Echo Park Boys and Girls, located at 303 Patton Street.
- Echo Park Deep Pool, located at 1419 Colton Street.
- Eleanor Green Roberts Aquatic Center, located at 4526 W. Pico Boulevard.
- Elysian Valley Recreation Center, located at 1811 Ripple Street.
- EXPO Center, located at 3980 S. Menlo Avenue.
- Fairfax Senior Citizen Center, located at 7929 Melrose Avenue.
- Gilbert W. Lindsay Community Center, located at 429 E. 42nd Place.
- Hollenbeck Park, located at 415 S. St. Louis Street.
- Hollywood Recreation Center, located at 1122 Cole Avenue.
- Hoover Recreation Center, located at 1010 W. 25th Street.
- Jim Gilliam Recreation Center, located at 4000 S. La Brea Avenue.
- Juntos Park, located at 3135 Drew Street.
- Lafayette Park, located at 2830 W. 6th Street.
- Lake Street Park, located at 227 N. Lake Street.
- Las Palmas Senior Citizen Center, located at 1820 N. Las Palmas Avenue.
- Lemon Grove Recreation Center, located at 4959 Lemon Grove Avenue.
- Lincoln Heights Recreation Center, located at 2303 Workman Avenue.
- Loren Miller Recreation Center, located at 2717 Halldale Avenue.
- Los Angeles Center for Enriched Studies (LACES), located at Airdrome Street between Stearns Drive and Hayworth Avenue.
- MacArthur Park, located at 2230 W. 6th Street.
- Martin Luther King Jr. Park, located at 3934 S. Western Avenue.
- Miguel Contreras Learning Center Pool, located at 322 S. Lucas Avenue.
- Msgr. Ramon D. Garcia Recreation Center, located at 1016 S. Fresno Avenue.
- Normandie Recreation Center, located at 1550 S. Normandie Avenue.
- Pan Pacific Park, located at 7600 Beverly Boulevard.
- Parkview Photo Center, located at 2332 W. 4th Street.
- Pershing Square, located at 525 S. Olive Street.
- Poinsettia Recreation Center, located at 7341 Willoughby Avenue.
- Queen Anne Recreation Center, located at 1240 West Boulevard.
- Rancho Cienega Sports Complex, located at 5001 Rodeo Road.
- Rio de Los Angeles State Park, located at 1900 N. San Fernando Road.
- Robertson Recreation Center, located at 641 Preuss Road.
- Ross Snyder Recreation Center, located at 1501 W. 41st Street.
- Seoul International Park, located at 3250 San Marino Street.
- Shatto Recreation Center, located at 3191 W. 4th Street.
- Silverlake Recreation Center and Dog Park, located at 1850 W. Silverlake Boulevard.
- South Park Recreation Center, located at 345 E. 51st Street.

- South Seas House Park, located at 2301 W. 24th Street.
- State Street Recreation Center, located at 716 N. State Street.
- Toberman Recreation Center, located at 1725 Toberman Street.
- Tommy Lasorda's Field of Dreams, located at 1901 Waterloo Street.
- Trinity Recreation Center, located at 2415 Trinity Street.
- Van Ness Recreation Center, located at 5720 2nd Avenue.
- Vineyard Recreation Center, located at 2942 Vineyard Avenue.
- Vista Hermosa Soccer Field, located at 1301 W. 1st Street.
- Yucca Community Center, located at 6671 W. Yucca Street.

The following Department of Recreation and Parks facilities are classified as regional parks and are located within a ten-mile radius of the project site:

- Armand Hammer Golf Course, located at 601 Club View Drive (at Holmby Park).
- Arroyo Seco Park, located at 5568 Via Marisol.
- Ascot Hills Park, located at 4371 Multnomah Street.
- Barnsdall Park, located at 4800 Hollywood Boulevard.
- Bronson Canyon, located at 3200 Canyon Road.
- Cahuenga Peak Phase I, located at 3698 W. Wonderview Road (in Griffith Park).
- Cahuenga Peak Phase II, located at 3698 W. Wonderview Road (in Griffith Park).
- Campo de Cahuenga, located at 3919 Lankershim Boulevard.
- Charles F. Lummis Home, located at 200 E. Avenue 43.
- Cheviot Hills Park, located at 2551 Motor Avenue.
- Coldwater Canyon Park, located at 12601 Mulholland Drive.
- Elysian Park, located at 929 Academy Road.
- Ernest E. Debs Regional Park, located at 4235 Monterey Road.
- Exposition Park Rose Garden, located at 701 State Drive.
- Griffith Park, located at 4730 Crystal Springs Drive.
- Griffith Park Boys Camp, located at 4730 Crystal Springs Drive (in Griffith Park).
- Harding Golf Course, located at 4730 Crystal Springs Drive (in Griffith Park).
- Heritage Square, located at 3800 Homer Street.
- Hollywoodland Girl's Camp, located at 3200 Canyon Drive (in Griffith Park).
- Holmby Park, located at 601 Club View Drive.
- L.A. Equestrian Center, located at 500 Riverside Drive (in Griffith Park).
- L.A. Live Steamers, located at 5202 Zoo Drive (in Griffith Park).
- Los Feliz Golf Course, located at 3207 Los Feliz Boulevard.
- Penmar Golf Course, located at 1233 Rose Avenue.
- Rancho Park Golf Course, located at 10460 Pico Boulevard.
- Roosevelt Golf Course, located at 2650 N. Vermont Avenue (in Griffith Park).
- Runyon Canyon Park, located at 2000 N. Fuller Avenue.
- South L.A. Wetlands Park, located at 5413 S. Avalon Boulevard.
- Travel Town Museum, located at Griffith Park Drive near Zoo Drive (in Griffith Park).
- Wattles Garden Park, located at 1824 N. Curson Avenue.
- Wilson Golf Course, located at 4730 Crystal Springs Drive (in Griffith Park).

For additional information regarding facilities and features available in these parks visit our website: www.laparks.org.

2. Does the City have any plans to develop new parks or recreational facilities or expand existing parks or recreational facilities within a two-mile radius of the project site?

While the Department is currently in the process of implementing the 50 Parks Initiative, these are typically neighborhood parks which have a service radius of two miles. None of these planned parks will be sited within two miles of the project site.

3. What is the area's existing parkland acres-to-population ratio and what is the desired acres-to-population ratio?

The Wilshire Community Plan Area, within which the project is located, has a parkland acres-to-population ratio of neighborhood and community parks of 0.23 acres per 1,000 residents. The Public Recreation Plan, a portion of the Service Element of the City's General Plan, sets a goal of a parkland acres-to-population ratio of neighborhood and community parks of 4.0 acres per 1,000 residents.

Thank you for the opportunity to provide information relative to the proposed project's impact on recreation and park services. This project is likely to trigger the requirement for an early consultation with the Department prior to the filing. Options for land dedication, recreation credits and fees will be discussed at that time. If you have any questions or comments regarding this information please contact Melinda Gejer, of my staff, at (213) 202-2657 or melinda.gejer@lacity.org.

Sincerely,

MICHAEL A. SHULL
General Manager

DARRY FORD
Senior Management Analyst I
Planning, Maintenance, and Construction Branch

DF/MG:ar

cc: Reading File

Central Plaza Project
Request for Library Services Information
Los Angeles Public Library Response
October 10, 2018

1. Which libraries would serve the proposed project? Please provide:
    a. Name and address
    b. Size (square feet)
    c. Number of volumes and circulation
    d. Staffing levels
    e. Current service population and future service population
    f. Whether there are planned improvements to add capacity through expansion

    Answer:

    The following Los Angeles Public Library Locations would serve the project area
    - Felipe de Neve Branch Library, page 3
    - Memorial Branch Library, page 4
    - Pio Pico - Koreatown Branch Library, page 5
    - Pico Union Branch Library, page 6
    - Wilshire Branch Library, page 7

    Please see respective pages for each location for answers to questions 1. a.-e.

    There are currently no planned improvements to add capacity through expansion to any facilities in the project area.

2. What are the current desired standards of service (i.e. facility size, number of volumes, etc.) for the service population?

    Answer:

    On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes criteria for new Libraries, which recommends new size standards for the provision of LAPL facilities – 12,500 s.f. for community with less than 45,000 population and 14,500 s.f. for community with more than 45,000 population and up to 20,000 s.f. for a Regional branch. It also recommends that when a community reaches a population of 90,000, an additional branch library should be considered for the area.

    Any increase in the residential and/or commuter-adjusted population that is in close proximity to a library has a direct impact on library services with increased demands for library staffing, materials, computers, and information services. Therefore, mitigation measures may be necessary in order to lessen the impact to these services to a level that is appropriate for a given service population in accordance to the February 8, 2007 Board of Library Commissioners approved Branch Facilities Plan.

The Los Angeles Public Library recommends a mitigation fee of $200 per capita based upon the projected population of the development. The funds will be used for staff, books, computers and other library materials. It is recommended that mitigation fees be paid for by the developer.

3. Are there plans to build any new libraries that would serve the project area?

   Answer:

   There are no current plans to construct new libraries in the project area.

Branch Name

Felipe de Neve Branch Library

Address

2820 W. 6th Street
Los Angeles, CA 90057

Hours

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30 Sat: 9:30-5:30, Sun: Closed

Size of Facility (sq. ft.)

9,273

Collection Size

35,424

Annual Circulation

176,698

Staffing Level

9

Volunteers

22

Service Population

Estimated from LA Times Mapping L.A. database and branch library community boundaries

110,861

The Los Angeles Public Library does not make future population projections.

Special Features

All branch libraries provide free access to computer workstations which are connected to the Library's information network. In addition to providing Internet access, these workstations enable the public to search LAPL's many electronic resources including the online catalog, subscription databases, word processing, language learning, literacy and a large historic document and photograph collection.

All branch libraries have:
Free Public Wi-Fi
Wireless & Mobile Printing
Reserve a Computer

This branch also has:
Early Learning for Families Area

Branch Name

Memorial Branch Library

Address
4625 W. Olympic Boulevard
Los Angeles, CA 90019

Hours

Mon: 10-8, Tue: 10-8, Wed: 10-8, Thu: 10-8, Fri: 9:30-5:30 Sat: 9:30-5:30, Sun: 1-5

Size of Facility (sq. ft.)

10,578

Collection Size

37,352

Annual Circulation

200,321

Staffing Level

9

Volunteers

32

Service Population
Estimated from LA Times Mapping L.A. database and branch library community boundaries
45,615

The Los Angeles Public Library does not make future population projections.

Special Features

All branch libraries provide free access to computer workstations which are connected to the Library's information network. In addition to providing Internet access, these workstations enable the public to search LAPL's many electronic resources including the online catalog, subscription databases, word processing, language learning, literacy and a large historic document and photograph collection.

All branch libraries have:
Free Public Wi-Fi
Wireless & Mobile Printing
Reserve a Computer

This branch also has:
Friends of Library Group
Meeting Room Rental

Branch Name

Pico Union Branch Library

Address
1030 S. Alvarado Street
Los Angeles, CA 90006

Hours

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30 Sat: 9:30-5:30, Sun: Closed

Size of Facility (sq. ft.)

12,500

Collection Size

46,562

Annual Circulation

167,493

Staffing Level

10.5

Volunteers

51

Service Population
Estimated from LA Times Mapping L.A. database and branch library community boundaries
41,457

The Los Angeles Public Library does not make future population projections.

Special Features

All branch libraries provide free access to computer workstations which are connected to the Library's information network. In addition to providing Internet access, these workstations enable the public to search LAPL's many electronic resources including the online catalog, subscription databases, word processing, language learning, literacy and a large historic document and photograph collection.

All branch libraries have:
Free Public Wi-Fi
Wireless & Mobile Printing
Reserve a Computer

This branch also has:
Adult Literacy Center
LA PLays
Meeting Room Rental

\

Branch Name

Pio Pico - Koreatown Branch Library

Address
694 S. Oxford Avenue
Los Angeles, CA 90005
Hours

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30 Sat: 9:30-5:30, Sun: Closed

Size of Facility (sq. ft.)

20,000

Collection Size

77,712

Annual Circulation

129,660

Staffing Level

16.5

Volunteers

133

Service Population
Estimated from LA Times Mapping L.A. database and branch library community boundaries
123,611

The Los Angeles Public Library does not make future population projections.

Special Features

All branch libraries provide free access to computer workstations which are connected to the Library's information network. In addition to providing Internet access, these workstations enable the public to search LAPL's many electronic resources including the online catalog, subscription databases, word processing, language learning, literacy and a large historic document and photograph collection.

All branch libraries have:

Free Public Wi-Fi
Wireless & Mobile Printing
Reserve a Computer
This branch also has:

Adult Literacy Center
Computer Training Center
Early Learning for Families Area
Friends of Library Group
GoChip Media Hotspots
Meeting Room Rental

Branch Name

Wilshire Branch Library

Address

149 N. Saint Andrews Pl
Los Angeles, CA 90004

Hours

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30 Sat: 9:30-5:30, Sun: Closed

Size of Facility (sq. ft.)

6,258

Collection Size

33,988

Annual Circulation

90,096

Staffing Level

9.5

Volunteers

14

Service Population

Estimated from LA Times Mapping L.A. database and branch library community boundaries

109,529

Special Features

All branch libraries provide free access to computer workstations which are connected to the Library's information network. In addition to providing Internet access, these workstations enable the public to search LAPL's many electronic resources including the online catalog, subscription databases, word processing, language learning, literacy and a large historic document and photograph collection.

All branch libraries have:
Free Public Wi-Fi
Wireless & Mobile Printing
Reserve a Computer

This branch also has:
Friends of Library Group
Meeting Room Rental

3440 Wilshire Boulevard Project Transportation Analysis

Prepared by
FEHR PEERS

600 Wilshire Blvd., Suite 1050
Los Angeles, CA 90017
213.261.3050

September 2018

TABLE OF CONTENTS

1. INTRODUCTION 1

Project Description 1

Study Scope 1

Organization of Report 6

2. EXISTING CONDITIONS 7

Study Area 7

Existing Street System 7

Existing Public Transit Service 9

Existing Bicycle and Pedestrian Facilities 9

Existing Traffic Volumes and Level of Service 13

3. TRAFFIC PROJECTIONS 17

Project Traffic 17

Existing plus Project Traffic Conditions 21

Future Year 2026 Traffic Conditions 21

Future plus Project Traffic Projections 26

4. INTERSECTION TRAFFIC IMPACT ANALYSIS 27

Criteria for Determination of Significant Traffic Impact 27

Existing plus Project Impact Analysis 27

Future plus Project Impact Analysis 29

5. NEIGHBORHOOD TRAFFIC IMPACT ANALYSIS 33

6. REGIONAL TRANSPORTATION SYSTEM IMPACT ANALYSIS 36

7. SITE ACCESS 38

8. CONSTRUCTION PERIOD IMPACT ANALYSIS 39

Construction Impact Assessment 40

Construction Traffic 43

Construction Mitigation Measures 46

9. SUMMARY AND CONCLUSIONS 47

APPENDICES

Appendix A: LADOT MOU

Appendix B: Lane Configurations and Traffic Volumes

Appendix C: Count Sheets

Appendix D: LOS Analysis Sheets

Appendix E: Main Street Analysis

Appendix F: Signal Warrant

LIST OF FIGURES

Figure 1 – Location of Proposed Project and Study Intersections 2
Figure 2A – Site Plan – Level 1 3
Figure 2B – Site Plan – Level B1 4
Figure 3 – Existing Transit 10
Figure 4 – Existing Bicycle Facilities 12
Figure 5 – Trip Distribution 20
Figure 6 – Related Projects 25

LIST OF TABLES

Table 1 – Existing Transit Service 11
Table 2A – Level of Service Definitions for Signalized Intersections 14
Table 2B – Level of Service Definitions for Stop-Controlled Intersections 15
Table 3 – Existing Conditions Intersection Levels of Service 16
Table 4 – 3440 Wilshire Project Trip Generation 19
Table 5 – Related Projects Trip Generation Estimates 22
Table 6 – Existing plus Project Intersection Levels of Service and Impact Analysis 28
Table 7 – Future Intersection Levels of Service and Impact Analysis 30
Table 8 – Peak Hour Signal Warrant 32
Table 9 – Neighborhood Street Impact Analysis – Existing Daily Volume Analysis 34
Table 10 – Neighborhood Street Impact Analysis – Future Daily Volume Analysis 35
Table 11 – Driveway Service and Impact Analysis 38
Table 12 – Construction Impact Significance Factors 42
Table 13 – Construction Period Trip Generation 45

1. INTRODUCTION

This report documents the assumptions, methodologies, and findings of a study conducted by Fehr & Peers to evaluate the potential traffic impacts of the proposed 3440 Wilshire Project, located at 3440 Wilshire Boulevard, south of Wilshire Boulevard, west of Mariposa Avenue and east of Irolo Street in the City of Los Angeles. This study was conducted as part of an environmental document being prepared for the proposed Project.

PROJECT DESCRIPTION

The proposed project is on Wilshire Boulevard between Irolo Street and Mariposa Avenue. The adjacent land uses includes a church to the north, apartments to the south, retail, a school, and parking to the east, and office and retail to the west. Figure 1 illustrates the location of the proposed project in relation to the surrounding street system. Regional access to the project site is provided by the Santa Monica Freeway, Interstate 10 (I-10), with access ramps approximately 1.7 miles to the south and the Hollywood Freeway, United States 101 (US-101) with access ramps approximately 1.6 miles to the north. The project is located directly adjacent to the Metro Purple Line Wilshire/Normandie Station.

The project site is currently a parking structure with two office buildings on the site that will remain. The existing office buildings contain approximately 760,456 square feet of office space, including retail, fast food restaurants, and sit down restaurants. The Project will demolish the existing parking structure and build 641 multifamily high rise residential units and 18,454 square feet of retail space. In addition, the project will build two levels of underground parking structure and four levels of above ground parking.

The site currently has five driveways that provide access to the existing uses on the site. Two full access driveways are located on Mariposa Avenue. Two full access driveways are located on 7th Street and one full access driveway is located on Irolo Street. With the project, the southern driveway on Mariposa Avenue will be closed, leaving the site with four driveways to service the property. The residents will primarily use the Mariposa Avenue driveway and eastern 7th Street driveway, but all other land uses on the site will have access to use each of the driveways, similar to the existing site access. The loading areas for the project uses will be located in the parking structure on Level 1 and will be accessible from the Mariposa Avenue driveway. A site plan of the project site is presented in Figure 2A and 2B.

STUDY SCOPE

The scope of work for this study was determined in consultation with the Los Angeles Department of Transportation (LADOT). The base assumptions and technical methodologies were discussed with LADOT as part of the study approach and agreed to in a memorandum of understanding dated August 2018. The MOU is included in Appendix A to this document.

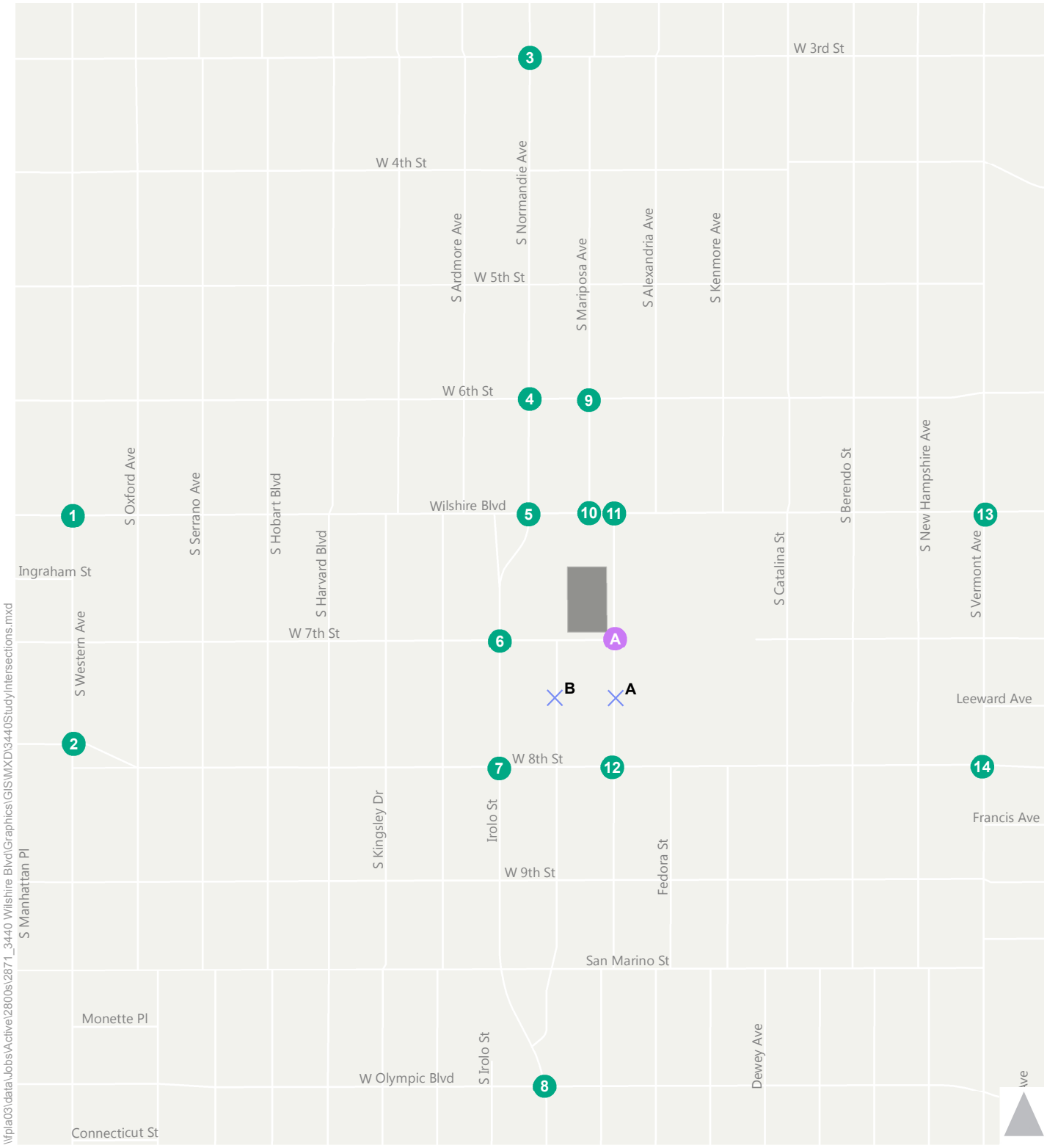
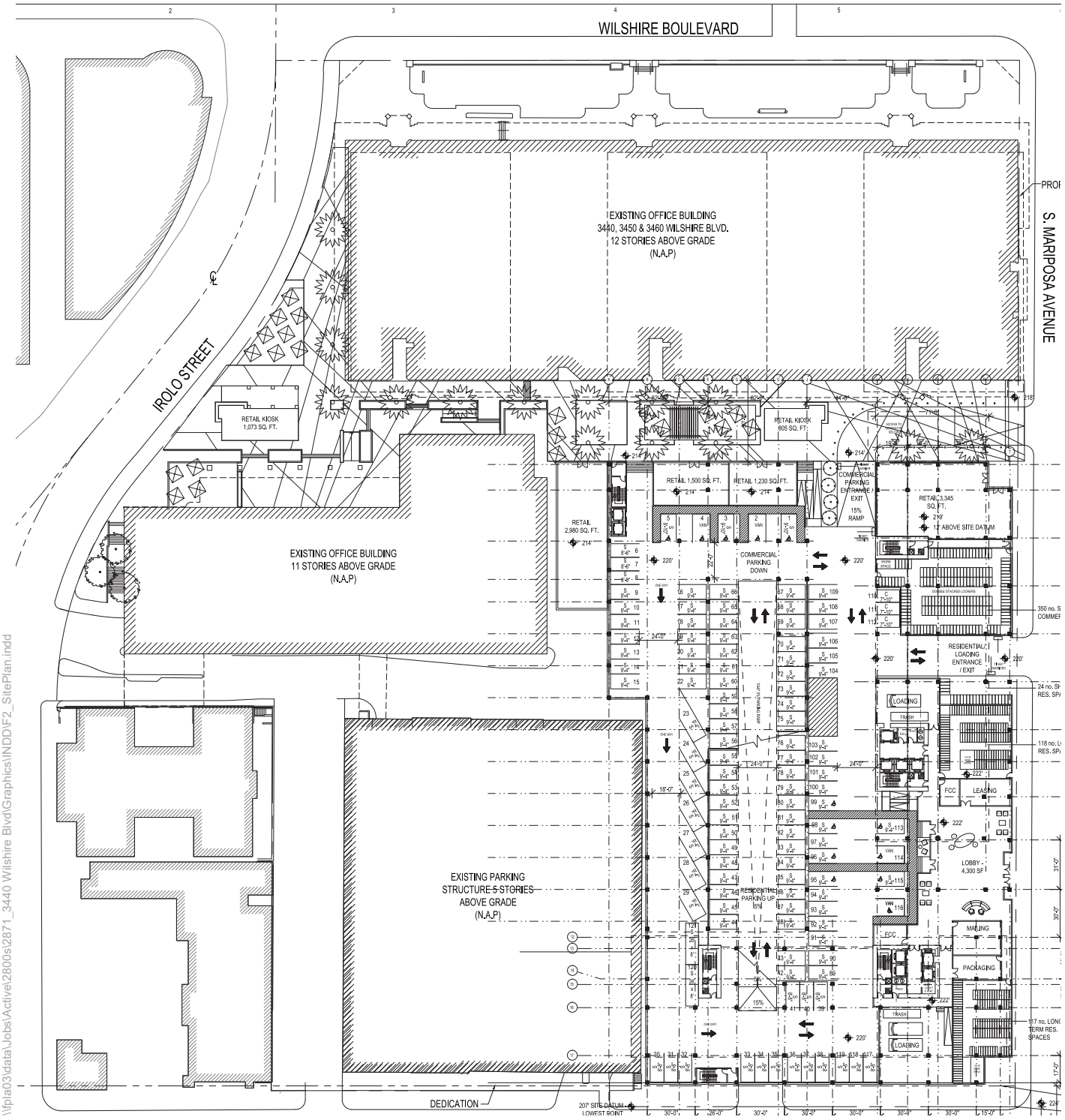


Figure 1

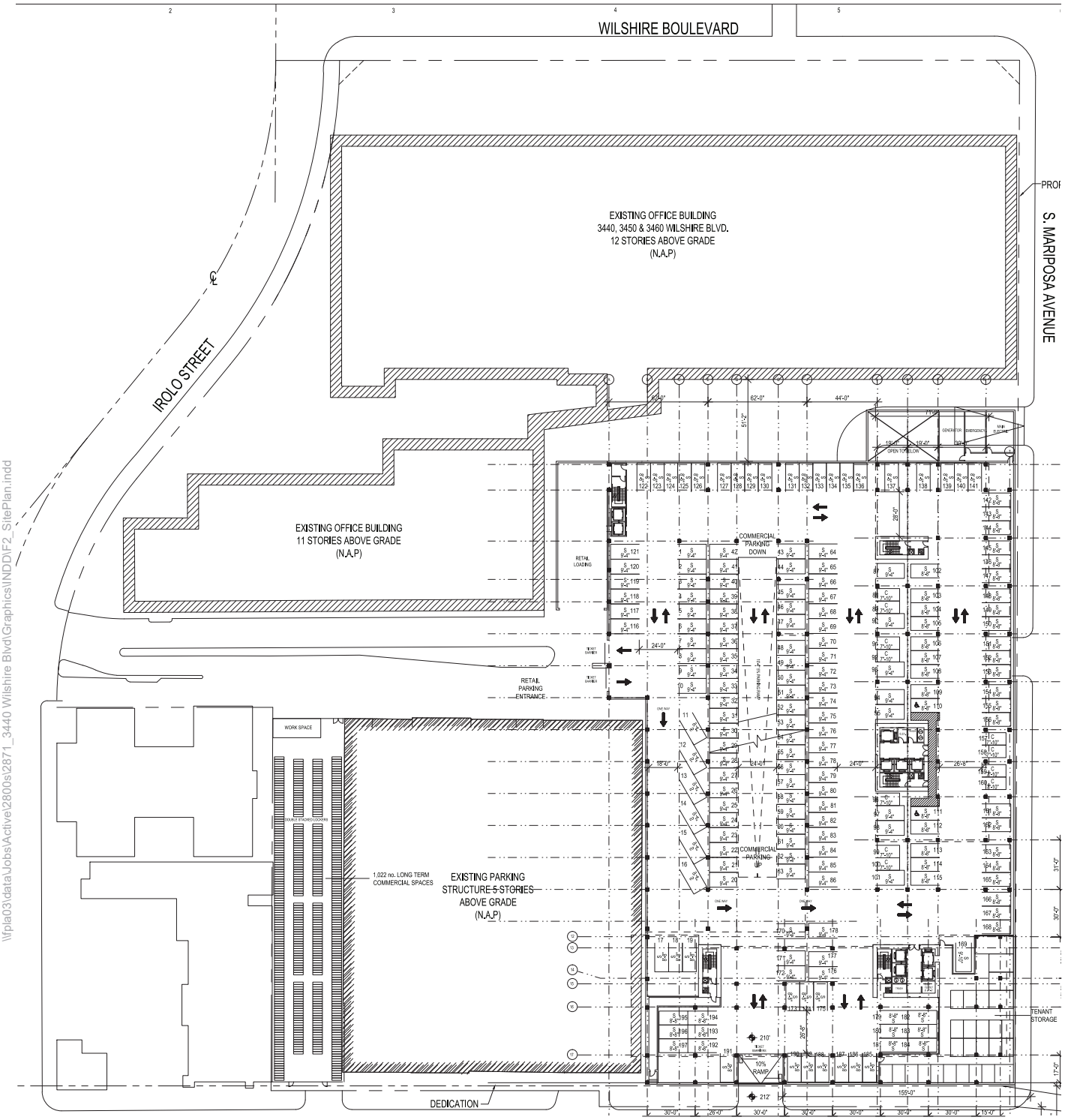
3440 Wilshire Study Intersections



\\pla03\data\Jobs\Active\2800s\2871_3440 Wilshire Blvd\Graphics\INDD\F2_SitePlan.indd

Figure 2A

Site Plan - Level 1



\\pla03\data\Jobs\Active\2800s\2871_3440 Wilshire Blvd\Graphics\INDD\F2_SitePlan.indd

Figure 2B

Site Plan - Level B1

TRAFFIC SCENARIOS

The study assumes that the project would be completed by year 2026 and is directed at analyzing the potential project generated traffic impact on local street system under both existing and future year traffic conditions. The following traffic scenarios have been developed and analyzed as part of this study:

- Existing Conditions – The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes a description of the transportation system serving the project site, existing traffic volumes, and an assessment of the operating conditions at the study analysis locations described below.

- Existing plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of Project-generated traffic. The impacts of the proposed Project on existing traffic operating conditions were then identified.

- Future Base (Year 2026) Conditions – Future traffic projections without the proposed project were developed for the year 2026. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth, related projects, and transportation network changes in the vicinity of the project site by the year 2026.

- Future (Year 2026) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under future conditions with the addition of Project-generated traffic. The impacts of the proposed Project on future traffic operating conditions were then identified.

STUDY LOCATIONS

Fourteen signalized intersections, one stop-controlled intersections, and two local street segments were selected for analysis in consultation with LADOT.

Signalized Intersections

The following 14 signalized intersections, illustrated in Figure 1, were identified in conjunction with LADOT to be analyzed as part of the scope of work for this Project:

1. Western Avenue & Wilshire Boulevard
2. Western Avenue & 8th Street
3. Normandie Avenue & 3rd Street
4. Normandie Avenue & 6th Street
5. Normandie Avenue & Wilshire Boulevard
6. Irolo Street & 7th Street
7. Irolo Street & 8th Street
8. Normandie Avenue & Olympic Boulevard
9. Mariposa Avenue & 6th Street
10. Mariposa Avenue (West) & Wilshire Boulevard
11. Mariposa Avenue (East) & Wilshire Boulevard

12. Mariposa Avenue & 8th Street
13. Vermont Avenue & Wilshire Boulevard
14. Vermont Avenue & 8th Street

Unsignalized Analysis

The following stop-controlled intersection, illustrated in Figure 1, was identified in conjunction with LADOT to be considered for a signal warrant analysis:

A. Mariposa Avenue & 7th Street

Segment Analysis

The following two segments, illustrated in Figure 1, were identified in conjunction with LADOT to be analyzed as part of the scope of work for this Project:

Segment A. Mariposa Avenue, south of 7th Street
Segment B. Normandie Avenue, south of 7th Street

Freeway Analysis

The *Congestion Management Program for Los Angeles* County (CMP) (Metro, 2010) requires that all CMP mainline freeway monitoring locations where a proposed project will add 150 or more trips, in either direction, during either the AM or PM peak hours be analyzed. The proposed Project is not expected to add 150 or more vehicle trips during the AM or PM peak hours on nearby freeways (see Chapter 5). Therefore, no analysis of freeway segments is required for CMP purposes.

In addition, *Agreement Between City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures* (October 2013, as amended in December 2015), sets forth criteria for when a freeway impact analysis should be conducted. LADOT determined as part of the traffic study memorandum of understanding for this Project that the Project would not meet the criteria requiring a freeway impact analysis (see Appendix A). Accordingly, no further analysis under the City's amended agreement with Caltrans was required.

ORGANIZATION OF REPORT

This report is divided into nine chapters, including this introduction. Chapter 2 describes the existing conditions including an inventory of the streets, highways, and transit service in the study area, a summary of existing traffic volumes, and an assessment of existing operating conditions. The methodologies used to develop traffic forecasts for the Existing, Existing plus Project, Future Base, and Future plus Project scenarios and the forecasts themselves are included in Chapter 3. Chapter 4 presents an assessment of potential intersection traffic impacts of the proposed Project under both existing and future conditions. The results of the neighborhood impact analysis are provided in Chapter 5. The results of the regional transportation system analysis are provided in Chapter 6. Chapter 7 provides an assessment of the proposed Project's access scheme. Chapter 8 summarizes the construction impact analysis. Chapter 9 provides the summary and conclusions.

2. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the project site, a review of traffic volumes on these facilities, an assessment of the resulting operating conditions, and a summary of the current transit service and bicycle and pedestrian facilities in the study area. A detailed description of these elements is presented in this chapter.

STUDY AREA

The project site is within the Wilshire Community Plan area of the City of Los Angeles. The study area selected for analysis extends to include Western Avenue to the west, Vermont Avenue to the east, 3rd Street to the north, and Olympic Boulevard to the south. All of the streets in the study area are under the jurisdiction of the City of Los Angeles.

EXISTING STREET SYSTEM

Major arterials serving the study area include Western Avenue, Normandie Ave/Irolo St, Mariposa Avenue and Vermont Avenue in the north/south direction and 3rd Street, 6th Street, Wilshire Boulevard, 8th Street and Olympic Boulevard in the east/west direction.

Interstate 10 lies approximately two miles south of the site and US-101 lies approximately 1.5 miles north of the site. Each of these interstates provides regional access to and from the study area.

The characteristics of the major roadways serving the study area are described below. The street descriptions include the designation of the roadway under the *Mobility Plan 2035* (Los Angeles Department of Planning, General Plan Mobility Element) approved by the Los Angeles City Council in September 2016.

FREEWAYS

- **Interstate 10** runs in an east/west direction and extends from the Pacific Ocean eastward through Los Angeles County and beyond. In the vicinity of the study area, the freeway provides four lanes in each direction plus auxiliary lanes. Ramps are provided at Western Avenue, Normandie Avenue and Vermont Avenue.

- **US-101** runs in the southeast-northwest direction, extending from downtown Los Angeles through Hollywood and the San Fernando Valley and beyond. In the vicinity of the study area, the Hollywood freeway provides four lanes in each direction plus auxiliary lanes. Ramps are provided at Western Avenue, Santa Monica Boulevard, Melrose Avenue, and Vermont Avenue.

EAST/WEST STREETS

- **3rd Street** is designated as an Avenue II in the City of Los Angles' *Mobility Plan 2035* and runs north of the project site with two travel lanes in each direction within the project study area. Parking is

permitted along portions of the roadway on both sides of the street. Left-turn pockets are present at major intersections. 3rd Street is part of the Bicycle Enhanced Network, the Moderate Transit Enhanced Network, and the Pedestrian Enhanced Districts in the *Mobility Plan 2035*.

- **6th Street** is designated as an Avenue II that runs north of the project site with two travel lanes in each direction and with no on-street parking during peak hours. During non-peak hours, parking is permitted in the westbound direction leaving one travel lane in that direction and two eastbound travel lanes. Left-turn pockets are present at major intersections.

- **7th Street** is designated as an Avenue II that runs along the southern edge of the project site with one travel lane in each direction. Parking is permitted on both sides of the street and left-turn pockets are present at major intersections. Portions of 7th Street are part of the Neighborhood Enhanced Network and the Pedestrian Enhanced Districts in the *Mobility Plan 2035*.

- **8th Street** is designated as an Avenue II that runs south of the project site with two travel lanes in each direction. Parking is generally permitted on both sides of the street and left-turn pockets are present at major intersections. A portion of 8th Street near the project site is part of the Neighborhood Enhanced Network and the Pedestrian Enhanced Districts.

- **Olympic Boulevard** is designated as a Boulevard II that runs south of the project site with three travel lanes in each direction during peak hours and with two travel lanes in each direction during non-peak hours. Parking is permitted on both sides of the street only during non-peak hours. Left-turn pockets are present at major intersections. Olympic Boulevard is part of the Vehicle Enhanced Network and the Pedestrian Enhanced Districts.

- **Wilshire Boulevard** is designated as an Avenue I that runs north of the project site with two travel lanes in each direction and turn pockets are major intersections. An additional travel lane in each direction provides dedicated right-of-way for bus only lanes during peak hours. Parking is permitted on both sides of the street during non-peak period times. Wilshire Boulevard is part of the Tier 2 Bicycle Lane Network, the Comprehensive Transit Enhanced Network, and the Pedestrian Enhanced Districts.

NORTH/SOUTH STREETS

- **Irolo Street** is designated as an Avenue III that runs west of the project site, south of Wilshire Boulevard with one travel lane in each direction. Parking is permitted on both sides of the street. Irolo Street is part of the Pedestrian Enhanced Districts in the *Mobility Plan 2035*.

- **Mariposa Avenue** is designated as a Local Street that runs east of the project site with one travel lane in each direction and parking permitted throughout the study area.

- **Normandie Avenue** is designated as an Avenue III that runs west of the project site with two southbound travel lanes and one northbound travel lane during the AM peak period and one southbound travel lane and two northbound travel lanes during the PM peak period. Parking is prohibited along the east side of the street during the AM peak period and is prohibited along the west side of the street during the PM peak period. Left-turn pockets are present at major

intersections. In the study area, Normandie Avenue is part of the Pedestrian Enhanced Districts north of Wilshire Boulevard and south of Irolo Street.

- **Vermont Avenue** is designated as an Avenue I that runs east of the project site with two travel lanes in each direction. Parking is permitted on both sides of the street and left-turn pockets are present at major intersections. North of Wilshire Boulevard, Vermont Avenue widens to three travel lanes in each direction during peak hours and parking is only permitted during non-peak hours. In the study area, Vermont Avenue is part of the Comprehensive Transit Enhanced Network and the Pedestrian Enhanced Districts.

- **Western Avenue** is designated as an Avenue II that runs west of the project site with two travel lanes in each direction. South of 6th street, parking is generally only permitted on one side of the street. North of 6th street, parking is permitted on both sides of the street. Left-turn pockets are present at major intersections. Western Avenue is part of the Moderate Plus Transit Enhanced Network and the Pedestrian Enhanced Districts**.**

Lane configurations of the study intersections are provided in Appendix B.

EXISTING PUBLIC TRANSIT SERVICE

The Project site is served by a high level of public transit. Figure 3 shows the various metro bus routes, rapid bus routes, and Metro Rail lines providing service in the study area. The project is located adjacent to the Metro Purple Line Wilshire/Normandie Station. Eight local Metro (Route 16/17, 18, 20, 28, 66, 204, 206, 207), four Metro Rapid (Route 720, 728, 754, 757), two DASH (Wilshire Center/Koreatown and Hollywood/Wilshire), one Foothill Transit (Route 481), and one Commuter Express (Route 534) bus routes provide service within ½ mile of the project site along Wilshire Boulevard. In addition, Wilshire Boulevard has east-west dedicated bus lanes. Table 1 details the transit service near the project site.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

Figure 4 shows citywide designated bicycle facilities in the project area. As shown in the figure, Wilshire Boulevard has peak hour bus lanes with bicycles permitted. S Oxford Avenue contains a bike lane that extends from W 3rd Street northwards. W 7th Street contains a bike lane from S Catalina Street eastwards. The *Mobility Plan 2035* identifies corridors proposed to receive improved bicycle, pedestrian and vehicle infrastructure improvements. Tier 1 Protected Bicycle Lanes are bicycle facilities that are separated from vehicular traffic. Tier 2 and Tier 3 Bicycle Lanes are facilities on roadways with striped separation. Tier 2 Bicycle Lanes are those which are more likely to be built by 2035. The Neighborhood Enhanced Network is the network of locally-serving streets planned to contain traffic-calming measures that close the gaps between streets containing bicycle facilities. Within the Study Area, W 7th Street east of S New Hampshire Avenue is a planned Tier 1 Protected Bicycle Lane. Wilshire Boulevard contains a planned Tier 2 Bicycle Lane, and Vermont Avenue contains a planned Tier 3 Bicycle Lane. Several streets within the study area are included within the planned Neighborhood Enhanced Network, including W 9th Street/James Wood Boulevard, W 4th Street and S Harvard Boulevard.

The study area generally has a mature network of pedestrian facilities including sidewalks, crosswalks and pedestrian safety features. Approximately 8- to 18-foot sidewalks are provided throughout the study area.

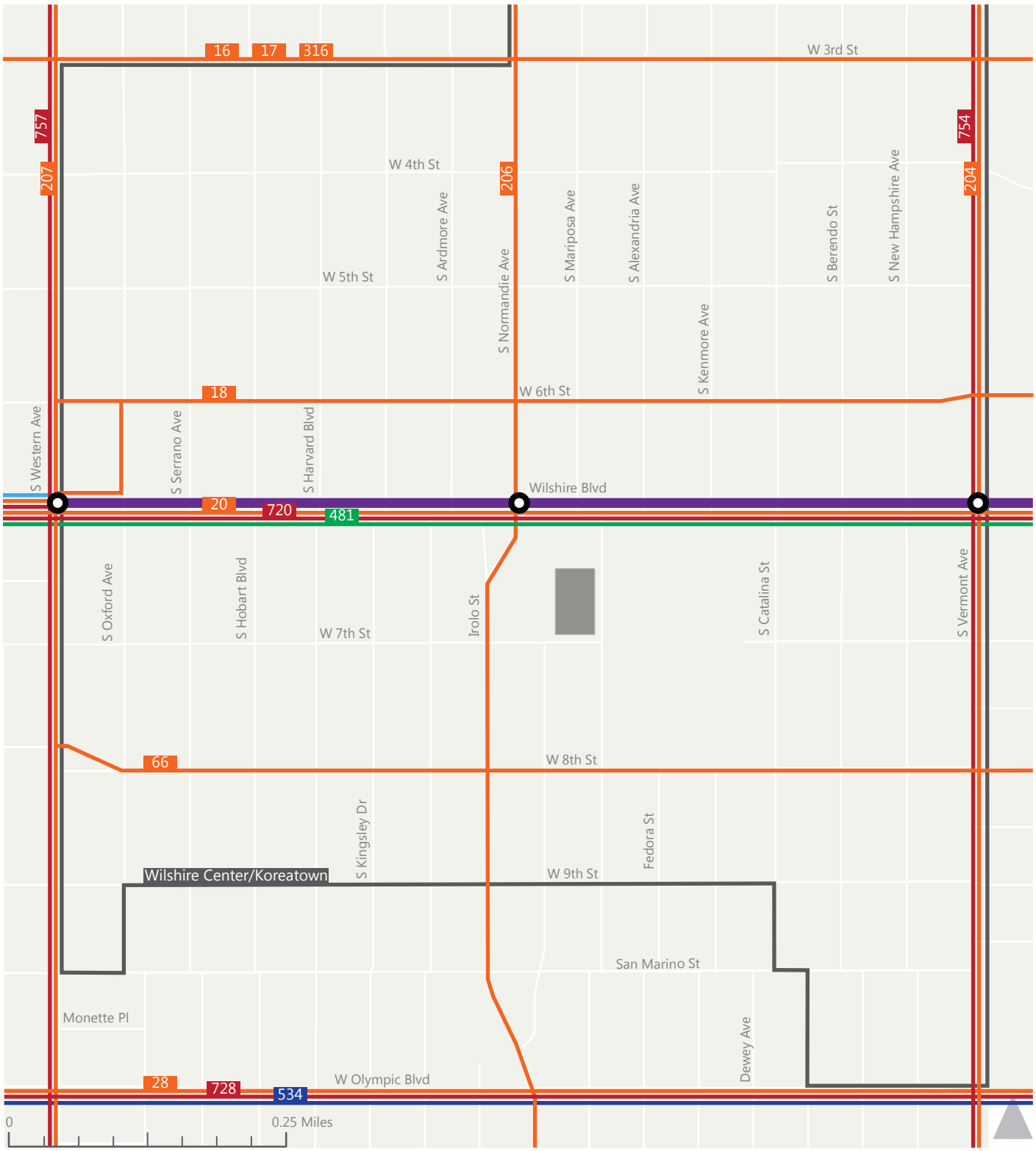


Figure 3

Existing Transit Service

TABLE 1
3440 WILSHIRE PROJECT
EXISTING TRANSIT SERVICE

Transit Route	Operator	Service Type	Service From	Via	Weekday Headways	
					AM	PM
Wilshire Center/Koreatown Loop	LADOT	Shuttle	Wilshire Center/Koreatown Loop	Western Ave	20 mins.	20 mins.
Hollywood/Wilshire Loop	LADOT	Shuttle	Hollywood/Wilshire Loop	Western Ave	25 mins.	25 mins.
16/17/316	Metro	Local	Century City to 6th & Los Angeles	3rd St	1-8 mins.	1-9 mins.
18	Metro	Local	Wilshire Center to Montebello	6th St	8-12 mins.	6-20 mins
20	Metro	Local	Santa Monica to 7th & Main	Wilshire Blvd	6-10 mins.	12-16 mins.
28	Metro	Local	Century City to Eagle Rock	Olympic Blvd	9-13 mins.	8-15 mins.
66	Metro	Local	Wilshire Center to Montebello	8th St	3-10 mins.	5-11 mins.
204	Metro	Local	Athens to Hollywood	Vermont Ave	8-11 mins.	10-15 mins.
206	Metro	Local	Athens to Hollywood	Normandie Ave/Irolo St	7-10 mins.	11-16 mins.
207	Metro	Local	Los Feliz to Hawthorne	Western Ave	10-13 mins.	10-15 mins.
720	Metro	Rapid	Santa Monica to Commerce	Wilshire Blvd	3-11 mins.	3-12 mins.
728	Metro	Rapid	Century City to Union Station	Olympic Blvd	12 mins.	10-12 mins.
754	Metro	Rapid	Athens to Hollywood	Vermont Ave	5-6 mins.	5-10 mins.
757	Metro	Rapid	Hawthorne to Los Feliz	Western Ave	6-15 mins.	10-16 mins.
481	Foothill	Regional	Wilshire Center to El Monte Station	Wilshire Blvd	20 mins.	15-20 mins.
534	LADOT	Commuter Express	Westwood to Union Station	Olympic Blvd	15 mins.	30 mins.
Purple Line	Metro	Heavy Rail	Koreatown to Union Station	Wilshire Blvd	10 mins.	10 mins.

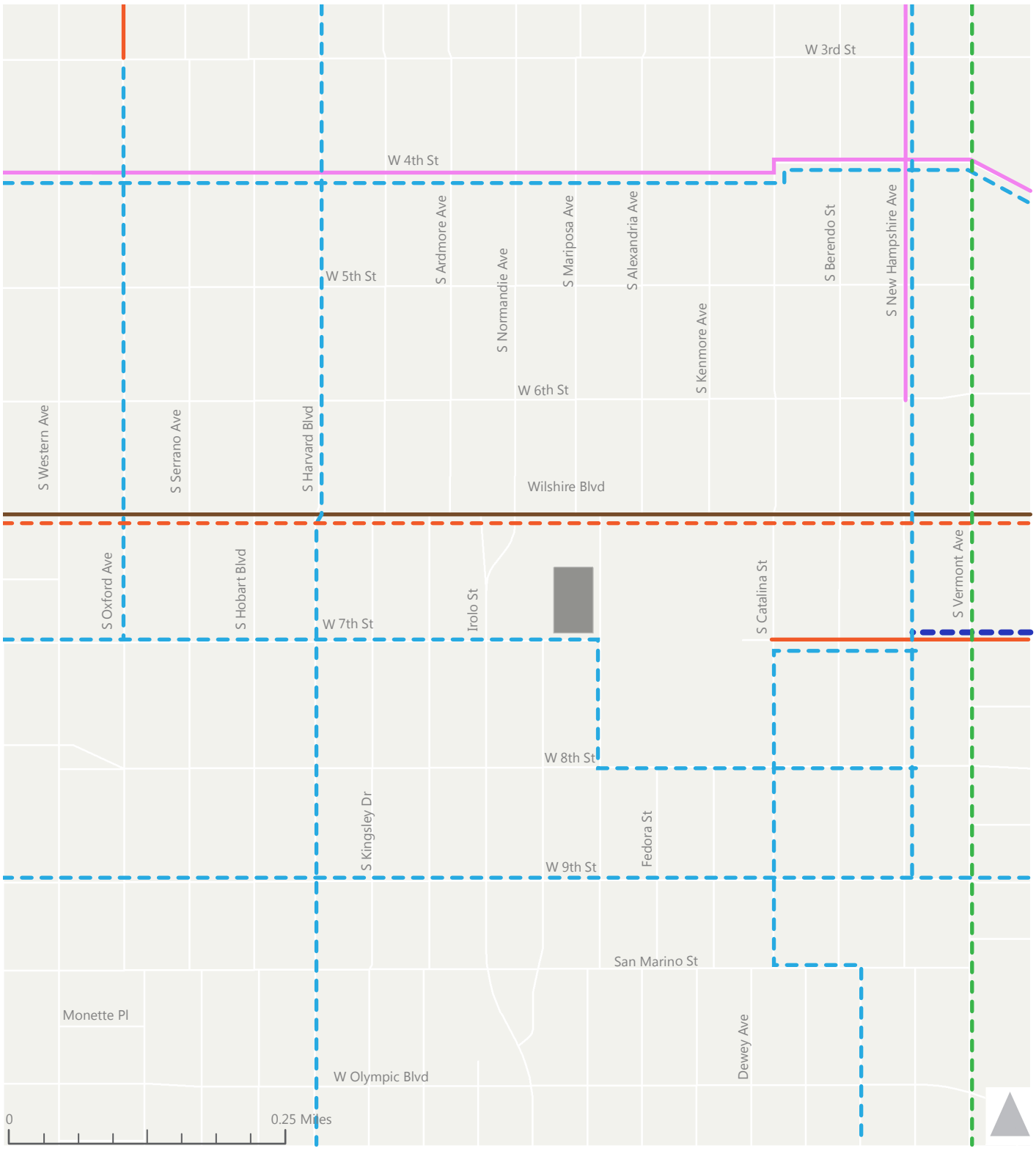


Figure 4

Existing and Planned Bicycle Facilities

EXISTING TRAFFIC VOLUMES AND LEVEL OF SERVICE

This section presents existing base peak hour traffic volumes, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume-to-capacity (V/C) ratios and levels of service (LOS).

EXISTING TRAFFIC VOLUMES

New weekday AM and PM peak hour turning movement counts were collected at the study intersections on Tuesday, April 17, 2018. The existing weekday morning and afternoon peak hour volumes at the study intersections are provided in Appendix B. Count sheets for these intersections are contained in Appendix C.

LEVEL OF SERVICE METHODOLOGY

A variety of standard methodologies are available to analyze LOS. According to *Transportation Impact Study Guidelines* (LADOT, December 2016), this study is required to use the Critical Movement Analysis (CMA) method of intersection capacity calculation (Transportation Research Board, 1980) to analyze signalized intersections in the City of Los Angeles. The V/C ratio is then used to find the corresponding LOS based on the definitions in Table 2A. Under the CMA methodology, a V/C ratio is generated for each study intersection based on factors such as the volume of traffic and the number of lanes providing for such vehicle movement and an LOS grade.

For the driveway analysis, the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2010) methodology was used to analyze the delay. Under HCM methodology, delay is calculated in seconds and given an LOS grade, as shown in Table 2B.

The City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC-operations to manage signal timing to improve traffic flow conditions. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic conditions. All of the study intersections located in the City of Los Angeles are currently operating under the City's ATSAC system and ATCS control. ATSAC and ATCS provide improved operating conditions. Therefore, in accordance with City of Los Angeles procedures, a credit of 0.07 V/C reduction was applied at each intersection where ATSAC is implemented and an additional 0.03 V/C reduction was applied at each intersection where ATCS is implemented.

EXISTING LEVELS OF SERVICE

Existing year traffic volumes presented in Appendix B were analyzed using the intersection capacity analysis methodology described above to determine the existing operating conditions at the study intersections. Table 3 summarizes the results of the analysis of the existing weekday morning and afternoon peak hour V/C ratio and corresponding LOS at each of the analyzed intersections. As indicated, all of the 14 signalized intersections analyzed for impacts operate at LOS D or better during both peak periods. Analysis sheets are provided in Appendix D.

TABLE 2A
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS
CMA METHODOLOGY

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>0.900 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980.

TABLE 2B
LEVEL OF SERVICE DEFINITIONS FOR
STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Control Delay (seconds/vehicle)
A	$\leq$ 10.0
B	> 10.0 and $\leq$ 15.0
C	> 15.0 and $\leq$ 25.0
D	> 25.0 and $\leq$ 35.0
E	> 35.0 and $\leq$ 50.0
F	> 50.0

Source: *Highway Capacity Manual,* Transportation Research Board, 2010.

TABLE 3
3440 WILSHIRE PROJECT
EXISTING CONDITIONS INTERSECTION LEVELS OF SERVICE

NO.	INTERSECTION	PEAK HOUR	EXISTING (2018)	
			V/C	LOS
1	Western Ave &	AM	0.719	C
	Wilshire Blvd	PM	0.661	B
2	Western Ave &	AM	0.660	B
	8th St	PM	0.619	B
3	Normandie Ave &	AM	0.627	B
	3rd St	PM	0.587	A
4	Normandie Ave &	AM	0.562	A
	6th St	PM	0.571	A
5	Normandie Ave &	AM	0.679	B
	Wilshire Blvd	PM	0.687	B
6	Irolo St &	AM	0.521	A
	7th St	PM	0.583	A
7	Irolo St &	AM	0.712	C
	8th St	PM	0.709	C
8	Normandie Ave &	AM	0.696	B
	Olympic Blvd	PM	0.715	C
9	Mariposa Ave &	AM	0.483	A
	6th St	PM	0.517	A
10	Mariposa Ave (West) &	AM	0.545	A
	Wilshire Blvd	PM	0.525	A
11	Mariposa Ave (East) &	AM	0.511	A
	Wilshire Blvd	PM	0.467	A
12	Mariposa Ave &	AM	0.403	A
	8th St	PM	0.450	A
13	Vermont Ave &	AM	0.833	D
	Wilshire Blvd	PM	0.757	C
14	Vermont Ave &	AM	0.649	B
	8th St	PM	0.651	B

3. TRAFFIC PROJECTIONS

PROJECT TRAFFIC

The development of trip generation estimates for the proposed project involves the use of a 3-step process similar to that discussed for the cumulative projects: trip generation, trip distribution, and traffic assignment.

PROJECT TRIP GENERATION

As discussed in Chapter 1, the proposed project consists of 641 multifamily high rise residential units and 18,454 square feet of retail space.

Trip generation rates from *Trip Generation, 10th Edition* (Institute of Transportation Engineers [ITE], 2017) were used to estimate the number of trips associated with the project and are presented in Table 4. The ITE 10th edition introduces and defines the geographic setting for four different settings/locations: Rural, General Urban/Suburban, Dense Multi-Use Urban, and City Core. In many instances, trip generation rates are provided for each land use by geographic setting. The Project is located in an area that meets the dense multi-use urban ITE definitions; therefore, the trip generation rates for dense multi-use urban were used when available. However, for mid-rise and high-rise multifamily housing sites in dense multi-use urban and center city core areas, empirical trip generation data from surveys conducted at properties located within the City of Los Angeles area are available as a secondary data source to the ITE trip rates. The local data reveals higher high-rise residential trip generation rates than the ITE 10th edition rates; therefore, the local data was used for the residential component of this project. A summary of the local data and ITE geographical settings is shown in the MOU in Appendix A.

Furthermore, ITE rates for General Urban/Suburban were used for the retail uses since data is not available for the Dense Multi-Use Urban geographic setting for retail uses. ITE daily rates for General Urban/Suburban were also used for daily trip generation for the residential uses since daily rate data is not available for the Dense Multi-Use Urban geographic setting for these uses.

While the ITE 10th edition data and local data account for geographic settings in urban environments, the data is based on single-use freestanding sites. These defining characteristics limit their applicability to mixed-use or multi-use development projects, such as the proposed project, which is in a high density walkable urban setting with frequent and nearby local and regional transit service. The land use mix, design features, and setting of the proposed project include characteristics that influence travel behavior differently from typical single-use developments. In order to estimate the project's trip generation within the context of the mixed-use setting, a Main Street analysis was conducted, as detailed in Appendix E. The project trip generation accounts for the mix of uses provided in the project, the dense urban setting in which it is located, and the level of transit service provided in the area.

The Main Street methodology as applied in this study starts by estimating the trip generation based on trip generation rates from *Trip Generation, 9th Edition* (Institute of Transportation Engineers [ITE],2012) and then estimates reductions to account for trip internalization and external non-automobile trips. The Main Street methodology estimates that the proposed project would generate about 32-44% percent fewer trips than the unadjusted ITE data. Informed adjustments were made to the ITE trip generation based on the Main

Street analysis to account for the improved density and diversity of land uses, pedestrian and bicycle connectivity, and transit service in the future.

Internal trip credits can be defined as a reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. These are trips usually made via walking within the site. Reflective of the travel behavior characteristics of the land uses in the Wilshire corridor as well as the Main Street analysis, a 15% internal credit was incorporated in the trip generation analysis.

Consistent with the City of Los Angeles' *Transportation Impact Study Guidelines* which state that developments above or adjacent to a Metro Rail, Metrolink, or Orange Line station, with convenient pedestrian access to the station may qualify for up to a 25% transit credit, the trip generation estimates incorporate a 25% transit credit.

Per LADOT's *Transportation Impact Study Guidelines,* Attachment I Policy on Pass-By Trips, pass-by credits were applied to portions of the development. A 50% pass-by credit was applied to the retail uses. Pass-by credits account for the patrons making an intermediate stop on the way from an origin to a primary trip destination without a route diversion. These trips would be attracted from traffic passing the site on Wilshire Boulevard and other nearby streets.

As shown in Table 4, the project would generate an estimated net increase of 2,040 daily trips, including 131 trips (19 inbound/112 outbound) during the AM peak hour and 186 trips (125 inbound/61 outbound) during the PM peak hour.

PROJECT TRAFFIC DISTRIBUTION

The geographic distribution of trips generated by the proposed project is dependent on characteristics of the street system serving the project site; the level of accessibility of routes to and from the proposed project site; locations of employment and commercial centers to which residents of the project would be drawn; and residential areas from which the retail employees and other commercial visitors would be drawn. A select zone analysis was conducted for the proposed uses using the City of Los Angeles' Travel Demand Model to inform the general distribution pattern for this study. The distribution of project trips is illustrated in Figure 5.

PROJECT TRAFFIC ASSIGNMENT

The traffic to be generated by the proposed project was assigned to the street network using the distribution pattern described in Figure 5. Appendix B provides the assignment of the proposed Project-generated peak hour traffic volumes at the analyzed intersections during the AM and PM peak hours. The assignment of traffic volumes took into consideration the locations of the proposed project driveways on Mariposa Avenue, Irolo Street, and 7th Street.

PROJECT DRIVEWAYS

As discussed, the site currently has five driveways that provide access to the existing uses on the site. Two full access driveways are located on Mariposa Avenue, Two full access driveways are located on 7th Street and one full access driveway is located on Irolo Street. With the project, the southern driveway on Mariposa Avenue will be closed, leaving the site with four driveways to service the property. The residents will primarily use the Mariposa Avenue driveway and eastern 7th Street driveway, but all other land uses on the site will have access to use each of the driveways, similar to the existing site access.

TABLE 4
3440 WILSHIRE PROJECT
TRIP GENERATION - ITE 10TH EDITION

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
				AM Peak Hour			PM Peak Hour				AM Peak Hour Trips			PM Peak Hour Trips		
			Daily	Rate	In%	Out%	Rate	In%	Out%	Daily	In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Retail	820	18.454 ksf	37.75	0.94	62%	38%	3.81	48%	52%	697	11	6	17	34	36	70
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(105)*	*(2)*	*(1)*	*(3)*	*(5)*	*(5)*	*(10)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(148)*	*(2)*	*(1)*	*(3)*	*(7)*	*(8)*	*(15)*
Total Driveway Trips										444	7	4	11	22	23	45
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(222)*	*(3)*	*(2)*	*(5)*	*(11)*	*(11)*	*(22)*
Net External Vehicle Trips										222	4	2	6	11	12	23
Multifamily Houseing (High-Rise) [e]	222	641 DU	4.45	0.23	12%	88%	0.3	70%	30%	2,852	18	129	147	134	58	192
Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(428)*	*(3)*	*(19)*	*(22)*	*(20)*	*(9)*	*(29)*
Less: Transit Credit [f]			*25%*							*(606)*		*[f]*			*[f]*	
Net External Vehicle Trips										1,818	15	110	125	114	49	163
TOTAL DRIVEWAY TRIPS										2,262	22	114	136	136	72	208
NET INCREMENTAL EXTERNAL TRIPS										2,040	19	112	131	125	61	186

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition*, 2017

[b] Internal capture represents the percentage of trips between land uses that occur within the site. Main Street model calibration of base ITE rates reflecting project & site specific characteristics.

[c] The transit credit is based on LADOT's *Traffic Study Policies and Procedures*, December 2016. The guidelines state that up to 25% transit credit may be taken for projects adjacent to a transit station or Rapid Bus stop.

[d] The pass-by credit is based on Attachment I of LADOT's *Traffic Study Policies and Procedures*, December 2016.

[e] Local high-rise residential data collected for LADOT was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

[f] The local high-rise residential data for the peak hours was collected in locations with access to transit; therefore, a transit credit was not applied during the peak hours. As local data was not available for daily, the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

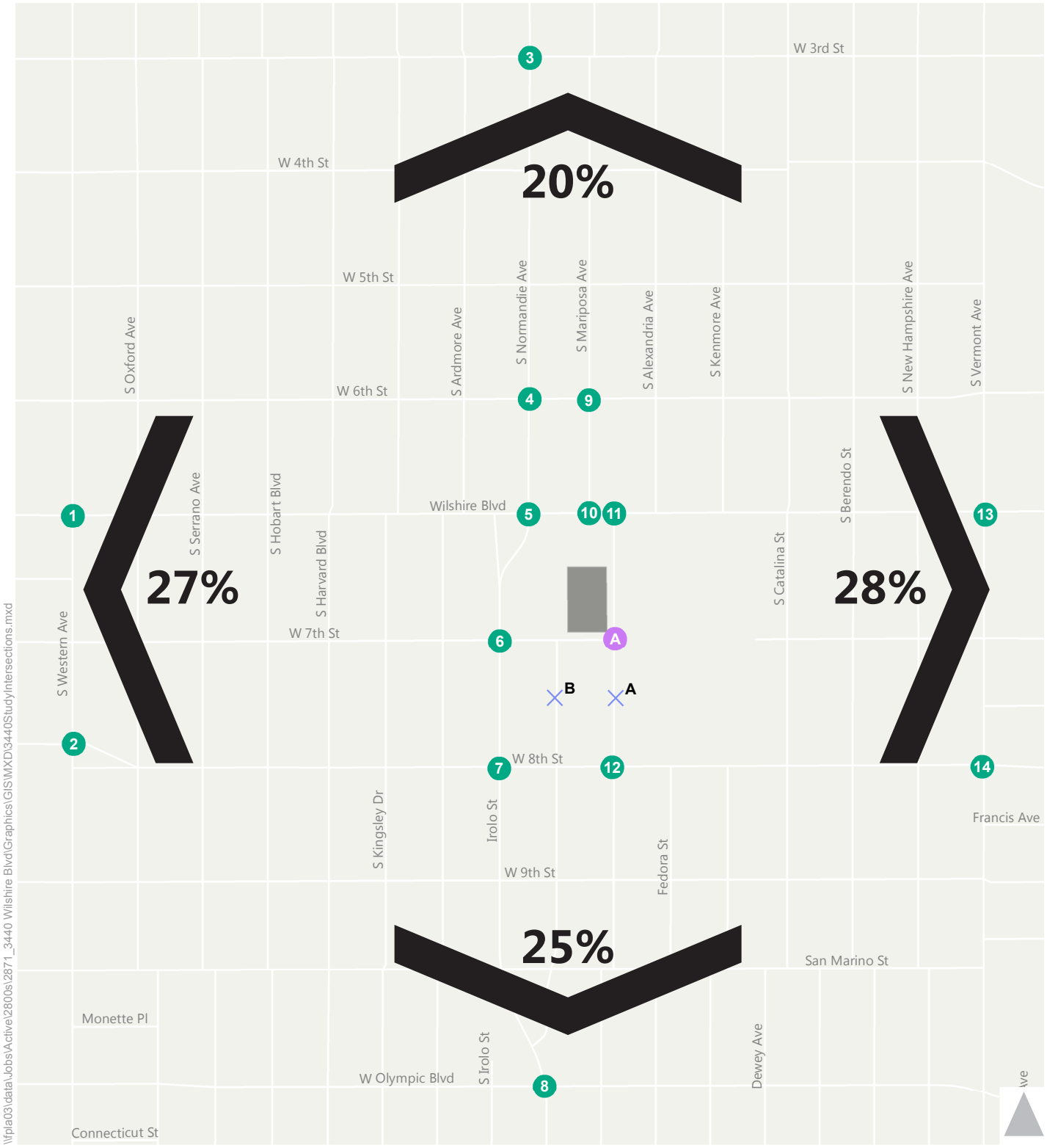


Figure 5

3440 Wilshire Trip Distribution

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

The Project traffic estimated and assigned to the study intersections was added to the existing traffic volumes to estimate existing plus project traffic volumes. Turning movement traffic volumes for the Existing plus Project scenario are provided in Appendix B. Analysis sheets are provided in Appendix D.

FUTURE YEAR 2026 TRAFFIC CONDITIONS

To evaluate the potential impacts of the proposed project on future (Year 2026) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with Project traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the Project. These forecasts included traffic increases as a result of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the Project (related projects).

These projected traffic volumes, identified herein as the Future Base conditions, represent the future conditions without the proposed Project. The traffic generated by the proposed Project was then estimated and assigned to the surrounding street system. Project traffic was added to the Future Base conditions to form Future (year 2026) plus Project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the Project itself.

The assumptions and analysis methodology used to develop each of the future year scenarios discussed above are described in more detail in the following sections.

BACKGROUND OR AMBIENT GROWTH

Based on historic trends and at the direction of LADOT, it was established that an ambient growth factor of 1% per year should be applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development by year 2026. This adjustment was applied to the existing (year 2018) traffic volume data to reflect the effect of ambient growth by the year 2026.

RELATED PROJECT TRAFFIC GENERATION AND ASSIGNMENT

Future Base traffic forecasts include the effects of known specific projects, called related projects, expected to be implemented in the vicinity of the proposed project site prior to the buildout date of the proposed Project. The list of related projects was prepared based on data from LADOT and verified by City Planning. A total of 134 cumulative projects were identified in the study area; these projects are listed in Table 5 and illustrated in Figure 6.

Table 5
3440 Wilshire Project
Related Project List

No.	Project Location [a]	Land Use	Size	Estimated Trip Generation [b]						
				Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Trips	In	Out	Total	In	Out	Total
1	3323 W Olympic Bl	Condominiums Office	208 du 3.5 ksf	409	-13	49	36	39	-7	32
2	805 S Catalina St	Condominiums Retail	300 du 5 ksf	1935	24	119	143	110	57	167
3	100 N Western Ave	Retail Apartments	30 ksf 98 du	940	17	40	57	54	38	92
4	2755 W 15th Street	School	300 enrollment	486	68	57	125	24	24	48
5	3640 W Wilshire Blvd	Apartments	209 du	1182	18	72	90	73	40	113
6	940 S Western Avenue	Apartments Retail	79 du 8 ksf	380	6	31	37	26	11	37
7	535 S Kingsley Dr	Apartments	85 du	543	8	31	39	36	19	55
8	2850 W 7th St	Condominiums Other Retail	160 du 40 rooms 3.6 ksf	1057	20	72	92	72	42	114
9	800 S Harvard Blvd	Apartments Retail	131 du 7 ksf	827	14	32	46	44	33	77
10	2929 W Leeward Ave	Condominiums	80 du	476	7	33	40	44	21	65
11	2968 W 6th St	Apartments Commercial Commercial	399 du 12 ksf 8 ksf	2943	73	154	227	168	93	261
12	241 N Vermont	Apartments Retail	100 du 5 ksf	510	7	38	45	33	16	49
13	4110 W 3rd Street	Hotel Retail	174 rooms 27.8 ksf	1186	45	35	80	46	40	86
14	1011 S Serrano Ave	Apartments	91 du	545	8	33	41	32	18	50
15	3076 W Olympic Blvd	Apartments Retail	226 du 16.907 ksf	1567	25	78	103	90	56	146
16	3875 W Wilshire Bl	Apartments	196 du	1114	17	68	85	69	37	106
17	3350 W Wilshire Bl	Apartments	121 du	728	11	43	54	47	25	72
18	3545 W Wilshire Blvd	Apartments Retail	433 du 49.849 ksf	917	-42	83	41	84	10	94
19	605 S Vermont Ave	Apartments Museum	103 du 30.937 ksf	755	17	39	56	42	37	79
20	1011 S Park View St	Apartments	108 du	594	9	38	47	38	19	57
21	2965 W 6th St	Hotel	99 rooms	688	26	18	44	25	25	50
22	1255 E Elden Ave	Apartments	93 du	376	0	32	32	28	10	38
23	2972 W 7th St	Apartments Retail	180 du 15 ksf	486	7	59	66	43	8	51
24	1017 S Mariposa Ave	Apartments	79 du	373	5	23	28	23	12	35
25	2859 W Francis Ave	Apartments	81 du	492	7	28	35	31	5	36
26	700 S Manhattan pl	Apartments Restaurant Retail	162 du 6.5 ksf 3.5 ksf	1260	19	57	76	71	46	117
27	411 S Normandie Ave	Apartments	224 du	1407	22	86	108	87	47	134
28	3525 W 8th Street	Apartments Supermarket	367 du 22.906 ksf	1214	8	121	129	83	25	108
29	2870 W Olympic Blvd	Hotel Retail	78 rooms 16.384 ksf	834	22	14	36	30	28	58
30	815 S Kingsley Dr	Apartments	90 du	542	8	33	41	33	17	50
31	616 S Westmoreland Ave	Apartments Restaurant Retail	72 du 2.765 ksf 1.043 ksf	461	2	29	31	30	5	35
32	2525 Wilshire Bl	Condominiums Retail	160 du 7.5 ksf	1160	16	60	76	61	36	97
33	3330 W Beverly Bl	Apartments Childcare	40 du 4.237 ksf	495	26	34	63	35	32	67
34	2405 W 8th Street	Apartments Retail	144 du 4.406 ksf	333	-20	48	28	42	-15	27
35	422 Lake St	Apartments	80 du	532	8	33	41	33	17	50
36	1929 W Pico Bl	School	480 enrollment	821	140	66	206	20	42	62
37	235 N Hoover	Apartments	214 du	1423	22	87	109	86	47	133
38	3240 W Wilshire Bl	Hotel Apartments Retail	162 rooms 545 du 5222 ksf	1,353	15	173	188	89	23	112
39	1930 W Wilshire Bl	Apartments Theatre Classroom Hotel	478 du 850 seats 50 enrollment 220 rooms	1355	-44	128	84	103	-41	62
40	888 S Vermont Avenue	Office Retail	4.4 ksf 47.208 ksf	2526	45	19	64	171	169	340
41	1000 S Vermont Ave	Apartments Retail	236 du 60.3 ksf	2655	39	94	133	137	102	239
42	257 S Mariposa Avenue	Retail Apartments	3.94 ksf 140 du	1036	14	58	94	61	33	72
43	2501 W Olympic Blvd	Apartments Retail	173 du 184.56 ksf	1911	27	72	99	100	73	173
44	3170 W Olympic Blvd	Retail	32.3 ksf	1624	24	89	113	94	56	150

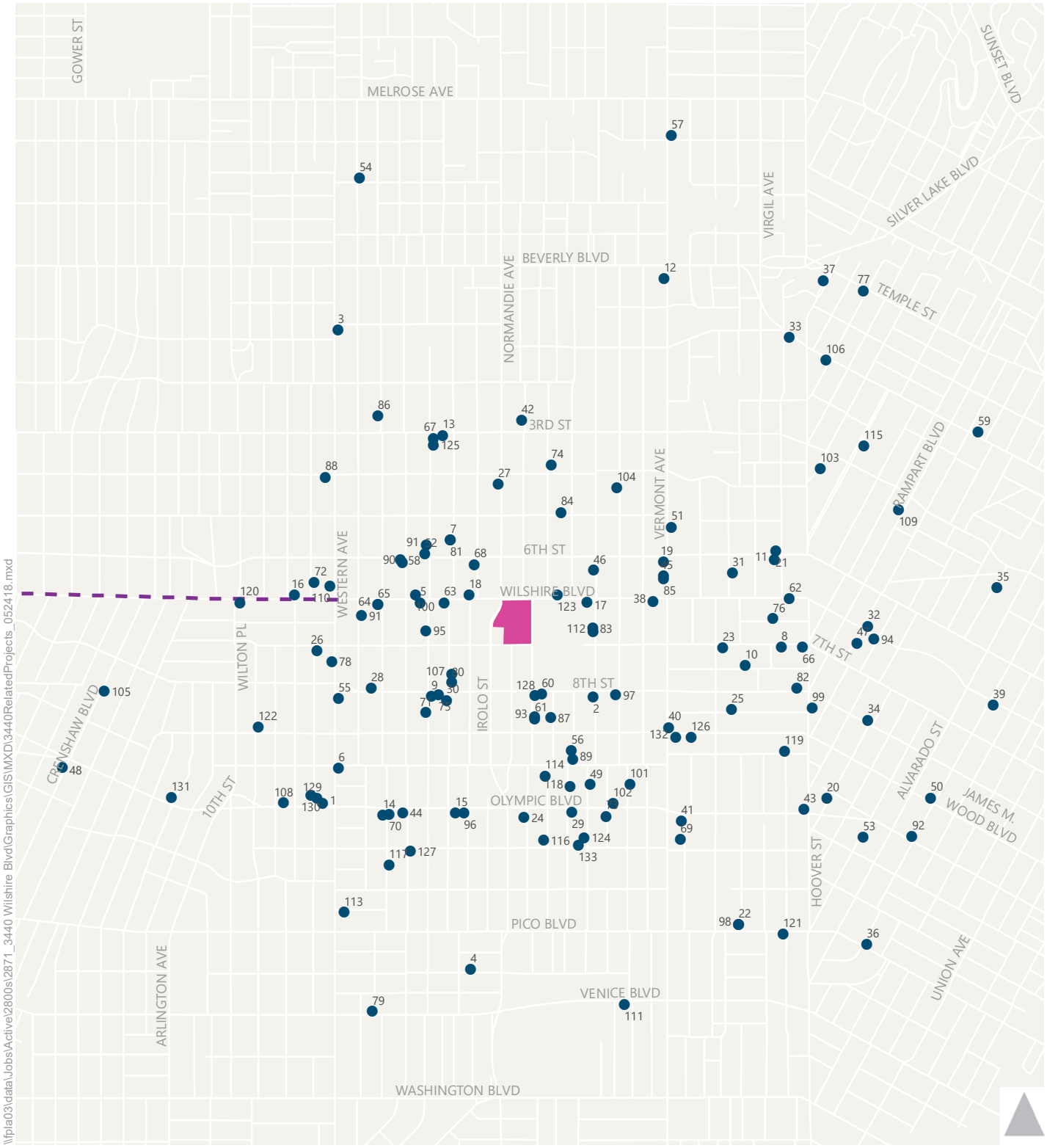
Table 5
3440 Wilshire Project
Related Project List

No.	Project Location [a]	Land Use	Size		Estimated Trip Generation [b]						
					Daily	AM Peak Hour Trips			PM Peak Hour Trips		
					Trips	In	Out	Total	In	Out	Total
45	631 S Vermont Av	Hotel Condominiums Office Retail	200 250 49.22 21.32	rooms du ksf ksf	2599	95	95	190	115	120	235
46	621 S Catalina St	Apartments Retail Restaurant Banquet Hall	165 8.5 15 15	du ksf ksf ksf	2776	26	55	81	180	95	275
47	668 S Coronado St	Apartments Retail	122 1182	du ksf	947	14	48	62	56	34	90
48	1009 S Crenshaw Blvd	Apartments Retail	206 23.585	ksf du	587	-14	48	34	33	23	56
49	966 Dewey Av	Hotel	99	rooms	677	28	15	43	24	24	48
50	2005 W James M Wood Blvd	Hotel	100	rooms	545	24	18	42	20	18	38
51	510 S Vermont Ave	Office Retail Sr. Housing Community Center Apartments	2166 17.5 72 13.2 246	employees ksf du ksf ksf	3215	216	104	320	121	293	414
52	3751 W 6th Street	Apartments Hotel rooms Retail Restaurant	44 200 10 8	du rooms ksf ksf	1183	39	31	70	36	21	57
53	1030 S Lake St	Assisted Living	203	rooms	939	39	23	62	49	48	97
54	500 S Oxford Ave	Condominiums	89	du	439	6	27	33	26	13	39
55	800 S Western Av	Apartments Retail Restaurant Hotel	96 29.73 30 148	du ksf ksf rooms	3908	127	98	225	149	111	260
56	923 S Kenmore Avenue	Apartments	69	du	432	7	26	33	26	15	40
57	600 N Vermont Av	Apartments Retail	120 14.6	du ksf	320	8	46	54	12	18	30
58	3800 W 6th St	Condominiums Hotel Retail	122 192 23.549	du rooms ksf	1966	34	50	84	73	51	124
59	2515 W Beverly Blvd	School	650	students	527	131	126	257	40	22	62
60	3216 W 8th St	Condominiums Hotel Retail Entertainment	8 60 4.808 2.465	du rooms ksf ksf	694	24	18	42	42	32	74
61	840 S Mariposa Av	Apartments	173	du	978	15	60	75	61	31	92
62	2900 Wilshire	Apartments Retail Restaurant	644 10 5.5	DU ksf ksf	3482	81	135	216	137	81	218
63	3600 Wilshire	Apartments Retail	810 30	DU ksf	3307	47	202	249	202	107	309
64	3700 Wilshire	Office	103.719	DU	858	108	14	122	20	96	116
65	3700 Wilshire	Apartments Retail	510 64.296	DU ksf	3500	49	153	202	178	81	259
66	2806 W 7th St	Apartments	158	du	1051	16	64	81	64	34	98
67	300 S Harvard Blvd	Hotel Restaurant	171 2.8	rooms ksf	447	69	64	133	65	52	117
68	601 S Ardmore Ave	Apartments Commercial	428 31.689	du ksf	4199	63	187	248	228	154	383
69	1041 S Menlo Ave	Apartments Commercial	228 53.41	du ksf	3797	55	112	167	187	152	339
70	1006 S Serrano Ave	Apartments Commercial	252 33.28	du ksf	3097	46	115	161	161	119	279
71	837 Harvard Blvd	Apartments	65	du	432	7	27	33	26	14	40
72	636 S Manhattan Pl	Apartments Retail	132 0.9	du ksf	916	14	54	68	55	31	85
73	1021 1/2 Catalina St	Commercial Apartments	5.289 70	ksf du	692	10	31	41	37	25	63
74	352 S Alexandria Ave	Apartments	59	du	392	6	24	30	24	13	37
75	3418 W 8th St	Apartments	131	du	871	13	53	67	53	28	81
76	2867 W Sunset Pl	Apartments	60	du	399	6	24	31	24	13	37
77	3200 Temple St	Apartments	59	du	392	6	24	30	24	13	37
78	721 S Western Ave	Apartments Retail	160 10.282	du ksf	1503	22	69	92	82	55	137
79	2229 W Venice Blvd	Office	120	ksf	1324	165	22	187	30	148	179
80	762 S Kingsley Dr	Apartments	67	du	446	7	27	34	27	15	42
81	535 S Kingsley Dr	Condominums	72	du	418	5	26	32	25	12	37
82	2723 W 8th St	School	450	students	581	111	91	203	33	34	68
83	685 S Catalina St	Apartments	120	du	798	12	49	61	48	26	74
84	3551 W 5th St	Apartments	69	du	459	7	28	35	28	15	43
85	635 S Vermont Ave	Apartments Commercial	179 12	du ksf	1702	25	77	103	93	62	156
86	245 S Serrano Ave	Apartments	54	du	359	6	22	28	22	12	33
87	839 Fedora St	Condominium	75	du	436	6	27	33	26	13	39

Table 5
3440 Wilshire Project
Related Project List

No.	Project Location [a]	Land Use	Size		Estimated Trip Generation [b]						
					Daily	AM Peak Hour Trips			PM Peak Hour Trips		
					Trips	In	Out	Total	In	Out	Total
88	4250 W 4th St	Apartments	57	du	688	10	26	36	36	26	62
		Commercial	7.228	ksf							
89	933 1/2 S Kenmore Ave	Apartments	68	du	452	7	28	35	27	15	42
90	601 S Hobart Ave	Retail	15.2	ksf	1460	77	107	184	124	96	219
		Hotel	192	rooms							
		Condominiums	122	du							
91	672 Oxford Ave	Apartments	506	du	6014	89	229	318	314	230	544
		Commercial	62.035	ksf							
91	547 S Harvard Blvd	Apartments	44	du	7872	169	141	310	386	396	780
		Hotel	200	rooms							
		Commercial	175	ksf							
92	2001 W Olympic Blvd	Hotel	150	rooms	375	50	47	97	54	49	104
		Retail	6.917	ksf							
93	836 S Mariposa Ave	Condominium	98	du	569	7	36	43	34	17	51
94	2500 W Wilshire Blvd	Office	12.5	ksf	1787	42	103	146	103	69	173
		Apartments	248	du							
95	687 S Harvard Blvd	Hotel	110	rooms	292	45	41	86	42	33	75
		Restaurant	1.84	ksf							
96	3060 W Olympic Blvd	Retail	17.768	ksf	2262	34	98	132	123	83	206
		Apartments	226	du							
97	3100 W 8th St	Apartments	98	du	805	12	41	53	45	28	74
		Retail	3.575	ksf							
98	1255 S Elden Ave	Apartments	93	du	618	9	38	47	37	20	58
99	820 S Hoover St	Condominiums	32	du	414	7	15	22	18	14	32
		Retail	4.5	ksf							
100	3663 W Wilshire Blvd	Office	55.38	ksf	825	94	44	138	20	3	23
		School	216	seats							
		School	420	seats							
101	968 S Berendo St	Church	85.308	ksf	535	23	8	31	3	9	12
102	2789 W Olympic Bl	Office	27.81	ksf	612	16	8	24	25	29	54
		Retail	20.607	ksf							
103	326 S Reno St	Apartments	65	du	326	5	20	25	20	11	31
104	427 S Berendo St	Apartments	85	du	288	5	17	22	17	10	27
105	850 S Crenshaw	Apartments	44	du	293	4	18	22	18	10	28
106	3200 W Beverly Bl	Apartments	32	du	632	4	16	20	39	32	71
		Retail	5.867	ksf							
107	748 S Kingsley Drive	Apartments	67	du	406	6	25	31	24	14	38
108	3377 W Olympic Blvd	Assisted Living	146	du	358	13	0	13	8	28	36
		Office	8.682	ksf							
		Restaurant	4.454	ksf							
109	329 S Rampart Blvd	Apartments	45	du	279	6	17	23	17	9	26
		Affordable Housing	8	du							
110	635 S Western Av	Apartments	220	du	672	6	17	23	17	9	26
		Retail	0.9	ksf							
111	1810 W Venice Blvd	Storage	15.4	ksf	385	12	10	22	20	20	40
112	689 S Catalina St	Apartments	61	du	406	0	0	22	0	0	40
113	3062 W 12th Pl	Condominums	51	du	439	6	20	25	24	15	39
		Retail	3.35	ksf							
114	955 S Fedora St	Apartments	40	du	266	4	16	20	16	9	25
115	228 S Occidental Blvd	Apartments	48	du	319	5	20	24	19	10	30
116	1053 S Fedora St	Apartments	40	du	266	4	16	20	16	9	25
117	1124 S Serrano Ave	Apartments	42	du	279	4	17	21	17	9	26
118	968 S Kenmore Ave	Apartments	41	du	273	4	17	21	17	9	25
119	2649 W San Marino Ave	Apartments	46	du	306	5	19	23	19	10	29
120	3986 W Wilshire	Apartments	228	du	503	-50	6	-44	53	25	78
		Coffee Shop	1.75	ksf							
		Restaurant	3.5	ksf							
		Retail	12	ksf							
121	2250 W Pico Blvd	Hotel	125	rooms	409	26	19	45	10	9	19
122	870 S Gramercy Dr	Apartments	53	du	352	5	22	27	21	12	33
123	3377 W Wilshire Blvd	Restaurant	11.971	ksf	1077	0	10	10	60	30	90
124	1045 S Dewey Ave	Apartments	67	du	446	7	27	34	27	15	42
125	314 S Harvard Blvd	Apartments	20	du	133	2	8	10	8	4	12
126	2842 W James M. Wood Blvd	Apartments	193	du	2118	32	85	117	113	80	193
		Retail	19.544	ksf							
127	1100 S Hobart Ave[d]	Apartments	39	du	259	6	15	21	16	10	26
128	800 S Mariposa Ave	Hotel	80	rooms	1014	30	23	53	40	40	80
		Apartments	8	du							
		Commercial	7.181	ksf							
129	986 S Manhattan Pl	Apartments	114	du	758	18	45	63	47	29	76
130	981 S Manhattan Pl[d]	Apartments	95	du	632	15	37	52	39	25	64
131	991 S 3rd Ave	Apartments	51	du	339	5	21	26	21	11	32
132	2878 W James M. Wood Blvd	Apartments	50	du	333	5	21	26	20	11	31
133	2755 W 11th Street	Apartments	67	du	446	7	27	34	27	15	42
134	Metro Purple Line	Light Rail Transit	--	--	--	--	--	--	--	--	--

Note: DU = dwelling units
ksf = one thousand square feet
[a] Related projects list is based on information provided from LADOT in on May 1, 2018, and LADCP April 26,2018.
[b] Project includes the unoccupied office space of 3700 Wilshire Blvd as a related project



- Related Projects
- Purple Line Extension
- Project Site

Figure 6

Related Projects

Trip Generation

For related projects provided by LADOT, the trip generation was used as provided. For related projects provided by City Planning or other sources, trip generation was used from a combination of previous study findings and publicly available environmental documentation. Where trip generation estimates for the related projects were not available, they were calculated using trip generation rates contained in *Trip Generation, 9th*. Table 5 presents the resulting trip generation estimates for these related projects. These projections are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.).

Trip Distribution

The geographic distribution of the traffic generated by the related projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which employees and potential patrons of proposed commercial developments may be drawn, the locations of employment and commercial centers to which residents of residential projects may be drawn, and the location of the projects in relation to the surrounding street system. Additionally, if the traffic study or environmental document for a related project was available, the trip distribution from that study was used.

Traffic Assignment

Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related projects was assigned to the street network.

TRANSPORTATION INFRASTRUCTURE PROJECTS

The Metro Purple Line subway is currently undergoing an extension from the Wilshire/Western station to Westwood/UCLA. Construction for the first section of the project began in 2015 and is anticipated to be completed in 2023. The second section of the project, began in 2018 and is anticipated to be completed in 2025. The full project includes additional stations at Westwood/UCLA and Westwood/Veterans Affairs Hospital.

There are no other infrastructure changes in the study area planned for implementation by year 2026 per confirmation by City staff. Therefore, network changes were not included in the analysis.

FUTURE YEAR 2026 BASE TRAFFIC VOLUMES

Future year 2026 base weekday AM and PM peak hour traffic volumes and lane geometries for the analyzed intersections are provided in Appendix B. The Future Base traffic conditions represent an estimate of future conditions without the proposed Project inclusive of the ambient background growth and related projects traffic.

FUTURE PLUS PROJECT TRAFFIC PROJECTIONS

The proposed Project traffic volumes were added to the year 2026 Future Base traffic projections, resulting in Future (year 2026) plus Project AM and PM peak hour traffic volumes. As provided in Appendix B, the Future (year 2026) plus Project scenario presents future traffic conditions with the completion of the proposed Project.

4. INTERSECTION TRAFFIC IMPACT ANALYSIS

The traffic impact analysis evaluates the projected LOS at each study intersection under the Existing plus Project and Future (year 2026) plus Project conditions to estimate the incremental increase in the V/C ratios caused by the proposed Project. This provides the information needed to assess the potential impact of the project using significance criteria established by LADOT.

CRITERIA FOR DETERMINATION OF SIGNIFICANT TRAFFIC IMPACT

The City of Los Angeles has established threshold criteria to determine significant traffic impact of a proposed project in its jurisdiction. Under the LADOT guidelines, an intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. The following summarizes the impact criteria:

LOS	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.700 - 0.800	equal to or greater than 0.040
D	> 0.800 - 0.900	equal to or greater than 0.020
E or F	> 0.900	equal to or greater than 0.010

EXISTING PLUS PROJECT IMPACT ANALYSIS

EXISTING PLUS PROJECT TRAFFIC LEVEL OF SERVICE

The existing plus project traffic volumes presented in Appendix B were analyzed to determine the projected V/C ratios and LOS for each of the analyzed intersections under this scenario. Table 6 summarizes the Existing plus Project LOS. Analysis sheets are provided in Appendix D. As indicated in Table 6, all 14 signalized intersections are projected to operate at LOS D or better during both peak hours.

EXISTING PLUS PROJECT INTERSECTION IMPACTS

As shown in Table 6, after applying the aforementioned City of Los Angeles significant impact criteria, it is determined that the proposed Project would not result in significant impacts under Existing plus Project conditions at any of the study intersections.

TABLE 6
3440 WILSHIRE PROJECT
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	EXISTING		EXISTING + PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.719	C	0.722	C	0.003	No
	Wilshire Blvd	PM	0.661	B	0.664	B	0.003	No
2	Western Ave &	AM	0.660	B	0.661	B	0.001	No
	8th St	PM	0.619	B	0.621	B	0.002	No
3	Normandie Ave &	AM	0.627	B	0.628	B	0.001	No
	3rd St	PM	0.587	A	0.588	A	0.001	No
4	Normandie Ave &	AM	0.562	A	0.563	A	0.001	No
	6th St	PM	0.571	A	0.573	A	0.002	No
5	Normandie Ave &	AM	0.679	B	0.680	B	0.001	No
	Wilshire Blvd	PM	0.687	B	0.697	B	0.010	No
6	Irolo St &	AM	0.521	A	0.532	A	0.011	No
	7th St	PM	0.583	A	0.601	B	0.018	No
7	Irolo St &	AM	0.712	C	0.716	C	0.004	No
	8th St	PM	0.709	C	0.713	C	0.004	No
8	Normandie Ave &	AM	0.696	B	0.697	B	0.001	No
	Olympic Blvd	PM	0.715	C	0.717	C	0.002	No
9	Mariposa Ave &	AM	0.483	A	0.487	A	0.004	No
	6th St	PM	0.517	A	0.523	A	0.006	No
10	Mariposa Ave (West) &	AM	0.545	A	0.551	A	0.006	No
	Wilshire Blvd	PM	0.525	A	0.537	A	0.012	No
11	Mariposa Ave (East) &	AM	0.511	A	0.527	A	0.016	No
	Wilshire Blvd	PM	0.467	A	0.493	A	0.026	No
12	Mariposa Ave &	AM	0.403	A	0.416	A	0.013	No
	8th St	PM	0.450	A	0.483	A	0.033	No
13	Vermont Ave &	AM	0.833	D	0.839	D	0.006	No
	Wilshire Blvd	PM	0.757	C	0.759	C	0.002	No
14	Vermont Ave &	AM	0.649	B	0.650	B	0.001	No
	8th St	PM	0.651	B	0.658	B	0.007	No

FUTURE PLUS PROJECT IMPACT ANALYSIS

FUTURE BASE TRAFFIC CONDITIONS

The year 2026 Future Base peak hour traffic volumes were analyzed to determine the projected V/C ratio and LOS for each of the analyzed intersections. Table 7 summarizes the future LOS. Seven of the 14 signalized intersections analyzed for impacts are projected to operate at LOS D or better during the morning and afternoon peak hours under Future Base conditions. The following seven intersections are projected to operate at LOS E or worse during one or both of the peak hours under Future Base conditions:

1. Western Avenue & Wilshire Boulevard (LOS E during AM and PM)
2. Western Avenue & 8th Street (LOS E during AM and LOS F during PM)
5. Normandie Avenue & Wilshire Boulevard (LOS F during AM and PM)
7. Irolo Street & 8th Street (LOS F during AM and PM)
8. Normandie Avenue & Olympic Boulevard (LOS E during AM and LOS F during PM)
13. Vermont Avenue & Wilshire Boulevard (LOS F during AM and PM)
14. Vermont Avenue & 8th Street (LOS E during AM and LOS F during PM)

FUTURE PLUS PROJECT TRAFFIC CONDITIONS

The resulting Future (year 2026) plus Project peak hour traffic volumes, provided in Appendix B, were analyzed to determine the projected future operating conditions with the addition of the proposed Project traffic. The results of the Future (year 2026) plus Project analysis are also presented in Table 7, with analysis sheets provided in Appendix D. Seven of the 14 signalized intersections analyzed for impacts are projected to operate at LOS D or better during the morning and afternoon peak hours under Future (year 2026) plus Project conditions. The following seven intersections are projected to operate at LOS E or worse during one or both of the peak hours under Future (year 2026) plus Project conditions:

1. Western Avenue & Wilshire Boulevard (LOS E during AM and PM)
2. Western Avenue & 8th Street (LOS E during AM and LOS F during PM)
5. Normandie Avenue & Wilshire Boulevard (LOS F during AM and PM)
7. Irolo Street & 8th Street (LOS F during AM and PM)
8. Normandie Avenue & Olympic Boulevard (LOS E during AM and LOS F during PM)
13. Vermont Avenue & Wilshire Boulevard (LOS F during AM and PM)
14. Vermont Avenue & 8th Street (LOS E during AM and LOS F during PM)

FUTURE (YEAR 2026) PLUS PROJECT INTERSECTION IMPACTS

As shown in Table 7, using the criteria for determination of significant impacts, it is determined that the proposed Project would not result in significant impacts under Future (year 2026) plus Project conditions. No mitigation measures are therefore required.

TABLE 7
3440 WILSHIRE PROJECT
FUTURE YEAR (2026) PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	FUTURE (2026)		FUTURE (2026) + PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.972	E	0.975	E	0.003	No
	Wilshire Blvd	PM	0.940	E	0.943	E	0.003	No
2	Western Ave &	AM	0.920	E	0.921	E	0.001	No
	8th St	PM	1.009	F	1.012	F	0.003	No
3	Normandie Ave &	AM	0.828	D	0.828	D	0.000	No
	3rd St	PM	0.864	D	0.866	D	0.002	No
4	Normandie Ave &	AM	0.789	C	0.789	C	0.000	No
	6th St	PM	0.755	C	0.756	C	0.001	No
5	Normandie Ave &	AM	1.037	F	1.038	F	0.001	No
	Wilshire Blvd	PM	1.058	F	1.062	F	0.004	No
6	Irolo St &	AM	0.657	B	0.668	B	0.011	No
	7th St	PM	0.809	D	0.826	D	0.017	No
7	Irolo St &	AM	1.189	F	1.194	F	0.005	No
	8th St	PM	1.279	F	1.285	F	0.006	No
8	Normandie Ave &	AM	0.962	E	0.963	E	0.001	No
	Olympic Blvd	PM	1.046	F	1.049	F	0.003	No
9	Mariposa Ave &	AM	0.569	A	0.575	A	0.006	No
	6th St	PM	0.619	B	0.625	B	0.006	No
10	Mariposa Ave (West) &	AM	0.690	B	0.696	B	0.006	No
	Wilshire Blvd	PM	0.701	C	0.713	C	0.012	No
11	Mariposa Ave (East) &	AM	0.657	B	0.673	B	0.016	No
	Wilshire Blvd	PM	0.635	B	0.661	B	0.026	No
12	Mariposa Ave &	AM	0.574	A	0.587	A	0.013	No
	8th St	PM	0.661	B	0.698	B	0.037	No
13	Vermont Ave &	AM	1.159	F	1.165	F	0.006	No
	Wilshire Blvd	PM	1.161	F	1.168	F	0.007	No
14	Vermont Ave &	AM	0.985	E	0.990	E	0.005	No
	8th St	PM	1.046	F	1.048	F	0.002	No

UNSIGNALIZED INTERSECTION SIGNAL WARRANT ANALYSIS

One intersection near the project site is currently unsignalized, Mariposa Avenue & 7th Street. The City of Los Angeles traffic analysis methodology and significance criteria are for signalized intersections only. The City does not provide impact thresholds for unsignalized intersections. Rather, the LADOT *Transportation Impact Study Guidelines* states that "unsignalized intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device."

Traffic volumes and lane configurations, as presented in Appendix B, were used to prepare the signal warrant analysis at the Mariposa Avenue & 7th Street unsignalized intersection under existing, existing plus project, future base, and future plus project conditions. As shown in Table 8, the intersection met the signal warrant thresholds during the PM peak hour under all analysis scenarios, except existing conditions. During the AM peak hour, the intersection met the signal warrant for future plus project conditions. Analysis sheets are provided in Appendix F.

TABLE 8
3440 WILSHIRE PROJECT
PEAK HOUR SIGNAL WARRANT ANALYSIS

No.	INTERSECTIONS	PEAK HOUR	EXISTING SIGNAL WARRANT MET	EXISTING PLUS PROJECT SIGNAL WARRANT MET	FUTURE BASE SIGNAL WARRANT MET	FUTURE PLUS PROJECT SIGNAL WARRANT MET
A	Mariposa Ave & 7th St	AM	No	No	No	Yes
		PM	No	Yes	Yes	Yes

5. NEIGHBORHOOD TRAFFIC IMPACT ANALYSIS

This chapter presents the results of an analysis conducted regarding the potential for Project impacts on local residential streets in neighborhoods near the Project. The analysis was conducted on two residential street segments to the south of 7th Street and the project site on Normandie Avenue and Mariposa Avenue. These streets were selected in conjunction with the City of Los Angeles, as they were determined to have a greater likelihood of neighborhood cut-through traffic from the Project. The significance of potential impacts was assessed using criteria established by the City of Los Angeles.

24-hour machine counts were conducted on the two analyzed street segments in April 2018. Future daily traffic volumes were projected in a manner similar to the peak hour analysis of the study intersections, including both ambient growth at 1% per year as well as anticipated traffic from cumulative projects that could be constructed by 2026. The net new Project trips were assigned to the street network based on the Project trip distribution pattern presented in Chapter 3 and were added to the future base projection to obtain future plus project projections.

NEIGHBORHOOD STREET IMPACTS

Under the City of Los Angeles guidelines, a project impact on a local residential street would be considered significant if the new commercial trips generated by the project result in increases in average daily traffic (ADT) volumes as follows:

Projected ADT with Project (Final ADT)	Project-Related Increase in ADT
0 to 999	120 or more
1,000 to 1,999	12% or more of final ADT
2,000 to 2,999	10% or more of final ADT
3,000 or more	8% or more of final ADT

Daily traffic volumes for the existing and projected future conditions are summarized in Tables 9 to 10. As shown, the proposed Project would not result in a significant impact at any of the study neighborhood street segments.

TABLE 9
3440 WILSHIRE PROJECT
NEIGHBORHOOD STREET IMPACT ANALYSIS - EXISTING PLUS PROJECT ANALYSIS

Street Segment	Weekday Two-Way Daily	With Project Impact Analysis				
	Existing Base	Commercial Project Only	Existing plus Project	Project % Increase	Impact Criteria [a]	Significant Impact?
Mariposa Ave south of 7th Street	5,531	77	5,608	1.4%	8%	NO
Normandie Ave south of 7th Street	4,164	[b]	4,164	[b]	8%	No

Notes:

[a] Uses City of Los Angeles impact criteria for residential street segments.

[b] Negligible number of project trips are projected to use this segment.

TABLE 10
3440 WILSHIRE PROJECT
NEIGHBORHOOD STREET IMPACT ANALYSIS - CUMULATIVE PLUS PROJECT ANALYSIS

Street Segment	Weekday Two-Way Daily Volume		With Project Impact Analysis				
	Existing Base	Cumulative Base	Commercial Project Only	Cumulative plus Project	Project % Increase	Impact Criteria [a]	Significant Impact?
Mariposa Ave south of 7th Street	5,531	6,271	77	6,348	1.2%	8%	NO
Normandie Ave south of 7th Street	4,164	4,509	[b]	4,509	[b]	8%	NO

Notes:

[a] Uses City of Los Angeles impact criteria for residential street segments.

[b] Negligible number of project trips are projected to use this segment.

6. REGIONAL TRANSPORTATION SYSTEM IMPACT ANALYSIS

This section presents an analysis of potential impacts on the regional transportation system. This analysis was conducted in accordance with the procedures outlined in *Congestion Management Program for Los Angeles County* (Metro, 2010). The CMP requires that, when an environmental impact report is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities.

In addition, *Agreement Between City of Los Angeles and Caltrans District 7 on Freeway Impact Analysis Procedures* (October 2013, as amended in December 2015) sets forth criteria for when a freeway impact analysis should be conducted. LADOT determined as part of the traffic study memorandum of understanding for the Project (see Appendix A) that the Project would not meet these criteria for requiring a freeway impact analysis.

REGIONAL TRAFFIC IMPACT ANALYSIS

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM peak hours of adjacent street traffic.

- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM peak hours.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when a certain threshold is exceeded. If the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$), a significant impact would occur. If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($V/C \geq 0.02$).

ARTERIAL MONITORING STATIONS

The CMP arterial monitoring station closest to the proposed project site is at Western Avenue & Wilshire Boulevard located west of the proposed project site. Based on the project trip distribution and trip generation, the project is expected to add approximately 11 trips in the AM peak hour and 17 trips in the PM peak hour through the CMP arterial monitoring station. The proposed project is not estimated to exceed the arterial analysis criteria of 50 vehicle trips at the above-mentioned location; therefore, no further CMP arterial analysis is required.

FREEWAY ANALYSIS

Regional access to the project site is provided by the US-101 Freeway located approximately 1.6 miles north of the project site and the I-10 Freeway located approximately 1.7 miles to the south of the project site, respectively. The CMP freeway monitoring stations closest to the project site includes the US-101 Freeway at Normandie Avenue and the I-10 Freeway at Budlong Avenue.

The CMP freeway monitoring station closest to the project site on the US-101 freeway is located at Normandie Avenue. Based on the Project distribution patterns, approximately 7.5% of project traffic is expected to travel through the US-101 freeway monitoring station at Normandie Avenue. According to the trip generation estimates shown in Table 4, the project is projected to result in an increase of 10 trips in the morning and 14 trips in the evening peak hour US-101 at Normandie Avenue.

The CMP freeway monitoring stations closest to the project site on the I-10 freeway are at Budlong Avenue. Approximately 7.5% of project traffic is expected to travel east on the I-10 freeway through Budlong Avenue and approximately 7.5% is expected to travel west on the I-10 freeway towards the City of Santa Monica. The project is projected to result in an increase of 10 trips in the morning and 14 trips in the evening peak hour on eastbound and westbound I-10 freeway.

Since fewer than 150 trips would be added during the AM or PM peak hours in either direction at any of the freeway segments in the vicinity of the study area, no further analysis of the freeway segments is required for CMP purposes.

REGIONAL TRANSIT IMPACT ANALYSIS

Potential increases in transit person trips generated by the proposed project were estimated. Appendix C-8 of the 2010 CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the projected number of vehicle trips. This methodology assumes an average vehicle ridership (AVR) factor of 1.4 in order to estimate the number of person trips to and from the project and then provides guidance regarding the percentage of person trips assigned to public transit depending on the type of use (commercial/other versus residential) and the proximity to transit services. Appendix C-8 of the 2010 CMP recommends summarizing the fixed-route local bus services within ¼ mile of the project site and express bus routes and rail service within two miles of the project site.

Excluding the transit credit in the trip generation table shown in Table 4, the proposed Project would have an estimated increase in vehicle trip generation of approximately 201 net vehicle trips during the AM peak hour and 310 during the PM peak hour before the transit credit. Applying the AVR factor of 1.4 to the estimated vehicle trips would result in an estimated increase of approximately 281 and 434 person trips during the AM and PM peak hours, respectively.

As discussed in Chapter 3, a 25% transit credit was applied to the Project trip generation estimates to account for trips made to and from the project site using modes other than automobiles. The Project is located within a ¼-mile walking distance of the Metro Purple Line at the Wilshire/Western Station as well as the transit service documented in Table 1. Consistent with this approach, the Project would generate an estimated increase of 70 transit trips during the AM peak hour and 108 transit trips during the PM peak hour. Given the frequency of the high quality transit service in close proximity to the project site, including the Metro Purple Line subway and multiple Metro Rapid and local bus routes, the incremental transit riders resulting from the Project are not anticipated to result in a significant impact on the transit lines serving the area.

7. SITE ACCESS

The proposed project would have four driveways:

- A full-access driveway on Mariposa Avenue.
- Two full-access driveways on 7th Street.
- A full-access driveway on Irolo Street.

The loading areas for the project uses will be located in the parking structure on Level 1 and will be accessible from the Mariposa Avenue driveway.

LEVEL OF SERVICE ANALYSIS FOR PROJECT DRIVEWAYS

A level of service analysis was conducted at to evaluate the ability of the project access plan to accommodate the anticipated traffic levels at the driveway access points. The residents will primarily use the Mariposa Avenue driveway and eastern 7th Street driveway, but all other land uses on the site will have access to use each of the driveways, similar to the existing site access. The driveway LOS analysis focuses on the two driveways which will be used by residents.

The driveway locations below will be unsignalized and stop-controlled and were analyzed using the 2-way Stop methodology from the HCM. The HCM methodology determines the average vehicle delay for the stop-controlled approach to find the corresponding LOS based on the definitions presented in Table 2B. Driveway analysis LOS worksheets are included in Appendix D. Table 11 shows the results of the LOS analysis at the unsignalized driveways.

TABLE 11 – DRIVEWAY SERVICE AND IMPACT ANALYSIS

Driveway Location	Peak Hour	Existing plus Project (2018)		Future plus Project (2026)	
		Delay (seconds)	LOS	Delay (seconds)	LOS
7th Street Eastern Driveway	AM PM	13.9 18.4	B C	14.6 20.2	B C
Mariposa Avenue Driveway	AM PM	21.9 23.2	C C	24.6 26.0	C D

As shown, the driveways are projected to operate at acceptable LOS (LOS D or better) under Existing plus Project (2018) and Future plus Project (2026) conditions.

8. CONSTRUCTION PERIOD IMPACT ANALYSIS

CONSTRUCTION IMPACT CRITERIA

LADOT generally considers construction-related traffic to cause adverse but not significant impacts because, while sometimes inconvenient, construction-related traffic effects are temporary. LADOT requires implementation of worksite traffic control plans to ensure that any construction-related effects are minimized to the greatest extent possible.

The LA CEQA Thresholds Guide provides four categories to be considered in regards to in-street construction impacts: temporary traffic impacts, temporary loss of access, temporary loss of bus stops or rerouting of bus lines, and temporary loss of on-street parking (LA CEQA Threshold Guide, pages L.8-2 through L.8-4). The factors to be considered in each of these categories as established in the LA CEQA Threshold Guide are as follows:

- Temporary Traffic Impacts:
  - The length of time of temporary street closures or closures of two or more traffic lanes;
  - The classification of the street (major arterial, state highway) affected;
  - The existing traffic levels and LOS on the affected street segments and intersections;
  - Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;
  - Potential safety issues involved with street or lane closures;
  - The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.
- Temporary Loss of Access:
  - The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area;
  - The availability of alternative vehicular or pedestrian access within ¼ mile of the lost access;
  - The type of land uses affected, and related safety, convenience, and/or economic issues.
- Temporary Loss of Bus Stops or Rerouting of Bus Lines:
  - The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;
  - The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated;
  - The existence of other bus stops or routes with similar routes/ destinations within a ¼mile radius of the affected stops or routes;
  - Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).
- Temporary Loss of On-Street Parking:
  - The current utilization of existing on-street parking;
  - The availability of alternative parking locations or public transit options (e.g. bus, train) within ¼ mile of the project site;
  - The length of time that existing parking spaces would be unavailable.

The LAMC provides that construction activities are limited to the hours from 7:00 AM to 9:00 PM on weekdays and from 8:00 AM to 6:00 PM on Saturdays and holidays. No construction is permitted on Sundays.

CONSTRUCTION IMPACT ASSESSMENT

Construction of the project is anticipated to begin in January 2022 and end in January 2026 for a total construction duration of approximately 48 months to complete. The construction of the two project towers, Tower 1 and Tower 2, will be completed sequentially. Demolition and grading phases for both towers will occur at the same time and the construction and architectural coatings phases of Tower 1 and Tower 2 will occur sequentially. The construction is anticipated to involve four key phases:

(1) demolition and site preparation – 2 months;

(2) grading – 3 months;

(3) construction – 19 months for Tower 1 and 19 months for Tower 2;

(4) architectural coatings – 5 months for Tower 1 and 5 months for Tower 2.

The assessment of the Project against the construction impact factors established in the *LA CEQA Thresholds Guide* is presented in Table 12 and discussed below.

TEMPORARY TRAFFIC IMPACTS

Full-time closures to the sidewalk and parking lane are anticipated for the project along Mariposa Avenue and 7th Street. Mariposa Avenue is classified as a local street and 7th Street is classified as an Avenue II. In addition, there are no emergency services located within the immediate vicinity of the affected streets. The closures during construction would be for the parking lane; therefore, the temporary construction impacts on the roadway network would be considered less than significant.

The sidewalks along Mariposa Avenue and 7th Street fronting the project construction will be closed for the duration of the project. Sidewalk and lane closures are not anticipated along Wilshire Boulevard. The sidewalk on the east side of Mariposa Avenue and south side of 7th Street will be open and pedestrians are anticipated to use this as a detour throughout construction. As such, the temporary impacts to pedestrians during construction would be less than significant.

The intersection of Mariposa Avenue (South) & Wilshire Boulevard operates at LOS A during both peak hours under existing conditions, and would operate at LOS A during the both peak hours under cumulative conditions. The intersection of Irolo Street & 7th Street operates at LOS A during both peak hours under existing conditions, and would operate at LOS B in the AM peak hour and LOS D during the PM peak hour under cumulative conditions.

Worksite traffic control plans would be prepared for any temporary vehicle lane, bicycle lane, or sidewalk closures in accordance with applicable City and MUTCD guidelines.

TEMPORARY LOSS OF ACCESS

The existing office building located directly north of the construction site will remain open throughout construction. In addition, the parking garage will remain open during construction as well providing parking for both the office building tenants and the construction workers. Pedestrian and vehicular access to properties located to the east and west of the project site will be open and unobstructed for the duration of construction. Since the Project construction would not block any vehicle or pedestrian access to other parcels fronting the construction area, impacts would be less than significant.

TEMPORARY LOSS OF BUS STOPS OR REROUTING OF BUS LINES

Bus stops are not located along Mariposa Avenue or 7th Street where the parking lane closures would occur. A bus only lane is located on the south side of Wilshire Boulevard adjacent to the project site and a bus stop is present directly east of Irolo Street, but construction will not affect bus operations as there are no sidewalk or lane closures anticipated on Wilshire Boulevard along the Project frontage. Therefore, the project construction would not require relocation of bus stops and the construction impacts on transit operations would be less than significant.

TEMPORARY LOSS OF ON-STREET PARKING

Construction would require temporary removal of well utilized on-street parking spaces along the project frontages of Mariposa Avenue, from Wilshire Boulevard to 7th Street, and 7th Street, from Irolo Street to Mariposa Avenue, to accommodate the construction area footprint and/or temporary truck staging. This would require the temporary removal of 12 two-hour metered parking spaces along Mariposa Avenue and 16 two-hour metered parking spaces along 7th Street for 24 months. Per the provisions in the California Public Resources Code Section 21099, which implements SB 743, parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. As such, temporary parking impacts would be less than significant.

TABLE 12
3440 WILSHIRE PROJECT
CONSTRUCTION IMPACT SIGNIFICANCE FACTORS

Significance Factor [a]	**Assessment**	**Conclusion**
Per the *LA CEQA Thresholds Guide* , the determination of significance shall be made on a case-by-case basis, considering the following factors:		
Temporary Traffic Impacts:		
• The length of time of temporary street closures or closures of two or more traffic lanes; • The classification of the street (major arterial, state highway) affected; • The existing traffic levels and level of service (LOS) on the affected street segments and intersections; • Whether the affected street directly leads to a freeway on- or off-ramp or other state highway; • Potential safety issues involved with street or lane closures; • The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.	• Temporary street closures or closures of two or more traffic lanes are not anticipated. • The streets affected by any temporary lane or sidewalk closures (Mariposa Avenue and 7th Street) local street and Avenue II, respectively. • The Mariposa/Wilshire and Irolo/7th intersections currently operates at LOS A during both peak periods. Mariposa/Wilshire operates at LOS A during both peak periods under cumulative. Irolo/7th operates at LOS B (AM) and LOS D (PM) under cumulative. • None of the affected streets directly lead to a freeway on- or off-ramp or other state highways. • Worksite traffic control plans would be prepared for any temporary lane closures in accordance with applicable City and MUTCD guidelines. • There are no emergency services located within the immediate vicinity of the affected streets.	• Less than significant.
Temporary Loss of Access:		
• The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area; • The availability of alternative vehicular or pedestrian access within ¼ mile of the lost access; • The type of land uses affected, and related safety, convenience, and/or economic issues.	• Blockage of existing vehicle or pedestrian access to parcels fronting the construction area is not anticipated. Access to the office building and parking structure will remain throughout construction.	• Less than significant.
Temporary Loss of Bus Stops or Rerouting of Bus Lines:		
• The length of time that an existing bus stop would be unavailable or that existing service would be interrupted; • The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated; • The existence of other bus stops or routes with similar routes/ destinations within a ¼mile radius of the affected stops or routes; • Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).	• There are no bus stops along the Mariposa Avenue and 7th Street. There is one bus lane on the south side of Wilshire Boulevard, with a bus stop located along the project frontage but as lane closures are not anticipated along Wilshire Boulevard, project construction would not require blockage of the bus lane.	• Less than significant.
Temporary Loss of On-Street Parking:		
• The current utilization of existing on-street parking; • The availability of alternative parking locations or public transit options (e.g. bus, train) within ¼ mile of the project site; • The length of time that existing parking spaces would be unavailable.	• The Project could require temporary removal of on-street parking spaces along the Project frontages on Mariposa Avenue and 7th Street to accommodate temporary truck staging or travel lanes. This requires the temporary removal of 28 well utilizted, two-hour, metered parking spaces for 24 months. • Public transit options are available within 1/4 mile of the Project site, including: Metro Purple Line Wilshire/Normandie Station and rapid and local bus routes on 6th Street, 8th Street, 9th Street, and Wilshire.	• Less than significant in accordance with SB 743/Public Resources Code Section 21099.
Note: SB 743 as implemented in California Public Resources Code Section 21099 provides that parking impacts of a residential, mixed- use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment. This guidance supersedes the significance guidance in the *LA CEQA Threshold Guide* .		

CONSTRUCTION TRAFFIC

CONSTRUCTION TRUCKS

Haul Trucks

Hauling activity is expected to occur during Phase 1, 2, and 3. Up to 30 haul trucks per day are anticipated on peak haul days in Phase 1 and up to 55 haul trucks per day are anticipated on peak haul days in Phase 2. One haul truck is anticipated in Phase 3.

Hauling hours are anticipated to be 7:00 AM to 5:00 PM. The haul route for the project will most likely be either eastbound on Wilshire Boulevard to the I-101 Freeway, or south on Irolo Street to the I-10 Freeway, to the Manning Pit Landfill in Irwindale. Trucks are expected to be staged off-site and dispatched to the project site as needed.

Equipment and Delivery Trucks

In addition to haul trucks, the site is also expected to generate equipment and delivery trucks during each phase of construction. One example would be concrete delivery, which would be required for the parking garage and the buildings on-site. Other materials could include plumbing supplies, electrical fixtures, and items used in furnishing the buildings. These materials would be delivered to the site and stored on-site. These deliveries are expected to occur in variously sized vehicles including small delivery trucks to cement mixer trucks and 18-wheel trucks. Additionally, construction equipment would have to be delivered to the site. This equipment could include cranes, bulldozers, excavators, and other large items of machinery. Most of the heavy equipment is expected to be transported to the site on large trucks such as 18-wheelers or other similar vehicles.

Minimal delivery/equipment trucks are expected to be needed under Phase 1 and Phase 2. Phase 3 is expected to generate up to 20 equipment/delivery trucks per day on peak activity days. Phase 4 is expected to generate up to 40 equipment/delivery trucks per day on peak activity days.

CONSTRUCTION EMPLOYEES

The number of construction workers would vary throughout the construction period with the building construction phase generating the highest number of trips. Phase 1 is expected to involve a total of 15 workers on site on a daily basis and Phase 2 will involve up to approximately 20 workers on a peak day. Phase 3 is expected to involve a total of 200 workers on site on a daily basis and Phase 4 will involve up to approximately 5 workers on a peak day.

CONSTRUCTION WORKER PARKING

During the demolition/excavation phase and the first portion of the building construction while the parking garage is under construction, it is anticipated that construction employees would be parked in the 3550 Wilshire parking lot directly next to the project site as well as in nearby buildings along Wilshire Boulevard owned by the project applicant. Once the subterranean parking structure component of the Project is complete, construction workers would also be parked in the additional spaces in the garage.

CONSTRUCTION PERIOD TRIP GENERATION

Based on the aforementioned information, a construction period trip generation analysis was conducted for each phase of construction to estimate daily, morning and evening peak hour passenger car equivalent (PCE) trips. Construction workers often travel to and from a worksite outside of the typical peak commute hours. For the purpose of the analysis, it was assumed that up to 40% of the construction workers will arrive during the peak morning commute hour and 40% will depart during the peak evening commute hour For the purposes of the trip generation analysis, the hauling hours were assumed to occur from 7:00 AM to 5:00 PM, a 10-hour period, which would create the highest number of haul trips in the peak hours. The delivery/equipment trucks are anticipated to arrive and depart between 7:00 AM and 5:00 PM, a 10-hour period. A PCE factor of 2.5 was assumed for haul trucks assuming the use of double-belly trailer trucks and a PCE factor of 2.0 was used for delivery trucks.

Table 13 shows a summary of construction period trip generation under each phase of construction. As shown, on a peak construction activity day, a total of up to 196 daily PCE trips are estimated to occur under Phase 1, of which 24 PCE trips would occur during each of the morning and evening peak hours. Phase 2 is estimated to generate a total of 331 daily PCE trips on a day with peak construction activity, of which 38 PCE trips are estimated to occur during each of the morning and evening peak hours. Phase 3 is estimated to generate a total of 485 daily PCE trips on a day with peak construction activity, of which 88 PCE trips are estimated to occur during each of the morning and evening peak hours. Phase 4 is estimated to generate a total of 170 daily PCE trips on a day with peak construction activity, of which 18 PCE trips are estimated to occur during each of the morning and evening peak hours.

At any given time, the peak construction activity is estimated to generate fewer daily and peak hour trips than are projected for the Project once it is completed and occupied (2,040 daily trips, 131 AM peak hour trips, and 186 PM peak hour trips, as shown in Table 4).

Although significant construction impacts are not anticipated, the influx of this material and equipment could create less than significant impacts on the adjacent roadway network based on the following considerations:

- There may be intermittent periods when large numbers of material deliveries are required, such as when concrete trucks will be needed for the parking garage and the buildings.
- Some of the materials and equipment could require the use of large trucks (18-wheelers), which could create additional congestion on the adjacent roadways.
- Delivery vehicles may need to park temporarily on adjacent roadways such as Sunset Place and Hoover Street as they deliver their items. Based on past experience, it is not uncommon for these types of deliveries to result in temporary lane closures.

TABLE 13
3440 WILSHIRE PROJECT
CONSTRUCTION PERIOD TRIP GENERATION

Peak Daily Activity Under Each Phase

	Demolition & Site Preparation	Grading	Construction	Architectural Coating
Construction Workers	*15*	*20*	*200*	*5*
Passenger Car Equivalent (PCE) factor	1.0	1.0	1.0	1.0
Haul Trucks	*30*	*55*	*1*	*0*
Passenger Car Equivalent (PCE) factor	2.5	2.5	2.5	2.5
Delivery/Equipment Trucks	*4*	*4*	*20*	*40*
Passenger Car Equivalent (PCE) factor	2.0	2.0	2.0	2.0

CONSTRUCTION PERIOD TRIP GENERATION

Phase	Daily PCE Trips [1]	Morning Peak Hour PCE Trips			Evening Peak Hour PCE Trips		
		In	Out	Total	In	Out	Total
Phase 1 - Demolition & Site Preparation							
Construction Worker Trips[2]	30	6	0	6	0	6	6
Haul Truck Trips [3]	150	8	8	16	8	8	16
Delivery/Equipment Truck Trips [3]	16	1	1	2	1	1	2
Phase 1 Total	***196***	***15***	***9***	***24***	***9***	***15***	***24***
Phase 2 - Grading							
Construction Worker Trips[2]	40	8	0	8	0	8	8
Haul Truck Trips [3]	275	14	14	28	14	14	28
Delivery/Equipment Truck Trips [3]	**16**	**1**	**1**	**2**	**1**	**1**	**2**
Phase 1 Total	***331***	***23***	***15***	***38***	***15***	***23***	***38***
Phase 3 - Construction							
Construction Worker Trips[2]	400	80	0	80	0	80	80
Haul Truck Trips [3]	5	0	0	0	0	0	0
Delivery/Equipment Truck Trips [3]	80	4	4	8	4	4	8
Phase 3 Total	***485***	***84***	***4***	***88***	***4***	***84***	***88***
Phase 4 - Architectural Coatings							
Construction Worker Trips[2]	10	2	0	2	0	2	2
Haul Truck Trips [3]	0	0	0	0	0	0	0
Delivery/Equipment Truck Trips [3]	160	8	8	16	8	8	16
Phase 34Total	***170***	***10***	***8***	***18***	***8***	***10***	***18***

PCE - Passenger car equivalent

Notes:

[1] - Daily trips were calculated by counting two trips, one inbound and one outbound trip for each vehicle

[2] - Up to 40% of the construction workers were assumed to arrive during the morning peak hour of adjacent street traffic. A total of up to 40% worker were assumed to depart during the evening peak hour.

[3] - Daily haul, delivery/equipment, and trash truck trips were assumed to occur evenly throughout an 8-hour construction day in off-peak hours. Therefore, the daily truck trips were divided by 8 hours to calculate morning and evening peak hour truck trips.

CONSTRUCTION MITIGATION MEASURES

As shown in Table 12, impacts related to construction traffic were found to be less than significant. In addition, the peak construction activity will generate fewer daily and peak hour trips than are projected for the project once it is completed and occupied. While mitigation measures are not required to mitigate significant impacts, to be conservative a Construction Traffic Management Plan and Construction Worker Parking Plan should be implemented.

A Construction Traffic Management Plan will be developed by the contractor and approved by the City of Los Angeles to alleviate construction period impacts, which may include but is not limited to the following measures:

- Provide off-site truck staging in a legal area furnished by the construction truck contractor. Anticipated truck access to the project site will be off Mariposa Avenue and 7th Street.
- Schedule deliveries and pick-ups of construction materials during non-peak travel periods to the extent possible and coordinate to reduce the potential of trucks waiting to load or unload for protracted periods.
- As one parking lane and/or sidewalk closures are anticipated, worksite traffic control plan(s), approved by the City of Los Angeles, should be implemented to route vehicular traffic, bicyclists, and pedestrians around any such closures.
- Establish requirements for loading/unloading and storage of materials on the project site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses and residences.
- Ensure that access will remain unobstructed for land uses in proximity to the project site during project construction.
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses and residences.

A Construction Worker Parking Plan will also be developed by the contractor and approved by the City of Los Angeles to ensure that the parking location requirements for construction workers will be strictly enforced. These could include but are not limited to the following measures:

- During construction activities when construction worker parking cannot be accommodated on the project site, the plan shall identify alternate parking location(s) for construction workers and the method of transportation to and from the project site (if beyond walking distance) for approval by the City 30 days prior to commencement of construction.
- Provide all construction contractors with written information on where their workers and their subcontractors are permitted to park, and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets.

9. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze the potential traffic impacts of the proposed development on the current site of 3440 Wilshire Boulevard. The following summarizes the results of this analysis:

- The proposed Project involves the construction of 641 multifamily high-rise units and 18,454 square feet of retail space.
- The proposed Project is located on Wilshire Boulevard between Irolo Street and Mariposa Avenue. Inbound and outbound vehicular access will be provided by four separate driveways, one on Mariposa Avenue, two on 7th Street, and one on Irolo Street. The loading areas for the project uses will be located in the parking structure on Level 1 and will be accessible from the Mariposa Avenue driveway.
- The Project would generate an estimated net increase of 2,040 daily vehicle trips, including 131 trips during the AM peak hour and 186 trips during the PM peak hour.
- The LOS analysis for the Existing plus Project and Future plus Project determined that the Project would not result in significant impacts at study area intersections.
- Significant CMP arterial, CMP freeway or transit impacts would not be created by the Project; therefore, no mitigation measures would be required.
- Impacts related to construction traffic were found to be less than significant. In addition, the peak construction activity will generate fewer daily and peak hour trips than are projected for the Project once it is completed and occupied. While mitigation measures are not required to mitigate significant impacts, to be conservative, a Construction Traffic Management Plan and Construction Worker Parking Plan should be implemented.

REFERENCES

2010 Highway Capacity Manual, Transportation Research Board, 2010.

City of Los Angeles Municipal Code.

Congestion Management Program for Los Angeles County, Metro, 2010.

Mobility Plan 2035, An Element of the General Plan, Los Angeles Department of City Planning, adopted by City Council September 7, 2016.

Transportation Impact Study Guidelines, LADOT, December 2016.

Trip Generation, 9th Edition, ITE, 2017.

Trip Generation, 10th Edition, ITE, 2017.

Trip Generation Handbook, 2nd Edition, ITE, 2004.

APPENDIX A:
LADOT MOU

updated 8/2/18

TRAFFIC STUDY - MEMORANDUM OF UNDERSTANDING (MOU)

This MOU acknowledges that the traffic study for the following project will be prepared in accordance with the latest version of LADOT's Traffic Study Policies and Procedures:

Project Name: **3440 Wilshire (Central Plaza Project)**
Project Address: **3440 Wilshire Boulevard, Los Angeles, CA 90010**
Project Description: ***See Figure 1. Project includes 641 apartment units and 18,454 sf retail.***

Geographic Distribution: N __ % S ___ % E ___ % W ___ % ***See Figure 2.***
Attach graphic illustrating project trip distribution percentages at the studied intersections

Trip Generation Rate(s): ITE 9th Edition / Other ***See Table 1.***
Attach trip generation table with a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc.

	in	out	total
AM Trips	19	112	131
PM Trips	125	61	186

Project Buildout Year: **2026**
Ambient or CMP Growth Rate: **1** % Per Yr.
Related Projects: **See *Attached Table 2 and Figure 3.***

Subject to Freeway Impact Analysis in addition to CMP Analysis: ___YES_x_NO (See Attachment A)
(freeway analysis screening filter should be included in this MOU; selecting "yes" implies that at least one criteria was satisfied)

Study Intersections: ***See Figure 2.***

1. Western Ave & Wilshire Blvd	6. Irolo St & 7th St	11. Mariposa Ave (S) & Wilshire Blvd
2. Western Ave & 8th St	7. Irolo St & 8th St	12. Mariposa Ave & 8th St
3. Normandie Ave & 3rd St	8. Normandie Ave & Olympic Blvd	13. Vermont Ave & Wilshire Blvd
4. Normandie Ave & 6th St	9. Mariposa Ave & 6th St	14. Vermont Ave & 8th St
5. Normandie Ave & Wilshire Blvd	10. Mariposa Ave (N) & Wilshire Blvd	

Trip Credits: (Exact amount of credit subject to approval by LADOT)

	Yes	No
Transit Usage	X	
Transportation Demand Management		X
Existing Active Land Use	X	
Previous Land Use		X
Internal Trip	X	
Pass-By Trip	X	

Consultant	Developer
Name: Tom Gaul, Fehr & Peers	Garrett Lee, Jamison Properties
Address: 600 Wilshire, Suite 1050, Los Angeles, CA 90017	3470 Wilshire Blvd, St 700, Los Angeles, CA 90010
Phone No.: 213-261-3050	213-201-1009
Approved by: _____ 8/9/18	_____ 8/2/18
Consultant's Representative Date	LADOT Representative Date

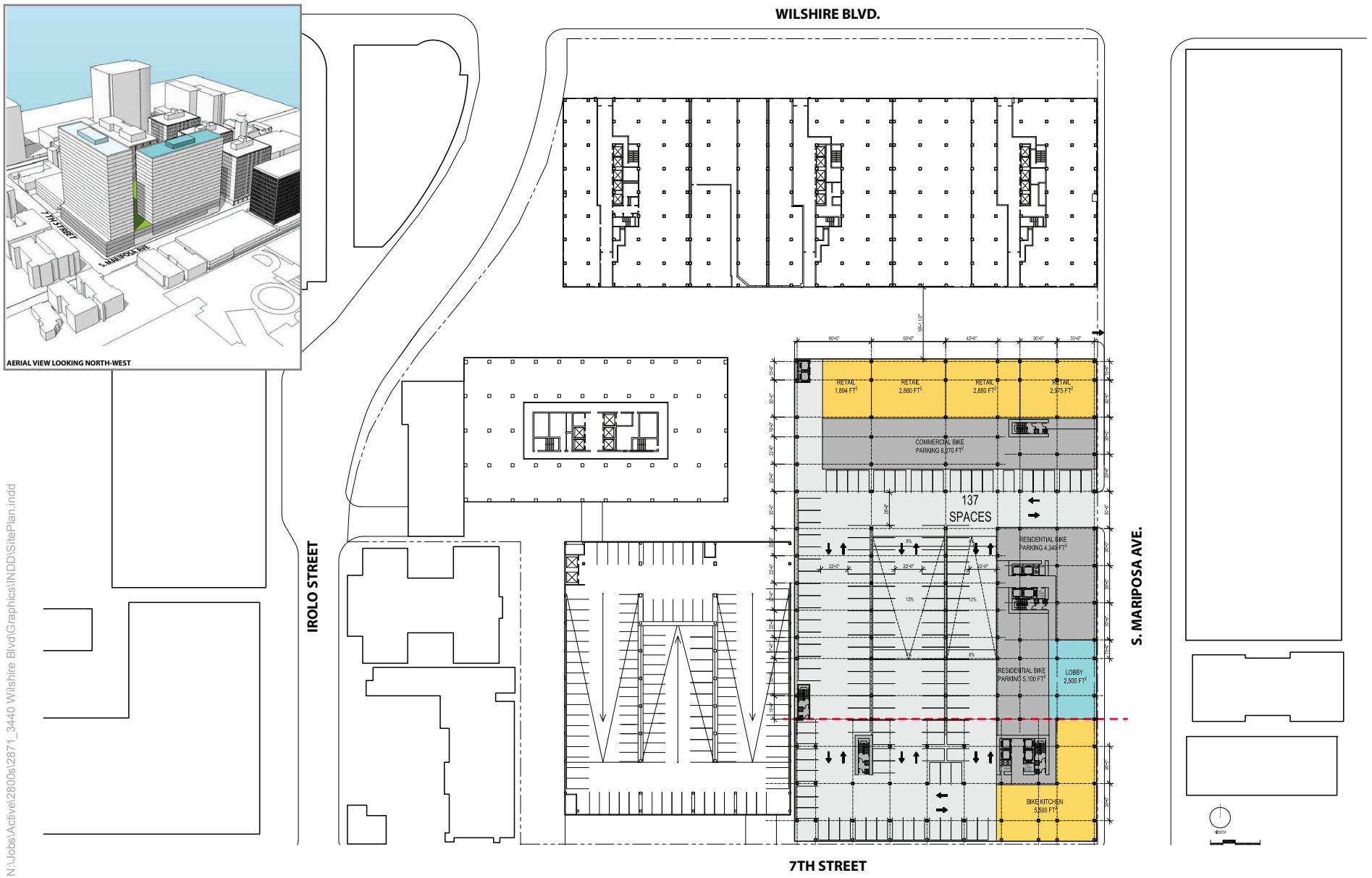


Figure 1

Site Plan and Aerial View

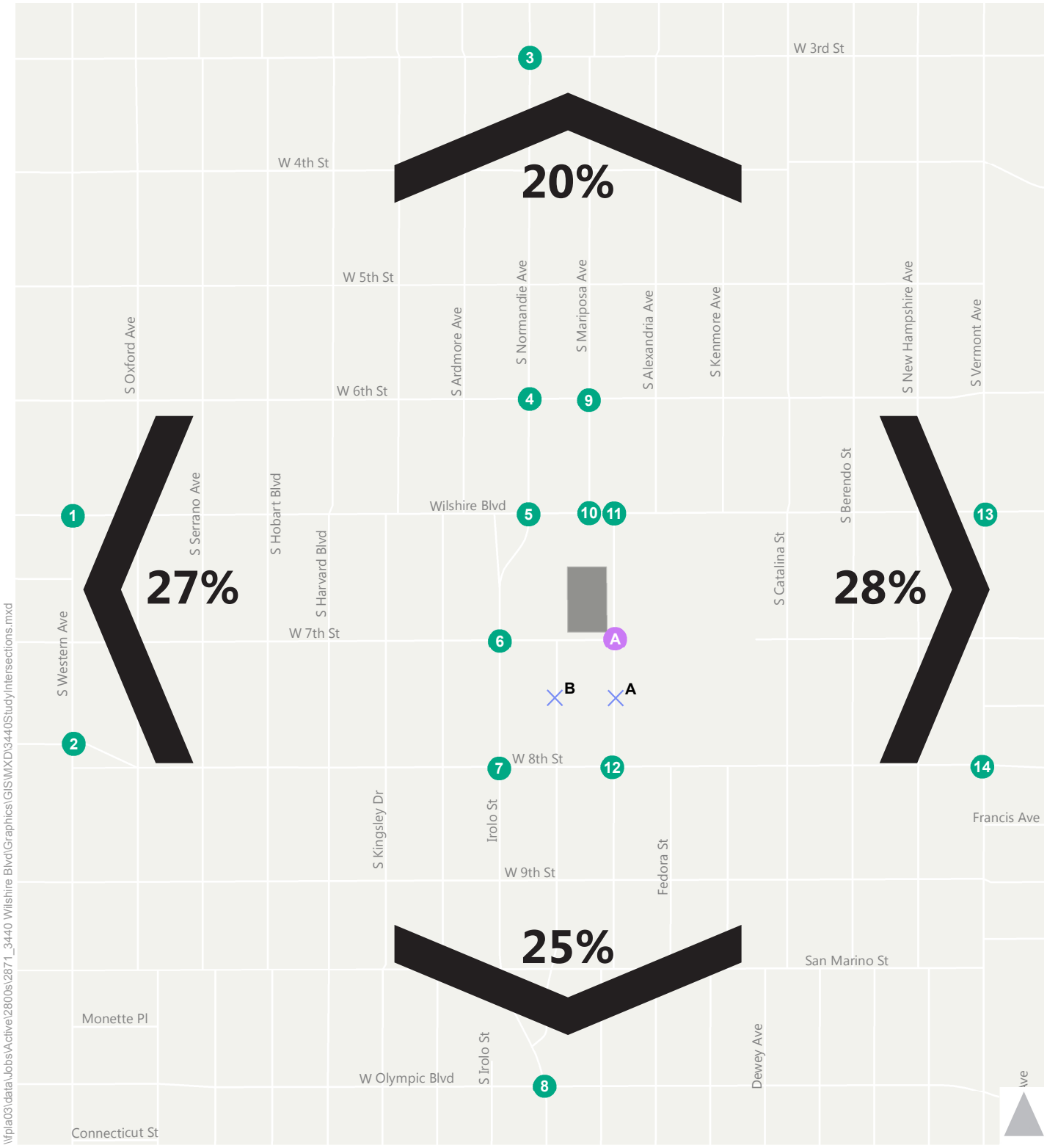


Figure 5

3440 Wilshire Trip Distribution

TABLE 1
3440 WILSHIRE PROJECT
TRIP GENERATION - ITE 10TH EDITION

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
				AM Peak Hour			PM Peak Hour				AM Peak Hour Trips			PM Peak Hour Trips		
			Daily	Rate	In%	Out%	Rate	In%	Out%	Daily	In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Retail	820	18.454 ksf	37.75	0.94	62%	38%	3.81	48%	52%	697	11	6	17	34	36	70
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(105)*	*(2)*	*(1)*	*(3)*	*(5)*	*(5)*	*(10)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(148)*	*(2)*	*(1)*	*(3)*	*(7)*	*(8)*	*(15)*
Total Driveway Trips										444	7	4	11	22	23	45
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(222)*	*(3)*	*(2)*	*(5)*	*(11)*	*(11)*	*(22)*
Net External Vehicle Trips										222	4	2	6	11	12	23
Multifamily Houseing (High-Rise) [e]	222	641 DU	4.45	0.23	12%	88%	0.3	70%	30%	2,852	18	129	147	134	58	192
Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(428)*	*(3)*	*(19)*	*(22)*	*(20)*	*(9)*	*(29)*
Less: Transit Credit [c]			*25%*							*(606)*	*0*	*0*	*0*	*0*	*0*	*0*
Net External Vehicle Trips										1,818	15	110	125	114	49	163
TOTAL DRIVEWAY TRIPS										2,262	22	114	136	136	72	208
NET INCREMENTAL EXTERNAL TRIPS										2,040	19	112	131	125	61	186

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition* , 2017

[b] Internal capture represents the percentage of trips between land uses that occur within the site. Main Street model calibration of base ITE rates reflecting project & site specific characteristics.

[c] The transit credit is based on LADOT's *Traffic Study Policies and Procedures* , December 2016. The guidelines state that up to 25% transit credit may be taken for projects adjacent to a transit station or Rapid Bus stop.

[d] The pass-by credit is based on Attachment I of LADOT's *Traffic Study Policies and Procedures* , December 2016.

[e] Local high-rise residential data collected for LADOT was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the general urban/suburban daily equation was used, making it appropriate to apply a transit credit.

FEHR PEERS

DRAFT MEMORANDUM

Date: July 17, 2018

To: Eddie Guerrero and Wes Pringle, LADOT

From: Tom Gaul and Amanda Heinke, Fehr & Peers

Subject: Trip Generation for Multifamily Residential Uses – ITE 10th Edition

---

In November 2017, the Institute of Traffic Engineers (ITE) released the 10th edition ITE Trip Generation Manual, which provided updated trip generation rates for numerous land uses. In light of the new 10th edition rates, a comparison of the 10th edition trip generation rates to the 9th edition rates as well as to the local trip generation data was conducted for multifamily residential uses. The purpose of this memorandum is twofold: (1) to present a brief summary of the changes in the ITE 10th edition multifamily residential trip rates and (2) provide a recommendation for multifamily residential trip generation rates in the City of Los Angeles for dense mixed-use urban areas and city core areas.

Key ITE Multifamily Residential Trip Rate Changes

Both the ITE 9th and ITE 10th edition manuals include three categories for multifamily housing: low-rise, mid-rise, and high-rise multifamily housing. The definitions of the low-rise, mid-rise, and high-rise categories remain the same as described in the 9th edition: low-rise is one or two stories, mid-rise is three to 10 stories, high-rise is greater than 10 stories. The ITE 9th edition manual also included generic apartment rates (land use code 220) and generic condominium rates (land use code 230) that were not related to height. The ITE 10th edition manual no longer provides this option, only providing rates for low-rise, mid-rise, and high-rise.

In addition, the ITE 10th edition introduces geographic setting for four different settings/locations: Rural, Urban/Suburban, Dense Multi-Use Urban, and City Core. The ITE 10th edition manual definitions for each of the geographic setting terms are shown in Attachment A.

Table 1 provides a comparison between the 9th edition and 10th edition rates for residential land uses by each geographical setting.

Locally Available Trip Data

For mid-rise and high-rise multifamily housing sites in dense multi-use urban and center city core areas, trip generations rates from properties within the City of Los Angeles area are available as a secondary data source to the ITE trip rates. Table 2 provides data obtained from local trip generation surveys conducted as part of the *Measuring the Miles/Infill and Complete Streets* project for LADOT[1], further categorized into properties that were mid-rise and high-rise as well as general urban/suburban, dense multi-use urban, or city center core areas to mirror the category distinctions in the ITE 10th edition trip generation manual. Table 2 provides the average trip generation for mid-rise and high-rise residential properties in the City of Los Angeles.

The local data reveals that mid-rise and high-rise multifamily average trip rates for the AM and PM peak hours in dense multi-use urban areas are lower than the ITE 9th edition rates, but higher than the ITE 10th edition peak hour rates. As the local data reveals a higher trip generation rates than the ITE 10th edition rates, the local data should be used for the purposes of estimating trip generation for mid-rise and high-rise projects in dense multi-use urban areas in the City of Los Angeles.

However, local data was not available for low-rise multifamily or for daily trip rates for mid-rise and high-rise multifamily sites. In the absence of local data, the 10th edition general urban/suburban trip rates may be used. Transit credits may be considered according to LADOT transportation guidelines.

Summary of Recommendations

- For multifamily uses located in general urban/suburban areas, the ITE 10th edition residential trip rates for all multifamily housing types are statistically valid and are representative of recent travel patterns. These rates are acceptable to use as an estimate for residential vehicle trip generation.
- For multifamily mid-rise and multifamily high-rise uses located in dense multi-use urban areas, the local mid-rise and high-rise data should be applied to properties that meet the ITE definitions of location in dense multi-use urban areas since the local data reveals higher trip generation than the 10th edition ITE rates for the same uses. The following summarizes these rates:

[1] Memorandum from Tom Gaul & Cary Bearn, Fehr & Peers, to Claire Bowin & David Somers, Los Angeles Department of City Planning, "Infill and Complete Streets Study, Tasks 2.1B & 2.1C Local Trip Generation Studies", April 20, 2017.

Local Trip Generation Rates for
Multifamily Mid-Rise and High-Rise Residential Land Uses in Dense Multi-Use Urban Areas

Land Use	AM Peak Hour (trips per DU)	PM Peak Hour (trips per DU)
Multifamily Mid-Rise	0.31	0.30
Multifamily High-Rise	0.23	0.30

- For multifamily mid-rise uses located in city center core areas, the ITE 10th edition trip rates should be used in the absence of sufficient local data points. For the multifamily high-rise uses in city center core areas, as both the ITE data and the local data are low in sample size, the local trip data for the dense multi-use areas should be used.
- For low-rise multifamily housing in dense multi-use urban and center city core areas, the low-rise trip rates for the general urban/suburban geographic setting should be used due to the lack of readily available local daily data. Transit credits may be considered for daily trip generation if using these rates under this scenario.

TABLE 1

ITE MULTIFAMILY RESIDENTIAL VEHICLE TRIP GENERATION RATES (10th versus 9th)

ITE 9th Edition Vehicle Rates				ITE 10th Edition Vehicle Rates							ITE 10th vs. 9th Comparable		
					General Urban/ Suburban		Dense Multi-Use Urban		Center City Core				
ITE 9th Land Use [a]	Rate per DU	Sample Size	Comparison to Apartment 220	ITE 10th Land Use [a]	Rate per DU	Sample Size	Rate per DU	Sample Size	Rate per DU	Sample Size	General Urban/ Suburban	Dense Multi-Use Urban	Center City Core
Daily													
220 Apartment	6.65	88											
221 Low-Rise Apartment	6.59	22 [b]	-1%	220 Multifamily Low-Rise	7.32	29	4.41	2 [b]	n/a		11%	-33%	n/a
223 Mid-Rise Apartment	n/a		n/a	221 Multifamily Mid-Rise	5.44	27	2.59	1	3.74	3 [b]	n/a	n/a	n/a
222 High-Rise Apartment	4.20	9	-37%	222 Multifamily High-Rise	4.45	11	2.07	11	2.16	2	6%	-51%	-49%
AM Peak Hour													
220 Apartment	0.51	78											
221 Low-Rise Apartment	0.46	27 [b]	-10%	220 Multifamily Low-Rise	0.46	42	0.36	3 [b]	n/a		0%	-22%	n/a
223 Mid-Rise Apartment	0.30	7	-41%	221 Multifamily Mid-Rise	0.36	53	0.20	4	0.31	8 [b]	20%	-33%	3%
222 High-Rise Apartment	0.30	17	-41%	222 Multifamily High-Rise	0.31	25	0.21	11	0.22	2	3%	-30%	-27%
PM Peak Hour													
220 Apartment	0.62	90											
221 Low-Rise Apartment	0.58	27 [b]	-6%	220 Multifamily Low-Rise	0.56	50	0.33	2 [b]	n/a		-3%	-43%	n/a
223 Mid-Rise Apartment	0.39	7	-37%	221 Multifamily Mid-Rise	0.44	60	0.18	4	0.28	8 [b]	13%	-54%	-28%
222 High-Rise Apartment	0.35	17	-44%	222 Multifamily High-Rise	0.36	25	0.19	11	0.23	2	3%	-46%	-34%

Notes:

a. Low-rise = 1 or 2 stories
   Mid-rise = 3 to 10 stories
   High-rise = >10 stories

b. Available rates are per occuped DU, not per DU.

TABLE 2

Vehicle Trips and Generation Rates for Market Rate Housing Study Locations

Organized by ITE 10th Edition Residential Categories

Site #	# of Floors	ITE Setting/ Location	Name	Address	Source	Land Use	Located Within TPA?	Daily Vehicle Trips	AM Peak Hour Vehicle Trips	PM Peak Hour Vehicle Trips	Daily Trip Rate (Trips per DU)	AM Peak Hour Trip Rate (Trips per DU)	PM Peak Hour Trip Rate (Trips per DU)
Multifamily Housing (High-Rise)													
10	29	Gen Urban/Suburban	Blair House	10490 Wilshire Blvd, Los Angeles, CA 90024	Fehr & Peers Trip Generation Rate Study	128 Residential Units;	Yes	[a]	[b]	[b]	[a]	0.24	0.53
8	24	Gen Urban/Suburban	Remington	10727 Wilshire Blvd, Los Angeles, CA 90024	Fehr & Peers Trip Generation Rate Study	93 Residential Units;	Yes	[a]	[b]	[b]	[a]	0.30	0.41
9	23	Gen Urban/Suburban	Wilshire Regent	10501 Wilshire Blvd, Los Angeles, CA 90024	Fehr & Peers Trip Generation Rate Study	208 Residential Units;	Yes	[a]	[b]	[b]	[a]	0.17	0.16
											AVERAGE	**0.24**	**0.37**
Multifamily Housing (High-Rise)													
7	21	Dense Multi-Use Urban	2160/2170 Century Park East	2160 Century Park E, Los Angeles, CA 90067	Fehr & Peers Trip Generation Rate Study	496 Residential Units;	Yes	[a]	[b]	[b]	[a]	0.29	0.28
1	13	Dense Multi-Use Urban	Hollywood Ardmore	1850 Whitley Ave, Los Angeles, CA 90028	Counted Fall 2016	206 Residential Units;	No	695	36	52	3.37	0.17	0.25
19	14	Dense Multi-Use Urban	NoHo 14 Apartment Building	5440 Tujunga Ave, North Hollywood, CA 91601	California Strategic Growth Phase 2	180 Residential Units;	Yes	[a]	42	66	[a]	0.23	0.37
											AVERAGE	**0.23**	**0.30**
Multifamily Housing (Mid-Rise)													
2	9	Dense Multi-Use Urban	3075 Wilshire	3075 Wilshire Blvd, Los Angeles, CA 90010	Counted Fall 2016	127 Residential Units;	Yes	352	25	36	2.77	0.20	0.28
18	6	Dense Multi-Use Urban	Gardens at Wilshire	3675 Wilshire Blvd, Los Angeles, CA 90010	California Strategic Growth Phase 2	159 Residential Units;	Yes	[a]	44	47	[a]	0.28	0.30
13	4	Dense Multi-Use Urban	Victor on Venice	10001 Venice Blvd, Los Angeles, CA 90034	California Strategic Growth Phase 1	116 Residential Units;	Yes	[a]	44	50	[a]	0.38	0.43
20	4	Dense Multi-Use Urban	Gallery at NoHo Commons	5416 Fair Avenue, North Hollywood, CA 91601	California Strategic Growth Phase 2	438 Residential Units;	Yes	[a]	150	146	[a]	0.34	0.33
6	4	Dense Multi-Use Urban	Palazzo East at Park La Brea	340 Hauser Blvd, Los Angeles, CA 90036	Fehr & Peers Trip Generation Rate Study	610 Residential Units;	Yes	[a]	[b]	[b]	[a]	0.27	0.28
12	4	Dense Multi-Use Urban	Artisan on 2nd	601 E 2nd St, Los Angeles, CA 90012	California Strategic Growth Phase 1	118 Residential Units;	Yes	[a]	32	31	[a]	0.27	0.26
21	4	Dense Multi-Use Urban	AMLI Warner Center Apartments	21200 Kittridge Street, Woodland Hills, CA 91303	California Strategic Growth Phase 2	522 Residential Units;	Yes	[a]	227	182	[a]	0.43	0.35
5	3	Dense Multi-Use Urban	Skyline Terrace	930 Figueroa Terrace, Los Angeles, CA 90012	Fehr & Peers Trip Generation Rate Study	198 Residential Units;	Yes	[a]	[b]	[b]	[a]	0.33	0.20
											AVERAGE	**0.35**	**0.27**
Multifamily Housing (High-Rise)													
14	13	Center City Core	Pegasus Apartments	612 S Flower St, Los Angeles, CA 90017	California Strategic Growth Phase 1	322 Residential Units;	Yes	[a]	36	[a]	[a]	0.11	[a]
											AVERAGE	**0.11**	**--**
Multifamily Housing (Mid-Rise)													
4	6	Center City Core	The Medici	725 S Bixel St, Los Angeles, CA 90017	Fehr & Peers Trip Generation Rate Study	632 Residential Units;	Yes	[a]	[b]	[b]	[a]	0.15	0.15
11	6	Center City Core	Sakura Crossing	235 S San Pedro St, Los Angeles, CA 90012	California Strategic Growth Phase 1	230 Residential Units;	Yes	[a]	77	61	[a]	0.33	0.27
											AVERAGE	**0.24**	**0.21**

Notes

[a] Data not provided.

[b] Source presents trip generation information in rates only.

Attachment A

The following presents the definitions of the setting/location for City Center Core, Dense Multi-Use Urban, General Urban/Suburban, and Rural areas for use in the ITE Trip Generation Manual, 10th edition.

Center City Core – the downtown area for a major metropolitan region at the focal point of a regional light- or heavey-rail transit system. This area type is typified by multi-storied buildings, a wide range of land uses an extensive pedestrian sidewalk network, and shared and priced parking both on-street and in structured garages or surface lots. The area typically has more jobs than residents and therefore is typically an employment destination. The area also includes the immediate vicinity of the commercial core.

Dense Multi-Use Urban – a fully developed area (or nearly so), with diverse and interacting complementary land uses, good pedestrian connectivity, and convenient and frequent transit. This area type can be a well-developed urban area outside a major metropolitan downtown or moderate size urban area downtown. The land use mix typically includes office, retail, residential, and often entertainment, hotel, and other commercial uses. The residential uses are typically multifamily or single-family on lots no larger than one-fourth acre. The commercial uses often have little or no setback from the sidewalk. Because the motor vehicle still represents the primary mode of travel to and from the area, there typically is on-street parking and often off-street public parking. The complementary land uses provide the opportunity for short trips within the Dense multi-Use Urban area, made convenient by walking, biking, or transit. The area is served by significant transit (either rail or bus) that enables a high level of transit usage to and from the area of development.

General Urban/Suburban – an area associated with almost homogeneous ehicle-centered access. Nearly all person trips that enter or exist a development site are by personal passenger or commercial vehicle. The area can be fully developed (or nearly so) at low-medium density with a mix of residential and commercial uses. The commercial land uses are typically concentrated at intersections or spread along commercial corridors, often surrounded by low-density, almost entirely residential development. Most commercial buildings are located behind the parking area or surrounded by parking. The mixing of land uses is only in terms of their proximity, not in terms of function. A retail land use may focus on service a regional clientele whereas a service land use may target motorists or pass-by vehicle trips for its customers. Even if the land uses are complementary, a lack of pedestrian, bicycling, and transit facilities or services limit non-vehicle travel.

Rural – agricultural or undeveloped except for scattered parcels and at very low densities.

Table 1
3440 Wilshire Project
Related Project List

No.	Project Location [a]	Land Use	Size		Estimated Trip Generation [b]						
					Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
						In	Out	Total	In	Out	Total
1	3323 W Olympic Bl	Condominiums Office	208 3.5	du ksf	409	-13	49	36	39	-7	32
2	805 S Catalina St	Condominiums Retail	300 5	du ksf	1935	24	119	143	110	57	167
3	100 N Western Ave	Retail Apartments	30 98	ksf du	940	17	40	57	54	38	92
4	2755 W 15th Street	School	300	enrollment	486	68	57	125	24	24	48
5	3640 W Wilshire Blvd	Apartments	209	du	1182	18	72	90	73	40	113
6	940 S Western Avenue	Apartments Retail	79 8	du ksf	380	6	31	37	26	11	37
7	535 S Kingsley Dr	Apartments	85	du	543	8	31	39	36	19	55
8	2850 W 7th St	Condominiums Other Retail	160 40 3.6	du rooms ksf	1057	20	72	92	72	42	114
9	800 S Harvard Blvd	Apartments Retail	131 7	du ksf	827	14	32	46	44	33	77
10	2929 W Leeward Ave	Condominiums	80	du	476	7	33	40	44	21	65
11	2968 W 6th St	Apartments Commercial Commercial	399 12 8	du ksf ksf	2943	73	154	227	168	93	261
12	241 N Vermont	Apartments Retail	100 5	du ksf	510	7	38	45	33	16	49
13	4110 W 3rd Street	Hotel Retail	174 27.8	rooms ksf	1186	45	35	80	46	40	86
14	1011 S Serrano Ave	Apartments	91	du	545	8	33	41	32	18	50
15	3076 W Olympic Blvd	Apartments Retail	226 16.907	du ksf	1567	25	78	103	90	56	146
16	3875 W Wilshire Bl	Apartments	196	du	1114	17	68	85	69	37	106
17	3350 W Wilshire Bl	Apartments	121	du	728	11	43	54	47	25	72
18	3545 W Wilshire Blvd	Apartments Retail	433 49.849	du ksf	917	-42	83	41	84	10	94
19	605 S Vermont Ave	Apartments Museum	103 30.937	du ksf	755	17	39	56	42	37	79
20	1011 S Park View St	Apartments	108	du	594	9	38	47	38	19	57
21	2965 W 6th St	Hotel	99	rooms	688	26	18	44	25	25	50
22	1255 E Elden Ave	Apartments	93	du	376	0	32	32	28	10	38
23	2972 W 7th St	Apartments Retail	180 15	du ksf	486	7	59	66	43	8	51
24	1017 S Mariposa Ave	Apartments	79	du	373	5	23	28	23	12	35
25	2859 W Francis Ave	Apartments	81	du	492	7	28	35	31	5	36
26	700 S Manhattan pl	Apartments Restaurant Retail	162 6.5 3.5	du ksf ksf	1260	19	57	76	71	46	117
27	411 S Normandie Ave	Apartments	224	du	1407	22	86	108	87	47	134
28	3525 W 8th Street	Apartments Supermarket	367 22.906	du ksf	1214	8	121	129	83	25	108
29	2870 W Olympic Blvd	Hotel Retail	78 16.384	rooms ksf	834	22	14	36	30	28	58
30	815 S Kingsley Dr	Apartments	90	du	542	8	33	41	33	17	50
31	616 S Westmoreland Ave	Apartments Restaurant Retail	72 2.765 1.043	du ksf ksf	461	2	29	31	30	5	35
32	2525 Wilshire Bl	Condominiums Retail	160 7.5	du ksf	1160	16	60	76	61	36	97
33	3330 W Beverly Bl	Apartments Childcare	40 4.237	du ksf	495	26	34	63	35	32	67
34	2405 W 8th Street	Apartments Retail	144 4.406	du ksf	333	-20	48	28	42	-15	27
35	422 Lake St	Apartments	80	du	532	8	33	41	33	17	50
36	1929 W Pico Bl	School	480	enrollment	821	140	66	206	20	42	62
37	235 N Hoover	Apartments	214	du	1423	22	87	109	86	47	133
38	3240 W Wilshire Bl	Hotel Apartments Retail	162 545 5222	rooms du ksf	1,353	15	173	188	89	23	112
39	1930 W Wilshire Bl	Apartments Theatre Classroom Hotel	478 850 50 220	du seats enrollment rooms	1355	-44	128	84	103	-41	62

Table 1
3440 Wilshire Project
Related Project List

40	888 S Vermont Avenue	Office Retail	4.4 47.208	ksf ksf	2526	45	19	64	171	169	340
41	1000 S Vermont Ave	Apartments Retail	236 60.3	du ksf	2655	39	94	133	137	102	239
42	257 S Mariposa Avenue	Retail Apartments	3.94 140	ksf du	1036	14	58	94	61	33	72
43	2501 W Olympic Blvd	Apartments Retail	173 184.56	du ksf	1911	27	72	99	100	73	173
44	3170 W Olympic Blvd	Retail	32.3	ksf	1624	24	89	113	94	56	150
45	631 S Vermont Av	Hotel Condominiums Office Retail	200 250 49.22 21.32	rooms du ksf ksf	2599	95	95	190	115	120	235
46	621 S Catalina St	Apartments Retail Restaurant Banquet Hall	165 8.5 15 15	du ksf ksf ksf	2776	26	55	81	180	95	275
47	668 S Coronado St	Apartments Retail	122 1182	du ksf	947	14	48	62	56	34	90
48	1009 S Crenshaw Blvd	Apartments Retail	206 23.585	ksf du	587	-14	48	34	33	23	56
49	966 Dewey Av	Hotel	99	rooms	677	28	15	43	24	24	48
50	2005 W James M Wood Blvd	Hotel	100	rooms	545	24	18	42	20	18	38
51	510 S Vermont Ave	Office Retail Sr. Housing Community Center Apartments	2166 17.5 72 13.2 246	employees ksf du ksf ksf	3215	216	104	320	121	293	414
52	3751 W 6th Street	Apartments Hotel rooms Retail Restaurant	44 200 10 8	du rooms ksf ksf	1183	39	31	70	36	21	57
53	1030 S Lake St	Assisted Living	203	rooms	939	39	23	62	49	48	97
54	500 S Oxford Ave	Condominiums	89	du	439	6	27	33	26	13	39
55	800 S Western Av	Apartments Retail Restaurant Hotel	96 29.73 30 148	du ksf ksf rooms	3908	127	98	225	149	111	260
56	923 S Kenmore Avenue	Apartments	69	du	432	7	26	33	26	15	40
57	600 N Vermont Av	Apartments Retail	120 14.6	du ksf	320	8	46	54	12	18	30
58	3800 W 6th St	Condominiums Hotel Retail	122 192 23.549	du rooms ksf	1966	34	50	84	73	51	124
59	2515 W Beverly Blvd	School	650	students	527	131	126	257	40	22	62
60	3216 W 8th St	Condominiums Hotel Retail Entertainment	8 60 4.808 2.465	du rooms ksf ksf	694	24	18	42	42	32	74
61	840 S Mariposa Av	Apartments	173	du	978	15	60	75	61	31	92
62	2900 Wilshire	Apartments Retail Restaurant	644 10 5.5	DU ksf ksf	3482	81	135	216	137	81	218
63	3600 Wilshire	Apartments Retail	810 30	DU ksf	3307	47	202	249	202	107	309
64	3700 Wilshire	Office	103.719	DU	858	108	14	122	20	96	116
65	3700 Wilshire	Apartments Retail	510 64.296	DU ksf	3500	49	153	202	178	81	259
66	2806 W 7th St	Apartments	158	du	1051	16	64	81	64	34	98
67	300 S Harvard Blvd	Hotel Restaurant	171 2.8	rooms ksf	447	69	64	133	65	52	117
68	601 S Ardmore Ave	Apartments Commercial	428 31.689	du ksf	4199	63	187	248	228	154	383
69	1041 S Menlo Ave	Apartments Commercial	228 53.41	du ksf	3797	55	112	167	187	152	339
70	1006 S Serrano Ave	Apartments Commercial	252 33.28	du ksf	3097	46	115	161	161	119	279
71	837 Harvard Blvd	Apartments	65	du	432	7	27	33	26	14	40
72	636 S Manhattan Pl	Apartments Retail	132 0.9	du ksf	916	14	54	68	55	31	85
73	1021 1/2 Catalina St	Commercial Apartments	5.289 70	ksf du	692	10	31	41	37	25	63
74	352 S Alexandria Ave	Apartments	59	du	392	6	24	30	24	13	37
75	3418 W 8th St	Apartments	131	du	871	13	53	67	53	28	81
76	2867 W Sunset Pl	Apartments	60	du	399	6	24	31	24	13	37
77	3200 Temple St	Apartments	59	du	392	6	24	30	24	13	37

Table 1
3440 Wilshire Project
Related Project List

78	721 S Western Ave	Apartments Retail	160 10.282	du ksf	1503	22	69	92	82	55	137
79	2229 W Venice Blvd	Office	120	ksf	1324	165	22	187	30	148	179
80	762 S Kingsley Dr	Apartments	67	du	446	7	27	34	27	15	42
81	535 S Kingsley Dr	Condominums	72	du	418	5	26	32	25	12	37
82	2723 W 8th St	School	450	students	581	111	91	203	33	34	68
83	685 S Catalina St	Apartments	120	du	798	12	49	61	48	26	74
84	3551 W 5th St	Apartments	69	du	459	7	28	35	28	15	43
85	635 S Vermont Ave	Apartments Commercial	179 12	du ksf	1702	25	77	103	93	62	156
86	245 S Serrano Ave	Apartments	54	du	359	6	22	28	22	12	33
87	839 Fedora St	Condominium	75	du	436	6	27	33	26	13	39
88	4250 W 4th St	Apartments Commercial	57 7.228	du ksf	688	10	26	36	36	26	62
89	933 1/2 S Kenmore Ave	Apartments	68	du	452	7	28	35	27	15	42
90	601 S Hobart Ave	Retail Hotel Condominiums	15.2 192 122	ksf rooms du	1460	77	107	184	124	96	219
91	672 Oxford Ave	Apartments Commercial	506 62.035	du ksf	6014	89	229	318	314	230	544
91	547 S Harvard Blvd	Apartments Hotel Commercial	44 200 175	du rooms ksf	7872	169	141	310	386	396	780
92	2001 W Olympic Blvd	Hotel Retail	150 6.917	rooms ksf	375	50	47	97	54	49	104
93	836 S Mariposa Ave	Condominium	98	du	569	7	36	43	34	17	51
94	2500 W Wilshire Blvd	Office Apartments	12.5 248	ksf du	1787	42	103	146	103	69	173
95	687 S Harvard Blvd	Hotel Restaurant	110 1.84	rooms ksf	292	45	41	86	42	33	75
96	3060 W Olympic Blvd	Retail Apartments	17.768 226	ksf du	2262	34	98	132	123	83	206
97	3100 W 8th St	Apartments Retail	98 3.575	du ksf	805	12	41	53	45	28	74
98	1255 S Elden Ave	Apartments	93	du	618	9	38	47	37	20	58
99	820 S Hoover St	Condominiums Retail	32 4.5	du ksf	414	7	15	22	18	14	32
100	3663 W Wilshire Blvd	Office School School	55.38 216 420	ksf seats seats	825	94	44	138	20	3	23
101	968 S Berendo St	Church	85.308	ksf	535	23	8	31	3	9	12
102	2789 W Olympic Bl	Office Retail	27.81 20.607	ksf ksf	612	16	8	24	25	29	54
103	326 S Reno St	Apartments	65	du	326	5	20	25	20	11	31
104	427 S Berendo St	Apartments	85	du	288	5	17	22	17	10	27
105	850 S Crenshaw	Apartments	44	du	293	4	18	22	18	10	28
106	3200 W Beverly Bl	Apartments Retail	32 5.867	du ksf	632	4	16	20	39	32	71
107	748 S Kingsley Drive	Apartments	67	du	406	6	25	31	24	14	38
108	3377 W Olympic Blvd	Assisted Living Office Restaurant	146 8.682 4.454	du ksf ksf	358	13	0	13	8	28	36
109	329 S Rampart Blvd	Apartments Affordable Housing	45 8	du du	279	6	17	23	17	9	26
110	635 S Western Av	Apartments Retail	220 0.9	du ksf	672	6	17	23	17	9	26
111	1810 W Venice Blvd	Storage	15.4	ksf	385	12	10	22	20	20	40
112	689 S Catalina St	Apartments	61	du	406	0	0	22	0	0	40
113	3062 W 12th Pl	Condominums Retail	51 3.35	du ksf	439	6	20	25	24	15	39
114	955 S Fedora St	Apartments	40	du	266	4	16	20	16	9	25
115	228 S Occidental Blvd	Apartments	48	du	319	5	20	24	19	10	30
116	1053 S Fedora St	Apartments	40	du	266	4	16	20	16	9	25
117	1124 S Serrano Ave	Apartments	42	du	279	4	17	21	17	9	26
118	968 S Kenmore Ave	Apartments	41	du	273	4	17	21	17	9	25
119	2649 W San Marino Ave	Apartments	46	du	306	5	19	23	19	10	29
120	3986 W Wilshire	Apartments Coffee Shop Restaurant Retail	228 1.75 3.5 12	du ksf ksf ksf	503	-50	6	-44	53	25	78
121	2250 W Pico Blvd	Hotel	125	rooms	409	26	19	45	10	9	19
122	870 S Gramercy Dr	Apartments	53	du	352	5	22	27	21	12	33
123	3377 W Wilshire Blvd	Restaurant	11.971	ksf	1077	0	10	10	60	30	90

Table 1
3440 Wilshire Project
Related Project List

124	1045 S Dewey Ave	Apartments	67	du	446	7	27	34	27	15	42
125	314 S Harvard Blvd	Apartments	20	du	133	2	8	10	8	4	12
126	2842 W James M. Wood Blvd	Apartments Retail	193 19.544	du ksf	2118	32	85	117	113	80	193
127	1100 S Hobart Ave[d]	Apartments	39	du	259	6	15	21	16	10	26
128	800 S Mariposa Ave	Hotel Apartments Commercial	80 8 7.181	rooms du ksf	1014	30	23	53	40	40	80
129	986 S Manhattan Pl	Apartments	114	du	758	18	45	63	47	29	76
130	981 S Manhattan Pl[d]	Apartments	95	du	632	15	37	52	39	25	64
131	991 S 3rd Ave	Apartments	51	du	339	5	21	26	21	11	32
132	2878 W James M. Wood Blvd	Apartments	50	du	333	5	21	26	20	11	31
133	2755 W 11th Street	Apartments	67	du	446	7	27	34	27	15	42
134	Metro Purple Line	Light Rail Transit	--	--	--	--	--	--	--	--	--

Note:
DU = dwelling units
ksf = one thousand square feet
[a] Related projects list is based on information provided from LADOT in on May 1, 2018, and LADCP April 26,2018.
[b]Trip Generation Estimates based on the ITE Trip Generation Manual.

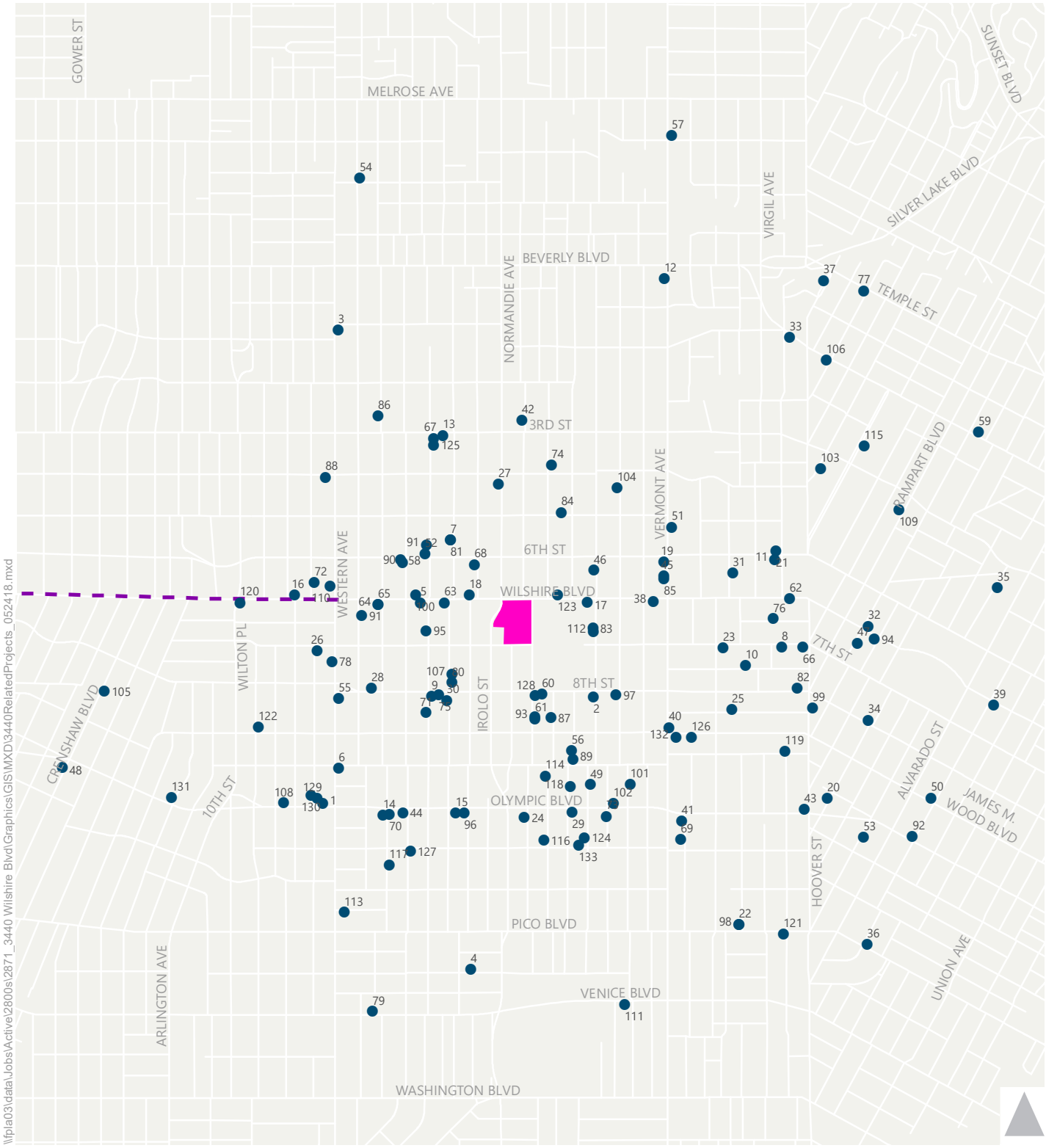


Figure 3

Related Projects

FEHR PEERS

MOU ATTACHMENT A
FREEWAY SCREENING FOR 3440 WILSHIRE PROJECT IN ACCORDANCE WITH SCREENING CRITERIA DESCRIBED IN SECTION 3 OF THE "AGREEMENT BETWEEN CITY OF LOS ANGELES AND CALTRANS DISTRICT 7 ON FREEWAY IMPACT ANALYSIS PROCEDURES" (DECEMBER 2015)

INTRODUCTION

Section 3.1 of the "Agreement Between City of Los Angeles and Caltrans District 7 On Freeway Impact Analysis Procedures" originally dated October 2013 specifies the freeway mainline and ramp screening criteria for development projects in the City of Los Angeles. Section 3.1 was amended in December of 2015 with the following threshold criteria:

> "City will require Project applicants to work with Caltrans and prepare a Freeway Impact Analysis, utilizing Caltrans' "Guide for the Preparation of Traffic Impact Studies" ("TIS Guide"), for land use proposals that meet any of the following criteria:
>
> - The project's peak hour trips would result in a 1-percent or more increase to the freeway mainline capacity of a freeway segment operating at level-of-service (LOS) E or F (based on an assumed capacity of 2,000 vehicles per hour per lane); or
> - The project's peak hour trips would result in a 2-percent or more increase to the freeway mainline capacity of a freeway segment operating at LOS D (based on an assumed capacity of 2,000 vehicles per hour per lane); or
> - The project's peak hour trips would result in a 1-percent or more increase to the capacity of a freeway off-ramp operating at LOS E or F (based on an assumed ramp capacity of 850 vehicles per hour per lane); or
> - The project's peak hour trips would result in a 2-percent or more increase to the capacity of a freeway off-ramp operating at LOS D (based on an assumed ramp capacity of 850 vehicles per hour per lane)."

The purpose of this analysis is to apply the screening criteria to determine whether a Freeway Impact Analysis would be required for the 3440 Wilshire project. The methodologies used to conduct the screening analysis for the project, and the results of the screening, are described below.

FREEWAY MAINLINE SEGMENT SCREENING

The 3440 Wilshire project is located at 3440 Wilshire Boulevard, Los Angeles, CA 90010 with regional access provided by the Interstate 10 (I-10) freeway and US Route 101 (US-101). Five sections of freeways were selected for a freeway screening analysis:

- I-10 Freeway west of Normandie Avenue – 4 lanes in each direction
- I-10 Freeway east of Normandie Avenue – 4 lanes in each direction
- US-101 north of Western Avenue – 4 lanes in each directions
- US-101 south of Silverlake Boulevard (north of Rampart Boulevard) – 4 lanes in each directions
- US-101 south of Rampart Boulevard – 4 lanes in each directions

Project trips on the freeway facilities are shown in Table A1 and the mainline screening analysis is shown in Table A2. As shown in Table A2, the freeway capacity is 8,000 vph for 4 lanes. The most rigorous trigger criteria for LOS E/F operations was used for the screening analysis. For LOS E or F operations, the threshold test is whether the project would use 1% of the available capacity (80 vph for 4 lanes). Because no more

than 19 project trips are expected to occur in any analyzed peak hour on any particular segment, the mainline screening threshold is not met and therefore a Freeway Impact Analysis is not required.

FREEWAY RAMP SCREENING

Project trips on the freeway off-ramp facilities are shown in Table A1 and the freeway off-ramp screening analysis is shown in Table A3. Six freeway off-ramps were selected for a freeway screening analysis. The most rigorous trigger criteria for LOS E/F operations was used for the screening analysis. For LOS E or F operations, the threshold test is whether the project would use 1% of the capacity (based on an assumed ramp capacity of 850 vehicles per hour per lane), or approximately 9 vph for 1-lane and 17 vph for 2-lanes. Because no more than 4 project trips are expected to occur in any analyzed peak hour on 1-lane ramps and no more than 9 project trips are expected to occur in any analyzed peak hour on 2-lane ramps, the freeway off-ramp screening thresholds are not met and therefore a Freeway Impact Analysis is not required.

TABLE A1
3440 WILSHIRE PROJECT
TRIP GENERATION AND FREEWAY SEGMENT AND RAMP TRIPS

Freeway Trip Percentage		Freeway Trips					
		AM Peak Hour			PM Peak Hour		
Direction	%	In	Out	Total	In	Out	Total
PROPOSED PROJECT TRIPS		19	112	131	125	61	186
Freeway Ramps							
I-10 EB Normandie Ave Off	7.5%	1	8	9	9	5	14
I-10 WB Normandie Ave Off	7.5%	1	8	9	9	5	14
US-101 SB Western Ave Off	7.5%	1	8	9	9	5	14
US-101 SB Melrose Ave Off	3.0%	1	3	4	4	2	6
US-101 NB Silverlake Blvd Off	7.5%	1	8	9	9	5	14
US-101 NB Rampart Blvd Off	3.0%	1	3	4	4	2	6
Freeway Segments							
I-10 w/o Normandie Ave	7.5%	1	8	9	9	5	14
I-10 e/o Normandie Ave	7.5%	1	8	9	9	5	14
US-101 n/o Western Ave	10.5%	2	12	14	13	6	19
US-101 s/o Silverlake Blvd and n/o Rampart Blvd	7.5%	1	8	9	9	5	14
US-101 s/o Rampart Blvd	10.5%	2	12	14	13	6	19

TABLE A2
3440 WILSHIRE PROJECT

PROJECT TRIP GENERATION

	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
Project Trip Generation	19	112	125	61

MAINLINE SCREENING

	AM Peak Hour		PM Peak Hour	
Freeway Segment	In	Out	In	Out
I-10 w/o Normandie Ave	**EB**	**WB**	**EB**	**WB**
# of Lanes [a]	4	4	4	4
Capacity	8,000	8,000	8,000	8,000
Worst-case LOS	**E/F**	**E/F**	**E/F**	**E/F**
Trigger % [b]	1%	1%	1%	1%
Trigger	80	80	80	80
Project Trips	1	8	9	5
Exceed Trigger?	no	no	no	no
I-10 e/o Normandie Ave	**WB**	**EB**	**WB**	**EB**
# of Lanes [a]	4	4	4	4
Capacity	8,000	8,000	8,000	8,000
Worst-case LOS	**E/F**	**E/F**	**E/F**	**E/F**
Trigger % [b]	1%	1%	1%	1%
Trigger	80	80	80	80
Project Trips	1	8	9	5
Exceed Trigger?	no	no	no	no
US-101 n/o Western Ave	**SB**	**NB**	**SB**	**NB**
# of Lanes [a]	4	4	4	4
Capacity	8,000	8,000	8,000	8,000
Worst-case LOS	**E/F**	**E/F**	**E/F**	**E/F**
Trigger % [b]	1%	1%	1%	1%
Trigger	80	80	80	80
Project Trips	2	12	13	6
Exceed Trigger?	no	no	no	no
US-101 s/o Silverlake Blvd and n/o Rampart Blvd	**NB**	**SB**	**NB**	**SB**
# of Lanes [a]	4	4	4	4
Capacity	8,000	8,000	8,000	8,000
Worst-case LOS	**E/F**	**E/F**	**E/F**	**E/F**
Trigger % [b]	1%	1%	1%	1%
Trigger	80	80	80	80
Project Trips	1	8	9	5
Exceed Trigger?	no	no	no	no
US-101 s/o Rampart Blvd	**NB**	**SB**	**NB**	**SB**
# of Lanes [a]	4	4	4	4
Capacity	8,000	8,000	8,000	8,000
Worst-case LOS	**E/F**	**E/F**	**E/F**	**E/F**
Trigger % [b]	1%	1%	1%	1%
Trigger	80	80	80	80
Project Trips	2	12	13	6
Exceed Trigger?	no	no	no	no

Notes:

a. # of lanes does not include auxiliary or HOV lanes.

b. The worst-case assumption of LOS was used with the most stringent trigger thresholds: LOS E/F Threshold: 1% of capacity if LOS E or F, 2% of capacity if LOS D, using 2,000 vphpl capacity

TABLE A3
3440 WILSHIRE PROJECT

PROJECT TRIP GENERATION

	AM Peak Hour		PM Peak Hour	
	In	Out	In	Out
Project Trip Generation	19	112	125	61

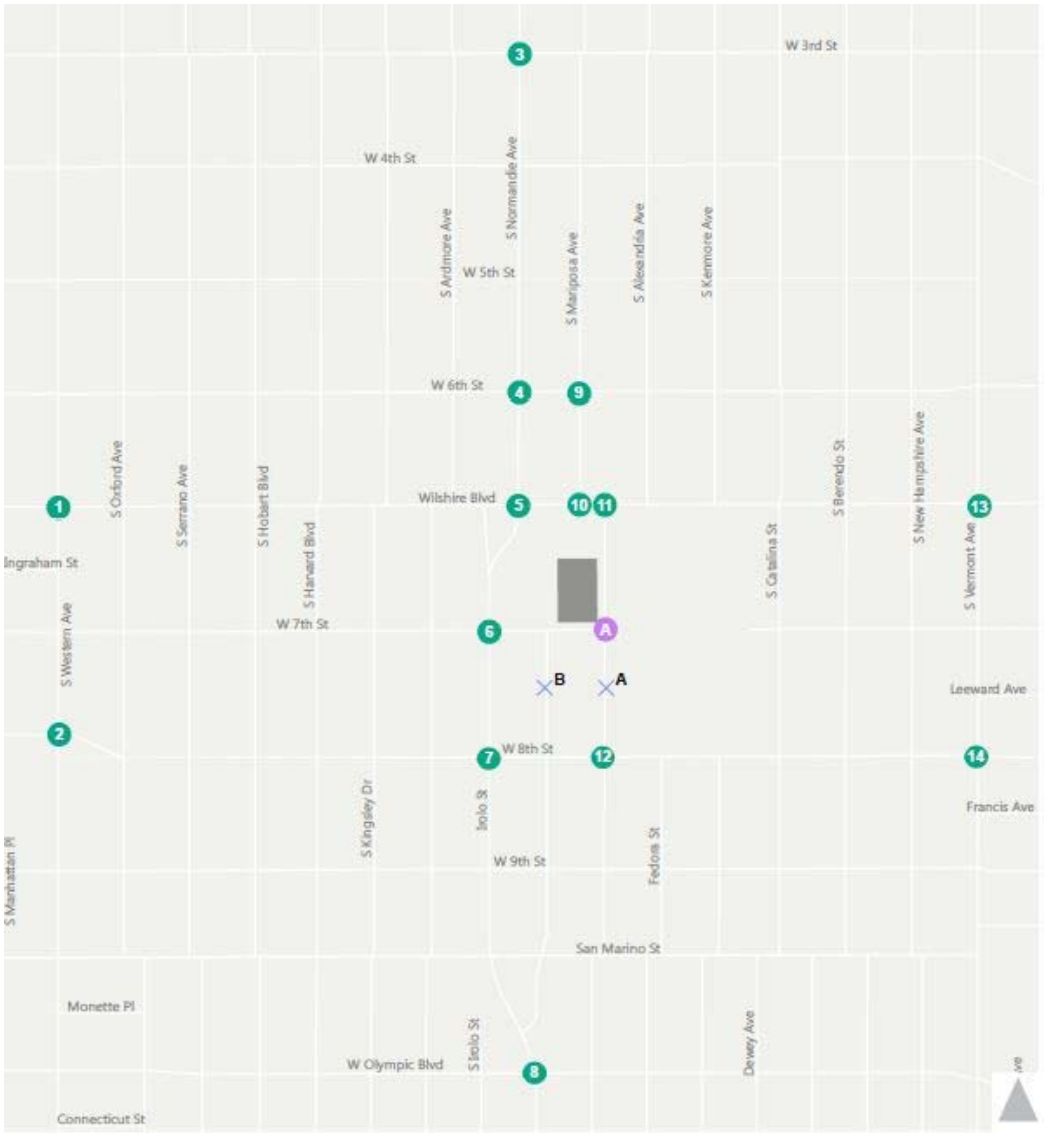
RAMP SCREENING

Off-Ramp	Peak Hour	Worst-Case Off-Ramp LOS [a]	Ramp Terminus # of Lanes	Ramp Terminus Trigger	Project Trips	Exceed Trigger?
I-10 EB Normandie Ave Off	AM	E/F	2	17	1	no
	PM	E/F		17	9	no
I-10 WB Normandie Ave Off	AM	E/F	2	17	1	no
	PM	E/F		17	9	no
US-101 SB Western Ave Off	AM	E/F	2	17	1	no
	PM	E/F		17	9	no
US-101 SB Melrose Ave Off	AM	E/F	1	9	1	no
	PM	E/F		9	4	no
US-101 NB Silverlake Blvd Off	AM	E/F	2	17	1	no
	PM	E/F		17	9	no
US-101 NB Rampart Blvd Off	AM	E/F	1	9	1	no
	PM	E/F		9	4	no

Notes:

a. The worst-case assumption of LOS was used with the most stringent trigger thresholds: LOS E/F Threshold: 1% of capacity if ramp at LOS E or F, 2% if ramp at LOS D, using HCM intersection methodology at ramp terminus

APPENDIX B:
LANE CONFIGURATIONS AND TRAFFIC VOLUMES



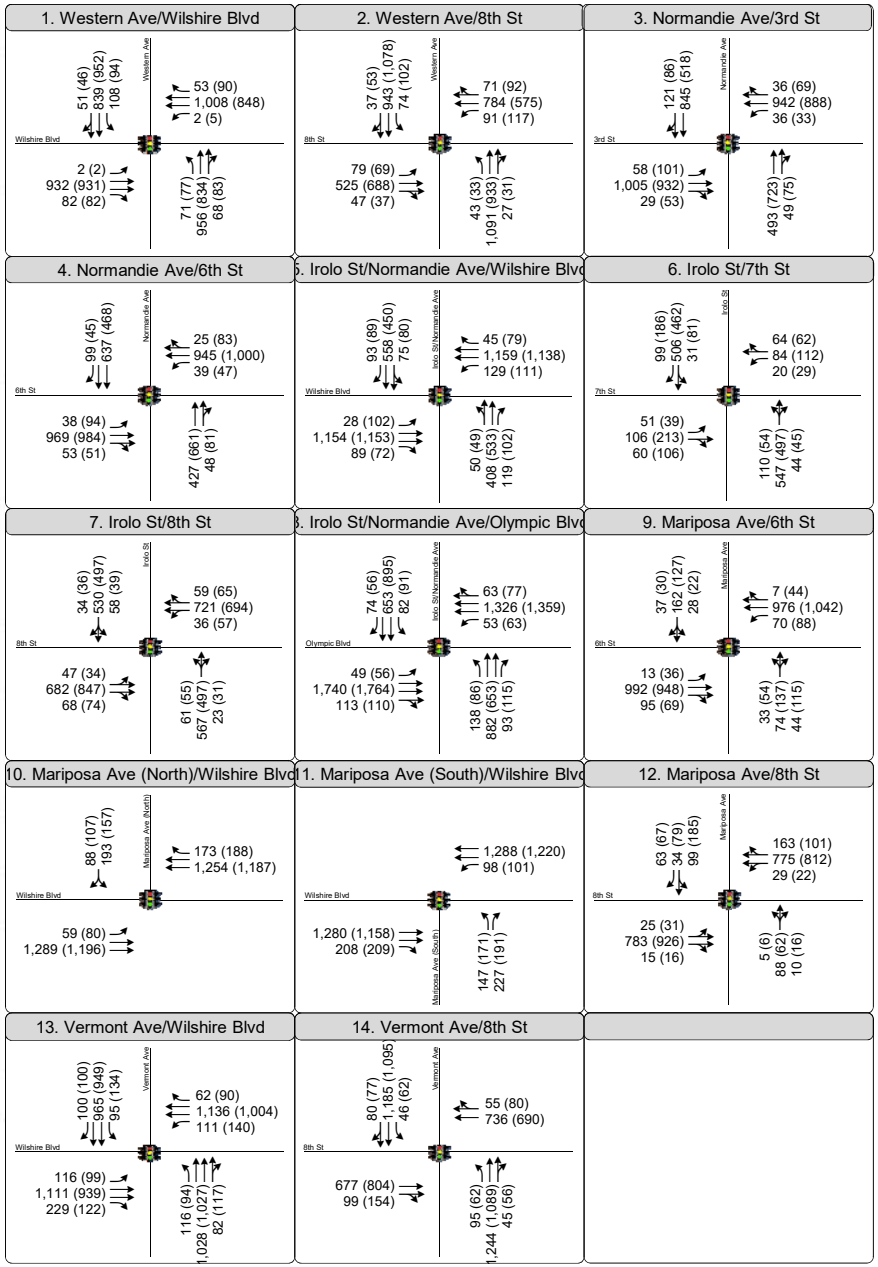
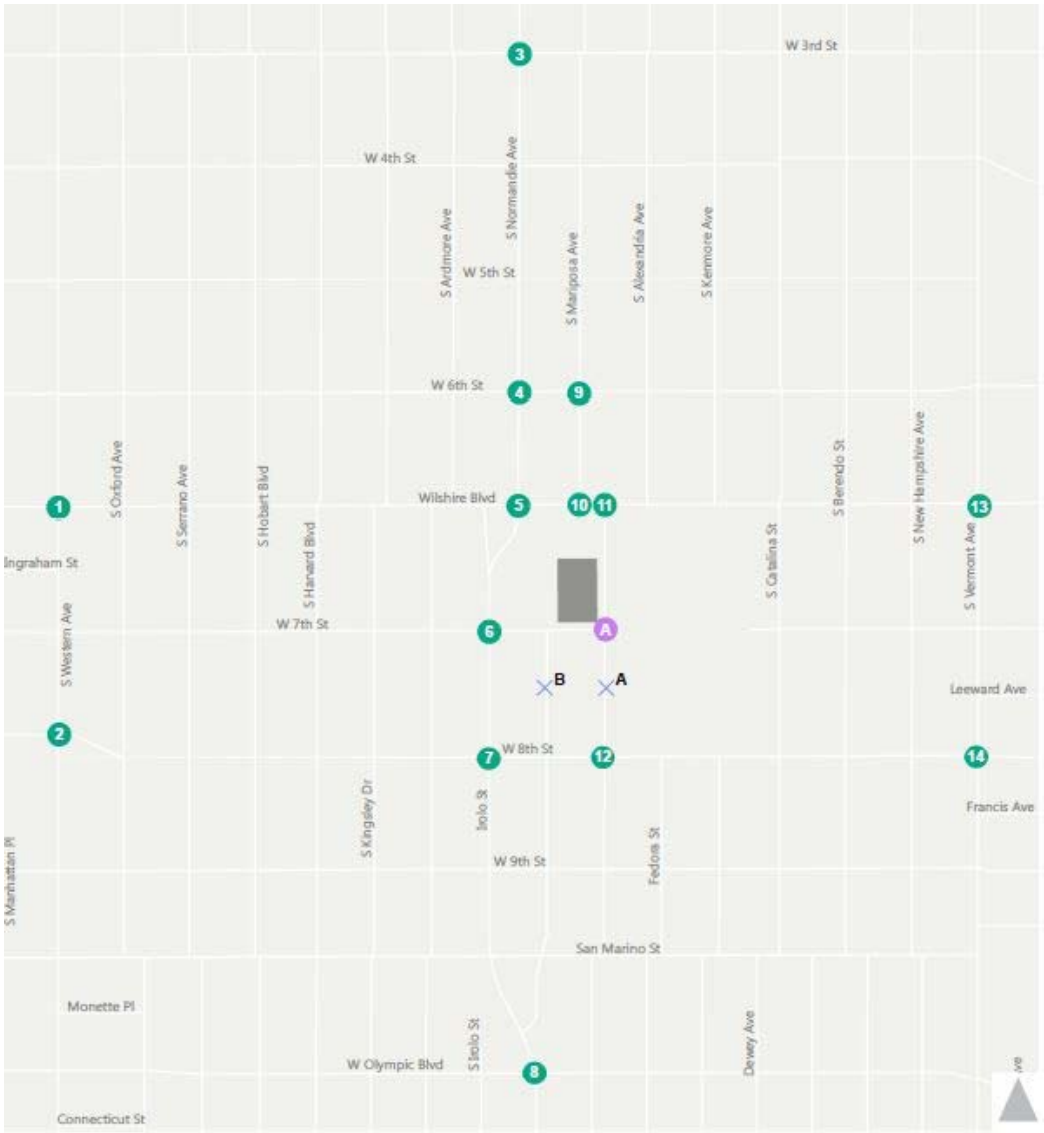


Figure 1
Peak Hour Traffic Volumes and Lane Configurations
Existing 2018 Conditions



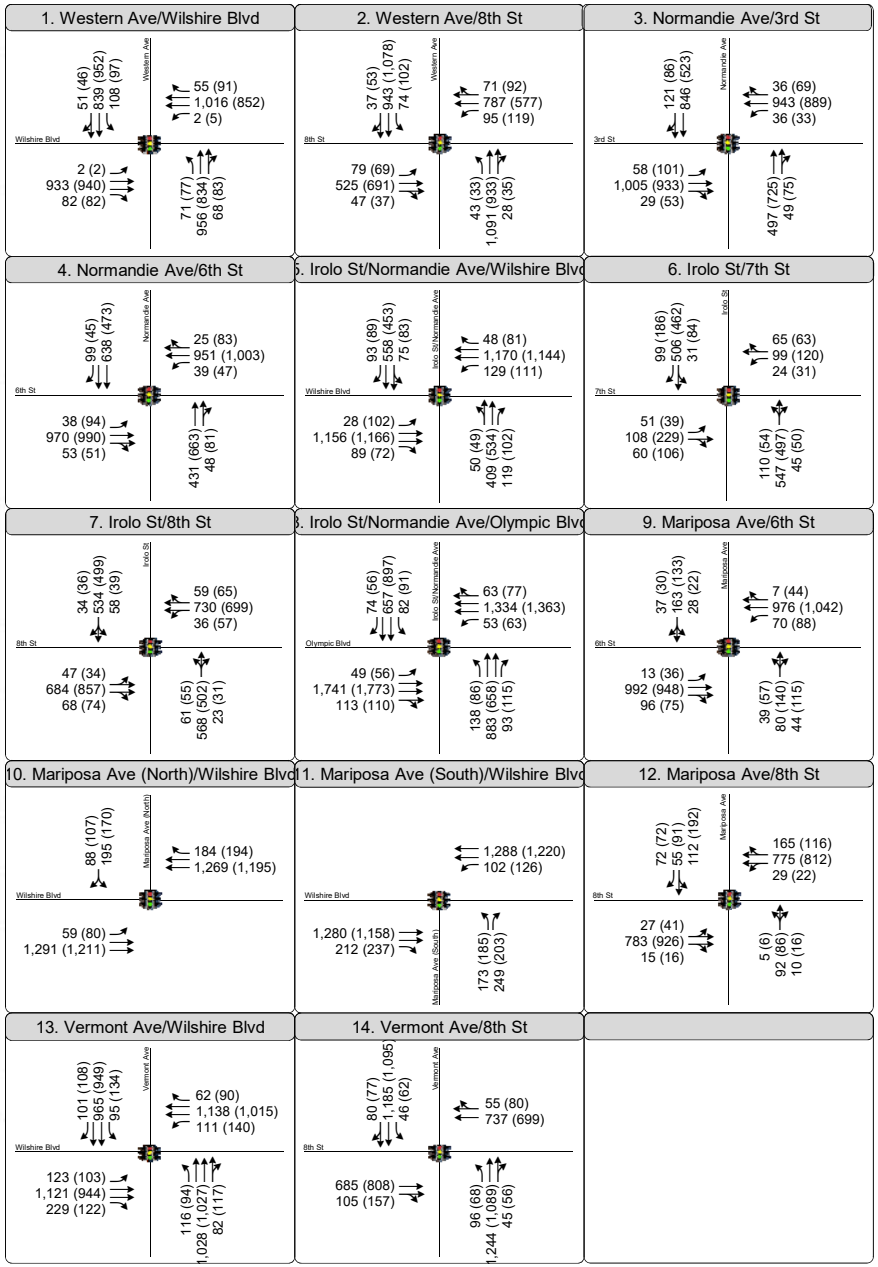


Figure 1
Peak Hour Traffic Volumes and Lane Configurations
Existing plus Project Conditions

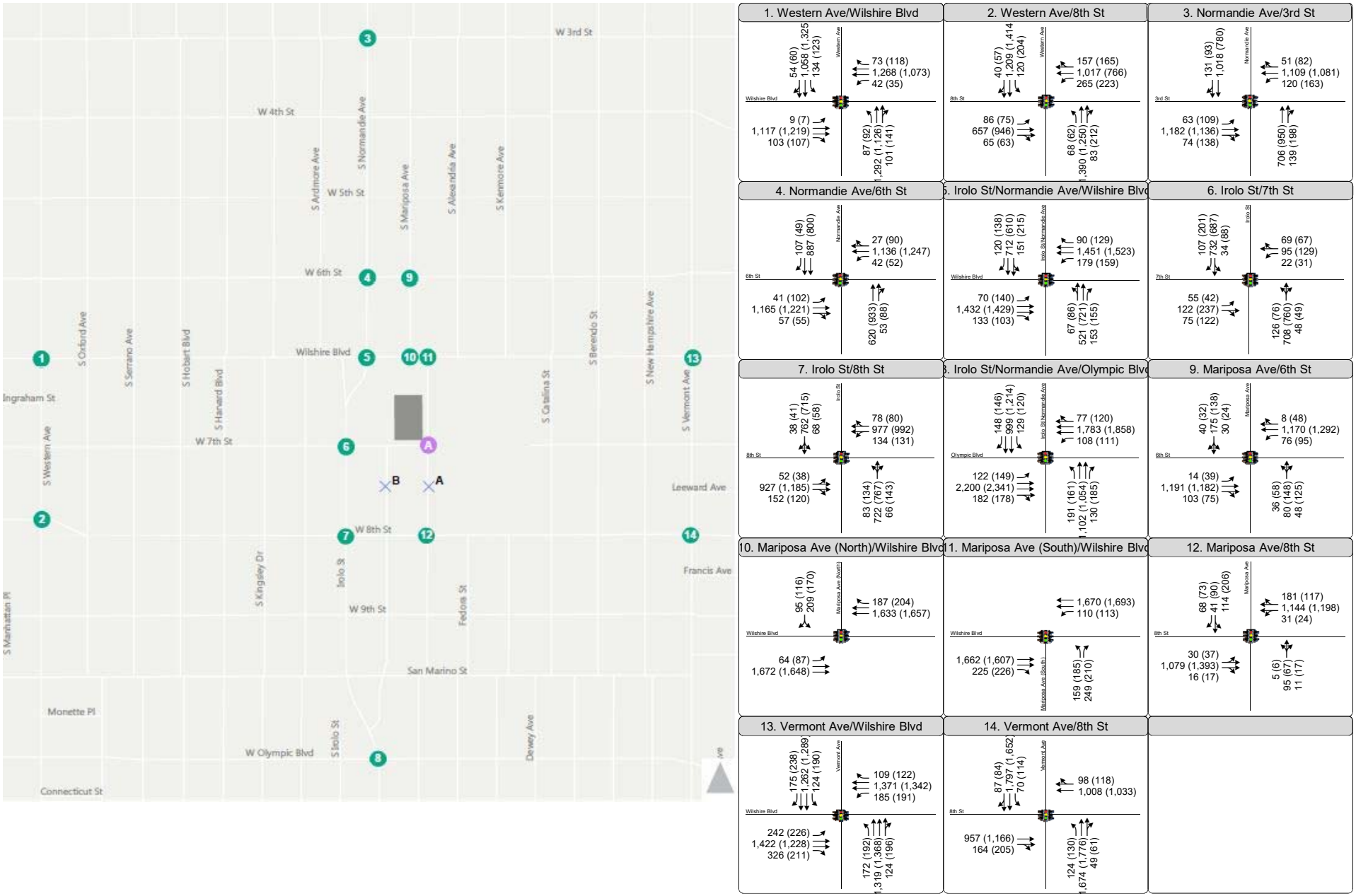


Figure 1
Peak Hour Traffic Volumes and Lane Configurations
Future Base 2026 Conditions

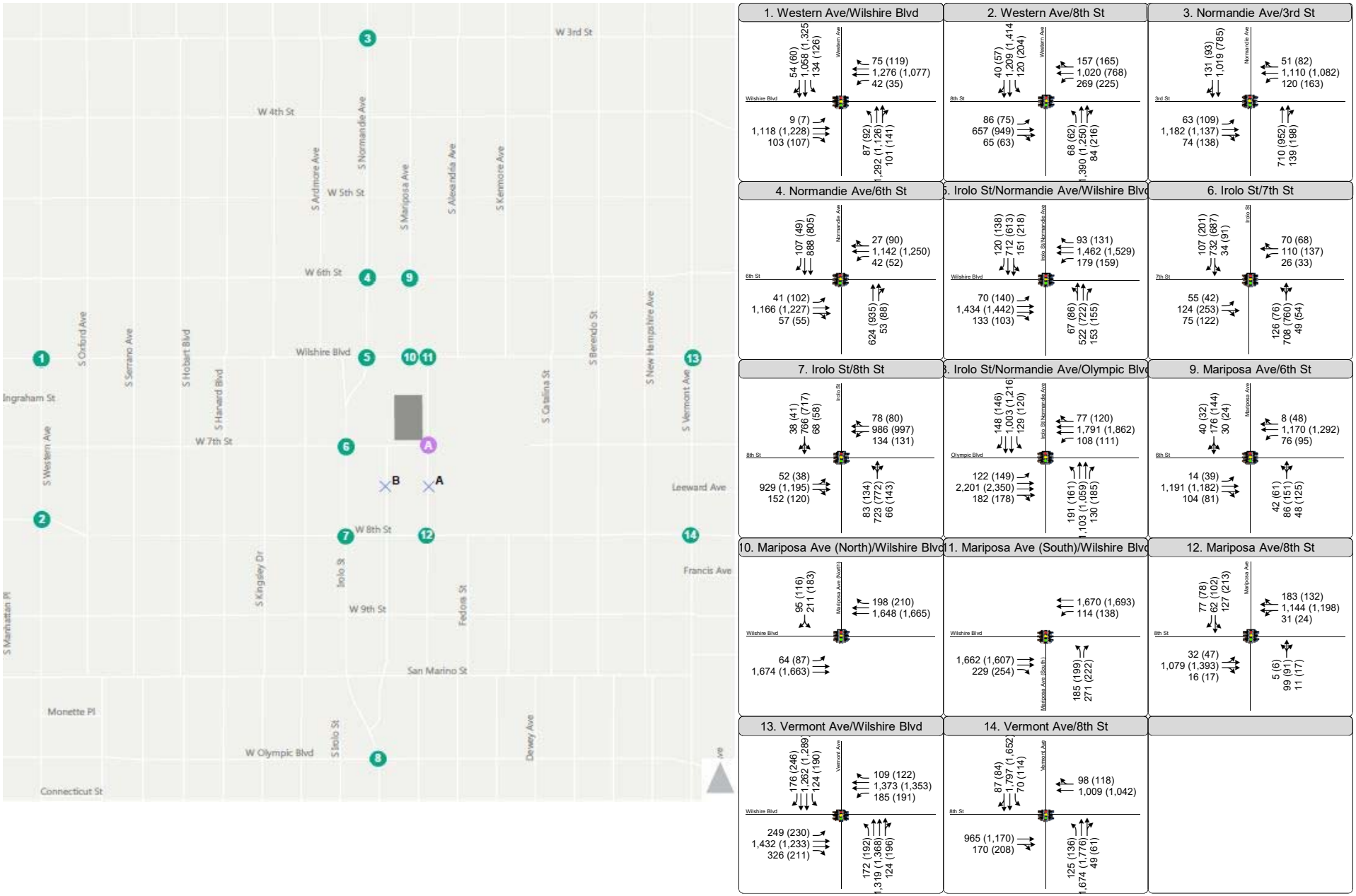


Figure 1
Peak Hour Traffic Volumes and Lane Configurations
Future plus Project 2026 Conditions

Figure 1
Peak Hour Traffic Volumes and Lane Configurations
Project Only

APPENDIX C:
COUNT SHEETS

National Data & Surveying Services

Intersection Turning Movement Count

Location: Western Ave & Wilshire Blvd
City: Los Angeles
Control: Signalized

Project ID: 18-05236-001
Date: 4/17/2018

Total

NS/EW Streets:	Western Ave				Western Ave				Wilshire Blvd				Wilshire Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	37	246	7	0	9	137	16	0	0	146	8	0	0	241	8	0	855
7:15 AM	36	221	12	0	23	178	16	0	1	165	14	0	0	260	13	0	939
7:30 AM	17	252	14	0	18	191	12	0	0	213	17	0	0	256	9	0	999
7:45 AM	21	261	17	0	29	225	9	0	1	239	24	0	0	251	16	0	1093
8:00 AM	19	237	17	0	30	213	15	0	0	247	25	0	0	255	14	0	1072
8:15 AM	14	206	20	0	31	210	15	0	1	233	16	0	2	246	14	0	1008
8:30 AM	19	185	20	0	30	203	17	0	1	224	26	0	0	181	16	0	922
8:45 AM	15	215	16	0	25	213	16	0	1	228	32	0	0	190	15	0	966
9:00 AM	14	204	19	0	37	184	17	0	0	214	10	0	1	187	14	0	901
9:15 AM	14	214	19	0	27	172	13	0	0	177	10	0	0	192	21	0	859
9:30 AM	17	205	30	0	25	182	9	0	0	134	10	0	3	177	15	0	807
9:45 AM	24	194	21	0	25	189	14	0	0	151	8	0	4	180	12	0	822
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	247	2640	212	0	309	2297	169	0	5	2371	200	0	10	2616	167	0	11243
APPROACH %'s :	7.97%	85.19%	6.84%	0.00%	11.14%	82.77%	6.09%	0.00%	0.19%	92.04%	7.76%	0.00%	0.36%	93.66%	5.98%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	71	956	68	0	108	839	51	0	2	932	82	0	2	1008	53	0	4172
PEAK HR FACTOR :	0.845	0.916	0.850	0.000	0.871	0.932	0.850	0.000	0.500	0.943	0.820	0.000	0.250	0.984	0.828	0.000	0.954
		0.916				0.949				0.934				0.988			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	2	0	0	0	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	15	203	28	0	20	174	21	0	0	210	29	0	6	150	17	0	873
3:15 PM	21	234	21	0	23	219	9	0	0	222	17	0	2	168	21	0	957
3:30 PM	16	196	22	0	30	222	13	0	0	208	18	0	3	169	31	0	928
3:45 PM	22	210	22	0	33	233	17	0	1	249	16	0	1	174	25	0	1003
4:00 PM	20	184	22	0	24	218	10	0	0	214	21	0	2	184	21	0	920
4:15 PM	17	174	18	0	30	206	20	0	2	226	22	0	2	194	34	0	945
4:30 PM	20	212	23	0	26	215	6	0	0	218	16	0	1	191	19	0	947
4:45 PM	17	190	22	0	21	238	14	0	0	251	14	0	1	210	22	0	1000
5:00 PM	19	216	20	0	15	246	11	0	0	226	17	0	1	201	19	0	991
5:15 PM	14	202	24	0	26	231	11	0	0	238	25	0	0	217	28	0	1016
5:30 PM	26	202	26	0	27	225	12	0	1	232	20	0	1	203	22	0	997
5:45 PM	18	214	13	0	26	250	12	0	1	235	20	0	3	227	21	0	1040
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	225	2437	261	0	301	2677	156	0	5	2729	235	0	23	2288	280	0	11617
APPROACH %'s :	7.70%	83.37%	8.93%	0.00%	9.60%	85.42%	4.98%	0.00%	0.17%	91.92%	7.92%	0.00%	0.89%	88.31%	10.81%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	77	834	83	0	94	952	46	0	2	931	82	0	5	848	90	0	4044
PEAK HR FACTOR :	0.740	0.965	0.798	0.000	0.870	0.952	0.958	0.000	0.500	0.978	0.820	0.000	0.417	0.934	0.804	0.000	0.972
		0.975				0.948				0.965				0.939			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Western Ave & 8th St
City: Los Angeles
Control: Signalized

Project ID: 18-05236-002
Date: 4/17/2018

Total

NS/EW Streets:	Western Ave				Western Ave				8th St				8th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	252	6	0	10	144	8	0	18	58	6	0	18	210	29	0	768
7:15 AM	8	245	5	0	12	195	12	0	21	91	8	0	20	215	31	0	863
7:30 AM	12	288	3	0	12	230	7	0	25	102	5	0	16	262	19	0	981
7:45 AM	11	281	10	0	16	242	18	0	23	133	14	0	27	175	17	0	967
8:00 AM	13	275	6	0	22	236	8	0	16	141	12	0	27	185	21	0	962
8:15 AM	7	247	8	0	24	235	4	0	15	149	16	0	21	162	14	0	902
8:30 AM	9	252	10	0	25	222	9	0	15	163	3	0	21	144	16	0	889
8:45 AM	14	250	16	0	14	258	3	0	14	149	10	0	27	153	13	0	921
9:00 AM	5	252	7	0	15	219	8	0	24	133	11	0	29	146	4	0	853
9:15 AM	8	226	6	0	15	213	3	0	23	119	11	0	26	146	20	0	816
9:30 AM	8	258	5	0	14	191	7	0	8	95	13	0	24	134	27	0	784
9:45 AM	10	216	4	0	20	202	4	0	16	99	11	0	31	113	28	0	754
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	114	3042	86	0	199	2587	91	0	218	1432	120	0	287	2045	239	0	10460
APPROACH %'s :	3.52%	93.83%	2.65%	0.00%	6.92%	89.92%	3.16%	0.00%	12.32%	80.90%	6.78%	0.00%	11.16%	79.54%	9.30%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	43	1091	27	0	74	943	37	0	79	525	47	0	91	784	71	0	3812
PEAK HR FACTOR :	0.827	0.947	0.675	0.000	0.771	0.974	0.514	0.000	0.790	0.881	0.734	0.000	0.843	0.748	0.845	0.000	0.971
	0.958				0.955				0.904				0.796				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	7	232	7	0	13	238	7	0	13	85	12	0	29	91	21	0	755
3:15 PM	7	247	8	0	15	241	12	0	21	113	11	0	29	93	21	0	818
3:30 PM	5	231	11	0	21	246	10	0	22	153	7	0	29	96	24	0	855
3:45 PM	8	249	10	0	14	282	6	0	27	121	14	0	48	101	16	0	896
4:00 PM	11	232	9	0	23	243	8	0	16	144	8	0	27	118	13	0	852
4:15 PM	5	207	9	0	18	250	4	0	13	130	12	0	31	110	19	0	808
4:30 PM	6	233	10	0	11	255	17	0	17	129	11	0	27	110	28	0	854
4:45 PM	9	212	15	0	23	249	10	0	14	144	7	0	24	130	19	0	856
5:00 PM	8	241	8	0	23	278	8	0	20	180	14	0	33	140	28	0	981
5:15 PM	6	221	4	0	30	271	10	0	21	157	9	0	30	131	17	0	907
5:30 PM	11	252	13	0	25	266	17	0	14	182	8	0	26	152	19	0	985
5:45 PM	8	219	6	0	24	263	18	0	14	169	6	0	28	152	28	0	935
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	91	2776	110	0	240	3082	127	0	212	1707	119	0	361	1424	253	0	10502
APPROACH %'s :	3.06%	93.25%	3.69%	0.00%	6.96%	89.36%	3.68%	0.00%	10.40%	83.76%	5.84%	0.00%	17.71%	69.87%	12.41%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	33	933	31	0	102	1078	53	0	69	688	37	0	117	575	92	0	3808
PEAK HR FACTOR :	0.750	0.926	0.596	0.000	0.850	0.969	0.736	0.000	0.821	0.945	0.661	0.000	0.886	0.946	0.821	0.000	0.966
	0.903				0.991				0.928				0.942				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Normandie Ave & 3rd St
City: Los Angeles
Control: Signalized

Project ID: 18-05236-003
Date: 4/17/2018

Total

NS/EW Streets:	Normandie Ave				Normandie Ave				3rd St				3rd St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	120	4	0	1	188	21	0	13	260	9	0	6	236	7	0	865
7:15 AM	1	120	12	0	0	209	22	0	12	275	7	0	10	261	8	0	937
7:30 AM	0	117	15	0	2	177	36	0	17	225	4	0	12	207	8	1	821
7:45 AM	0	137	11	0	2	230	20	0	17	243	3	0	8	230	9	0	910
8:00 AM	1	119	11	0	0	229	43	0	12	262	15	0	5	244	11	0	952
8:15 AM	0	88	13	0	2	221	39	0	9	270	6	0	13	229	10	0	900
8:30 AM	0	133	6	0	0	172	29	0	9	256	4	0	10	212	11	0	842
8:45 AM	1	146	16	0	2	151	30	0	19	203	12	0	11	244	12	0	847
9:00 AM	1	122	8	0	1	144	26	0	6	249	6	0	11	192	12	0	778
9:15 AM	0	111	13	0	0	152	22	0	12	203	12	0	5	251	11	0	792
9:30 AM	0	102	12	0	2	131	27	0	17	217	9	0	10	224	15	0	766
9:45 AM	2	97	10	0	3	150	26	0	18	224	7	0	11	201	16	0	765
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	1412	131	0	15	2154	341	0	161	2887	94	0	112	2731	130	1	10175
APPROACH %'s :	0.39%	91.16%	8.46%	0.00%	0.60%	85.82%	13.59%	0.00%	5.12%	91.88%	2.99%	0.00%	3.77%	91.83%	4.37%	0.03%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	2	493	49	0	4	845	121	0	58	1005	29	0	35	942	36	1	3620
PEAK HR FACTOR :	0.500	0.900	0.817	0.000	0.500	0.918	0.703	0.000	0.853	0.914	0.483	0.000	0.729	0.902	0.818	0.250	0.951
	0.919				0.892				0.929				0.909				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	1	133	15	0	0	134	18	0	18	243	16	0	11	181	20	0	790
3:15 PM	1	152	16	0	0	128	31	0	22	235	4	0	11	220	18	0	838
3:30 PM	0	129	24	0	0	135	18	0	30	231	14	0	12	233	16	0	842
3:45 PM	2	167	16	0	0	138	10	0	20	241	11	0	12	218	14	0	849
4:00 PM	2	155	14	0	1	143	16	0	23	219	12	0	9	218	18	0	830
4:15 PM	0	206	21	0	1	131	23	0	26	240	11	0	8	217	18	1	903
4:30 PM	0	169	18	0	0	113	19	0	29	237	15	0	9	233	14	0	856
4:45 PM	0	193	22	0	0	131	28	0	22	236	15	1	6	220	19	0	893
5:00 PM	1	183	11	0	0	123	16	0	17	196	14	0	9	239	16	0	825
5:15 PM	0	198	14	0	4	133	25	0	20	208	6	0	15	238	12	0	873
5:30 PM	1	177	15	0	1	138	16	0	16	197	12	0	10	221	17	0	821
5:45 PM	0	176	12	0	0	121	19	0	18	240	14	0	7	237	12	0	856
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	8	2038	198	0	7	1568	239	0	261	2723	144	1	119	2675	194	1	10176
APPROACH %'s :	0.36%	90.82%	8.82%	0.00%	0.39%	86.44%	13.18%	0.00%	8.34%	87.02%	4.60%	0.03%	3.98%	89.49%	6.49%	0.03%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	723	75	0	2	518	86	0	100	932	53	1	32	888	69	1	3482
PEAK HR FACTOR :	0.250	0.877	0.852	0.000	0.500	0.906	0.768	0.000	0.862	0.971	0.883	0.250	0.889	0.953	0.908	0.250	0.964
	0.881				0.947				0.966				0.967				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Normandie Ave & 6th St
City: Los Angeles
Control: Signalized

Project ID: 18-05236-004
Date: 4/17/2018

Total

NS/EW Streets:	Normandie Ave				Normandie Ave				6th St				6th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	1	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	97	9	0	13	139	14	0	8	149	8	0	9	209	5	0	665
7:15 AM	3	110	6	0	14	138	22	0	6	187	5	0	8	238	7	0	744
7:30 AM	8	107	8	0	18	181	21	0	10	238	13	0	11	224	6	0	845
7:45 AM	7	106	18	0	29	125	24	0	8	261	13	0	4	242	5	0	842
8:00 AM	9	120	10	0	23	140	27	0	10	225	6	0	8	252	8	0	838
8:15 AM	6	94	12	0	24	191	27	0	10	245	21	0	16	227	6	0	879
8:30 AM	9	82	7	0	19	166	23	0	6	228	14	0	14	253	6	0	827
8:45 AM	9	115	7	0	13	142	27	0	3	226	12	0	13	212	7	0	786
9:00 AM	10	134	16	0	9	131	12	0	5	212	14	0	14	197	7	0	761
9:15 AM	10	110	16	0	14	138	20	0	9	199	11	0	14	188	10	0	739
9:30 AM	8	99	13	0	9	141	10	0	5	185	13	0	8	171	7	0	669
9:45 AM	12	93	17	0	15	118	12	0	11	174	17	0	15	178	15	0	677
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	96	1267	139	0	200	1750	239	0	91	2529	147	0	134	2591	89	0	9272
APPROACH %'s :	6.39%	84.35%	9.25%	0.00%	9.14%	79.95%	10.92%	0.00%	3.29%	91.40%	5.31%	0.00%	4.76%	92.08%	3.16%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	30	427	48	0	94	637	99	0	38	969	53	0	39	945	25	0	3404
PEAK HR FACTOR :	0.833	0.890	0.667	0.000	0.810	0.834	0.917	0.000	0.950	0.928	0.631	0.000	0.609	0.938	0.781	0.000	0.968
	0.908				0.857				0.940				0.941				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	1	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	8	115	21	1	10	118	8	0	4	231	11	0	10	149	11	0	697
3:15 PM	7	110	19	0	11	121	9	0	15	207	13	0	13	159	9	0	693
3:30 PM	8	123	7	0	5	138	15	0	8	220	13	0	18	161	9	0	725
3:45 PM	4	123	21	0	9	128	13	0	11	248	12	0	11	198	11	0	789
4:00 PM	3	135	13	0	1	142	10	0	18	271	12	0	14	200	15	0	834
4:15 PM	3	140	19	0	1	139	6	0	17	251	15	0	18	198	17	0	824
4:30 PM	1	175	20	0	2	121	8	0	17	250	15	0	21	238	15	0	883
4:45 PM	4	162	16	0	1	114	11	0	28	218	13	0	11	226	15	0	819
5:00 PM	3	164	24	0	2	118	13	0	25	246	14	0	16	239	24	0	888
5:15 PM	2	157	21	0	2	119	13	0	20	257	11	0	9	265	23	0	899
5:30 PM	0	173	17	0	0	121	7	0	27	234	9	0	9	253	18	0	868
5:45 PM	3	167	19	0	2	110	12	0	22	247	17	0	13	243	18	0	873
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	46	1744	217	1	46	1489	125	0	212	2880	155	0	163	2529	185	0	9792
APPROACH %'s :	2.29%	86.85%	10.81%	0.05%	2.77%	89.70%	7.53%	0.00%	6.53%	88.70%	4.77%	0.00%	5.67%	87.90%	6.43%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	8	661	81	0	6	468	45	0	94	984	51	0	47	1000	83	0	3528
PEAK HR FACTOR :	0.667	0.955	0.844	0.000	0.750	0.967	0.865	0.000	0.870	0.957	0.750	0.000	0.734	0.943	0.865	0.000	0.981
	0.982				0.968				0.980				0.951				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Normandie Ave/Irolo St & Wilshire Blvd
City: Los Angeles
Control: Signalized

Project ID: 18-05236-005
Date: 4/17/2018

Total

NS/EW Streets:	Normandie Ave/Irolo St				Normandie Ave/Irolo St				Wilshire Blvd				Wilshire Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	1	0	0	2	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	96	18	0	11	134	20	0	6	193	10	0	16	280	11	0	807
7:15 AM	9	104	23	0	23	121	16	0	10	223	14	0	13	289	3	0	848
7:30 AM	9	103	26	0	21	148	16	0	10	286	21	0	19	266	8	0	933
7:45 AM	12	108	26	0	23	127	19	0	6	300	20	1	31	309	9	0	991
8:00 AM	8	120	30	0	16	116	18	0	10	292	28	0	25	318	11	0	992
8:15 AM	13	90	32	0	12	150	37	0	6	293	18	0	34	278	15	0	978
8:30 AM	17	90	31	0	24	165	19	0	5	269	23	0	39	254	10	0	946
8:45 AM	11	88	37	0	25	141	22	0	14	254	23	0	45	284	11	0	955
9:00 AM	10	136	31	0	23	126	16	0	13	235	22	1	21	216	17	0	867
9:15 AM	10	114	24	0	26	123	19	0	10	204	19	0	24	263	15	0	851
9:30 AM	14	114	32	0	18	114	25	0	7	180	15	0	29	275	5	0	828
9:45 AM	12	86	41	0	22	106	30	0	7	186	22	0	28	245	11	0	796
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	137	1249	351	0	244	1571	257	0	104	2915	235	2	324	3277	126	0	10792
APPROACH %'s :	7.89%	71.91%	20.21%	0.00%	11.78%	75.82%	12.40%	0.00%	3.19%	89.53%	7.22%	0.06%	8.69%	87.93%	3.38%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	50	408	119	0	75	558	93	0	27	1154	89	1	129	1159	45	0	3907
PEAK HR FACTOR :	0.735	0.850	0.930	0.000	0.781	0.845	0.628	0.000	0.675	0.962	0.795	0.250	0.827	0.911	0.750	0.000	0.985
	0.913				0.873				0.963				0.941				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	1	0	0	2	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	13	107	32	1	16	118	11	0	18	247	14	0	26	218	22	0	843
3:15 PM	17	94	23	0	11	121	14	0	19	248	21	0	28	206	16	0	818
3:30 PM	10	118	29	0	12	134	23	0	12	285	19	2	23	231	9	0	907
3:45 PM	8	124	27	0	15	124	11	0	20	244	25	0	34	243	12	0	887
4:00 PM	13	105	28	0	21	143	20	0	22	257	22	0	31	226	19	0	907
4:15 PM	10	121	21	0	16	130	24	0	22	228	25	0	25	223	18	0	863
4:30 PM	8	140	15	0	15	142	11	0	25	264	28	0	24	249	20	0	941
4:45 PM	13	158	3	0	18	108	12	0	24	300	19	0	21	262	16	0	954
5:00 PM	15	134	25	0	15	114	22	0	24	292	17	0	20	236	18	0	932
5:15 PM	18	121	35	0	19	112	25	0	25	283	15	0	30	287	19	0	989
5:30 PM	6	153	26	0	15	118	22	0	28	286	21	1	23	283	13	0	995
5:45 PM	10	132	21	0	20	99	24	0	27	283	18	0	25	311	25	0	995
6:00 PM	15	127	20	0	26	121	18	0	21	301	18	0	33	257	22	0	979
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	156	1634	305	1	219	1584	237	0	287	3518	262	3	343	3232	229	0	12010
APPROACH %'s :	7.44%	77.96%	14.55%	0.05%	10.74%	77.65%	11.62%	0.00%	7.05%	86.44%	6.44%	0.07%	9.02%	84.96%	6.02%	0.00%	
PEAK HR :	05:15 PM - 06:15 PM																TOTAL
PEAK HR VOL :	49	533	102	0	80	450	89	0	101	1153	72	1	111	1138	79	0	3958
PEAK HR FACTOR :	0.681	0.871	0.729	0.000	0.769	0.930	0.890	0.000	0.902	0.958	0.857	0.250	0.841	0.915	0.790	0.000	0.994
	0.924				0.938				0.976				0.920				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Irolo St & 7th St
City: Los Angeles
Control: Signalized

Project ID: 18-05236-006
Date: 4/17/2018

Total

NS/EW Streets:	Irolo St				Irolo St				7th St				7th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	12	120	2	0	3	113	7	0	9	11	12	0	4	6	14	0	313
7:15 AM	16	130	3	0	10	129	12	0	11	16	13	0	3	17	2	0	362
7:30 AM	9	136	7	0	7	129	17	0	6	17	12	0	4	15	12	0	371
7:45 AM	16	132	10	0	12	123	14	0	12	26	24	0	4	22	10	0	405
8:00 AM	21	140	13	0	7	121	25	0	15	27	15	0	5	16	19	0	424
8:15 AM	23	139	10	0	6	138	28	0	13	29	17	0	4	17	14	0	438
8:30 AM	23	116	11	0	9	154	24	0	16	28	15	0	5	14	9	0	424
8:45 AM	36	129	11	0	8	114	21	0	12	20	16	0	5	27	20	0	419
9:00 AM	28	163	12	0	8	100	26	0	10	29	12	0	6	26	21	0	441
9:15 AM	23	135	7	0	7	118	23	0	13	23	11	0	3	15	6	0	384
9:30 AM	19	129	6	0	8	133	23	0	7	20	9	0	6	16	18	0	394
9:45 AM	22	143	5	0	5	104	17	0	4	9	15	0	2	10	14	0	350
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	248	1612	97	0	90	1476	237	0	128	255	171	0	51	201	159	0	4725
APPROACH %'s :	12.67%	82.37%	4.96%	0.00%	4.99%	81.86%	13.14%	0.00%	23.10%	46.03%	30.87%	0.00%	12.41%	48.91%	38.69%	0.00%	
PEAK HR :	08:15 AM - 09:15 AM																TOTAL
PEAK HR VOL :	110	547	44	0	31	506	99	0	51	106	60	0	20	84	64	0	1722
PEAK HR FACTOR :	0.764	0.839	0.917	0.000	0.861	0.821	0.884	0.000	0.797	0.914	0.882	0.000	0.833	0.778	0.762	0.000	0.976
	0.863				0.850				0.919				0.792				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	1	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	6	95	8	0	16	138	17	0	2	24	13	0	8	18	15	0	360
3:15 PM	13	120	5	0	12	140	24	0	8	25	24	0	11	17	22	0	421
3:30 PM	11	106	6	0	13	135	23	0	5	31	20	0	8	23	16	0	397
3:45 PM	10	114	13	0	8	151	33	0	11	39	11	0	5	17	13	0	425
4:00 PM	21	100	10	0	26	135	43	0	9	37	24	0	9	19	17	0	450
4:15 PM	10	113	9	0	18	145	35	0	12	41	13	0	7	15	15	0	433
4:30 PM	12	120	8	0	18	128	64	0	7	40	21	0	7	37	19	0	481
4:45 PM	12	126	5	0	13	117	40	0	7	51	14	0	7	29	20	0	441
5:00 PM	18	124	8	0	19	139	25	0	20	44	24	0	6	31	10	0	468
5:15 PM	12	121	15	0	13	103	52	0	7	61	31	0	6	26	18	0	465
5:30 PM	13	141	10	0	31	120	48	0	5	51	25	0	7	22	14	2	489
5:45 PM	11	111	12	0	18	100	61	0	7	57	26	0	8	33	20	0	464
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	149	1391	109	0	205	1551	465	0	100	501	246	0	89	287	199	2	5294
APPROACH %'s :	9.04%	84.35%	6.61%	0.00%	9.23%	69.83%	20.94%	0.00%	11.81%	59.15%	29.04%	0.00%	15.42%	49.74%	34.49%	0.35%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	54	497	45	0	81	462	186	0	39	213	106	0	27	112	62	2	1886
PEAK HR FACTOR :	0.750	0.881	0.750	0.000	0.653	0.831	0.762	0.000	0.488	0.873	0.855	0.000	0.844	0.848	0.775	0.250	0.964
	0.909				0.916				0.904				0.832				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Irolo St & 8th St
City: Los Angeles
Control: Signalized

Project ID: 18-05236-007
Date: 4/17/2018

Total

NS/EW Streets:	Irolo St				Irolo St				8th St				8th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	13	124	3	0	6	122	6	0	3	98	17	0	4	227	8	0	631
7:15 AM	16	132	5	0	6	127	10	0	6	144	9	0	7	236	4	0	702
7:30 AM	20	145	5	0	8	142	8	0	2	141	20	0	11	197	12	0	711
7:45 AM	7	123	5	0	15	132	5	0	11	167	16	0	10	203	15	0	709
8:00 AM	12	145	10	0	12	118	10	1	13	187	25	0	11	174	18	0	736
8:15 AM	15	154	5	0	18	135	6	0	8	165	15	0	12	175	13	0	721
8:30 AM	19	120	2	0	14	150	10	0	11	176	15	0	8	180	12	0	717
8:45 AM	15	148	6	0	13	127	8	0	15	154	13	0	5	192	16	0	712
9:00 AM	11	171	10	0	8	104	12	0	11	123	13	0	3	168	15	0	649
9:15 AM	15	151	8	0	7	114	9	0	6	121	16	0	12	183	11	0	653
9:30 AM	15	130	6	0	11	131	6	0	9	120	12	0	9	155	18	0	622
9:45 AM	8	157	8	0	6	111	7	0	6	126	16	0	9	153	7	0	614
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	166	1700	73	0	124	1513	97	1	101	1722	187	0	101	2243	149	0	8177
APPROACH %'s :	8.56%	87.67%	3.76%	0.00%	7.15%	87.20%	5.59%	0.06%	5.02%	85.67%	9.30%	0.00%	4.05%	89.97%	5.98%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	61	567	23	0	57	530	34	1	47	682	68	0	36	721	59	0	2886
PEAK HR FACTOR :	0.803	0.920	0.575	0.000	0.792	0.883	0.850	0.250	0.783	0.912	0.680	0.000	0.750	0.939	0.819	0.000	0.980
	0.935				0.894				0.886				0.958				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	10	89	9	0	10	139	9	0	7	129	18	0	10	126	7	0	563
3:15 PM	15	119	11	0	10	149	11	0	4	154	19	0	8	152	17	0	669
3:30 PM	13	111	14	0	16	125	10	0	7	181	25	1	17	144	13	0	677
3:45 PM	13	110	11	0	9	148	12	0	7	142	19	0	13	142	13	0	639
4:00 PM	8	124	15	0	12	153	9	0	5	144	14	0	13	172	8	0	677
4:15 PM	11	113	8	0	16	131	6	0	7	206	19	0	14	157	19	0	707
4:30 PM	12	121	11	0	11	138	4	0	9	166	18	0	19	145	9	0	663
4:45 PM	13	131	9	0	10	134	10	0	3	196	18	0	14	164	16	0	718
5:00 PM	14	127	8	0	8	139	11	0	10	206	17	0	10	164	10	0	724
5:15 PM	14	131	8	0	10	115	8	0	7	191	19	0	17	164	18	0	702
5:30 PM	13	132	8	0	10	131	9	0	7	230	15	0	15	177	18	0	765
5:45 PM	14	107	7	0	11	112	8	0	10	220	23	0	15	189	19	0	735
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	150	1415	119	0	133	1614	107	0	83	2165	224	1	165	1896	167	0	8239
APPROACH %'s :	8.91%	84.03%	7.07%	0.00%	7.17%	87.06%	5.77%	0.00%	3.36%	87.55%	9.06%	0.04%	7.41%	85.10%	7.50%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	55	497	31	0	39	497	36	0	34	847	74	0	57	694	65	0	2926
PEAK HR FACTOR :	0.982	0.941	0.969	0.000	0.886	0.894	0.818	0.000	0.850	0.921	0.804	0.000	0.838	0.918	0.855	0.000	0.956
	0.953				0.905				0.944				0.915				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Normandie Ave & Olympic Blvd
City: Los Angeles
Control: Signalized

Project ID: 18-05236-008
Date: 4/17/2018

Total

NS/EW Streets:	Normandie Ave				Normandie Ave				Olympic Blvd				Olympic Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	34	177	24	0	14	142	17	0	8	182	11	0	5	364	17	0	995
7:15 AM	48	194	15	0	20	129	18	0	11	284	16	0	7	369	9	0	1120
7:30 AM	31	224	21	0	19	167	20	0	10	325	16	0	14	344	20	0	1211
7:45 AM	27	189	12	0	26	145	12	0	17	395	19	0	13	370	20	0	1245
8:00 AM	29	237	32	0	18	160	21	0	9	404	23	0	10	293	9	0	1245
8:15 AM	34	192	26	0	24	157	12	0	12	468	23	0	11	373	14	0	1346
8:30 AM	31	204	19	0	20	192	20	0	12	441	29	0	15	342	18	0	1343
8:45 AM	44	249	16	0	20	144	21	0	16	427	38	0	17	318	22	0	1332
9:00 AM	29	261	18	0	16	126	14	0	13	371	29	0	8	248	10	0	1143
9:15 AM	23	166	18	0	24	109	18	0	11	345	25	0	11	296	22	0	1068
9:30 AM	35	181	19	0	20	164	25	0	9	307	23	0	12	267	15	0	1077
9:45 AM	33	175	26	0	26	116	19	0	16	315	23	0	7	292	13	0	1061
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	398	2449	246	0	247	1751	217	0	144	4264	275	0	130	3876	189	0	14186
APPROACH %'s :	12.87%	79.18%	7.95%	0.00%	11.15%	79.05%	9.80%	0.00%	3.07%	91.05%	5.87%	0.00%	3.10%	92.40%	4.51%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	138	882	93	0	82	653	74	0	49	1740	113	0	53	1326	63	0	5266
PEAK HR FACTOR :	0.784	0.886	0.727	0.000	0.854	0.850	0.881	0.000	0.766	0.929	0.743	0.000	0.779	0.889	0.716	0.000	0.978
	0.900				0.872				0.945				0.906				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	27	137	31	0	27	186	12	0	13	351	31	0	15	245	11	0	1086
3:15 PM	23	140	29	0	22	187	22	0	10	349	25	0	19	279	26	0	1131
3:30 PM	22	149	39	0	24	202	18	0	19	378	23	0	14	283	18	0	1189
3:45 PM	23	147	35	0	19	219	16	0	20	361	30	0	20	270	13	0	1173
4:00 PM	22	151	25	0	29	203	18	0	16	417	30	0	16	292	14	0	1233
4:15 PM	17	159	36	0	24	203	19	0	17	422	31	0	18	258	14	0	1218
4:30 PM	21	153	28	0	16	216	17	0	16	421	23	0	14	314	18	0	1257
4:45 PM	18	159	21	0	29	208	19	0	16	456	29	0	9	283	17	0	1264
5:00 PM	24	165	33	0	25	243	17	0	14	455	32	0	13	334	16	0	1371
5:15 PM	21	171	25	0	24	226	13	0	12	431	26	0	19	289	24	0	1281
5:30 PM	26	170	33	0	23	205	10	0	15	418	23	0	14	366	18	0	1321
5:45 PM	15	147	24	0	19	221	16	0	15	460	29	0	17	370	19	0	1352
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	259	1848	359	0	281	2519	197	0	183	4919	332	0	188	3583	208	0	14876
APPROACH %'s :	10.50%	74.94%	14.56%	0.00%	9.38%	84.05%	6.57%	0.00%	3.37%	90.52%	6.11%	0.00%	4.72%	90.05%	5.23%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	86	653	115	0	91	895	56	0	56	1764	110	0	63	1359	77	0	5325
PEAK HR FACTOR :	0.827	0.955	0.871	0.000	0.910	0.921	0.824	0.000	0.933	0.959	0.859	0.000	0.829	0.918	0.802	0.000	0.971
	0.932				0.914				0.957				0.923				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mariposa Ave & 6th St
City: Los Angeles
Control: Signalized

Project ID: 18-05236-009
Date: 4/17/2018

Total

NS/EW Streets:	Mariposa Ave				Mariposa Ave				6th St				6th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	11	10	6	0	9	28	15	0	1	164	6	0	11	208	3	0	472
7:15 AM	3	12	5	0	10	29	15	0	4	201	11	0	10	231	3	0	534
7:30 AM	8	14	4	0	11	43	9	0	3	246	14	0	11	237	4	0	604
7:45 AM	3	23	12	0	10	49	6	0	2	282	24	0	13	246	2	0	672
8:00 AM	15	16	7	0	6	33	4	0	1	239	14	0	16	246	2	1	600
8:15 AM	9	17	13	0	6	44	12	0	6	247	31	0	20	247	1	0	653
8:30 AM	6	18	12	0	6	36	15	0	4	224	26	0	20	237	2	0	606
8:45 AM	10	25	7	0	6	35	14	0	4	238	12	0	14	210	3	0	578
9:00 AM	8	10	15	0	5	32	13	0	7	212	21	0	11	196	5	0	535
9:15 AM	4	15	11	0	6	35	9	0	4	215	13	0	17	196	4	0	529
9:30 AM	7	18	20	0	6	26	10	0	3	188	12	0	19	168	6	0	483
9:45 AM	11	10	12	0	1	22	13	0	4	192	14	0	11	171	5	1	467
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	95	188	124	0	82	412	135	0	43	2648	198	0	173	2593	40	2	6733
APPROACH %'s :	23.34%	46.19%	30.47%	0.00%	13.04%	65.50%	21.46%	0.00%	1.49%	91.66%	6.85%	0.00%	6.16%	92.34%	1.42%	0.07%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	33	74	44	0	28	162	37	0	13	992	95	0	69	976	7	1	2531
PEAK HR FACTOR :	0.550	0.804	0.846	0.000	0.700	0.827	0.617	0.000	0.542	0.879	0.766	0.000	0.863	0.988	0.875	0.250	0.942
	0.968				0.873				0.893				0.982				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	7	21	31	0	6	27	4	0	7	229	26	0	17	159	6	0	540
3:15 PM	11	18	20	1	6	28	11	1	5	216	23	0	15	159	3	0	517
3:30 PM	6	29	21	0	4	25	10	0	6	215	17	0	15	166	2	0	516
3:45 PM	9	25	20	0	6	15	8	1	3	255	24	0	18	194	8	0	586
4:00 PM	8	34	26	0	5	31	10	0	5	256	23	0	18	219	6	0	641
4:15 PM	12	28	29	0	6	18	7	0	7	255	21	0	16	211	5	0	615
4:30 PM	11	41	18	0	10	33	7	0	14	237	18	0	21	251	7	1	669
4:45 PM	7	28	24	0	5	25	6	0	9	213	19	0	14	241	2	0	593
5:00 PM	13	27	30	0	3	23	4	0	4	251	15	0	22	260	15	0	667
5:15 PM	13	28	29	0	4	38	9	0	14	249	17	0	20	272	9	0	702
5:30 PM	13	39	20	0	9	30	5	0	10	220	17	0	18	258	9	0	648
5:45 PM	15	43	36	0	6	36	12	0	8	228	20	0	28	252	11	0	695
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	125	361	304	1	70	329	93	2	92	2824	240	0	222	2642	83	1	7389
APPROACH %'s :	15.80%	45.64%	38.43%	0.13%	14.17%	66.60%	18.83%	0.40%	2.92%	89.48%	7.60%	0.00%	7.53%	89.62%	2.82%	0.03%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	54	137	115	0	22	127	30	0	36	948	69	0	88	1042	44	0	2712
PEAK HR FACTOR :	0.900	0.797	0.799	0.000	0.611	0.836	0.625	0.000	0.643	0.944	0.863	0.000	0.786	0.958	0.733	0.000	0.966
	0.814				0.829				0.940				0.975				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mariposa Ave & Wilshire Blvd
City: Los Angeles
Control: Signalized

Project ID: 18-05236-010
Date: 4/17/2018

Total

NS/EW Streets:	Mariposa Ave				Mariposa Ave				Wilshire Blvd				Wilshire Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0	1	0	0	0	0	0	0	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	17	0	21	0	0	0	0	0	0	207	21	0	21	299	0	0	586
7:15 AM	27	0	33	0	0	0	0	0	0	238	42	0	26	289	0	0	655
7:30 AM	37	0	48	0	0	0	0	0	0	304	54	0	22	278	0	0	743
7:45 AM	35	0	59	0	0	0	0	0	0	331	53	0	23	329	0	0	830
8:00 AM	42	0	69	0	0	0	0	0	0	338	51	0	22	324	0	0	846
8:15 AM	41	0	55	0	0	0	0	0	0	309	52	0	30	328	0	0	815
8:30 AM	29	0	44	0	0	0	0	0	0	302	52	0	23	307	0	0	757
8:45 AM	33	0	40	0	0	0	0	0	0	276	61	0	22	308	0	0	740
9:00 AM	26	0	26	0	0	0	0	0	0	237	50	0	14	278	0	0	631
9:15 AM	18	0	32	0	0	0	0	0	0	218	43	0	22	279	0	0	612
9:30 AM	20	0	26	0	0	0	0	0	0	189	43	0	29	276	0	0	583
9:45 AM	19	0	31	0	0	0	0	0	0	215	45	0	28	305	0	0	643
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	344	0	484	0	0	0	0	0	0	3164	567	0	282	3600	0	0	8441
APPROACH %'s :	41.55%	0.00%	58.45%	0.00%					0.00%	84.80%	15.20%	0.00%	7.26%	92.74%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	147	0	227	0	0	0	0	0	0	1280	208	0	98	1288	0	0	3248
PEAK HR FACTOR :	0.875	0.000	0.822	0.000	0.000	0.000	0.000	0.000	0.000	0.947	0.981	0.000	0.817	0.979	0.000	0.000	0.960
	0.842								0.956				0.968				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0	1	0	0	0	0	0	0	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	37	0	49	0	0	0	0	0	0	243	33	0	24	257	0	0	643
3:15 PM	42	0	51	0	0	0	0	0	0	251	34	0	19	235	0	0	632
3:30 PM	43	0	50	0	0	0	0	0	0	266	46	0	20	252	0	0	677
3:45 PM	41	0	51	0	0	0	0	0	0	252	43	1	27	235	0	0	650
4:00 PM	40	0	62	0	0	0	0	0	0	305	49	0	24	246	0	0	726
4:15 PM	40	0	49	0	0	0	0	0	0	255	27	0	22	266	0	0	659
4:30 PM	38	0	39	0	0	0	0	0	0	291	36	0	20	266	0	0	690
4:45 PM	31	0	35	0	0	0	0	0	0	320	30	0	16	276	0	0	708
5:00 PM	41	0	44	0	0	0	0	0	0	284	48	0	26	302	0	0	745
5:15 PM	37	0	36	0	0	0	0	0	0	270	72	0	26	291	0	0	732
5:30 PM	49	0	59	0	0	0	0	0	0	309	40	0	19	300	0	2	778
5:45 PM	44	0	52	0	0	0	0	0	0	295	49	0	28	327	0	0	795
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	483	0	577	0	0	0	0	0	0	3341	507	1	271	3253	0	2	8435
APPROACH %'s :	45.57%	0.00%	54.43%	0.00%					0.00%	86.80%	13.17%	0.03%	7.69%	92.26%	0.00%	0.06%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	171	0	191	0	0	0	0	0	0	1158	209	0	99	1220	0	2	3050
PEAK HR FACTOR :	0.872	0.000	0.809	0.000	0.000	0.000	0.000	0.000	0.000	0.937	0.726	0.000	0.884	0.933	0.000	0.250	0.959
	0.838								0.979				0.930				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mariposa Ave & Wilshire Blvd
City: Los Angeles
Control: Signalized

Project ID: 18-05236-011
Date: 4/17/2018

Total

NS/EW Streets:	Mariposa Ave				Mariposa Ave				Wilshire Blvd				Wilshire Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	16	0	15	0	10	208	0	0	0	295	20	0	564
7:15 AM	0	0	0	0	27	0	16	0	10	261	0	0	0	294	27	0	635
7:30 AM	0	0	0	0	41	0	22	0	9	317	0	0	0	266	33	0	688
7:45 AM	0	0	0	0	51	0	15	0	11	332	0	0	0	334	49	0	792
8:00 AM	0	0	0	0	48	0	20	1	16	324	0	0	0	336	42	0	787
8:15 AM	0	0	0	0	48	0	28	0	18	324	0	0	0	301	41	0	760
8:30 AM	0	0	0	0	45	0	25	0	14	309	0	0	0	283	41	0	717
8:45 AM	0	0	0	0	39	0	20	0	24	294	0	0	0	325	47	0	749
9:00 AM	0	0	0	0	24	0	17	0	20	265	0	1	0	232	47	0	606
9:15 AM	0	0	0	0	25	0	21	0	13	241	0	0	0	284	34	0	618
9:30 AM	0	0	0	0	28	0	25	0	17	206	0	0	0	281	38	0	595
9:45 AM	0	0	0	0	23	0	21	0	19	241	0	0	0	261	29	0	594
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	415	0	245	1	181	3322	0	1	0	3492	448	0	8105
APPROACH %'s :					62.78%	0.00%	37.07%	0.15%	5.17%	94.81%	0.00%	0.03%	0.00%	88.63%	11.37%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	192	0	88	1	59	1289	0	0	0	1254	173	0	3056
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.941	0.000	0.786	0.250	0.819	0.971	0.000	0.000	0.000	0.933	0.883	0.000	0.965
						0.924				0.983				0.931			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	1	2	0	0	0	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	0	0	0	0	29	0	16	0	13	266	0	0	0	254	37	0	615
3:15 PM	0	0	0	0	26	0	19	0	24	254	0	0	0	234	47	0	604
3:30 PM	0	0	0	0	24	0	17	0	19	292	0	0	0	237	36	0	625
3:45 PM	0	0	0	0	29	0	28	0	18	275	0	0	0	265	34	0	649
4:00 PM	0	0	0	0	40	0	21	0	11	316	0	0	0	265	47	0	700
4:15 PM	0	0	0	0	23	0	17	0	21	253	0	0	0	247	33	0	594
4:30 PM	0	0	0	0	31	0	26	0	20	277	0	0	0	262	52	0	668
4:45 PM	0	0	0	0	42	0	22	0	18	328	0	0	0	282	37	0	729
5:00 PM	0	0	0	0	34	0	25	0	23	289	0	0	0	278	46	0	695
5:15 PM	0	0	0	0	48	0	26	0	17	289	0	0	0	271	46	0	697
5:30 PM	0	0	0	0	33	0	30	0	19	329	0	0	0	325	32	0	768
5:45 PM	0	0	0	0	42	0	26	0	21	289	0	0	0	313	64	0	755
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	401	0	273	0	224	3457	0	0	0	3233	511	0	8099
APPROACH %'s :					59.50%	0.00%	40.50%	0.00%	6.09%	93.91%	0.00%	0.00%	0.00%	86.35%	13.65%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	157	0	107	0	80	1196	0	0	0	1187	188	0	2915
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.818	0.000	0.892	0.000	0.870	0.909	0.000	0.000	0.000	0.913	0.734	0.000	0.949
						0.892				0.917				0.912			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mariposa Ave & 8th St
City: Los Angeles
Control: Signalized

Project ID: 18-05236-012
Date: 4/17/2018

Total

NS/EW Streets:	Mariposa Ave				Mariposa Ave				8th St				8th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	5	1	0	10	7	10	0	3	117	4	0	2	226	24	0	412
7:15 AM	5	16	3	0	22	10	12	0	6	162	2	0	3	239	23	0	503
7:30 AM	6	18	1	0	25	4	11	0	6	151	2	0	4	199	40	0	467
7:45 AM	4	24	4	0	26	7	22	0	6	184	5	0	10	212	46	0	550
8:00 AM	0	28	3	0	31	11	17	0	9	221	2	0	7	182	40	0	551
8:15 AM	1	19	2	0	24	7	15	0	5	185	4	0	9	185	54	0	510
8:30 AM	0	17	1	0	18	9	9	0	5	193	4	0	3	196	23	0	478
8:45 AM	1	27	1	0	26	4	8	0	11	175	1	0	1	194	43	0	492
9:00 AM	0	23	2	0	20	3	7	0	9	143	0	0	1	178	31	0	417
9:15 AM	1	17	3	0	19	6	13	0	6	125	1	0	3	203	30	0	427
9:30 AM	1	13	3	0	17	8	7	0	6	136	3	0	3	176	21	0	394
9:45 AM	0	16	3	0	18	5	13	0	10	136	3	0	4	155	18	0	381
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	22	223	27	0	256	81	144	0	82	1928	31	0	50	2345	393	0	5582
APPROACH %'s :	8.09%	81.99%	9.93%	0.00%	53.22%	16.84%	29.94%	0.00%	4.02%	94.46%	1.52%	0.00%	1.79%	84.11%	14.10%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	5	88	10	0	99	34	63	0	25	783	15	0	29	775	163	0	2089
PEAK HR FACTOR :	0.313	0.786	0.625	0.000	0.798	0.773	0.716	0.000	0.694	0.886	0.750	0.000	0.725	0.914	0.755	0.000	0.948
	0.805				0.831				0.887				0.902				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	1	7	4	0	30	20	15	0	4	145	2	0	6	144	27	0	405
3:15 PM	4	6	1	0	29	16	14	0	6	164	3	0	4	177	23	0	447
3:30 PM	2	14	1	0	33	17	20	0	5	212	7	0	2	169	32	0	514
3:45 PM	3	11	0	0	49	19	20	0	7	162	2	0	8	160	17	0	458
4:00 PM	0	9	2	0	48	24	25	0	6	181	2	0	4	180	21	0	502
4:15 PM	1	13	5	0	43	22	7	0	7	218	0	0	3	186	24	0	529
4:30 PM	2	10	3	0	41	25	9	0	6	197	5	0	2	193	26	0	519
4:45 PM	1	8	1	0	42	21	14	0	11	210	3	0	3	178	21	0	513
5:00 PM	0	15	6	0	46	15	14	0	6	230	0	0	6	187	19	0	544
5:15 PM	0	8	0	1	41	24	25	0	4	226	3	0	5	195	16	0	548
5:30 PM	4	15	4	0	53	23	14	0	13	240	5	0	6	204	21	0	602
5:45 PM	1	24	6	0	45	17	14	0	8	230	8	0	5	226	45	0	629
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	19	140	33	1	500	243	191	0	83	2415	40	0	54	2199	292	0	6210
APPROACH %'s :	9.84%	72.54%	17.10%	0.52%	53.53%	26.02%	20.45%	0.00%	3.27%	95.15%	1.58%	0.00%	2.12%	86.40%	11.47%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	5	62	16	1	185	79	67	0	31	926	16	0	22	812	101	0	2323
PEAK HR FACTOR :	0.313	0.646	0.667	0.250	0.873	0.823	0.670	0.000	0.596	0.965	0.500	0.000	0.917	0.898	0.561	0.000	0.923
	0.677				0.919				0.943				0.847				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Vermont Ave & Wilshire Blvd
City: Los Angeles
Control: Signalized

Project ID: 18-05236-013
Date: 4/17/2018

Total

NS/EW Streets:	Vermont Ave				Vermont Ave				Wilshire Blvd				Wilshire Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	16	303	11	0	17	259	30	0	28	173	29	0	29	255	17	1	1168
7:15 AM	20	306	16	0	19	244	25	0	34	223	26	0	29	247	19	0	1208
7:30 AM	30	270	19	0	18	258	18	0	34	302	52	0	17	277	12	0	1307
7:45 AM	37	240	20	0	32	237	25	0	35	266	54	0	28	318	10	0	1302
8:00 AM	19	263	22	0	22	274	25	0	23	266	69	0	36	262	19	0	1300
8:15 AM	30	255	21	0	23	196	32	0	24	277	54	0	30	279	21	0	1242
8:30 AM	36	236	25	0	23	257	34	0	28	261	50	0	39	245	21	0	1255
8:45 AM	17	231	26	0	25	237	26	0	26	204	38	0	30	236	12	0	1108
9:00 AM	32	241	26	0	28	237	19	0	23	235	30	0	41	240	15	0	1167
9:15 AM	35	248	20	0	18	239	44	4	24	180	28	0	37	231	20	0	1128
9:30 AM	25	238	21	0	34	243	33	0	18	168	27	0	33	236	24	0	1100
9:45 AM	22	233	29	0	36	250	24	0	28	179	25	0	28	220	18	2	1094
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	319	3064	256	0	295	2931	335	4	325	2734	482	0	377	3046	208	3	14379
APPROACH %'s :	8.77%	84.20%	7.03%	0.00%	8.27%	82.22%	9.40%	0.11%	9.18%	77.21%	13.61%	0.00%	10.37%	83.82%	5.72%	0.08%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	116	1028	82	0	95	965	100	0	116	1111	229	0	111	1136	62	0	5151
PEAK HR FACTOR :	0.784	0.952	0.932	0.000	0.742	0.880	0.781	0.000	0.829	0.920	0.830	0.000	0.771	0.893	0.738	0.000	0.985
	0.961				0.903				0.938				0.919				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	28	280	24	2	21	256	27	0	41	230	28	0	36	174	23	0	1170
3:15 PM	32	248	22	0	30	248	22	0	27	235	35	0	40	188	25	1	1153
3:30 PM	27	242	27	0	31	272	20	0	25	232	28	0	29	190	19	1	1143
3:45 PM	24	249	24	0	30	252	20	0	33	241	34	0	33	194	20	0	1154
4:00 PM	24	260	35	0	30	212	14	0	31	225	43	0	42	210	25	0	1151
4:15 PM	26	239	36	0	33	277	28	0	29	234	19	0	41	205	17	0	1184
4:30 PM	18	279	28	0	22	233	17	0	31	247	24	0	32	230	20	0	1181
4:45 PM	29	239	22	0	35	258	15	0	40	243	33	0	45	219	25	0	1203
5:00 PM	19	262	27	0	31	241	24	0	21	209	48	0	31	224	16	1	1154
5:15 PM	24	246	30	0	34	243	26	0	35	246	22	0	41	244	24	0	1215
5:30 PM	24	251	33	0	30	248	22	0	21	248	23	0	32	248	25	1	1206
5:45 PM	27	268	27	0	39	217	28	0	22	236	29	0	34	288	25	0	1240
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	302	3063	335	2	366	2957	263	0	356	2826	366	0	436	2614	264	4	14154
APPROACH %'s :	8.16%	82.74%	9.05%	0.05%	10.21%	82.46%	7.33%	0.00%	10.03%	79.65%	10.32%	0.00%	13.14%	78.78%	7.96%	0.12%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	94	1027	117	0	134	949	100	0	99	939	122	0	138	1004	90	2	4815
PEAK HR FACTOR :	0.870	0.958	0.886	0.000	0.859	0.957	0.893	0.000	0.707	0.947	0.635	0.000	0.841	0.872	0.900	0.500	0.971
	0.961				0.976				0.957				0.889				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Vermont Ave & 8th St
City: Los Angeles
Control: Signalized

Project ID: 18-05236-014
Date: 4/17/2018

Total

NS/EW Streets:	Vermont Ave				Vermont Ave				8th St				8th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	27	332	5	0	9	244	21	0	1	91	8	0	0	187	15	0	940
7:15 AM	25	326	10	0	7	266	19	0	0	124	27	0	0	208	22	0	1034
7:30 AM	26	316	11	0	9	283	25	0	1	142	24	0	1	200	10	0	1048
7:45 AM	26	316	9	0	12	308	18	0	0	161	19	0	0	218	15	0	1102
8:00 AM	21	309	13	0	12	299	18	0	1	176	28	0	0	165	16	0	1058
8:15 AM	22	303	12	0	13	295	19	0	0	198	28	0	1	153	14	0	1058
8:30 AM	29	296	23	0	14	235	17	0	2	187	26	0	0	138	5	0	972
8:45 AM	24	273	12	0	17	281	16	0	1	153	27	0	0	177	13	0	994
9:00 AM	20	315	9	0	15	268	13	0	0	135	30	0	0	162	13	0	980
9:15 AM	12	310	18	0	12	255	19	0	1	126	30	0	0	171	16	0	970
9:30 AM	17	293	15	0	12	280	12	0	0	126	24	0	1	153	13	0	946
9:45 AM	21	284	9	0	11	282	11	0	1	109	22	0	1	130	18	0	899
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	270	3673	146	0	143	3296	208	0	8	1728	293	0	4	2062	170	0	12001
APPROACH %'s :	6.60%	89.83%	3.57%	0.00%	3.92%	90.38%	5.70%	0.00%	0.39%	85.17%	14.44%	0.00%	0.18%	92.22%	7.60%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	95	1244	45	0	46	1185	80	0	2	677	99	0	2	736	55	0	4266
PEAK HR FACTOR :	0.913	0.984	0.865	0.000	0.885	0.962	0.800	0.000	0.500	0.855	0.884	0.000	0.500	0.844	0.859	0.000	0.968
	0.980				0.970				0.861				0.851				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	18	290	15	0	10	290	16	0	1	153	33	0	0	99	17	0	942
3:15 PM	16	281	18	0	13	299	20	0	0	153	18	0	1	123	19	0	961
3:30 PM	11	257	21	0	19	305	22	0	0	194	21	0	0	116	20	0	986
3:45 PM	17	260	18	0	20	278	18	0	2	201	31	0	0	93	18	0	956
4:00 PM	19	275	12	0	12	274	26	0	2	180	31	0	1	122	23	0	977
4:15 PM	17	274	14	0	20	277	21	0	3	196	36	0	0	123	17	0	998
4:30 PM	16	281	12	0	14	283	18	0	1	220	39	0	1	138	19	0	1042
4:45 PM	15	258	14	0	20	294	17	0	1	190	34	0	0	127	19	0	989
5:00 PM	14	282	14	0	18	299	15	0	0	190	43	0	0	153	14	0	1042
5:15 PM	16	261	13	0	17	257	21	0	1	222	42	0	2	169	16	0	1037
5:30 PM	14	257	15	0	14	288	15	1	0	196	33	0	2	192	29	0	1056
5:45 PM	18	289	14	0	12	251	26	0	0	196	36	0	0	176	21	0	1039
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	191	3265	180	0	189	3395	235	1	11	2291	397	0	7	1631	232	0	12025
APPROACH %'s :	5.25%	89.80%	4.95%	0.00%	4.95%	88.87%	6.15%	0.03%	0.41%	84.88%	14.71%	0.00%	0.37%	87.22%	12.41%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	62	1089	56	0	61	1095	77	1	1	804	154	0	4	690	80	0	4174
PEAK HR FACTOR :	0.861	0.942	0.933	0.000	0.847	0.916	0.740	0.250	0.250	0.905	0.895	0.000	0.500	0.898	0.690	0.000	0.988
	0.940				0.929				0.905				0.868				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mariposa Ave & 7th St
City: Los Angeles
Control: 4-Way Stop (NB/SB/EB/WB)

Project ID: 18-05236-015
Date: 4/17/2018

Total

NS/EW Streets:	Mariposa Ave				Mariposa Ave				7th St				7th St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	5	25	0	0	0	12	12	0	30	0	9	0	0	0	0	0	93
7:15 AM	3	43	0	0	0	25	18	0	33	0	11	0	0	0	0	0	133
7:30 AM	4	51	0	0	0	27	18	0	41	0	12	0	0	0	0	0	153
7:45 AM	8	67	0	0	0	44	23	0	63	0	12	0	0	0	0	0	217
8:00 AM	13	72	0	0	0	40	23	1	47	0	18	0	0	0	0	0	214
8:15 AM	11	62	2	0	0	28	19	0	46	1	10	0	0	0	0	1	180
8:30 AM	6	44	0	0	0	19	18	0	35	0	15	0	0	0	0	0	137
8:45 AM	12	61	0	1	0	19	23	0	44	0	14	0	0	0	0	0	174
9:00 AM	12	57	0	0	0	18	26	0	51	0	7	0	0	0	0	0	171
9:15 AM	7	44	0	1	0	22	15	0	33	0	11	1	0	0	0	0	134
9:30 AM	7	33	0	0	0	20	17	0	30	0	6	0	0	0	0	0	113
9:45 AM	4	38	0	1	0	26	17	0	22	0	9	0	0	0	0	0	117
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	92	597	2	3	0	300	229	1	475	1	134	1	0	0	0	1	1836
APPROACH %'s :	13.26%	86.02%	0.29%	0.43%	0.00%	56.60%	43.21%	0.19%	77.74%	0.16%	21.93%	0.16%	0.00%	0.00%	0.00%	100.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	36	252	2	0	0	139	83	1	197	1	52	0	0	0	0	1	764
PEAK HR FACTOR :	0.692	0.875	0.250	0.000	0.000	0.790	0.902	0.250	0.782	0.250	0.722	0.000	0.000	0.000	0.000	0.250	0.880
	0.853				0.832				0.833				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:00 PM	8	34	0	0	0	43	26	1	35	0	22	0	0	0	0	0	169
3:15 PM	2	34	0	0	0	46	27	0	35	0	16	0	0	0	0	0	160
3:30 PM	10	34	0	0	0	55	31	0	32	0	23	1	0	0	2	0	188
3:45 PM	6	37	0	0	0	55	25	0	32	0	22	0	1	1	3	0	182
4:00 PM	11	26	0	1	0	62	37	1	30	0	35	0	0	0	1	0	204
4:15 PM	8	34	0	0	0	49	30	2	35	0	27	0	0	0	2	0	187
4:30 PM	10	33	0	0	0	53	49	0	35	0	28	0	0	0	0	0	208
4:45 PM	9	24	0	1	0	34	29	1	28	0	31	0	0	0	2	0	159
5:00 PM	12	27	0	0	0	54	34	0	27	0	24	0	0	0	0	0	178
5:15 PM	4	29	0	0	0	51	40	0	40	0	36	0	0	0	0	0	200
5:30 PM	15	30	0	1	0	46	41	1	36	0	38	0	0	0	0	0	208
5:45 PM	18	49	0	0	0	48	39	0	37	0	38	0	0	0	0	0	229
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	113	391	0	3	0	596	408	6	402	0	340	1	1	1	10	0	2272
APPROACH %'s :	22.29%	77.12%	0.00%	0.59%	0.00%	59.01%	40.40%	0.59%	54.10%	0.00%	45.76%	0.13%	8.33%	8.33%	83.33%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	49	135	0	1	0	199	154	1	140	0	136	0	0	0	0	0	815
PEAK HR FACTOR :	0.681	0.689	0.000	0.250	0.000	0.921	0.939	0.250	0.875	0.000	0.895	0.000	0.000	0.000	0.000	0.000	0.890
	0.690				0.973				0.908								

Prepared by NDS/ATD

VOLUME

Mariposa Ave Bet. 7th St & 8th St

Day: Tuesday
Date: 4/17/2018

City: Los Angeles
Project #: CA18_5237_001

DAILY TOTALS	NB	SB	EB	WB	Total
	2,389	3,142	0	0	5,531

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	6		5				11		12:00	31		42				73	
00:15	4		15				19		12:15	29		40				69	
00:30	9		6				15		12:30	30		45				75	
00:45	7	26	7	33			14	59	12:45	26	116	48	175			74	291
01:00	5		9				14		13:00	44		49				93	
01:15	2		9				11		13:15	51		42				93	
01:30	3		4				7		13:30	38		44				82	
01:45	5	15	7	29			12	44	13:45	27	160	23	158			50	318
02:00	1		9				10		14:00	24		42				66	
02:15	1		7				8		14:15	28		45				73	
02:30	1		3				4		14:30	39		54				93	
02:45	3	6	3	22			6	28	14:45	45	136	55	196			100	332
03:00	3		0				3		15:00	36		64				100	
03:15	0		3				3		15:15	28		48				76	
03:30	0		4				4		15:30	40		62				102	
03:45	1	4	4	11			5	15	15:45	40	144	53	227			93	371
04:00	4		3				7		16:00	30		81				111	
04:15	1		1				2		16:15	32		75				107	
04:30	2		5				7		16:30	39		63				102	
04:45	1	8	2	11			3	19	16:45	32	133	73	292			105	425
05:00	3		7				10		17:00	33		63				96	
05:15	3		5				8		17:15	24		69				93	
05:30	1		3				4		17:30	34		73				107	
05:45	7	14	9	24			16	38	17:45	57	148	68	273			125	421
06:00	5		7				12		18:00	47		55				102	
06:15	16		14				30		18:15	51		65				116	
06:30	14		16				30		18:30	46		56				102	
06:45	22	57	15	52			37	109	18:45	30	174	47	223			77	397
07:00	32		19				51		19:00	33		51				84	
07:15	31		35				66		19:15	32		45				77	
07:30	42		40				82		19:30	31		47				78	
07:45	70	175	45	139			115	314	19:45	28	124	35	178			63	302
08:00	76		57				133		20:00	28		56				84	
08:15	76		40				116		20:15	12		42				54	
08:30	40		29				69		20:30	25		31				56	
08:45	68	260	34	160			102	420	20:45	19	84	34	163			53	247
09:00	62		31				93		21:00	23		60				83	
09:15	52		30				82		21:15	13		36				49	
09:30	38		36				74		21:30	17		31				48	
09:45	44	196	26	123			70	319	21:45	14	67	32	159			46	226
10:00	22		36				58		22:00	16		21				37	
10:15	33		31				64		22:15	13		24				37	
10:30	35		38				73		22:30	12		25				37	
10:45	34	124	31	136			65	260	22:45	7	48	17	87			24	135
11:00	23		47				70		23:00	5		21				26	
11:15	31		57				88		23:15	18		23				41	
11:30	45		49				94		23:30	9		24				33	
11:45	36	135	39	192			75	327	23:45	3	35	11	79			14	114
TOTALS		1020		932				1952	TOTALS		1369		2210				3579
SPLIT %		52.3%		47.7%				35.3%	SPLIT %		38.3%		61.7%				64.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,389	3,142	0	0	5,531

AM Peak Hour	07:30	11:00			07:30	PM Peak Hour	17:45	16:00			17:30
AM Pk Volume	264	192			446	PM Pk Volume	201	292			450
Pk Hr Factor	0.868	0.842			0.838	Pk Hr Factor	0.882	0.901			0.900
7 - 9 Volume	435	299	0	0	734	4 - 6 Volume	281	565	0	0	846
7 - 9 Peak Hour	07:30	07:30			07:30	4 - 6 Peak Hour	17:00	16:00			16:00
7 - 9 Pk Volume	264	182	0	0	446	4 - 6 Pk Volume	148	292	0	0	425
Pk Hr Factor	0.868	0.798	0.000	0.000	0.838	Pk Hr Factor	0.649	0.901	0.000	0.000	0.957

Prepared by NDS/ATD

VOLUME

Normandie Ave Bet. 7th St & 8th St

Day: Tuesday
Date: 4/17/2018

City: Los Angeles
Project #: CA18_5237_002

DAILY TOTALS	NB	SB	EB	WB	Total
	2,473	1,691	0	0	4,164

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	1		2				3		12:00	22		16				38	
00:15	3		1				4		12:15	24		18				42	
00:30	5		2				7		12:30	24		21				45	
00:45	3	12	1	6			4	18	12:45	27	97	23	78			50	175
01:00	1		0				1		13:00	30		21				51	
01:15	4		1				5		13:15	39		23				62	
01:30	0		1				1		13:30	35		16				51	
01:45	3	8	1	3			4	11	13:45	17	121	21	81			38	202
02:00	3		0				3		14:00	18		20				38	
02:15	2		0				2		14:15	26		19				45	
02:30	5		0				5		14:30	33		31				64	
02:45	0	10	1	1			1	11	14:45	36	113	33	103			69	216
03:00	0		0				0		15:00	40		39				79	
03:15	3		1				4		15:15	35		34				69	
03:30	1		0				1		15:30	40		37				77	
03:45	1	5	1	2			2	7	15:45	32	147	42	152			74	299
04:00	2		3				5		16:00	28		37				65	
04:15	3		1				4		16:15	38		47				85	
04:30	1		0				1		16:30	29		42				71	
04:45	2	8	2	6			4	14	16:45	40	135	54	180			94	315
05:00	0		3				3		17:00	39		61				100	
05:15	1		2				3		17:15	36		61				97	
05:30	5		1				6		17:30	31		46				77	
05:45	7	13	4	10			11	23	17:45	48	154	52	220			100	374
06:00	15		3				18		18:00	60		61				121	
06:15	12		13				25		18:15	52		35				87	
06:30	29		9				38		18:30	54		46				100	
06:45	32	88	11	36			43	124	18:45	53	219	33	175			86	394
07:00	30		23				53		19:00	39		25				64	
07:15	49		15				64		19:15	28		22				50	
07:30	56		24				80		19:30	34		14				48	
07:45	77	212	26	88			103	300	19:45	28	129	23	84			51	213
08:00	81		27				108		20:00	21		23				44	
08:15	61		18				79		20:15	22		18				40	
08:30	51		13				64		20:30	30		26				56	
08:45	54	247	9	67			63	314	20:45	23	96	10	77			33	173
09:00	64		11				75		21:00	26		17				43	
09:15	52		19				71		21:15	20		19				39	
09:30	49		20				69		21:30	16		14				30	
09:45	45	210	30	80			75	290	21:45	24	86	9	59			33	145
10:00	30		11				41		22:00	11		11				22	
10:15	49		16				65		22:15	13		11				24	
10:30	29		14				43		22:30	11		11				22	
10:45	42	150	17	58			59	208	22:45	10	45	5	38			15	83
11:00	45		16				61		23:00	11		6				17	
11:15	32		13				45		23:15	15		3				18	
11:30	23		20				43		23:30	9		8				17	
11:45	24	124	15	64			39	188	23:45	9	44	6	23			15	67
TOTALS		1087		421				**1508**	**TOTALS**		1386		1270				**2656**
SPLIT %		72.1%		27.9%				**36.2%**	**SPLIT %**		52.2%		47.8%				**63.8%**

DAILY TOTALS	NB	SB	EB	WB	Total
	2,473	1,691	0	0	4,164

AM Peak Hour	07:30	07:30			**07:30**	**PM Peak Hour**	18:00	16:45			**17:45**
AM Pk Volume	275	95			**370**	**PM Pk Volume**	219	222			**408**
Pk Hr Factor	0.849	0.880			**0.856**	**Pk Hr Factor**	0.913	0.910			**0.843**
7 - 9 Volume	459	155	0	0	**614**	**4 - 6 Volume**	289	400	0	0	**689**
7 - 9 Peak Hour	07:30	07:30			**07:30**	**4 - 6 Peak Hour**	17:00	16:45			**17:00**
7 - 9 Pk Volume	275	95	0	0	**370**	**4 - 6 Pk Volume**	154	222	0	0	**374**
Pk Hr Factor	0.849	0.880	0.000	0.000	**0.856**	**Pk Hr Factor**	0.802	0.910	0.000	0.000	**0.935**

APPENDIX D:
LOS ANALYSIS SHEETS

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** Wilshire Blvd
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	71	1	71	77	1	**77**
	Left-Through		0			0	
	Through	956	1	**512**	834	1	459
	Through-Right		1			1	
	Right	68	0	68	83	0	83
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	108	1	**108**	94	1	94
	Left-Through		0			0	
	Through	839	1	445	952	1	**499**
	Through-Right		1			1	
	Right	51	0	51	46	0	46
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	1	**2**	2	1	2
	Left-Through		0			0	
	Through	932	2	466	931	2	**466**
	Through-Right		0			0	
	Right	82	1	47	82	1	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	1	2	5	1	**5**
	Left-Through		0			0	
	Through	1008	2	**504**	848	2	424
	Through-Right		0			0	
	Right	53	1	0	90	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	620		*North-South:*	576
			East-West:	506		*East-West:*	471
			SUM:	1126		*SUM:*	1047
VOLUME/CAPACITY *(V/C)* RATIO:				0.819			0.761
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.719**			**0.661**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
2	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** 8th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	43	1	43	33	1	**33**
	Left-Through		0			0	
	Through	1091	1	**559**	933	1	482
	Through-Right		1			1	
	Right	27	0	27	31	0	31
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	74	1	**74**	102	1	102
	Left-Through		0			0	
	Through	943	1	490	1078	1	**566**
	Through-Right		1			1	
	Right	37	0	37	53	0	53
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	79	1	**79**	69	1	69
	Left-Through		0			0	
	Through	525	1	286	688	1	**363**
	Through-Right		1			1	
	Right	47	0	47	37	0	37
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	91	1	91	117	1	**117**
	Left-Through		0			0	
	Through	784	1	**428**	575	1	334
	Through-Right		1			1	
	Right	71	0	71	92	0	92
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	633		*North-South:*	599
			East-West:	507		*East-West:*	480
			SUM:	1140		*SUM:*	1079
VOLUME/CAPACITY *(V/C)* RATIO:				0.760			0.719
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.660**			**0.619**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
3	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 3rd St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	2	0	**0**	2	0	0
	Left-Through		0			0	
	Through	493	1	271	723	1	**399**
	Through-Right		1			1	
	Right	49	0	49	75	0	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	4	0	0	2	0	**0**
	Left-Through		0			0	
	Through	845	1	**483**	518	1	302
	Through-Right		1			1	
	Right	121	0	121	86	0	86
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	58	1	58	101	1	**101**
	Left-Through		0			0	
	Through	1005	1	**517**	932	1	493
	Through-Right		1			1	
	Right	29	0	29	53	0	53
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	36	1	**36**	33	1	33
	Left-Through		0			0	
	Through	942	1	489	888	1	**479**
	Through-Right		1			1	
	Right	36	0	36	69	0	69
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	483		*North-South:*	399
			East-West:	553		*East-West:*	580
			SUM:	1036		*SUM:*	979
VOLUME/CAPACITY *(V/C)* RATIO:				0.727			0.687
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.627**			**0.587**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
4	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 6th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	30	0	**30**	8	0	0
	Left-Through		1			0	
	Through	427	0	298	661	1	**371**
	Through-Right		1			1	
	Right	48	0	298	81	0	81
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	94	0	94	6	0	**0**
	Left-Through		1			0	
	Through	637	1	**413**	468	2	234
	Through-Right		0			0	
	Right	99	1	80	45	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	38	1	38	94	1	**94**
	Left-Through		0			0	
	Through	969	1	**511**	984	1	518
	Through-Right		1			1	
	Right	53	0	53	51	0	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	39	1	**39**	47	1	47
	Left-Through		0			0	
	Through	945	1	485	1000	1	**542**
	Through-Right		1			1	
	Right	25	0	25	83	0	83
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	443		*North-South:*	371
			East-West:	550		*East-West:*	636
			SUM:	993		*SUM:*	1007
VOLUME/CAPACITY *(V/C)* RATIO:				0.662			0.671
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.562**			**0.571**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
5	North-South Street:	Normandie Ave	East-West Street:	Wilshire Blvd
	Scenario:	Existing 2018		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	50	0	**50**	49	0	**49**
	Left-Through		1			1	
	Through	408	1	304	533	1	316
	Through-Right		0			0	
	Right	119	1	55	102	1	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	75	0	75	80	0	80
	Left-Through		1			1	
	Through	558	1	**354**	450	1	**385**
	Through-Right		0			0	
	Right	93	1	79	89	1	38
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	28	1	28	102	1	102
	Left-Through		0			0	
	Through	1154	2	**577**	1153	2	**577**
	Through-Right		0			0	
	Right	89	1	89	72	1	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	129	1	**129**	111	1	**111**
	Left-Through		0			0	
	Through	1159	2	580	1138	2	569
	Through-Right		0			0	
	Right	45	1	45	79	1	79
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	404		*North-South:*	434
			East-West:	706		*East-West:*	688
			SUM:	1110		*SUM:*	1122
VOLUME/CAPACITY *(V/C)* RATIO:				0.779			0.787
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.679**			**0.687**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 7th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	110	0	110	54	0	54
	Left-Through		0			0	
	Through	547	0	**701**	497	0	**596**
	Through-Right		0			0	
	Right	44	0	0	45	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	31	0	**31**	81	0	**81**
	Left-Through		1			1	
	Through	506	0	537	462	0	543
	Through-Right		0			0	
	Right	99	1	74	186	1	167
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	51	1	**51**	39	1	39
	Left-Through		0			0	
	Through	106	0	166	213	0	**319**
	Through-Right		1			1	
	Right	60	0	0	106	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	20	1	20	29	1	**29**
	Left-Through		0			0	
	Through	84	0	**148**	112	0	174
	Through-Right		1			1	
	Right	64	0	0	62	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	732		*North-South:*	677
			East-West:	199		*East-West:*	348
			SUM:	931		*SUM:*	1025
VOLUME/CAPACITY *(V/C)* RATIO:				0.621			0.683
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.521**			**0.583**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
7	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 8th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	61	0	61		55	0	**55**	
	Left-Through		0				0		
	Through	567	0	**651**		497	0	583	
	Through-Right		0				0		
	Right	23	0	0		31	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	58	0	**58**		39	0	39	
	Left-Through		0				0		
	Through	530	0	622		497	0	**572**	
	Through-Right		0				0		
	Right	34	0	0		36	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
EASTBOUND	Left	47	0	**47**		34	0	34	
	Left-Through		1				1		
	Through	682	0	469		847	0	**529**	
	Through-Right		1				1		
	Right	68	0	469		74	0	529	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	36	0	36		57	0	**57**	
	Left-Through		1				1		
	Through	721	0	**462**		694	0	494	
	Through-Right		1				1		
	Right	59	0	462		65	0	494	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	709			*North-South:*	627	
			East-West:	509			*East-West:*	586	
			SUM:	1218			*SUM:*	1213	
VOLUME/CAPACITY *(V/C)* RATIO:				0.812				0.809	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.712**				**0.709**	
LEVEL OF SERVICE (LOS):				**C**				**C**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
8	North-South Street:	Normandie Ave	East-West Street:	Olympic Blvd
	Scenario:	Existing 2018		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	138	1	138	86	1	**86**
	Left-Through		0			0	
	Through	882	2	**441**	653	2	327
	Through-Right		0			0	
	Right	93	1	67	115	1	84
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	82	1	**82**	91	1	91
	Left-Through		0			0	
	Through	653	2	327	895	2	**448**
	Through-Right		0			0	
	Right	74	1	50	56	1	28
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	49	1	49	56	1	56
	Left-Through		0			0	
	Through	1740	2	**618**	1764	2	**625**
	Through-Right		1			1	
	Right	113	0	113	110	0	110
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	53	1	**53**	63	1	**63**
	Left-Through		0			0	
	Through	1326	2	463	1359	2	479
	Through-Right		1			1	
	Right	63	0	63	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		North-South:	523		North-South:	534
			East-West:	671		East-West:	688
			SUM:	1194		SUM:	1222
	VOLUME/CAPACITY (V/C) RATIO:			0.796			0.815
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.696**			**0.715**
	LEVEL OF SERVICE (LOS):			**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 6th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	33	0	**33**	54	0	54
	Left-Through		0			0	
	Through	74	0	151	137	0	**306**
	Through-Right		0			0	
	Right	44	0	0	115	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	28	0	28	22	0	**22**
	Left-Through		0			0	
	Through	162	0	**227**	127	0	179
	Through-Right		0			0	
	Right	37	0	0	30	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	13	1	13	36	1	36
	Left-Through		0			0	
	Through	992	1	**544**	948	1	**509**
	Through-Right		1			1	
	Right	95	0	95	69	0	69
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	70	1	**70**	88	1	**88**
	Left-Through		0			0	
	Through	976	1	492	1042	1	543
	Through-Right		1			1	
	Right	7	0	7	44	0	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	260		*North-South:*	328
			East-West:	614		*East-West:*	597
			SUM:	874		*SUM:*	925
VOLUME/CAPACITY *(V/C)* RATIO:				0.583			0.617
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.483**			**0.517**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (N) **East-West Street:** Wilshire Blvd
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	193	0	193	157	0	157
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	88	0	**281**	107	0	**264**
	Left-Through-Right		0			0	
	Left-Right		1			1	
EASTBOUND	Left	59	1	**59**	80	1	**80**
	Left-Through		0			0	
	Through	1289	2	645	1196	2	598
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1254	2	**627**	1187	2	**594**
	Through-Right		0			0	
	Right	173	1	173	188	1	188
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	281		*North-South:*	264
			East-West:	686		*East-West:*	674
			SUM:	967		*SUM:*	938
VOLUME/CAPACITY *(V/C)* RATIO:				0.645			0.625
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.545**			**0.525**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
11	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (S) **East-West Street:** Wilshire Blvd
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	147	1	147	171	1	**171**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	227	1	**178**	191	1	141
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1280	2	**640**	1158	2	**579**
	Through-Right		0			0	
	Right	208	1	135	209	1	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	98	1	**98**	101	1	**101**
	Left-Through		0			0	
	Through	1288	2	644	1220	2	610
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	178		*North-South:*	171
			East-West:	738		*East-West:*	680
			SUM:	916		*SUM:*	851
VOLUME/CAPACITY *(V/C)* RATIO:				0.611			0.567
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.511**			**0.467**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
12	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 8th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes		Lane Volume	Volume	No. of Lanes		Lane Volume
NORTHBOUND	Left	5	0		5	6	0		**6**
	Left-Through		0				0		
	Through	88	0		**103**	62	0		84
	Through-Right		0				0		
	Right	10	0		0	16	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	99	0		**99**	185	0		185
	Left-Through		1				1		
	Through	34	0		133	79	0		**264**
	Through-Right		0				0		
	Right	63	1		63	67	1		67
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	25	0		**25**	31	0		31
	Left-Through		1				1		
	Through	783	0		449	926	0		**533**
	Through-Right		1				1		
	Right	15	0		449	16	0		533
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	29	0		29	22	0		**22**
	Left-Through		1				1		
	Through	775	0		**527**	812	0		501
	Through-Right		1				1		
	Right	163	0		527	101	0		501
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	202			*North-South:*	270
				East-West:	552			*East-West:*	555
				SUM:	754			*SUM:*	825
VOLUME/CAPACITY *(V/C)* RATIO:					0.503				0.550
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.403**				**0.450**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
13	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** Wilshire Blvd
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	116	1	**116**	94	1	**94**
	Left-Through		0			0	
	Through	1028	2	370	1027	2	381
	Through-Right		1			1	
	Right	82	0	82	117	0	117
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	95	1	95	134	1	134
	Left-Through		0			0	
	Through	965	2	**483**	949	2	**475**
	Through-Right		0			0	
	Right	100	1	42	100	1	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	116	1	**116**	99	1	99
	Left-Through		0			0	
	Through	1111	2	556	939	2	**470**
	Through-Right		0			0	
	Right	229	1	171	122	1	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	111	1	111	140	1	**140**
	Left-Through		0			0	
	Through	1136	2	**568**	1004	2	502
	Through-Right		0			0	
	Right	62	1	15	90	1	23
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	599		*North-South:*	569
			East-West:	684		*East-West:*	610
			SUM:	1283		*SUM:*	1179
VOLUME/CAPACITY *(V/C)* RATIO:				0.933			0.857
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.833**			**0.757**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
14	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** 8th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	95	1	**95**	62	1	**62**
	Left-Through		0			0	
	Through	1244	1	645	1089	1	573
	Through-Right		1			1	
	Right	45	0	45	56	0	56
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	46	1	46	62	1	62
	Left-Through		0			0	
	Through	1185	1	**633**	1095	1	**586**
	Through-Right		1			1	
	Right	80	0	80	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	**0**	1	0	0
	Left-Through		0			0	
	Through	677	1	388	804	1	**479**
	Through-Right		1			1	
	Right	99	0	99	154	0	154
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	0	0	4	0	**0**
	Left-Through		0			0	
	Through	736	1	**396**	690	1	385
	Through-Right		1			1	
	Right	55	0	55	80	0	80
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	728		*North-South:*	648
			East-West:	396		*East-West:*	479
			SUM:	1124		*SUM:*	1127
VOLUME/CAPACITY *(V/C)* RATIO:				0.749			0.751
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.649**			**0.651**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** Wilshire Blvd
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	71	1	71	77	1	**77**
	Left-Through		0			0	
	Through	956	1	**512**	834	1	459
	Through-Right		1			1	
	Right	68	0	68	83	0	83
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	108	1	**108**	97	1	97
	Left-Through		0			0	
	Through	839	1	445	952	1	**499**
	Through-Right		1			1	
	Right	51	0	51	46	0	46
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	1	**2**	2	1	2
	Left-Through		0			0	
	Through	933	2	467	940	2	**470**
	Through-Right		0			0	
	Right	82	1	47	82	1	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	1	2	5	1	**5**
	Left-Through		0			0	
	Through	1016	2	**508**	852	2	426
	Through-Right		0			0	
	Right	55	1	1	91	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	620		*North-South:*	576
			East-West:	510		*East-West:*	475
			SUM:	1130		*SUM:*	1051
VOLUME/CAPACITY *(V/C)* RATIO:				0.822			0.764
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.722**			**0.664**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
2	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** 8th St
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	43	1	43	33	1	**33**
	Left-Through		0			0	
	Through	1091	1	**560**	933	1	484
	Through-Right		1			1	
	Right	28	0	28	35	0	35
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	74	1	**74**	102	1	102
	Left-Through		0			0	
	Through	943	1	490	1078	1	**566**
	Through-Right		1			1	
	Right	37	0	37	53	0	53
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	79	1	**79**	69	1	69
	Left-Through		0			0	
	Through	525	1	286	691	1	**364**
	Through-Right		1			1	
	Right	47	0	47	37	0	37
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	95	1	95	119	1	**119**
	Left-Through		0			0	
	Through	787	1	**429**	577	1	335
	Through-Right		1			1	
	Right	71	0	71	92	0	92
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	634		*North-South:*	599
			East-West:	508		*East-West:*	483
			SUM:	1142		*SUM:*	1082
	VOLUME/CAPACITY *(V/C)* RATIO:			0.761			0.721
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.661**			**0.621**
	LEVEL OF SERVICE (LOS):			**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
3	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 3rd St
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes		Lane Volume	Volume	No. of Lanes		Lane Volume
NORTHBOUND	Left	2	0		**0**	2	0		0
	Left-Through		0				0		
	Through	497	1		273	725	1		**400**
	Through-Right		1				1		
	Right	49	0		49	75	0		75
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	4	0		0	2	0		**0**
	Left-Through		0				0		
	Through	846	1		**484**	523	1		305
	Through-Right		1				1		
	Right	121	0		121	86	0		86
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	58	1		58	101	1		**101**
	Left-Through		0				0		
	Through	1005	1		**517**	933	1		493
	Through-Right		1				1		
	Right	29	0		29	53	0		53
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	36	1		**36**	33	1		33
	Left-Through		0				0		
	Through	943	1		490	889	1		**479**
	Through-Right		1				1		
	Right	36	0		36	69	0		69
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	484			*North-South:*	400
				East-West:	553			*East-West:*	580
				SUM:	1037			*SUM:*	980
VOLUME/CAPACITY *(V/C)* RATIO:					0.728				0.688
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.628**				**0.588**
LEVEL OF SERVICE (LOS):					**B**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
4	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 6th St
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes		Lane Volume	Volume	No. of Lanes		Lane Volume
NORTHBOUND	Left	30	0		**30**	8	0		0
	Left-Through		1				0		
	Through	431	0		300	663	1		**372**
	Through-Right		1				1		
	Right	48	0		300	81	0		81
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	94	0		94	6	0		**0**
	Left-Through		1				0		
	Through	638	1		**413**	473	2		237
	Through-Right		0				0		
	Right	99	1		80	45	1		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	38	1		38	94	1		**94**
	Left-Through		0				0		
	Through	970	1		**512**	990	1		521
	Through-Right		1				1		
	Right	53	0		53	51	0		51
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	39	1		**39**	47	1		47
	Left-Through		0				0		
	Through	951	1		488	1003	1		**543**
	Through-Right		1				1		
	Right	25	0		25	83	0		83
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	443			*North-South:*	372
				East-West:	551			*East-West:*	637
				SUM:	994			*SUM:*	1009
VOLUME/CAPACITY *(V/C)* RATIO:					0.663				0.673
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.563**				**0.573**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
5	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** Wilshire Blvd
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 EB-- 0		SB-- 0 WB-- 0		NB-- 0 EB-- 0		SB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	50	0	**50**	49	0	**49**
	Left-Through		1			1	
	Through	409	1	305	534	1	316
	Through-Right		0			0	
	Right	119	1	55	102	1	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	75	0	75	83	0	83
	Left-Through		1			1	
	Through	558	1	**354**	453	1	**393**
	Through-Right		0			0	
	Right	93	1	79	89	1	38
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	28	1	28	102	1	102
	Left-Through		0			0	
	Through	1156	2	**578**	1166	2	**583**
	Through-Right		0			0	
	Right	89	1	89	72	1	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	129	1	**129**	111	1	**111**
	Left-Through		0			0	
	Through	1170	2	585	1144	2	572
	Through-Right		0			0	
	Right	48	1	48	81	1	81
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	404		*North-South:*	442
			East-West:	707		*East-West:*	694
			SUM:	1111		*SUM:*	1136
VOLUME/CAPACITY *(V/C)* RATIO:				0.780			0.797
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.680**			**0.697**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 7th St
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	110	0	110	54	0	54
	Left-Through		0			0	
	Through	547	0	**702**	497	0	**601**
	Through-Right		0			0	
	Right	45	0	0	50	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	31	0	**31**	84	0	**84**
	Left-Through		1			1	
	Through	506	0	537	462	0	546
	Through-Right		0			0	
	Right	99	1	74	186	1	167
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	51	1	**51**	39	1	39
	Left-Through		0			0	
	Through	108	0	168	229	0	**335**
	Through-Right		1			1	
	Right	60	0	0	106	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	24	1	24	31	1	**31**
	Left-Through		0			0	
	Through	99	0	**164**	120	0	183
	Through-Right		1			1	
	Right	65	0	0	63	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	733		*North-South:*	685
			East-West:	215		*East-West:*	366
			SUM:	948		*SUM:*	1051
VOLUME/CAPACITY *(V/C)* RATIO:				0.632			0.701
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.532**			**0.601**
LEVEL OF SERVICE (LOS):				**A**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
7	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 8th St
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes		Lane Volume	Volume	No. of Lanes		Lane Volume
NORTHBOUND	Left	61	0		61	55	0		**55**
	Left-Through		0				0		
	Through	568	0		**652**	502	0		588
	Through-Right		0				0		
	Right	23	0		0	31	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	58	0		**58**	39	0		39
	Left-Through		0				0		
	Through	534	0		626	499	0		**574**
	Through-Right		0				0		
	Right	34	0		0	36	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
EASTBOUND	Left	47	0		**47**	34	0		34
	Left-Through		1				1		
	Through	684	0		470	857	0		**534**
	Through-Right		1				1		
	Right	68	0		470	74	0		534
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	36	0		36	57	0		**57**
	Left-Through		1				1		
	Through	730	0		**467**	699	0		496
	Through-Right		1				1		
	Right	59	0		467	65	0		496
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	710			*North-South:*	629
				East-West:	514			*East-West:*	591
				SUM:	1224			*SUM:*	1220
VOLUME/CAPACITY *(V/C)* RATIO:					0.816				0.813
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.716**				**0.713**
LEVEL OF SERVICE (LOS):					**C**				**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
8	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** Olympic Blvd
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	138	1	138	86	1	**86**
	Left-Through		0			0	
	Through	883	2	**442**	658	2	329
	Through-Right		0			0	
	Right	93	1	67	115	1	84
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	82	1	**82**	91	1	91
	Left-Through		0			0	
	Through	657	2	329	897	2	**449**
	Through-Right		0			0	
	Right	74	1	50	56	1	28
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	49	1	49	56	1	56
	Left-Through		0			0	
	Through	1741	2	**618**	1773	2	**628**
	Through-Right		1			1	
	Right	113	0	113	110	0	110
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	53	1	**53**	63	1	**63**
	Left-Through		0			0	
	Through	1334	2	466	1363	2	480
	Through-Right		1			1	
	Right	63	0	63	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	524		*North-South:*	535
			East-West:	671		*East-West:*	691
			SUM:	1195		*SUM:*	1226
VOLUME/CAPACITY *(V/C)* RATIO:				0.797			0.817
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.697**			**0.717**
LEVEL OF SERVICE (LOS):				**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 6th St
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	39	0	**39**	57	0	57
	Left-Through		0			0	
	Through	80	0	163	140	0	**312**
	Through-Right		0			0	
	Right	44	0	0	115	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	28	0	28	22	0	**22**
	Left-Through		0			0	
	Through	163	0	**228**	133	0	185
	Through-Right		0			0	
	Right	37	0	0	30	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	13	1	13	36	1	36
	Left-Through		0			0	
	Through	992	1	**544**	948	1	**512**
	Through-Right		1			1	
	Right	96	0	96	75	0	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	70	1	**70**	88	1	**88**
	Left-Through		0			0	
	Through	976	1	492	1042	1	543
	Through-Right		1			1	
	Right	7	0	7	44	0	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	267		*North-South:*	334
			East-West:	614		*East-West:*	600
			SUM:	881		*SUM:*	934
VOLUME/CAPACITY *(V/C)* RATIO:				0.587			0.623
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.487**			**0.523**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (N) **East-West Street:** Wilshire Blvd
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	195	0	195	170	0	170
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	88	0	**283**	107	0	**277**
	Left-Through-Right		0			0	
	Left-Right		1			1	
EASTBOUND	Left	59	1	**59**	80	1	**80**
	Left-Through		0			0	
	Through	1291	2	646	1211	2	606
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1269	2	**635**	1195	2	**598**
	Through-Right		0			0	
	Right	184	1	184	194	1	194
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	283		*North-South:*	277
			East-West:	694		*East-West:*	678
			SUM:	977		*SUM:*	955
VOLUME/CAPACITY *(V/C)* RATIO:				0.651			0.637
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.551**			**0.537**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
11	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (S) **East-West Street:** Wilshire Blvd
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	173	1	173	185	1	**185**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	249	1	**198**	203	1	140
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1280	2	**640**	1158	2	**579**
	Through-Right		0			0	
	Right	212	1	126	237	1	145
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	102	1	**102**	126	1	**126**
	Left-Through		0			0	
	Through	1288	2	644	1220	2	610
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	198		*North-South:*	185
			East-West:	742		*East-West:*	705
			SUM:	940		*SUM:*	890
VOLUME/CAPACITY *(V/C)* RATIO:				0.627			0.593
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.527**			**0.493**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
12	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 8th St
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	5	0	5		6	0	6	
	Left-Through		0				0		
	Through	92	0	**107**		86	0	**108**	
	Through-Right		0				0		
	Right	10	0	0		16	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	112	0	**112**		192	0	**192**	
	Left-Through		1				1		
	Through	55	0	167		91	0	283	
	Through-Right		0				0		
	Right	72	1	72		72	1	72	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	27	0	**27**		41	0	41	
	Left-Through		1				1		
	Through	783	0	453		926	0	**553**	
	Through-Right		1				1		
	Right	15	0	453		16	0	553	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	29	0	29		22	0	**22**	
	Left-Through		1				1		
	Through	775	0	**528**		812	0	508	
	Through-Right		1				1		
	Right	165	0	528		116	0	508	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	219			*North-South:*	300	
			East-West:	555			*East-West:*	575	
			SUM:	774			*SUM:*	875	
VOLUME/CAPACITY *(V/C)* RATIO:				0.516				0.583	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.416**				**0.483**	
LEVEL OF SERVICE (LOS):				**A**				**A**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
13	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** Wilshire Blvd
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	116	1	**116**	94	1	**94**
	Left-Through		0			0	
	Through	1028	2	370	1027	2	381
	Through-Right		1			1	
	Right	82	0	82	117	0	117
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	95	1	95	134	1	134
	Left-Through		0			0	
	Through	965	2	**483**	949	2	**475**
	Through-Right		0			0	
	Right	101	1	40	108	1	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	123	1	**123**	103	1	103
	Left-Through		0			0	
	Through	1121	2	561	944	2	**472**
	Through-Right		0			0	
	Right	229	1	171	122	1	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	111	1	111	140	1	**140**
	Left-Through		0			0	
	Through	1138	2	**569**	1015	2	508
	Through-Right		0			0	
	Right	62	1	15	90	1	23
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	599		*North-South:*	569
			East-West:	692		*East-West:*	612
			SUM:	1291		*SUM:*	1181
VOLUME/CAPACITY *(V/C)* RATIO:				0.939			0.859
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.839**			**0.759**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
14	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** 8th St
Scenario: Existing plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	96	1	**96**		68	1	**68**	
	Left-Through		0				0		
	Through	1244	1	645		1089	1	573	
	Through-Right		1				1		
	Right	45	0	45		56	0	56	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	46	1	46		62	1	62	
	Left-Through		0				0		
	Through	1185	1	**633**		1095	1	**586**	
	Through-Right		1				1		
	Right	80	0	80		77	0	77	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	2	0	**0**		1	0	0	
	Left-Through		0				0		
	Through	685	1	395		808	1	**483**	
	Through-Right		1				1		
	Right	105	0	105		157	0	157	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	2	0	0		4	0	**0**	
	Left-Through		0				0		
	Through	737	1	**396**		699	1	390	
	Through-Right		1				1		
	Right	55	0	55		80	0	80	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	729			*North-South:*	654	
			East-West:	396			*East-West:*	483	
			SUM:	1125			*SUM:*	1137	
VOLUME/CAPACITY *(V/C)* RATIO:				0.750				0.758	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.650**				**0.658**	
LEVEL OF SERVICE (LOS):				**B**				**B**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** Wilshire Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	87	1	87	92	1	**92**
	Left-Through		0			0	
	Through	1292	1	**697**	1126	1	634
	Through-Right		1			1	
	Right	101	0	101	141	0	141
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	134	1	**134**	123	1	123
	Left-Through		0			0	
	Through	1058	1	556	1325	1	**693**
	Through-Right		1			1	
	Right	54	0	54	60	0	60
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	9	1	**9**	7	1	7
	Left-Through		0			0	
	Through	1117	2	559	1219	2	**610**
	Through-Right		0			0	
	Right	103	1	60	107	1	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	1	42	35	1	**35**
	Left-Through		0			0	
	Through	1268	2	**634**	1073	2	537
	Through-Right		0			0	
	Right	73	1	6	118	1	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	831		*North-South:*	785
			East-West:	643		*East-West:*	645
			SUM:	1474		*SUM:*	1430
VOLUME/CAPACITY *(V/C)* RATIO:				1.072			1.040
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.972**			**0.940**
LEVEL OF SERVICE (LOS):				**E**			**E**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
2	North-South Street:	Western Ave	East-West Street:	8th St
	Scenario:	Future Year 2026		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	68	1	68	62	1	62
	Left-Through		0			0	
	Through	1390	1	**737**	1250	1	**731**
	Through-Right		1			1	
	Right	83	0	83	212	0	212
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	120	1	**120**	204	1	**204**
	Left-Through		0			0	
	Through	1209	1	625	1414	1	736
	Through-Right		1			1	
	Right	40	0	40	57	0	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	86	1	**86**	75	1	75
	Left-Through		0			0	
	Through	657	1	361	946	1	**505**
	Through-Right		1			1	
	Right	65	0	65	63	0	63
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	265	1	265	223	1	**223**
	Left-Through		0			0	
	Through	1017	1	**587**	766	1	466
	Through-Right		1			1	
	Right	157	0	157	165	0	165
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		North-South:	857		North-South:	935
			East-West:	673		East-West:	728
			SUM:	1530		SUM:	1663
	VOLUME/CAPACITY (V/C) RATIO:			1.020			1.109
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.920**			**1.009**
	LEVEL OF SERVICE (LOS):			**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
3	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 3rd St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	2	0		**0**	2	0		0
	Left-Through		0				0		
	Through	706	1		423	950	1		**574**
	Through-Right		1				1		
	Right	139	0		139	198	0		198
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	4	0		0	2	0		**0**
	Left-Through		0				0		
	Through	1018	1		**575**	780	1		437
	Through-Right		1				1		
	Right	131	0		131	93	0		93
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	63	1		63	109	1		109
	Left-Through		0				0		
	Through	1182	1		**628**	1136	1		**637**
	Through-Right		1				1		
	Right	74	0		74	138	0		138
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	120	1		**120**	163	1		**163**
	Left-Through		0				0		
	Through	1109	1		580	1081	1		582
	Through-Right		1				1		
	Right	51	0		51	82	0		82
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	575			*North-South:*	574
				East-West:	748			*East-West:*	800
				SUM:	1323			*SUM:*	1374
VOLUME/CAPACITY *(V/C)* RATIO:					0.928				0.964
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.828**				**0.864**
LEVEL OF SERVICE (LOS):					**D**				**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
4	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 6th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	32	0	**32**	9	0	0
	Left-Through		1			0	
	Through	620	0	401	933	1	**511**
	Through-Right		1			1	
	Right	53	0	401	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	102	0	102	6	0	**0**
	Left-Through		1			0	
	Through	887	1	**648**	800	2	400
	Through-Right		0			0	
	Right	107	1	87	49	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	41	1	41	102	1	**102**
	Left-Through		0			0	
	Through	1165	1	**611**	1221	1	638
	Through-Right		1			1	
	Right	57	0	57	55	0	55
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	1	**42**	52	1	52
	Left-Through		0			0	
	Through	1136	1	582	1247	1	**669**
	Through-Right		1			1	
	Right	27	0	27	90	0	90
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	680		*North-South:*	511
			East-West:	653		*East-West:*	771
			SUM:	1333		*SUM:*	1282
	VOLUME/CAPACITY *(V/C)* RATIO:			0.889			0.855
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.789**			**0.755**
	LEVEL OF SERVICE (LOS):			**C**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
5	North-South Street:	Normandie Ave	East-West Street:	Wilshire Blvd
	Scenario:	Future Year 2026		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	67	0	**67**	86	0	86
	Left-Through		1			1	
	Through	521	1	395	721	1	**533**
	Through-Right		0			0	
	Right	153	1	64	155	1	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	151	0	151	215	0	**215**
	Left-Through		1			1	
	Through	712	1	**658**	610	1	610
	Through-Right		0			0	
	Right	120	1	85	138	1	68
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	70	1	70	140	1	**140**
	Left-Through		0			0	
	Through	1432	2	**716**	1429	2	715
	Through-Right		0			0	
	Right	133	1	133	103	1	103
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	179	1	**179**	159	1	159
	Left-Through		0			0	
	Through	1451	2	726	1523	2	**762**
	Through-Right		0			0	
	Right	90	1	90	129	1	22
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	725		*North-South:*	748
			East-West:	895		*East-West:*	902
			SUM:	1620		*SUM:*	1650
	VOLUME/CAPACITY *(V/C)* RATIO:			1.137			1.158
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**1.037**			**1.058**
	LEVEL OF SERVICE (LOS):			**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 7th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	126	0	126	76	0	76
	Left-Through		0			0	
	Through	708	0	**882**	760	0	**885**
	Through-Right		0			0	
	Right	48	0	0	49	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	34	0	**34**	88	0	**88**
	Left-Through		1			1	
	Through	732	0	766	687	0	775
	Through-Right		0			0	
	Right	107	1	80	201	1	180
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	55	1	55	42	1	42
	Left-Through		0			0	
	Through	122	0	**197**	237	0	**359**
	Through-Right		1			1	
	Right	75	0	0	122	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	22	1	**22**	31	1	**31**
	Left-Through		0			0	
	Through	95	0	164	129	0	196
	Through-Right		1			1	
	Right	69	0	0	67	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	916		*North-South:*	973
			East-West:	219		*East-West:*	390
			SUM:	1135		*SUM:*	1363
VOLUME/CAPACITY *(V/C)* RATIO:				0.757			0.909
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.657**			**0.809**
LEVEL OF SERVICE (LOS):				**B**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
7	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 8th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	83	0	**83**	134	0	134
	Left-Through		0			0	
	Through	722	0	871	767	0	**1044**
	Through-Right		0			0	
	Right	66	0	0	143	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	68	0	68	58	0	**58**
	Left-Through		0			0	
	Through	762	0	**868**	715	0	814
	Through-Right		0			0	
	Right	38	0	0	41	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	52	0	**52**	38	0	**38**
	Left-Through		1			1	
	Through	927	0	696	1185	0	767
	Through-Right		1			1	
	Right	152	0	696	120	0	767
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	134	0	134	131	0	131
	Left-Through		1			1	
	Through	977	0	**930**	992	0	**929**
	Through-Right		1			1	
	Right	78	0	930	80	0	929
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	951		*North-South:*	1102
			East-West:	982		*East-West:*	967
			SUM:	1933		*SUM:*	2069
VOLUME/CAPACITY *(V/C)* RATIO:				1.289			1.379
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.189**			**1.279**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
8	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** Olympic Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	191	1	**191**	161	1	**161**
	Left-Through		0			0	
	Through	1102	2	551	1054	2	527
	Through-Right		0			0	
	Right	130	1	76	185	1	130
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	129	1	129	120	1	120
	Left-Through		0			0	
	Through	999	2	**500**	1214	2	**607**
	Through-Right		0			0	
	Right	148	1	87	146	1	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	122	1	122	149	1	149
	Left-Through		0			0	
	Through	2200	2	**794**	2341	2	**840**
	Through-Right		1			1	
	Right	182	0	182	178	0	178
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	108	1	**108**	111	1	**111**
	Left-Through		0			0	
	Through	1783	2	620	1858	2	659
	Through-Right		1			1	
	Right	77	0	77	120	0	120
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	691		*North-South:*	768
			East-West:	902		*East-West:*	951
			SUM:	1593		*SUM:*	1719
VOLUME/CAPACITY *(V/C)* RATIO:				1.062			1.146
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.962**			**1.046**
LEVEL OF SERVICE (LOS):				**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 6th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	36	0	**36**	58	0	58
	Left-Through		0			0	
	Through	80	0	164	148	0	**331**
	Through-Right		0			0	
	Right	48	0	0	125	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	30	0	30	24	0	**24**
	Left-Through		0			0	
	Through	175	0	**245**	138	0	194
	Through-Right		0			0	
	Right	40	0	0	32	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	14	1	14	39	1	39
	Left-Through		0			0	
	Through	1191	1	**647**	1182	1	**629**
	Through-Right		1			1	
	Right	103	0	103	75	0	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	76	1	**76**	95	1	**95**
	Left-Through		0			0	
	Through	1170	1	589	1292	1	670
	Through-Right		1			1	
	Right	8	0	8	48	0	48
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	281		*North-South:*	355
			East-West:	723		*East-West:*	724
			SUM:	1004		*SUM:*	1079
VOLUME/CAPACITY *(V/C)* RATIO:				0.669			0.719
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.569**			**0.619**
LEVEL OF SERVICE (LOS):				**A**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (N) **East-West Street:** Wilshire Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	209	0	209	170	0	170
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	95	0	**304**	116	0	**286**
	Left-Through-Right		0			0	
	Left-Right		1			1	
EASTBOUND	Left	64	1	**64**	87	1	**87**
	Left-Through		0			0	
	Through	1672	2	836	1648	2	824
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1633	2	**817**	1657	2	**829**
	Through-Right		0			0	
	Right	187	1	187	204	1	204
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	304		*North-South:*	286
			East-West:	881		*East-West:*	916
			SUM:	1185		*SUM:*	1202
VOLUME/CAPACITY *(V/C)* RATIO:				0.790			0.801
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.690**			**0.701**
LEVEL OF SERVICE (LOS):				**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
11	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (S) **East-West Street:** Wilshire Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	159	1	159	185	1	**185**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	249	1	**194**	210	1	154
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1662	2	**831**	1607	2	**804**
	Through-Right		0			0	
	Right	225	1	146	226	1	134
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	110	1	**110**	113	1	**113**
	Left-Through		0			0	
	Through	1670	2	835	1693	2	847
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	194		*North-South:*	185
			East-West:	941		*East-West:*	917
			SUM:	1135		*SUM:*	1102
VOLUME/CAPACITY *(V/C)* RATIO:				0.757			0.735
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.657**			**0.635**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
12	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 8th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	5	0		5	6	0		**6**
	Left-Through		0				0		
	Through	95	0		**111**	67	0		90
	Through-Right		0				0		
	Right	11	0		0	17	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	114	0		**114**	206	0		206
	Left-Through		1				1		
	Through	41	0		155	90	0		**296**
	Through-Right		0				0		
	Right	68	1		68	73	1		73
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	30	0		**30**	37	0		37
	Left-Through		1				1		
	Through	1079	0		638	1393	0		**816**
	Through-Right		1				1		
	Right	16	0		638	17	0		816
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	31	0		31	24	0		**24**
	Left-Through		1				1		
	Through	1144	0		**756**	1198	0		730
	Through-Right		1				1		
	Right	181	0		756	117	0		730
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	225			*North-South:*	302
				East-West:	786			*East-West:*	840
				SUM:	1011			*SUM:*	1142
VOLUME/CAPACITY *(V/C)* RATIO:					0.674				0.761
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.574**				**0.661**
LEVEL OF SERVICE (LOS):					**A**				**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
13	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** Wilshire Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 EB-- 0		SB-- 0 WB-- 0		NB-- 0 EB-- 0		SB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	172	1	**172**	192	1	**192**
	Left-Through		0			0	
	Through	1319	2	481	1368	2	521
	Through-Right		1			1	
	Right	124	0	124	196	0	196
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	124	1	124	190	1	190
	Left-Through		0			0	
	Through	1262	2	**631**	1289	2	**645**
	Through-Right		0			0	
	Right	175	1	54	238	1	125
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	242	1	**242**	226	1	**226**
	Left-Through		0			0	
	Through	1422	2	711	1228	2	614
	Through-Right		0			0	
	Right	326	1	240	211	1	115
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	185	1	185	191	1	191
	Left-Through		0			0	
	Through	1371	2	**686**	1342	2	**671**
	Through-Right		0			0	
	Right	109	1	47	122	1	27
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	803		*North-South:*	837
			East-West:	928		*East-West:*	897
			SUM:	1731		*SUM:*	1734
VOLUME/CAPACITY *(V/C)* RATIO:				1.259			1.261
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.159**			**1.161**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

I/S #:
14

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** 8th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	124	1	**124**	130	1	130
	Left-Through		0			0	
	Through	1674	1	862	1776	1	**919**
	Through-Right		1			1	
	Right	49	0	49	61	0	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	70	1	70	114	1	**114**
	Left-Through		0			0	
	Through	1797	1	**942**	1652	1	868
	Through-Right		1			1	
	Right	87	0	87	84	0	84
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	0	1	0	0
	Left-Through		0			0	
	Through	957	1	**561**	1166	1	**686**
	Through-Right		1			1	
	Right	164	0	164	205	0	205
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	0	**0**	4	0	**0**
	Left-Through		0			0	
	Through	1008	1	553	1033	1	576
	Through-Right		1			1	
	Right	98	0	98	118	0	118
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	1066		*North-South:*	1033
			East-West:	561		*East-West:*	686
			SUM:	1627		*SUM:*	1719
	VOLUME/CAPACITY *(V/C)* RATIO:			1.085			1.146
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.985**			**1.046**
	LEVEL OF SERVICE (LOS):			**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** Wilshire Blvd
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	87	1	87	92	1	**92**
	Left-Through		0			0	
	Through	1292	1	**697**	1126	1	634
	Through-Right		1			1	
	Right	101	0	101	141	0	141
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	134	1	**134**	126	1	126
	Left-Through		0			0	
	Through	1058	1	556	1325	1	**693**
	Through-Right		1			1	
	Right	54	0	54	60	0	60
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	9	1	**9**	7	1	7
	Left-Through		0			0	
	Through	1118	2	559	1228	2	**614**
	Through-Right		0			0	
	Right	103	1	60	107	1	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	1	42	35	1	**35**
	Left-Through		0			0	
	Through	1276	2	**638**	1077	2	539
	Through-Right		0			0	
	Right	75	1	8	119	1	56
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	831		*North-South:*	785
			East-West:	647		*East-West:*	649
			SUM:	1478		*SUM:*	1434
VOLUME/CAPACITY *(V/C)* RATIO:				1.075			1.043
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.975**			**0.943**
LEVEL OF SERVICE (LOS):				**E**			**E**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
2	North-South Street:	Western Ave	East-West Street:	8th St
	Scenario:	Future plus Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	68	1	68	62	1	62
	Left-Through		0			0	
	Through	1390	1	**737**	1250	1	**733**
	Through-Right		1			1	
	Right	84	0	84	216	0	216
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	120	1	**120**	204	1	**204**
	Left-Through		0			0	
	Through	1209	1	625	1414	1	736
	Through-Right		1			1	
	Right	40	0	40	57	0	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	86	1	**86**	75	1	75
	Left-Through		0			0	
	Through	657	1	361	949	1	**506**
	Through-Right		1			1	
	Right	65	0	65	63	0	63
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	269	1	269	225	1	**225**
	Left-Through		0			0	
	Through	1020	1	**589**	768	1	467
	Through-Right		1			1	
	Right	157	0	157	165	0	165
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		North-South:	857		North-South:	937
			East-West:	675		East-West:	731
			SUM:	1532		SUM:	1668
	VOLUME/CAPACITY (V/C) RATIO:			1.021			1.112
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.921**			**1.012**
	LEVEL OF SERVICE (LOS):			**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
3	North-South Street:	Normandie Ave	East-West Street:	3rd St
	Scenario:	Future plus Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	2	0	**0**	2	0	0
	Left-Through		0			0	
	Through	710	1	425	952	1	**575**
	Through-Right		1			1	
	Right	139	0	139	198	0	198
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	4	0	0	2	0	**0**
	Left-Through		0			0	
	Through	1019	1	**575**	785	1	439
	Through-Right		1			1	
	Right	131	0	131	93	0	93
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	63	1	63	109	1	109
	Left-Through		0			0	
	Through	1182	1	**628**	1137	1	**638**
	Through-Right		1			1	
	Right	74	0	74	138	0	138
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	120	1	**120**	163	1	**163**
	Left-Through		0			0	
	Through	1110	1	581	1082	1	582
	Through-Right		1			1	
	Right	51	0	51	82	0	82
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	575		*North-South:*	575
			East-West:	748		*East-West:*	801
			SUM:	1323		*SUM:*	1376
	VOLUME/CAPACITY *(V/C)* RATIO:			0.928			0.966
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.828**			**0.866**
	LEVEL OF SERVICE (LOS):			**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
4	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 6th St
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	32	0	**32**	9	0	0
	Left-Through		1			0	
	Through	624	0	403	935	1	**512**
	Through-Right		1			1	
	Right	53	0	403	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	102	0	102	6	0	**0**
	Left-Through		1			0	
	Through	888	1	**648**	805	2	403
	Through-Right		0			0	
	Right	107	1	87	49	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	41	1	41	102	1	**102**
	Left-Through		0			0	
	Through	1166	1	**612**	1227	1	641
	Through-Right		1			1	
	Right	57	0	57	55	0	55
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	1	**42**	52	1	52
	Left-Through		0			0	
	Through	1142	1	585	1250	1	**670**
	Through-Right		1			1	
	Right	27	0	27	90	0	90
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	680		*North-South:*	512
			East-West:	654		*East-West:*	772
			SUM:	1334		*SUM:*	1284
VOLUME/CAPACITY *(V/C)* RATIO:				0.889			0.856
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.789**			**0.756**
LEVEL OF SERVICE (LOS):				**C**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
5	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** Wilshire Blvd
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	67	0	**67**	86	0	86
	Left-Through		1			1	
	Through	522	1	395	722	1	**533**
	Through-Right		0			0	
	Right	153	1	64	155	1	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	151	0	151	218	0	**218**
	Left-Through		1			1	
	Through	712	1	**658**	613	1	613
	Through-Right		0			0	
	Right	120	1	85	138	1	68
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	70	1	70	140	1	**140**
	Left-Through		0			0	
	Through	1434	2	**717**	1442	2	721
	Through-Right		0			0	
	Right	133	1	133	103	1	103
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	179	1	**179**	159	1	159
	Left-Through		0			0	
	Through	1462	2	731	1529	2	**765**
	Through-Right		0			0	
	Right	93	1	93	131	1	22
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	725		*North-South:*	751
			East-West:	896		*East-West:*	905
			SUM:	1621		*SUM:*	1656
VOLUME/CAPACITY *(V/C)* RATIO:				1.138			1.162
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.038**			**1.062**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
6	North-South Street:	Normandie Ave	East-West Street:	7th St
	Scenario:	Future plus Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	126	0	126	76	0	76
	Left-Through		0			0	
	Through	708	0	**883**	760	0	**890**
	Through-Right		0			0	
	Right	49	0	0	54	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	34	0	**34**	91	0	**91**
	Left-Through		1			1	
	Through	732	0	766	687	0	778
	Through-Right		0			0	
	Right	107	1	80	201	1	180
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	55	1	**55**	42	1	42
	Left-Through		0			0	
	Through	124	0	199	253	0	**375**
	Through-Right		1			1	
	Right	75	0	0	122	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	26	1	26	33	1	**33**
	Left-Through		0			0	
	Through	110	0	**180**	137	0	205
	Through-Right		1			1	
	Right	70	0	0	68	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	917		*North-South:*	981
			East-West:	235		*East-West:*	408
			SUM:	1152		*SUM:*	1389
	VOLUME/CAPACITY *(V/C)* RATIO:			0.768			0.926
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.668**			**0.826**
	LEVEL OF SERVICE (LOS):			**B**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
7	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 8th St
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	83	0	**83**	134	0	134
	Left-Through		0			0	
	Through	723	0	872	772	0	**1049**
	Through-Right		0			0	
	Right	66	0	0	143	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	68	0	68	58	0	**58**
	Left-Through		0			0	
	Through	766	0	**872**	717	0	816
	Through-Right		0			0	
	Right	38	0	0	41	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	52	0	**52**	38	0	**38**
	Left-Through		1			1	
	Through	929	0	697	1195	0	772
	Through-Right		1			1	
	Right	152	0	697	120	0	772
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	134	0	134	131	0	131
	Left-Through		1			1	
	Through	986	0	**934**	997	0	**932**
	Through-Right		1			1	
	Right	78	0	934	80	0	932
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	955		*North-South:*	1107
			East-West:	986		*East-West:*	970
			SUM:	1941		*SUM:*	2077
VOLUME/CAPACITY *(V/C)* RATIO:				1.294			1.385
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.194**			**1.285**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
8	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** Olympic Blvd
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2	
Override Capacity			0			0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	191	1	**191**	161	1	**161**
	Left-Through		0			0	
	Through	1103	2	552	1059	2	530
	Through-Right		0			0	
	Right	130	1	76	185	1	130
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	129	1	129	120	1	120
	Left-Through		0			0	
	Through	1003	2	**502**	1216	2	**608**
	Through-Right		0			0	
	Right	148	1	87	146	1	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	122	1	122	149	1	149
	Left-Through		0			0	
	Through	2201	2	**794**	2350	2	**843**
	Through-Right		1			1	
	Right	182	0	182	178	0	178
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	108	1	**108**	111	1	**111**
	Left-Through		0			0	
	Through	1791	2	623	1862	2	661
	Through-Right		1			1	
	Right	77	0	77	120	0	120
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	693		*North-South:*	769
			East-West:	902		*East-West:*	954
			SUM:	1595		*SUM:*	1723
VOLUME/CAPACITY *(V/C)* RATIO:				1.063			1.149
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.963**			**1.049**
LEVEL OF SERVICE (LOS):				**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 6th St
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	42	0	**42**	61	0	61
	Left-Through		0			0	
	Through	86	0	176	151	0	**337**
	Through-Right		0			0	
	Right	48	0	0	125	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	30	0	30	24	0	**24**
	Left-Through		0			0	
	Through	176	0	**246**	144	0	200
	Through-Right		0			0	
	Right	40	0	0	32	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	14	1	14	39	1	39
	Left-Through		0			0	
	Through	1191	1	**648**	1182	1	**632**
	Through-Right		1			1	
	Right	104	0	104	81	0	81
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	76	1	**76**	95	1	**95**
	Left-Through		0			0	
	Through	1170	1	589	1292	1	670
	Through-Right		1			1	
	Right	8	0	8	48	0	48
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	288		*North-South:*	361
			East-West:	724		*East-West:*	727
			SUM:	1012		*SUM:*	1088
VOLUME/CAPACITY *(V/C)* RATIO:				0.675			0.725
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.575**			**0.625**
LEVEL OF SERVICE (LOS):				**A**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (N) **East-West Street:** Wilshire Blvd
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	211	0	211	183	0	183
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	95	0	**306**	116	0	**299**
	Left-Through-Right		0			0	
	Left-Right		1			1	
EASTBOUND	Left	64	1	**64**	87	1	**87**
	Left-Through		0			0	
	Through	1674	2	837	1663	2	832
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1648	2	**824**	1665	2	**833**
	Through-Right		0			0	
	Right	198	1	198	210	1	210
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	306		*North-South:*	299
			East-West:	888		*East-West:*	920
			SUM:	1194		*SUM:*	1219
VOLUME/CAPACITY *(V/C)* RATIO:				0.796			0.813
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.696**			**0.713**
LEVEL OF SERVICE (LOS):				**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
11	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (S) **East-West Street:** Wilshire Blvd
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	185	1	185	199	1	**199**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	271	1	**214**	222	1	153
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1662	2	**831**	1607	2	**804**
	Through-Right		0			0	
	Right	229	1	137	254	1	155
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	114	1	**114**	138	1	**138**
	Left-Through		0			0	
	Through	1670	2	835	1693	2	847
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	214		*North-South:*	199
			East-West:	945		*East-West:*	942
			SUM:	1159		*SUM:*	1141
VOLUME/CAPACITY *(V/C)* RATIO:				0.773			0.761
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.673**			**0.661**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
12	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 8th St
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	5	0	5		6	0	6	
	Left-Through		0				0		
	Through	99	0	**115**		91	0	**114**	
	Through-Right		0				0		
	Right	11	0	0		17	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	127	0	**127**		213	0	**213**	
	Left-Through		1				1		
	Through	62	0	189		102	0	315	
	Through-Right		0				0		
	Right	77	1	77		78	1	78	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	32	0	**32**		47	0	47	
	Left-Through		1				1		
	Through	1079	0	644		1393	0	**846**	
	Through-Right		1				1		
	Right	16	0	644		17	0	846	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	31	0	31		24	0	**24**	
	Left-Through		1				1		
	Through	1144	0	**757**		1198	0	737	
	Through-Right		1				1		
	Right	183	0	757		132	0	737	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	242			*North-South:*	327	
			East-West:	789			*East-West:*	870	
			SUM:	1031			*SUM:*	1197	
VOLUME/CAPACITY *(V/C)* RATIO:				0.687				0.798	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.587**				**0.698**	
LEVEL OF SERVICE (LOS):				**A**				**B**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
13	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** Wilshire Blvd
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	172	1	**172**	192	1	**192**
	Left-Through		0			0	
	Through	1319	2	481	1368	2	521
	Through-Right		1			1	
	Right	124	0	124	196	0	196
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	124	1	124	190	1	190
	Left-Through		0			0	
	Through	1262	2	**631**	1289	2	**645**
	Through-Right		0			0	
	Right	176	1	52	246	1	131
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	249	1	**249**	230	1	**230**
	Left-Through		0			0	
	Through	1432	2	716	1233	2	617
	Through-Right		0			0	
	Right	326	1	240	211	1	115
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	185	1	185	191	1	191
	Left-Through		0			0	
	Through	1373	2	**687**	1353	2	**677**
	Through-Right		0			0	
	Right	109	1	47	122	1	27
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	803		*North-South:*	837
			East-West:	936		*East-West:*	907
			SUM:	1739		*SUM:*	1744
VOLUME/CAPACITY *(V/C)* RATIO:				1.265			1.268
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.165**			**1.168**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
14	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** 8th St
Scenario: Future plus Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	125	1	**125**	136	1	136
	Left-Through		0			0	
	Through	1674	1	862	1776	1	**919**
	Through-Right		1			1	
	Right	49	0	49	61	0	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	70	1	70	114	1	**114**
	Left-Through		0			0	
	Through	1797	1	**942**	1652	1	868
	Through-Right		1			1	
	Right	87	0	87	84	0	84
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	0	1	0	0
	Left-Through		0			0	
	Through	965	1	**568**	1170	1	**689**
	Through-Right		1			1	
	Right	170	0	170	208	0	208
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	0	**0**	4	0	**0**
	Left-Through		0			0	
	Through	1009	1	554	1042	1	580
	Through-Right		1			1	
	Right	98	0	98	118	0	118
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1067		*North-South:*	1033
			East-West:	568		*East-West:*	689
			SUM:	1635		*SUM:*	1722
VOLUME/CAPACITY *(V/C)* RATIO:				1.090			1.148
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.990**			**1.048**
LEVEL OF SERVICE (LOS):				**E**			**F**

Version: 1i Beta; 8/4/2011

APPENDIX E:
MAIN STREET ANALYSIS

Appendix E – 3440 Wilshire MainStreet Analysis

Trip Generation Methodology

Current accepted methodologies, such as the Institute of Transportation Engineers (ITE) Trip Generation methodology, are primarily based on data collected at suburban, single-use, freestanding sites. These defining characteristics limit their applicability to mixed-use or multi-use development projects, such as the proposed project, which is in a high density walkable urban setting with frequent and nearby local and regional transit service. The land use mix, design features, and setting of the proposed project include characteristics that influence travel behavior differently from typical single-use suburban developments. Thus, traditional data and methodologies, such as ITE, would not accurately estimate the project vehicle trip generation. In response to the limitations in the ITE methodology, and to provide a straightforward and empirically validated method of estimating vehicle trip generation at mixed-use developments, the US Environmental Protection Agency (EPA) sponsored a national study of the trip generation characteristics of multi-use sites. Travel survey data was gathered from 239 mixed-use developments in six major metropolitan regions, and correlated with the characteristics of the sites and their surroundings. The findings indicate that the amount of external traffic generated is affected by a wide variety of factors, each pertaining to one or more of the following characteristics:

- **The relative numbers of residents and jobs on the site** – the better the site jobs/ housing balance, the greater the proportion of commute trips that remain internal.
- **The amount of retail and service use on the site relative to the number of residences** – the greater the degree to which retail and service opportunities match the needs generated by site residents, the greater the internalization of household-generated shopping, personal services and entertainment travel.
- **The amount of retail and service use relative to the number of employees** – the better the balance of employee-oriented retail and service opportunities, the greater the internal capture of lunchtime and after-work dining, shopping and errands by site employees.
- **The overall size of the development** – the larger the scale of the development in terms of acreage and total amounts of residential and commercial use, the greater the likelihood that travel destinations can be satisfied within the site as a whole.
- **The density of development** – the greater the concentration of dwellings and commercial space per acre, the greater the likelihood that the interacting land uses will be near enough together to encourage walking or short-distance internal driving.
- **The internal connectivity for walking or driving among different activities** – measured in terms of the ratio of intersections to total land area within the site directly influences trip internalization and the number of trips made by walking instead of driving.
- **The availability of transit** – the greater the number of jobs within a reasonable travel time via transit, the greater the share of travel likely to occur by transit, and the lower the traffic generation.
- **The number of convenient trip destinations within the immediate area** – the number of retail and other jobs in neighborhoods immediately surrounding the multi-use site increases the amount of walking to/from the site and reduces vehicular traffic generation. These characteristics were

related statistically to the trip behavior observed at the study development sites using Hierarchical Linear Modeling (HLM) techniques. This quantified relationships between characteristics of the mixed-use developments and the likelihood that trips generated by those mixed-use developments will stay internal and/or use modes of transportation other than the private vehicle.

These statistical relationships produced equations, known as the EPA MXD model, that allows predicting external vehicle trip reduction as a function of the mixed-use development characteristics. Applying the external vehicle trip reduction percentage to "raw trips", as predicted by ITE, produces an estimate for the number of vehicle trips traveling in or out of the site.

Validation of MXD/MainStreet Model

Since the conclusion of the EPA sponsored study, Fehr & Peers has been actively enhancing the MXD model to improve sensitivity to various site characteristics, improve peak hour performance, and continue to validate the model against mixed-use sites where data is available. A set of 28 independent mixed-use sites across the country that were not included in the initial EPA model development have been tested to validate the model. These sites represent locations where it is expected that traditional data and methodologies, such as ITE, would not accurately estimate the project vehicle trip generation. Table 1 presents the performance of the MXD model against ITE and ITE internalization procedures.

Based on all statistical measurements, the MXD model performs better than the ITE recommended procedures for these types of sites. The MXD model has been approved for use by the EPA[1]. It has also been peer-reviewed in the ASCE Journal of Urban Planning and Development[2], peer-reviewed in a 2012 TRB paper evaluating various smart growth trip generation methodologies[3], recommended by SANDAG for use on mixed-use smart growth developments[4], and has been used successfully in multiple certified EIRs in California. Fehr & Peers has incorporated the MXD model into its MainStreet model. Appendix A presents certified EIRs that have used the Main Street model or its predecessors.

[1] Trip Generation Tool for Mixed-Use Developments (2012). www.epa.gov/dced/mxd_tripgeneration.html

[2] "Traffic Generated by Mixed-Use Developments – Six-Region Study Using Consistent Built Environmenal Measures." Journal of Urban Planning and Development, 137(3), 248-261.

[3] Shafizadeh, Kevan et al. "Evaluation of the Operation and Accuracy of Available Smart Growth Trip Generation Methodologies for Use in California". Presented at 91st Annual Meeting of the Transportation Research Board, Washington D.C., 2012.

[4] SANDAG Smart Growth Trip Generation and Parking Study.
http://www.sandag.org/index.asp?projectid=378&fuseaction=projects.detail

TABLE 1
3440 WILSHIRE PROJECT
VALIDATION STATISTICS COMPARISON

Validation Statistic	ITE Raw	ITE with Internalization	Main Street Model
Daily			
Average Model Error[1]	30%	17%	4%
% RSME[2]	42%	28%	17%
R-Squared[3]	0.72	0.87	0.95
AM Peak Hour			
Average Model Error[1]	57%	53%	3%
% RSME[2]	58%	76%	34%
R-Squared[3]	56%	56%	91%
PM Peak Hour			
Average Model Error[1]	56%	41%	22%
% RSME[2]	96%	81%	59%
R-Squared[3]	-56%	-11%	41%

Notes:

1. Average model error measures the difference between the estimated trip generation and the counted trip generation of 28 survey sites.

2. RMSE stands for percent root mean squared error is a demand assessment of performance of transportation models in that it does not apply average that would allow over-estimates and under-estimates to cancel one another out and it penalizes proportionally more for large errors. A % RMSE of less than 40% is generally considered acceptable in transportation modeling.

3. R-squared is a statistical measure that indicates, in this case, the degree to which each method explains the variation in trip generation among the 28 survey sites. A R-Squared value closer to 1.0 indicates that the method fully explains the variation in trip generation amongst the survey sites and would be suitable to be used for that set of site types.

MainStreet Analysis

Table 2 summarizes the input values and data sources for the MainStreet model for the project and surrounding neighborhood. The MainStreet model uses both internal project land uses and local and regional demographic data. Table 3 summarize the estimated trip generation for project neighborhood using the MXD/MainStreet methodology.

As shown in Tables 2, the MainStreet methodology accounts for the following:

- Internal Capture trips – are defined as trips made internal to the project area. The MainStreet methodology reduces the ITE-based automobile trip generation by about 8 percent for the daily and 12 and 13 percent for the AM and PM peak hours to account for internal trips within the neighborhood. Considering the expected shortage of parking, traffic congestion, available transit service, and walkability of the project area, most internal trips are expected to be non-auto trips. Adjusting for non-auto trips between compatible land uses within the site, the final internal capture for non-auto trips is expected to be between 8 and 13 percent.

- External Walk, Bike, and Transit trips - are defined as external trips made using non-automobile modes. The Main Street methodology reduces the ITE-based automobile trip generation by about 24 to 32 percent to account for external walk, bike, or transit trips.

Overall, the Project is estimated to generate up to 44 percent fewer trips than estimated by the unadjusted ITE methodology. In consultation with LADOT, 15% was used as the internalization capture for daily, AM, and PM peak hours and 25% transit for a total credit of 40% on project trips.

TABLE 2
3440 WILSHIRE PROJECT
MAIN STREET NEIGHBORHOOD ANALYSIS

Land Use	ITE Code	Quantity	Units	Daily	AM PEAK HOUR			PM PEAK HOUR		
					In	Out	Total	In	Out	Total
Neighborhood Land Uses										
Apartments	220	1,594	du	10,600	163	650	813	642	346	988
General Office Building	710	2700	Empl.	8,964	1,140	156	1,296	211	1,031	1,242
Shopping Center	820	53.5	ksf	2,284	32	19	51	95	103	198
High-Turnover Restaurant	932	8	ksf	1,017	47	39	86	47	32	79
Fast-Food w/o Drive-Through Window	933	8	ksf	5,728	211	140	351	107	102	209
Net Raw Project Trips				28,593	1,593	1,004	2,597	1,102	1,614	2,716
REDUCTIONS										
Internal Capture				*-2,304*	*-198*	*-124*	*-322*	*-149*	*-217*	*-366*
External Walk, Bike, and Transit				*-6,938*	*-509*	*-321*	*-830*	*-298*	*-437*	*-735*
Total Reductions				*-9,242*	*-707*	*-445*	*-1,152*	*-447*	*-654*	*-1,101*
Net New Project Trips				*19,351*	*886*	*559*	*1,445*	*655*	*960*	*1,615*
PERCENT REDUCTIONS										
Internal Capture Percentage Reductions				8%	12%	12%	12%	14%	13%	13%
External Walk, Bike, and Transit Percentage Reductions				24%	32%	32%	32%	27%	27%	27%
Total Percent Reductions				32%	44%	44%	44%	41%	41%	41%

TABLE 3
3440 WILSHIRE PROJECT
MAIN STREET MODEL INPUTS

Input Variable	Input Value	Source
Main Street Specific Inputs		
Project Area (Acres)	48.28	Project site plan
Intersections per Square Mile	100	EPA Smart Location Database (2013) - 2010 Scenario
Employment within 1 mile of Project site	36,000	SCAG Model 2035
Employment within a 30 minute trip by transit	0.04	SCAG Model 2035
Average Household Size within Project area	2.31	ACS 2012 (5-year) - All Housing Types
Average Vehicles Owned per Dwelling Unit within Project site	1.1	ACS 2012 (5-year) - All Housing Types
Average Household Size near Project site	2.31	ACS 2012 (5-year) - All Housing Types
Average Vehicle Ownership near Project site	1.1	ACS 2012 (5-year) - All Housing Types
Land Use Inputs		
Apartments	1,594	Project Neighborhood TAZ & Project Land Uses
General Office Building	2,700	Project Neighborhood TAZ & Project Land Uses
Shopping Center	53,500	Project Neighborhood TAZ & Project Land Uses
High-Turnover Restaurant	8,000	Project Neighborhood TAZ & Project Land Uses
Fast-Food w/o Drive-Through Window	8,000	Project Neighborhood TAZ & Project Land Uses

Comparisons with Mode Share Data

US Census data were used to check the reasonability of the MainStreet model results presented above. Table 4 shows journey to work mode share data for the census tracts in the project area based on the 2012 American Community Survey (ACS) data. The data shows that nearly half of the area residents' journey to work is by non-automobile modes. Table 7 also compares the project area mode share with journey to work data for residents throughout all of the City of Los Angeles, all of the County of Los Angeles, and the entire Southern California Association of Governments (SCAG) region. City of Los Angeles, County of Los Angeles, and SCAG residents have higher automobile mode shares because of more suburban development patterns.

The current project area residents' automobile mode share is about 18 percent lower than City of Los Angeles, 25 percent lower than County of Los Angeles, and about 26 percent lower than SCAG mode share.

TABLE 4 – AMERICAN COMMUNITY SURVEY (ACS) (2012) – DAILY JOURNEY TO WORK MODE SHARE

Mode	MPO SCAG	County Los Angeles	City Los Angeles	Tracts Project Area
Auto	80%	79%	72%	54%
Transit	6%	6%	11%	24%
Walk	13%	13%	16%	17%
Bike	1%	1%	1%	4%

APPENDIX A – CERTIFIED EIRS – MAIN STREET

APPENDIX A
BROADWAY-VALDEZ DISTRICT SPECIFIC PLAN
CERTIFIED EIRS USING MXD (4Ds) MODEL

Name	Date Published	Jurisdiction	Description	% Reduction
Treasure Island DEIR[1]	July 2010	City of San Francisco	8,000 DUs 140,000 SF retail 100,000 SF office 311,000 SF commercial flex 274,000 SF other	56-61% reduction
Candlestick Point / Hunters Point DEIR[2]	November 2009	City of San Francisco	10,500 DUs 885,000 SF retail 2,650,000 SF office/R&D	44-50% reduction
Parkmerced DEIR[3]	May 2010	City of San Francisco	8,900 DUs 230,000 SF retail 105,000 SF office 164,000 SF other	34-38% reduction
Fairfield Train Station DEIR[4]	December 2010	City of Fairfield	6,790 DUs 150,000 SF retail	25% reduction
Redwood City Downtown Precise Plan DEIR[5]	August 2010	Redwood City	2,500 DUs 221,000 SF retail 275,000 SF office	21-29% reduction
Pittsburg/Bay Point BART Station Master Plan DEIR[6]	June 2011	City of Pittsburg	1,168 DU 95,000 SF retail 50,000 SF office	26-32% reduction
Newhall Ranch Draft EIS/EIR[7]	April 2009	Los Angeles County U.S. Army Corps of Engineers	21,000 DUs 5,500,000 SF commercial	29-33% reduction
Broadway-Valdez District Specific Plan		City of Oakland	1,796 DUs 1,118,345 SF retail 694,730 SF office 180 Hotel rooms	27-34% reduction

1. http://sfplanning.org/index.aspx?page=1828#2007_0903E
2. http://sfplanning.org/index.aspx?page=1828#2007_0946E
3. http://sfplanning.org/index.aspx?page=1828#2008_0021E
4. http://www.fairfield.ca.gov/gov/depts/cd/planning/train_station_deir.asp
5. http://www.redwoodcity.org/phed/planning/precise/FINAL-DTPP/EIR.htm
6. http://www.ci.pittsburg.ca.us/index.aspx?page=225
7. http://www.dfg.ca.gov/regions/5/newhall/final/

Source: Fehr and Peers, 2012.

APPENDIX F:
SIGNAL WARRANT

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Existing 2018 AM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	223	Major Street Left Turn (see note [b]):	36
Major Street (Approach 2):	290	Minor Street (Higher Volume App.):	250
Major Street Total (Both Approaches):	513	Minor Street Total:	286
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	410

PEAK HOUR VOLUME WARRANT SATISFIED? **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Existing 2018 PM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	354	Major Street Left Turn (see note [b]):	50
Major Street (Approach 2):	185	Minor Street (Higher Volume App.):	276
Major Street Total (Both Approaches):	539	Minor Street Total:	326
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	390

PEAK HOUR VOLUME WARRANT SATISFIED? **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Existing plus Project AM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	258	Major Street Left Turn (see note [b]):	40
Major Street (Approach 2):	298	Minor Street (Higher Volume App.):	296
Major Street Total (Both Approaches):	556	Minor Street Total:	336
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	380

PEAK HOUR VOLUME WARRANT SATISFIED? **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Existing plus project PM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach			
Major Street:	1		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	397	Major Street Left Turn (see note [b]):	74
Major Street (Approach 2):	234	Minor Street (Higher Volume App.):	312
Major Street Total (Both Approaches):	631	Minor Street Total:	386
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	340

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Future Base AM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	246	Major Street Left Turn (see note [b]):	43
Major Street (Approach 2):	321	Minor Street (Higher Volume App.):	277
Major Street Total (Both Approaches):	567	Minor Street Total:	320
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	380

PEAK HOUR VOLUME WARRANT SATISFIED? **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Future Base PM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	387	Major Street Left Turn (see note [b]):	62
Major Street (Approach 2):	211	Minor Street (Higher Volume App.):	305
Major Street Total (Both Approaches):	598	Minor Street Total:	367
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	360

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Future plus Project AM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	281	Major Street Left Turn (see note [b]):	47
Major Street (Approach 2):	329	Minor Street (Higher Volume App.):	323
Major Street Total (Both Approaches):	610	Minor Street Total:	370
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	360

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Future plus Project PM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach			
Major Street:	1		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	430	Major Street Left Turn (see note [b]):	86
Major Street (Approach 2):	260	Minor Street (Higher Volume App.):	341
Major Street Total (Both Approaches):	690	Minor Street Total:	427
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	320

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

3440 Wilshire Blvd
DOT Case No. CEN 16-44755

Date: October 25, 2018

To: Heather Bleemers, City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION ANALYSIS FOR THE PROPOSED MIXED-USE PROJECT LOCATED AT 3440 WILSHIRE BOULEVARD**

The Department of Transportation (DOT) has reviewed the transportation impact study, dated September 2018, prepared by Fehr & Peers, for the proposed mixed-use development located at 3440 Wilshire Boulevard. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. The transportation impact analysis included the detailed analysis of 14 signalized intersections, one un-signalized intersection, and two street segments. Based on DOT's current traffic impact criteria[1], none of these signalized intersections would be significantly impacted by project-related traffic prior to mitigation. The results of the transportation impact analysis, which accounted for other known development projects in evaluating potential cumulative impacts, adequately evaluated the project's traffic impacts on the surrounding community and is summarized in **Attachment 1**.

DISCUSSION AND FINDINGS

A. Project Description

The project site is currently occupied by a parking structure with two office buildings. The two existing office buildings will remain and include approximately 760,456 square feet of office space, retail, fast food restaurant, and sit down restaurant. The proposed mixed-use development at 3440 Wilshire Boulevard will replace just the existing parking structure with 641 high rise residential units, 18,454 square feet of retail space, two levels of underground parking structure, and four levels of above ground parking.

The project currently has five driveways that provide access to the existing uses. The new project will close one of the driveways, leaving the site with four driveways to serve the property. Residents will primarily use the Mariposa Avenue and eastern 7th Street driveway, but all other land uses on the site will have access to use each of the

[1] Per the DOT Transportation Impact Analysis Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

driveways. Loading areas for the project will be accessible from the Mariposa Avenue driveway. The project is expected to be completed by 2026.

B. Trip Generation

The project is estimated to generate a net increase of 2,040 daily trips, 131 trips in the a.m. peak hour, and 186 trips in the p.m. peak hour. The trip generation estimates are based on formulas published by the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition, 2017. A copy of the trip generation table can be found in **Attachment 2**.

C. Freeway Analysis

The traffic study included a freeway impact analysis that was prepared in accordance with the State-mandated Congestion Management Program (CMP) administered by the Los Angeles County Metropolitan Transportation Authority (MTA). According to this analysis, the project would not result in significant traffic impacts on any of the evaluated freeway mainline segments. To comply with the Freeway Impact Analysis Agreement executed between Caltrans and DOT in October 2013, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary beyond the CMP requirements. The project did not meet or exceed any of the four thresholds defined in the latest agreement, updated in December 2015. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare more detailed freeway analyses. No additional freeway analysis was required.

PROJECT REQUIREMENTS

A. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to http://ladot.lacity.org/what-we-do/plan-review to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours to the extent feasible.

B. Highway Dedication And Street Widening Requirements

On January 20, 2016, the City Council adopted the Mobility Plan 2035 which is the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the new Mobility Element, **WILSHIRE BOULEVARD** is designated as an Avenue I, which would require a 35-foot half-width roadway within a 50-foot half-width right-of-way. **WEST 7TH STREET** is designated as an Avenue II, which would require a 28-foot half-width roadway within a 43-foot half-width right-of-way. **SOUTH NORMANDIE AVENUE/ IROLO STREET** is designated as an Avenue III, which would require a 23-

foot half-width roadway within a 36-foot half-width right-of-way. **MARIPOSA AVENUE** is designated as a Local Street, which would require an 18-foot half-width roadway within a 30-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

C. Parking Requirements

The project currently has five driveways that provide access to the existing uses. The new project will close one of the driveways, leaving the site with four driveways. Residents will primarily use the Mariposa Avenue and eastern 7th Street driveway, but all other land uses on the site will have access to use each of the driveways. Loading areas for the project will be accessible from the Mariposa Avenue driveway.

The number of parking spaces that will be provided by the project was not disclosed in the study. The applicant should check with the Department of Building and Safety on the number of Code-required parking sp aces needed for the project.

D. Driveway Access and Circulation

The proposed site plan illustrated in **Attachment 3** is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Room 550, at 213-482-7024). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading and unloading should take place on site with no vehicles backing into the project via any of the project driveways.

E. Development Review Fees

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Johnathan Yu of my staff at (213) 972-4993.

Attachments

J:\Letters\2018\CEN16-44755_3440 Wilshire_MU.docx

c: Jordan Beroukhim, Council District No. 10
Bhuvan Bajaj, Hollywood-Wilshire District, DOT
Taimour Tanavoli, Case Management Office, DOT
Quyen Phan, Central District, BOE
Amanda Heinke, Fehr & Peers

ATTACHMENT 1
Summary of Volume to Capacity Ratios (V/C) and Level of Service (LOS)

TABLE 6
3440 WILSHIRE PROJECT
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	EXISTING		EXISTING + PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.719	C	0.722	C	0.003	No
	Wilshire Blvd	PM	0.661	B	0.664	B	0.003	No
2	Western Ave &	AM	0.660	B	0.661	B	0.001	No
	8th St	PM	0.619	B	0.621	B	0.002	No
3	Normandie Ave &	AM	0.627	B	0.628	B	0.001	No
	3rd St	PM	0.587	A	0.588	A	0.001	No
4	Normandie Ave &	AM	0.562	A	0.563	A	0.001	No
	6th St	PM	0.571	A	0.573	A	0.002	No
5	Normandie Ave &	AM	0.679	B	0.680	B	0.001	No
	Wilshire Blvd	PM	0.687	B	0.697	B	0.010	No
6	Irolo St &	AM	0.521	A	0.532	A	0.011	No
	7th St	PM	0.583	A	0.601	B	0.018	No
7	Irolo St &	AM	0.712	C	0.716	C	0.004	No
	8th St	PM	0.709	C	0.713	C	0.004	No
8	Normandie Ave &	AM	0.696	B	0.697	B	0.001	No
	Olympic Blvd	PM	0.715	C	0.717	C	0.002	No
9	Mariposa Ave &	AM	0.483	A	0.487	A	0.004	No
	6th St	PM	0.517	A	0.523	A	0.006	No
10	Mariposa Ave (West) &	AM	0.545	A	0.551	A	0.006	No
	Wilshire Blvd	PM	0.525	A	0.537	A	0.012	No
11	Mariposa Ave (East) &	AM	0.511	A	0.527	A	0.016	No
	Wilshire Blvd	PM	0.467	A	0.493	A	0.026	No
12	Mariposa Ave &	AM	0.403	A	0.416	A	0.013	No
	8th St	PM	0.450	A	0.483	A	0.033	No
13	Vermont Ave &	AM	0.833	D	0.839	D	0.006	No
	Wilshire Blvd	PM	0.757	C	0.759	C	0.002	No
14	Vermont Ave &	AM	0.649	B	0.650	B	0.001	No
	8th St	PM	0.651	B	0.658	B	0.007	No

TABLE 7
3440 WILSHIRE PROJECT
FUTURE YEAR (2026) PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	FUTURE (2026)		FUTURE (2026) + PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.972	E	0.975	E	0.003	No
	Wilshire Blvd	PM	0.940	E	0.943	E	0.003	No
2	Western Ave &	AM	0.920	E	0.921	E	0.001	No
	8th St	PM	1.009	F	1.012	F	0.003	No
3	Normandie Ave &	AM	0.828	D	0.828	D	0.000	No
	3rd St	PM	0.864	D	0.866	D	0.002	No
4	Normandie Ave &	AM	0.789	C	0.789	C	0.000	No
	6th St	PM	0.755	C	0.756	C	0.001	No
5	Normandie Ave &	AM	1.037	F	1.038	F	0.001	No
	Wilshire Blvd	PM	1.058	F	1.062	F	0.004	No
6	Irolo St &	AM	0.657	B	0.668	B	0.011	No
	7th St	PM	0.809	D	0.826	D	0.017	No
7	Irolo St &	AM	1.189	F	1.194	F	0.005	No
	8th St	PM	1.279	F	1.285	F	0.006	No
8	Normandie Ave &	AM	0.962	E	0.963	E	0.001	No
	Olympic Blvd	PM	1.046	F	1.049	F	0.003	No
9	Mariposa Ave &	AM	0.569	A	0.575	A	0.006	No
	6th St	PM	0.619	B	0.625	B	0.006	No
10	Mariposa Ave (West) &	AM	0.690	B	0.696	B	0.006	No
	Wilshire Blvd	PM	0.701	C	0.713	C	0.012	No
11	Mariposa Ave (East) &	AM	0.657	B	0.673	B	0.016	No
	Wilshire Blvd	PM	0.635	B	0.661	B	0.026	No
12	Mariposa Ave &	AM	0.574	A	0.587	A	0.013	No
	8th St	PM	0.661	B	0.698	B	0.037	No
13	Vermont Ave &	AM	1.159	F	1.165	F	0.006	No
	Wilshire Blvd	PM	1.161	F	1.168	F	0.007	No
14	Vermont Ave &	AM	0.985	E	0.990	E	0.005	No
	8th St	PM	1.046	F	1.048	F	0.002	No

ATTACHMENT 2
Project Trip Generation Estimates

TABLE 4
3440 WILSHIRE PROJECT
TRIP GENERATION - ITE 10TH EDITION

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
				AM Peak Hour			PM Peak Hour				AM Peak Hour Trips			PM Peak Hour Trips		
			Daily	Rate	In%	Out%	Rate	In%	Out%	Daily	In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Retail	820	18.454 ksf	37.75	0.94	62%	38%	3.81	48%	52%	697	11	6	17	34	36	70
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(105)*	*(2)*	*(1)*	*(3)*	*(5)*	*(5)*	*(10)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(148)*	*(2)*	*(1)*	*(3)*	*(7)*	*(8)*	*(15)*
Total Driveway Trips										444	7	4	11	22	23	45
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(222)*	*(3)*	*(2)*	*(5)*	*(11)*	*(11)*	*(22)*
Net External Vehicle Trips										222	4	2	6	11	12	23
Multifamily Houseing (High-Rise) [e]	222	641 DU	4.45	0.23	12%	88%	0.3	70%	30%	2,852	18	129	147	134	58	192
Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(428)*	*(3)*	*(19)*	*(22)*	*(20)*	*(9)*	*(29)*
Less: Transit Credit [f]			*25%*							*(606)*		*[f]*			*[f]*	
Net External Vehicle Trips										1,818	15	110	125	114	49	163
TOTAL DRIVEWAY TRIPS										2,262	22	114	136	136	72	208
NET INCREMENTAL EXTERNAL TRIPS										2,040	19	112	131	125	61	186

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition*, 2017

[b] Internal capture represents the percentage of trips between land uses that occur within the site. Main Street model calibration of base ITE rates reflecting project & site specific characteristics.

[c] The transit credit is based on LADOT's *Traffic Study Policies and Procedures*, December 2016. The guidelines state that up to 25% transit credit may be taken for projects adjacent to a transit station or Rapid Bus stop.

[d] The pass-by credit is based on Attachment I of LADOT's *Traffic Study Policies and Procedures*, December 2016.

[e] Local high-rise residential data collected for LADOT was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

[f] The local high-rise residential data for the peak hours was collected in locations with access to transit; therefore, a transit credit was not applied during the peak hours. As local data was not available for daily, the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

ATTACHMENT 3
Project Site plan

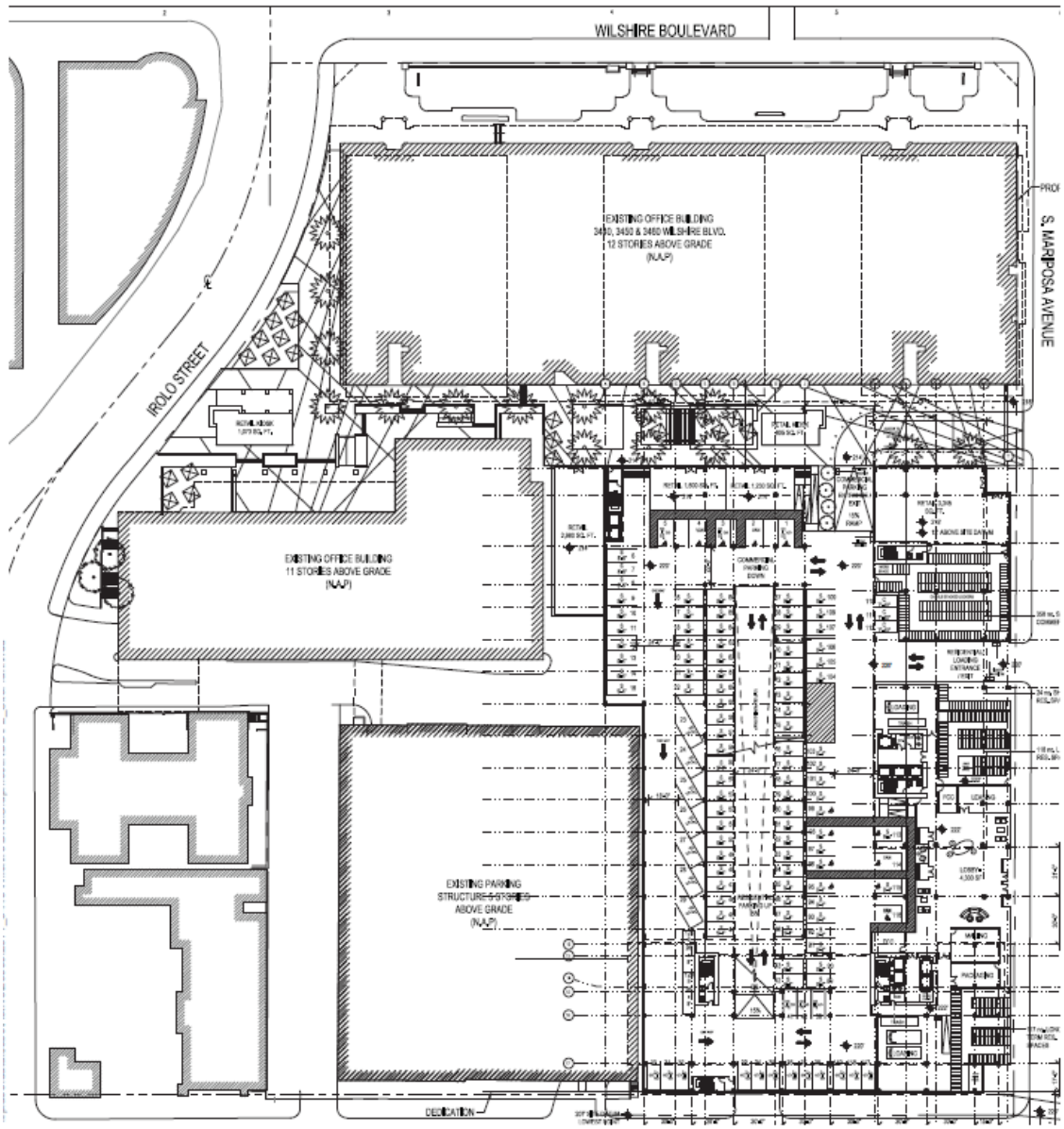


Figure 2A
Site Plan - Level 1

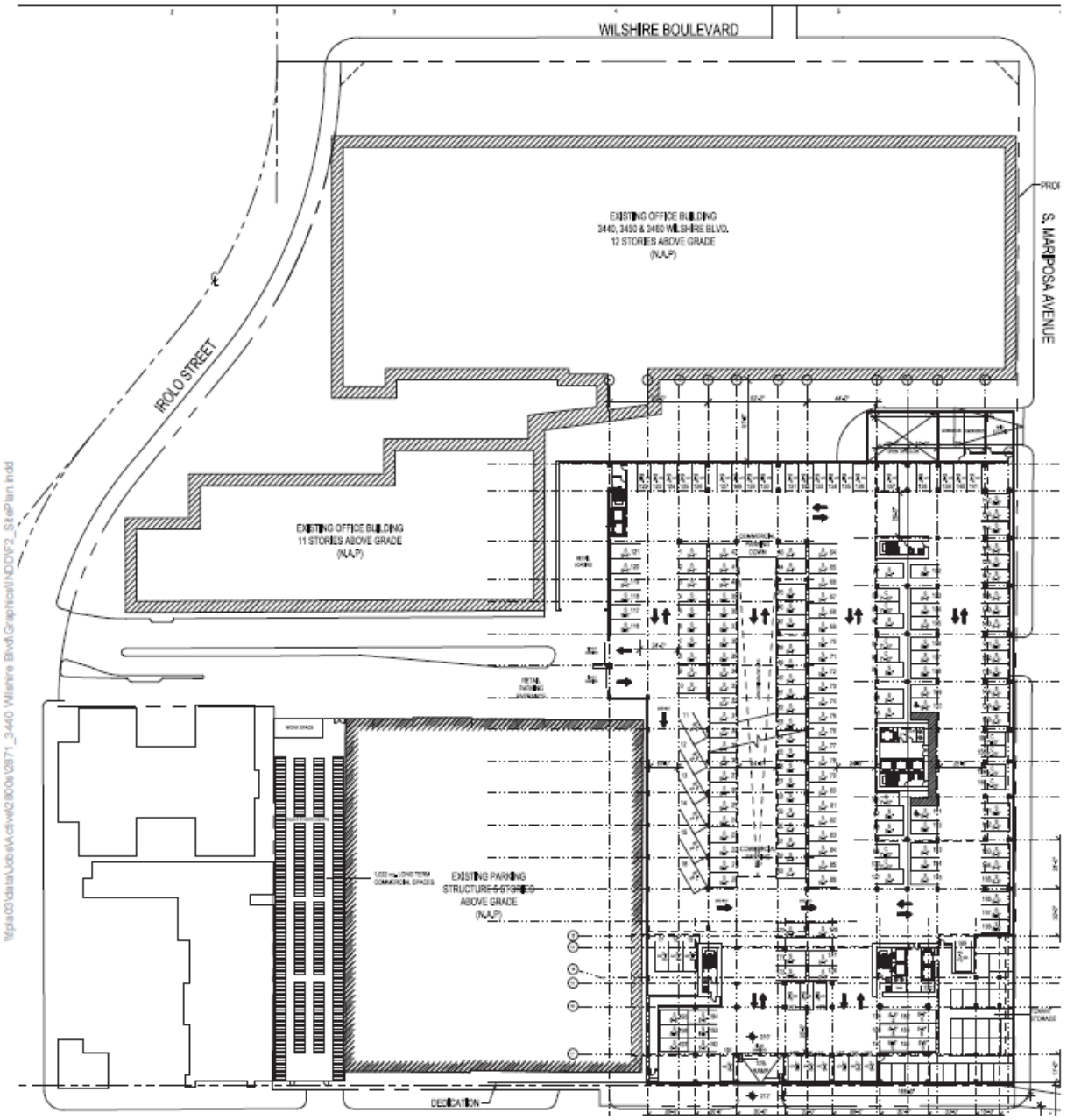


Figure 2B
Site Plan - Level B1

FEHR PEERS

DRAFT

TECHNICAL ADDENDUM TO
3440 WILSHIRE PROJECT TRANSPORTATION IMPACT ANALYSIS

Date: August 27, 2019

To: Wes Pringle, Los Angeles Department of Transportation

From: Tom Gaul and Ryan Liu, Fehr & Peers

Subject: ***Traffic Analysis of Revised 3440 Wilshire Project***

Ref: LA16-2871

This document is a technical addendum to the original transportation impact analysis conducted by Fehr & Peers for the 3440 Wilshire Project[1] and included in the Mitigated Negative Declaration (MND) for the Project. This addendum summarizes an update to the transportation impact analysis as a result of changes made to the proposed Project.

PROJECT DESCRIPTION

The original Project involved the construction of 641 multifamily high-rise residential units and 18,454 square feet of retail space. The original Project would demolish an existing parking structure which serves an existing 760,456 square feet of office space that is to remain. The site currently has five driveways that provide access to the existing uses on the site. Two full access driveways are located on Mariposa Avenue. Two full access driveways are located on 7th Street and one full access driveway is located on Irolo Street. With the original Project, the southern driveway on Mariposa Avenue would be closed, leaving the site with four driveways to service the property. The residents would primarily use the Mariposa Avenue driveway and eastern 7th Street driveway, but all other land uses on the site would have access to use each of the driveways, similar to the existing site access. The loading areas for the original project uses would be located in the parking structure on Level 1 and will be accessible from the Mariposa Avenue driveway.

The revised Project description provides 640 multifamily high-rise residential units, 5,538 square feet of retail space, 4,600 square feet of high-turnover (sit-down) restaurant space, and 2,000 square feet of fast casual restaurant space. The revised Project's access and driveway plan will remain the same as that of the original Project.

Figure 1 shows the revised site plan with the aforementioned changes to project components.

[1] Fehr & Peers, *3440 Wilshire Boulevard Project Transportation Analysis*, September 2018.

METHODOLOGY AND TRIP GENERATION

Analysis Methodology

This study evaluates the potential for peak-hour project-generated traffic impacts at the same 15 study intersections and two street segments in the vicinity of the project site (shown in Figure 2) that were evaluated in the 2018 Transportation Impact Analysis with the original Project. Peak hour traffic impacts were evaluated during typical weekday morning and afternoon peak hours. Four traffic scenarios were developed in order to conduct the plus project impact analyses:

1. Existing Conditions are the traffic conditions presented in the 2018 Transportation Impact Analysis report.

2. Existing plus revised Project conditions are the traffic conditions expected with the addition of the revised proposed project layered on top of the Existing baseline traffic volumes. The incremental increase in traffic compared to existing conditions provides the basis for the identification of potential impacts of the proposed project.

3. Future (Year 2026) Base Conditions reflect background traffic growth and related projects project for Year 2026, which are the same traffic conditions presented in the 2018 Transportation Impact Analysis report.

4. Future (Year 2026) plus Project conditions are the traffic conditions expected with the addition of the proposed revised project layered on top of the cumulative baseline traffic volumes in Year 2026. The incremental increase in traffic compared to cumulative base conditions provides the basis for the identification of potential impacts of the proposed project.

Level of Service Methodology

For a detailed explanation of level of service methodology, refer to page 13 of the 2018 Transportation Impact Analysis. Fourteen of the 15 study intersections are signalized. According to LADOT's *Traffic Study Policies and Procedures*, this study is required to use the Critical Movement Analysis (CMA) method of intersection capacity calculation to analyze signalized intersections.

The remaining unsignalized intersections was not evaluated for significant impacts. Consistent with current LADOT guidelines, a signal warrant analysis was conducted at this intersection to determine if a traffic signal is warranted at this location.

Existing Conditions

Table 1 shows the existing conditions for the 14 signalized intersections developed in the 2018 Transportation Impact Analysis. The traffic volumes for Existing Conditions are provided in Attachment A.

Revised Project Trip Generation

The revised Project description has resulted in a change to the Project trip generation compared to what was developed for the project in the 2018 Transportation Impact Analysis. The revised Project involves a decrease in retail use from 18,454 sf to 5,538 sf; decrease in number of residential units from 641 to 640 dwelling units; addition of high turnover (sit-down) restaurant use of 4,600 sf; and the addition of 2,000 sf of fast casual restaurant space. Table 2 provides a summary of the original Project trip generation estimates and Table 3 provides a summary of the revised Project trip generation estimates. The Project was estimated to generate approximately 2,040 net daily vehicle trips external to the Project site, including 131 AM peak hour trips and 186 PM peak hour trips. With the revised Project description, the Project is estimated to generate approximately 2,348 net daily vehicle trips external to the Project site, including 153 AM peak hour trips and 202 PM peak hour trips. This constitutes an increase of about 308 daily, 22 AM peak hour, and 16 PM peak hour trips from the trip generation estimate for the original Project.

The revised Project-only traffic was added to existing volumes to calculate Existing plus Project traffic volumes. Existing plus Project traffic volumes were used to calculate intersection volume-to-capacity ratios and level of service. The results of the analysis of Existing plus Project weekday morning and afternoon peak hour conditions at the 14 signalized study intersections for the revised Project description are summarized in Table 4. Detailed LOS calculations are provided in Attachment B.

The revised Project-only traffic was also added to Future (Year 2026) to calculate Future (Year 2026) plus Project traffic volumes. These traffic volumes are provided in Attachment A. These volumes were used to calculate intersection volume-to-capacity ratios and level of service. The results of the analysis of Future (Year 2026) weekday morning and afternoon peak hour conditions at the 14 signalized study intersections are summarized in Table 5. Detailed LOS calculations are provided in Attachment B.

INTERSECTION LEVEL OF SERVICE AND IMPACT ANALYSIS

Criteria for Determination of Significant Traffic Impacts at Intersections

The criteria for determination of significant traffic impacts are described below. Significance criteria established by City of Los Angeles were used to assess the potential for significant Project impacts at the intersections in each city. The City of Los Angeles has recently modified its metrics and significance criteria for the measurement of project impacts on the transportation system. The criteria used in this analysis are the criteria used by the City at the time the original Transportation Impact Assessment and the Mitigated Negative Declaration were prepared.

The City of Los Angeles has established threshold criteria to determine significant traffic impact of a proposed project in its jurisdiction. Under the LADOT guidelines, an intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not

considered significantly impacted regardless of the increase in V/C ratio. The following summarizes the impact criteria:

LOS	Final V/C Ratio	Project-Related Increase in V/C
C	> 0.700 - 0.800	equal to or greater than 0.040
D	> 0.800 - 0.900	equal to or greater than 0.020
E or F	> 0.900	equal to or greater than 0.010

Existing plus Project Intersection Traffic Impact Analysis

The Existing plus Project peak hour level of service results were compared to Existing level of service results to identify significant traffic impacts at study locations generated by the revised Project.

Under the original Existing plus Project scenario, in the 2018 Transportation Impact Analysis, none of the 14 signalized study intersections were determined to be significantly impacted. As shown in Table 4, under the revised Existing plus Project scenario analyzed in this addendum, none of the study intersections were determined to be significantly impacted by the proposed Project during the AM and PM peak hours. No new significantly impacted intersections were identified.

Future (Year 2026) plus Project Intersection Traffic Impact Analysis

The Future (Year 2026) plus Project peak hour level of service results were compared to Future (Year 2026) Base level of service results to identify significant traffic impacts at study locations generated by the revised Project.

In the 2018 Traffic Study, none of the 14 signalized study intersections were determined to be significantly impacted under the Future (Year 2026) scenario. As shown in Table 5, with the revised Project description, no new intersections were identified to be impacted by the proposed Project during the AM and PM peak hours.

Because both the 2018 Transportation Impact Analysis and the revised Project Impact Analysis did not identify any significant impacts at signalized study intersections, mitigation measures are not necessary.

UNSIGNALIZED INTERSECTION SIGNAL WARRANT ANALYSIS

The signal warrant analysis was revised for the one unsignalized intersection analyzed in the original traffic study:

A. Mariposa Avenue & 7th Street

Revised traffic volumes for Existing plus Project and Future (Year 2026) plus Project scenarios were used to prepare signal warrant analysis at the unsignalized intersection.

As shown in Table 6, the intersection of Mariposa Avenue & 7th Street meets the signal warrant thresholds under the PM peak hour in the Existing plus Project scenario and both peak hours in the Future plus Project scenario. These results are unchanged from the original 2018 Transportation Impact Analysis.

Analysis sheets are provided in Attachment C.

NEIGHBORHOOD STREET SEGMENT IMPACT ANALYSIS

Under the City of Los Angeles guidelines, a project impact on a local residential street would be considered significant if the projected increase in average daily traffic (ADT) volumes is as follows:

Projected ADT with Project (Final ADT)	Project-Related Increase in ADT
0 to 999	120 or more
1,000 to 1,999	12% or more of final ADT
2,000 to 2,999	10% or more of final ADT
3,000 or more	8% or more of final ADT

Daily traffic volumes for the Existing and Future (Year 2026) with the revised Project are summarized in Tables 7 and 8, respectively. As shown, the revised Project would not result in a significant impact at any of the study neighborhood street segments.

REGIONAL TRANSPORTATION SYSTEM IMPACT ANALYSIS

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when a certain threshold is exceeded. If the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02), causing LOS F (V/C > 1.00), a significant impact would occur. If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02).

Arterial Monitoring Stations

The CMP arterial monitoring station closest to the Project Site is at Wilshire Boulevard & Western Avenue located west of the proposed Project site. The revised Project is expected to add approximately 15 trips in the AM peak hour and 20 trips in the PM peak hour at Wilshire Boulevard & Western Avenue.

The revised Project is not estimated the exceed the arterial analysis criteria of 50 vehicle trips at the above-mentioned location; therefore, no further CMP arterial analysis is required.

Freeways

Based on the revised project trip generation estimates shown in Table 3 and using the same trip distribution estimates presented in 2018 Transportation Impact Analysis, the revised Project is projected to result in an increase of 11 trips in the morning and 15 trips in the evening peak hour

on the I-10 freeway at Budlong Avenue. The revised Project is also projected to result in an increase of 11 trips in the morning peak hour and 15 trips in the evening peak hour on the US-101 freeway at Normandie Avenue. Since fewer than 150 trips would be added during the AM or PM peak hours in either direction at any of the freeway segments in the vicinity of the study area, no further analysis of the freeway segments is required for CMP purposes.

Regional Transit Impact Analysis

The revised project would have an estimated increase in vehicle trip generation of approximately 166 net vehicle trips during the AM peak hour and 222 during the PM peak hour before the transit credit. Applying the AVR factor of 1.4 to the estimated vehicle trips would result in an estimated increase of approximately 232 and 311 person trips during the AM and PM peak hours, respectively. The CMP provides that, of the total net person trips of a project, 15% of total person trips generated would be assigned as transit riders for projects, due to proximity to the Metro Purple Line Wilshire/Normandie. Following this approach, the revised Project would generate an estimated increase of 35 transit trips during the AM peak hour and 47 transit trips during the PM peak hour, and no significant impacts to the transit system would be anticipated. Given the frequency and density of existing and proposed transit service in close proximity to the Project Site, the incremental transit riders resulting from the revised Project are not anticipated to result in a significant impact on the transit lines serving the area.

SITE ACCESS

The site access driveway analysis presented in the 2018 Transportation Impact Analysis was revised to reflect the changes to the Project. Tables 9 shows revised LOS and delay for the following two driveways analyzed in the 2018 study that will be used by residents:

- 7th Street Eastern Driveway
- Mariposa Avenue Driveway

Both driveways are projected to operate at acceptable LOS (LOS D or better) under Existing plus Project and Future plus Project conditions, same as the 2018 Transportation Impact Analysis. Attachment B shows detailed LOS and delay analysis for both driveways.

SUMMARY

The purpose of this addendum is to present the results of a traffic analysis conducted for the revised 3440 Wilshire Project featuring 640 multifamily high-rise housing units, 5,538 sf of retail space, 4,600 sf of high turnover (sit-down) restaurant space, and 2,000 sf of fast casual restaurant space, and to compare these results with the traffic analysis for the original Project to determine whether the revised Project would generate more or fewer impacts than the original Project. The following presents a summary of the findings of this memorandum:

- The revised Project would generate an estimated net increase of 2,348 daily trips, including 153 trips during the AM peak hour and 202 trips during the PM peak hour.

- The LOS analysis for the Existing plus Project scenario determined that the revised Project would not result in any significant impacts at any signalized intersections, same as when compared to the original Project analyzed in the 2018 Transportation Impact Analysis.
- Under the Future (Year 2026) plus Project scenario, it is determined that the revised Project would not result in any significant impacts at any signalized intersections, same as when compared to the original Project analyzed in the 2018 Transportation Impact Analysis.
- It was determined that the revised Project would not trigger a significant traffic impact at any of the analyzed neighborhood street segments.
- A traffic signal is warranted during either or both the AM and PM peak hours during the Existing plus Project and Future plus Project scenarios for the unsignalized intersection of Mariposa Avenue & 7th Street. This is the same result as for the original Project analyzed in the 2018 Transportation Impact Analysis. Further signal warrants, engineering study, and coordination with LADOT would be required before installing a proposed traffic signal at this location.
- Significant CMP arterial, CMP freeway or transit impacts would not be created by the revised Project; therefore, no mitigation measures would be required.
- It was determined that the two driveways to be used primarily by residents as studied in the 2018 Transportation Impact Analysis would operate at an acceptable LOS D or better under Existing plus Project and Future plus Project scenario.

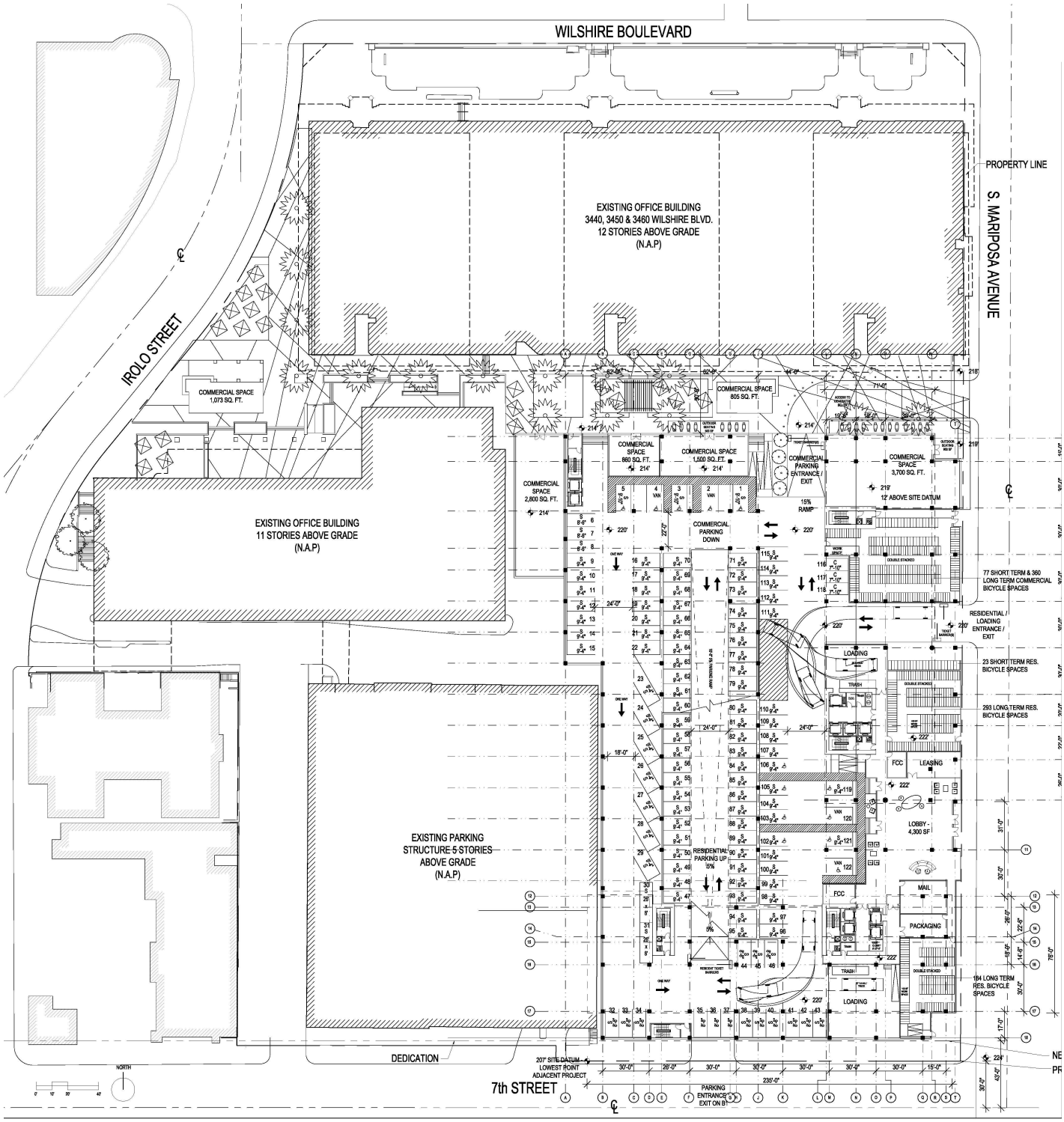


Figure 1

Revised Site Plan

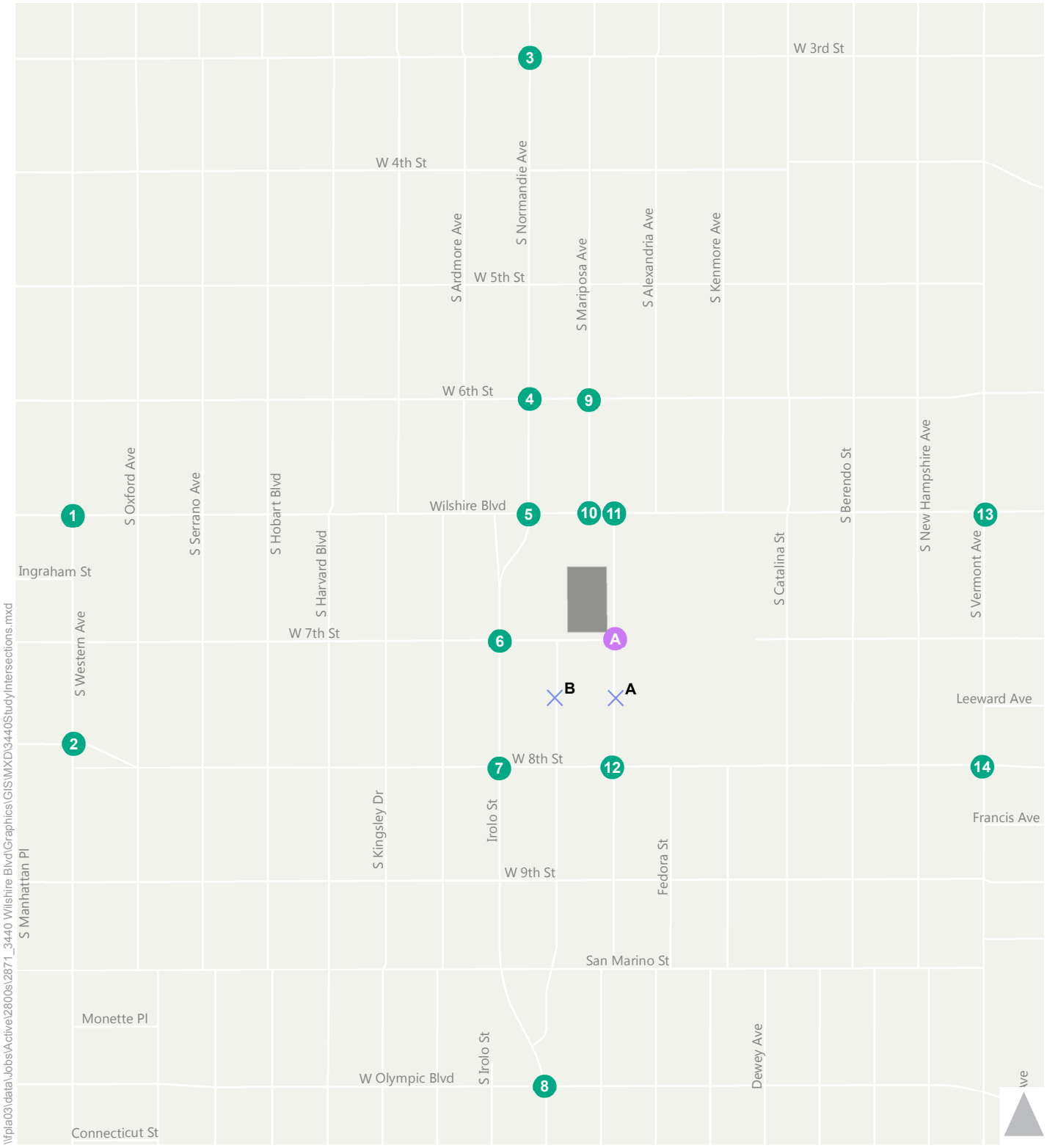


Figure 2

3440 Wilshire Study Intersections

TABLE 1
3440 WILSHIRE PROJECT
EXISTING CONDITIONS INTERSECTION LEVELS OF SERVICE

NO.	INTERSECTION	PEAK HOUR	EXISTING (2018)	
			V/C	LOS
1	Western Ave &	AM	0.719	C
	Wilshire Blvd	PM	0.661	B
2	Western Ave &	AM	0.660	B
	8th St	PM	0.619	B
3	Normandie Ave &	AM	0.627	B
	3rd St	PM	0.587	A
4	Normandie Ave &	AM	0.562	A
	6th St	PM	0.571	A
5	Normandie Ave &	AM	0.679	B
	Wilshire Blvd	PM	0.687	B
6	Irolo St &	AM	0.521	A
	7th St	PM	0.583	A
7	Irolo St &	AM	0.712	C
	8th St	PM	0.709	C
8	Normandie Ave &	AM	0.696	B
	Olympic Blvd	PM	0.715	C
9	Mariposa Ave &	AM	0.483	A
	6th St	PM	0.517	A
10	Mariposa Ave (West) &	AM	0.545	A
	Wilshire Blvd	PM	0.525	A
11	Mariposa Ave (East) &	AM	0.511	A
	Wilshire Blvd	PM	0.467	A
12	Mariposa Ave &	AM	0.403	A
	8th St	PM	0.450	A
13	Vermont Ave &	AM	0.833	D
	Wilshire Blvd	PM	0.757	C
14	Vermont Ave &	AM	0.649	B
	8th St	PM	0.651	B

TABLE 2
3440 WILSHIRE - ORIGINAL PROJECT
TRIP GENERATION - ITE 10TH EDITION

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
				AM Peak Hour			PM Peak Hour				AM Peak Hour Trips			PM Peak Hour Trips		
			Daily	Rate	In%	Out%	Rate	In%	Out%	Daily	In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Retail	820	18.454 ksf	37.75	0.94	62%	38%	3.81	48%	52%	697	11	6	17	34	36	70
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(105)*	*(2)*	*(1)*	*(3)*	*(5)*	*(5)*	*(10)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(148)*	*(2)*	*(1)*	*(3)*	*(7)*	*(8)*	*(15)*
Total Driveway Trips										444	7	4	11	22	23	45
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(222)*	*(3)*	*(2)*	*(5)*	*(11)*	*(11)*	*(22)*
Net External Vehicle Trips										222	4	2	6	11	12	23
Multifamily Houseing (High-Rise) [e]	222	641 DU	4.45	0.23	12%	88%	0.3	70%	30%	2,852	18	129	147	134	58	192
Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(428)*	*(3)*	*(19)*	*(22)*	*(20)*	*(9)*	*(29)*
Less: Transit Credit [f]			*25%*							*(606)*		*[f]*			*[f]*	
Net External Vehicle Trips										1,818	15	110	125	114	49	163
TOTAL DRIVEWAY TRIPS										2,262	22	114	136	136	72	208
NET INCREMENTAL EXTERNAL TRIPS										2,040	19	112	131	125	61	186

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition*, 2017

[b] Internal capture represents the percentage of trips between land uses that occur within the site. Main Street model calibration of base ITE rates reflecting project & site specific characteristics.

[c] The transit credit is based on LADOT's *Traffic Study Policies and Procedures*, December 2016. The guidelines state that up to 25% transit credit may be taken for projects adjacent to a transit station or Rapid Bus stop.

[d] The pass-by credit is based on Attachment I of LADOT's *Traffic Study Policies and Procedures*, December 2016.

[e] Local high-rise residential data collected for LADOT was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

[f] The local high-rise residential data for the peak hours was collected in locations with access to transit; therefore, a transit credit was not applied during the peak hours. As local data was not available for daily, the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

TABLE 3
3440 WILSHIRE - REVISED PROJECT
TRIP GENERATION - ITE 10TH EDITION

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
				AM Peak Hour			PM Peak Hour				AM Peak Hour Trips			PM Peak Hour Trips		
			Daily	Rate	In%	Out%	Rate	In%	Out%	Daily	In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Retail	820	5.538 ksf	37.75	0.94	62%	38%	3.81	48%	52%	209	3	2	5	10	11	21
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(31)*	*0*	*0*	*0*	*(2)*	*(2)*	*(4)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(45)*	*(1)*	*(1)*	*(2)*	*(2)*	*(2)*	*(4)*
Total Driveway Trips										133	2	1	3	6	7	13
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(66)*	*(1)*	*0*	*(1)*	*(3)*	*(3)*	*(6)*
Net External Vehicle Trips										67	1	1	2	3	4	7
High-Turnover (Sit Down) Restaurant	932	4.600 ksf	112.18	9.94	55%	45%	9.77	62%	38%	516	25	21	46	28	17	45
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(77)*	*(4)*	*(3)*	*(7)*	*(4)*	*(3)*	*(7)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(110)*	*(5)*	*(5)*	*(10)*	*(6)*	*(4)*	*(10)*
Total Driveway Trips										329	16	13	29	18	10	28
Less: Pass-by [d]			*20%*	*20%*			*20%*			*(65)*	*(3)*	*(2)*	*(5)*	*(3)*	*(2)*	*(5)*
Net External Vehicle Trips										264	13	11	24	15	8	23
Fast Casual Restaurant	930	2.000 ksf	315.17	2.07	67%	33%	14.13	55%	45%	630	3	1	4	15	13	28
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(95)*	*0*	*0*	*0*	*(2)*	*(2)*	*(4)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(134)*	*(1)*	*0*	*(1)*	*(3)*	*(3)*	*(6)*
Total Driveway Trips										401	2	1	3	10	8	18
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(200)*	*(1)*	*0*	*(1)*	*(5)*	*(4)*	*(9)*
Net External Vehicle Trips										201	1	1	2	5	4	9
Multifamily Housing (High-Rise) [e]	222	640 DU	4.45	0.23	12%	88%	0.3	70%	30%	2,848	18	129	147	134	58	192
Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(427)*	*(3)*	*(19)*	*(22)*	*(20)*	*(9)*	*(29)*
Less: Transit Credit [f]			*25%*							*(605)*		*[f]*			*[f]*	
Net External Vehicle Trips										1,816	15	110	125	114	49	163
TOTAL DRIVEWAY TRIPS										2,679	35	125	160	148	74	222
NET INCREMENTAL EXTERNAL TRIPS										2,348	30	123	153	137	65	202

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition* , 2017

[b] Internal capture represents the percentage of trips between land uses that occur within the site. Main Street model calibration of base ITE rates reflecting project & site specific characteristics.

[c] The transit credit is based on LADOT's *Traffic Study Policies and Procedures* , December 2016. The guidelines state that up to 25% transit credit may be taken for projects adjacent to a transit station or Rapid Bus stop.

[d] The pass-by credit is based on Attachment I of LADOT's *Traffic Study Policies and Procedures* , December 2016.

[e] Local high-rise residential data collected for LADOT was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

[f] The local high-rise residential data for the peak hours was collected in locations with access to transit; therefore, a transit credit was not applied during the peak hours. As local data was not available for daily, the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

TABLE 4
3440 WILSHIRE - REVISED PROJECT
EXISTING PLUS REVISED PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	EXISTING		EXISTING + REVISED PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.719	C	0.723	C	0.004	No
	Wilshire Blvd	PM	0.661	B	0.665	B	0.004	No
2	Western Ave &	AM	0.660	B	0.661	B	0.001	No
	8th St	PM	0.619	B	0.621	B	0.002	No
3	Normandie Ave &	AM	0.627	B	0.628	B	0.001	No
	3rd St	PM	0.587	A	0.588	A	0.001	No
4	Normandie Ave &	AM	0.562	A	0.563	A	0.001	No
	6th St	PM	0.571	A	0.573	A	0.002	No
5	Normandie Ave &	AM	0.679	B	0.681	B	0.002	No
	Wilshire Blvd	PM	0.687	B	0.699	B	0.012	No
6	Irolo St &	AM	0.521	A	0.532	A	0.011	No
	7th St	PM	0.583	A	0.601	B	0.018	No
7	Irolo St &	AM	0.712	C	0.716	C	0.004	No
	8th St	PM	0.709	C	0.714	C	0.005	No
8	Normandie Ave &	AM	0.696	B	0.697	B	0.001	No
	Olympic Blvd	PM	0.715	C	0.717	C	0.002	No
9	Mariposa Ave &	AM	0.483	A	0.489	A	0.006	No
	6th St	PM	0.517	A	0.523	A	0.006	No
10	Mariposa Ave (West) &	AM	0.545	A	0.553	A	0.008	No
	Wilshire Blvd	PM	0.525	A	0.538	A	0.013	No
11	Mariposa Ave (East) &	AM	0.511	A	0.532	A	0.021	No
	Wilshire Blvd	PM	0.467	A	0.499	A	0.032	No
12	Mariposa Ave &	AM	0.403	A	0.417	A	0.014	No
	8th St	PM	0.450	A	0.483	A	0.033	No
13	Vermont Ave &	AM	0.833	D	0.840	D	0.007	No
	Wilshire Blvd	PM	0.757	C	0.760	C	0.003	No
14	Vermont Ave &	AM	0.649	B	0.651	B	0.002	No
	8th St	PM	0.651	B	0.657	B	0.006	No

TABLE 5
3440 WILSHIRE - REVISED PROJECT
FUTURE YEAR (2026) PLUS REVISED PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	FUTURE (2026)		FUTURE (2026) + REVISED PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.972	E	0.976	E	0.004	No
	Wilshire Blvd	PM	0.940	E	0.944	E	0.004	No
2	Western Ave &	AM	0.920	E	0.921	E	0.001	No
	8th St	PM	1.009	F	1.013	F	0.004	No
3	Normandie Ave &	AM	0.828	D	0.828	D	0.000	No
	3rd St	PM	0.864	D	0.866	D	0.002	No
4	Normandie Ave &	AM	0.789	C	0.789	C	0.000	No
	6th St	PM	0.755	C	0.756	C	0.001	No
5	Normandie Ave &	AM	1.037	F	1.040	F	0.003	No
	Wilshire Blvd	PM	1.058	F	1.063	F	0.005	No
6	Irolo St &	AM	0.657	B	0.668	B	0.011	No
	7th St	PM	0.809	D	0.827	D	0.018	No
7	Irolo St &	AM	1.189	F	1.196	F	0.007	No
	8th St	PM	1.279	F	1.285	F	0.006	No
8	Normandie Ave &	AM	0.962	E	0.965	E	0.003	No
	Olympic Blvd	PM	1.046	F	1.049	F	0.003	No
9	Mariposa Ave &	AM	0.569	A	0.575	A	0.006	No
	6th St	PM	0.619	B	0.626	B	0.007	No
10	Mariposa Ave (West) &	AM	0.690	B	0.698	B	0.008	No
	Wilshire Blvd	PM	0.701	C	0.714	C	0.013	No
11	Mariposa Ave (East) &	AM	0.657	B	0.678	B	0.021	No
	Wilshire Blvd	PM	0.635	B	0.667	B	0.032	No
12	Mariposa Ave &	AM	0.574	A	0.587	A	0.013	No
	8th St	PM	0.661	B	0.699	B	0.038	No
13	Vermont Ave &	AM	1.159	F	1.165	F	0.006	No
	Wilshire Blvd	PM	1.161	F	1.169	F	0.008	No
14	Vermont Ave &	AM	0.985	E	0.989	E	0.004	No
	8th St	PM	1.046	F	1.048	F	0.002	No

TABLE 6
3440 WILSHIRE - REVISED PROJECT
PEAK HOUR SIGNAL WARRANT ANALYSIS

No.	INTERSECTIONS	PEAK HOUR	EXISTING SIGNAL WARRANT MET	EXISTING PLUS REVISED PROJECT SIGNAL WARRANT MET	FUTURE BASE SIGNAL WARRANT MET	FUTURE PLUS REVISED PROJECT SIGNAL WARRANT MET
A	Mariposa Ave & 7th St	AM	No	No	No	Yes
		PM	No	Yes	Yes	Yes

TABLE 7
3440 WILSHIRE - REVISED PROJECT
NEIGHBORHOOD STREET IMPACT ANALYSIS - EXISTING PLUS REVISED PROJECT ANALYSIS

Street Segment	Weekday Two-Way Daily Volume	With Revised Project Impact Analysis				
	Existing Base	Commercial Project Only	Existing plus Revised Project	Project % Increase	Impact Criteria [a]	Significant Impact?
Mariposa Ave south of 7th Street	5,531	182	5,713	3.2%	8%	NO
Normandie Ave south of 7th Street	4,164	24	4,188	0.6%	8%	NO

Notes:

[a] Uses City of Los Angeles impact criteria for residential street segments.

[b] Negligible number of project trips are projected to use this segment.

TABLE 8
3440 WILSHIRE - REVISED PROJECT
NEIGHBORHOOD STREET IMPACT ANALYSIS - CUMULATIVE PLUS REVISED PROJECT ANALYSIS

Street Segment	Weekday Two-Way Daily Volume		With Revised Project Impact Analysis				
	Existing Base	Cumulative Base	Commercial Project Only	Cumulative plus Revisd Project	Project % Increase	Impact Criteria [a]	Significant Impact?
Mariposa Ave south of 7th Street	5,531	6,271	182	6,453	2.8%	8%	NO
Normandie Ave south of 7th Street	4,164	4,509	24	4,509	0.5%	8%	NO

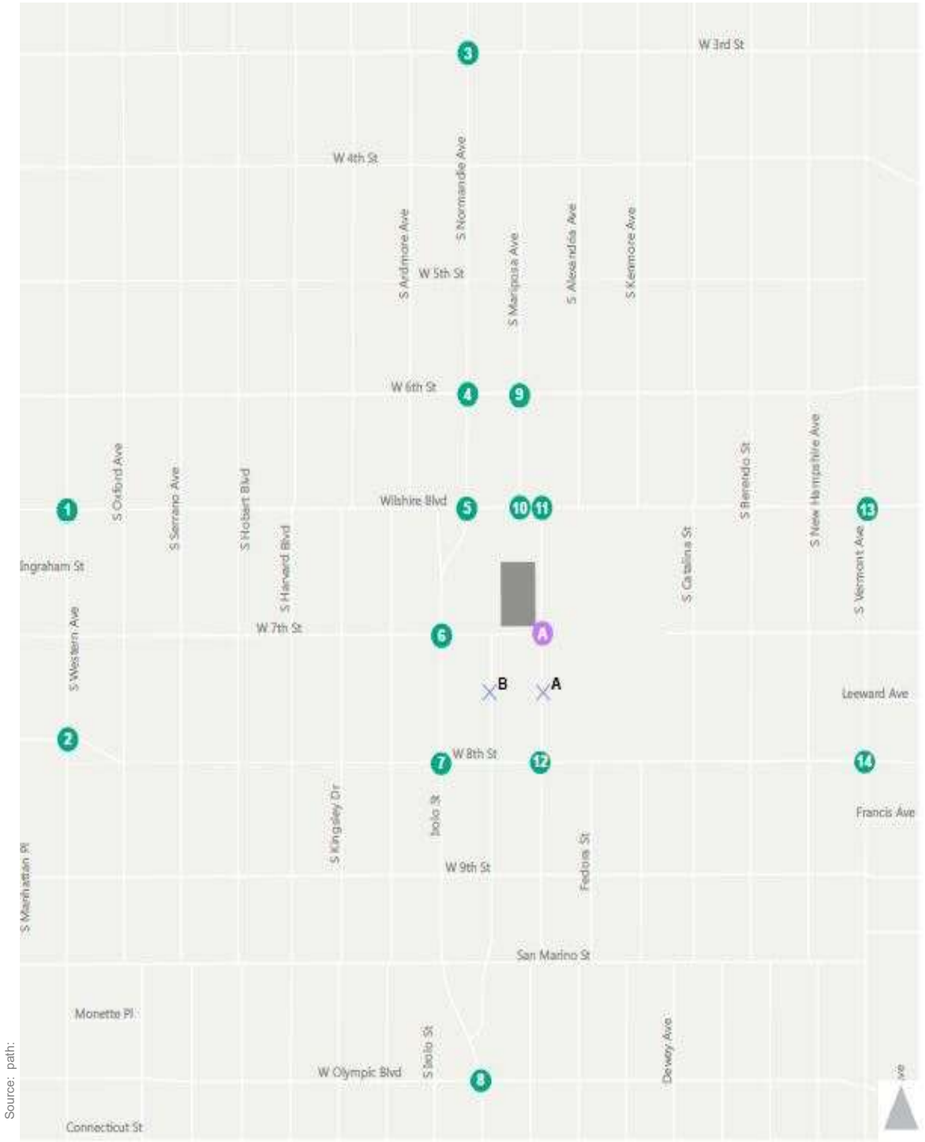
Notes:

[a] Uses City of Los Angeles impact criteria for residential street segments.

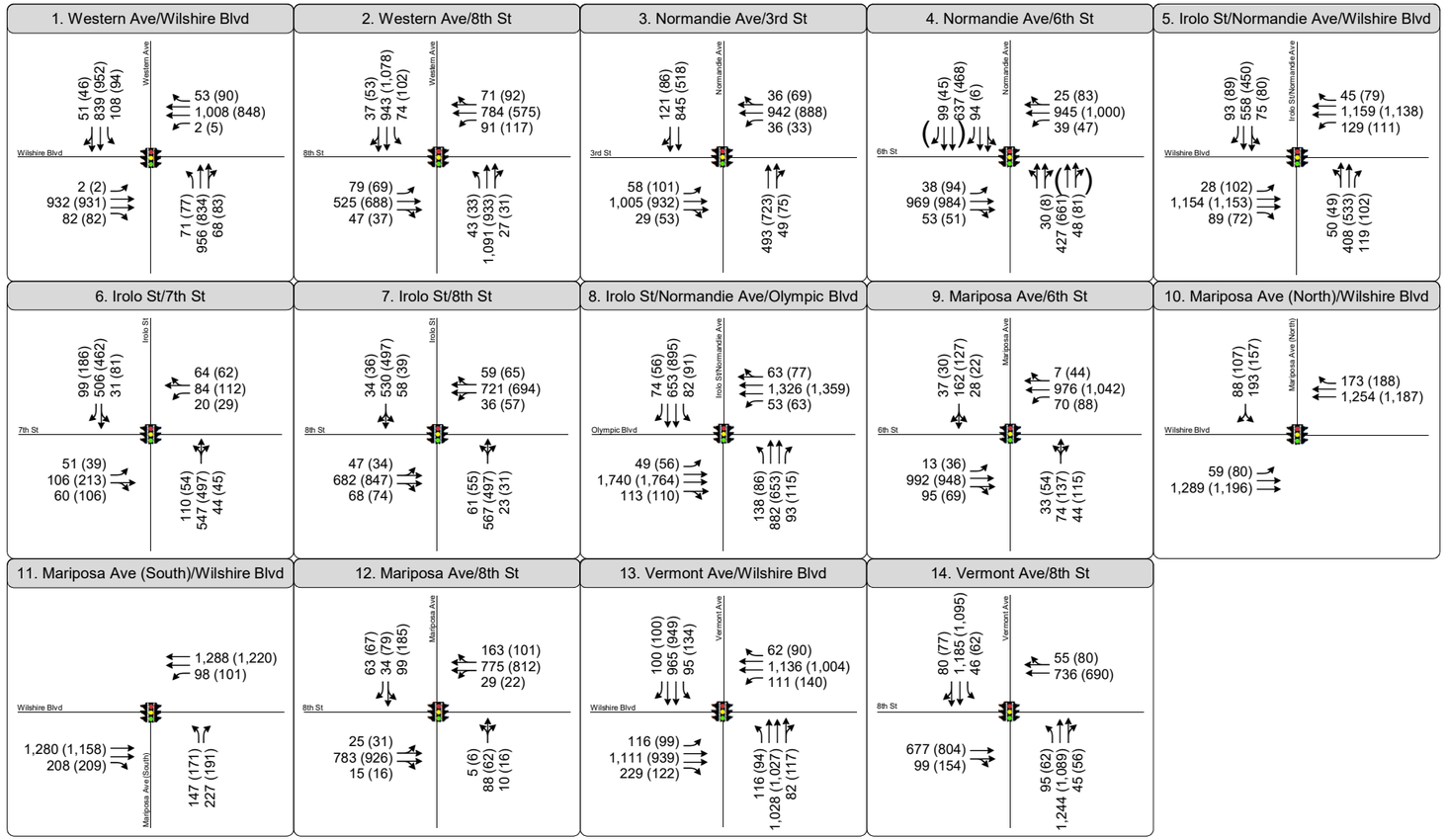
[b] Negligible number of project trips are projected to use this segment.

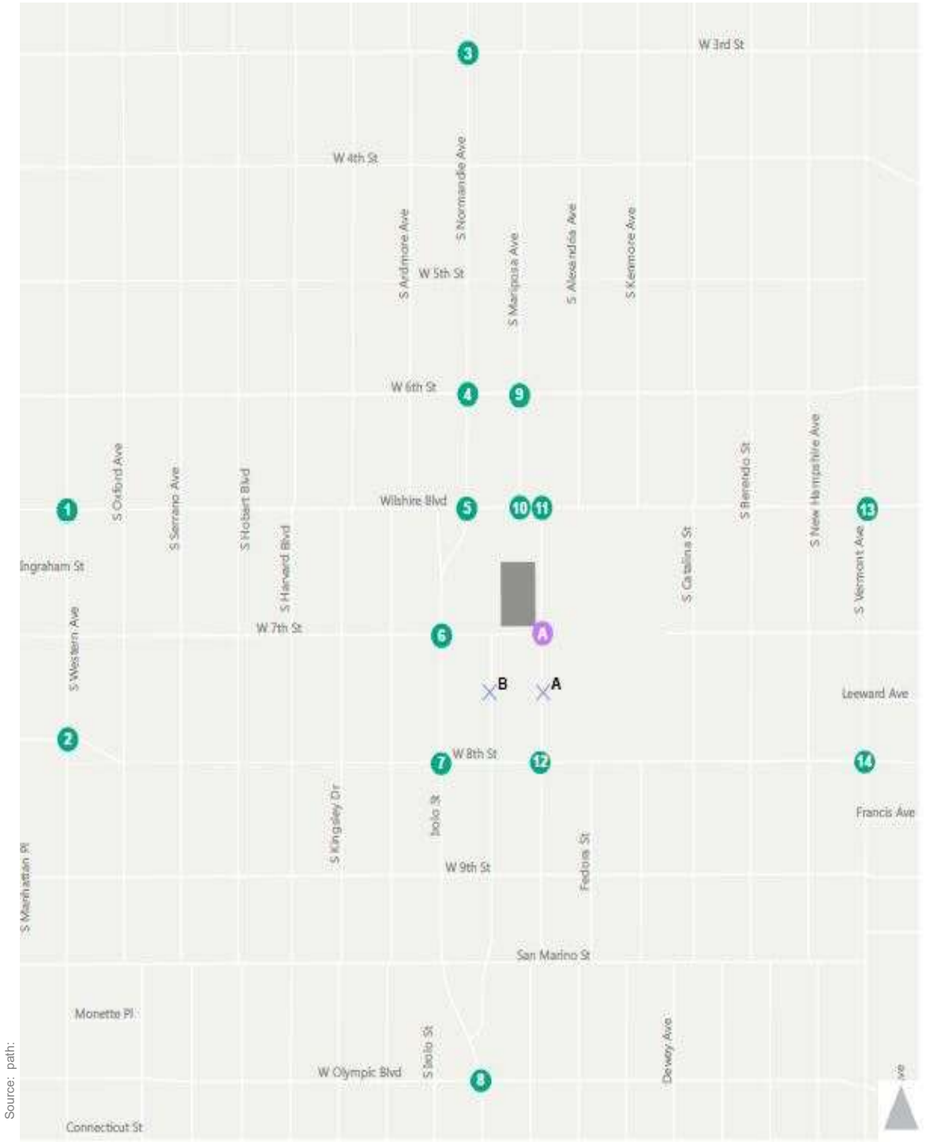
TABLE 9
3440 WILSHIRE - REVISED PROJECT
DRIVEWAY SERVICE AND IMPACT ANALYSIS

Driveway Location	Peak Hour	Existing plus Revised Project (2018)		Future plus Revised Project (2026)	
		Delay (seconds)	LOS	Delay (seconds)	LOS
7th Street Eastern Driveway	AM	14.1	B	14.9	C
	PM	18.5	C	20.4	C
Mariposa Avenue Driveway	AM	24.4	D	27.7	D
	PM	25.4	D	29.0	D


W 3rd St
W 4th St
S Normandie Ave
S Ardmore Ave
S Alexandria Ave
S Kenmore Ave
W 5th St
S Mariposa Ave
W 6th St
S Oxford Ave
S Serrano Ave
S Hobart Blvd
S Harvard Blvd
Wilshire Blvd
S Catalina St
S Berendo St
S New Hampshire Ave
S Vermont Ave
Ingraham St
S Western Ave
W 7th St
Leeward Ave
W 8th St
Francis Ave
S Kingsley Dr
Iroio St
W 9th St
Fedora St
S Manhattan Pl
San Marino St
Monette Pl
W Olympic Blvd
S Serlio St
Dewey Ave
Connecticut St
1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B

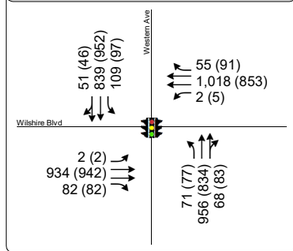
Source: path:


1. Western Ave/Wilshire Blvd
Western Ave
Wilshire Blvd
51 (46)
839 (952)
108 (94)
53 (90)
1,008 (848)
2 (5)
2 (2)
932 (931)
82 (82)
71 (77)
956 (834)
68 (83)
2. Western Ave/8th St
Western Ave
8th St
37 (53)
943 (1,078)
74 (102)
71 (92)
784 (575)
91 (117)
79 (69)
525 (688)
47 (37)
43 (33)
1,091 (933)
27 (31)
3. Normandie Ave/3rd St
Normandie Ave
3rd St
121 (86)
845 (518)
36 (69)
942 (888)
36 (33)
58 (101)
1,005 (932)
29 (53)
493 (723)
49 (75)
4. Normandie Ave/6th St
Normandie Ave
6th St
99 (45)
637 (468)
94 (6)
25 (83)
945 (1,000)
39 (47)
38 (94)
969 (984)
53 (51)
30 (8)
427 (661)
48 (81)
5. Irolo St/Normandie Ave/Wilshire Blvd
Irolo St/Normandie Ave
Wilshire Blvd
93 (89)
558 (450)
75 (80)
45 (79)
1,159 (1,138)
129 (111)
28 (102)
1,154 (1,153)
89 (72)
50 (49)
408 (533)
119 (102)
6. Irolo St/7th St
Irolo St
7th St
99 (186)
506 (462)
31 (81)
64 (62)
84 (112)
20 (29)
51 (39)
106 (213)
60 (106)
110 (54)
547 (497)
44 (45)
7. Irolo St/8th St
Irolo St
8th St
34 (36)
530 (497)
58 (39)
59 (65)
721 (694)
36 (57)
47 (34)
682 (847)
68 (74)
61 (55)
567 (497)
23 (31)
8. Irolo St/Normandie Ave/Olympic Blvd
Irolo St/Normandie Ave
Olympic Blvd
74 (56)
653 (895)
82 (91)
63 (77)
1,326 (1,359)
53 (63)
49 (56)
1,740 (1,764)
113 (110)
138 (86)
882 (653)
93 (115)
9. Mariposa Ave/6th St
Mariposa Ave
6th St
37 (30)
162 (127)
28 (22)
7 (44)
976 (1,042)
70 (88)
13 (36)
992 (948)
95 (69)
33 (54)
74 (137)
44 (115)
10. Mariposa Ave (North)/Wilshire Blvd
Mariposa Ave (North)
Wilshire Blvd
88 (107)
193 (157)
173 (188)
1,254 (1,187)
59 (80)
1,289 (1,196)
11. Mariposa Ave (South)/Wilshire Blvd
Mariposa Ave (South)
Wilshire Blvd
1,288 (1,220)
98 (101)
1,280 (1,158)
208 (209)
147 (171)
227 (191)
12. Mariposa Ave/8th St
Mariposa Ave
8th St
63 (67)
34 (79)
99 (185)
163 (101)
775 (812)
29 (22)
25 (31)
783 (926)
15 (16)
5 (6)
88 (62)
10 (16)
13. Vermont Ave/Wilshire Blvd
Vermont Ave
Wilshire Blvd
100 (100)
965 (949)
95 (134)
62 (90)
1,136 (1,004)
111 (140)
116 (99)
1,111 (939)
229 (122)
116 (94)
1,028 (1,027)
82 (117)
14. Vermont Ave/8th St
Vermont Ave
8th St
80 (77)
1,185 (1,095)
46 (62)
55 (80)
736 (690)
677 (804)
99 (154)
95 (62)
1,244 (1,089)
45 (56)

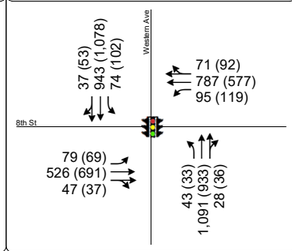


Source: path:

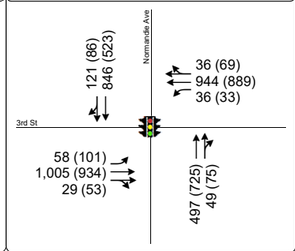
1. Western Ave/Wilshire Blvd



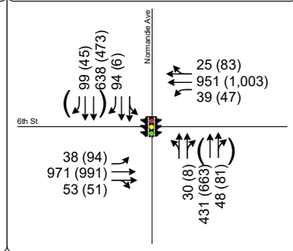
2. Western Ave/8th St



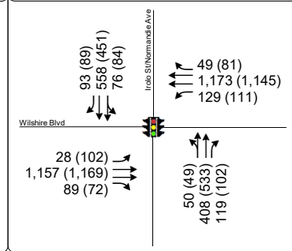
3. Normandie Ave/3rd St



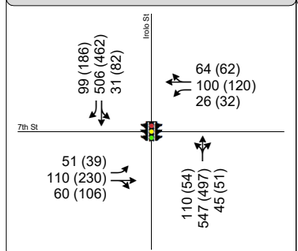
4. Normandie Ave/6th St



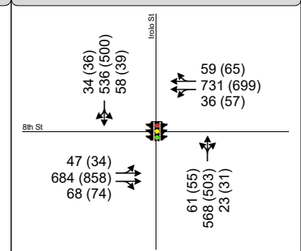
5. Irolo St/Normandie Ave/Wilshire Blvd



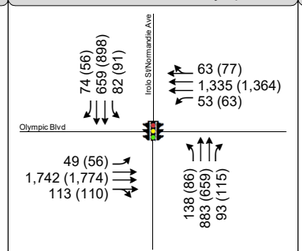
6. Irolo St/7th St



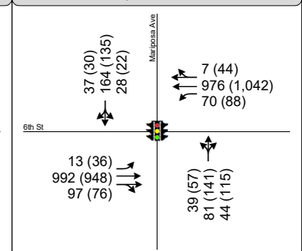
7. Irolo St/8th St



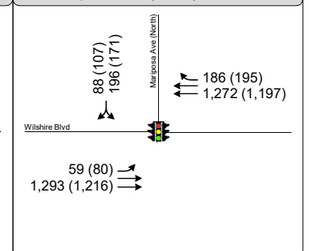
8. Irolo St/Normandie Ave/Olympic Blvd



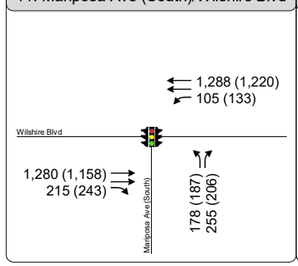
9. Mariposa Ave/6th St



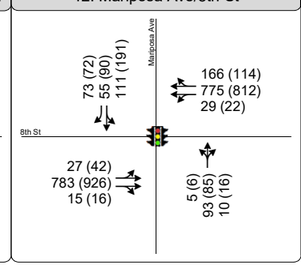
10. Mariposa Ave (North)/Wilshire Blvd



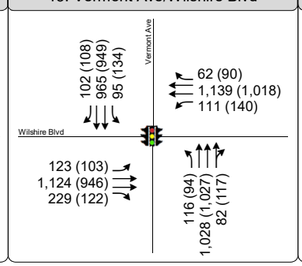
11. Mariposa Ave (South)/Wilshire Blvd



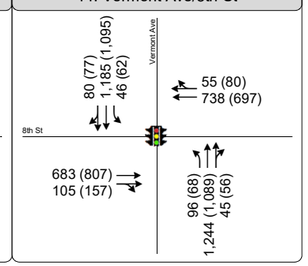
12. Mariposa Ave/8th St

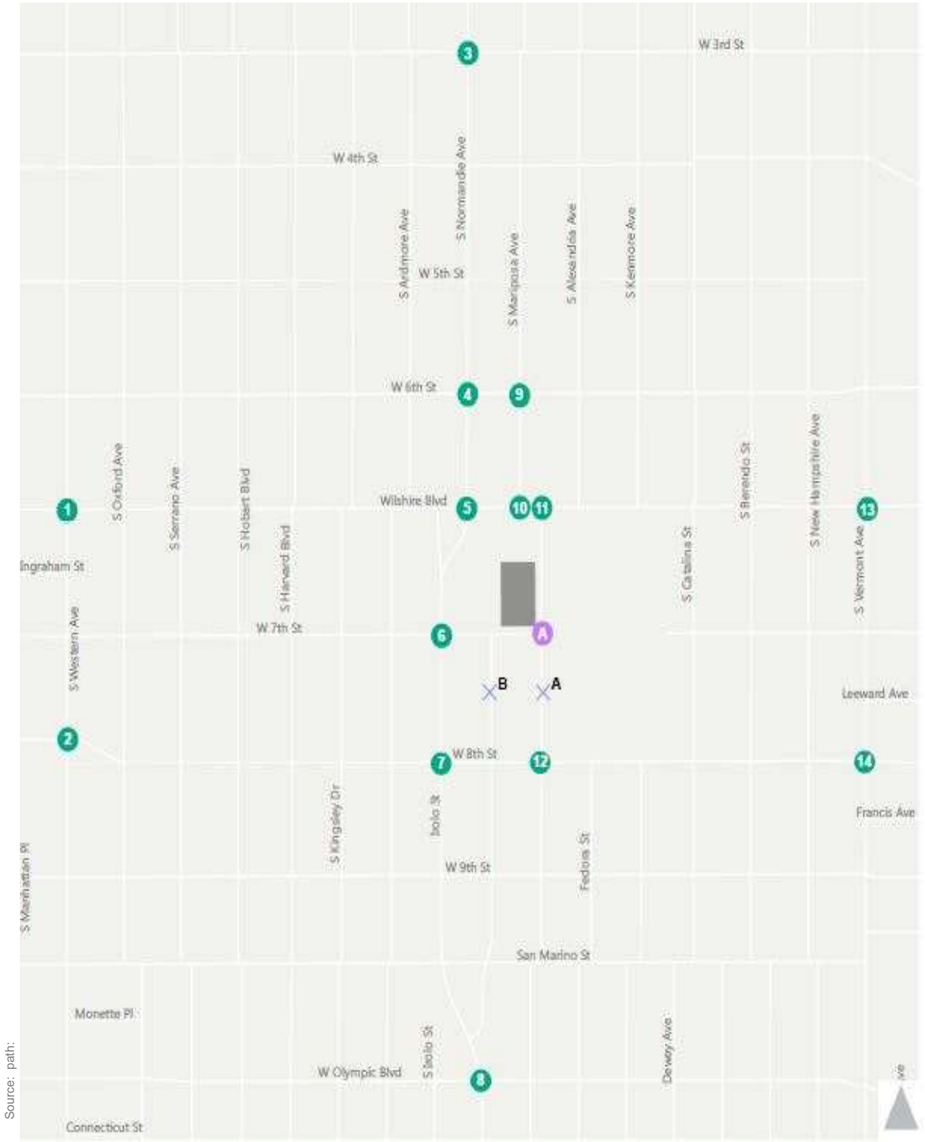


13. Vermont Ave/Wilshire Blvd



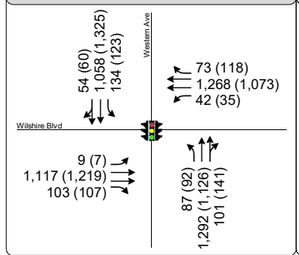
14. Vermont Ave/8th St



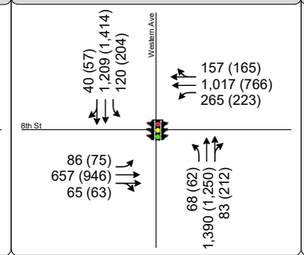


Source: path:

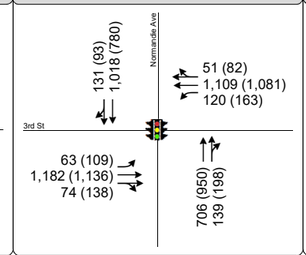
1. Western Ave/Wilshire Blvd



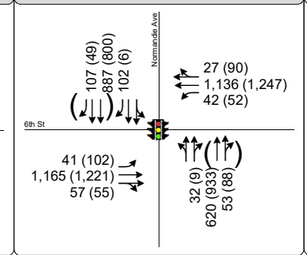
2. Western Ave/8th St



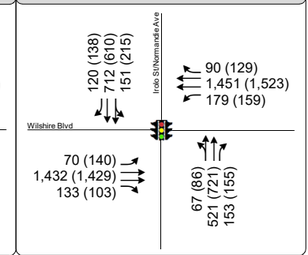
3. Normandie Ave/3rd St



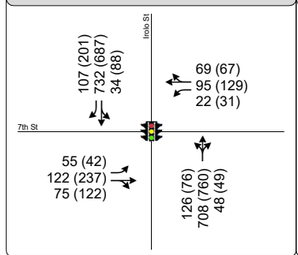
4. Normandie Ave/6th St



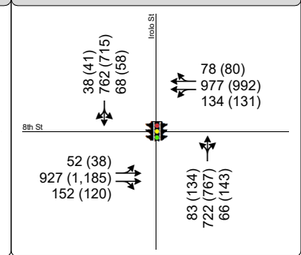
5. Irolo St/Normandie Ave/Wilshire Blvd



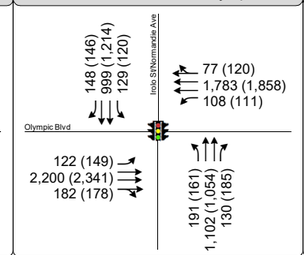
6. Irolo St/7th St



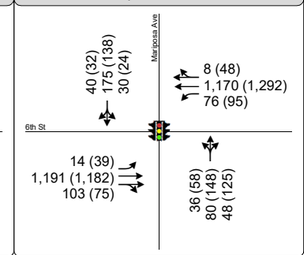
7. Irolo St/8th St



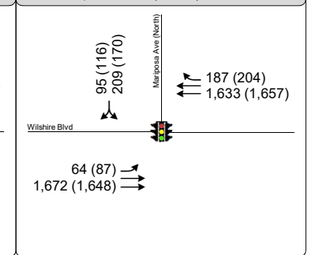
8. Irolo St/Normandie Ave/Olympic Blvd



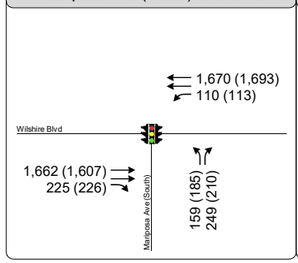
9. Mariposa Ave/6th St



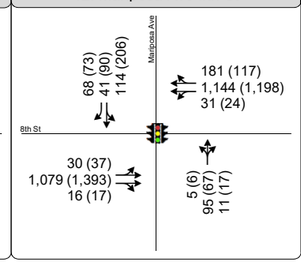
10. Mariposa Ave (North)/Wilshire Blvd



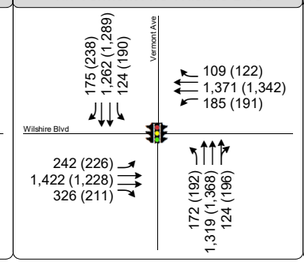
11. Mariposa Ave (South)/Wilshire Blvd



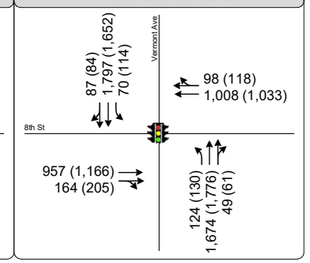
12. Mariposa Ave/8th St

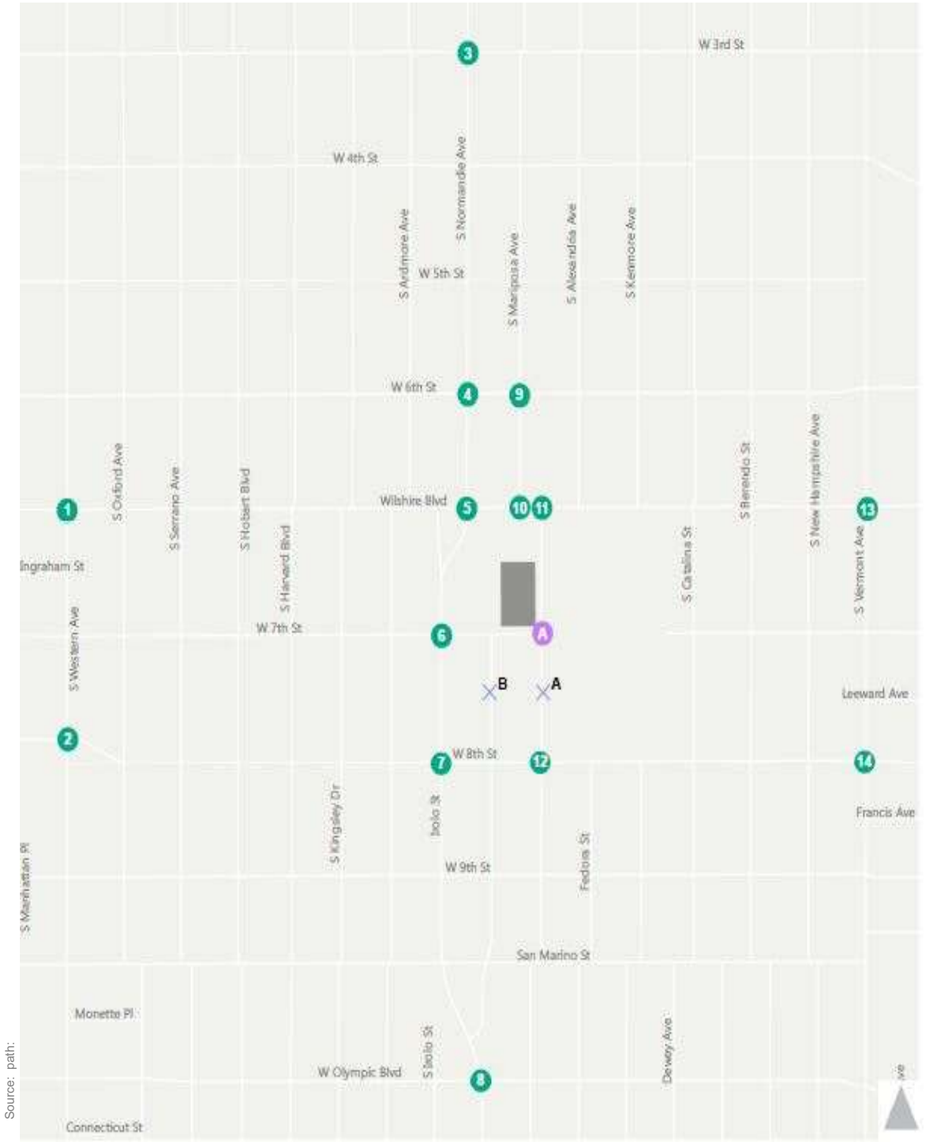


13. Vermont Ave/Wilshire Blvd



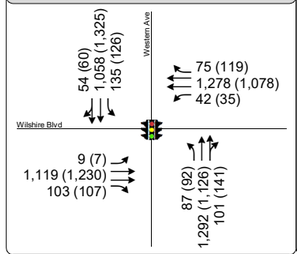
14. Vermont Ave/8th St



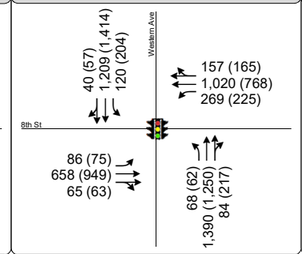


Source: path:

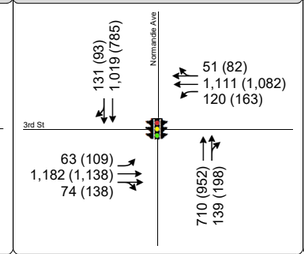
1. Western Ave/Wilshire Blvd



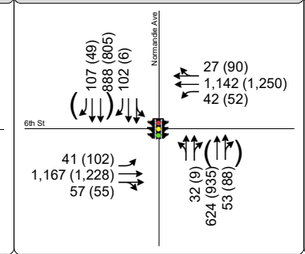
2. Western Ave/8th St



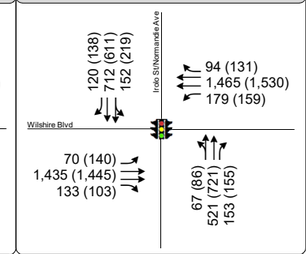
3. Normandie Ave/3rd St



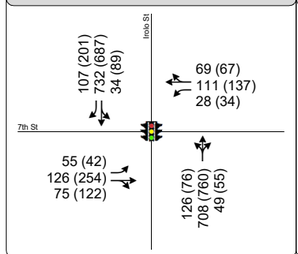
4. Normandie Ave/6th St



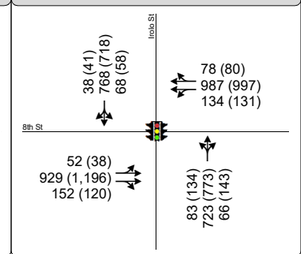
5. Irolo St/Normandie Ave/Wilshire Blvd



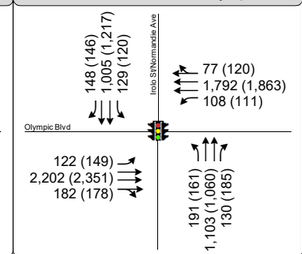
6. Irolo St/7th St



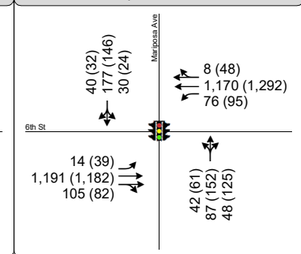
7. Irolo St/8th St



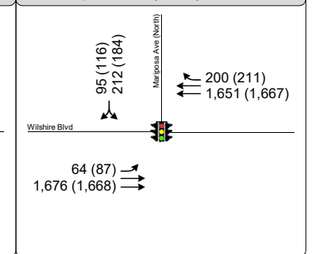
8. Irolo St/Normandie Ave/Olympic Blvd



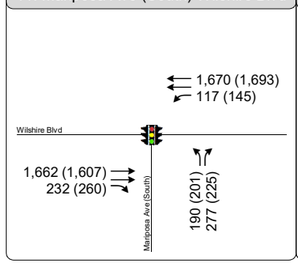
9. Mariposa Ave/6th St



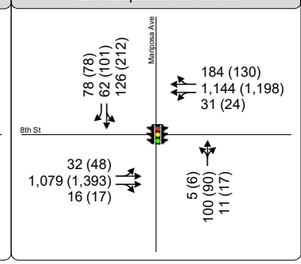
10. Mariposa Ave (North)/Wilshire Blvd



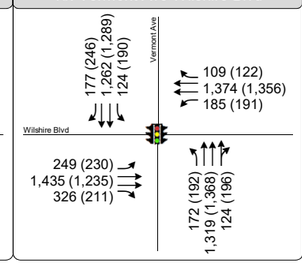
11. Mariposa Ave (South)/Wilshire Blvd



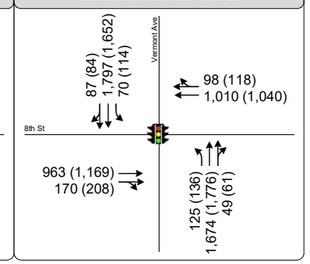
12. Mariposa Ave/8th St

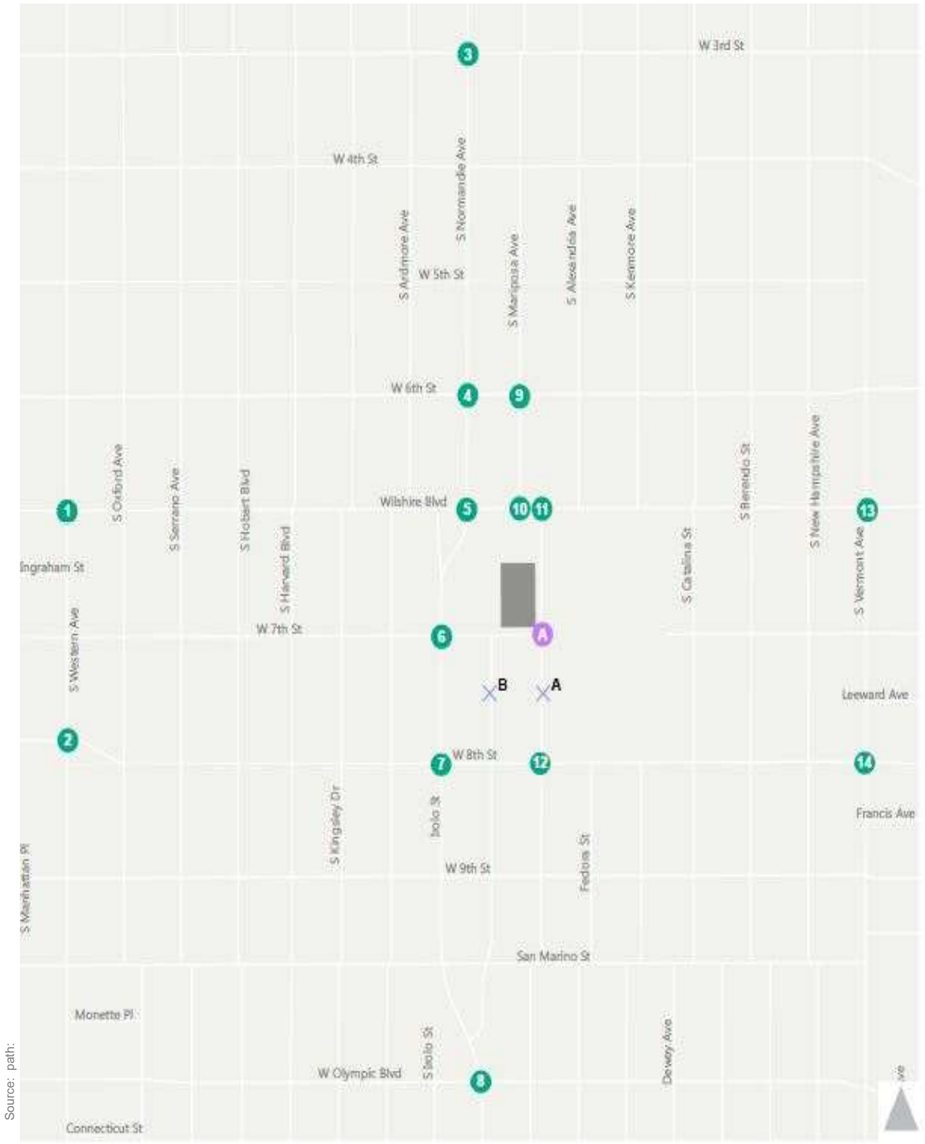


13. Vermont Ave/Wilshire Blvd



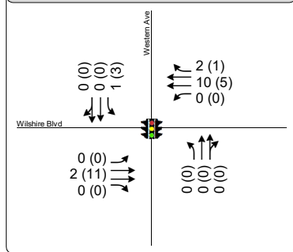
14. Vermont Ave/8th St



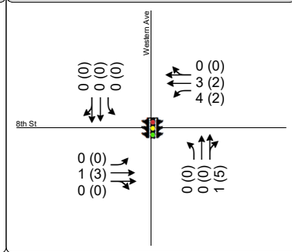


Source: path:

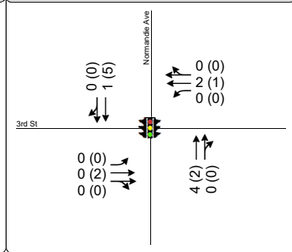
1. Western Ave/Wilshire Blvd



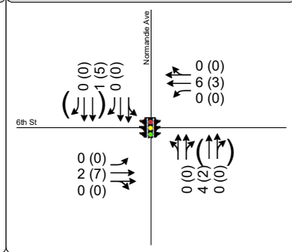
2. Western Ave/8th St



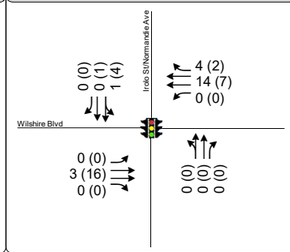
3. Normandie Ave/3rd St



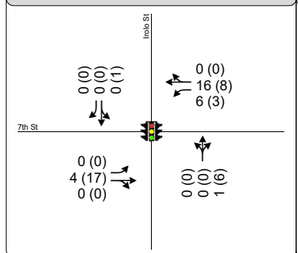
4. Normandie Ave/6th St



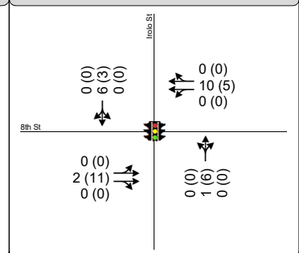
5. Irolo St/Normandie Ave/Wilshire Blvd



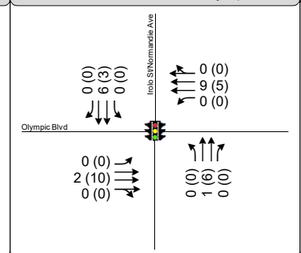
6. Irolo St/7th St



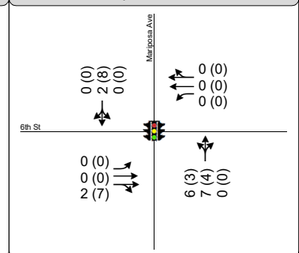
7. Irolo St/8th St



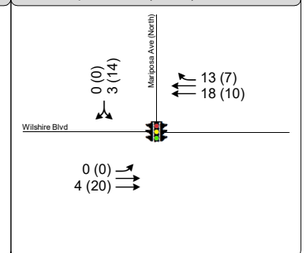
8. Irolo St/Normandie Ave/Olympic Blvd



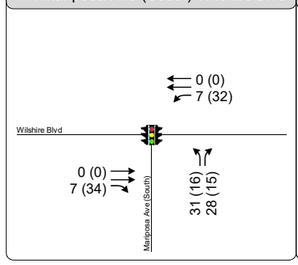
9. Mariposa Ave/6th St



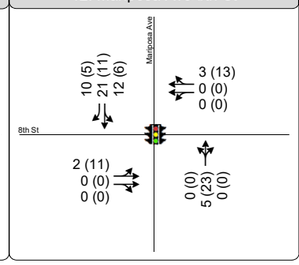
10. Mariposa Ave (North)/Wilshire Blvd



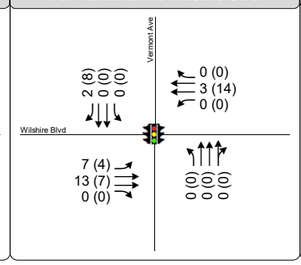
11. Mariposa Ave (South)/Wilshire Blvd



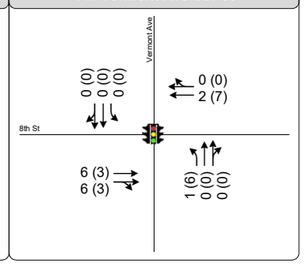
12. Mariposa Ave/8th St



13. Vermont Ave/Wilshire Blvd



14. Vermont Ave/8th St



Attachment B - Revised Project Intersection LOS Worksheets

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** Wilshire Blvd
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	71	1	71	77	1	**77**
	Left-Through		0			0	
	Through	956	1	**512**	834	1	459
	Through-Right		1			1	
	Right	68	0	68	83	0	83
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	108	1	**108**	94	1	94
	Left-Through		0			0	
	Through	839	1	445	952	1	**499**
	Through-Right		1			1	
	Right	51	0	51	46	0	46
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	1	**2**	2	1	2
	Left-Through		0			0	
	Through	932	2	466	931	2	**466**
	Through-Right		0			0	
	Right	82	1	47	82	1	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	1	2	5	1	**5**
	Left-Through		0			0	
	Through	1008	2	**504**	848	2	424
	Through-Right		0			0	
	Right	53	1	0	90	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	620		*North-South:*	576
			East-West:	506		*East-West:*	471
			SUM:	1126		*SUM:*	1047
VOLUME/CAPACITY *(V/C)* RATIO:				0.819			0.761
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.719**			**0.661**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
2	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** 8th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	43	1	43	33	1	**33**
	Left-Through		0			0	
	Through	1091	1	**559**	933	1	482
	Through-Right		1			1	
	Right	27	0	27	31	0	31
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	74	1	**74**	102	1	102
	Left-Through		0			0	
	Through	943	1	490	1078	1	**566**
	Through-Right		1			1	
	Right	37	0	37	53	0	53
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	79	1	**79**	69	1	69
	Left-Through		0			0	
	Through	525	1	286	688	1	**363**
	Through-Right		1			1	
	Right	47	0	47	37	0	37
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	91	1	91	117	1	**117**
	Left-Through		0			0	
	Through	784	1	**428**	575	1	334
	Through-Right		1			1	
	Right	71	0	71	92	0	92
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	633		*North-South:*	599
			East-West:	507		*East-West:*	480
			SUM:	1140		*SUM:*	1079
VOLUME/CAPACITY *(V/C)* RATIO:				0.760			0.719
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.660**			**0.619**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
3	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 3rd St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	2	0	**0**	2	0	0
	Left-Through		0			0	
	Through	493	1	271	723	1	**399**
	Through-Right		1			1	
	Right	49	0	49	75	0	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	4	0	0	2	0	**0**
	Left-Through		0			0	
	Through	845	1	**483**	518	1	302
	Through-Right		1			1	
	Right	121	0	121	86	0	86
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	58	1	58	101	1	**101**
	Left-Through		0			0	
	Through	1005	1	**517**	932	1	493
	Through-Right		1			1	
	Right	29	0	29	53	0	53
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	36	1	**36**	33	1	33
	Left-Through		0			0	
	Through	942	1	489	888	1	**479**
	Through-Right		1			1	
	Right	36	0	36	69	0	69
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	483		*North-South:*	399
			East-West:	553		*East-West:*	580
			SUM:	1036		*SUM:*	979
VOLUME/CAPACITY *(V/C)* RATIO:				0.727			0.687
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.627**			**0.587**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
4	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 6th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	30	0	**30**	8	0	0
	Left-Through		1			0	
	Through	427	0	298	661	1	**371**
	Through-Right		1			1	
	Right	48	0	298	81	0	81
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	94	0	94	6	0	**0**
	Left-Through		1			0	
	Through	637	1	**413**	468	2	234
	Through-Right		0			0	
	Right	99	1	80	45	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	38	1	38	94	1	**94**
	Left-Through		0			0	
	Through	969	1	**511**	984	1	518
	Through-Right		1			1	
	Right	53	0	53	51	0	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	39	1	**39**	47	1	47
	Left-Through		0			0	
	Through	945	1	485	1000	1	**542**
	Through-Right		1			1	
	Right	25	0	25	83	0	83
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	443		*North-South:*	371
			East-West:	550		*East-West:*	636
			SUM:	993		*SUM:*	1007
VOLUME/CAPACITY *(V/C)* RATIO:				0.662			0.671
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.562**			**0.571**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
5	North-South Street:	Normandie Ave	East-West Street:	Wilshire Blvd
	Scenario:	Existing 2018		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	50	0	**50**	49	0	**49**
	Left-Through		1			1	
	Through	408	1	304	533	1	316
	Through-Right		0			0	
	Right	119	1	55	102	1	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	75	0	75	80	0	80
	Left-Through		1			1	
	Through	558	1	**354**	450	1	**385**
	Through-Right		0			0	
	Right	93	1	79	89	1	38
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	28	1	28	102	1	102
	Left-Through		0			0	
	Through	1154	2	**577**	1153	2	**577**
	Through-Right		0			0	
	Right	89	1	89	72	1	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	129	1	**129**	111	1	**111**
	Left-Through		0			0	
	Through	1159	2	580	1138	2	569
	Through-Right		0			0	
	Right	45	1	45	79	1	79
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	404		*North-South:*	434
			East-West:	706		*East-West:*	688
			SUM:	1110		*SUM:*	1122
VOLUME/CAPACITY *(V/C)* RATIO:				0.779			0.787
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.679**			**0.687**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 7th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	110	0	110	54	0	54
	Left-Through		0			0	
	Through	547	0	**701**	497	0	**596**
	Through-Right		0			0	
	Right	44	0	0	45	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	31	0	**31**	81	0	**81**
	Left-Through		1			1	
	Through	506	0	537	462	0	543
	Through-Right		0			0	
	Right	99	1	74	186	1	167
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	51	1	**51**	39	1	39
	Left-Through		0			0	
	Through	106	0	166	213	0	**319**
	Through-Right		1			1	
	Right	60	0	0	106	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	20	1	20	29	1	**29**
	Left-Through		0			0	
	Through	84	0	**148**	112	0	174
	Through-Right		1			1	
	Right	64	0	0	62	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	732		*North-South:*	677
			East-West:	199		*East-West:*	348
			SUM:	931		*SUM:*	1025
VOLUME/CAPACITY *(V/C)* RATIO:				0.621			0.683
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.521**			**0.583**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
7	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 8th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	61	0	61		55	0	**55**	
	Left-Through		0				0		
	Through	567	0	**651**		497	0	583	
	Through-Right		0				0		
	Right	23	0	0		31	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	58	0	**58**		39	0	39	
	Left-Through		0				0		
	Through	530	0	622		497	0	**572**	
	Through-Right		0				0		
	Right	34	0	0		36	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
EASTBOUND	Left	47	0	**47**		34	0	34	
	Left-Through		1				1		
	Through	682	0	469		847	0	**529**	
	Through-Right		1				1		
	Right	68	0	469		74	0	529	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	36	0	36		57	0	**57**	
	Left-Through		1				1		
	Through	721	0	**462**		694	0	494	
	Through-Right		1				1		
	Right	59	0	462		65	0	494	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	709			*North-South:*	627	
			East-West:	509			*East-West:*	586	
			SUM:	1218			*SUM:*	1213	
VOLUME/CAPACITY *(V/C)* RATIO:				0.812				0.809	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.712**				**0.709**	
LEVEL OF SERVICE (LOS):				**C**				**C**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
8	North-South Street:	Normandie Ave	East-West Street:	Olympic Blvd
	Scenario:	Existing 2018		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	138	1	138	86	1	**86**
	Left-Through		0			0	
	Through	882	2	**441**	653	2	327
	Through-Right		0			0	
	Right	93	1	67	115	1	84
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	82	1	**82**	91	1	91
	Left-Through		0			0	
	Through	653	2	327	895	2	**448**
	Through-Right		0			0	
	Right	74	1	50	56	1	28
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	49	1	49	56	1	56
	Left-Through		0			0	
	Through	1740	2	**618**	1764	2	**625**
	Through-Right		1			1	
	Right	113	0	113	110	0	110
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	53	1	**53**	63	1	**63**
	Left-Through		0			0	
	Through	1326	2	463	1359	2	479
	Through-Right		1			1	
	Right	63	0	63	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		North-South:	523		North-South:	534
			East-West:	671		East-West:	688
			SUM:	1194		SUM:	1222
	VOLUME/CAPACITY (V/C) RATIO:			0.796			0.815
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.696**			**0.715**
	LEVEL OF SERVICE (LOS):			**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 6th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	33	0	**33**	54	0	54
	Left-Through		0			0	
	Through	74	0	151	137	0	**306**
	Through-Right		0			0	
	Right	44	0	0	115	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	28	0	28	22	0	**22**
	Left-Through		0			0	
	Through	162	0	**227**	127	0	179
	Through-Right		0			0	
	Right	37	0	0	30	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	13	1	13	36	1	36
	Left-Through		0			0	
	Through	992	1	**544**	948	1	**509**
	Through-Right		1			1	
	Right	95	0	95	69	0	69
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	70	1	**70**	88	1	**88**
	Left-Through		0			0	
	Through	976	1	492	1042	1	543
	Through-Right		1			1	
	Right	7	0	7	44	0	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	260		*North-South:*	328
			East-West:	614		*East-West:*	597
			SUM:	874		*SUM:*	925
VOLUME/CAPACITY *(V/C)* RATIO:				0.583			0.617
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.483**			**0.517**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (N) **East-West Street:** Wilshire Blvd
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	193	0	193	157	0	157
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	88	0	**281**	107	0	**264**
	Left-Through-Right		0			0	
	Left-Right		1			1	
EASTBOUND	Left	59	1	**59**	80	1	**80**
	Left-Through		0			0	
	Through	1289	2	645	1196	2	598
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1254	2	**627**	1187	2	**594**
	Through-Right		0			0	
	Right	173	1	173	188	1	188
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	281		*North-South:*	264
			East-West:	686		*East-West:*	674
			SUM:	967		*SUM:*	938
VOLUME/CAPACITY *(V/C)* RATIO:				0.645			0.625
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.545**			**0.525**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
11	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (S) **East-West Street:** Wilshire Blvd
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	147	1	147	171	1	**171**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	227	1	**178**	191	1	141
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1280	2	**640**	1158	2	**579**
	Through-Right		0			0	
	Right	208	1	135	209	1	124
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	98	1	**98**	101	1	**101**
	Left-Through		0			0	
	Through	1288	2	644	1220	2	610
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	178		*North-South:*	171
			East-West:	738		*East-West:*	680
			SUM:	916		*SUM:*	851
VOLUME/CAPACITY *(V/C)* RATIO:				0.611			0.567
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.511**			**0.467**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
12	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 8th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes		Lane Volume	Volume	No. of Lanes		Lane Volume
NORTHBOUND	Left	5	0		5	6	0		**6**
	Left-Through		0				0		
	Through	88	0		**103**	62	0		84
	Through-Right		0				0		
	Right	10	0		0	16	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	99	0		**99**	185	0		185
	Left-Through		1				1		
	Through	34	0		133	79	0		**264**
	Through-Right		0				0		
	Right	63	1		63	67	1		67
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	25	0		**25**	31	0		31
	Left-Through		1				1		
	Through	783	0		449	926	0		**533**
	Through-Right		1				1		
	Right	15	0		449	16	0		533
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	29	0		29	22	0		**22**
	Left-Through		1				1		
	Through	775	0		**527**	812	0		501
	Through-Right		1				1		
	Right	163	0		527	101	0		501
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	202			*North-South:*	270
				East-West:	552			*East-West:*	555
				SUM:	754			*SUM:*	825
VOLUME/CAPACITY *(V/C)* RATIO:					0.503				0.550
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.403**				**0.450**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
13	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** Wilshire Blvd
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	116	1	**116**	94	1	**94**
	Left-Through		0			0	
	Through	1028	2	370	1027	2	381
	Through-Right		1			1	
	Right	82	0	82	117	0	117
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	95	1	95	134	1	134
	Left-Through		0			0	
	Through	965	2	**483**	949	2	**475**
	Through-Right		0			0	
	Right	100	1	42	100	1	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	116	1	**116**	99	1	99
	Left-Through		0			0	
	Through	1111	2	556	939	2	**470**
	Through-Right		0			0	
	Right	229	1	171	122	1	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	111	1	111	140	1	**140**
	Left-Through		0			0	
	Through	1136	2	**568**	1004	2	502
	Through-Right		0			0	
	Right	62	1	15	90	1	23
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	599		*North-South:*	569
			East-West:	684		*East-West:*	610
			SUM:	1283		*SUM:*	1179
VOLUME/CAPACITY *(V/C)* RATIO:				0.933			0.857
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.833**			**0.757**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
14	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** 8th St
Scenario: Existing 2018
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	95	1	**95**	62	1	**62**
	Left-Through		0			0	
	Through	1244	1	645	1089	1	573
	Through-Right		1			1	
	Right	45	0	45	56	0	56
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	46	1	46	62	1	62
	Left-Through		0			0	
	Through	1185	1	**633**	1095	1	**586**
	Through-Right		1			1	
	Right	80	0	80	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	**0**	1	0	0
	Left-Through		0			0	
	Through	677	1	388	804	1	**479**
	Through-Right		1			1	
	Right	99	0	99	154	0	154
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	0	0	4	0	**0**
	Left-Through		0			0	
	Through	736	1	**396**	690	1	385
	Through-Right		1			1	
	Right	55	0	55	80	0	80
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	728		*North-South:*	648
			East-West:	396		*East-West:*	479
			SUM:	1124		*SUM:*	1127
VOLUME/CAPACITY *(V/C)* RATIO:				0.749			0.751
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.649**			**0.651**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** Wilshire Blvd
Scenario: Existing plus Revised Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 EB-- 0		SB-- 0 WB-- 0		NB-- 0 EB-- 0		SB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	71	1	71	77	1	**77**
	Left-Through		0			0	
	Through	956	1	**512**	834	1	459
	Through-Right		1			1	
	Right	68	0	68	83	0	83
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	109	1	**109**	97	1	97
	Left-Through		0			0	
	Through	839	1	445	952	1	**499**
	Through-Right		1			1	
	Right	51	0	51	46	0	46
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	1	**2**	2	1	2
	Left-Through		0			0	
	Through	934	2	467	942	2	**471**
	Through-Right		0			0	
	Right	82	1	47	82	1	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	1	2	5	1	**5**
	Left-Through		0			0	
	Through	1018	2	**509**	853	2	427
	Through-Right		0			0	
	Right	55	1	1	91	1	43
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	621		*North-South:*	576
			East-West:	511		*East-West:*	476
			SUM:	1132		*SUM:*	1052
VOLUME/CAPACITY *(V/C)* RATIO:				0.823			0.765
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.723**			**0.665**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
2	North-South Street:	Western Ave	East-West Street:	8th St
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0
	EB-- 0	WB--	0		EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	43	1	43	33	1	**33**
	Left-Through		0			0	
	Through	1091	1	**560**	933	1	485
	Through-Right		1			1	
	Right	28	0	28	36	0	36
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	74	1	**74**	102	1	102
	Left-Through		0			0	
	Through	943	1	490	1078	1	**566**
	Through-Right		1			1	
	Right	37	0	37	53	0	53
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	79	1	**79**	69	1	69
	Left-Through		0			0	
	Through	526	1	287	691	1	**364**
	Through-Right		1			1	
	Right	47	0	47	37	0	37
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	95	1	95	119	1	**119**
	Left-Through		0			0	
	Through	787	1	**429**	577	1	335
	Through-Right		1			1	
	Right	71	0	71	92	0	92
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	634		*North-South:*	599
			East-West:	508		*East-West:*	483
			SUM:	1142		*SUM:*	1082
VOLUME/CAPACITY *(V/C)* RATIO:				0.761			0.721
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.661**			**0.621**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
3	North-South Street:	Normandie Ave	East-West Street:	3rd St
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	0	NB-- 0	SB--	0	0
	EB-- 0	WB--	0	0	EB-- 0	WB--	0	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	2	0	**0**	2	0	0
	Left-Through		0			0	
	Through	497	1	273	725	1	**400**
	Through-Right		1			1	
	Right	49	0	49	75	0	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	4	0	0	2	0	**0**
	Left-Through		0			0	
	Through	846	1	**484**	523	1	305
	Through-Right		1			1	
	Right	121	0	121	86	0	86
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	58	1	58	101	1	**101**
	Left-Through		0			0	
	Through	1005	1	**517**	934	1	494
	Through-Right		1			1	
	Right	29	0	29	53	0	53
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	36	1	**36**	33	1	33
	Left-Through		0			0	
	Through	944	1	490	889	1	**479**
	Through-Right		1			1	
	Right	36	0	36	69	0	69
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	484		North-South:	400
			East-West:	553		East-West:	580
			SUM:	1037		SUM:	980
VOLUME/CAPACITY (V/C) RATIO:				0.728			0.688
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.628**			**0.588**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
4	North-South Street:	Normandie Ave	East-West Street:	6th St
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0
	EB-- 0	WB--	0		EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	30	0	**30**	8	0	0
	Left-Through		1			0	
	Through	431	0	300	663	1	**372**
	Through-Right		1			1	
	Right	48	0	300	81	0	81
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	94	0	94	6	0	**0**
	Left-Through		1			0	
	Through	638	1	**413**	473	2	237
	Through-Right		0			0	
	Right	99	1	80	45	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	38	1	38	94	1	**94**
	Left-Through		0			0	
	Through	971	1	**512**	991	1	521
	Through-Right		1			1	
	Right	53	0	53	51	0	51
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	39	1	**39**	47	1	47
	Left-Through		0			0	
	Through	951	1	488	1003	1	**543**
	Through-Right		1			1	
	Right	25	0	25	83	0	83
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	443		North-South:	372
			East-West:	551		East-West:	637
			SUM:	994		SUM:	1009
VOLUME/CAPACITY (V/C) RATIO:				0.663			0.673
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.563**			**0.573**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
5	North-South Street:	Normandie Ave	East-West Street:	Wilshire Blvd
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	0	NB-- 0	SB--	0	0
	EB-- 0	WB--	0	0	EB-- 0	WB--	0	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	50	0	**50**	49	0	**49**
	Left-Through		1			1	
	Through	408	1	304	533	1	316
	Through-Right		0			0	
	Right	119	1	55	102	1	47
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	76	0	76	84	0	84
	Left-Through		1			1	
	Through	558	1	**355**	451	1	**394**
	Through-Right		0			0	
	Right	93	1	79	89	1	38
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	28	1	28	102	1	102
	Left-Through		0			0	
	Through	1157	2	**579**	1169	2	**585**
	Through-Right		0			0	
	Right	89	1	89	72	1	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	129	1	**129**	111	1	**111**
	Left-Through		0			0	
	Through	1173	2	587	1145	2	573
	Through-Right		0			0	
	Right	49	1	49	81	1	81
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	405		North-South:	443
			East-West:	708		East-West:	696
			SUM:	1113		SUM:	1139
VOLUME/CAPACITY (V/C) RATIO:				0.781			0.799
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.681**			**0.699**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
6	North-South Street:	Normandie Ave	East-West Street:	7th St
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	110	0	110		54	0	54	
	Left-Through		0				0		
	Through	547	0	**702**		497	0	**602**	
	Through-Right		0				0		
	Right	45	0	0		51	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	31	0	**31**		82	0	**82**	
	Left-Through		1				1		
	Through	506	0	537		462	0	544	
	Through-Right		0				0		
	Right	99	1	74		186	1	167	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	51	1	**51**		39	1	39	
	Left-Through		0				0		
	Through	110	0	170		230	0	**336**	
	Through-Right		1				1		
	Right	60	0	0		106	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	26	1	26		32	1	**32**	
	Left-Through		0				0		
	Through	100	0	**164**		120	0	182	
	Through-Right		1				1		
	Right	64	0	0		62	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			North-South:	733			North-South:	684	
			East-West:	215			East-West:	368	
			SUM:	948			SUM:	1052	
VOLUME/CAPACITY (V/C) RATIO:				0.632				0.701	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.532**				**0.601**	
LEVEL OF SERVICE (LOS):				**A**				**B**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
7	North-South Street:	Normandie Ave	East-West Street:	8th St
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
	MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	61	0	61		55	0	**55**	
	Left-Through		0				0		
	Through	568	0	**652**		503	0	589	
	Through-Right		0				0		
	Right	23	0	0		31	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	58	0	**58**		39	0	39	
	Left-Through		0				0		
	Through	536	0	628		500	0	**575**	
	Through-Right		0				0		
	Right	34	0	0		36	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
EASTBOUND	Left	47	0	**47**		34	0	34	
	Left-Through		1				1		
	Through	684	0	470		858	0	**534**	
	Through-Right		1				1		
	Right	68	0	470		74	0	534	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	36	0	36		57	0	**57**	
	Left-Through		1				1		
	Through	731	0	**467**		699	0	496	
	Through-Right		1				1		
	Right	59	0	467		65	0	496	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			North-South:	710			North-South:	630	
			East-West:	514			East-West:	591	
			SUM:	1224			SUM:	1221	
VOLUME/CAPACITY (V/C) RATIO:				0.816				0.814	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.716**				**0.714**	
LEVEL OF SERVICE (LOS):				**C**				**C**	

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
8	North-South Street:	Normandie Ave	East-West Street:	Olympic Blvd
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	138	1	138	86	1	**86**
	Left-Through		0			0	
	Through	883	2	**442**	659	2	330
	Through-Right		0			0	
	Right	93	1	67	115	1	84
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	82	1	**82**	91	1	91
	Left-Through		0			0	
	Through	659	2	330	898	2	**449**
	Through-Right		0			0	
	Right	74	1	50	56	1	28
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	49	1	49	56	1	56
	Left-Through		0			0	
	Through	1742	2	**618**	1774	2	**628**
	Through-Right		1			1	
	Right	113	0	113	110	0	110
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	53	1	**53**	63	1	**63**
	Left-Through		0			0	
	Through	1335	2	466	1364	2	480
	Through-Right		1			1	
	Right	63	0	63	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	524		North-South:	535
			East-West:	671		East-West:	691
			SUM:	1195		SUM:	1226
VOLUME/CAPACITY (V/C) RATIO:				0.797			0.817
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.697**			**0.717**
LEVEL OF SERVICE (LOS):				**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
9	North-South Street:	Mariposa Ave	East-West Street:	6th St
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	39	0	**39**	57	0	57
	Left-Through		0			0	
	Through	81	0	164	141	0	**313**
	Through-Right		0			0	
	Right	44	0	0	115	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	28	0	28	22	0	**22**
	Left-Through		0			0	
	Through	164	0	**229**	135	0	187
	Through-Right		0			0	
	Right	37	0	0	30	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	13	1	13	36	1	36
	Left-Through		0			0	
	Through	992	1	**545**	948	1	**512**
	Through-Right		1			1	
	Right	97	0	97	76	0	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	70	1	**70**	88	1	**88**
	Left-Through		0			0	
	Through	976	1	492	1042	1	543
	Through-Right		1			1	
	Right	7	0	7	44	0	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	268		*North-South:*	335
			East-West:	615		*East-West:*	600
			SUM:	883		*SUM:*	935
VOLUME/CAPACITY *(V/C)* RATIO:				0.589			0.623
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.489**			**0.523**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (N) **East-West Street:** Wilshire Blvd
Scenario: Existing plus Revised Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	196	0	196	171	0	171
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	88	0	**284**	107	0	**278**
	Left-Through-Right		0			0	
	Left-Right		1			1	
EASTBOUND	Left	59	1	**59**	80	1	**80**
	Left-Through		0			0	
	Through	1293	2	647	1216	2	608
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1272	2	**636**	1197	2	**599**
	Through-Right		0			0	
	Right	186	1	186	195	1	195
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	284		*North-South:*	278
			East-West:	695		*East-West:*	679
			SUM:	979		*SUM:*	957
VOLUME/CAPACITY *(V/C)* RATIO:				0.653			0.638
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.553**			**0.538**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
11	North-South Street:	Mariposa Ave (S)	East-West Street:	Wilshire Blvd
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2	
Override Capacity			0			0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	178	1	178	187	1	**187**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	255	1	**203**	206	1	140
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1280	2	**640**	1158	2	**579**
	Through-Right		0			0	
	Right	215	1	126	243	1	150
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	105	1	**105**	133	1	**133**
	Left-Through		0			0	
	Through	1288	2	644	1220	2	610
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	203		*North-South:*	187
			East-West:	745		*East-West:*	712
			SUM:	948		*SUM:*	899
VOLUME/CAPACITY *(V/C)* RATIO:				0.632			0.599
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.532**			**0.499**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
12	North-South Street:	Mariposa Ave	East-West Street:	8th St
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

			AM				PM		
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--		0	NB--	0	SB--	0
	EB--	0	WB--		0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	5	0	5	6	0	6
	Left-Through		0			0	
	Through	93	0	**108**	85	0	**107**
	Through-Right		0			0	
	Right	10	0	0	16	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	111	0	**111**	191	0	**191**
	Left-Through		1			1	
	Through	55	0	166	90	0	281
	Through-Right		0			0	
	Right	73	1	73	72	1	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	27	0	**27**	42	0	42
	Left-Through		1			1	
	Through	783	0	453	926	0	**555**
	Through-Right		1			1	
	Right	15	0	453	16	0	555
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	29	0	29	22	0	**22**
	Left-Through		1			1	
	Through	775	0	**529**	812	0	507
	Through-Right		1			1	
	Right	166	0	529	114	0	507
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	219		North-South:	298
			East-West:	556		East-West:	577
			SUM:	775		SUM:	875
VOLUME/CAPACITY (V/C) RATIO:				0.517			0.583
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.417**			**0.483**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
13	North-South Street:	Vermont Ave	East-West Street:	Wilshire Blvd
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0
	EB-- 0	WB--	0		EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	116	1	**116**	94	1	**94**
	Left-Through		0			0	
	Through	1028	2	370	1027	2	381
	Through-Right		1			1	
	Right	82	0	82	117	0	117
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	95	1	95	134	1	134
	Left-Through		0			0	
	Through	965	2	**483**	949	2	**475**
	Through-Right		0			0	
	Right	102	1	41	108	1	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	123	1	**123**	103	1	103
	Left-Through		0			0	
	Through	1124	2	562	946	2	**473**
	Through-Right		0			0	
	Right	229	1	171	122	1	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	111	1	111	140	1	**140**
	Left-Through		0			0	
	Through	1139	2	**570**	1018	2	509
	Through-Right		0			0	
	Right	62	1	15	90	1	23
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	599		North-South:	569
			East-West:	693		East-West:	613
			SUM:	1292		SUM:	1182
VOLUME/CAPACITY (V/C) RATIO:				0.940			0.860
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.840**			**0.760**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
14	North-South Street:	Vermont Ave	East-West Street:	8th St
	Scenario:	Existing plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

			AM				PM		
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--		0	NB--	0	SB--	0
	EB--	0	WB--		0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	96	1	**96**	68	1	**68**
	Left-Through		0			0	
	Through	1244	1	645	1089	1	573
	Through-Right		1			1	
	Right	45	0	45	56	0	56
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	46	1	46	62	1	62
	Left-Through		0			0	
	Through	1185	1	**633**	1095	1	**586**
	Through-Right		1			1	
	Right	80	0	80	77	0	77
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	**0**	1	0	0
	Left-Through		0			0	
	Through	683	1	394	807	1	**482**
	Through-Right		1			1	
	Right	105	0	105	157	0	157
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	0	0	4	0	**0**
	Left-Through		0			0	
	Through	738	1	**397**	697	1	389
	Through-Right		1			1	
	Right	55	0	55	80	0	80
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	729		*North-South:*	654
			East-West:	397		*East-West:*	482
			SUM:	1126		*SUM:*	1136
VOLUME/CAPACITY *(V/C)* RATIO:				0.751			0.757
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.651**			**0.657**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
1	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Western Ave **East-West Street:** Wilshire Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	87	1	87	92	1	**92**
	Left-Through		0			0	
	Through	1292	1	**697**	1126	1	634
	Through-Right		1			1	
	Right	101	0	101	141	0	141
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	134	1	**134**	123	1	123
	Left-Through		0			0	
	Through	1058	1	556	1325	1	**693**
	Through-Right		1			1	
	Right	54	0	54	60	0	60
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	9	1	**9**	7	1	7
	Left-Through		0			0	
	Through	1117	2	559	1219	2	**610**
	Through-Right		0			0	
	Right	103	1	60	107	1	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	1	42	35	1	**35**
	Left-Through		0			0	
	Through	1268	2	**634**	1073	2	537
	Through-Right		0			0	
	Right	73	1	6	118	1	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	831		*North-South:*	785
			East-West:	643		*East-West:*	645
			SUM:	1474		*SUM:*	1430
VOLUME/CAPACITY *(V/C)* RATIO:				1.072			1.040
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.972**			**0.940**
LEVEL OF SERVICE (LOS):				**E**			**E**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
2	North-South Street:	Western Ave	East-West Street:	8th St
	Scenario:	Future Year 2026		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	68	1	68	62	1	62
	Left-Through		0			0	
	Through	1390	1	**737**	1250	1	**731**
	Through-Right		1			1	
	Right	83	0	83	212	0	212
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	120	1	**120**	204	1	**204**
	Left-Through		0			0	
	Through	1209	1	625	1414	1	736
	Through-Right		1			1	
	Right	40	0	40	57	0	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	86	1	**86**	75	1	75
	Left-Through		0			0	
	Through	657	1	361	946	1	**505**
	Through-Right		1			1	
	Right	65	0	65	63	0	63
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	265	1	265	223	1	**223**
	Left-Through		0			0	
	Through	1017	1	**587**	766	1	466
	Through-Right		1			1	
	Right	157	0	157	165	0	165
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		North-South:	857		North-South:	935
			East-West:	673		East-West:	728
			SUM:	1530		SUM:	1663
	VOLUME/CAPACITY (V/C) RATIO:			1.020			1.109
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.920**			**1.009**
	LEVEL OF SERVICE (LOS):			**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
3	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 3rd St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	2	0		**0**	2	0		0
	Left-Through		0				0		
	Through	706	1		423	950	1		**574**
	Through-Right		1				1		
	Right	139	0		139	198	0		198
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	4	0		0	2	0		**0**
	Left-Through		0				0		
	Through	1018	1		**575**	780	1		437
	Through-Right		1				1		
	Right	131	0		131	93	0		93
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	63	1		63	109	1		109
	Left-Through		0				0		
	Through	1182	1		**628**	1136	1		**637**
	Through-Right		1				1		
	Right	74	0		74	138	0		138
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	120	1		**120**	163	1		**163**
	Left-Through		0				0		
	Through	1109	1		580	1081	1		582
	Through-Right		1				1		
	Right	51	0		51	82	0		82
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	575			*North-South:*	574
				East-West:	748			*East-West:*	800
				SUM:	1323			*SUM:*	1374
VOLUME/CAPACITY *(V/C)* RATIO:					0.928				0.964
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.828**				**0.864**
LEVEL OF SERVICE (LOS):					**D**				**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
4	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 6th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	32	0	**32**	9	0	0
	Left-Through		1			0	
	Through	620	0	401	933	1	**511**
	Through-Right		1			1	
	Right	53	0	401	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	102	0	102	6	0	**0**
	Left-Through		1			0	
	Through	887	1	**648**	800	2	400
	Through-Right		0			0	
	Right	107	1	87	49	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	41	1	41	102	1	**102**
	Left-Through		0			0	
	Through	1165	1	**611**	1221	1	638
	Through-Right		1			1	
	Right	57	0	57	55	0	55
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	1	**42**	52	1	52
	Left-Through		0			0	
	Through	1136	1	582	1247	1	**669**
	Through-Right		1			1	
	Right	27	0	27	90	0	90
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	680		*North-South:*	511
			East-West:	653		*East-West:*	771
			SUM:	1333		*SUM:*	1282
	VOLUME/CAPACITY *(V/C)* RATIO:			0.889			0.855
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.789**			**0.755**
	LEVEL OF SERVICE (LOS):			**C**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
5	North-South Street:	Normandie Ave	East-West Street:	Wilshire Blvd
	Scenario:	Future Year 2026		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
	No. of Phases			3			3
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	67	0	**67**	86	0	86
	Left-Through		1			1	
	Through	521	1	395	721	1	**533**
	Through-Right		0			0	
	Right	153	1	64	155	1	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	151	0	151	215	0	**215**
	Left-Through		1			1	
	Through	712	1	**658**	610	1	610
	Through-Right		0			0	
	Right	120	1	85	138	1	68
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	70	1	70	140	1	**140**
	Left-Through		0			0	
	Through	1432	2	**716**	1429	2	715
	Through-Right		0			0	
	Right	133	1	133	103	1	103
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	179	1	**179**	159	1	159
	Left-Through		0			0	
	Through	1451	2	726	1523	2	**762**
	Through-Right		0			0	
	Right	90	1	90	129	1	22
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	725		*North-South:*	748
			East-West:	895		*East-West:*	902
			SUM:	1620		*SUM:*	1650
	VOLUME/CAPACITY *(V/C)* RATIO:			1.137			1.158
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**1.037**			**1.058**
	LEVEL OF SERVICE (LOS):			**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
6	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 7th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	126	0	126	76	0	76
	Left-Through		0			0	
	Through	708	0	**882**	760	0	**885**
	Through-Right		0			0	
	Right	48	0	0	49	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	34	0	**34**	88	0	**88**
	Left-Through		1			1	
	Through	732	0	766	687	0	775
	Through-Right		0			0	
	Right	107	1	80	201	1	180
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	55	1	55	42	1	42
	Left-Through		0			0	
	Through	122	0	**197**	237	0	**359**
	Through-Right		1			1	
	Right	75	0	0	122	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	22	1	**22**	31	1	**31**
	Left-Through		0			0	
	Through	95	0	164	129	0	196
	Through-Right		1			1	
	Right	69	0	0	67	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	916		*North-South:*	973
			East-West:	219		*East-West:*	390
			SUM:	1135		*SUM:*	1363
VOLUME/CAPACITY *(V/C)* RATIO:				0.757			0.909
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.657**			**0.809**
LEVEL OF SERVICE (LOS):				**B**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
7	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** 8th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	83	0	**83**	134	0	134
	Left-Through		0			0	
	Through	722	0	871	767	0	**1044**
	Through-Right		0			0	
	Right	66	0	0	143	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	68	0	68	58	0	**58**
	Left-Through		0			0	
	Through	762	0	**868**	715	0	814
	Through-Right		0			0	
	Right	38	0	0	41	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	52	0	**52**	38	0	**38**
	Left-Through		1			1	
	Through	927	0	696	1185	0	767
	Through-Right		1			1	
	Right	152	0	696	120	0	767
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	134	0	134	131	0	131
	Left-Through		1			1	
	Through	977	0	**930**	992	0	**929**
	Through-Right		1			1	
	Right	78	0	930	80	0	929
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	951		*North-South:*	1102
			East-West:	982		*East-West:*	967
			SUM:	1933		*SUM:*	2069
VOLUME/CAPACITY *(V/C)* RATIO:				1.289			1.379
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.189**			**1.279**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
8	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Normandie Ave **East-West Street:** Olympic Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	191	1	**191**	161	1	**161**
	Left-Through		0			0	
	Through	1102	2	551	1054	2	527
	Through-Right		0			0	
	Right	130	1	76	185	1	130
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	129	1	129	120	1	120
	Left-Through		0			0	
	Through	999	2	**500**	1214	2	**607**
	Through-Right		0			0	
	Right	148	1	87	146	1	72
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	122	1	122	149	1	149
	Left-Through		0			0	
	Through	2200	2	**794**	2341	2	**840**
	Through-Right		1			1	
	Right	182	0	182	178	0	178
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	108	1	**108**	111	1	**111**
	Left-Through		0			0	
	Through	1783	2	620	1858	2	659
	Through-Right		1			1	
	Right	77	0	77	120	0	120
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	691		*North-South:*	768
			East-West:	902		*East-West:*	951
			SUM:	1593		*SUM:*	1719
VOLUME/CAPACITY *(V/C)* RATIO:				1.062			1.146
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.962**			**1.046**
LEVEL OF SERVICE (LOS):				**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
9	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 6th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--		0	NB-- 0	SB--	0
	EB-- 0	WB--		0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	36	0	**36**	58	0	58
	Left-Through		0			0	
	Through	80	0	164	148	0	**331**
	Through-Right		0			0	
	Right	48	0	0	125	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	30	0	30	24	0	**24**
	Left-Through		0			0	
	Through	175	0	**245**	138	0	194
	Through-Right		0			0	
	Right	40	0	0	32	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	14	1	14	39	1	39
	Left-Through		0			0	
	Through	1191	1	**647**	1182	1	**629**
	Through-Right		1			1	
	Right	103	0	103	75	0	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	76	1	**76**	95	1	**95**
	Left-Through		0			0	
	Through	1170	1	589	1292	1	670
	Through-Right		1			1	
	Right	8	0	8	48	0	48
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	281		*North-South:*	355
			East-West:	723		*East-West:*	724
			SUM:	1004		*SUM:*	1079
VOLUME/CAPACITY *(V/C)* RATIO:				0.669			0.719
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.569**			**0.619**
LEVEL OF SERVICE (LOS):				**A**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (N) **East-West Street:** Wilshire Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	**0**	0	0	**0**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	209	0	209	170	0	170
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	95	0	**304**	116	0	**286**
	Left-Through-Right		0			0	
	Left-Right		1			1	
EASTBOUND	Left	64	1	**64**	87	1	**87**
	Left-Through		0			0	
	Through	1672	2	836	1648	2	824
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1633	2	**817**	1657	2	**829**
	Through-Right		0			0	
	Right	187	1	187	204	1	204
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	304		*North-South:*	286
			East-West:	881		*East-West:*	916
			SUM:	1185		*SUM:*	1202
VOLUME/CAPACITY *(V/C)* RATIO:				0.790			0.801
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.690**			**0.701**
LEVEL OF SERVICE (LOS):				**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
11	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (S) **East-West Street:** Wilshire Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	159	1	159	185	1	**185**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	249	1	**194**	210	1	154
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1662	2	**831**	1607	2	**804**
	Through-Right		0			0	
	Right	225	1	146	226	1	134
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	110	1	**110**	113	1	**113**
	Left-Through		0			0	
	Through	1670	2	835	1693	2	847
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	194		*North-South:*	185
			East-West:	941		*East-West:*	917
			SUM:	1135		*SUM:*	1102
VOLUME/CAPACITY *(V/C)* RATIO:				0.757			0.735
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.657**			**0.635**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
12	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave **East-West Street:** 8th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--		0	NB-- 0	SB--		0
		EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	5	0		5	6	0		**6**
	Left-Through		0				0		
	Through	95	0		**111**	67	0		90
	Through-Right		0				0		
	Right	11	0		0	17	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	114	0		**114**	206	0		206
	Left-Through		1				1		
	Through	41	0		155	90	0		**296**
	Through-Right		0				0		
	Right	68	1		68	73	1		73
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	30	0		**30**	37	0		37
	Left-Through		1				1		
	Through	1079	0		638	1393	0		**816**
	Through-Right		1				1		
	Right	16	0		638	17	0		816
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	31	0		31	24	0		**24**
	Left-Through		1				1		
	Through	1144	0		**756**	1198	0		730
	Through-Right		1				1		
	Right	181	0		756	117	0		730
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	225			*North-South:*	302
				East-West:	786			*East-West:*	840
				SUM:	1011			*SUM:*	1142
VOLUME/CAPACITY *(V/C)* RATIO:					0.674				0.761
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.574**				**0.661**
LEVEL OF SERVICE (LOS):					**A**				**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
13	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** Wilshire Blvd
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 EB-- 0		SB-- 0 WB-- 0		NB-- 0 EB-- 0		SB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	172	1	**172**	192	1	**192**
	Left-Through		0			0	
	Through	1319	2	481	1368	2	521
	Through-Right		1			1	
	Right	124	0	124	196	0	196
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	124	1	124	190	1	190
	Left-Through		0			0	
	Through	1262	2	**631**	1289	2	**645**
	Through-Right		0			0	
	Right	175	1	54	238	1	125
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	242	1	**242**	226	1	**226**
	Left-Through		0			0	
	Through	1422	2	711	1228	2	614
	Through-Right		0			0	
	Right	326	1	240	211	1	115
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	185	1	185	191	1	191
	Left-Through		0			0	
	Through	1371	2	**686**	1342	2	**671**
	Through-Right		0			0	
	Right	109	1	47	122	1	27
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	803		*North-South:*	837
			East-West:	928		*East-West:*	897
			SUM:	1731		*SUM:*	1734
VOLUME/CAPACITY *(V/C)* RATIO:				1.259			1.261
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.159**			**1.161**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

I/S #:
14

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Vermont Ave **East-West Street:** 8th St
Scenario: Future Year 2026
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

		AM			PM		
	No. of Phases			2			2
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
	ATSAC-1 or ATSAC+ATCS-2?			2			2
	Override Capacity			0			0
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	124	1	**124**	130	1	130
	Left-Through		0			0	
	Through	1674	1	862	1776	1	**919**
	Through-Right		1			1	
	Right	49	0	49	61	0	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	70	1	70	114	1	**114**
	Left-Through		0			0	
	Through	1797	1	**942**	1652	1	868
	Through-Right		1			1	
	Right	87	0	87	84	0	84
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	0	1	0	0
	Left-Through		0			0	
	Through	957	1	**561**	1166	1	**686**
	Through-Right		1			1	
	Right	164	0	164	205	0	205
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	0	**0**	4	0	**0**
	Left-Through		0			0	
	Through	1008	1	553	1033	1	576
	Through-Right		1			1	
	Right	98	0	98	118	0	118
	Left-Through-Right		0			0	
	Left-Right		0			0	
	CRITICAL VOLUMES		*North-South:*	1066		*North-South:*	1033
			East-West:	561		*East-West:*	686
			SUM:	1627		*SUM:*	1719
	VOLUME/CAPACITY *(V/C)* RATIO:			1.085			1.146
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.985**			**1.046**
	LEVEL OF SERVICE (LOS):			**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
1	North-South Street:	Western Ave	East-West Street:	Wilshire Blvd
	Scenario:	Future plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0
	EB-- 0	WB--	0		EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	87	1	87	92	1	**92**
	Left-Through		0			0	
	Through	1292	1	**697**	1126	1	634
	Through-Right		1			1	
	Right	101	0	101	141	0	141
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	135	1	**135**	126	1	126
	Left-Through		0			0	
	Through	1058	1	556	1325	1	**693**
	Through-Right		1			1	
	Right	54	0	54	60	0	60
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	9	1	**9**	7	1	7
	Left-Through		0			0	
	Through	1119	2	560	1230	2	**615**
	Through-Right		0			0	
	Right	103	1	60	107	1	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	1	42	35	1	**35**
	Left-Through		0			0	
	Through	1278	2	**639**	1078	2	539
	Through-Right		0			0	
	Right	75	1	8	119	1	56
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	832		North-South:	785
			East-West:	648		East-West:	650
			SUM:	1480		SUM:	1435
VOLUME/CAPACITY (V/C) RATIO:				1.076			1.044
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.976**			**0.944**
LEVEL OF SERVICE (LOS):				**E**			**E**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
2	North-South Street:	Western Ave	East-West Street:	8th St
	Scenario:	Future plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0
	EB-- 0	WB--	0		EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	68	1	68	62	1	62
	Left-Through		0			0	
	Through	1390	1	**737**	1250	1	**734**
	Through-Right		1			1	
	Right	84	0	84	217	0	217
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	120	1	**120**	204	1	**204**
	Left-Through		0			0	
	Through	1209	1	625	1414	1	736
	Through-Right		1			1	
	Right	40	0	40	57	0	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	86	1	**86**	75	1	75
	Left-Through		0			0	
	Through	658	1	362	949	1	**506**
	Through-Right		1			1	
	Right	65	0	65	63	0	63
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	269	1	269	225	1	**225**
	Left-Through		0			0	
	Through	1020	1	**589**	768	1	467
	Through-Right		1			1	
	Right	157	0	157	165	0	165
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	857		North-South:	938
			East-West:	675		East-West:	731
			SUM:	1532		SUM:	1669
VOLUME/CAPACITY (V/C) RATIO:				1.021			1.113
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.921**			**1.013**
LEVEL OF SERVICE (LOS):				**E**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
3	North-South Street:	Normandie Ave	East-West Street:	3rd St	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:	

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	2	0	**0**	2	0	0
	Left-Through		0			0	
	Through	710	1	425	952	1	**575**
	Through-Right		1			1	
	Right	139	0	139	198	0	198
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	4	0	0	2	0	**0**
	Left-Through		0			0	
	Through	1019	1	**575**	785	1	439
	Through-Right		1			1	
	Right	131	0	131	93	0	93
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	63	1	63	109	1	109
	Left-Through		0			0	
	Through	1182	1	**628**	1138	1	**638**
	Through-Right		1			1	
	Right	74	0	74	138	0	138
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	120	1	**120**	163	1	**163**
	Left-Through		0			0	
	Through	1111	1	581	1082	1	582
	Through-Right		1			1	
	Right	51	0	51	82	0	82
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	575		North-South:	575
			East-West:	748		East-West:	801
			SUM:	1323		SUM:	1376
VOLUME/CAPACITY (V/C) RATIO:				0.928			0.966
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.828**			**0.866**
LEVEL OF SERVICE (LOS):				**D**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
4	North-South Street:	Normandie Ave	East-West Street:	6th St	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:	

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	32	0	**32**	9	0	0
	Left-Through		1			0	
	Through	624	0	403	935	1	**512**
	Through-Right		1			1	
	Right	53	0	403	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	102	0	102	6	0	**0**
	Left-Through		1			0	
	Through	888	1	**648**	805	2	403
	Through-Right		0			0	
	Right	107	1	87	49	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	41	1	41	102	1	**102**
	Left-Through		0			0	
	Through	1167	1	**612**	1228	1	642
	Through-Right		1			1	
	Right	57	0	57	55	0	55
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	42	1	**42**	52	1	52
	Left-Through		0			0	
	Through	1142	1	585	1250	1	**670**
	Through-Right		1			1	
	Right	27	0	27	90	0	90
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	680		*North-South:*	512
			East-West:	654		*East-West:*	772
			SUM:	1334		*SUM:*	1284
VOLUME/CAPACITY *(V/C)* RATIO:				0.889			0.856
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.789**			**0.756**
LEVEL OF SERVICE (LOS):				**C**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
5	North-South Street:	Normandie Ave	East-West Street:	Wilshire Blvd	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:	

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0
	EB-- 0	WB--	0		EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	67	0	**67**	86	0	86
	Left-Through		1			1	
	Through	521	1	395	721	1	**533**
	Through-Right		0			0	
	Right	153	1	64	155	1	76
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	152	0	152	219	0	**219**
	Left-Through		1			1	
	Through	712	1	**660**	611	1	611
	Through-Right		0			0	
	Right	120	1	85	138	1	68
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	70	1	70	140	1	**140**
	Left-Through		0			0	
	Through	1435	2	**718**	1445	2	723
	Through-Right		0			0	
	Right	133	1	133	103	1	103
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	179	1	**179**	159	1	159
	Left-Through		0			0	
	Through	1465	2	733	1530	2	**765**
	Through-Right		0			0	
	Right	94	1	94	131	1	22
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	727		North-South:	752
			East-West:	897		East-West:	905
			SUM:	1624		SUM:	1657
VOLUME/CAPACITY (V/C) RATIO:				1.140			1.163
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.040**			**1.063**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
6	North-South Street:	Normandie Ave	East-West Street:	7th St
	Scenario:	Future plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

			AM				PM		
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--		0	NB--	0	SB--	0
	EB--	0	WB--		0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	126	0	126	76	0	76
	Left-Through		0			0	
	Through	708	0	**883**	760	0	**891**
	Through-Right		0			0	
	Right	49	0	0	55	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	34	0	**34**	89	0	**89**
	Left-Through		1			1	
	Through	732	0	766	687	0	776
	Through-Right		0			0	
	Right	107	1	80	201	1	180
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	55	1	**55**	42	1	42
	Left-Through		0			0	
	Through	126	0	201	254	0	**376**
	Through-Right		1			1	
	Right	75	0	0	122	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	28	1	28	34	1	**34**
	Left-Through		0			0	
	Through	111	0	**180**	137	0	204
	Through-Right		1			1	
	Right	69	0	0	67	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	917		North-South:	980
			East-West:	235		East-West:	410
			SUM:	1152		SUM:	1390
VOLUME/CAPACITY (V/C) RATIO:				0.768			0.927
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.668**			**0.827**
LEVEL OF SERVICE (LOS):				**B**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project		
7	North-South Street:	Normandie Ave	East-West Street:	8th St
	Scenario:	Future plus Revised Project		
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0
	EB-- 0	WB--	0		EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	83	0	**83**	134	0	134
	Left-Through		0			0	
	Through	723	0	872	773	0	**1050**
	Through-Right		0			0	
	Right	66	0	0	143	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	68	0	68	58	0	**58**
	Left-Through		0			0	
	Through	768	0	**874**	718	0	817
	Through-Right		0			0	
	Right	38	0	0	41	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	52	0	**52**	38	0	**38**
	Left-Through		1			1	
	Through	929	0	697	1196	0	772
	Through-Right		1			1	
	Right	152	0	697	120	0	772
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	134	0	134	131	0	131
	Left-Through		1			1	
	Through	987	0	**935**	997	0	**932**
	Through-Right		1			1	
	Right	78	0	935	80	0	932
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	957		North-South:	1108
			East-West:	987		East-West:	970
			SUM:	1944		SUM:	2078
VOLUME/CAPACITY (V/C) RATIO:				1.296			1.385
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.196**			**1.285**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
8	North-South Street:	Normandie Ave	East-West Street:	Olympic Blvd	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst:	Fehr & Peers	Date:

			AM				PM		
					No. of Phases	2			2
					Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0			0
			NB-- 0	SB--	Right Turns: FREE-1, NRTOR-2 or OLA-3?	0	NB-- 0	SB--	0
			EB-- 0	WB--		0	EB-- 0	WB--	0
					ATSAC-1 or ATSAC+ATCS-2?	2			2
					Override Capacity	0			0
		MOVEMENT	Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	191	1	**191**		161	1	**161**
		Left-Through		0				0	
		Through	1103	2	552		1060	2	530
		Through-Right		0				0	
		Right	130	1	76		185	1	130
		Left-Through-Right		0				0	
		Left-Right		0				0	
SOUTHBOUND		Left	129	1	129		120	1	120
		Left-Through		0				0	
		Through	1005	2	**503**		1217	2	**609**
		Through-Right		0				0	
		Right	148	1	87		146	1	72
		Left-Through-Right		0				0	
		Left-Right		0				0	
EASTBOUND		Left	122	1	122		149	1	149
		Left-Through		0				0	
		Through	2202	2	**795**		2351	2	**843**
		Through-Right		1				1	
		Right	182	0	182		178	0	178
		Left-Through-Right		0				0	
		Left-Right		0				0	
WESTBOUND		Left	108	1	**108**		111	1	**111**
		Left-Through		0				0	
		Through	1792	2	623		1863	2	661
		Through-Right		1				1	
		Right	77	0	77		120	0	120
		Left-Through-Right		0				0	
		Left-Right		0				0	
		CRITICAL VOLUMES		*North-South:*	694			*North-South:*	770
				East-West:	903			*East-West:*	954
				SUM:	1597			*SUM:*	1724
		VOLUME/CAPACITY *(V/C)* RATIO:			1.065				1.149
		V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.965**				**1.049**
		LEVEL OF SERVICE (LOS):			**E**				**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
9	North-South Street:	Mariposa Ave	East-West Street:	6th St	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst:	Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2	
Override Capacity			0			0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	42	0	**42**	61	0	61
	Left-Through		0			0	
	Through	87	0	177	152	0	**338**
	Through-Right		0			0	
	Right	48	0	0	125	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	30	0	30	24	0	**24**
	Left-Through		0			0	
	Through	177	0	**247**	146	0	202
	Through-Right		0			0	
	Right	40	0	0	32	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	14	1	14	39	1	39
	Left-Through		0			0	
	Through	1191	1	**648**	1182	1	**632**
	Through-Right		1			1	
	Right	105	0	105	82	0	82
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	76	1	**76**	95	1	**95**
	Left-Through		0			0	
	Through	1170	1	589	1292	1	670
	Through-Right		1			1	
	Right	8	0	8	48	0	48
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	289		*North-South:*	362
			East-West:	724		*East-West:*	727
			SUM:	1013		*SUM:*	1089
VOLUME/CAPACITY *(V/C)* RATIO:				0.675			0.726
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.575**			**0.626**
LEVEL OF SERVICE (LOS):				**A**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	
10	

PROJECT TITLE: 3440 Wilshire Project
North-South Street: Mariposa Ave (N) **East-West Street:** Wilshire Blvd
Scenario: Future plus Revised Project
Count Date: 4/17/2018 **Analyst:** Fehr & Peers **Date:**

			AM			PM		
No. of Phases					2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?			NB-- 0	SB--	0	NB-- 0	SB--	0
			EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2			2
Override Capacity					0			0
MOVEMENT			Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND		Left	0	0	**0**	0	0	**0**
		Left-Through		0			0	
		Through	0	0	0	0	0	0
		Through-Right		0			0	
		Right	0	0	0	0	0	0
		Left-Through-Right		0			0	
		Left-Right		0			0	
SOUTHBOUND		Left	212	0	212	184	0	184
		Left-Through		0			0	
		Through	0	0	0	0	0	0
		Through-Right		0			0	
		Right	95	0	**307**	116	0	**300**
		Left-Through-Right		0			0	
		Left-Right		1			1	
EASTBOUND		Left	64	1	**64**	87	1	**87**
		Left-Through		0			0	
		Through	1676	2	838	1668	2	834
		Through-Right		0			0	
		Right	0	0	0	0	0	0
		Left-Through-Right		0			0	
		Left-Right		0			0	
WESTBOUND		Left	0	0	0	0	0	0
		Left-Through		0			0	
		Through	1651	2	**826**	1667	2	**834**
		Through-Right		0			0	
		Right	200	1	200	211	1	211
		Left-Through-Right		0			0	
		Left-Right		0			0	
CRITICAL VOLUMES				*North-South:*	307		*North-South:*	300
				East-West:	890		*East-West:*	921
				SUM:	1197		*SUM:*	1221
VOLUME/CAPACITY *(V/C)* RATIO:					0.798			0.814
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.698**			**0.714**
LEVEL OF SERVICE (LOS):					**B**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
11	North-South Street:	Mariposa Ave (S)	East-West Street:	Wilshire Blvd	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst:	Fehr & Peers	Date:

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	190	1	190	201	1	**201**
	Left-Through		0			0	
	Through	0	0	0	0	0	0
	Through-Right		0			0	
	Right	277	1	**219**	225	1	153
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	**0**	0	0	0
	Left-Through		0			0	
	Through	0	0	0	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	1662	2	**831**	1607	2	**804**
	Through-Right		0			0	
	Right	232	1	137	260	1	160
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	117	1	**117**	145	1	**145**
	Left-Through		0			0	
	Through	1670	2	835	1693	2	847
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	219		North-South:	201
			East-West:	948		East-West:	949
			SUM:	1167		SUM:	1150
VOLUME/CAPACITY (V/C) RATIO:				0.778			0.767
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.678**			**0.667**
LEVEL OF SERVICE (LOS):				**B**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
12	North-South Street:	Mariposa Ave	East-West Street:	8th St	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:	

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2	
Override Capacity			0			0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	5	0	5	6	0	6
	Left-Through		0			0	
	Through	100	0	**116**	90	0	**113**
	Through-Right		0			0	
	Right	11	0	0	17	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	126	0	**126**	212	0	**212**
	Left-Through		1			1	
	Through	62	0	188	101	0	313
	Through-Right		0			0	
	Right	78	1	78	78	1	78
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	32	0	**32**	48	0	48
	Left-Through		1			1	
	Through	1079	0	644	1393	0	**849**
	Through-Right		1			1	
	Right	16	0	644	17	0	849
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	31	0	31	24	0	**24**
	Left-Through		1			1	
	Through	1144	0	**757**	1198	0	736
	Through-Right		1			1	
	Right	184	0	757	130	0	736
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	242		North-South:	325
			East-West:	789		East-West:	873
			SUM:	1031		SUM:	1198
VOLUME/CAPACITY (V/C) RATIO:				0.687			0.799
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.587**			**0.699**
LEVEL OF SERVICE (LOS):				**A**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
13	North-South Street:	Vermont Ave	East-West Street:	Wilshire Blvd	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst:	Fehr & Peers	Date:

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0		NB-- 0	SB--	0
	EB-- 0	WB--	0		EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2				2
Override Capacity			0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	172	1	**172**	192	1	**192**
	Left-Through		0			0	
	Through	1319	2	481	1368	2	521
	Through-Right		1			1	
	Right	124	0	124	196	0	196
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	124	1	124	190	1	190
	Left-Through		0			0	
	Through	1262	2	**631**	1289	2	**645**
	Through-Right		0			0	
	Right	177	1	53	246	1	131
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	249	1	**249**	230	1	**230**
	Left-Through		0			0	
	Through	1435	2	718	1235	2	618
	Through-Right		0			0	
	Right	326	1	240	211	1	115
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	185	1	185	191	1	191
	Left-Through		0			0	
	Through	1374	2	**687**	1356	2	**678**
	Through-Right		0			0	
	Right	109	1	47	122	1	27
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			North-South:	803		North-South:	837
			East-West:	936		East-West:	908
			SUM:	1739		SUM:	1745
VOLUME/CAPACITY (V/C) RATIO:				1.265			1.269
V/C LESS ATSAC/ATCS ADJUSTMENT:				**1.165**			**1.169**
LEVEL OF SERVICE (LOS):				**F**			**F**

Version: 1i Beta; 8/4/2011

Level of Service Worksheet
(Circular 212 Method)

I/S #:	PROJECT TITLE:	3440 Wilshire Project			
14	North-South Street:	Vermont Ave	East-West Street:	8th St	
	Scenario:	Future plus Revised Project			
	Count Date:	4/17/2018	Analyst: Fehr & Peers	Date:	

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2
Override Capacity			0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	125	1	**125**	136	1	136
	Left-Through		0			0	
	Through	1674	1	862	1776	1	**919**
	Through-Right		1			1	
	Right	49	0	49	61	0	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	70	1	70	114	1	**114**
	Left-Through		0			0	
	Through	1797	1	**942**	1652	1	868
	Through-Right		1			1	
	Right	87	0	87	84	0	84
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	2	0	0	1	0	0
	Left-Through		0			0	
	Through	963	1	**567**	1169	1	**689**
	Through-Right		1			1	
	Right	170	0	170	208	0	208
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	2	0	**0**	4	0	**0**
	Left-Through		0			0	
	Through	1010	1	554	1040	1	579
	Through-Right		1			1	
	Right	98	0	98	118	0	118
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1067		*North-South:*	1033
			East-West:	567		*East-West:*	689
			SUM:	1634		*SUM:*	1722
VOLUME/CAPACITY *(V/C)* RATIO:				1.089			1.148
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.989**			**1.048**
LEVEL OF SERVICE (LOS):				**E**			**F**

Version: 1i Beta; 8/4/2011

Revised Project
Driveway LOS
Worksheets

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	266	182	84	79	20
Future Vol, veh/h	22	266	182	84	79	20
Conflicting Peds, #/hr	3	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	289	198	91	86	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	292	0	-	0	584	247
Stage 1	-	-	-	-	247	-
Stage 2	-	-	-	-	337	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1270	-	-	-	474	792
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	723	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1266	-	-	-	460	790
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	773	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1266	-	-	-	502
HCM Lane V/C Ratio	0.019	-	-	-	0.214
HCM Control Delay (s)	7.9	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	50	55	421	499	51
Future Vol, veh/h	49	50	55	421	499	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	54	60	458	542	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1148	570	597	0	-	0
Stage 1	570	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	220	521	980	-	-	-
Stage 1	566	-	-	-	-	-
Stage 2	561	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	202	521	980	-	-	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	520	-	-	-	-	-
Stage 2	561	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.4	1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	980	-	292	-	-
HCM Lane V/C Ratio	0.061	-	0.369	-	-
HCM Control Delay (s)	8.9	0	24.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	1.6	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	359	223	103	104	27
Future Vol, veh/h	27	359	223	103	104	27
Conflicting Peds, #/hr	3	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	390	242	112	113	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	357	0	-	0	749	301
Stage 1	-	-	-	-	301	-
Stage 2	-	-	-	-	448	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1202	-	-	-	379	739
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	644	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1199	-	-	-	365	737
Mov Cap-2 Maneuver	-	-	-	-	365	-
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	642	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1199	-	-	-	407
HCM Lane V/C Ratio	0.024	-	-	-	0.35
HCM Control Delay (s)	8.1	0	-	-	18.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.5

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	64	67	68	424	416	62
Future Vol, veh/h	64	67	68	424	416	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	73	74	461	452	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1095	486	519	0	-	0
Stage 1	486	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	236	581	1047	-	-	-
Stage 1	618	-	-	-	-	-
Stage 2	543	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	214	581	1047	-	-	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	559	-	-	-	-	-
Stage 2	543	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.4	1.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1047	-	316	-	-
HCM Lane V/C Ratio	0.071	-	0.451	-	-
HCM Control Delay (s)	8.7	0	25.4	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.2	-	2.2	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	22	294	200	84	79	20
Future Vol, veh/h	22	294	200	84	79	20
Conflicting Peds, #/hr	3	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	320	217	91	86	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	311	0	-	0	634	266
Stage 1	-	-	-	-	266	-
Stage 2	-	-	-	-	368	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1249	-	-	-	443	773
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	700	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1245	-	-	-	430	771
Mov Cap-2 Maneuver	-	-	-	-	430	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	698	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1245	-	-	-	472
HCM Lane V/C Ratio	0.019	-	-	-	0.228
HCM Control Delay (s)	7.9	0	-	-	14.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	49	50	55	455	540	51
Future Vol, veh/h	49	50	55	455	540	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	54	60	495	587	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1230	615	642	0	-	0
Stage 1	615	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	196	491	943	-	-	-
Stage 1	539	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	179	491	943	-	-	-
Mov Cap-2 Maneuver	179	-	-	-	-	-
Stage 1	492	-	-	-	-	-
Stage 2	539	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	27.7	1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	943	-	264	-	-
HCM Lane V/C Ratio	0.063	-	0.408	-	-
HCM Control Delay (s)	9.1	0	27.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.2	-	1.9	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	27	393	248	103	104	27
Future Vol, veh/h	27	393	248	103	104	27
Conflicting Peds, #/hr	3	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	427	270	112	113	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	385	0	-	0	814	329
Stage 1	-	-	-	-	329	-
Stage 2	-	-	-	-	485	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1173	-	-	-	347	712
Stage 1	-	-	-	-	729	-
Stage 2	-	-	-	-	619	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1170	-	-	-	334	710
Mov Cap-2 Maneuver	-	-	-	-	334	-
Stage 1	-	-	-	-	703	-
Stage 2	-	-	-	-	617	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	20.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1170	-	-	-	375
HCM Lane V/C Ratio	0.025	-	-	-	0.38
HCM Control Delay (s)	8.2	0	-	-	20.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.7

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	64	67	68	457	449	62
Future Vol, veh/h	64	67	68	457	449	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	73	74	497	488	67

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1167	522	555	0	-	0
Stage 1	522	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	214	555	1015	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	192	555	1015	-	-	-
Mov Cap-2 Maneuver	192	-	-	-	-	-
Stage 1	535	-	-	-	-	-
Stage 2	522	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29	1.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1015	-	289	-	-
HCM Lane V/C Ratio	0.073	-	0.493	-	-
HCM Control Delay (s)	8.8	0	29	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.2	-	2.6	-	-

Attachment C - Revised Project Signal Warrant Analysis

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Existing 2018 AM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	223	Major Street Left Turn (see note [b]):	36
Major Street (Approach 2):	290	Minor Street (Higher Volume App.):	250
Major Street Total (Both Approaches):	513	Minor Street Total:	286
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	410

PEAK HOUR VOLUME WARRANT SATISFIED? **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Existing 2018 PM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	354	Major Street Left Turn (see note [b]):	50
Major Street (Approach 2):	185	Minor Street (Higher Volume App.):	276
Major Street Total (Both Approaches):	539	Minor Street Total:	326
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	390

PEAK HOUR VOLUME WARRANT SATISFIED? **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street: Mariposa
Minor Street: 7th St
Scenario: Existing plus Project AM
Urban/Rural: u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	262	Major Street Left Turn (see note [b]):	41
Major Street (Approach 2):	300	Minor Street (Higher Volume App.):	301
Major Street Total (Both Approaches):	562	Minor Street Total:	342
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	380

PEAK HOUR VOLUME WARRANT SATISFIED? **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street: Mariposa
Minor Street: 7th St
Scenario: Existing plus Project PM
Urban/Rural: u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	404	Major Street Left Turn (see note [b]):	72
Major Street (Approach 2):	232	Minor Street (Higher Volume App.):	312
Major Street Total (Both Approaches):	636	Minor Street Total:	384
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	340

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Future Base AM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	246	Major Street Left Turn (see note [b]):	43
Major Street (Approach 2):	321	Minor Street (Higher Volume App.):	277
Major Street Total (Both Approaches):	567	Minor Street Total:	320
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	380

PEAK HOUR VOLUME WARRANT SATISFIED? **NO**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Future Base PM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	387	Major Street Left Turn (see note [b]):	62
Major Street (Approach 2):	211	Minor Street (Higher Volume App.):	305
Major Street Total (Both Approaches):	598	Minor Street Total:	367
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	360

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street:	Mariposa
Minor Street:	7th St
Scenario:	Future plus Project AM
Urban/Rural:	u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach

Major Street:	1
Minor Street:	1

Vehicles Per Hour (Peak Hour)

Major Street (Approach 1):	285	Major Street Left Turn (see note [b]):	48
Major Street (Approach 2):	331	Minor Street (Higher Volume App.):	328
Major Street Total (Both Approaches):	616	Minor Street Total:	376
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	350

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

TRAFFIC SIGNAL WARRANTS
PEAK HOUR VEHICULAR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Major Street: Mariposa
Minor Street: 7th St
Scenario: Future plus Project PM
Urban/Rural: u (U=urban, R=rural [a])

PEAK HOUR VOLUME (MUTCD Warrant 3, Caltrans Warrant 11)

Number of Lanes on Each Approach			
Major Street:	1		
Minor Street:	1		
Vehicles Per Hour (Peak Hour)			
Major Street (Approach 1):	437	Major Street Left Turn (see note [b]):	84
Major Street (Approach 2):	258	Minor Street (Higher Volume App.):	341
Major Street Total (Both Approaches):	695	Minor Street Total:	425
Minimum Volume on Major Street to Satisfy Warrant (see note [d]):	450	Minimum Volume on Minor Street to Satisfy Warrant (see note [d]):	310

PEAK HOUR VOLUME WARRANT SATISFIED? **YES**

Notes:

a. May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000.

b. Heavier left-turn movement from the major street may be included with minor street volume if a separate signal phase is proposed for left-turn movements.

c. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-1.

d. From: USDOT, FHWA, "Manual on Uniform Traffic Control Devices," 2001, Figure 4C-3.

Adopted from: U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices, Millennium Edition," 2001; and Caltrans, "Traffic Manual," 2002.

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

3440 Wilshire Boulevard
DOT Case No. CEN19-48798

Date: October 22, 2019

To: Heather Bleemers, Senior City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **ADDENDUM TO THE TRANSPORTATION IMPACT ANALYSIS FOR THE PROPOSED MIXED-USE PROJECT AT 3440 WILSHIRE BOULEVARD**

On October 25, 2018, the Department of Transportation (DOT) issued a transportation assessment report to the Department of City Planning for the proposed Mixed-Use project (**Attachment D**) based on the September 2018 transportation impact analysis prepared by Fehr & Peers. However, since the report was released, the project has been revised and an August 27, 2019 addendum to the transportation analysis was prepared by Fehr & Peers.

The original project at 3440 Wilshire Boulevard proposed 641 multifamily high-rise residential units and 18,454 square feet located. The revised project proposes 640 multifamily high-rise residential units, 5,538 square feet of retail space, 4,600 square feet of high-turnover sit down restaurant, and 2,000 square feet of fast casual restaurant. The revised project level of service table can be found in **Attachment A**. The revised project trip generation table can be found in **Attachment B**. The revised project site plan can be found in **Attachment C**. The original project's level of service table, trip generation table, and site plan can all be found in **Attachment D**. The revised project's access and driveway plan will remain the same as the original project. A table of project land use changes is as follows:

Land Use	Original Project	Revised Project
Multifamily High-Rise Residential Units	641 units	640 units
Retail Space	18,454 square feet (sf)	5,538 sf
High-Turnover Sit Down Restaurant	-	4,600 sf
Fast Casual Restaurant	-	2,000 sf

The previous traffic analysis determined that none of the fourteen analyzed intersections would be significantly impacted by project related traffic. The revised is also not expected to result in significant impacts to any of the fourteen intersections. DOT concurs with the addendum that the project's expected impact would be less than significant and no changes to the transportation analysis are required. All of the project requirements that are identified in DOT's October 25, 2018 letter (**Attachment D**) shall remain in effect.

If you have any questions, please contact Pete Eyre of my staff at (213) 972-4913.

Attachments

K:\Letters\2019\CEN19-48798_3440 Wilshire Blvd Mixed Use_Revised Project

c: Jordan Beroukhim, Council District 10
Matthew Masuda, Central District, BOE
Bhuvan Bajaj, Hollywood/Wilshire District, DOT
Taimour Tanavoli, Case Management, DOT
Tom Gaul & Ryan Liu, Fehr & Peers

TABLE 5
3440 WILSHIRE - REVISED PROJECT
FUTURE YEAR (2026) PLUS REVISED PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	FUTURE (2026)		FUTURE (2026) + REVISED PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.972	E	0.976	E	0.004	No
	Wilshire Blvd	PM	0.940	E	0.944	E	0.004	No
2	Western Ave &	AM	0.920	E	0.921	E	0.001	No
	8th St	PM	1.009	F	1.013	F	0.004	No
3	Normandie Ave &	AM	0.828	D	0.828	D	0.000	No
	3rd St	PM	0.864	D	0.866	D	0.002	No
4	Normandie Ave &	AM	0.789	C	0.789	C	0.000	No
	6th St	PM	0.755	C	0.756	C	0.001	No
5	Normandie Ave &	AM	1.037	F	1.040	F	0.003	No
	Wilshire Blvd	PM	1.058	F	1.063	F	0.005	No
6	Irolo St &	AM	0.657	B	0.668	B	0.011	No
	7th St	PM	0.809	D	0.827	D	0.018	No
7	Irolo St &	AM	1.189	F	1.196	F	0.007	No
	8th St	PM	1.279	F	1.285	F	0.006	No
8	Normandie Ave &	AM	0.962	E	0.965	E	0.003	No
	Olympic Blvd	PM	1.046	F	1.049	F	0.003	No
9	Mariposa Ave &	AM	0.569	A	0.575	A	0.006	No
	6th St	PM	0.619	B	0.626	B	0.007	No
10	Mariposa Ave (West) &	AM	0.690	B	0.698	B	0.008	No
	Wilshire Blvd	PM	0.701	C	0.714	C	0.013	No
11	Mariposa Ave (East) &	AM	0.657	B	0.678	B	0.021	No
	Wilshire Blvd	PM	0.635	B	0.667	B	0.032	No
12	Mariposa Ave &	AM	0.574	A	0.587	A	0.013	No
	8th St	PM	0.661	B	0.699	B	0.038	No
13	Vermont Ave &	AM	1.159	F	1.165	F	0.006	No
	Wilshire Blvd	PM	1.161	F	1.169	F	0.008	No
14	Vermont Ave &	AM	0.985	E	0.989	E	0.004	No
	8th St	PM	1.046	F	1.048	F	0.002	No

TABLE 3
3440 WILSHIRE - REVISED PROJECT
TRIP GENERATION - ITE 10TH EDITION

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
				AM Peak Hour			PM Peak Hour				AM Peak Hour Trips			PM Peak Hour Trips		
			Daily	Rate	In%	Out%	Rate	In%	Out%	Daily	In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Retail	820	5.538 ksf	37.75	0.94	62%	38%	3.81	48%	52%	209	3	2	5	10	11	21
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(31)*	*0*	*0*	*0*	*(2)*	*(2)*	*(4)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(45)*	*(1)*	*(1)*	*(2)*	*(2)*	*(2)*	*(4)*
Total Driveway Trips										133	2	1	3	6	7	13
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(66)*	*(1)*	*0*	*(1)*	*(3)*	*(3)*	*(6)*
Net External Vehicle Trips										67	1	1	2	3	4	7
High-Turnover (Sit Down) Restaurant	932	4.600 ksf	112.18	9.94	55%	45%	9.77	62%	38%	516	25	21	46	28	17	45
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(77)*	*(4)*	*(3)*	*(7)*	*(4)*	*(3)*	*(7)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(110)*	*(5)*	*(5)*	*(10)*	*(6)*	*(4)*	*(10)*
Total Driveway Trips										329	16	13	29	18	10	28
Less: Pass-by [d]			*20%*	*20%*			*20%*			*(65)*	*(3)*	*(2)*	*(5)*	*(3)*	*(2)*	*(5)*
Net External Vehicle Trips										264	13	11	24	15	8	23
Fast Casual Restaurant	930	2.000 ksf	315.17	2.07	67%	33%	14.13	55%	45%	630	3	1	4	15	13	28
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(95)*	*0*	*0*	*0*	*(2)*	*(2)*	*(4)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(134)*	*(1)*	*0*	*(1)*	*(3)*	*(3)*	*(6)*
Total Driveway Trips										401	2	1	3	10	8	18
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(200)*	*(1)*	*0*	*(1)*	*(5)*	*(4)*	*(9)*
Net External Vehicle Trips										201	1	1	2	5	4	9
Multifamily Housing (High-Rise) [e]	222	640 DU	4.45	0.23	12%	88%	0.3	70%	30%	2,848	18	129	147	134	58	192
Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(427)*	*(3)*	*(19)*	*(22)*	*(20)*	*(9)*	*(29)*
Less: Transit Credit [f]			*25%*							*(605)*		*[f]*			*[f]*	
Net External Vehicle Trips										1,816	15	110	125	114	49	163
TOTAL DRIVEWAY TRIPS										2,679	35	125	160	148	74	222
NET INCREMENTAL EXTERNAL TRIPS										2,348	30	123	153	137	65	202

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition*, 2017

[b] Internal capture represents the percentage of trips between land uses that occur within the site. Main Street model calibration of base ITE rates reflecting project & site specific characteristics.

[c] The transit credit is based on LADOT's *Traffic Study Policies and Procedures*, December 2016. The guidelines state that up to 25% transit credit may be taken for projects adjacent to a transit station or Rapid Bus stop.

[d] The pass-by credit is based on Attachment I of LADOT's *Traffic Study Policies and Procedures*, December 2016.

[e] Local high-rise residential data collected for LADOT was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

[f] The local high-rise residential data for the peak hours was collected in locations with access to transit; therefore, a transit credit was not applied during the peak hours. As local data was not available for daily, the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

Attachment B

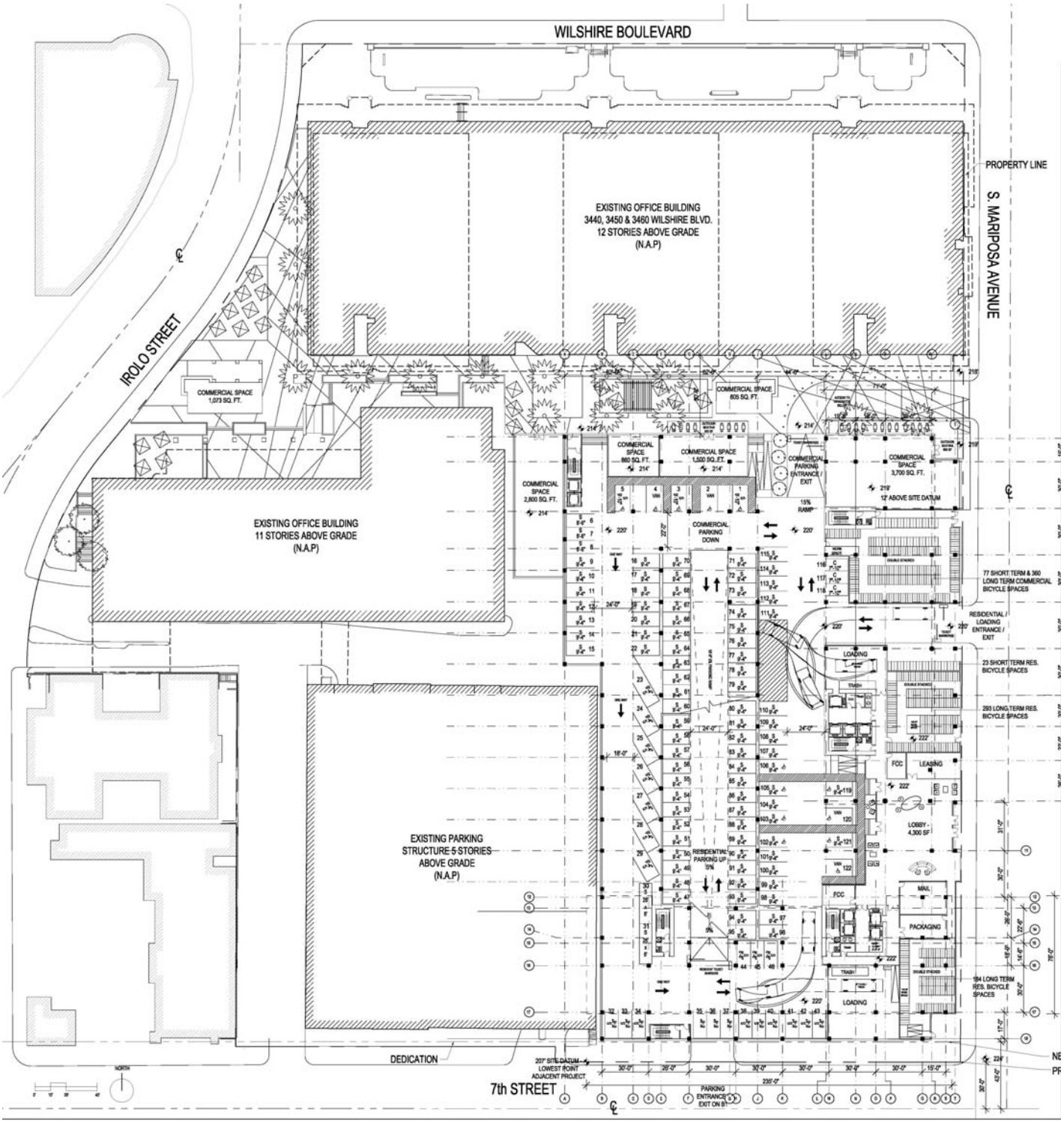


Figure 1

Revised Site Plan

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

3440 Wilshire Blvd
DOT Case No. CEN 16-44755

Date: October 25, 2018

To: Heather Bleemers, City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION ANALYSIS FOR THE PROPOSED MIXED-USE PROJECT LOCATED AT 3440 WILSHIRE BOULEVARD**

The Department of Transportation (DOT) has reviewed the transportation impact study, dated September 2018, prepared by Fehr & Peers, for the proposed mixed-use development located at 3440 Wilshire Boulevard. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. The transportation impact analysis included the detailed analysis of 14 signalized intersections, one un-signalized intersection, and two street segments. Based on DOT's current traffic impact criteria[1], none of these signalized intersections would be significantly impacted by project-related traffic prior to mitigation. The results of the transportation impact analysis, which accounted for other known development projects in evaluating potential cumulative impacts, adequately evaluated the project's traffic impacts on the surrounding community and is summarized in **Attachment 1**.

DISCUSSION AND FINDINGS

A. Project Description

The project site is currently occupied by a parking structure with two office buildings. The two existing office buildings will remain and include approximately 760,456 square feet of office space, retail, fast food restaurant, and sit down restaurant. The proposed mixed-use development at 3440 Wilshire Boulevard will replace just the existing parking structure with 641 high rise residential units, 18,454 square feet of retail space, two levels of underground parking structure, and four levels of above ground parking.

The project currently has five driveways that provide access to the existing uses. The new project will close one of the driveways, leaving the site with four driveways to serve the property. Residents will primarily use the Mariposa Avenue and eastern 7th Street driveway, but all other land uses on the site will have access to use each of the

[1] Per the DOT Transportation Impact Analysis Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

driveways. Loading areas for the project will be accessible from the Mariposa Avenue driveway. The project is expected to be completed by 2026.

B. Trip Generation

The project is estimated to generate a net increase of 2,040 daily trips, 131 trips in the a.m. peak hour, and 186 trips in the p.m. peak hour. The trip generation estimates are based on formulas published by the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition, 2017. A copy of the trip generation table can be found in **Attachment 2**.

C. Freeway Analysis

The traffic study included a freeway impact analysis that was prepared in accordance with the State-mandated Congestion Management Program (CMP) administered by the Los Angeles County Metropolitan Transportation Authority (MTA). According to this analysis, the project would not result in significant traffic impacts on any of the evaluated freeway mainline segments. To comply with the Freeway Impact Analysis Agreement executed between Caltrans and DOT in October 2013, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary beyond the CMP requirements. The project did not meet or exceed any of the four thresholds defined in the latest agreement, updated in December 2015. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare more detailed freeway analyses. No additional freeway analysis was required.

PROJECT REQUIREMENTS

A. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to http://ladot.lacity.org/what-we-do/plan-review to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours to the extent feasible.

B. Highway Dedication And Street Widening Requirements

On January 20, 2016, the City Council adopted the Mobility Plan 2035 which is the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the new Mobility Element, **WILSHIRE BOULEVARD** is designated as an Avenue I, which would require a 35-foot half-width roadway within a 50-foot half-width right-of-way. **WEST 7TH STREET** is designated as an Avenue II, which would require a 28-foot half-width roadway within a 43-foot half-width right-of-way. **SOUTH NORMANDIE AVENUE/ IROLO STREET** is designated as an Avenue III, which would require a 23-

foot half-width roadway within a 36-foot half-width right-of-way. **MARIPOSA AVENUE** is designated as a Local Street, which would require an 18-foot half-width roadway within a 30-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

C. Parking Requirements

The project currently has five driveways that provide access to the existing uses. The new project will close one of the driveways, leaving the site with four driveways. Residents will primarily use the Mariposa Avenue and eastern 7th Street driveway, but all other land uses on the site will have access to use each of the driveways. Loading areas for the project will be accessible from the Mariposa Avenue driveway.

The number of parking spaces that will be provided by the project was not disclosed in the study. The applicant should check with the Department of Building and Safety on the number of Code-required parking sp aces needed for the project.

D. Driveway Access and Circulation

The proposed site plan illustrated in **Attachment 3** is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Room 550, at 213-482-7024). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading and unloading should take place on site with no vehicles backing into the project via any of the project driveways.

E. Development Review Fees

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Johnathan Yu of my staff at (213) 972-4993.

Attachments

J:\Letters\2018\CEN16-44755_3440 Wilshire_MU.docx

c: Jordan Beroukhim, Council District No. 10
Bhuvan Bajaj, Hollywood-Wilshire District, DOT
Taimour Tanavoli, Case Management Office, DOT
Quyen Phan, Central District, BOE
Amanda Heinke, Fehr & Peers

ATTACHMENT 1
Summary of Volume to Capacity Ratios (V/C) and Level of Service (LOS)

TABLE 6
3440 WILSHIRE PROJECT
EXISTING PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	EXISTING		EXISTING + PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.719	C	0.722	C	0.003	No
	Wilshire Blvd	PM	0.661	B	0.664	B	0.003	No
2	Western Ave &	AM	0.660	B	0.661	B	0.001	No
	8th St	PM	0.619	B	0.621	B	0.002	No
3	Normandie Ave &	AM	0.627	B	0.628	B	0.001	No
	3rd St	PM	0.587	A	0.588	A	0.001	No
4	Normandie Ave &	AM	0.562	A	0.563	A	0.001	No
	6th St	PM	0.571	A	0.573	A	0.002	No
5	Normandie Ave &	AM	0.679	B	0.680	B	0.001	No
	Wilshire Blvd	PM	0.687	B	0.697	B	0.010	No
6	Irolo St &	AM	0.521	A	0.532	A	0.011	No
	7th St	PM	0.583	A	0.601	B	0.018	No
7	Irolo St &	AM	0.712	C	0.716	C	0.004	No
	8th St	PM	0.709	C	0.713	C	0.004	No
8	Normandie Ave &	AM	0.696	B	0.697	B	0.001	No
	Olympic Blvd	PM	0.715	C	0.717	C	0.002	No
9	Mariposa Ave &	AM	0.483	A	0.487	A	0.004	No
	6th St	PM	0.517	A	0.523	A	0.006	No
10	Mariposa Ave (West) &	AM	0.545	A	0.551	A	0.006	No
	Wilshire Blvd	PM	0.525	A	0.537	A	0.012	No
11	Mariposa Ave (East) &	AM	0.511	A	0.527	A	0.016	No
	Wilshire Blvd	PM	0.467	A	0.493	A	0.026	No
12	Mariposa Ave &	AM	0.403	A	0.416	A	0.013	No
	8th St	PM	0.450	A	0.483	A	0.033	No
13	Vermont Ave &	AM	0.833	D	0.839	D	0.006	No
	Wilshire Blvd	PM	0.757	C	0.759	C	0.002	No
14	Vermont Ave &	AM	0.649	B	0.650	B	0.001	No
	8th St	PM	0.651	B	0.658	B	0.007	No

TABLE 7
3440 WILSHIRE PROJECT
FUTURE YEAR (2026) PLUS PROJECT INTERSECTION LEVELS OF SERVICE AND IMPACT ANALYSIS

NO.	INTERSECTION	PEAK HOUR	FUTURE (2026)		FUTURE (2026) + PROJECT		V/C INCREASE	SIGNIFICANT IMPACT?
			V/C	LOS	V/C	LOS		
1	Western Ave &	AM	0.972	E	0.975	E	0.003	No
	Wilshire Blvd	PM	0.940	E	0.943	E	0.003	No
2	Western Ave &	AM	0.920	E	0.921	E	0.001	No
	8th St	PM	1.009	F	1.012	F	0.003	No
3	Normandie Ave &	AM	0.828	D	0.828	D	0.000	No
	3rd St	PM	0.864	D	0.866	D	0.002	No
4	Normandie Ave &	AM	0.789	C	0.789	C	0.000	No
	6th St	PM	0.755	C	0.756	C	0.001	No
5	Normandie Ave &	AM	1.037	F	1.038	F	0.001	No
	Wilshire Blvd	PM	1.058	F	1.062	F	0.004	No
6	Irolo St &	AM	0.657	B	0.668	B	0.011	No
	7th St	PM	0.809	D	0.826	D	0.017	No
7	Irolo St &	AM	1.189	F	1.194	F	0.005	No
	8th St	PM	1.279	F	1.285	F	0.006	No
8	Normandie Ave &	AM	0.962	E	0.963	E	0.001	No
	Olympic Blvd	PM	1.046	F	1.049	F	0.003	No
9	Mariposa Ave &	AM	0.569	A	0.575	A	0.006	No
	6th St	PM	0.619	B	0.625	B	0.006	No
10	Mariposa Ave (West) &	AM	0.690	B	0.696	B	0.006	No
	Wilshire Blvd	PM	0.701	C	0.713	C	0.012	No
11	Mariposa Ave (East) &	AM	0.657	B	0.673	B	0.016	No
	Wilshire Blvd	PM	0.635	B	0.661	B	0.026	No
12	Mariposa Ave &	AM	0.574	A	0.587	A	0.013	No
	8th St	PM	0.661	B	0.698	B	0.037	No
13	Vermont Ave &	AM	1.159	F	1.165	F	0.006	No
	Wilshire Blvd	PM	1.161	F	1.168	F	0.007	No
14	Vermont Ave &	AM	0.985	E	0.990	E	0.005	No
	8th St	PM	1.046	F	1.048	F	0.002	No

ATTACHMENT 2
Project Trip Generation Estimates

TABLE 4
3440 WILSHIRE PROJECT
TRIP GENERATION - ITE 10TH EDITION

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
				AM Peak Hour			PM Peak Hour				AM Peak Hour Trips			PM Peak Hour Trips		
			Daily	Rate	In%	Out%	Rate	In%	Out%	Daily	In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Retail	820	18.454 ksf	37.75	0.94	62%	38%	3.81	48%	52%	697	11	6	17	34	36	70
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(105)*	*(2)*	*(1)*	*(3)*	*(5)*	*(5)*	*(10)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(148)*	*(2)*	*(1)*	*(3)*	*(7)*	*(8)*	*(15)*
Total Driveway Trips										444	7	4	11	22	23	45
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(222)*	*(3)*	*(2)*	*(5)*	*(11)*	*(11)*	*(22)*
Net External Vehicle Trips										222	4	2	6	11	12	23
Multifamily Houseing (High-Rise) [e]	222	641 DU	4.45	0.23	12%	88%	0.3	70%	30%	2,852	18	129	147	134	58	192
Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(428)*	*(3)*	*(19)*	*(22)*	*(20)*	*(9)*	*(29)*
Less: Transit Credit [f]			*25%*							*(606)*		*[f]*			*[f]*	
Net External Vehicle Trips										1,818	15	110	125	114	49	163
TOTAL DRIVEWAY TRIPS										2,262	22	114	136	136	72	208
NET INCREMENTAL EXTERNAL TRIPS										2,040	19	112	131	125	61	186

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition*, 2017

[b] Internal capture represents the percentage of trips between land uses that occur within the site. Main Street model calibration of base ITE rates reflecting project & site specific characteristics.

[c] The transit credit is based on LADOT's *Traffic Study Policies and Procedures*, December 2016. The guidelines state that up to 25% transit credit may be taken for projects adjacent to a transit station or Rapid Bus stop.

[d] The pass-by credit is based on Attachment I of LADOT's *Traffic Study Policies and Procedures*, December 2016.

[e] Local high-rise residential data collected for LADOT was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

[f] The local high-rise residential data for the peak hours was collected in locations with access to transit; therefore, a transit credit was not applied during the peak hours. As local data was not available for daily, the general urban/suburban daily rate was used, making it appropriate to apply a transit credit.

ATTACHMENT 3
Project Site plan

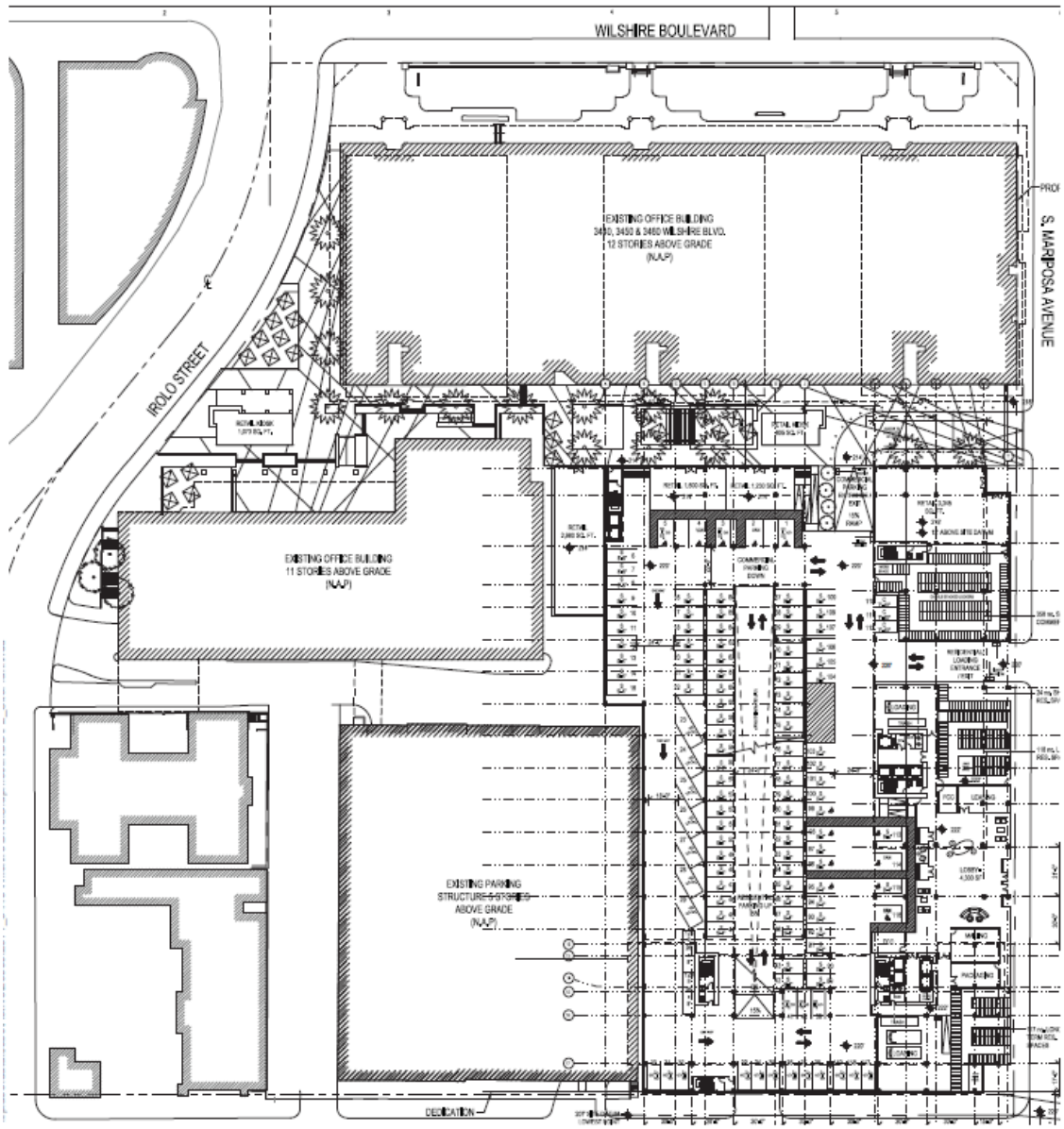


Figure 2A
Site Plan - Level 1

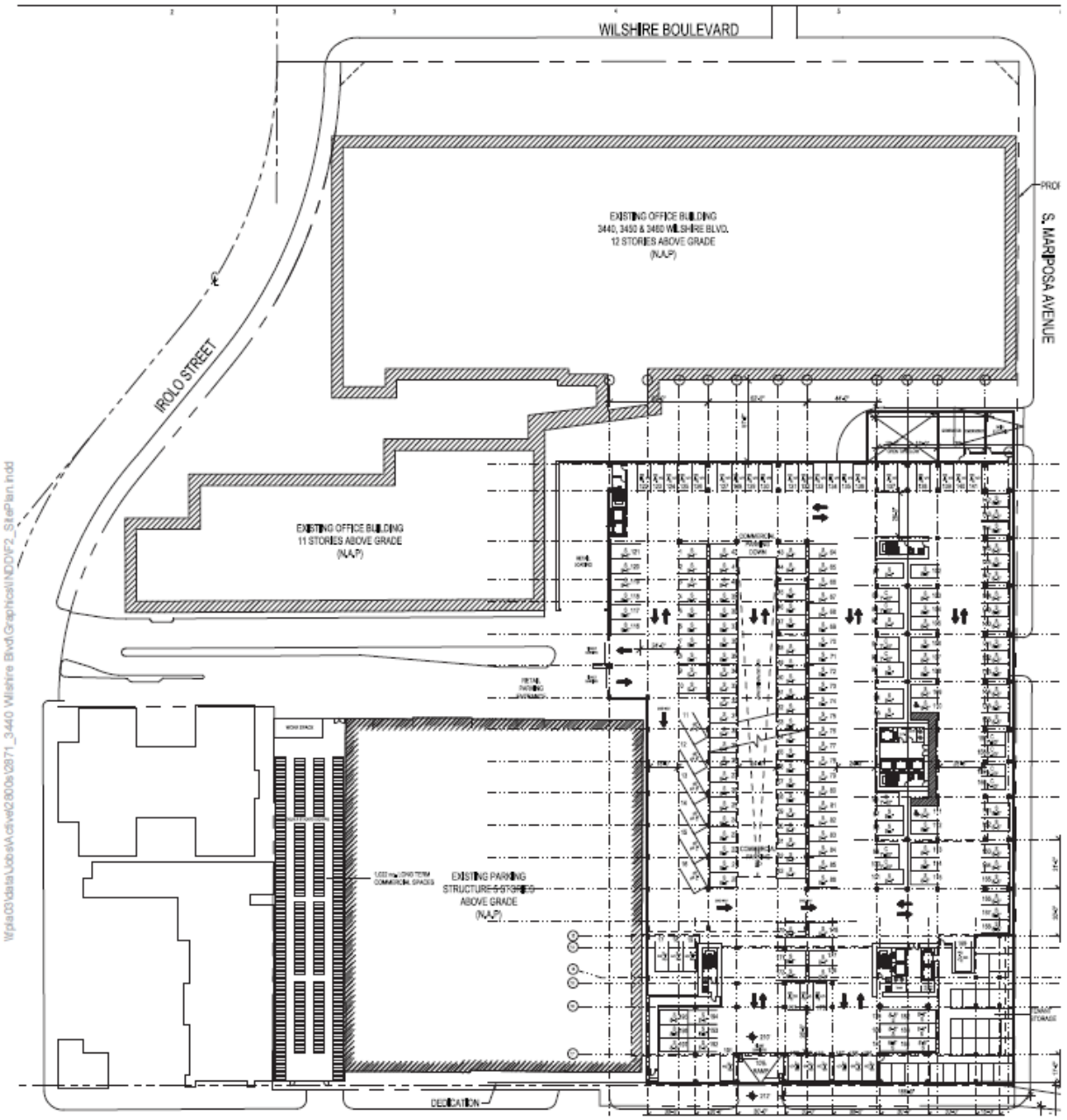


Figure 2B
Site Plan - Level B1

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF PUBLIC WORKS MEMBERS

KEVIN JAMES
PRESIDENT

HEATHER MARIE REPENNING
VICE PRESIDENT

MICHAEL R. DAVIS
PRESIDENT PRO TEMPORE

JOEL F. JACINTO
COMMISSIONER

LUZ M. RIVAS
COMMISSIONER

ERIC GARCETTI
MAYOR

BUREAU OF SANITATION

ENRIQUE C. ZALDIVAR
DIRECTOR

TRACI J. MINAMIDE
CHIEF OPERATING OFFICER

LISA B. MOWERY
CHIEF FINANCIAL OFFICER

ADEL H. HAGEKHALIL
ALEXANDER E. HELOU
LEO N. MARTINEZ
MAS DOJIRI
ASSISTANT DIRECTORS

TIMEYIN DAFETA
HYPERION EXECUTIVE PLANT MANAGER

WASTEWATER ENGINEERING SERVICES DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210
WWW.LACITYSAN.ORG

August 23, 2017

Ms. Andrea Schultz, Head of Operations
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

CENTRAL PLAZA PROJECT-REQUEST FOR WASTEWATER SERVICE INFORMATION

This is in response to your June 29, 2017 letter requesting a review of your proposed mixed-use project located at 3432-3470 W Wilshire Blvd, 659-699 S Mariposa Ave, 3265-3287 W 7th St, and 666-678 S Irolo St, Los Angeles, CA 90005/90010. The project will consist of residential units, retail space, restaurant space, as well as a swimming pool. LA Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

WASTEWATER REQUIREMENT

LA Sanitation, Wastewater Engineering Services Division (WESD) is charged with the task of evaluating the local sewer conditions and to determine if available wastewater capacity exists for future developments. The evaluation will determine cumulative sewer impacts and guide the planning process for any future sewer improvement projects needed to provide future capacity as the City grows and develops.

Projected Wastewater Discharges for the Proposed Project:

Type Description	Average Daily Flow per Type Description (GPD/UNIT)	Proposed No. of Units	Average Daily Flow (GPD)
Proposed			
Residential-Studio	75/ DU	461 DU	34,575
Residential: 2-BDRM	150/ DU	180 DU	27,000
Retail	25 GPD/1000 FT^2	13,500 SQ.FT	338
Restaurant-Indoor	30 GPD/ Seat	138 Seat	4,140
Restaurant-Fast Food	25 GPD/ Seat	68 Seat	1,700
Leasing Office	120 GPD/1000 FT^2	2,620 SQ.FT	314
Amenity Space	350 GPD/1000 FT^2	40,650 SQ.FT	14,228
Pool	7.48 GAL/ FT^3	4,800 CU.FT	35,904
Water Feature	7.48 GAL/ FT^3	1,331 CU.FT	9,956
Total			**128,155**

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes an existing 18-inch line on Normandie Ave. The sewage from the existing 18-inch line feeds into a 48-inch line on Normandie Ave before discharging into a 57-inch sewer line on James M Wood Blvd. Figure 1 shows the details of the sewer system within the vicinity of the project. The current flow level (d/D) in the 18-inch line and the 54-inch line cannot be determined at this time without additional gauging.

The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
18	Wilshire Blvd R/W	*	4.32 MGD
48	Normandie Ave.	26	29.86 MGD
54	James M Wood Blvd.	*	67.79 MGD
57	James M Wood Blvd.	24	36.70 MGD

* No gauging available

Based on the estimated flows, it appears the sewer system might be able to accommodate the total flow for your proposed project. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. Ultimately, this sewage flow will be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity for the project.

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org.

STORMWATER REQUIREMENTS

LA Sanitation, Watershed Protection Program (WPP) is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

POST-CONSTRUCTION MITIGATION REQUIREMENTS

In accordance with the Municipal Separate Storm Sewer (MS4) National Pollutant Discharge Elimination System (NPDES) Permit (Order No. R4-2012-0175, NPDES No. CAS004001) and the City of Los Angeles Stormwater and Urban Runoff Pollution Control requirements (Chapter VI, Article 4.4, of the Los Angeles Municipal Code), the Project shall comply with all mandatory provisions to the Stormwater Pollution Control Measures for Development Planning (LID Ordinance) and as it may be subsequently amended or modified. Prior to issuance of grading or building permits, the Applicant shall submit a LID Plan to the City of Los Angeles, Bureau of Sanitation, Watershed Protection Division (WPD), for review and approval. The LID Plan shall be prepared consistent with the requirements of the Development Best Management Practices Handbook.

Current regulations prioritize infiltration, capture/use, and then biofiltration as the preferred stormwater control measures. The relevant documents can be found at: www.lacitysan.org. It is advised that input

regarding LID requirements be received in the early phases of the project from WPD's plan-checking staff.

GREEN STREETS

The City is developing a Green Street Initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-away to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local ground water basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the LID requirements. Green Street standard plans can be found at: www.eng2.lacity.org/techdocs/stdplans/

CONSTRUCTION REQUIREMENTS

All construction sites are required to implement a minimum set of BMPs for erosion control, sediment control, non-stormwater management, and waste management. In addition, construction sites with active grading permits are required to prepare and implement a Wet Weather Erosion Control Plan during the rainy season between October 1 and April 15. Additionally, construction sites that disturb more than one-acre of land are subject to the NPDES Construction General Permit issued by the State of California, and are required to prepare, submit, and implement the Storm Water Pollution Prevention Plan (SWPPP).

If there are questions regarding the stormwater requirements, please call WPP's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 3rd Fl, Station 18.

GROUNDWATER DEWATERING REUSE OPTIONS

The Los Angeles Department of Water and Power (LADWP) is charged with the task of supplying water and power to the residents and businesses in the City of Los Angeles. One of the sources of water includes groundwater. The majority of groundwater in the City of Los Angeles is adjudicated, and the rights of which are owned and managed by various parties. Extraction of groundwater within the City from any depth by law requires metering and regular reporting to the appropriate Court-appointed Watermaster. LADWP facilitates this reporting process, and may assess and collect associated fees for the usage of the City's water rights. The party performing the dewatering should inform the property owners about the reporting requirement and associated usage fees.

On April 22, 2016 the City of Los Angeles Council passed Ordinance 184248 amending the City of Los Angeles Building Code, requiring developers to consider beneficial reuse of groundwater as a conservation measure and alternative to the common practice of discharging groundwater to the storm drain (SEC. 99.04.305.4). It reads as follows: "Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater, shall be developed and constructed. Alternatively, the groundwater may be discharged to the sewer."

Groundwater may be beneficially used as landscape irrigation, cooling tower make-up, and construction (dust control, concrete mixing, soil compaction, etc.). Different applications may require various levels of treatment ranging from chemical additives to filtration systems. When onsite reuse is not available the groundwater may be discharged to the sewer system. This allows the water to be potentially reused as

recycled water once it has been treated at a water reclamation plant. If groundwater is discharged into the storm drain it offers no potential for reuse. The onsite beneficial reuse of groundwater can reduce or eliminate costs associated with sewer and storm drain permitting and monitoring. Opting for onsite reuse or discharge to the sewer system are the preferred methods for disposing of groundwater.

To help offset costs of water conservation and reuse systems, LADWP offers the Technical Assistance Program (TAP), which provides engineering and technical assistance for qualified projects. Financial incentives are also available. Currently, LADWP provides an incentive of $1.75 for every 1,000 gallons of water saved during the first two years of a five-year conservation project. Conservation projects that last 10 years are eligible to receive the incentive during the first four years. Other water conservation assistance programs may be available from Metropolitan Water District of Southern California. To learn more about available water conservation assistance programs, please contact LADWP Rebate Programs 1-888-376-3314 and LADWP TAP 1-800-544-4498, selection "3".

For more information related to beneficial reuse of groundwater, please contact Greg Reed, Manager of Water Rights and Groundwater Management, at (213)367-2117 or greg.reed@ladwp.com.

SOLID RESOURCE REQUIREMENTS

The City has a standard requirement that applies to all proposed residential developments of four or more units or where the addition of floor areas is 25 percent or more, and all other development projects where the addition of floor area is 30 percent or more. Such developments must set aside a recycling area or room for onsite recycling activities. For more details of this requirement, please contact LA Sanitation Solid Resources Recycling hotline 213-922-8300.

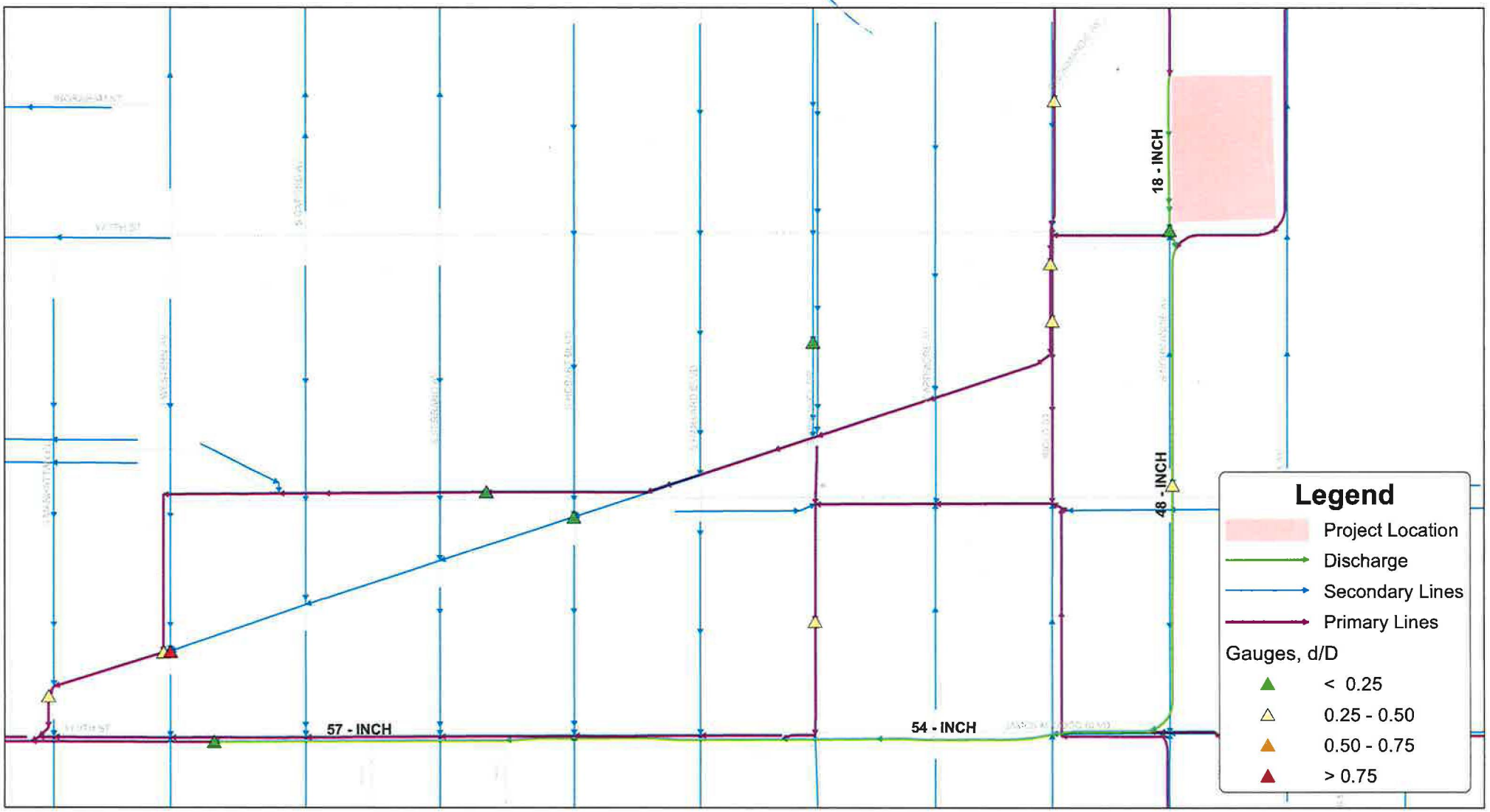
Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation

CD/AP:sa

Attachment: Figure 1 – Sewer Map

c: Kosta Kaporis, LASAN
Abdulsamad Danishwar, LASAN



Wastewater Engineering Services Division
LA Sanitation
City of Los Angeles

Figure 1
Central Plaza Project - Request for Wastewater Services Information
Sewer Map

N
W
E
S

0 112.5 225 450 675 900
Feet

Thomas Brother Data reproduced with permission granted by THOMAS BROS MAP

Los Angeles Department of Water & Power

ERIC GARCETTI
Mayor

Commission
MEL LEVINE, *President*
WILLIAM W. FUNDERBURK JR., *Vice President*
JILL BANKS BARAD
CHRISTINA E. NOONAN
AURA VASQUEZ
BARBARA E. MOSCHOS, *Secretary*

DAVID H. WRIGHT
General Manager

July 17, 2017

Ms. Andrea Schultz, Head of Operations
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

Dear Ms. Schultz,

Subject: Los Angeles Department of Water and Power
Water and Electricity Connection Services Request
Central Plaza Project

The Los Angeles Department of Water and Power (LADWP) is in receipt of your letter dated June 29, 2017 requesting LADWP's ability to provide water and electric services for the Central Plaza Project (Thomas Brothers Maps, Page 633, J3).

The Project is the Central Plaza Project (Project). The Project site is bounded on the north by Wilshire Boulevard, on the west by Irolo Street, on the south by 7th Street, and on the east by Mariposa Avenue. The address of the Project site is 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90005/90010 in the Wilshire Community Plan.

Current development at the Project site include four commercial office buildings with ground floor retail uses that front West Wilshire Boulevard and South Irolo Street, a three-story parking structure, and a five-story parking structure. The proposed Project will involve the demolition of the existing three-story parking structure, adding ground floor retail to the existing commercial office buildings, constructing three commercial kiosks along Wilshire Boulevard and Irolo Street, and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. The 23-story mixed-use building will include approximately 280 apartment units, rooftop amenities, and commercial space. The 28-story mixed-use building will include approximately 361 apartment units, rooftop amenities, and commercial space. Both buildings will share a podium with amenity space and four stories of above-grade and two stories of below-grade parking. In total, this Project will result in 18,454 square feet of commercial floor area (13,500 square feet of retail area and 4,954 square feet of restaurant area) and 1,910 vehicle parking spaces.

We are providing information for consideration and incorporation into the planning, design, and development efforts for the proposed Project. Regarding water needs for the proposed Project, this letter does not constitute a response to a Water Supply Assessment (WSA) pursuant to California State Water Code Sections 10910-10915 for development projects to determine the availability of long-term water supply. Depending on the Project scope, a WSA by the water supply agency may need to be requested by the CEQA Lead Agency and completed prior to issuing a draft Negative Declaration or draft Environmental Impact Report (EIR).

If a Lead Agency determines that the proposed Project parameters (e.g., development details such as type, square footage, anticipated water demand, population increase, etc.) are such that they are subject to state law requiring a WSA, a separate request must be made in writing and sent to:

Mr. Richard Harasick
Senior Assistant General Manager – Water System
Los Angeles Department of Water and Power
111 North Hope Street, Room 1455
Los Angeles, CA 90012

If you have any further questions regarding the water supply assessment process, please contact Mr. Delon Kwan, at (213) 367-2166 or by e-mail at Delon.Kwan@ladwp.com.

Below you will find some information about water needs.

Water Needs

As the Project proceeds further in the design phase, we recommend the Project applicant or designated Project Management Engineer contact Mr. Hugo Torres at (213) 367-2130 or by e-mail at Hugo.Torres@ladwp.com to make arrangements for water supply service needs.

The following responses are provided regarding impacts to water service.

1. Please describe sizes and capacities of existing water mains that would serve the Project Site.

   The Project site is served by a 30-inch CI pipe in Wilshire Blvd, a 16-inch CI pipe in Irolo St, and an 8-inch CI pipe in Maripose Ave. Please see the attached Water Service Map 134-195

2. Are there any existing water service problems/deficiencies in the Project area?

   There are no problems/deficiencies in the Project area.

3. Would LADWP be able to accommodate the Project's demand for water service with the existing infrastructure in the Project area? If not, what new infrastructure or upgrades to infrastructure would be needed?

LADWP should be able to provide the domestic needs of the project from the existing water system. LADWP cannot determine the impact on the existing water system until the fire demands of the project are known. Once a determination of the fire demands has been made, LADWP will assess the need for additional facilities, if needed.

4. How does the City anticipate and plan for future water service needs?

   The LADWP works closely with the City of Los Angeles, Department of City Planning to develop and update our Urban Water Management Plan (UWMP) every five years. The UWMP is the planning document for future water demands for the City. The UWMP identifies short-term and long-term water resources management measures to meet growing water demands during normal, single-dry, and multiple-dry years over a 20-year horizon. The City's water demand projection in the UWMP was developed based on the Regional Transportation Plan (RTP) demographic projection by the Southern California Association of Governments (SCAG).

   See the following link to the 2015 UWMP:

   http://www.ladwp.com/docs/QOELLADWP005416

   In general, projects that conform to the demographic projection from RTP by SCAG and are currently located in the City's service area are considered to have been included in LADWP's water supply planning efforts in the UWMP; therefore, projected water supplies would meet projected demands.

   The proposed Project may be required to comply with the California Water Code Sections 10910-10915, in accordance with adopted legislation (SB 901, SB 610, and SB 221) for a Water Supply Assessment (WSA). The CEQA lead agency, not LADWP, determines whether or not the proposed project parameters are subject to state law requiring a WSA, and a separate request must be made by the lead agency in writing and sent to LADWP.

5. In order to assess the proposed Project's future consumption of water, please provide your recommended rates. Land Use: ___ gallons / unit / day.

   For estimating a project's indoor water demand, we use applicable sewer generation factors (sgf). Please refer to the attached table displaying the current SGFs.

   For outdoor (landscape) water demand, we use California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance. Please refer to the following link:

   http://www.water.ca.gov/wateruseefficiency/landscapeordinance/

If the proposed project scope includes cooling tower(s), consult a mechanical engineer to estimate the cooling water demand.

Applicants are encouraged to commit to water conservation measures that are beyond the current codes and ordinances, to lower the net additional water demand for the proposed project.

6. Please provide any recommendations that might reduce any potential water supply impacts that would be associated with the Project.

In addition to compliance with city ordinances and permit requirements related to water conservation, including Ordinance No. 184248, effective June 6th 2016, applicants are also encouraged to implement voluntary conservation measures beyond those required by ordinance. Specific conservation nmeasures may depend on project uses. Some measures may also include using more efficient faucets, shower heads, and appliances as well as implementing Best Management Practices that may include onsite capture and reuse of stormwater to displace potable water consumption.

For more information, please see the conservation pages on LADWP's website:

https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-conservation?_adf.ctrl-state=6gx7kgl3j_4&_afrLoop=215674915771936

Power Needs

It should be noted that the Project Applicant may be financially responsible for some of infrastructure improvements (e.g., installation of electric power facilities or service connections) necessary to serve the proposed Project.

As the Project proceeds further, please contact one of our Engineering Offices, as listed on Pages 1-4 of the Electric Service Requirements (available on-line at www.ladwp.com) for dealing with power services and infrastructure needs.

1. Please describe the sizes and voltages of existing electrical distribution lines and facilities that would serve the Project site and the surrounding. Please include a map illustrating your description.

- **Many underground 4.8-kV circuits are adjacent to the Project site along Mariposa Avenue, Wilshire Boulevard, Irolo Avenue, and 7th Street.**
- **Underground 34,5-kV circuits are adjacent to the Project site along Mariposa Avenue, Wilshire Boulevard, and Irolo Avenue.**
- **Based on LADWP's preliminary estimated electric demand of the Project, it will be supplied from LADWP's 34.5-kV system, and may require the consolidation of existing and new loads within the Project site.**

- **LADWP may require space for a minimum of two pads for electrical equipment within the property with the required clearances and LADWP should have accessibility to the equipment.**
- **LADWP does not release/provide electrical distribution maps.**

2. Are there any existing electricity service problems/deficiencies in the Project area?

   No, however, the cumulative effects of this and other projects in the area will require the Department to construct additional distribution facilities in the future. The Project would require on-site transformation facility.

3. Would the LADWP be able to accommodate the proposed Project's demand for electricity service with the existing infrastructure in the Project area? If not, what new infrastructure would be needed to meet the proposed Project's demand for electricity?

   This cannot be answered without the review of the Project developer's electrical drawings and load schedules. However, the cumulative effects of this and other projects in the area will require the LADWP to construct additional distribution facilities in the future. This Project will require on-site transformation and may require underground line extension on public streets.

4. Would the LADWP be able to accommodate the proposed Project's demand for electricity with existing electricity supplies?

   Electrical Service is available and will be provided in accordance with the LADWP's Rules Governing Water and Electric Service (available on-line at https://www.ladwp.com under Commercial/Customer Service/Electric Services/Codes & Specifications). The estimated power requirement for this proposed Project is part of the total load growth forecast for the City of Los Angeles and has been taken into account in the planned growth of the City's power system.

   LADWP's load growth forecast incorporates construction activity and is built into the commercial floor space model; the McGraw Hill Construction report identifies all large projects. In planning sufficient future resources, LADWP's Power Integrated Resource Plan incorporates the estimated power requirement for the proposed Project through the load forecast input and has planned sufficient resources to supply the electricity needs.

5. In order to assess the proposed Project's future consumption of electricity, please provide us with your recommended rates. Land Use: multi-family residential = Kilowatt-hour / unit / year.

   LADWP does not provide consumption rates.

Please see enclosed document titled, "LADWP Water and Energy Conservation Measures," for information regarding mandatory and voluntary measures to reduce water and energy consumption.

Water Conservation

LADWP is always looking for means to assist its customers to use water resources more efficiently and welcomes the opportunity to work with new developments to identify water conservation opportunities. Some water conservation measures are enclosed. The LADWP website contains a current list of the available rebates and incentive programs, including the performance based Custom Water Conservation Technical Assistance Program (WCTAP, https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-w-cstm-wtr-prjct-tap?_adf.ctrl-state=h8fsat92s_4&_afrLoop=3392823718109) for commercial, industrial, institutional and multi-family residential customers up to $250,000 for the installation of pre-approved equipment which demonstrates water savings. Mr. Mark Gentili is the Water Conservation Program Manager and can be reached at (213) 367-8556 or by e-mail at Mark.Gentili@ladwp.com. See the following link for LADWP water conservation rebate information on our website: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-conservation

Energy Efficiency

LADWP suggests consideration and incorporation of energy- efficient design measures (enclosed) for building new commercial and/or remodeling existing facilities. Implementation of applicable measures would exceed Title 24 energy efficiency requirements. LADWP continues to offer a number of energy efficiency programs to reduce peak electrical demand and energy costs. For further information please contact Ms. Lucia Alvelais, Utility Services Manager, at (213) 367-4939 or by e-mail at Lucia.Alvelais@ladwp.com. See the following link for LADWP energy efficiency rebate information on our website: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-energyefficiencyandrebates

Solar Energy

Solar power is a renewable, nonpolluting energy source that can help reduce our dependence on fossil fuels. Mr. Jason Rondou is the Solar Energy Program Manager and can be reached at (213) 367-3601 or by e-mail at Jason.Rondou@ladwp.com.

For more information about the Solar Incentive Program, please visit the LADWP website: www.ladwp.com/solar or www.ladwp.com/fit regarding the Feed-In Tariff Program.

For more information on other rebates and programs, please visit the LADWP website:https://www.ladwp.com/ladwp/faces/ladwp/commercial/c-savemoney/c-sm-rebatesandprograms

Electric Vehicle Transportation

LADWP is encouraging the installation of convenient electric vehicle (EV) charging stations for the home, workplace, and public charging to support the adoption of EVs in the City of Los Angeles. Mr. Marvin D. Moon is the Power Engineering Manager in charge of this program and can be reached at (213) 367-1716 or via email at Marvin.Moon@ladwp.com.

For more information on LADWP EV discount rates and charging incentives for residential and business customers, please visit the website: www.ladwp.com/ev. If you would like a Customer Service Representative to answer your questions or review your account and help you decide on the best option, please call us at 1-866-484-0433 or email us at PluginLA@ladwp.com.

Please include LADWP in your mailing list and address it to the attention of Mr. Charles C. Holloway in Room 1044 for review of the environmental document for the proposed Project.

Mr. Charles C. Holloway
Manager of Environmental Planning and Assessment
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012

If there are any additional questions on this utility services request, please contact Mr. Aiden Leong of the Environmental Assessment Group at (213) 367-0706.

Sincerely,

Charles C. Holloway
Manager of Environmental Planning and Assessment

AL:rc
Enclosures
c/enc: Ms. Lucia Alvelais
Ms. Richard Harasick
Mr. Chuck Holloway
Mr. Delon Kwan
Mr. Aiden Leong
Mr. Marvin D. Moon
Mr. Jason Rondou
Mr. Mark Gentili

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
1	Acupuncture Office/Clinic	120/1,000 Gr SF	265	275
2	Arcade - Video Games	50/1,000 Gr SF	265	275
3	Auditorium (a)	3/Seat	265	275
4	Auto Parking (a)	20/1,000 Gr SF	265	275
5	Auto Mfg., Service Maintenance (b)	Actual	1,260	1,165
6	Bakery	280/1,000 Gr SF	3,020	2,540
7	Bank: Headquarters	120/1,000 Gr SF	265	275
8	Bank: Branch	50/1,000 Gr SF	265	275
9	Ballroom	350/1,000 Gr SF	265	275
10	Banquet Room	350/1,000 Gr SF	265	275
11	Bar: Cocktail, Fixed Set (a) (c)	15/Seat	265	275
12	Bar: Juice, No Baking Facilities (d)	720/1,000 Gr SF	265	275
13	Bar: Juice, with Baking Facilities (d)	720/1,000 Gr SF	265	275
14	Bar: Cocktail, Public Table Area (c)	720/1,000 Gr SF	265	275
15	Barber Shop	120/1,000 Gr SF	265	275
16	Barber Shop (s)	15/Stall	265	275
17	Beauty Parlor	425/1,000 Gr SF	265	275
18	Beauty Parlor (s)	50/Stall	265	275
19	Bldg. Const/Field Office (e)	120/Office	265	275
20	Bowling Alley: Alley, Lanes & Lobby Area	50/1,000 Gr SF	265	275
21	Bowling Facility: Arcade/Bar/Restaurant/Dancing	Total	Average	Average
22	Cafeteria: Fixed Seat	30/Seat	1,000	600
23	Car Wash: Automatic (b)	Actual	265	285
24	Car Wash: Coin Operated Bays (b)	Actual	265	285
25	Car Wash: Hand Wash (b)	Actual	265	285
26	Car Wash: Counter & Sales Area	50/1,000 Gr SF	265	275
27	Chapel: Fixed Seat	3/Seat	265	275
28	Chiropractic Office	120/1,000 Gr SF	265	275
29	Church: Fixed Seat	3/Seat	265	275
30	Church School: Day Care/Elem	9/Occupant	265	275
31	Church School: One Day Use (s)	9/Occupant	265	275
32	Cocktail Lounge: Fixed Seat (f)	15/Seat	265	275
33	Coffee House: No Food Preparation (d)	720/1,000 Gr SF	265	275
34	Coffee House: Pastry Baking Only (d)	720/1,000 Gr SF	265	275
35	Coffee House: Serves Prepared Food (d)	25/Seat	1,000	600
36	Cold Storage: No Sales (g)	30/1,000 Gr SF	265	275
37	Cold Storage: Retail Sales (g)	50/1,000 Gr SF	265	275
38	Comfort Station: Public	80/Fixture	265	275
39	Commercial Use (a)	50/1,000 Gr SF	265	275

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
40	Community Center	3/Occupant	265	275
41	Conference Room of Office Bldg.	120/1,000 Gr SF	265	275
42	Counseling Center (h)	120/1,000 Gr SF	265	275
43	Credit Union	120/1,000 Gr SF	265	275
44	Dairy	Average Flow	1,510	325
45	Dairy: Barn	Average Flow	1,510	325
46	Dairy: Retail Area	50/1,000 Gr SF	265	275
47	Dancing Area (of Bars or Nightclub) (c)	350/1,000 Gr SF	265	275
48	Dance Studio (i)	50/1,000 Gr SF	265	275
49	Dental Office/Clinic	250/1,000 Gr SF	265	275
50	Doughnut Shop	280/1,000 Gr SF	1,000	600
51	Drug Rehabilitation Center (h)	120/1,000 Gr SF	265	275
52	Equipment Booth	30/1,000 Gr SF	265	275
53	Film Processing (Retail)	50/1,000 Gr SF	265	275
54	Film Processing (Industrial)	Actual	265	275
55	Food Processing Plant (b)	Actual	2,210	1,450
56	Gas Station: Self Service	100/W.C.	265	275
57	Gas Station: Four Bays Max	430/Station	1,950	1,175
58	Golf Course Facility: Lobby/Office/Restaurant/Bar	Total	700	450
59	Gymnasium: Basketball, Volleyball (k)	200/1,000 Gr SF	265	275
60	Hanger (Aircraft)	50/1,000 Gr SF	265	275
61	Health Club/Spa (k)	650/1,000 Gr SF	265	275
62	Homeless Shelter	70/Bed	265	275
63	Hospital	70/Bed	820	1,230
64	Hospital: Convalescent (a)	70/Bed	265	275
65	Hospital: Animal	300/1,000 Gr SF	820	1,230
66	Hospital: Psychiatric	70/Bed	265	275
67	Hospital: Surgical (a)	360/Bed	265	275
68	Hotel: Use Guest Rooms Only (a)	120/Room	265	275
69	Jail	85/Inmate	265	275
70	Kennel: Dog Kennel/Open	100/1,000 Gr SF	265	275
71	Laboratory: Commercial	250/1,000 Gr SF	265	275
72	Laboratory: Industrial	Actual	265	275
73	Laundromat	185/Machine	550	370
74	Library: Public Area	50/1,000 Gr SF	265	275
75	Library: Stacks, Storage	30/1,000 Gr SF	265	275
76	Lobby of Retail Area (l)	50/1,000 Gr SF	265	275
77	Lodge Hall	3/Seat	265	275
78	Lounge (l)	50/1,000 Gr SF	265	275

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
79	Machine Shop (No Industrial Waste Permit Required) (b)	50/1,000 Gr SF	265	275
80	Machine Shop (Industrial)	Actual	265	275
81	Mfg or Industrial Facility (No IW Permit Required) (b)	50/1,000 Gr SF	265	275
82	Mfg or Industrial Facility (Industrial)	Actual	265	275
83	Massage Parlor	250/1,000 Gr SF	265	275
84	Medical Building (a)	225/1,000 Gr SF	265	275
85	Medical: Lab in Hospital	250/1,000 Gr SF	340	275
86	Medical Office/Clinic	250/1,000 Gr SF	265	275
87	Mini-Mall (No Food)	50/1,000 Gr SF	265	275
88	Mortuary: Chapel	3/Seat	265	275
89	Mortuary: Embalming	300/1,000 Gr SF	800	800
90	Mortuary: Living Area	50/1,000 Gr SF	265	275
91	Motel: Use Guest Room Only (a)	120/Room	265	275
92	Museum: All Area	30/1,000 Gr SF	265	275
93	Museum: Office Over 15%	120/1,000 Gr SF	265	275
94	Museum: Sales Area	50/1,000 Gr SF	265	275
95	Office Building (a)	120/1,000 Gr SF	265	275
96	Office Bldg w/Cooling Tower	170/1,000 Gr SF	265	275
97	Plating Plant (No IW Permit Required) (b)	50/1,000 Gr SF	265	275
98	Plating Plant (Industrial) (b)	Actual	265	275
99	Pool Hall (No Alcohol)	50/1,000 Gr SF	265	275
100	Post Office: Full Service (m)	120/1,000 Gr SF	265	275
101	Post Office: Private Mail Box Rental	50/1,000 Gr SF	265	275
102	Prisons	175/Inmate	265	275
103	Residential Dorm: College or Residential (n)	70/Student	265	275
104	Residential: Boarding House	70/Bed	265	275
105	Residential: Apt - Bachelor (a)	75/DU	265	275
106	Residential: Apt - 1 BDR (a) (o)	110/DU	265	275
107	Residential: Apt - 2 BDR (a) (o)	150/DU	265	275
108	Residential: Apt - 3 BDR (a) (o)	190/DU	265	275
109	Residential: Apt - >3 BDR (o)	40/BDR	265	275
110	Residential: Condo - 1 BDR (o)	110/DU	265	275
111	Residential: Condo - 2 BDR (o)	150/DU	265	275
112	Residential: Condo - 3 BDR (o)	190/DU	265	275
113	Residential: Condo - >3 BDR (o)	40/BDR	265	275
114	Residential: Duplex/Townhouse - 1 BR (o)	110/DU	265	275
115	Residential: Duplex/Townhouse - 2 BR (o)	150/DU	265	275
116	Residential: Duplex/Townhouse - 3 BR (o)	190/DU	265	275
117	Residential: Duplex/Townhouse - >3 BR (o)	40/BDR	265	275

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
118	Residential: SFD - 1 BR (o)	140/DU	265	275
119	Residential: SFD - 2 BR (o)	185/DU	265	275
120	Residential: SFD - 3 BR (o)	230/DU	265	275
121	Residential: SFD - >3 BR (o)	45/BDR	265	275
122	Residential Room Addition: Bedroom (o)	45/BDR	265	275
123	Residential Room Conversion: Into a Bedroom (o)	45/BDR	265	275
124	Residential: Mobile Home	Same as Apt	265	275
125	Residential: Artist (2/3 Area)	75/DU	265	275
126	Residential: Artist Residence	75/DU	265	275
127	Residential: Guest Home w/ Kitchen	Same as Apt	265	275
128	Residential: Guest Home w/o Kitchen	45/BDR	265	275
129	Rest Home	70/Bed	555	490
130	Restaurant: Drive-In	50/Stall	1000	600
131	Restaurant: Drive-In Seating Area	25/Seat	1000	600
132	Restaurant: Fast Food Indoor Seat	25/Seat	1000	600
133	Restaurant: Fast Food Outdoor Seat	25/Seat	1000	600
134	Restaurant: Full Service Indoor Seat (a)	30/Seat	1000	600
135	Restaurant: Full Service Outdoor Seat	30/Seat	1000	600
136	Restaurant: Take Out	300/1,000 Gr SF	1000	600
137	Retail Area (greater than 100,000 SF)	50/1,000 Gr SF	265	275
138	Retail Area (less than 100,000 SF)	25/1,000 Gr SF	265	275
139	Rifle Range: Shooting Stalls/Lanes, Lobby	50/1,000 Gr SF	265	275
140	Rifle Range Facility: Bar/Restaurant	Total	Average	Average
141	School: Arts/Dancing/Music (i)	11/Student	265	275
142	School: Elementary/Jr. High (a) (p)	9/Student	265	275
143	School: High School (a) (p)	11/Student	265	275
144	School: Kindergarten (s)	9/Student	265	275
145	School: Martial Arts (i)	9/Student	265	275
146	School: Nursery-Day Care (p)	9/Child	265	275
147	School: Special Class (p)	9/Student	265	275
148	School: Trade or Vocational (p)	11/Student	265	275
149	School: Training (p)	11/Student	265	275
150	School: University/College (a) (p)	16/Student	265	275
151	School: Dormitory (a) (n)	70/Student	265	275
152	School: Stadium, Pavilion	3/Seat	265	275
153	Spa/Jacuzzi (Commercial with backwash filters)	Total	265	275
154	Storage: Building/Warehouse	30/1,000 Gr SF	265	275
155	Storage: Self-Storage Bldg	30/1,000 Gr SF	265	275
156	Store: Ice Cream/Yogurt	25/1,000 Gr SF	1000	600

SEWERAGE FACILITIES CHARGE
SEWAGE GENERATION FACTOR FOR
RESIDENTIAL AND COMMERCIAL CATEGORIES

EFFECTIVE DATE: April 6, 2012

Line No.	FACILITY DESCRIPTION	PROPOSED SGF IN GPD	BOD (mg/l)	SS (mg/l)
157	Store: Retail (l)	50/1,000 Gr SF	265	275
158	Studio: Film/TV - Audience Viewing Room (q)	3/Seat	265	275
159	Studio: Film/TV - Regular Use Indoor Filming Area (q)	50/1,000 Gr SF	265	275
160	Studio: Film/TV - Ind. Use Film Process/Machine Shop (q)	50/1,000 Gr SF	265	275
161	Studio: Film/TV - Ind. Use Film Process/Machine Shop	Total	265	275
162	Studio: Recording	50/1,000 Gr SF	265	275
163	Swimming Pool (Commercial with backwash filters)	Total	265	275
164	Tanning Salon: Independent, No Shower (r)	50/1,000 Gr SF	265	275
165	Tanning Salon: Within a Health Spa/Club	640/1,000 Gr SF	265	275
166	Theater: Drive-In	6/Vehicle	265	275
167	Theater: Live/Music/Opera	3/Seat	265	275
168	Theater: Cinema	3/Seat	265	275
169	Tract: Commercial/Residential	1/Acre	265	275
170	Trailer: Const/Field Office (e)	120/Office	265	275
171	Veterinary Clinic/Office	250/1,000 Gr SF	265	275
172	Warehouse	30/1,000 Gr SF	265	275
173	Warehouse w/ Office	Total	265	275
174	Waste Dump: Recreational	400/Station	2650	2750
175	Wine Tasting Room: Kitchen	200/1,000 Gr SF	265	275
176	Wine Tasting Room: All Area	50/1,000 Gr SF	265	275

FOOTNOTES TO SGFs TABLE

(a) SFC rates for these facilities have historically been published in SFC ordinances.

(b) Bureau of Sanitation will determine the flow based on the information given by applicants for facilities with industrial discharge. The flow will be redetermined by Sanitation inspectors annually based on water bills. If the actual flow exceeds the previous year's determined flow, the applicants will be charged for the difference.
If this type of facility is exempt from an industrial discharge permit, only the domestic SFC will be assessed.

(c) The SFC for a bar shall be the sum of SFC's for all areas based on the SGF for each area (ex. fixed seat area, public table area, dancing area).

(d) The determination of SGF for juice bars and coffee houses previously depended on the extent of the actual food preparation in house, not by the types of food provided. Food is assumed to be prepared offsite and as such, the three prior subcategories have been consolidated.

1) SGF for no pastry baking and no food preparation is 720 gpd/1000 gr.sq.ft.
2) SGF for pastry baking only and no food preparation is 720 gpd/1000 gr.sq.ft.
3) SGF for complete food preparation is 25 gpd/seat, the same as a fast food restaurant.

Juice bars and coffee houses do not serve any alcoholic drinks.

(e) Building construction includes trailers, field offices, etc.

(f) Cocktail lounge usually does not serve prepared food.

(g) Cold storage facilities are categorized as follow:

1) No Sales - the cold storage facility is used only for temporary storage, no selling is involved. For example, cold storage facilities at the harbor temporarily store seafood until it is distributed.
2) Cold storage w/ retail sales - the primary function of this facility is to support the wholesale/retail operation of a store, such as supermarket freezers, refrigerators, etc.

(h) Counseling centers include marriage counseling centers, alcohol/drug rehabilitation /dependency centers, nutrition centers, diet centers, etc.

(i) Part-time basis schools or dance studios should be charged as retail area - 50 gpd /1000 gr.sq.ft. Full-time basis schools should be charged by the number of students.

(j) Domestic waste is estimated at 50 gpd/1,000 square feet in addition to total process flow.

(k) Bureau of Sanitation will determine if an industrial permit is needed for health spas. The first year flow is based on 650 gpd/1000 gr.sq.ft., and the Sanitation inspectors will redetermine the flow annually based on water bill from the previous year. The applicants are responsible for paying the difference of SFC.

Health club/spa includes lobby area, workout floors, aerobic rooms, swimming pools, Jacuzzi, sauna, locker rooms, showers, and restrooms. If a health club/spa has a gymnasium type of facility, this portion should be charged separately at the gymnasium SFC rate.

Gymnasiums include basketball court, volleyball court, and any other large open space with low occupancy density.

(l) Lobby of retail includes lounges, holding rooms, or waiting area, etc.

(m) Full service post offices include U.S. Postal Service, UPS, Federal Express, DHL, and etc.

(n) The SGF for a college dormitory based on student capacity also includes the SGF for the dormitory cafeterias.

(o) A bedroom is defined as an enclosed subdivision with 50 sq.ft. or more floor area in a residential building commonly used for sleeping purpose, and is partitioned off to form a habitable room.

(p) The SGF for schools based on the student capacity, covers the following facilities:

1) classrooms and lecture halls
2) professors' offices
3) administration offices
4) laboratories for classes or research
5) libraries
6) bookstores
7) student/professor lounges
8) school cafeterias
9) warehouses and storage areas
10) auditoriums
11) gymnasiums
12) restrooms

It does not include water used by schools for swimming pools. When a school files an application for addition of any of the foregoing facilities, the student population will be reassessed and the total gpd for the new facility will be based on the number of students increased since the last SFC was paid or when the City implemented the SFC for the first time. The SFC for any school facility (ex. stadium, dormitory, etc.) not listed above, will be based on the designated SGF for that category.

(q) The SFC for a TV or motion picture studio shall be the sum of SFC's for different facilities in the studio, based on the SGF for each facility. A studio may include one or more of the following facilities: audience viewing room, filming room, film processing, storage area, etc.

(r) No independent tanning salons with shower were encountered during 1996 survey.

(s) Alternative basis of charge for City's consideration. The prior square footage basis is also presented should the City decide to continue charging on that basis.

LADWP WATER & ENERGY CONSERVATION MEASURES

IMPACT ON THE WATER SYSTEM

If the estimated water requirements for the proposed project can be served by existing water mains in the adjacent street(s), water service will be provided routinely in accordance with the Los Angeles Department of Water and Power's (LADWP) Rules and Regulations (available on-line at www.ladwp.com under Commercial/Customer Service/Water Services under the title, Rules Governing Water & Electric Service. If the estimated water requirements are greater than the available capacity of the existing distribution facilities, special arrangements must be made with the LADWP to enlarge the supply line(s). Supply main enlargement will cause short-term impacts on the environment due to construction activities.

In terms of the City's overall water supply condition, the water requirement for any project that is consistent with the City's General Plan has been taken into account in the planned growth in water demand. Together with local groundwater sources, the City operates the Los Angeles-Owens River Aqueduct and purchases water from the Metropolitan Water District of Southern California. These three sources, along with recycled water, will supply the City's water needs for many years to come.

Statewide drought conditions in the mid-1970s and late 1980s dramatically illustrated the need for water conservation in periods of water shortage. However, water should be conserved in Southern California even in years of normal climate because efficient use of water allows increased water storage for use in dry years as well as making water available for beneficial environmental uses. In addition, electrical energy is required to treat and deliver all water supplies to the City and the rest of Southern California. Conserving water contributes to statewide energy conservation efforts. Practicing water conservation also results in decreased customer operating costs.

WATER CONSERVATION

LADWP assists residential, commercial, and industrial customers in their efforts to conserve water. Below is a list of some of the water conservation requirements in Los Angeles for new construction and when fixtures are replaced in existing buildings. Also included are further voluntary recommendations to save water.

1. High efficiency water closets, high efficiency urinals, water-saving showerheads, and low flow faucets must be installed in new constructions and may be retrofitted in existing buildings. The flow rates of new plumbing fixtures must comply with the most stringent of the following: Los Angeles City Ordinance No. 180822 (http://clkrep.lacity.org/onlinedocs/2009/09-0510_ord_180822.pdf), the 2014 Los Angeles Plumbing Code and the 2013 California Green Building Standards Code (CALGreen), the 2014 Los Angeles Green Building Code.

2. New installations of air conditioning systems that utilize evaporative cooling (i.e. employ cooling towers) shall operate at a minimum of 5.5 cycles of concentration. Single pass cooling systems are prohibited in most cases.

3. Energy Star rated dishwashers must be installed for new construction and when replacing existing units in most cases. Water conserving clothes washers are available from many manufacturers and should be selected. Water saved by these appliances also saves energy in that the water used by these appliances is typically heated.

4. The design of the hot water plumbing system should be such that it minimizes the delivery time for hot water. This may be accomplished through the use of a demand type or a timed and temperature control type hot water recirculation system, point-of-use water heaters, and/or a parallel piping system which all help reduce the pipe length between the fixture and the point of supply of the hot water.

5. Landscape areas utilize a significant volume of the water delivered by LADWP and represent a great potential for water conservation. The State adopted landscape regulations for landscape areas over 2,500 square feet that apply for new constructions and when existing landscapes are renovated. These regulations are addressed by Los Angeles City Ordinance No. 170978 and the City of Los Angeles Irrigation Guidelines (http://cityplanning.lacity.org/Forms_Procedures/2405.pdf) and require submittal of a landscape document package prepared and signed by a licensed professional architect, engineer or contractor to the Department of Building and Safety for review. Please contact the Los Angeles City Planning Department for further information.

6. The landscape irrigation system should be designed, installed, and tested to provide uniform irrigation coverage for each zone. Sprinkler head patterns must be adjusted to minimize over spray onto walkways and streets. Each zone (sprinkler valve) should water plants having similar watering needs (do not mix shrubs, flowers and turf in the same watering zone).

7. Automatic irrigation timers should be set to irrigate landscapes during early morning or late evening hours to reduce water losses from evaporation. Adjust irrigation run times for all zones seasonally, reducing watering times and frequency in the cooler months (fall, winter, spring). Adjust sprinkler timer run times to avoid water runoff, especially when irrigating sloped property.

8. The City of Los Angeles has enacted legislation to address the water supply shortages caused by the recent statewide drought. Los Angeles City Ordinance No. 181288 (http://clkrep.lacity.org/onlinedocs/2009/09-0369-s9_ord_181288.pdf) also known as the Emergency Water Conservation Plan imposes phased water rationing during drought conditions and imposes penalties

for users that do not comply. When water rationing is in effect, landscape irrigation is prohibited between the hours of 9:00 AM and 4:00 PM. Specific watering days and maximum irrigation rates are also defined in this ordinance. When water rationing is in effect, it can be extremely difficult to establish certain types of new landscapes. The landscape architect must take this into consideration in selecting the plant type and the landscape design.

9. Selection of drought-tolerant, low water consuming plant varieties should be used to reduce irrigation water consumption. For a list of plant varieties with their irrigation requirements, refer to the State Guide for Landscape Irrigation which can be found at, (http://www.water.ca.gov/pubs/planning/guide_to_estimating_irrigation_water_needs_of_landscape_plantings_in_ca/wucols.pdf), or consult a landscape architect.

10. Graywater and other alternate water source systems are now addressed in the California Plumbing Code for residential and non-residential buildings. Graywater is semi clean wastewater generated and collected on-site by the building's plumbing system from showers, bathtubs, bathroom sinks and clothes washers but does not include wastewater from toilets, dishwashers or kitchen sinks. The collected graywater is then reused on-site for various beneficial uses. The Plumbing Code addresses the proper collection, handling, treatment and use of Alternate Water Sources.

    The use of graywater reduces the demand for potable water. Please see the attached link for information regarding the installation graywater systems in Los Angeles for residential properties: http://www.ladwp.com under Residential/Go Green.

11. The City continues to expand its purple pipe distribution system of recycled water. The availability of recycled water should be investigated as a source to irrigate large landscaped areas and for toilet and urinal flushing.

LADWP is always looking for means to assist its customers to use water resources more efficiently and welcomes the opportunity to work with new developments to identify water conservation opportunities. Some water conservation measures are enclosed. The LADWP website contains a current list of the available rebates and incentive programs, including the performance based Custom Water Conservation Technical Assistance Program (TAP). Mr. Mark Gentili is the Water Conservation Program Manager and can be reached at (213) 367-8556 or by e-mail at Mark.Gentili@ladwp.com. See the following link for LADWP water conservation rebate information on our website:
https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-conservation

COMMERCIAL ENERGY EFFICIENCY MEASURES

During the design process, the applicant should consult with the Los Angeles Department of Water and Power, Conservation and Sustainability Programs Section,

regarding possible energy efficiency measures. The Conservation and Sustainability Programs Section encourages customers to consider design alternatives and information to maximize the efficiency of the building envelope, heating, ventilation, and air conditioning, building lighting, water heating, and building mechanical systems. The applicant shall incorporate measures to meet or, if possible, exceed minimum energy efficiency standards for: (1) Title 24, Part 6 of the California Code of Regulations (Title 24); (2) California Green Building Standards Code (CALGreen); (3) Los Angeles Green Building Code. In addition to energy efficiency technical assistance, the LADWP may offer financial incentives for energy designs that exceed minimum energy efficiency standards.

1. Built-in appliances, refrigerators, and space-conditioning equipment should exceed the minimum efficiency levels mandated in the Title 24.

2. Install high-efficiency air conditioning controlled by a computerized energy-management system in the office and retail spaces which provides the following:

    - A variable air-volume system which results in minimum energy consumption and avoids hot water energy consumption for terminal reheat;

    - A 100-percent outdoor air-economizer cycle to obtain free cooling in appropriate climate zones during dry climatic periods;

    - Sequentially staged operation of air-conditioning equipment in accordance with building demands; and

    - The isolation of air conditioning to any selected floor or floors.

3. Consider the applicability of the use of thermal energy storage to handle cooling loads.

4. Cascade ventilation air from high-priority areas before being exhausted, thereby decreasing the volume of ventilation air required. For example, air could be cascaded from occupied space to corridors and then to mechanical spaces before being exhausted.

5. Recycle lighting system heat for space heating during cool weather. Exhaust lighting-system heat from the buildings, via ceiling plenums, to reduce cooling loads in warm weather.

6. Install low and medium static-pressure terminal units and ductwork to reduce energy consumption by air-distribution systems.

7. Ensure that buildings are well sealed to prevent outside air from infiltrating and increasing interior space-conditioning loads. Where applicable, design building

entrances with vestibules to restrict infiltration of unconditioned air and exhausting of conditioned air.

8. Building commissioning should be completed prior to issuance of the certificate of occupancy to verify that the building systems components meet the project requirements.

9. Finish exterior walls with light-colored materials and high-emissivity characteristics to reduce cooling loads. Finish interior walls with light-colored materials to reflect more light and, thus, increase lighting efficiency.

10. Use a white reflective material for roofing meeting California standards for reflectivity and emissivity to reject heat. The Los Angeles Municipal Code now mandates cool roof materials for all new and complete replacement roofs installed in the City of Los Angeles.

11. Install thermal insulation in walls and ceilings, which exceeds requirements established by Title 24.

12. Design window systems to reduce thermal gain and loss, thus, reducing cooling loads during warm weather and heating loads during cool weather.

13. Install heat-rejecting window treatments, such as films, blinds, draperies, or others on appropriate exposures.

14. Install LED lamps or fixtures, which give the highest light output per watt of electricity consumed, for all street and parking lot lighting to reduce electricity consumption. Install an astronomical time switch control to meet your projects design needs.

15. Install automatic daylighting controls and dimmable electronic ballasts, to light fixtures near windows and skylights, to maximize the use of natural daylight available and reduce artificial lighting load.

16. Install occupant-controlled thermostats to permit individual adjustment of heating, and cooling to avoid unnecessary energy consumption.

17. Install a lighting control system to automatically control interior and exterior lights in public areas and will also energize emergency egress lights when an emergency occurs.

18. Control mechanical systems (HVAC and lighting) in the building with timing systems to prevent accidental or inappropriate conditioning or lighting of unoccupied space.

19. Incorporate windowless walls or passive solar inset of windows into the project for appropriate exposures.

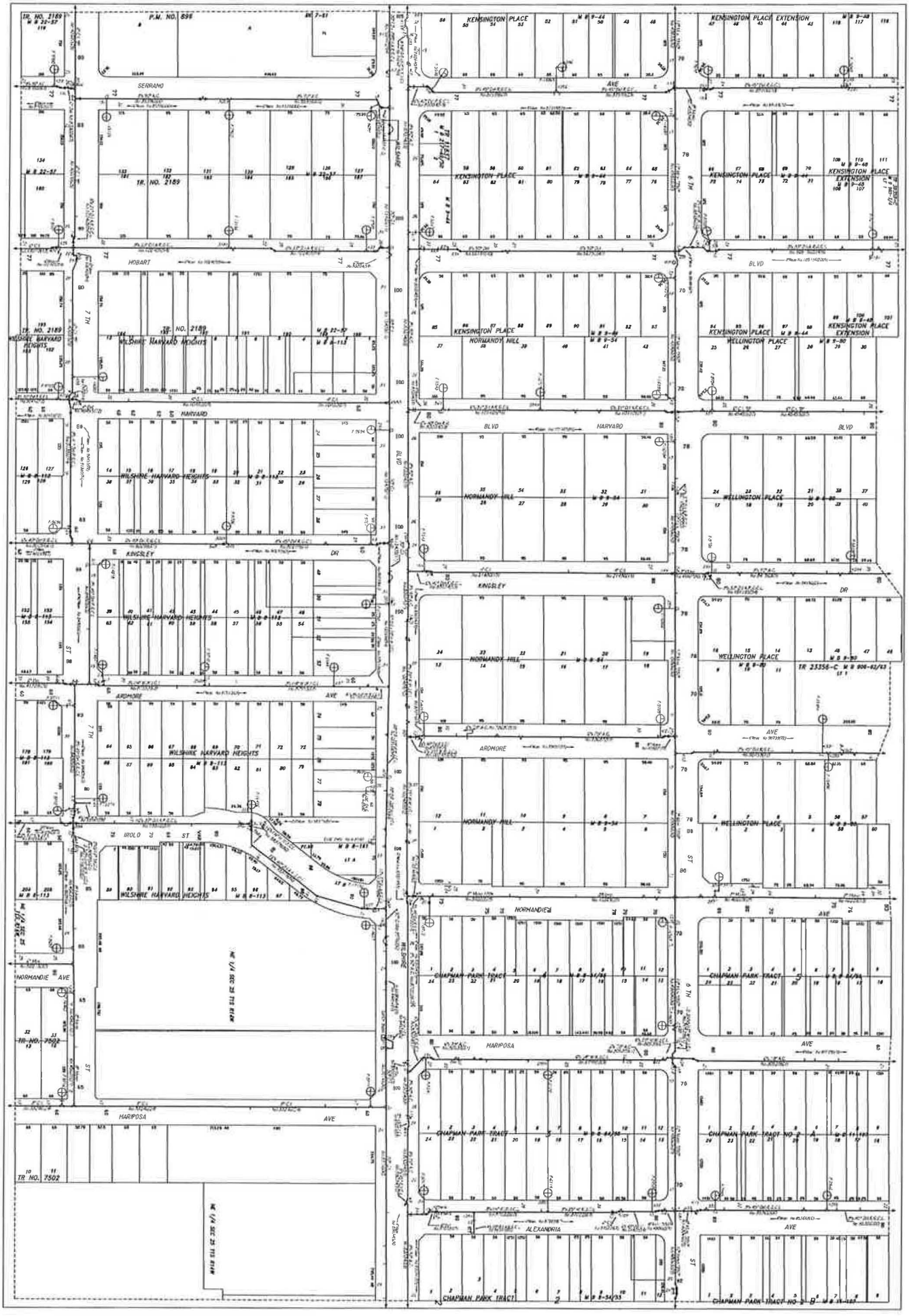
20. Design project to focus pedestrian activity within sheltered outdoor areas.

21. Install individual occupant sensors indoors, where appropriate, to automatically turn lights off when an area is vacated.

22. Install the manufacturers recommended lamp and ballast combination for all fluorescent light fixtures to provide the most efficient light output. Use reflectors to direct maximum levels of light to work surfaces.

For additional information concerning these conservation measures, please contact Ms. Lucia Alvelais, Utility Services Manager, at (213) 367-4939. Also, please visit the Los Angeles Department of Building and Safety's website for information on CALGreen and the Los Angeles Green Building Code (http://ladbs.org/LADBSWeb/green-bldg.jsf). Additional water and energy code compliance tips as well as various useful Green Building links are available on the LADWP website at the following location: http://www.ladwp.com under Commercial/Go Green.

W&P ConsrvtnMeasures v.10302015



WSM 134-195

WSP 134-195

Los Angeles Department of Water & Power

BOARD LETTER APPROVAL

RESOLUTION NO. _____

RICHARD F. HARASICK
Senior Assistant General Manager
Water System

MARTIN L. ADAMS
Chief Operating Officer

DAVID H. WRIGHT
General Manager

DATE: June 28, 2017

SUBJECT: Water Supply Assessment – Central Plaza Project

SUMMARY

The Water Supply Assessment (WSA) is for the Central Plaza Project located within the Wilshire Community Plan area of the City of Los Angeles (City). LADWP staff determined the total net additional water demand for the Central Plaza Project is 77 acre-feet per year (AFY) and has concluded this additional water demand can be accommodated. The Central Plaza Project's base water demand was further reduced by 48 AFY through implementation of the conservation ordinance and code requirements and an additional 2 AFY through the project implementing additional voluntary conservation measures. WSA will meet the requirements of California Water Code Sections 10910-10915. The governing body of each public water system is required to make a determination on WSAs for major projects.

City Council approval is not required.

RECOMMENDATION

It is recommended that the Board of Water and Power Commissioners (Board) adopt the attached Resolution authorizing the WSA for the Central Plaza Project.

ALTERNATIVES CONSIDERED

LADWP is required by state law, as set forth in California Water Code Sections 10910-10915, to prepare this WSA for the Central Plaza Project. There are no other alternatives.

FINANCIAL INFORMATION

The Central Plaza, LLC (Applicant) paid $17,000 to cover LADWP's expenses for preparation of this WSA.

BACKGROUND

WSAs are prepared in conformance with California law and the City ordinances to ensure proposed projects that utilize water resources are consistent with the City's conservation goals and long-term water supply availability, as detailed in LADWP's 2015 Urban Water Management Plan (UWMP). LADWP's 2015 UWMP is the water supply planning document for the City and is prepared by LADWP.

Each WSA performed by LADWP is carefully evaluated within the context of LADWP's most recent UWMP and current conditions, such as restrictions on State Water Project (SWP) pumping from the Sacramento-San Joaquin River Delta (Delta) imposed by a Federal Court. The Metropolitan Water District of Southern California (MWD), from whom the City purchases its SWP and Colorado River water supplies, has also been actively developing plans and making efforts to provide additional water supply reliability for the entire Southern California region. LADWP coordinates closely with MWD to ensure implementation of MWD's water resource development plans.

Part of MWD's planning effort is the update and implementation of its Integrated Water Resources Plan (IRP) and its UWMP, which are designed to address potential reductions in water supply due to the effects of variable hydrologic conditions and regulatory restrictions on exports from the Delta. The 2015 IRP update resulted in the development of the following six main findings and conclusions: action is needed to minimize unacceptable level of shortage allocation frequency in the future, maintain Colorado River supplies, stabilize SWP supplies, develop/protect local supplies and water conservation, maximize effectiveness of storage and transfers, and continue with adaptive management approach.

LADWP's 2015 UWMP contains a water shortage contingency plan for multi-year dry hydrological periods. This water shortage contingency plan was implemented on June 1, 2009, when the Board adopted Shortage Year Rates and the City Council implemented the landscape irrigation and prohibited use restrictions contained in the City's Water Conservation Ordinance. The City's Water Rate Ordinance, adopted June 1995 was last amended by the Board, effective April 15, 2016. The new water rate structure increases the number of tiers from two to four for single-family residential

customers. The goal is to incentivize conservation while recovering the higher costs of providing water to high volume users. In keeping with cost of service principles, the incremental pricing for the tiers is based on the cost of water supply and, for the third and fourth tiers, added pumping and storage costs.

Various conservation measures are also required through the following regulations: the City's Green Building Codes Revision/Use of Greywater Systems/Water Conservation Measures Ordinance No. 184248, the City's Water Efficiency Requirements Ordinance No. 180822, 2013 California Plumbing Code, 2013 California Green Building Code (CALGreen), 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code. All codes became effective January 1, 2014, except Ordinance No. 184248, effective June 2016, and Ordinance No. 180822, effective December 2009.

Projected Water Use and Conservation

On March 22, 2017, the Los Angeles Department of City Planning (Planning Department), lead agency for the Central Plaza Project, requested LADWP perform a WSA. Based on information obtained from Planning Department, the Central Plaza Project will redevelop part of an approximately 7.36-acre site of commercial land uses within the Wilshire Community Plan area of the City for residential and commercial land uses. The Central Plaza Project is generally bounded by 7th Street to the south, Mariposa Avenue to the east, Irolo Street to the west, and Wilshire Boulevard to the north.

The Central Plaza Project's site currently consists of four commercial office buildings that contain approximately 760,456 square feet (sq ft) of floor area with ground floor retail uses, a 266,571 sq ft, three-story parking structure, and a 206,180 sq ft, five-story parking structure. As part of the project, the existing three-story parking structure and landscaping will be demolished to support the development of the Central Plaza Project. The existing water demand to be removed is approximately 1 AFY.

The Central Plaza Project will add ground floor retail to the existing office buildings, develop three retail kiosks along West Wilshire Boulevard and South Irolo Street, and construct a 23-story mixed-use building (Tower 1) and a 28-story mixed-use building (Tower 2) on top of a podium that will be four stories above grade and two stories subterranean. Tower 1 will include approximately 280 apartment units, rooftop amenities, and commercial space; while Tower 2 will include approximately 361 apartment units, rooftop amenities, and commercial space. The Central Plaza Project will add a total of 641 residential units, 2,692 sq ft of lobby and leasing space, 13,500 sq ft of retail space, 4,954 sq ft of restaurant uses, 9,935 sq ft of indoor lounge, 10,930 sq ft of rooftop amenity deck space, a pool, and a water feature. The Central Plaza Project will also include approximately 483,684 sq ft of parking (309,558 sq ft covered), 21,860 sq ft of landscaping and cooling towers.

LADWP staff recommended implementation of additional voluntary water conservation measures to maximize the potential water-use efficiency for the Central Plaza Project. Recommended voluntary conservation measures are in addition to those required by the City's current codes and ordinances. Based on LADWP staff recommendations, Applicant has voluntarily committed to implement the following additional measures that are beyond those required by law:

- High Efficiency Toilets with a flush volume of 1.06 gallons per flush, or less, for residential units only
- Showerheads with a flow rate of 1.75 gallons per minute, or less, for residential units only
- Drip/Subsurface Irrigation (Micro-Irrigation)
- Proper Hydro-zoning/Zoned Irrigation (groups plants with similar water requirements)
- Drought Tolerant Plants – 70 percent of total landscaping

A written commitment of the Central Plaza Project's planned voluntary water conservation measures was submitted by Applicant and is attached with WSA in Appendix B.

With the addition of these voluntary water conservation measures, which yield additional savings of approximately 2 AFY, the total net additional water demand is approximately 77 AFY.

Applicant has also committed to comply with the City of Los Angeles Low Impact Development Ordinance (City Ordinance Nos. 181899 and 183833) and to implement Best Management Practices that have stormwater recharge or reuse benefits for the Central Plaza Project as applicable:

- Catch Basin Insert – a device that can be inserted into an existing catch basin design to provide some level of runoff contaminant removal.
- Catch Basin Screens
- Cistern – captures stormwater runoff as it comes down through the roof gutter system, if infiltration is not feasible

The Central Plaza Project is determined by Planning Department to be consistent with the demographic projections for the City from both the 2012 and 2016 Regional Transportation Plans (RTP) by the Southern California Association of Governments (SCAG). The City's water demand projection in 2015 UWMP was developed based on the 2012 RTP demographic projection using the 2010 U.S. Census for the City. LADWP used a modified-unit-use approach to develop its service area-wide water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. 2015 UWMP concluded there are adequate water supplies to meet projected water demand through 2040. Therefore, projected water supply available during normal, single-dry, and multiple-dry water years as

included in the 25-year projection of 2015 UWMP is sufficient to meet the projected water demand associated with the Central Plaza Project, in addition to the existing and planned future demand on LADWP.

ENVIRONMENTAL DETERMINATION

Determine item is exempt pursuant to the California Environmental Quality Act (CEQA) Guidelines 15268 (b) (4). In accordance with Section 15268 (b)(4) of the CEQA Guidelines, Ministerial projects such as Approval of individual utility service connections and disconnections are exempt from the requirements of CEQA.

CITY ATTORNEY

The Office of the City Attorney reviewed and approved the Resolution as to form and legality.

ATTACHMENTS

- Resolution
- Water Supply Assessment

RESOLUTION NO. _____

WHEREAS, Los Angeles Department of Water and Power (LADWP) constitutes a "public water system" pursuant to California Water Code Section 10912, subdivision (c); and

WHEREAS, the Central Plaza Project qualifies as a "project" under California Water Code Section 10912, subdivision (a) (7); and

WHEREAS, the Central Plaza Project is located in the service area of LADWP's water supply system, and LADWP would serve the area of the Central Plaza Project development; and

WHEREAS, on March 22, 2017, the City of Los Angeles (City) Department of City Planning (Planning Department) requested the LADWP conduct a Water Supply Assessment (WSA) for the Central Plaza Project pursuant to California Water Code Sections 10910-10915; and

WHEREAS, the Central Plaza Project would redevelop an approximately 7.36-acre site of commercial land uses within the Wilshire Community Plan area of the City for residential and commercial land uses; and

WHEREAS, LADWP's Water Resources Division has prepared a WSA for the Central Plaza Project in compliance with California Water Code Sections 10910-10915; and

WHEREAS, the Central Plaza Project is determined by Planning Department to be consistent with the demographic projections for the City from both the 2012 and 2016 Regional Transportation Plans by the Southern California Association of Governments; and

WHEREAS, LADWP staff performed the water demand analysis and determined the net increase in total water demand for the Central Plaza Project is 77 acre-feet per year; and

WHEREAS, Central Plaza, LLC (Applicant) has agreed to implement additional conservation measures, as described in WSA, that are in addition to those required by law; and

WHEREAS, LADWP anticipates that its projected water supply available during normal, single-dry, and multiple-dry water years as included in the 25-year projection contained in its adopted 2015 Urban Water Management Plan can accommodate the projected water demand associated with the Central Plaza Project, in addition to the existing and planned future demands on LADWP; and

WHEREAS, the Board of Water and Power Commissioners (Board) adopted a Water Rate Ordinance for water service effective April 15, 2016. The Board believes that the price signals contained in the Water Rate Ordinance encourages conservation and will help to contribute to reductions in City-wide demands to meet demand projections; and

WHEREAS, in accordance with Water Code Section 10910 (g) (1) the Board has the responsibility for approval and certification of WSA's prepared by LADWP; and

WHEREAS, the Board has independently reviewed and considered the WSA and documentation making up the administrative record; and

WHEREAS, a publicly noticed Board hearing was held with respect to this item on July 18, 2017, and the Board considered evidence presented by LADWP's Water Resources Section staff, the staff recommendation to approve the WSA, and other comments from interested parties at the public hearing.

NOW, THEREFORE, BE IT RESOLVED that the Board finds that LADWP can provide sufficient domestic water supplies to the Central Plaza Project area and approves the WSA prepared for the Central Plaza Project, now on file with the Secretary of the Board, and directs that WSA and a certified copy of Resolution be transmitted to Planning Department.

BE IT FURTHER RESOLVED that the Board finds that LADWP's total projected water supplies available during normal, single-dry, and multiple-dry water years during a 20-year projection will meet the projected water demands associated with the Central Plaza Project in addition to existing and planned future uses including agricultural and industrial uses.

BE IT FURTHER RESOLVED that the Board has considered the WSA prior to making a decision to approve the WSA, and finds that the WSA is adequate and was prepared in accordance with Water Code Section 10910 (c) (2), and meets the requirements of Water Code Section 10910 (d), (e), (f), and (g).

I HEREBY CERTIFY that the foregoing is a full, true, and correct copy of a Resolution adopted by the Board of Water and Power Commissioners of the City of Los Angeles at its meeting held

_____

Secretary

APPROVED AS TO FORM AND LEGALITY
MICHAEL N. FEUER, CITY ATTORNEY

JUN 26 2017

BY _____
JULIE C. RILEY
DEPUTY CITY ATTORNEY

WATER SUPPLY ASSESSMENT

FOR THE CENTRAL PLAZA PROJECT

Prepared by:
Water Resources Division

July 18, 2017

Table of Contents

Table of Contents 2

Introduction 4

Findings 4

The Central Plaza Project Description 6

The Central Plaza Project Water Demand Estimate 7

Water Demand Forecast 10

Los Angeles Department of Water and Power (LADWP) 2015 Urban Water Management Plan (UWMP) 11

Near-Term Conservation Strategies 12

Long-Term Local Supply Strategies 15

Water Supplies 28

- Los Angeles Aqueducts 29
- Groundwater 31
- Metropolitan Water District of Southern California (MWD) 33
- Secondary Sources and Other Considerations 44
- Summary of Water Demand and Supply Projections for 20 Years 44

Rates 46

Findings 46

References

- California Department of Water Resources California's Groundwater Bulletin 118 Update 2003
- Upper Los Angeles River Area Watermaster Report for 2013/2014, Dated December 2015
- LADWP 2015 UWMP
- MWD Integrated Water Resources Plan 2015 Update
- MWD 2015 UWMP
- California Code of Regulations Title 23. Waters, Division 2. Department of Water Resources, Chapter 2.7. Model Water Efficient Landscape Ordinance
- City of Los Angeles Department of Public Works Bureau of Sanitation (LASAN) Sewer Generation Rates Table

Appendices

A. The City of Los Angeles Department of City Planning letter, Request for Water Supply Assessment, received on March 22, 2017, and Scope Confirmation e-mail received on June 20, 2017

B. Water Conservation Commitment Letter

C. Project Location Maps

D. Adjudicated Groundwater Basin Judgments

E. Water Supply Assessment Provisions – California Water Code Section 10910-10915

F. MWD of Southern California (Appendix A)

G. Water Supply Assessment Checklist

Introduction

Proposed major projects subject to certain requirements in the California Water Code Sections 10910-10915 require that a city or county identify any public water system that may supply water to the Central Plaza Project and request the public water system provide a Water Supply Assessment (WSA). The WSA is a determination by the water supplier that the demands associated with the Central Plaza Project were included in its most recently adopted 2015 UWMP showing that there is an adequate 20-year water supply.

The City of Los Angeles (City) Department of City Planning (Planning Department), serving as the lead agency as prescribed by the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.), for the Central Plaza Project, has identified LADWP as the public water system that will supply water. In response to Planning Department's request for a WSA, LADWP has performed the assessment contained herein.

LADWP has supplied the City with a safe and reliable water supply for over a century. Over time, the City's water supplies have evolved from primarily local groundwater to predominantly imported supplies. Today, the City relies on over 85 percent of its water from imported sources. As such, LADWP has taken an active role in regional and statewide water management. The sustainability of Los Angeles' local water supplies are dependent on the City's ability to maximize water conservation, increase recycled water use, expand stormwater capture, and accomplish other local water resource goals.

WSA is prepared to meet the applicable requirements of state law as set forth in California State Water Code Sections 10910-10915. Significant references and data for WSA are from the City's 25-year water resource plan, entitled *Los Angeles Department of Water and Power Urban Water Management Plan 2015*, adopted by the Board of Water and Power Commissioners (Board) on June 7, 2016. LADWP's 2015 UWMP is incorporated by reference and is available for review through LADWP's Web site, www.ladwp.com/uwmp.

Findings

The Central Plaza Project is estimated to increase the total net water demand within the site by 77 acre-feet (AF) annually based on review of information submitted by Planning Department. Central Plaza, LLC (Applicant) has committed to implement additional water use efficiency measures that are beyond those required by current law.

LADWP's WSA finds adequate water supplies will be available to meet the total additional water demand of 77 AF annually for the Central Plaza Project. LADWP anticipates the projected water demand from the Central Plaza Project can be met

during normal, single-dry, and multiple-dry water years, in addition to the existing and planned future demands on LADWP.

WSA approval addresses the City's long-term water supply and demand forecasts to accommodate the Central Plaza Project, and is not an approval for water service connection. A separate request shall be made to LADWP requesting an evaluation of water service connection for the Central Plaza Project.

The basis for approving WSAs for developments is LADWP's most recently adopted UWMP. LADWP's water demand forecast, as contained in LADWP's 2015 UWMP, uses long-term demographic projections for population, housing, and employment. The California Urban Water Management Planning Act requires water suppliers to develop a UWMP every five years to identify short-term and long-term water resources management measures to meet growing water demands during normal, single-dry, and multiple-dry years. If the projected water demand associated with the Central Plaza Project was not accounted for in the most recently adopted LADWP 2015 UWMP, WSA must include a discussion with regard to whether LADWP's total projected water supplies available during normal, single-dry, and multiple-dry water years during a 20-year projection will meet the projected water demand associated with the Central Plaza Project, in addition to LADWP's existing and planned future uses.

The City's water demand projection in LADWP's 2015 UWMP was developed based on the 2012 Regional Transportation Plan (RTP) demographic projection by the Southern California Association of Governments (SCAG) using the 2010 United States (U.S.) Census for the City. LADWP's 2015 UWMP concluded there are adequate water supplies to meet projected water demands through 2040. Therefore, the City's water supply projections in LADWP's 2015 UWMP are sufficient to meet the City's water demand projections based on the 2012 RTP.

Planning Department has determined that the Central Plaza Project conforms with the use and intensity of development permitted by the City's General Plan, and that it is consistent with the demographic projection for the City from both the 2012 and 2016 RTPs. Therefore, anticipated water demand for the Central Plaza Project falls within LADWP's 2015 UWMP's projected water supplies for normal, single-dry, and multiple-dry years through the year 2040 and is within the LADWP 2015 UWMP's 25-year water demand growth projection. This WSA can be approved based on the fact that the Central Plaza Project's water demand falls within the LADWP 2015 UWMP's projected increase in citywide water demands, while anticipating multi-dry year water supply conditions occurring at the same time.

Additionally, LADWP's 2015 UWMP contains a water shortage contingency plan for multi-year dry hydrological periods. This water shortage contingency plan was implemented on June 1, 2009, when the Board adopted Shortage Year Rates, and the City Council implemented the landscape irrigation and prohibited use restrictions contained in the City's Water Conservation Ordinance (Ordinance).

The City's Water Rate Ordinance, adopted in June 1995, was last amended by the Board, effective April 15, 2016. The revised rate ordinance restructured the rates to help further promote conservation. For example, single family rates switched to a four-tier system that sends a strong price signal to deter against wasteful water use. The Board finds that the price signals contained in the Water Rate Ordinance encourage conservation and support further reduction in City-wide demand. Past and current implementation of water rate price signals and higher ordinance phases have resulted in reducing the total customer water usage, on average, by approximately 19.7 percent over the time period from June 2009 to May 2017.

The Central Plaza Project Description

The following project information was obtained from Planning Department's WSA Request Letter and the scope confirmation e-mail (Appendix A):

Project Name:	Central Plaza Project
Lead Agency:	Planning Department
Planning Community:	Wilshire Community Plan

The Central Plaza Project will redevelop an approximately 7.36-acre site of commercial land uses within the Wilshire Community Plan area of the City for residential and commercial land uses. The Central Plaza Project is generally bounded by 7th Street to the south, Mariposa Avenue to the east, Irolo Street to the west, and Wilshire Boulevard to the north.

The Central Plaza Project's site currently consists of four commercial office buildings that contain approximately 760,456 square feet (sq ft) of floor area with ground floor retail uses, a 266,571 sq ft, three-story parking structure, and a 206,180 sq ft, five-story parking structure. As part of the project, the existing three-story parking structure and landscaping will be demolished to support the development of the Central Plaza Project. The existing water demand to be removed is approximately 1 AFY.

The Central Plaza Project will add ground floor retail to the existing office buildings, develop three retail kiosks along West Wilshire Boulevard and South Irolo Street, and construct a 23-story mixed-use building (Tower 1) and a 28-story mixed-use building (Tower 2) on top of a podium that will be four stories above grade and two stories subterranean. Tower 1 will include approximately 280 apartment units, rooftop amenities, and commercial space; while Tower 2 will include approximately 361 apartment units, rooftop amenities, and commercial space. The project will add a total of 641 residential units, 2,692 sq ft of lobby and leasing space, 13,500 sq ft of retail space, 4,954 sq ft of restaurant uses, 9,935 sq ft of indoor lounge, 10,930 sq ft of rooftop amenity deck space, a pool, and a water feature. The project will also include approximately 483,684 sq ft of parking (309,558 sq ft covered), 21,860 sq ft of landscaping and cooling towers.

LADWP staff performed the water demand analysis and determined the net increase in water demand for the Central Plaza Project is 77 AFY.

A subsequent revised WSA may be required if one or more of the following occurs: (1) changes in the Central Plaza Project result in a substantial increase in water demand for the Central Plaza Project; (2) changes in the circumstances or conditions substantially affecting the ability of LADWP to provide a sufficient supply of water for the Central Plaza Project; or (3) significant new information becomes available which was not known and could not have been known at the time when WSA was prepared. If deemed necessary, Applicant may request a revised WSA through lead agency.

The Central Plaza Project Water Demand Estimate

Projected total net water demand increase for the Central Plaza Project is estimated to be 77 AF annually which includes annual water conservation. Savings due to water conservation ordinances are approximately 48 AFY, and savings due to additional voluntary conservation measures are approximately 2 AFY.

In evaluating the Central Plaza Project's water demand, the Sewer Generation Factors (SGF), published by City of Los Angeles Department of Public Works Bureau of Sanitation (LASAN) in 2012, are applied to the Central Plaza Project scope for calculating indoor water use. SGFs are factors of how much wastewater is generated (gallons per day) per unit (per sq ft, per dwelling unit, per seat, etc.). LASAN publishes a list of SGFs for approximately 175 different building use types in the City, and updates factors to make adjustments necessary due to water conservation efforts and increased efficiencies in new appliances and plumbing fixtures. Outdoor landscape water demand is estimated per California Code of Regulations Title 23 Division 2 Chapter 2.7 Model Water Efficient Landscape Ordinance. Historical billing records are used to establish existing baseline water demand on the property. LADWP also encouraged the Central Plaza Project to implement additional water conservation measures above and beyond the current water conservation ordinance requirements.

The net increase in water demand, which is the projected additional water demand of the Central Plaza Project, is calculated by subtracting the existing baseline water demand and water saving amount from the total proposed water demand.

Table I shows a breakdown of the existing and proposed new types of uses for the Central Plaza Project, and the corresponding estimated volume of water usage with the implementation of the conservation measures for the Central Plaza Project.

Types of use were derived from WSA request letter and the scope confirmation e-mail in Appendix A.

Table II estimates the total volume of water conservation based on conservation measures the Applicant has committed to for the Central Plaza Project (Appendix B).

TABLE I
Central Plaza Project
Calculated Total Additional Water Demand

Existing Use[1]	Quantity	Unit			Existing Water Use to be Removed (gpd)	(af/y)
Landscaping	13,133	sf				
3-Story Parking Structure	266,571	sf				
Existing to be Removed Total[2]					**1,082**	**1.21**

Proposed Use[1]	Quantity	Unit	Water Use Factor[3] (gpd/unit)	Base Demand (gpd)	Required Ordinances Water Savings[4] (gpd)	Proposed Water Demand (gpd)	(af/y)
Residential: Studio	461	du	75.00	34,575			
Residential: 2 bd	180	du	150.00	27,000			
Base Demand Adjustment (Residential Units)[5]				7,947			
Residential Units Total	**641**	**du**		**69,522**	22,302	**47,220**	**52.90**
Indoor Lounge	9,935	sf	0.05	497			
Rooftop Outdoor Amenity Deck	10,930	sf	0.05	547			
Gym/Fitness Center	785	sf	0.65	510			
Lobby & Leasing Office	2,620	sf	0.05	131			
Pool	1,200	sf		113			
Water Feature/Fountain	887	sf		83			
Residential Amenities Total[6]				**1,881**	582	**1,299**	**1.46**
Restaurant: High Turnover	138	seat	25.00	3,450			
Restaurant: Fast-Food	68	seat	25.00	1,700			
Retail	13,500	sf	0.025	338			
Commercial Total	78,574	sf		**5,488**	1,408	**4,080**	**4.57**
Landscaping[7]	**21,860**	**sf**		**2,042**	997	**1,045**	**1.17**
Parking Structure[8]	**309,558**	**sf**	0.02	**204**	0	**204**	**0.23**
Cooling Tower - Tower 1	700	ton	24	16,632	3,326	13,306	14.91
Cooling Tower - Tower 2	800	ton	24	19,008	14,411	4,597	5.15
Cooling Tower Total				**35,640**	**17,738**	**17,902**	**20.05**
		Proposed Subtotal		**114,777**	**43,027**	**71,750**	**80.38**
					Less Existing to be Removed Total	-1,082	-1.21
					Less Additional Conservation[9]	-1,657	-1.86
					Net Additional Water Demand	**69,011 gpd**	**77.31 af/y**

[1] Provided by City of Los Angeles Department of City Planning in the Request for Water Supply Assessment letter and Scope Confirmation e-mail. See Appendix A.

[2] The existing water demand is based on the LADWP billing data (average of varied available billing years from Fiscal Year 2010 to 2015). Existing uses include surrounding parking lot and landscape to be removed.

[3] Proposed indoor water uses are based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table available at http://www.lacitysan.org/fmd/pdf/sfcfeerates.pdf.

[4] The proposed development land uses will conform to City of Los Angeles Ordinance No. 184248, 2013 California Plumbing Code, 2013 California Green Building Code (CALGreen), 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code.

[5] Base Demand Adjustment is the estimated savings due to Ordinance No. 180822 accounted for in the current version of Bureau of Sanitation Sewer Generation Rates.

[6] Outdoor pool Deck not shown here does not have additional water demand.

[7] Landscaping water use is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance.

[8] Auto parking water uses are based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table, and 12 times/year cleaning assumption. Only covered parking has water demand; approximately 64% of parking is covered and accounted for on table.

[9] Water conservation due to additional conservation commitments agreed by the Applicant. See Table II.

Abbreviations: bd - bedroom du - dwelling unit sf- square feet gpd - gallons per day af/y - acre feet per year

TABLE II
Central Plaza Project
Estimated Additional Water Conservation

Conservation Measures[1]	Quantity	Units	Water Saving Factor[2] (gpd/unit)	Water Saved (gpd)	Water Saved (af/y)
Toilet - Residential: Studio	461	du	1.21	558	0.63
Toilet - Residential: 2 Bd	180	du	3.03	545	0.61
Showerhead - Residential: Studio	461	du	0.27	122	0.14
Showerhead - Residential: 2 Bd	180	du	0.66	119	0.13
Residential Unit Conservation Total				**1,344**	**1.51**
Landscaping Total Conservation[3]				**313**	**0.35**
Total Additional Water Conserved =				**1,657**	**1.86**

[1] Water conservation measures agreed to by the Applicant. See Appendix B.

[2] Based on LADWP estimates.

[3] Landscaping water conservation is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance.

Abbreviations: du - dwelling unit gpd - gallons per day af/y - acre feet per year ea – each

Water Demand Forecast

LADWP's 2015 UWMP projects yearly water demand to reach 675,700 AF by fiscal-year-ending (FYE) 2040 with passive water conservation, or an increase of 31.6 percent from FYE 2015 actual water demand. Water demand projections in five-year increments through FYE 2040 are available in LADWP's 2015 UWMP for each of the major customer classes: single-family, multifamily, commercial/governmental, and industrial. Demographic data from the Southern California Association of Government's 2012 RTP, as well as billing data for each major customer class, weather, conservation, price of water, personal income, family size, economy, and drought conservation effect were factors used in forecasting future water demand growth.

LADWP's 2015 UWMP used a modified-unit-use approach to develop its service area-wide water demand projections. This methodology does not rely on individual development demands to determine area-wide growth, because such an inventory in LADWP service area in the next 25 years is only a subset of the total development potential. Therefore, the growth or decline in population, housing units, and employment for the entire service area was considered in developing long-term water projections for the City through FYE 2040. The historical water demand for a unit of customer class, such as gallons-per-day per single family, is modified to account for future changes, including water conservation, and applied to the 2012 RTP demographic projections by SCAG. This modified-unit-use-approach has proven to be a reliable forecast historically, when compared with actual consumption, excluding the effects of conservation.

LADWP's 2015 UWMP is updated every five years as required by California law. This process entails, among other requirements, an update of water supply and water demand projections for water agencies.

Collaboration between LADWP and MWD is critical in ensuring that the City's anticipated water demands are incorporated into the development of MWD's long-term Integrated Water Resources Plan (IRP). MWD's IRP directs a continuous regional effort to develop regional water resources involving all of MWD's member agencies including the City. Successful implementation of MWD's IRP has resulted in reliable supplemental water supplies for the City from MWD.

State law further regulates distribution of water in extreme dry weather conditions. Section 350-354 of the California Water Code states that when a governing body of a distributor of a public water supply declares a water shortage emergency within its service area, water will be allocated to meet needs for domestic use, sanitation, fire protection, and other priorities. This will be done equitably and without discrimination between customers using water for the same purpose(s).

LADWP – 2015 UWMP

The California Urban Water Management Planning Act (first effective on January 1, 1984) requires every urban water supplier prepare and adopt a UWMP every five years. The main goals of UWMPs are to forecast future water demands and water supplies under average and dry year conditions, identify future water supply projects such as recycled water, provide a summary of water conservation Best Management Practices (BMP), and provide a single and multi-dry year management strategy.[1]

LADWP's 2015 UWMP, available for reference through www.ladwp.com/uwmp, serves two purposes: (1) achieve full compliance with requirements of California's Urban Water Management Planning Act; and (2) serve as a master plan for water supply and resources management consistent with the City's goals and policy objectives.[2]

A number of important changes have occurred since LADWP prepared its 2010 UWMP. The year 2012 marked the start of the current multi-year drought in California. In January 2014, Governor Jerry Brown proclaimed a drought state of emergency. In July 2014, the State Water Resources Control Board (SWRCB) implemented its Emergency Water Conservation Regulation (Emergency Regulation), as directed by Governor Brown, to take actions to reduce water use by 20 percent Statewide, which was later increased to 25 percent statewide, with adjustments to account for different climates, expected growth, investment made to create drought-resilient water supplies by different cities through October 2016. In October 2014, Mayor Eric Garcetti issued Executive Directive No. 5 (ED5) Emergency Drought Response which set goals to reduce per capita water use, reduce purchases of imported potable water by 50 percent, and create an integrated water strategy to increase local supplies and improve water security considering climate change and seismic vulnerability. Lastly, in April 2015, the Mayor's Sustainable City pLAn (pLAn) was released establishing targets for the City over the next 20 years to strengthen and promote sustainability. The pLAn included a number of water resources goals, including reduce average per capita potable water use by 20 percent from Fiscal Year (FY) 2013/14 by 2017, reduce average per capita potable water use by 22.5 percent from FY 2013/14 by 2025, reduce imported water purchases from MWD by 50 percent from 2013/14 by 2025, reduce per capita potable water use by 25 percent from 2013/14 by 2035, and expand all local sources of water so that they account for at least 50 percent of the total supply by 2035. The pLAn included a multi-faceted approach to developing a locally sustainable water supply to reduce reliance on imported water, reducing per capita water use through conservation, and increasing local water supply availability.

A number of new requirements have been added to the Urban Water Management Planning Act since completion of LADWP's 2010 UWMP, including: an extension of the submittal deadline from December 31, 2015 to July 1, 2016, a narrative description of water demand measures implemented over the past five years and future measures

[1] *City of Los Angeles Department of Water and Power 2015 Urban Water Management Plan*, at ES-2.
[2] *Id.* at ES-2.

planned to meet 20 percent demand reduction targets by 2020, implementation of a standard methodology for calculating system water loss, a mandatory electronic filing of UWMPs, a voluntary reporting of passive conservation savings, energy intensity, and climate change, and a requirement to analyze and define water features that are artificially supplied with water.

LADWP's 2015 UWMP projects a seven percent lower water demand trend than what was projected in the previous LADWP 2010 UWMP. It outlines plans, as described below, to provide a highly reliable water supply by FYE 2040, by implementing cost-effective conservation, recycled water, and stormwater capture programs, ultimately meeting the targets established in ED5 and pLAn, including reducing imported water purchases from MWD.

Near-Term Conservation Strategies

Enforcing prohibited uses of water. Prohibited uses of water are intended to eliminate waste and increase awareness of the need to conserve water. In effect at all times, prohibited uses have been in place since the early 1990s. Under enforcement, failure to comply would be subject to penalties, which can range from a written warning for a first violation to monetary fines and water service shutoff for continued non-compliance.

Expanding the prohibited uses of water. In August 2009, and again in August 2010, the City updated the Emergency Water Conservation Plan Ordinance (No. 181288) by clarifying prohibited uses of water, modifying certain water conservation requirements, and developing new phases of conservation depending on the severity of water shortages. In June 2015, the City amended Ordinance No. 181288 with the new Ordinance No. 183608. Ordinance No. 183608 clarified prohibited uses and added an additional phase to allow for outdoor watering two days a week. In April 2016, the City once again amended Ordinance No. 183608 with the Ordinance No. 184250, which defined and added fines for unreasonable uses of water. The Ordinance is expected to improve the City's ability to comply with current regulations and respond to the ongoing drought conditions. Prohibited uses in effect at all times (Phase I) include[3]:

- Water leaks allowed to go unattended
- Outdoor irrigation between the hours of 9 a.m. to 4 p.m.
- Outdoor irrigation that results in excess water flow leaving the property
- Outdoor irrigation during and 48 hours after rain events
- Outdoor irrigation with spray head sprinklers and bubblers for more than ten minutes per watering day per station
- Outdoor irrigation with standard rotors and multi-stream rotary heads for more than 15 minutes per cycle and up to two cycles per watering day per station
- Large landscape irrigation systems without automatic shutoff rain sensors

[3] *Id.* at 3-11.

- Washing paved surfaces (sidewalks, walkways, driveways, or parking areas) unless using a LADWP-approved water conserving spray cleaning device
- Water for decorative fountains, ponds, or lakes unless the water is part of a recirculating system
- Installation of single-pass cooling systems in buildings requesting new water service
- Installation of non-recirculating systems in new commercial laundry facilities
- Installation of non-recirculating systems in new conveyor car washes
- Car washing with a hose, unless an automatic shut-off device is attached
- Water served to customers in eating establishments, unless requested
- Daily towel and linen service option must be offered to hotel and motel guests

Phase II of the Water Conservation Ordinance was enacted in August 2010 and is currently in effect. In addition to the restrictions in Phase I, Phase II also limits landscape irrigation irrigation to three days per week, Monday, Wednesday, and Friday for odd-numbered street addresses and Tuesday, Thursday, and Sunday for even-numbered street addresses. Watering times for non-conserving nozzles (spray head sprinklers and bubblers) are limited to eight minutes per watering day per station.

On January 17, 2014, with California facing water shortfalls in the driest year in recorded state history, Governor Brown proclaimed a Drought State of Emergency. Local urban water suppliers and municipalities were called upon to implement their local water shortage contingency plans. Responding to the executive order, in 2015, SWRCB imposed mandatory cutbacks ranging from four percent to 36 percent. LADWP was required to reduce its water use by 16 percent compared to the 2013 levels. LADWP met the state mandated reduction goal and saved 16.1 percent between June 2015 and May 2016. In 2016, following a relatively wet winter in Northern California, SWRCB replaced the regulations by a localized “stress test” approach, which LADWP successfully met.

On April 7, 2017, Governor Jerry Brown issued Executive Order B-40-17 formally ending the drought emergency. The Governor lifted the drought emergency in all California counties except Fresno, Kings, Tulare and Tuolumne where emergency drinking water projects will continue to help address diminished groundwater supplies. The order also rescinds two drought-related emergency proclamations and four drought-related executive orders. Cities and water districts throughout the state are required to continue reporting their water use each month, according to the order, which also bans wasteful practices, such as hosing off sidewalks and running sprinklers when it rains.

As the Governor ended the drought emergency, five state agencies unveiled a long-range plan to rein in water use, called “Making Water Conservation a California Way of Life.” This plan builds on the successes and lessons learned from California’s five-year drought and establishes a framework for long-term efficient water use that reflects the state’s diverse climate, landscape, and demographic conditions.

Achieving the plan's goals will help all of California better prepare for longer and more severe droughts caused by climate change. Among other things, the plan will require all urban agencies to meet new targets, based on their local climates, land-use characteristics and other factors. The urban agencies would set the targets themselves, based on parameters set by the state.

On October 14, 2014, Mayor Garcetti issued his Executive Directive No. 5 (ED5) to set accelerated short-term conservation targets to address the drought and set long-term water reliability goals. Shortly after, the Mayor published the City's Sustainability pLAn (pLAn) on April 8, 2015. The pLAn builds upon the goals in ED5 to establish the following water resources related goals to achieve long-term water reliability for the City: per capita water use reduction goals of 20 percent by 2017, 22.5 percent by 2025, and 25 percent by 2035; a reduction in LADWP purchases of imported potable water by 50 percent by 2025; and expanding local water supplies to account for 50 percent of total supplies by 2035. LADWP's 2015 UWMP incorporates the pLAn goals in its local water supply plans to reduce reliance on purchased water in the future. These plans include increased stormwater capture, groundwater clean-up, recycled water, and conservation.

Most significant among them is an increased goal for conservation. On January 1, 2017, the City was able to meet the short-term target of 20 percent reduction through drought response measures that dropped per capita water use to 104 gallons per day. While this extraordinary achievement will have lasting effects on the City's water use efficiency, LADWP will need to work together with residents and businesses to achieve additional permanent conservation savings needed to maintain these drought savings and further reduce per capita water use by 25 percent by 2035. Achieving the pLAn and LADWP 2015 UWMP per capita water use reduction goals will help reduce the City's reliance on imported water while providing drought-resilient supplies that are not subject to increasingly frequent hotter weather conditions.

Among the actions required by ED5 that have been implemented are the following:

- Increase rebates for rain barrels, including interconnection piping and control systems, to $100 per barrel.
- Increase LADWP's California Friendly Landscape Incentive rebate funding to $1.75 per sq ft.

In addition to mandatory action items including those listed above, ED5 also calls for residents to:

- Voluntarily reduce their outdoor watering from three to two days.
- Replace turf lawns with native and climate-appropriate landscaping during the optimal Fall/Winter planting season, utilizing LADWP rebates for turf removal.
- Replace any remaining high water use plumbing fixtures and appliances with low-flow fixtures and appliances using consumer rebates provided by LADWP.
- Ensure swimming pools have covers to reduce water evaporation.

ED5 goals were later enhanced/modified by the Mayor's pLAn in April 2015. Strategies under pLAn sought to execute key conservation steps outlined in ED5 as well as expand the scope and financing for conservation programs and incentives.

Extending outreach efforts. Over the last several years, LADWP has expanded conservation outreach and education. Some activities to promote conservation include: increased communication with ratepayers through Twitter, Facebook, newspapers, radio, television, bus benches/shelters, and movie theaters, among other types of media; outreach to Homeowner Associations and Neighborhood Councils; distribution of hotel towel door hangers and restaurant table tent cards; and ramping up marketing of expanded water conservation incentive and rebate programs.

On April 9, 2015, the new "Save the Drop" Water Conservation Outreach Campaign was launched. This campaign is a partnership between LADWP and the Mayor's Office. Outreach materials include new public service announcements, radio spots, event handouts, and signage on the sides of LASAN trucks. The campaign has partnered with celebrities such as Steve Carrell, Jaime Camil, and Moby for public service announcements airing on TV, cinema, and radio.

Encouraging regional conservation measures. LADWP has worked with MWD to encourage all water agencies in the region to promote water conservation and adopt water conservation ordinances which include prohibited uses and enforcement.

Long-Term Local Supply Strategies

In April 2015, the Mayor released the City's first ever Sustainable City pLAn that focuses on sustainability, with special focus on the environment, the economy, and equity. The pLAn enhances ED5 goals, and incorporates water savings goals of reduction in per capita potable water by 20 percent by 2017, by 22.5 percent by 2025, and by 25 percent by 2035. The pLAn goals also include a reduction in imported water purchases from MWD by 50 percent from 2013/14 levels by 2025 and expansion of all local sources of water so that they account for at least 50 percent of the total supply by 2035. The pLAn includes specific strategies and desired outcomes for conservation, recycled water, and stormwater capture. Some of the strategies to meet these goals include investments in state-of-the art technology, rebates and incentives promoting water-efficient appliances, tiered water pricing, Technical Assistance Program for business and industry, and large landscape irrigation and efficiency programs.

1.0 Increase Water Conservation Through Reduction of Outdoor Water Use and New Technology

Goal

Increase water conservation savings to achieve ED5 and pLAn water conservation goals by cutting back on outdoor water use, expanding rebates and incentives,

improving water efficiency at public facilities, and enhancing savings through review of new developments**.** LADWP plans to achieve additional water conservation savings of 108,100 AFY during average years and 143,500 AFY during single/multi-dry years by year 2040[4].

Action Plan

Conservation Rebates and Incentives**.** LADWP is continuing to expand rebates and incentives for homeowners and business owners to encourage them to purchase water-saving technology. Rebate and incentive programs include the following: Commercial Rebate Program, Residential Rebate Program, Direct Install Partnership Program, and Technical Assistance Program. In addition, as part of the City's ongoing effort to encourage customers to adopt active water conservation measures (i.e., measures that can help customers conserve water on a daily basis without thinking about it) in their homes and businesses, LADWP continues to distribute water-saving bathroom and kitchen faucet aerators and shower heads free-of-charge. In an effort to reduce outdoor water use, LADWP launched the California Friendly Landscape Incentive Program in 2009. Between November 1, 2014, and July 9, 2015, this Program provided rebates for turf removal to residential customers of $3.75 per sq ft for the first 1,500 sq ft and $2.00 per sq ft with no cap thereafter, and to commercial customers of up to $3.75 per sq ft. MWD is no longer offering turf removal incentives to new applicants, effective July 9, 2015, because available funding has been fully allocated.

LADWP has relaunched the California Friendly Landscape Incentive Program to continue a utility-sponsored rebate program for its customers. Effective July 15, 2015, residential customers are eligible to receive a rebate of $1.75 per sq ft for 1,500 sq ft maximum, while commercial customers are eligible for a rebate of $1.00 per sq ft for the first 10,000 sq ft and $0.50 per sq ft thereafter up to 43,560 sq ft maximum.

Some highlights from the list of LADWP's numerous water conservation accomplishments are:

- LADWP's Water Conservation Program has achieved a total cumulative hardware water savings of over 125,000 AFY, mainly through installation of conservation devices subsidized by rebates and incentives, since the inception of the program in FYE 1991 to FYE 2016.
- Water conservation achievements have resulted in Los Angeles using just as much as it did 45 years ago despite a population increase of over one million people.
- California Friendly Landscape Incentive Program – In total (Residential and Commercial Turf removal), LADWP has removed over 48 million sq ft of turf, saving over 1.9 billion gallons of water per year.
- LADWP's 100-percent volumetric tiered rate structure has been providing financial incentives to all customers for efficient water use since 1993.

[4] *Id.* at 11-11 to 11-13.

- Water Meter Replacement Program started in 2006 and is ongoing. The current program goal is to replace 25,000 meters per year out of approximately 700,000 existing small meters, which equates to a 28-year replacement. Over the next five years, LADWP plans to ramp up to a replacement cycle of 20 years. This program provides customers with greater accuracy in metering water use and a higher degree of accountability for water that is delivered by the City's distribution system.
- Technical Assistance Programs (TAP) for business and industry have been created to provide incentives for retrofitting water-intensive industrial equipment with high efficiency devices. A large effort is currently being expended using TAP to increase water-efficiency of commercial cooling towers and expand the program for small business participation.

Action by Public Agencies. LADWP assists City Departments and other public agencies in leveraging incentive funds to retrofit their facilities with water-efficient hardware. Significant accomplishments include the following highlights:

- In an effort to reduce water waste and identify areas of potential water conservation, LADWP provided on-site water audit training for the City's Department of General Services (GSD) plumbers, Department of Recreation and Parks (RAP) landscapers and Port of Los Angeles (POLA) staff, and conducted nearly 500 facility audits.
- In January 2009, a Memorandum of Understanding (MOU) was signed between LADWP and GSD to install 875 water-efficient urinals and 325 high-efficiency toilets in City facilities.
- Ten high-use City facilities have been retrofitted with water-efficient toilets, urinals, and faucets saving approximately 23 AFY. Locations include City Hall, City Hall East, Pershing Square, and LADWP headquarters.
- Utilizing a $3 million per year grant from LADWP, RAP has retrofitted 23 parks with California Friendly landscape and water-efficient irrigation. Through this MOU, RAP completed the Los Feliz Golf Course project in July 2014. Golf course improvements include a fully automated recycled water system, and six acres of grass have been replaced with California Friendly landscaping. Annually 5.5 million gallons of water will be saved due to the changes.

***Enhancing Conservation through New Developments*.** LADWP continues to work with the City's Green Building Team to pursue desired changes in local codes and standards to promote water efficiency in new construction projects and major building renovations. One of the significant accomplishments was the approval of the Water-Efficiency Requirements Ordinance No. 180822 by the City Council, which modifies City Municipal Code to establish new requirements for water conservation in construction of new buildings, and the installation of new plumbing fixtures in existing buildings to minimize the effects of any water shortages on the customers of the City, effective December 1, 2009. Additional conservation measures are also required through the following regulations which were effective January 1, 2014: 2013 California Plumbing Code, 2013 California Green Building Code (CALGreen), 2014 Los Angeles Plumbing

Code, and 2014 Los Angeles Green Building Code. On April 8, 2015, the California Energy Commission adopted new efficiency standards for toilets, faucets and other appliances effective January 1, 2016. Also, on July 15, 2015, in response to Governor Brown's Executive Order B-29-15, the California Water Commission approved the revised Model Water Efficient Landscape Ordinance, which reduces the maximum amount of water allowed from the 2009 version of the ordinance. The California Department of Water Resources (DWR) estimates that a new home will use 20 percent less landscape water than allowed by the 2009 ordinance, and commercial landscape will cut water use by 35 percent. Also, Ordinance No. 184248, *Green Building Codes Revision, Use of Greywater Systems, Water Conservation Measures*, became effective June 6, 2016, and mandates a number of new fixture requirements and methods of construction for plumbing and irrigation systems. California Plumbing Code, Los Angeles City Plumbing Code and amending ordinances apply to all newly constructed buildings, additions and alterations whenever new fixtures are installed in existing buildings. CALGreen, the LA Green Building Code and the amending ordinances also apply to new construction projects, but are limited to additions and alterations to existing buildings that either increase the building's conditioned volume or have a valuation of $200,000 or more. For this development, all requirements above resulted in savings of approximately 48 AFY.

In addition, the City adopted Ordinance No. 181899, also known as the "Low Impact Development" Ordinance, and Ordinance No. 183833, entitled "Stormwater and Urban Runoff Pollution Control." The purpose of these Ordinances includes rainwater harvesting and stormwater runoff management, water conservation, and recycled water reuse and gray water use. Ordinance No. 181899 was effective as of November 14, 2011, and Ordinance No. 183833 was effective October 3, 2015.

***Future Programs*[5].** In December 2014, LADWP started its Home Water Use Report Pilot Study, which provides 72,000 single family customers bi-monthly home water use reports on their water usage, statistics on how they compare to similar households with average and efficient water use, and customized water saving tips and rebate recommendations. The pilot study group also has access to online on historical water use, estimated breakdown of how the customer is using their water, and additional information on how to save water in their homes. Upon completion of the pilot study by the end of 2017, LADWP will analyze results to determine the savings potential and cost-effectiveness of the program, which will assist LADWP in planning a long-term program that targets the entire single family customer sector.

Also, LADWP is currently working on pilot projects to test installation of Advanced Metering Infrastructure, which is the use of radio-based technology that would provide for two-way communication between water meters and LADWP's system. The Advanced Metering Infrastructure would provide real-time water meter data to both the end user and LADWP, which would allow LADWP to find leaks at an earlier stage and reduce non-revenue water losses. It would also allow customers to determine their water use more often than a traditional bi-monthly or monthly bill, and motivate them to

[5] *Id.* at 3-33.

proactively increase conservation sooner rather than after they receive their bill. Customers can also receive instant alerts if their usage is abnormally high.

***LADWP Water Conservation Potential Study*[6].** In fall of 2014, LADWP initiated the Water Conservation Potential Study, the largest and most comprehensive conservation study in the U.S. The study will provide a better understanding of how historical water conservation investment efforts have impacted existing water use efficiency and device saturation levels and help LADWP prioritize future water conservation investments in the City by identifying remaining water conservation opportunities to increase City's water use efficiency into the future. Phase 1 of the study estimated conservation potential, and data from extensive and comprehensive residential surveys were used to determine the current saturation of conserving devices and practices. For example, preliminary study results show that 80 percent of single family homes in LADWP have high efficiency toilets, indicating that toilet rebate programs are reaching a saturation threshold. For non-residential sectors, a combination of previous studies conducted by both LADWP and MWD were used, as well as expert judgement from water conservation professionals with substantial experience in commercial and industrial water use and efficiency. Phase 2, currently ongoing, will incorporate results from a comprehensive water survey of 100 City-owned facilities. City-owned facility water surveys are still being fully analyzed and will be incorporated into a revised conservation potential that will be presented in the final report.

Initial results of LADWP Water Conservation Potential Study show that the additional, naturally occurring water conservation potential, post FYE 2015, will reach approximately 71,000 AFY by FYE 2040. Naturally occurring savings represent conservation from natural replacement, new development adhering to building/plumbing codes, and ordinances for landscape water use. With increased LADWP funding for conservation programs, possibly requiring a level double of current program levels, conservation potential may increase to a cost-effective maximum potential of approximately 120,000 AFY by FYE 2040, inclusive of the 71,000 AFY of naturally occurring conservation. The maximum achievable conservation level for FYE 2040, inclusive of and beyond cost-effective maximum potential, is projected to be 218,000 AFY.

2.0 Water Recycling

LADWP's 2015 UWMP identifies the goal of delivering 75,400 AFY by 2040 to off-set imported water.[7] This will increase recycled water use in the City more than six-fold as a percentage of supply, from the current two percent to 13 percent by 2040. Some of the examples of the steps the City is taking in order to achieve this goal are listed below. Other projects not listed below will also contribute to recycled water use in City's service area.

[6] *Id.* at 3-34.
[7] *Id.* at 4-27.

Recycled Water Master Planning (RWMP). In 2012, LADWP completed a three-year RWMP. RWMP documents guide near-term recycled water planning through 2035, as well as long-term recycled water planning for up to 50 years beyond the 2035 horizon. RWMP documents include an evaluation of recycling alternatives that integrate two strategies to increase recycling: Groundwater Replenishment (GWR), and non-potable reuse (NPR). The GWR Project will replenish San Fernando Basin (SFB) with up to 30,000 AFY of recycled water. NPR projects will increase NPR recycled water use to 45,400 AFY by 2040 by increasing deliveries to irrigation and industrial customers throughout the City.

pLAn. The Mayor's Sustainable City pLAn established goals to increase recycled water use by expanding recycled water by an additional 6 million gallons per day by 2017 at Terminal Island Water Reclamation Plant, converting 85 percent of public golf courses to recycled water, developing a strategy to convert the City's lakes to recycled water and implement a pilot project, and expanding recycled water production, treatment, and distribution to incorporate indirect potable reuse and direct potable reuse.[8]

GWR Project. The Final Environmental Impact Report for the GWR Project was certified by the Los Angeles Board of Water and Power Commissioners on December 6, 2016. A pilot study to optimize the recycled water purification process by evaluating various technologies and their combinations is underway. This project would replenish SFB with up to 30,000 AFY of purified recycled water from the Donald C. Tillman Water Reclamation Plant (DCTWRP). Achieving this replenishment goal would entail operating DCTWRP at the plant's full existing capacity to treat up to 80 million gallons per day of wastewater.

The Machado Lake Pipeline Project (MLPP). MLPP is a part of a joint agency project between Los Angeles Sanitation, Los Angeles Bureau of Engineering, and LADWP to serve the Los Angeles Harbor area customers up to an additional 6 million gallons per day of advanced treated recycled water from an expanded Terminal Island Treatment Plant. The MLPP will construct 8,800 linear feet (LF) of 24-inch ductile iron pipeline that connects two segments of existing pipeline infrastructure within the Los Angeles Harbor Area and creates a loop between the charged southern system and the uncharged northern system. The project is split into two construction phases. Construction on Phase I will begin early 2017 and construction on Phase II will begin late 2017. Phase I includes installation of 3,300 LF of 24-inch pipeline along Figueroa Street between Harry Bridges Boulevard and Anaheim Street. Phase II includes installation of 5,500 LF of 24-inch pipeline along Quay Avenue from East Street to Anaheim Street and on Anaheim Street to Alameda Street.

Elysian Park Water Recycling Project. The Elysian Park Water Recycling Project will not only irrigate the Elysian Fields Park and parts of the Elysian Park neighborhood, but also provide reliability to the recycled water system overall. Project proposes the installation of a nearly two miles of pipeline, two pump stations, and a one or two million gallon storage tank. Its construction will ensure dependable service to meet

[8] *Id.* at 4-26.

Los Angeles' growing demand for recycled water in the Metro area. Project will include demolition of the existing 500,000 gallon tank at Elysian Park and install separate new potable water pipelines for restrooms and drinking fountains in the park. Recycled water will be supplied from the Los Angeles-Glendale Water Reclamation Plant. Anticipated project completion is 2021.

***Downtown Water Recycling Project*.** The Los Angeles-Glendale Water Reclamation Plant will supply recycled water for the Downtown Water Recycling Project. Project proposes installation of up to 82,500 LF of 16-inch purple pipe into and through Downtown Los Angeles. The project will supply up to 2,170 AFY of recycled water for non-potable demands – irrigation and industrial uses. Potential anchor customers include University of Southern California and Matchmaster. Anticipated project completion is 2022.

Recycled Water Outreach. The City developed RWMP documents with input from stakeholders through ongoing outreach activities beginning in 2009, including interaction with the Recycled Water Advisory Group (RWAG) and key stakeholders. Presentations were given to elected official, Kindergarten-12 grade students, and Neighborhood Councils and community groups. RWAG, made up of approximately 70 stakeholders representing neighborhood councils, environmental groups, business organizations, civic groups, and other interests has recently been integrated into the One Water L.A. Stakeholder Group. They provide the City with input and feedback on many water related issues including the water recycling program. The One Water L.A. Stakeholder Group continues to participate in workshops, facility tours, and update sessions, and provide insightful feedback to the City as projects are implemented.

3.0 Enhancing Stormwater Capture

Stormwater runoff from urban areas is an underutilized resource. Within the City, the majority of stormwater runoff is directed to storm drains and ultimately channeled into the ocean. Unused stormwater reaching the ocean carries with it many pollutants that are harmful to marine life. In addition, local groundwater aquifers that should be replenished by stormwater are receiving less recharge than in the past due to increased urbanization. Urbanization has increased the City's hardscape, which has resulted in less infiltration of stormwater and a decline in groundwater elevations. The estimated current stormwater capture in the City is approximately 64,000 AFY. LADWP's 2015 UWMP projects to double the amount of stormwater capture under a conservative scenario. Centralized stormwater capture projects will increase stormwater capture by approximately 35,000 AFY by year 2035.[9] Centralized stormwater capture projects are large-scale operated projects that are designed specifically to infiltrate large amounts of runoff into underlying groundwater aquifers. Distributed stormwater capture projects, such as dry-wells and cisterns, will also provide 33,000 AFY of additional stormwater capture and infiltration/reuse in the SFB, for a total of 68,000 AFY including centralized

[9] *Id.* at 7-10.

capture by year 2035.[10] Distributed stormwater/runoff capture refers to capturing localized dry and wet weather runoff.

The Stormwater Capture Master Plan defines stormwater capture targets over the next 20 years in five-year increments to year 2035, and identifies future centralized stormwater capture projects and program types for distribution stormwater capture such as on-site infiltration, on-site direct use, green streets, sub-regional infiltration, and sub-regional direct use. LADWP began its initial research for the Stormwater Capture Master Plan in the fall of 2013 and completed a final plan in late 2015**.** Stormwater Capture Master Plan goals were integrated into LADWP's 2015 UWMP.

Specific strategies under the Mayor's pLAn to increase stormwater capture include identifying funding mechanisms to implement the Enhanced Watershed Management Plans necessary for MS4 permit compliance, expanding use of permeable pavement sites and green streets (e.g., bioswales, infiltration cut-outs, permeable pavement, and street trees), and expanding the Rain Barrel Program.

LADWP's 2015 UWMP projects that there will be a minimum of 15,000 AFY of increased groundwater pumping in SFB due to water supply augmentation through centralized stormwater infiltration by year 2040. Anticipating that stored groundwater will rebound in response to enhanced groundwater replenishment, LADWP will work with the Upper Los Angeles River Area Watermaster to continue observing actual water levels and re-evaluate basin safe yield to allow additional increases in groundwater production over time as SFB elevations rebound.[11]

In addition, development has encroached onto waterway floodplains requiring the channelization of these waterways that once recharged the groundwater aquifers with large volumes of stormwater runoff. When the floodplains were undergoing rapid development, LADWP and the Los Angeles County Flood Control District reserved several parcels of land for use as spreading facilities. These facilities are adjacent to some of the largest tributaries of the Los Angeles River, and the Pacoima and Tujunga Washes.

During average and below average years, these spreading facilities are very effective at capturing a large portion of the stormwater flowing down the tributaries. However, they are incapable of capturing a significant portion of the flows during wet and extremely wet years. Weather patterns in Los Angeles are highly variable, with many periods of dry years and wet years. Some climate studies predict that these patterns may become more extreme in the future.

LADWP is currently partnering with other government and non-governmental agencies in various stormwater enhancement studies and projects that include the following:

[10] *Id*. at 7-10.
[11] *Id*. at 7-29.

Completed Centralized Projects

Implemented centralized projects have increased the amount of stormwater captured by an average of 10,600 AFY since 2013. Below is a sample of recently implemented centralized projects:

- **Sheldon-Arleta Gas Management System**
  Completed in 2009. Scope included the installation of a methane gas abatement system mitigating methane migration during groundwater recharge operations at Tujunga Spreading Grounds. Project increases regional annual average stormwater recharge by 4,000 AFY.

- **Big Tujunga Seismic Retrofit Project**
  Completed in 2012. Scope included the retrofit of the Big Tujunga Dam to meet state seismic and spillway requirements and increase the reservoir's storage capacity. Project increases regional annual average stormwater capture by 4,500 AFY.

- **Hansen Spreading Grounds Upgrade**
  Completed in 2013. Scope included combining and deepening the spreading basins as well as upgrading the intake structure to increase recharge capacity. Project increases regional annual average stormwater recharge by 2,100 AFY.

Completed Distributed Projects

LADWP's already implemented distributed projects that have increased the amount of stormwater captured by an average of 333 AFY. Following is a sample of recently implemented distributed projects:

- **Sun Valley Park Stormwater Infiltration Project**
  Completed in 2010. Scope included installing a stormwater pretreatment system, infiltration gallery, and retention system for infiltration. Project increases regional annual average stormwater capture by 30 AFY.

- **Elmer Avenue Neighborhood Green Street/Elmer Paseo Green Alley Stormwater Infiltration Projects**
  Completed in 2011 - Scope for Elmer Avenue Green Street included installing stormwater underground retention infiltration system under the street, and vegetated swales and rain gardens in the parkway and private property. Completed in 2013 - Scope for Elmer Paseo Green Alley included installing underground retention infiltration system and vegetated swales to increase stormwater capture. Combined projects increase regional annual average stormwater capture by 41 AFY.

- **Garvanza Park Stormwater Capture Use and Infiltration Project**
  Completed in 2012. Scope included installing a stormwater pretreatment system, infiltration gallery, and retention system for use at the Garvanza Park. Project increases regional annual average stormwater capture by 51 AFY.

- **North Hollywood Alley Retrofit BMP Demonstration Project**
  Completed in 2013. Scope included retrofitting four alleys with pervious surfaces to facilitate stormwater infiltration. Project increases regional annual average stormwater capture by 29 AFY.

- **Glenoaks-Sunland Stormwater Infiltration Project**
  Completed in 2013. This project included construction of dry wells and parkway infiltration swales along a portion of the sidewalks of Glenoaks Boulevard which currently have no storm drains. Project increases regional annual average stormwater capture by 28 AFY.

- **Woodman Avenue Median Stormwater Infiltration Project**
  Completed in 2014. Scope included replacing an existing concrete median with vegetated swales and an underground retention system for infiltration. Project increases regional annual average stormwater capture by 55 AFY.

- **Avalon Alley South**
  Completed in September 2015. This project implements low impact development (LID) stormwater capture and infiltration BMP's in the alley to capture, infiltrate, and retain stormwater runoff from a 4.3 acre area and provides stormwater capture of 1 million gallons per year (3.1 AFY). The BMPs include permeable pavers, dry wells, cisterns, and rain gardens. The Project improves water quality, attenuates peak storm flows, and increases stormwater capture and water supply and is a joint partnership between the City of Los Angeles Sanitation, the Trust for Public Land, and the Council for Watershed Health in South Los Angeles.

- **Sun Valley Economic Development Administration Public Improvement Project**
  Completed in 2016. Scope included the installation of 46 dry wells within the public right of way in an area with limited storm drainage. Project increases regional annual average stormwater capture by 93 AFY.

- **Broadway Greenway**
  Completed in 2016. The Project is a pilot phase of a larger project being explored by the Water Replenishment District (WRD) involving strategic implementation of neighborhood BMP retrofits through the region. Four levels of BMPs are being developed. This includes stormwater capture infrastructure on: residential parcel-based scale, neighborhood-scale, green street commercial, and a sub-regional scale infiltration gallery. The sub-regional BMP will capture up to a 2 inch rain event from at 58 acre tributary area. The Project is expected to recharge

groundwater aquifers by 40 AFY. The project was implemented by the City's Bureau of Engineering.

- **Hollywood/Los Angeles Beautification Stormwater Capture Project**
  This is a demonstration project to encourage stormwater capture. The City of Los Angeles Department of Public Works, Bureau of Street Services and LASAN will provide in-kind design services, while the Sun Valley Beautiful Committee, Council District 6, and the Los Angeles Unified School District (LAUSD) are project sponsors and partners. Project increases regional annual average stormwater capture by 6 AFY.

Current/Future Centralized Projects

Within the next five years, the following centralized projects are expected to be implemented that will provide an estimated 25,279 AF of increased stormwater capture annually. Following is a short description of these future projects:

- Big Tujunga Dam Sediment Removal Project
- Branford Spreading Basin Upgrade
- Bull Creek Stormwater Capture Project
- Canterbury Power Line Easement Stormwater Capture Project
- East Valley Baseball Stromwater Capture Project
- Fernangeles Park Stormwater Capture Project
- Lopez Spreading Grounds Upgrade
- Pacoima Dam Sediment Removal Project
- Pacoima Spreading Grounds Upgrade
- Penmar Water Quality Improvement Project
- Riviera County Club Stormwater Capture Project
- Rory M. Shaw Wetlands Park Project (Strathern Pit)
- Tujunga Spreading Grounds Upgrade (in construction)
- Valley Generating Station Stormwater Capture Project
- Whitnall Highway Power Line Easement Stormwater Capture Project

Current/Future Distributed Projects

Within the next five years, the following distributed projects are expected to be implemented that will provide an estimated 1,659 AFY of increased stormwater capture. Below is a short description of these future projects:

- Agnes Avenue – Vanowen to Kittridge Stormwater Capture Project
- Arundo Donax Removal Project (in construction)
- Branford Street – Laurel Canyon to Pacoima Wash Stormwater Capture Project
- Burbank Boulevard Stormwater Capture Project
- Glenoaks and Filmore Stormwater Capture Project
- Glenoaks-Nettleton Stormwater Infiltration Project

- Great Street – Hollywood Avenue – La Brea to Gower Project
- Great Street – Lankershim Boulevard (Chandler to Victory) Project
- Great Street – Reseda Boulevard – Plummer to Parthenia Project
- Great Street – Van Nuys Boulevard (Laurel Canyon to San Fernando) Project
- Great Street – Western Avenue – Melrose to 3rd Project
- Laurel Canyon Boulevard Green Street Stormwater Infiltration Project (in construction)
- LAUSD Conserving for Our Kids Program (in construction)
- Maclay Middle School – LAUSD Project
- Northridge Middle School Project
- Tyrone Yard – New LADWP Valley Center Project
- Valley Center Stormwater Capture Project
- Van Nuys Boulevard Median Stormwater Capture Project
- Van Nuys Boulevard Median Stormwater Capture Project
- Victory-Encino Stormwater Infiltration Project
- Victory-Goodland Median Stormwater Capture Project
- Water LA Phase 2
- Whitnall Gardens Project

4.0 Accelerating Clean-Up of SFB

LADWP groundwater production wells in SFB have been impacted by contamination caused by improper storage, handling and disposal of hazardous chemicals used in the aircraft manufacturing industry, as well as commercial activities associated with automobile and equipment repair, dry cleaners, paint shops, chrome plating, textile manufacturing and fuel storage and dispensing dating back to the 1940s.

Since the 1980 discovery of volatile organic compound (VOC) contamination of groundwater in SFB, LADWP has been working with state and federal agencies to contain and remediate man-made contaminants in SFB. Chlorinated solvents such as trichloroethylene (TCE), perchloroethylene (PCE) and carbon tetrachloride account for the majority of this groundwater contamination.

In 2009, LADWP began an $11.5 million, six-year study and development of a comprehensive remediation and cleanup strategy for all groundwater basin contamination in SFB. This study was completed in February 2015.[12]

Development of State-of-the-Art Groundwater Basin Remediation Facilities

- Based on the available groundwater quality information, a groundwater basin remediation program consisting of centralized as well as localized/well head remediation facilities will be needed for public and environmental benefits as well as to prevent further loss of groundwater.

[12] *Id*. at 6-9.

- Design and construction of the groundwater basin remediation facilities is estimated to cost approximately $600 million, and operation and maintenance is estimated to cost an additional $50 million per year.

Groundwater and Treatment System Monitoring

- In order to fully characterize SFB groundwater quality as required by SWRCB Board's Division of Drinking Water guidelines and policies, LADWP has drilled 25 new monitoring wells in SFB to fill in data gaps and utilized a network of over 70 existing monitoring and production wells.

- Cost to install the monitoring wells is approximately $22 million.

With completion of SFB groundwater characterization, LADWP is proceeding with the necessary environmental reviews, design, permitting, construction, and start-up of the groundwater basin remediation program to effectively clean and remove contaminants from SFB. The groundwater basin remediation program is anticipated to be operational by FYE 2022.

LADWP's groundwater remediation facilities now operating within SFB include:

- ***NHOU*.** Under the direction of USEPA, LADWP operates and maintains NHOU pursuant to a Cooperative Agreement between the two agencies. Since the 1980 discovery of VOC contamination in SFB, LADWP worked closely with the state and federal regulators to implement facilities that will contain and remediate the contaminant plume. NHOU began operations in the late-1980s utilizing an aeration tower for VOC removal followed by vapor-phase Granular Activated Carbon (GAC) to control air emissions. However, changing conditions in the aquifer and discovery of new contaminants including Hexavalent Chromium and 1,4 dioxane, found in concentrations greater than state health standards, have impacted a number of NHOU production wells and continues to threaten other wells. In response to the continued movement of the contaminated groundwater and the presence of new contaminants in the NHOU, EPA conducted a Focus Feasibility Study (FFS) to evaluate alternatives for improving the groundwater cleanup plan. Following completion of the FFS in 2009, EPA signed the 2009 Record of Decision (ROD) selecting the Second Interim Remedy for the NHOU. The availability of new information regarding the nature and the extent of the contamination plume within the NHOU has allowed EPA to refine its understanding of the extent of the groundwater contamination. As a result, EPA has recently proposed to expand the second remedy to increase extraction rate from 2000 gpm to 6500 gpm, add more extraction wells, and design a more efficient treatment system that will treat for emerging contaminants and ensure more reliable and effective remedy.

- ***Liquid-Phase GAC Pilot Treatment Plant at Tujunga Wellfield*.** The Liquid-Phase GAC Pilot Treatment Plant removes VOC from two of the twelve production wells in the Tujunga Wellfield, and treats the extracted groundwater for potable use. The pilot facility treats approximately 8,000 gallons-per-minute of groundwater, removes contaminants, and discharges the treated effluent into LADWP's water distribution system for beneficial use pursuant to California Water Code. This pilot facility is a joint project with MWD to demonstrate the effectiveness of utilizing certain liquid phase GAC media for removal of VOC from the groundwater.

- ***Pollock Wells Treatment Plant.*** The plant provides four liquid-phase GAC vessels to remove VOC contamination from two groundwater wellheads. LADWP has identified hexavalent chromium as an emerging contaminant that may impair the operation of the Pollock Wells Treatment Plant. In response, LADWP has initiated studies and the development of additional remediation systems to remove the hexavalent chromium and other emerging contaminants that are not addressed by the GAC treatment system.

The overall purpose of the San Fernando Groundwater Basin Remediation Project is to restore and protect the full use of the San Fernando Groundwater Basin as a source of water consistent with LADWP's long-term water rights and historic groundwater use.

Water Supplies

The Los Angeles Aqueducts (LAA), local groundwater, purchased water from MWD, and recycled water are the primary sources of water supplies for the City. Table III shows LADWP water supplies from 2007 to 2016 from these sources. The total required water supply to meet water demand shows an overall declining trend over this time period due to reductions in total demand. However, sufficient water supplies were available in each of the years to meet the total demand. In 2009, the total water demand decreased due to conservation efforts by mandatory conservation imposed in the City following drier hydrologic conditions coinciding with an economic recession. In 2013, drought conditions returned and have triggered State and City mandatory conservation measures.

TABLE III
LADWP Water Supply

Calendar Year	Los Angeles Aqueducts	Local Groundwater	MWD	Recycled Water	Transfer, Spread, Spills, and Storage	Total
2007	127,392	88,041	439,353	3,595	-57	658,438
2008	148,407	64,604	427,422	7,048	1,664	645,817
2009	137,261	66,998	351,959	7,570	554	563,234
2010	251,126	68,346	205,240	6,900	-938	532,550
2011	357,752	49,915	119,481	7,708	-153	535,009
2012	166,858	59,109	326,122	5,965	1,182	556,872
2013	64,690	66,272	438,534	9,253	-2,404	581,153
2014	62,088	94,280	391,320	11,307	2,080	556,915
2015	26,828	81,618	378,439	9,844	432	496,297
2016	87,892	73,304	317,767	8,730	-984	488,677

Note: Units are in AF

Los Angeles Aqueducts

Snowmelt runoff from the Eastern Sierra Nevada Mountains is collected and conveyed to the City via LAA. LAA supplies come primarily from snowmelt and secondarily from groundwater pumping, and can fluctuate yearly due to the varying hydrologic conditions. In recent years, LAA supplies have been less than the historical average because of environmental restoration obligations in Mono and Inyo Counties.

The City holds water rights in the Eastern Sierra Nevada where LAA supplies originate. These supplies originate from both streams and from groundwater. In 1905, the City approved a bond measure for purchase of land and water rights in the Owens River Valley. By 1913, the first LAA began its deliveries of water to the City primarily from surface water diversions from the Owens River and its tributaries. Historically, these supplies were augmented from time to time by groundwater extractions from beneath the lands that the City had purchased in the Owens Valley.

In 1940, the first LAA was extended north to deliver Mono Basin water to the City pursuant to water rights permits and licenses granted by the SWRCB. In 1970, the second LAA was completed increasing total delivery capacity of the LAA system to approximately 561,000 AF per year. The second LAA was to be filled by completing the Mono Basin diversions originally authorized in 1940, by a more effective use of water for agricultural purposes on City-owned lands in the Owens Valley and Mono Basin and by increased groundwater pumping from the City's lands in the Owens Valley.

In 1972, Inyo County filed a CEQA lawsuit challenging the City's groundwater pumping program for the Owens Valley. The lawsuit was finally ended in 1997, with the County of Inyo and the City entering into a long-term water agreement for the management of groundwater in the Owens Valley. That water agreement, entered as a judgment of the Superior Court in the County of Inyo (County of Inyo vs. City of Los Angeles, Superior

Court No. 12908) outlines the management of the City's Owens Valley groundwater resources. As a result of this water agreement and subsequent MOU, LADWP has dedicated 37,000 AF of water annually for enhancement and mitigation projects throughout Owens Valley which includes the re-watering of 62 miles of the Lower Owens River. LADWP also provides approximately 80,000 AF of water annually for other uses in the Owens Valley such as irrigation, town water supplies, stockwater, wildlife and recreational purposes.

Further, in December 1989, the Superior Court entered an injunction, ordering LADWP to allow sufficient flow to pass through the Mono Basin diversion facilities to maintain water level in Mono Lake at 6,377 feet from sea level and also to restore streams and protection of fishery in these streams. As a result, the City did not export any water from Mono Basin until 1994, when SWRCB issued Decision 1631. In September 1994, by virtue of the public trust doctrine, the SWRCB issued Decision 1631, an amendment to the license for LADWP exports from Mono Basin which placed conditions on LADWP's water gathering activities from Mono Basin. Under Decision 1631, LADWP's allowable amount of export for a given runoff year (RY), April - March is dependent on the Mono Lake elevation. For RY 2016-2017, LADWP plans to export approximately 4,500 AF of water from Mono Basin, the same amount as for RY 2015-2016, due to Mono Lake's elevation being projected to remain below 6,380 feet, but above 6,377 on April 1,2017. LADWP has implemented an extensive restoration and monitoring programs in Mono Basin to increase the level of Mono Lake and to improve stream conditions, fisheries and waterfowl habitats in Walker, Parker, Rush and Lee Vining Creeks. With reduced diversions from the Mono Basin and favorable hydrologic conditions, Mono Lake's elevation has risen overtime. Once the elevation of Mono Basin reaches 6,391-feet above mean sea level, a moderate increase in water exports from the Mono Basin will be permitted pursuant to the Decision 1631.

In July 1998, LADWP and the Great Basin Unified Air Pollution Control District (GBUAPCD) entered into a Memorandum of Agreement to mitigate dust emissions from Owens Lake. Diversion of water from Owens River, first by farmers in the Owens Valley and then by the City beginning in 1913, resulted in the exposed lakebed becoming a major source of windblown dust. LADWP has spent $1.6 billion and used substantial quantities of water since it started diverting water from LAA to mitigate dust emissions at Owens Lake. As of December 31, 2008, LADWP mitigated dust emissions from 29.8 square-miles of Owens Lake in accordance with GBUAPCD's 2003 revised State Implementation Plan. As of April 1, 2010, LADWP mitigated an additional 9.2 square - miles in accordance with GBUAPCD's 2008 State Implementation Plan. Upon completion of Phase 8 in October 2012, LADWP has mitigated dust emissions from a total of approximately 42 square-miles of Owens Lake. Phase 7a was completed by the regulatory compliance deadline of December 31, 2015, and upon its completion, LADWP has mitigated dust emissions on 45 square-miles. Phase 7a is a water neutral project.

On November 14, 2014, an historic agreement between LADWP and GBUAPCD was reached which for the first time established an upper limit of 53.4 square miles that LADWP could potentially be ordered to mitigate dust emissions from Owens Lake playa

by the GBUAPCD. As part of this historic agreement, LADWP has agreed to mitigate dust emissions for an additional 3.62 square miles of Owens Lake playa. The Phase 9/10 Project is to be completed by December 31, 2017, and is anticipated to result in further water conservation at Owens Lake through increasing use of water efficient and waterless dust mitigation measures. Upon completion of Phase 9/10 Project, LADWP will mitigate approximately 48.6 square miles of dust missions in Owens Lake playa. Hence, GBUAPCD's potential future dust mitigation orders to LADWP cannot exceed an additional 4.8 square miles. The agreement allows LADWP to use water efficient and waterless dust mitigation measures, while maintaining existing wildlife habitat on the lakebed. As a result, LADWP expects to save significant amounts of water in coming years with implementation of the Owens Lake Master Project and other water conservation projects.

Average deliveries from LAA system have been approximately 111,293 AF of water annually from FY 2011/12 to 2015/16. During this period, the record low snowpack for LAA watershed in the Eastern Sierra Nevada Mountains was recorded on April 1, 2015. Supply conditions have changed drastically since 2015. Snowpack in the Eastern Sierra was at 203 percent of an average year on April 1, 2017. On March 20, 2017, Mayor Garcetti had proclaimed a state of local emergency for LAA as a response to the snowpack levels in the Eastern Sierra. The proclamation was issued to assist LADWP in taking immediate steps to protect infrastructure and manage runoff in the Owens Valley including, but not limited to, protection of facilities and diversion of conveyance flows.

The average annual long-term LAA delivery between 2015 and 2040, using the 50-year average hydrology from FY 1961/62 to 2010/11, is expected to be approximately 278,000 AFY and gradually decline to 267,000 AFY due to projected climate change impacts. However, with the anticipated completion of the Owens Lake Master Project by 2024, the projected LAA delivery may increase to 286,000 AFY due to water conserved at Owens Lake which would off-set most of the anticipated long-term losses.[13]

Groundwater

The SFB and Sylmar Basin are subject to the judgment in the City of San Fernando vs. the City of Los Angeles, et al. Groundwater pumping by LADWP and other parties is tracked and reported to the court-appointed Upper Los Angeles River Area (ULARA) Watermaster. The Central Basin is also subject to court judgments. Pumping is reported to the Water Replenishment District of California (WRD), the administrative member of the Central Basin Water Rights Panel.

SFB is the largest of four basins within ULARA. The basin consists of 112,000-acres of land and comprises 91.2 percent of ULARA valley fill. The City has accumulated 537,622 AF of stored groundwater in SFB as of October 1, 2014. This is water the City can withdraw from the basin during normal and dry years or in an emergency, in

[13] *Id.* at 5-15.

addition to the City's approximately 87,000 AF annual entitlement in the basin. With SFB remediation facilities in operation by FYE 2022, groundwater storage credit will be used to maximize pumping in the future above City's annual entitlement in SFB. The majority of the City's groundwater is extracted from SFB. Sylmar Basin is located in the northern part of ULARA, consists of 5,600 acres, and comprises 4.6 percent of ULARA valley fill. City's current annual entitlement per latest Sylmar Safe Yield is 3,570 AF. Sylmar Basin production will increase to 4,170 AFY from FYE 2016 to FYE 2039 to utilize groundwater the City has accumulated into storage and then return to the entitlement of 3,570 AFY in FYE 2040.[14]

A Court decision on pumping rights in ULARA was implemented in a judgment on January 26, 1979. Enclosed with the assessment are copies of those pages from the judgment showing the entitlements (see Appendix D). Further information about ULARA is in the ULARA Watermaster Report. ULARA Watermaster Report and some background information on the judgment are available for review at the office of the ULARA Watermaster or on-line at www.ularawatermaster.com.

City additionally has adjudicated rights to extract groundwater from the Central Basin. Annual entitlement to Central Basin is 17,236 AF. City has accumulated groundwater into storage in Central Basin, and pumping can be temporarily increased until stored water credits have been expended.[15] See Appendix D for copies of relevant portions of the third amended judgment. Judgment is available for review on the WRD Web site at http://wrdwater.org/.

For the period of July 2014 to June 2015, City extracted 80,097 AF and 6,948 AF from the San Fernando and Central Basins, respectively. City plans to continue production from its groundwater basins in the coming years to offset reductions in imported supplies. However, extraction from the basins may be limited by water quality, sustainable pumping practices, and groundwater elevation.

Groundwater produced by City from the San Fernando, Sylmar, and Central Basins for the last available five years are shown on Table IV, as well as groundwater pumping projections for average, single-dry, and multi-year dry weather conditions in five-year increments. Table IV excludes 15,000 AFY of anticipated pumping in SFB from stormwater recharge as well as 30,000 AFY of additional groundwater recharge with highly treated water from DCTWRP planned for 2024 and beyond.

[14] *Id.* at 11-4.
[15] *Id.* at 6-24.

TABLE IV
Local Groundwater Basin Supply

Fiscal Year (July-June)	San Fernando	Sylmar	Central
2010-2011	44,029	225	5,099
2011-2012	50,244	1,330	9,486
2012-2013	50,550	1,952	6,310
2013-2014	68,784	891	9,727
2014-2015	80,097	0	6,948
2019-2020*	90,000	4,170	18,500
2024-2025*	88,000	4,170	18,500
2029-2030*	84,000	4,170	18,500
2034-2035*	92,000	4,170	18,500
2039-2040*	92,000	3,570	18,500

Note: Units are in AF,
*projected production: LADWP 2015 UWMP Exhibit 6I

MWD

MWD is the largest water wholesaler for domestic and municipal uses in Southern California. As one of 26 member agencies, LADWP purchases supplemental water from MWD in addition to the supplies from local groundwater and LAA. MWD imports a portion of its water supplies from Northern California through the State Water Project's (SWP) California Aqueduct and from the Colorado River through MWD's own Colorado River Aqueduct (CRA). LADWP will continue to rely on MWD to meet its current and future water needs.

In ongoing efforts to evaluate MWD's own import reliability, an assessment was done to address changes in demand and supply conditions, and to provide additional resource reserves to mitigate against uncertainties in demand projections and risks in implementing supply programs. All these efforts went into MWD's 2015 UWMP.

All 26 member agencies have preferential rights to purchase water from MWD. Pursuant to Section 135 of MWD Act, "Each member public agency shall have a preferential right to purchase from the district for distribution by such agency, or any public utility therein empowered by such agency for the purpose, for domestic and municipal uses within the agency a portion of the water served by the district which shall, from time to time, bear the same ratio to all of the water supply of the district as the total accumulation of amounts paid by such agency to the district on tax assessments and otherwise, excepting purchase of water, toward the capital cost and operating expense of the district's works shall bear to the total payments received by the district on account of tax assessments and otherwise, excepting purchase of water, toward such capital cost and operating expense." This is known as preferential rights.

As of June 30, 2016, LADWP has a preferential right to purchase 19.94 percent of MWD's total water supply.

LADWP has worked with MWD in developing a plan for allocating water supplies during periods of shortage. On February 12, 2008, MWD Board adopted its Water Supply Allocation Plan (WSAP). LADWP supported the adoption of this plan to acquire its dry weather condition supplies from MWD.

In response to 2009 regulatory restrictions on water supplies from Northern California, MWD Board announced on April 14, 2009, that supply deliveries to the member agencies would be reduced by 10 percent. Reduced supply allocation was to be effective from July 1, 2009 through June 30, 2010, but in April 2010, MWD Board approved an extension of the reduced supply allocation through June 30, 2011, primarily to restore storage balances in MWD's groundwater and surface storage facilities.

On March 31, 2011, California Governor Brown declared an end to the statewide drought emergency that had been proclaimed earlier on February 27, 2009, by then Governor of California Arnold Schwarzenegger. MWD's Board subsequently voted on April 12, 2011, to end implementation of the 2010/11 water supply allocation. In the same decision, MWD Board also voted against implementing a water supply allocation for 2011/12. These actions restored full imported water deliveries to member agencies without risk of allocation penalties effective April 2011.

On January 17, 2014, Governor Brown proclaimed a drought State of Emergency. At the end of March 2015, state hydrologists measured a record low five percent of normal snow pack in the Sierra Nevada Mountains. As a result, on April 1, 2015, Governor Brown issued Executive Order B-29-15 to achieve a statewide 25 percent reduction compared to 2013 usage levels in urban water use through February 28, 2016. On May 18, 2016, due to improved hydrologic conditions, SWRCB adopted a revised emergency water conservation regulation, effective June 2016 through February 2017, requiring locally developed conservation standards based upon each agency's specific circumstances.

The record dry and hot conditions of 2014 significantly impacted the water resources of both the State of California and MWD. DWR limited supplies from SWP to only five percent of the contractors' SWP Table A amounts in 2014. This allocation was the lowest ever in the history of SWP. MWD was able to meet demands in 2014 by relying heavily on storage reserves to make up for the historically low allocation on SWP. MWD's dry-year storage reserves ended 2014 at approximately 1.2 million AF.

On April 14, 2015, to support Governor Brown's Executive Order B-29-15, and to reduce withdrawals from MWD's dry-year storage reserves, MWD implemented WSAP at a Level 3 Regional Shortage Level, effective July 1, 2015, though June 30, 2016. MWD's dry-year storage reserves ended 2015 at approximately 0.87 million AF.

On May 10, 2016, citing the improved water supply conditions and reduced water use due to conservation, MWD voted to end the current WSAP allocation and rescind WSAP Regional Shortage Level 3 and declared a Condition 2 Water Supply Alert for allocation year 2016/17. MWD, however, called for member agencies to continue with conservation efforts to safeguard against future dry years. On April 9, 2017, citing the improved water supply conditions, the actions taken by the Governor and the projected storage reserves, MWD voted to declare a Condition 1 Water Supply Watch.

Purchases from MWD have averaged 64 percent of the City's water supply over a five-year period from FY 2011/12 to 2015/16. The sustainable pLAn calls for a reduction in purchased imported water by 50 percent by 2025 from the FY 2013/14 level, which was approximately 441,870 AF. To meet targets established by the pLAn, LADWP plans to reduce water demand through increased conservation as well as increase local supply development. Local supply development includes enhancing the ability for groundwater pumping through increased stormwater capture projects and groundwater replenishment with highly treated recycled water as well as remediation of contaminated groundwater supplies in SFB. LADWP also plans to increase recycled water use for non-potable purposes. With these initiatives and under average hydrologic conditions, LADWP's 2015 UWMP projects MWD purchases to be approximately 65,930 AFY in 2025.

Recent Issues Related to the State Water Project

Federal Endangered Species Act (ESA) Litigation filed by several environmental interest groups in the United States District Court for the Eastern District of California alleged that existing biological opinions and incidental take statements inadequately analyzed impacts on listed species under the Federal ESA. On May 25, 2007, Federal District Judge Wanger issued a decision on summary judgment finding the United States Fish and Wildlife Service's (USFWS) biological opinion for Delta smelt was invalid. On December 14, 2007, Judge Wanger issued his Interim Remedial Order requiring that SWP and Central Valley Project operate according to certain specified criteria until a new biological opinion for the Delta smelt is issued. USFWS released the new biological opinion on December 15, 2008. Based on the Water Allocation Analysis released by DWR on December 19, 2008, which analyzed the biological opinion's effects on SWP operations, export restrictions under median hydrologic conditions reduce deliveries to MWD by approximately 500,000 AF.

MWD and other impacted agencies and stakeholders filed separate lawsuits in federal district court challenging the biological opinion, which the federal court consolidated under the caption "Delta Smelt Consolidated Cases." On December 14, 2010, Judge Wanger issued a decision on summary judgment finding that there were major scientific and legal flaws in the Delta smelt biological opinion and remanded the biological opinion to USFWS for reconsideration. The court's decision invalidated some of the restrictions on project operations contained in the Delta smelt biological opinion. On May 18, 2011, Judge Wanger issued a final decision, amended judgment directing USFWS to complete a new draft biological opinion by October 1, 2011, and to complete a final biological opinion with environmental documentation by December 1, 2013. Later

stipulations and orders changed the October 1, 2011, due date for a draft biological opinion to December 14, 2011, and changed the December 1, 2013, due date for the final biological opinion to December 1, 2014.

A draft biological opinion was issued on December 14, 2011. The draft biological opinion deferred specification of a reasonable and prudent alternative and an incidental take statement pending completion of environmental impact review under the National Environmental Policy Act (NEPA). The federal defendants and environmental interveners appealed the final judgment invalidating the 2008 Delta smelt biological opinion to the United States Court of Appeals for the Ninth Circuit. SWP and Central Valley Project contractor plaintiffs, including MWD, cross-appealed from the final judgment. Those appeals and cross-appeals were argued on September 10, 2012. On March 13, 2014, the Ninth Circuit reversed in part and affirmed in part the district court's decision. The Ninth Circuit reversed those portions of the district court decision which had found the 2008 Delta smelt biological opinion to be arbitrary and capricious, and held, instead, that the 2008 biological opinion was valid and lawful. MWD's deliveries from SWP were previously restricted under the 2008 biological opinion for a period prior to 2011. One practical result of the Ninth Circuit's decision was to legally approve the water supply restrictions in the 2008 biological opinion. These water supply restrictions could have a range of impacts on MWD's deliveries from SWP depending on hydrologic conditions. MWD and others subsequently filed motions for reconsideration of the Ninth Circuit's decision.

On May 25, 2010, the court granted the plaintiffs' request for a preliminary injunction in the Consolidated Salmon Cases, restraining enforcement of two requirements under the salmon biological opinion that limit exported water during the spring months based on San Joaquin River flows into the Bay-Delta and reverse flows on the Old and Middle Rivers. Hearings on motions for summary judgment in the Consolidated Salmon Cases were held on December 16, 2010. On September 20, 2011, Judge Wanger issued a decision on summary judgment, finding that the salmon biological opinion was flawed, and that some, but not all, of the project restrictions in the biological opinion were arbitrary and capricious. On December 12, 2011, Judge O'Neill (who was assigned to this case following Judge Wanger's retirement) issued a final judgment in the Consolidated Salmon Cases. The final judgment remands the 2009 salmon biological opinion to the National Marine Fisheries Service. It also directs that a new draft salmon biological opinion be issued by October 1, 2014, and that a final biological opinion be issued by February 1, 2016, after completion of environmental impact review under NEPA. The due date for the salmon biological opinion was later extended to February 1, 2017.

In January and February 2012, the federal defendants and environmental interveners filed appeals of the final judgment in the Consolidated Salmon Cases, and SWP and Central Valley Project contractors filed cross-appeals. On December 22, 2014, the Ninth Circuit reversed in part and affirmed in part the district court's decision. The Ninth Circuit reversed those portions of the district court decision which had found the 2009 salmon biological opinion to be arbitrary and capricious, and held, instead, that the 2009

biological opinion was valid and lawful. Any adverse impacts of this ruling on MWD's SWP supplies have not been determined.

These events have highlighted the challenges that water suppliers throughout the state currently face regarding supplies from the Delta.

On November 28, 2016, in consideration of several factors including existing storage in State Water Project conservation reservoirs, conservation constraints such as the conditions of the recent Biological Opinions for delta smelt and salmonids, the longfin smelt incidental take permit, and 2017 contractor demands, DWR announced an initial SWP allocation of 20 percent for 2017. On December 21, 2016, due to recent precipitation, runoff and water supply conditions, DWR increased the allocation from 20 percent to 45 percent, and on January 18, 2017, announced another increase from 45 to 60 percent for similar reasons. On April 14, 2017, DWR increased the allocation from 60 to 85 percent.

On February 7, 2017, the main flood control spillway at Oroville Dam, a significant reservoir on the SWP, experienced significant damage as DWR increased releases to manage higher inflows driven by continued precipitation in the Feather River basin. DWR halted releases on this spillway and diverted water over the emergency spillway for the first time ever. However, the emergency spillway quickly eroded, causing officials to order the temporary evacuation of downstream residents while ramping up water releases over the main spillway to control lake levels. The evacuation order was lifted on February 14, 2017. Subsequent shutdowns, inspections and maintenance continued on the main spill way and erosion and debris areas downstream of the dam, and DWP is planning to make permanent improvements in prepation for the following winter. Despite the damage to the main spillway and the unknowns associated with DWR's corresponding repair plan, water supplies are not expected to be adversly affected. This would result in an allocation that is higher than average, and higher than any allocation since 2011. Future water supplies are expected to be primarily dependent on hydrology.

Delta Policy

In November 2009, the State Legislature and then Governor Arnold Schwarzenegger passed the 2009 Comprehensive Water Package, which set a statewide conservation target for urban per capita water use of 20 percent reductions by 2020 and consisted of four policy bills and an $11.14 billion bond proposal designed to ensure a reliable water supply for California's future and to restore the Delta and other ecologically sensitive areas.

Senate Bill (SB) X7-1 (Simitian) of the 2009 Water Package established the coequal goals for the Delta: to provide a more reliable water supply for California, and to protect, restore, and enhance the Delta ecosystem. SB X7-1 also established a framework to achieve the co-equal goals for the Delta by creating a new Delta governance structure - including the Delta Stewardship Council, Delta Conservancy, and Delta Protection

Commission - and laying out a process for determining the consistency of the Bay Delta Conservation Plan (BDCP) with the co-equal goals.

Implementation of the four policy bills in the 2009 Water Package achieved several major milestones. For example, the Delta Plan, a comprehensive, long-term management plan for the Delta, was adopted by the Delta Stewardship Council on May 16, 2013.

The goal of BDCP was to provide the basis for the issuance of endangered species permits for the operation of SWP and Central Valley Project, and for Delta conveyance improvements.

On April 30, 2015, state and federal agencies proposed a new sub-alternative, Alternative 4A, which would replace Alternative 4 (the proposed BDCP) as the State's proposed project. Alternative 4A reflected the state's proposal to separate the conveyance facility and habitat restoration measures into two separate efforts: California WaterFix and California EcoRestore.

The California EcoRestore is a California Natural Resources Agency initiative to advance the restoration of at least 30,000 acres of Sacramento-San Joaquin Delta habitat by 2020. The restoration will be implemented on an accelerated timeline independent of the proposed water conveyance facilities included in the California WaterFix.

The environmental analysis of California WaterFix, as well as two other additional alternatives, and updated information from the 2013 BDCP Draft EIR/EIS were included in BDCP/California WaterFix Partially Recirculated Draft EIR/Supplemental Draft EIS (RDEIR/SDEIS). The RDEIR/SDEIS was released for public review on July 10, 2015. The comment period ended on October 30, 2015.

The California Department of Water Resources and the U.S. Bureau of Reclamation (BOR), the Lead Agencies, have completed the Bay Delta Conservation Plan/California WaterFix Final EIR/EIS. The Lead Agencies for the EIR/EIS analyzed in detail 18 action alternatives, as well as the No Action Alternative. Alternative 4A, or California WaterFix, is the preferred alternative. The Final EIR/EIS, released on December 22, 2016, discusses potential environmental impacts, and identifies mitigation measures that would help avoid or minimize impacts. It also provides responses to all substantive comments received on the 2013 Draft EIR/EIS and 2015 RDEIR/SDEIS. The Notice of Availability of the Final EIR/EIS was published by BOR in the Federal Register on December 30, 2016. On January 4, 2017, the Secretary issued an order to federal agencies involved in the California WaterFix stating the U.S. Fish and Wildlife Service will issue a final biological opinion by April 2017. A similar schedule is anticipated for the biological opinion to be issued by the National Marine Fisheries Service. Upon receipt of the biological opinions, BOR will be able to issue a Record of Decision for the project. Certification of the EIR/EIS under CEQA and final decision-making by DWR is expected at that same time.

Responsibilities of entities created by SB X7-1 are as follows:

- Delta Stewardship Council – Independent agency of the state composed of seven members with the responsibility to oversee and coordinate state agency actions within the Delta.
  - Develop a Delta Plan that will include all state and federal Delta ecosystem, flood management, water supply, and local economic sustainability efforts and serve as a guide for state and local agencies to ensure that their actions are consistent with their policies.
  - Develop performance measures to assess the progress of achieving the goals of the Delta Plan.
  - Determine compliance with the Delta Plan and serve as the appellate body in the event of disputes over the consistency of a project with the Delta Plan.
  - Ensure consistency of BDCP with the co-equal goals of water supply reliability and Delta restoration.

- Delta Conservancy – State entity governed by an eleven-member board with the responsibility to implement ecosystem restoration in the Delta and support efforts to advance environmental protection and the economic well-being of Delta residents.
  - Develop and adopt a strategic plan that will coordinate investments in the Delta's natural and cultural resources.
  - Promote the economic vitality in the Delta through increased tourism and the promotion of Delta legacy communities.
  - Promote environmental education about, and the public use of, public lands in the Delta.

- Delta Protection Commission – State commission with fifteen members charged with recognizing, preserving, protecting, and enhancing the unique resources of the Delta as an evolving place.
  - Provide a forum for Delta residents to engage in decisions regarding actions to recognize and enhance the cultural, recreational, and agricultural resources of the Delta.
  - Adopt an economic sustainability plan for the Delta, which is to include flood protection recommendations to state and local agencies, and is to be included in the Delta Stewardship Council's Delta Plan.

- Delta Watermaster
  - Exercise authority of the SWRCB and monitor and enforce orders, as well as license and permit terms and conditions, relating to water diversions in the Delta.

- Delta Independent Science Board – Standing board of no more than ten members made up of nationally or internationally prominent scientists with

appropriate expertise to evaluate a broad range of scientific programs that support adaptive management of the Delta.
    - Provide oversight of the scientific research, monitoring, and assessment programs that support adaptive management of the Delta.

- Delta Science Program – Led by a Delta Stewardship Council-appointed lead scientist.
    - Provide unbiased scientific information to inform decision-making in the Delta.

The $11.14 billion "Water Bond" was originally scheduled to be on the 2010 statewide ballot for voter consideration, but was postponed twice – initially to 2012 and then to 2014. In 2014 the legislature replaced the 2010 Water Bond with a new bond measure to provide $7.545 billion to fund investments in water projects and programs as part of a statewide, comprehensive water plan for California. This new measure, Proposition 1 – the Water Quality, Supply, and Infrastructure Improvement Act of 2014, was approved by the voters on November 4, 2014.

Colorado River

MWD owns and operates the CRA, which since 1942 has delivered water from the Colorado River to Southern California. The Colorado River currently supplies approximately 17 percent of Southern California's water needs, and on average makes up about 15 percent of LADWP's purchases from MWD. This source of supply has been secured to MWD through long-standing legal entitlements. However, extended drought conditions and increased demands by other users have recently impacted its reliability.

The Colorado River supplies come from watersheds of the Upper Colorado River Basin in the states of Colorado, Utah, and Wyoming. Due to the way that Colorado River supplies are apportioned, snowpack and runoff levels do not impact MWD water supplies in the current year. Instead, snowpack and runoff would impact storage levels at Lake Powell and Lake Mead, which would then affect the likelihood of surplus or shortage conditions in the future.

By MWD having two principal sources of supply that draw from two different watersheds, MWD is able to utilize supplies from the Colorado River to offset reductions in SWP supplies and buffer impacts of the California drought. MWD plans to use CRA deliveries, storage reserves and supplemental water transfers and purchases to meet regional demands.

Under a permanent service contract with the U.S. Secretary of the Interior (Secretary), MWD is entitled to receive water from the Colorado River and its tributaries. This water is also available to other users in California, as well as users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming (Basin States). Under a 1944 treaty, Mexico is allotted 1.5 million AF annually, except in extraordinary circumstances. There is long history of competition among users, but current conditions necessitate increased cooperation.

California is apportioned 4.4 million AF, annually, plus one-half of any surplus that may be available for use, collectively, in Arizona, California, and Nevada. In addition, California has historically been allowed to use Colorado River water apportioned to, but not used by, Arizona or Nevada. Since 2003, due to increased consumption, there has been no such unused, apportioned water available to California. Of the California apportionment, MWD holds the fourth priority right to 550,000 AFY under a 1931 priority system governing allotments to California. This is the last priority within California's basic apportionment of 4.4 million AF. Beyond the basic apportionment, MWD holds the fifth priority right to 662,000 AF of water. See Appendix F for more details.

Historically, MWD has been able to claim most of its legal entitlement of Colorado River water and could divert over 1.2 million AF in any year, but persistent drought conditions since 1999 have contributed to a decrease in these claims. The recent 16-year drought has been so severe that it has resulted in major reductions in water deliveries from the Colorado River. MWD's total CRA supply for calendar year 2016 was 985,000 AF and included a base supply 935,000 AF and water management actions of 50,000 AF.

Under the Colorado River Basin Project Act of 1968, the Secretary is required to issue an Annual Operating Plan describing CRA operations and projected releases. Considering drought conditions and declining storages, the 2014 release for Lake Powell was 7.48 million AF, which was the lowest since the filling of the reservoir in the 1960s. Moreover, reservoir storages along the CRA have declined dramatically.

The shortage predicament has increased management efforts by the Federal Government and states holding water rights. In May 2005, the Secretary directed the U. S. Bureau of Reclamation (BOR) to initiate the "Development of Lower Colorado River Basin Shortage Guidelines and Coordinated Management Strategies for Lakes Powell and Mead Under Low Reservoir Conditions." These were the first such guidelines to address shortage conditions, as opposed to normal and surplus conditions. Since May of 2005, and in response to the Secretary's directive, the seven Basin States have reached agreement to transform management of the Colorado River system water through conjunctive management of Lakes Mead and Powell, and the adoption of shortage guidelines.

In November 2007, BOR issued a Final EIS including new federal guidelines concerning the operation of the Colorado River system reservoirs. The Secretary issued the final guidelines through a Record of Decision signed in December 2007. The Record of Decision and accompanying agreement among the Colorado River Basin States protect reservoir levels by reducing deliveries during drought periods, encouraging agencies to develop conservation programs, and allowing the states to develop and store new water supplies. The Colorado River Basin Project Act of 1968 insulates California from shortages in all but the most extreme hydrologic conditions.

In January 2017, the 24-month look-ahead-study by BOR reported that Lake Powell's operations in water year 2017 will be governed by the Upper Elevation Balancing Tier,

with an initial water year release volume of 8.23 million AF and the potential for an April adjustment to equalization or balancing releases in April 2017. The January 2017 24-Month Study indicated that an April adjustment to balancing releases is projected to occur and Lake Powell is projected to release 9.0 million AF in water year 2017.

Reliability Efforts for Southern California

MWD has been developing plans and making efforts to provide additional water supply reliability for the entire Southern California region. LADWP coordinates closely with MWD to ensure implementation of these water resource development plans. MWD's long-term plans to meet its member agencies' growing reliability needs are through: improvements to SWP as outlined in the California WaterFix and EcoRestore plans, conjunctive management efforts on the Colorado River, water transfer programs, outdoor conservation measures, and development of additional local resources, such as recycling, brackish water desalination, and seawater desalination. These plans are contained in MWD's 2015 IRP and 2015 UWMP, which can be found at the following links:

- MWD 2015 IRP: http://mwdh2o.com/PDF_About_Your_Water/2015%20IRP%20Update%20Report%20(web).pdf

- MWD 2015 UWMP: http://www.mwdh2o.com/PDF_About_Your_Water/2.4.2_Regional_Urban_Water Management_Plan.pdf

Additionally, MWD has more than 5.0 million AF of storage capacity available in reservoirs and banking/transfer programs, with approximately 1.25 million AF, inclusive of Intentionally Created Surplus, in that storage, and 626,000 AF in emergency storage as of January 1, 2017. MWD plans to add to storage in 2017. Storage was previously estimated to range from 2.0 to 2.2 million AF by the end of 2017 assuming 60 percent and 70 percent SWP allocations, respectively. The allocation was subsequently increased to 85 percent. MWD will exercise flexibility and opportunities within the storage program to increase storage depending on the final SWP allocation and supply/demand balance.

MWD's 2015 IRP builds upon the strong foundation of diversification and adaptation developed in previous IRPs. 2015 IRP reinforces MWD commitment to meeting the region's water supply needs through an evolving long-term strategy that calls for maintaining and stabilizing existing resources along with developing more conservation and new local supplies.

MWD's 2015 UWMP reports on water reliability and identifies projected supplies to meet the long-term demand within MWD's service area. Table V summarizes MWD's reliability in five-year increments extending to 2040 and is based on information contained in MWD's 2015 UWMP. As reported, MWD has supply capabilities that would

be sufficient to meet expected demands from 2020 through 2040 under average year, single dry-year and multiple dry-year hydrologic conditions. An in depth discussion on MWD is attached in Appendix F.

Table V
MWD System Forecast Supplies and Demands, Average Year (1922 - 2012 Hydrology)

	Supply (Thousands of AF per Year)				
Forecast year	**2020**	**2025**	**2030**	**2035**	**2040**
Current Programs					
In-Region Supplies and Programs	693	774	852	956	992
State Water Project[1]	1,555	1,576	1,606	1,632	1,632
Colorado River Aqueduct					
Colorado River Aqueduct Supply[2]	1,468	1,488	1,484	1,471	1,460
Aqueduct Capacity Limit[3]	1,200	1,200	1,200	1,200	1,200
Colorado Aqueduct Capability	1,200	1,200	1,200	1,200	1,200
Capability of Current Programs	**3,448**	**3,550**	**3,658**	**3,788**	**3,824**
Demands					
Total Demands on MWD	1,586	1,636	1,677	1,726	1,765
Imperial Irrigation District - San Diego County Water Authority Transfers and Canal Linings[4]	274	282	282	282	282
Total Demands on MWD	**1,860**	**1,918**	**1,959**	**2,008**	**2,047**
Surplus	**1,588**	**1,632**	**1,699**	**1,780**	**1,777**
Programs Under Development					
In-Region Supplies and Programs	43	80	118	160	200
State Water Project	20	20	268	268	268
Colorado River Aqueduct					
Colorado River Aqueduct Supply	5	25	25	25	25
Aqueduct Capacity Limit[2]	0	0	0	0	0
Colorado River Aqueduct Capability	0	0	0	0	0
Capability of Programs Under Development	**63**	**100**	**386**	**428**	**468**
Maximum MWD Supply Capability	**3,511**	**3,650**	**4,044**	**4,216**	**4,292**
Potential Surplus	**1,651**	**1,732**	**2,085**	**2,208**	**2,245**

1. Includes water transfers and groundwater banking associated with SWP.
2. Includes 296 TAF of non-MWD supplies conveyed in CRA for Imperial Irrigation District - San Diego County Water Authority Transfers and Canal Linings.
3. CRA has a capacity constraint of 1.20 MAF per year.
4. Does not include 16 TAF subject to satisfaction of conditions specified in agreement among MWD, the US, and the San Luis Rey Settlement.

Secondary Sources and Other Considerations

Stormwater capture, water conservation, and recycling will play an increasing role in meeting future water demands. LADWP has implemented stormwater capture, conservation and recycling programs with efforts under way to further promote and increase the level of these programs. LADWP is committed to supply a higher percentage of the City's water demand through local water supply development.

LADWP works closely with MWD, LASAN (wastewater agency), other regional water providers, and various stakeholders to develop and implement programs that reduce overall water use. One example of such collaboration is an integrated resources planning process.

City's IRP is a unique approach of technical integration and community involvement to guide policy decisions and water resources facilities planning. IRP recognizes the inter-relationship of water, wastewater, and runoff management. Initiation of IRP began in 1999 and culminated in its adoption in 2006. Through the stakeholder driven IRP process, detailed facilities plans were developed for the City's wastewater and stormwater systems through the planning horizon of 2020.

One Water LA 2040 (One Water LA) plan is an initiative building upon the success of the IRP. One Water LA extends IRP planning period to year 2040 and takes into consideration an additional emphasis on environmental, social, and sustainability factors. The overarching goal of One Water LA is to maximize resources through the integration of multi-beneficial collaborative programs and projects to make the City greener and more sustainable. One Water LA will follow in the footsteps of IRP and will be a stakeholder driven process with a goal of increased public involvement to represent Los Angeles' diversity in geography, interests, and demographics.

Summary of Water Demand and Supply Projections for 20 Years

Table VI tabulates the service reliability assessment for average weather year. Existing water conservation has been subtracted already from projected demands, but new water conservation is included as a supply source.

Table VI
Service Area Reliability Assessment for Average Weather Year

Demand and Supply Projections (in acre-feet)	Average Weather Conditions (FY 1961/62 to 2010/11) Fiscal Year Ending on June 30				
	2020	2025	2030	2035	2040
Total Water Demand[1]	**611,800**	**644,700**	**652,900**	**661,800**	**675,700**
pLAn Water Demand Target	**485,600**	**533,000**	**540,100**	**551,100**	**565,600**
Existing / Planned Supplies					
Conservation (Additional Active[2] and Passive[3] after FY14/15)	125,800	110,900	111,600	109,100	108,100
Los Angeles Aqueduct[4]	275,700	293,400	291,000	288,600	286,200
Groundwater[5] (Net)	112,670	110,670	106,670	114,670	114,070
Recycled Water					
- Irrigation and Industrial Use	19,800	29,000	39,000	42,200	45,400
- Groundwater Replenishment	0	30,000	30,000	30,000	30,000
Stormwater Capture					
- Stormwater Reuse (Harvesting)	400	800	1,200	1,600	2,000
- Stormwater Recharge (Increased Pumping)	2,000	4,000	8,000	15,000	15,000
Subtotal	536,370	578,770	587,470	601,170	600,770
MWD Water Purchases					
With Existing/Planned Supplies	75,430	65,930	65,430	60,630	74,930
Total Supplies	**611,800**	**644,700**	**652,900**	**661,800**	**675,700**
Potential Supplies					
Water Transfers[6]	40,000	40,000	40,000	40,000	40,000
Subtotal	40,000	40,000	40,000	40,000	40,000
MWD Water Purchases					
With Existing/Planned/Potential Supplies	35,430	25,930	25,430	20,630	34,930
Total Supplies	**611,800**	**644,700**	**652,900**	**661,800**	**675,700**

[1] Total Demand with existing passive conservation

[2] Cumulative hardware savings since late 1980s reached 118,034 AFY by 2014-15.

[3] Additional non-hardware conservation required to meet water use reduction goals set in the Sustainable City pLAn.

[4] LADWP anticipates conserving 20,000 AFY of water usage for dust mitigation on Owens Lake after the Master Project is implemented in FY 2023-24. Los Angeles Aqueduct supply is estimated to decrease 0.1652% per year due to climate change impact.

[5] Net GW excludes Stormwater Recharge and Groundwater Replenishment supplies that contribute to increased pumping. The LADWP Groundwater Remediation project in the San Fernando Basin is expected in operation in 2021-22. Storage credit of 5,000 AFY will be used to maximize pumping in 2019-20 and thereafter. Sylmar Basin production will increase to 4,170 AFY from 2015-16 to 2038-39 to avoid the expiration of stored water credits, then go back to its entitlement of 3,570 AFY in 2039-40.

[6] Potential water transfer occurs in dry years with stored water acquired in average and wet years.

Service area reliability assessments for single-dry year and multiple-dry year conditions are shown in LADWP 2015 UWMP Exhibits 11F through 11H. Demands are met by the available supplies under all scenarios.

Rates

Capital costs to finance facilities for the delivery of water supply to LADWP's service area are supported through customer-billed water rates. The Board sets rates subject to approval of City Council by ordinance. The Board is obligated by City Charter to establish water rates and collect charges in an amount sufficient to service the water system indebtedness and to meet its expenses for operation and maintenance.

On March 15, 2016, City Council approved the new water rates and rate structure. New water rates, which became effective April 15, 2016, through Ordinance 184130 provide for modest rate increases each year over a five-year period for infrastructure improvements, meeting regulatory water quality requirements, Owens Valley mitigation measures, and expanding the local water supply, which includes recycled water, stormwater capture, conservation, and groundwater remediation. New water rate structure increases the number of tiers from two to four for single-family residential customers. Goal is to incentivize conservation while recovering the higher costs of providing water to high volume users. In keeping with cost of service principles, the incremental pricing for the tiers is based on the cost of water supply.

Findings

The Central Plaza Project is estimated to increase the total water demand within the site by 77 AF annually. This additional water demand has been accounted for in the City's overall total demand projections in the LADWP 2015 UWMP using a service area-wide approach that does not rely on individual development demand. The LADWP 2015 UWMP utilized SCAG's RTP data that provide for more reliable water demand forecasts, taking into account changes in population, housing units, and employment.

Based on Planning Department's determination that the Central Plaza Project is consistent with the demographic forecasts for the City from the 2012 SCAG RTP, LADWP finds that the Central Plaza Project water demand is included in the City's LADWP 2015 UWMP water demand projection. Furthermore, the LADWP 2015 UWMP forecasts adequate water supplies to meet all projected water demands in the City through the year 2040.

LADWP therefore concludes that the 77 AFY increase in the total water demand for the Central Plaza Project falls within the available and projected water supplies for normal, single-dry, and multiple-dry years through the year 2040, as described in LADWP's 2015 UWMP. LADWP finds it will be able to meet the proposed water demand of the Central Plaza Project, as well as existing and planned future water demands of its service area.

Appendix A

City of Los Angeles Department of City Planning
Request for Water Supply Assessment,
and Scope Confirmation e-mail

DEPARTMENT OF
CITY PLANNING

CITY PLANNING COMMISSION

DAVID H. J. AMBROZ
PRESIDENT

RENEE DAKE WILSON
VICE-PRESIDENT

CAROLINE CHOE
RICHARD KATZ
JOHN W. MACK
SAMANTHA MILLMAN
VERONICA PADILLA-CAMPOS
DANA M. PERLMAN
VACANT

ROCKY WILES
COMMISSION OFFICE MANAGER
(213) 978-1300

CITY OF LOS ANGELES
CALIFORNIA

ERIC GARCETTI
MAYOR

EXECUTIVE OFFICES
200 N. SPRING STREET, ROOM 525
LOS ANGELES, CA 90012-4801

VINCENT P. BERTONI, AICP
DIRECTOR
(213) 978-1271

KEVIN J. KELLER, AICP
DEPUTY DIRECTOR
(213) 978-1272

LISA M. WEBBER, AICP
DEPUTY DIRECTOR
(213) 978-1274

JAN ZATORSKI
DEPUTY DIRECTOR
(213) 978-1273

http://planning.lacity.org

Richard F Harasick, Senior Assistant General Manager – Water System
David R. Pettijohn, Director of Water Resources
Jin Hwang, Civil Engineering Associate
Los Angeles Department of Water and Power
Water Resources Development Group
111 North Hope Street, Room 1466, Los Angeles, CA 90012

Re: Request for a Water Supply Assessment for the Central Plaza Project located at 3440-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3281-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90010 in the Wilshire Community Plan

Dear Mr. Harasick, Mr. Pettijohn, and Ms. Hwang,

The City of Los Angeles Department of City Planning is preparing an Initial Study and Mitigated Negative Declaration (IS/MND) for the Central Plaza Project (CEQA Study Project or Project), in accordance with the California Environmental Quality Act (CEQA). The proposed development constitutes a "Project" as defined in Section 10912 (a) of the State Water Code, and is thus subject to the provisions for determining water availability as outlined in Sections 10910-10915 of the State Water Code. Pursuant to CEQA Guidelines Section 15206(b)(2)(A), this Project meets the criteria for being of "regional significance" because it includes the development of "A proposed residential development of more than 500 dwelling units."

Accordingly, we are requesting your assistance in preparing a water supply assessment (WSA) to determine the Los Angeles Department of Water and Power's (LADWP) ability to meet the water demands of the CEQA Study Project. Provided below is some general information about the location of the Project and a brief description of the proposed land uses.

Project Applicant

Central Plaza, LLC
3450 Wilshire Blvd. Suite 1200-115
Los Angeles, California 90010

Project Location and Site Description

The Project Site is located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90005/90010 in the Wilshire Community Plan. The Site is bounded on the north by Wilshire Boulevard, on the west by Irolo Street, on the south by 7th Street, and on the east by Mariposa Avenue. The Site is subject to the following zoning information (ZI): ZI-1940 Wilshire Center / Koreatown Redevelopment Project; ZI-1117 MTA Project; ZI-2374 Los Angeles State Enterprise Zone; and ZI-2458 Transit Priority Area in the City of Los Angeles. The Site is one block east of Metro Purple Line's Wilshire/Normandie Station. See Table 1 for the Site information.

Table 1
Project Site

Address	APN	Zone	General Plan Land Use	Size (sf)
3432-3442 W. Wilshire Boulevard 659-669 S. Mariposa Avenue 3265 W. 7th Street	5094-002-BRK	C4-2 PB-2	Regional Center Commercial	103,873.7
3440-3470 W. Wilshire Boulevard 3281-3287 W. 7th Street		C4-2 PB-2 P-2		192,435.9
None		C4-2		1,352.4
678 S. Irolo Street				6,633.4
674 S. Irolo Street				5,425.3
670 S. Irolo Street				4,760.4
666-668 S. Irolo Street				2,834.4
None				880.5

Source: Zone Information & Map Access System (ZIMAS): http://zimas.lacity.org, December 2016.

Existing Uses

The Project Site is currently developed with four commercial office buildings with ground floor retail uses that front West Wilshire Boulevard and South Irolo Street (Existing Office Buildings), a three-story parking structure, and a five-story parking structure. The Existing Office Buildings contain approximately 760,456 feet of commercial uses. The three-story parking structure contains approximately 1,191 vehicle parking spaces. The five-story parking structure contains approximately 707 vehicle parking spaces.

Proposed Project

The mixed-use project will include approximately: (i) 641 apartment units; (ii) 18,454 square feet of commercial floor area (13,500 square feet of retail area and 4,954 square feet of restaurant area [3,454 square feet with 138 indoor seats of high-turnover restaurant and 1,500 square feet with 68 indoor seats of fast-food restaurant]); and (iii) 1,910 vehicle parking spaces. The project would involve demolishing the existing three-story parking structure, adding ground floor retail to the Existing Office Buildings, constructing three commercial kiosks along West Wilshire Boulevard and South Irolo Street, and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean (Project). The 23-story mixed-use building will include approximately 280 apartment units, rooftop amenities, and commercial space (Tower 1). The 28-story mixed use building will include approximately 361 apartment

units, rooftop amenities, and commercial space (Tower 2). Tower 1 and Tower 2 will share a podium with amenity space and four stories of above-grade and two stories of below-grade parking (Podium). No residential units exist on the Site. This project will not be a LEED project.

Landscaping

See Table 2, Landscaping, for the calculation of proposed areas. The Project will provide 21,860 square feet of new landscaped area.

Table 2
Landscaping

Plant Type	WUCOL	Irrigation Method	Irrigation Efficiency	Hydrozone Area (sf)
Level 1 (Retail)				
Trees	Medium – 0.5	Bubbler	0.81	48
Trees	Low – 0.2	Bubbler	0.81	238
Shrubs and Groundcover	Medium – 0.5	Drip	0.81	4,900
Shrubs and Groundcover	Low – 0.2	Drip	0.81	11,683
Vines	Medium – 0.5	Bubbler	0.81	96
			Subtotal	**16,965**
Level 5 (Pool Deck)				
Trees	Medium – 0.5	Bubbler	0.81	96
Trees	Low – 0.2	Bubbler	0.81	72
Shrubs and Groundcover	Medium – 0.5	Drip	0.81	1,108
Shrubs and Groundcover	Low – 0.2	Drip	0.81	2,793
			Subtotal	**4,015**
Roof Deck				
Shrubs and Groundcover	Medium – 0.5	Drip	0.81	264
Shrubs and Groundcover	Low – 0.2	Drip	0.81	616
			Subtotal	**880**
			Total	**21,860**
Table by CAJA Environmental Services, January 2017.				

The project's existing landscape is approximately 13,133 sf, which is comprised of:

- Medium Water-use Shrubs: 8,068 sf
- Medium Water-use Trees: 731 sf
- High Water-use Turf/Lawn: 4,334 sf

Estimated Future Water Demands

Using the water demand rates and methodology described in the City of Los Angeles, Department of Public Works, Bureau of Sanitation Sewer Generation Rates (2012), the proposed water demand estimate is shown in Table 3, Estimated Future Water Demand. The proposed development land uses will conform to Water-

Efficiency Requirements Ordinance No. 180822, 2013 California Plumbing Code, 2017 California Green Building Code (CALGreen), 2017 Los Angeles Plumbing Code, and 2017 Los Angeles Green Building Code.

Table 3
Estimated Future Water Demand

Use[1]	Size	Water Use Factor [2]	Base Demand (gpd)
Existing Uses			
3-story Parking Structure (to be removed)	266,571 sf	20 gallons / 1,000 sf	(5,331)
Proposed New Uses			
Residential – Studio	461 units	75 gallons / unit	34,575
Residential – 2 Bedroom	180 units	150 gallons / unit	27,000
Retail	13,500 sf	25 gallons / 1,000 sf	338
Restaurant – High Turnover	138 seats	30 gallons / seats	4,140
Restaurant – Fast-food	68 seats	25 gallons / seats	1,700
Parking Structure	483,684	20 gallons / 1,000 sf	9,674
Lobby and Leasing Office	2,620 sf	25 gallons / 1,000 sf	66
Indoor Amenity Spaces	10,720 sf	25 gallons / 1,000 sf	268
Outdoor Amenity Spaces	29,930 sf	25 gallons / 1,000 sf	748
Pool (20 ft x 60 ft x 4 ft)	4,800 cubic feet	100 gallons / day [3]	297
Water Feature (887 sf x 1.5 ft)	1,331 cubic feet	25 gallons / day [4]	80
Landscape	21,680 sf	To be calculated by LADWP	TBD
		Total Proposed	**TBD**

[1] *Proposed indoor water uses are based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table available at http://www.lacitysan.org/fmd/pdf/sfcfeerates.pdf.*
[2] *Provided by City of Los Angeles Department of City Planning in the Request for Water Supply Assessment letter and Scope Confirmation e-mail.*
[3] *1 cubic foot = 7.48 gallons. Includes amount to fill the pool twice per year, pro-rated by daily amount. Pool water loss due to evaporation is estimated at 100 gallons per day: http://www.americanleakdetection.com/swimming-pool-water-loss-calculator.php.*
[4] *Assume 25 gallons of evaporation per day.*
Pool Calculations: 35,904 gallons for full pool x 2 times per year / 365 days = 197 + 100 gallons = 297
Water Feature Calculations: 9,956 gallons for full water feature x 2 times per year / 365 days = 55 + 25 gallons = 80
Abbreviations: du - dwelling unit, sf- square feet, ft - feet, gpd - gallons per day, and af/y - acre feet per year.
Table by CAJA Environmental Services, January 2017.

Project Conformance with the General Plan

As proposed, the Project does not generally conform with the use and intensity of development permitted by the General Plan for this site without land use entitlement(s) to permit deviations from the Zoning Code. The City of Los Angeles (the City) is the Lead Agency for the Project. No General Plan Amendment is required. The Project will require approval of the following discretionary actions:[1]

1. Pursuant to Section 12.32.Q of the Los Angeles Municipal Code (the "**LAMC**"), a **Vesting Zone Change** for the Property from P and PB to C4;

---

[1] *Project representative, November 2016.*

2. Pursuant to Section 16.05 of the LAMC, **Site Plan Review** for a development that results in an increase of 50 or more dwelling units and/or guest rooms;

3. Pursuant to Section 12.24.W.1 of the LAMC, a **Master Conditional Use Permit** for the sale or dispensing of alcoholic beverages for onsite consumption; and

4. Pursuant to LAMC 17.15 of the LAMC, a **Vesting Tentative Tract** to merge the existing lots and re-subdivide the Property.

5. Any additional actions, approvals and permits from the City's Department of Building and Safety and Public Works (and other municipal agencies) for Project construction activities including, but not limited to the following: demolition, haul route, excavation, shoring, grading, foundation, building and interior improvements and the removal of trees on public and/or private property.

Project Conformance with the SCAG's 2012 and 2016 RTP/SCS

The 2012 RTP/SCS accommodates up to 3,991,700 persons and 1,455,700 households through 2020. The 2016 RTP/SCS accommodates 4,609,400 persons and 1,690,300 households by 2040. The Project would be consistent with the growth projections of both the 2012 and 2016 RTP/SCS.

Conclusion

Based on the above projections, the Department of City Planning is requesting your assistance in preparing a WSA pursuant to the requirements of SB 610. SB 610 requires a water supply assessment to evaluate whether total projected water supplies will meet the projected water demand for certain development projects that are otherwise subject to CEQA review.

Thank you for your assistance with this request. Your expert evaluation will help ensure that our analysis of the Project's impacts and water demand is accurate and complete. If you have any questions or comments, please contact Kinikia Gardner at (213) 978-1455 or Kinikia.Gardner@lacity.org.

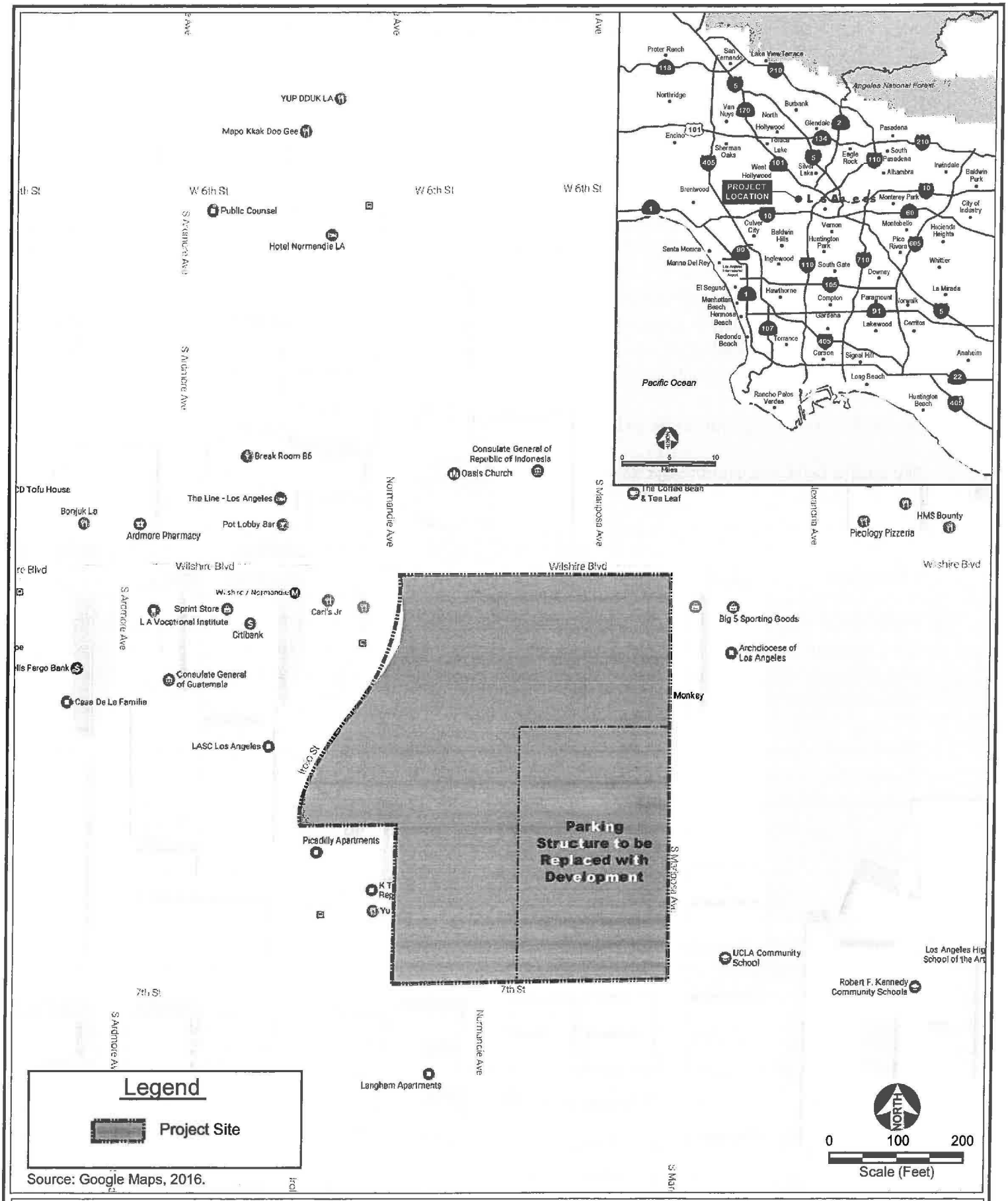
Sincerely,

Kinikia Gardner

Vincent P. Bertoni, AICP
Director of Planning

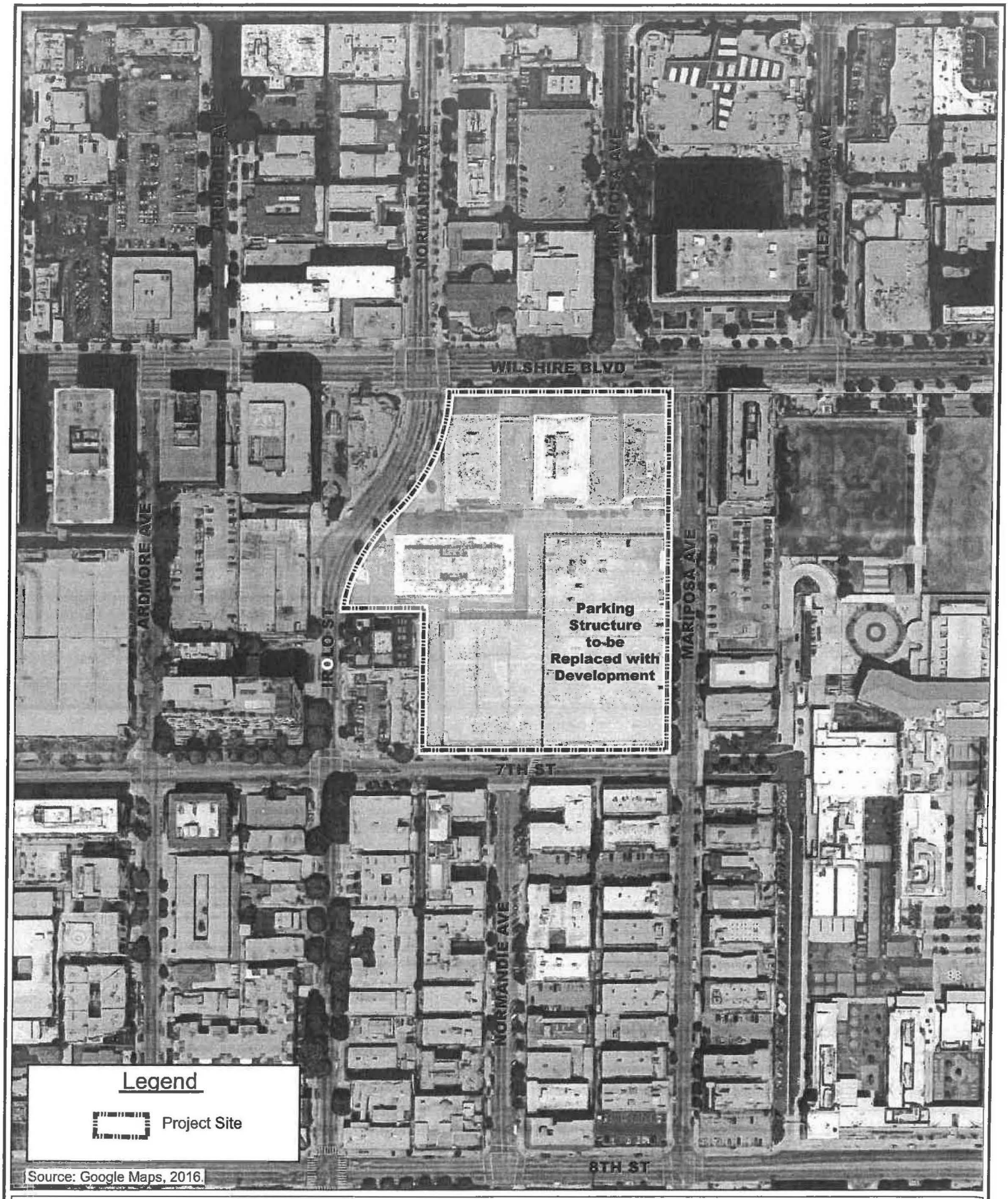
Kinikia Gardner,
AICP City Planner

Attachment: Project Location Map



CAJA Environmental Services, LLC

Figure 1
Regional Map



CAJA Environmental Services, LLC

Figure 2
Aerial Map

From: Kinikia Gardner
To: Aghakhani, Ryan
Cc: Moosbrugger, Earl; Jena Choi
Subject: Re: Central Plaza Project WSA - Scope Confirmation Email
Date: Tuesday, June 20, 2017 4:43:08 PM

Hello,

Everything looks good on my end since you clarified that updates have been made to the project.

Thank You,
Kinikia

On Tue, Jun 20, 2017 at 2:39 PM, Aghakhani, Ryan <Ryan.Aghakhani@ladwp.com> wrote:

> Hello Kinikia,
>
> We are in the process of completing the Water Supply Assessment (WSA) Board Package for the Central Plaza Project (Proposed Project). The Los Angeles Department of Water and Power (LADWP) requests that the Department of City Planning (Planning Department) confirm, by e-mail, the correct detailed scope (shown below) for the Proposed Project. Your scope confirming e-mail will be included as part of the WSA, and the confirmed scope will be used for calculating the water demand in the WSA.
>
> LADWP has received the WSA Request Letter for the Proposed Project, dated March 22, 2017. The scope considered in LADWP's water demand calculations, as received in the WSA Request Letter and from the EIR consultant, is as follows:
>
> **Existing use to be removed:**
>
> | Existing Use | Quantity |
> |---|---|
> | 3-Story Parking Structure | 266,571 sf |
> | **Total** | **266,571 sf** |
>
> **Proposed:**
>
> | Proposed Use | Quantity |
> |---|---|
> | **Residential** | |
> | Residential – Studio | 461 du |
> | Residential – 2 Bedroom | 180 du |
> | **Residential Units Total** | **641 du** |
> | **Residential Common** | |
> | Lobby & Leasing Office | 2,620 sf |
> | Indoor Lounge | 9,935 sf |
> | Rooftop Outdoor Amenity Deck | 10,930 sf |
> | Gym/Fitness Center | 785 sf |
> | Pool | 1,200 sf |
> | Water Feature/Fountain | 887 sf |
> | **Commercial** | |
> | Retail | 13,500 sf |

Restaurant: High Turnover	3,454 sf (138 seats)
Restaurant: Fast-Food	1,500 sf (68 seats)
Landscaping	
Non-Residential:	
Shrubs & Groundcover (PF=0.2)	5,614 sf
Shrubs & Groundcover (PF=0.5)	2,406 sf
Trees (PF=0.2)	238 sf
Trees (PF=0.5)	48 sf
Vines (PF=0.5)	96 sf
Residential:	
Shrubs & Groundcover (PF=0.2)	9,349 sf
Shrubs & Groundcover (PF=0.5)	3,941 sf
Trees (PF=0.2)	72 sf
Trees (PF=0.5)	96 sf
Total Landscaping:	**21,860 sf**
(Proposed landscape IE is 0.81)	
Covered Parking Structure*	**309,558 sf**
Cooling Towers	
Chiller Capacity – Tower 1	700 tons
Chiller Capacity – Tower 2	800 tons
Operating Hours	16 hrs/day, 7days/week, 365 days/yr

*Approximately 64% (309,558 sf) of the entire 483,684 sf of parking structure is considered to be covered and hence has water demand.

The proposed project will NOT apply for LEED Certification.

du = dwelling unit sf = square feet PF = Plant Factor IE = Irrigation Efficiency

hrs = hours yr = year

Proposed Project does not require a General Plan amendment.

Proposed Project is consistent with the 2012 and 2016 Regional Transportation Plan demographic projections by Southern California Association of Governments for the City of Los Angeles.

If the above listed scope is accurate and consistent with the Proposed Project, please e-mail reply. If not, please edit the scope accordingly and send back to me by e-mail.

Ryan Aghakhani

Resources Development and Supply Assessment Group

Water System Executive Office / Water Resources Section

Los Angeles Department of Water and Power

111 N. Hope Street, Room 1450

Los Angeles, CA 90012

(213) 367-2022

----------Confidentiality Notice----------
This electronic message transmission contains information from the Los Angeles Department of Water and Power, which may be confidential. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the content of this information is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message and any attachment without reading or saving in any manner.

--

Kinikia M. Gardner, AICP
Central Division Project Planning
200 N. Spring Street, Rm 620
Los Angeles, CA 90012
P: (213) 978-1445
Kinikia.Gardner@lacity.org

My regular day off is on 1st Fridays.

Appendix B

Water Conservation Commitment Letter

CENTRAL PLAZA, LLC

June 7, 2017

Richard F. Harasick
Senior Assistant General Manager for Water Systems
Los Angeles Department of Water & Power
111 North Hope Street, Room 1455
Los Angeles, CA 90012-5701

Re: WATER CONSERVATION COMMITMENTS FOR THE CENTRAL PLAZA PROJECT

Dear Mr. Harasick:

Central Plaza, LLC (Developer) proposes to develop the Central Plaza Project (the Project) located at 3432-3470 West Wilshire Boulevard, 659-699 South Mariposa Avenue, 3265-3287 West 7th Street, and 666-678 South Irolo Street, Los Angeles, California 90005/90010 in the Wilshire Community Plan. The project site, which encompasses approximately 7.36 acres, is generally bounded on the north by Wilshire Boulevard, on the west by Irolo Street, on the south by 7th Street, and on the east by Mariposa Avenue. The mixed-use project will include approximately: (i) 641 apartment units; (ii) 18,454 square feet of commercial floor area (13,500 square feet of retail area and 4,954 square feet of restaurant area); and (iii) 1,910 vehicle parking spaces. The project would involve demolishing the existing three-story parking structure, adding ground floor retail to the Existing Office Buildings, constructing three commercial kiosks along West Wilshire Boulevard and South Irolo Street, and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean.

The Developer understands the City of Los Angeles' policy that future water needs shall be met by expanding water recycling and conservation. The Developer has committed to implement the following water conservation measures that are in addition to those required by codes and ordinances for the entire Project:

- High Efficiency Toilets with a flush volume of 1.06 gallons per flush, or less, for residential units only
- Showerheads with a flow rate of 1.75 gallons per minute, or less, for residential units only
- Drip/ Subsurface Irrigation (Micro-Irrigation)
- Proper Hydro-zoning/Zoned Irrigation–(groups plants with similar water requirements together)
- Drought Tolerant Plants – 70% of total landscaping

The Developer has also committed to comply with the City of Los Angeles Low Impact Development Ordinances (City Ordinance No. 181899 and No. 183833) and to implement Best Management Practices that have stormwater recharge or reuse benefits for the entire Project as applicable:

- Catch Basin Insert - a device that can be inserted into an existing catch basin design to provide some level of runoff contaminant removal.
- Catch Basin Screens

- Cistern - captures stormwater runoff as it comes down through the roof gutter system, if infiltration is not feasible

The following is the information on plumbing fixture/appliance counts/estimates for the Project:

	Residential Dwelling Unit	Residential Common Area	Retail/ Commercial
Water Closets	N/A	13	13
Urinals	N/A	4	3
Lavatory Faucets	N/A	8	8
Kitchen Faucets	N/A	4	12
Commercial Kitchen Pre-Rinse	0	0	4
Showerheads	N/A	0	0
Clothes washer (Residential)	641	0	0
Dishwasher (Residential)	641	4	0
Dishwasher (Commercial)	0	0	2

Should you have any questions, please do not hesitate to call at (213) 788-3307.

Sincerely,

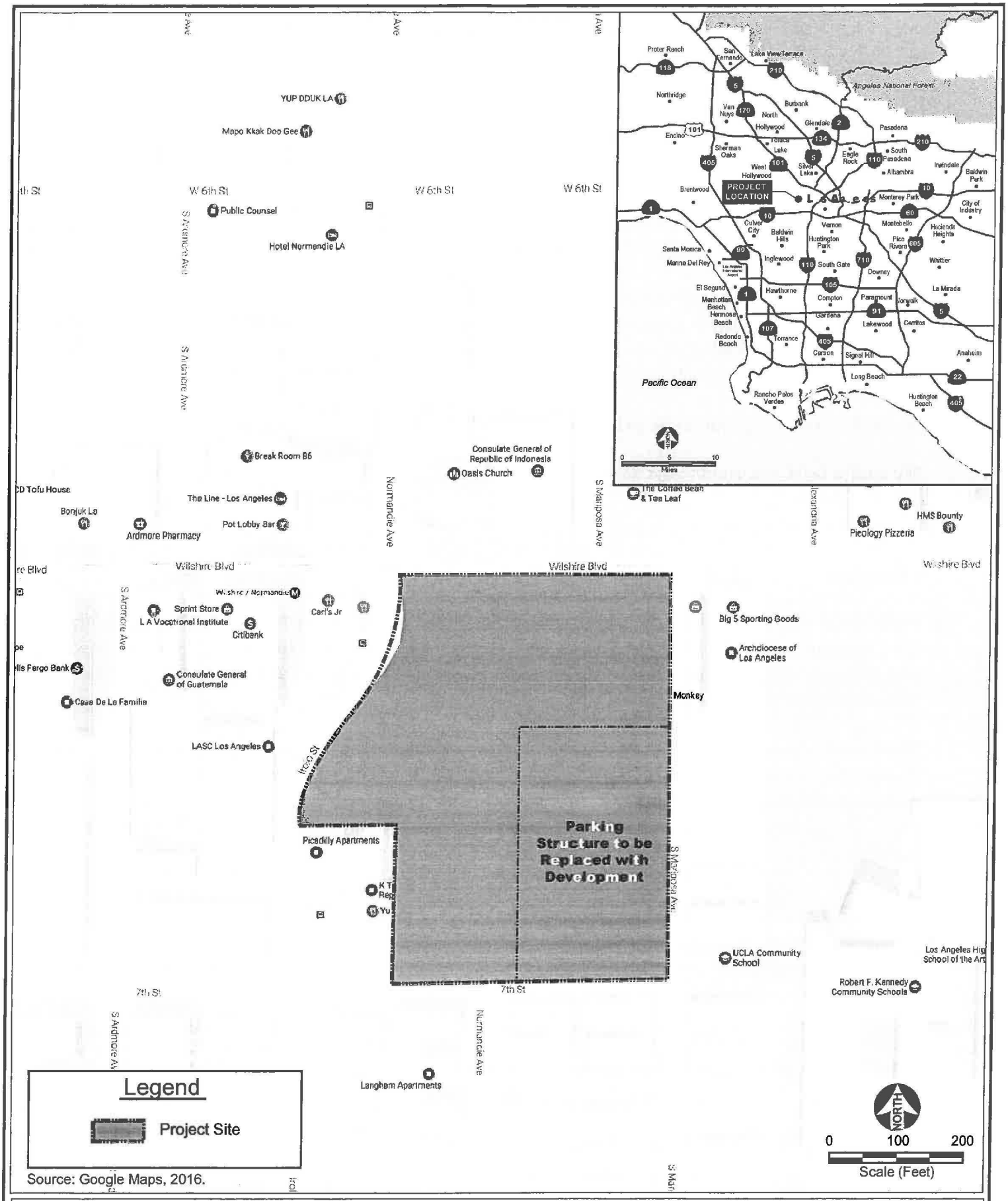
Signature

President

Title

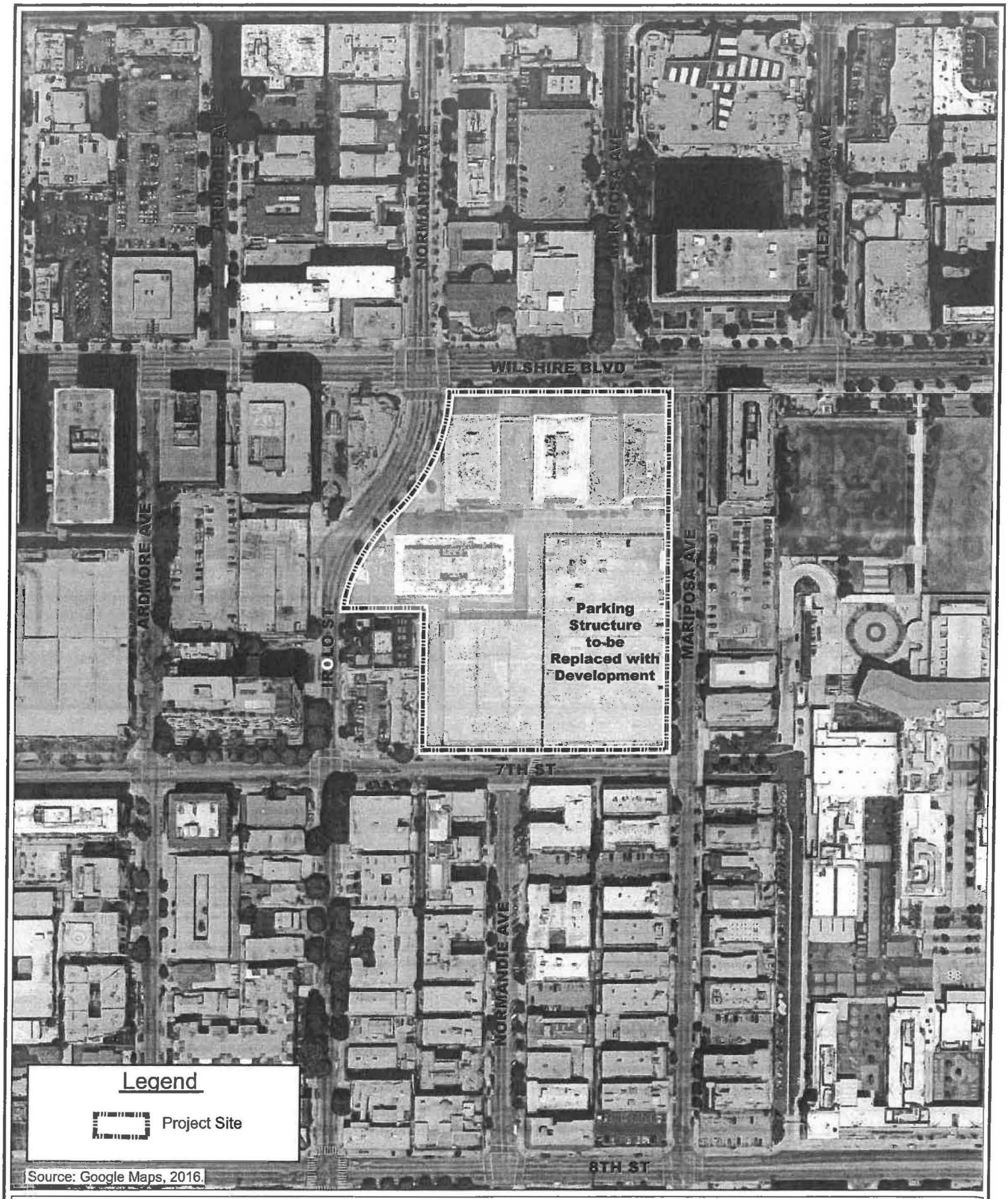
Appendix C

Project Location Maps



CAJA Environmental Services, LLC

Figure 1
Regional Map



CAJA Environmental Services, LLC

Figure 2
Aerial Map

Appendix D

Adjudicated Groundwater Basin Judgments

- San Fernando Basin – Judgment No. 650079
- Sylmar Basin – Judgment No. 650079
- Central Basin – Judgment No, 786656

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

THE CITY OF LOS ANGELES, Plaintiff, vs. CITY OF SAN FERNANDO, ET AL. Defendants.	No. 650079 JUDGMENT

There follows by consecutive paging Recitals (page 1), Definitions and List of Attachments (pages 1 to 6), Designation of Parties (page 6), Declaration re Geology and Hydrology (pages 6 to 12), Declaration of Rights (pages 12 to 21), Injunctions (pages 21 to 22), Continuing Jurisdiction (page 23), Watermaster (pages 23 to 29), Physical Solution (pages 29 to 34), and Miscellaneous Provisions (pages 34 to 35), and Attachments (pages 36 to 46). Each and all of said several parts constitute a single integrated Judgment herein.

4.2.3 Separate Ground Water Basins. The physical and geologic characteristics of each of the ground water basins, Eagle rock, Sylmar, Verdugo and San Fernando, cause impediments to inter-basin ground water flow whereby there is created separate underground reservoirs. Each of said basins contains a common source of water supply to parties extracting ground water from each of said basins. The amount of underflow from Sylmar Basin, Verdugo Basin and Eagle Rock Basin to San Fernando Basin is relatively small, and on the average has been approximately 540 acre feet per year from the Sylmar Basin; 80 acre feet per year from Verdugo Basin; and 50 acre feet per year from Eagle Rock Basin. Each has physiographic, geologic and hydrologic differences; one from the other, and each meets the hydrologic definition of "basin". The extractions of water in the respective basins affect the other water users within that basin but do not significantly or materially affect the ground water levels in any of the other basins. The underground reservoirs of Eagle Rock, Verdugo and Sylmar Basins are independent of one another and of the San Fernando Basin.

4.2.4 Safe Yield and Native Safe Yield. The safe yield and native safe yield, stated in acre feet, of the three largest basins for the year 1964-65 was as follows:

Basin	Safe Yield	Native Safe Yield
San Fernando	90,680	43,660
Sylmar	6,210	3,850
Verdugo	7,150	3,590

The safe yield of Eagle Rock Basin is derived from imported water delivered by Los Angeles. There is no measurable native safe yield.

4.2.5 Separate Basins -- Separate Rights. The rights of the parties to extract ground water within ULARA are separate and distinct as within each of the several ground water basins within said watershed.

4.2.6 Hydrologic Condition of Basins. The several basins within ULARA are in varying hydrologic conditions, which result in different legal consequences.

4.2.6.1 San Fernando Basin. The first full year of overdraft in San Fernando Basin was 1954-55. It remained in overdraft continuously until 1968, when an injunction

LAGERLOF, SENICAL, DRESCHER & SWIFT
301 North Lake Avenue, 10th Floor
Pasadena, California 91101
(818) 793-9400 or (213) 385-4345

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

CENTRAL AND WEST BASIN WATER REPLENISHMENT DISTRICT, etc., Plaintiff, v. CHARLES E. ADAMS, et al., Defendants. CITY OF LAKEWOOD, a municipal corporation, Cross-Complaint, v. CHARLES E. ADAMS, et al., Cross-Defendants.	No. 786,656 SECOND AMENDED JUDGMENT (Declaring and establishing water rights in Central Basin and enjoining extractions therefrom in excess of specified quantities.)

The above-entitled matter duly and regularly came on for trial in Department 73 of the above-entitled Court (having been transferred thereto from Department 75 by order of the presiding Judge), before the Honorable Edmund M. Moor, specially assigned Judge, on May 17, 1965, at 10:00 a.m. Plaintiff was represented by its attorneys BEWLEY, KNOOP,

of the close of the water year ending September 30, 1978 in accordance with the Watermaster Reports on file with this Court and the records of the Plaintiff. This tabulation does not take into account additions or subtractions from any Allowed Pumping Allocation of a producer for the 1978-79 water year, nor other adjustments not representing change in fee title to water rights, such as leases of water rights, nor does it include the names of lessees of landowners where the lessees are exercising the water rights. The exercise of all water rights is subject, however, to the provisions of this Judgment is hereinafter contained. All of said rights are of the same legal force and effect and are without priority with reference to each other. Each party whose name is hereinafter set forth in the tabulation set forth in Appendix "2" of this judgment, and after whose name there appears under the column "Total Water Right" the figure "0" owns no rights to extract any ground water from Central Basin, and has no right to extract any ground water from Central Basin.

(b) Defendant The City of Los Angeles is the owner of the right to extract fifteen thousand (15,000) acre feet per annum of ground water from Central Basin. Defendant Department of Water and Power of the City of Los Angeles has no right to extract ground water from Central Basin except insofar as it has the right, power, duty or obligation on behalf of defendant The City of Los Angeles to exercise the water rights in Central Basin of defendant The City of Los Angeles. The exercise of said rights are subject, however, to the provisions of this judgment hereafter contained, including but not limited to, sharing with other parties in any subsequent decreases or increases in the quantity of extractions permitted from Central Basin, pursuant to continuing jurisdiction of the Court, on the basis that fifteen thousand (15,000) acre feet bears to the Allowed Pumping Allocations of the other parties.

(c) No party to this action is the owner of or has any right to extract ground water from Central Basin except as herein affirmatively determined.

2. Parties Enjoined as Regards Quantities of Extractions.

Appendix E

Water Supply Assessment Provisions
California Water Code Section 10910-10915

WATER CODE
SECTION 10910-10915

10910. (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

(c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's

total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

(d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

(A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an

identification of the other public water systems or water service contractholders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available,

including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

(g) (1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

(2) Prior to the expiration of the 90-day period, if the public water system intends to request an extension of time to prepare and adopt the assessment, the public water system shall meet with the city or county to request an extension of time, which shall not exceed 30 days, to prepare and adopt the assessment.

(3) If the public water system fails to request an extension of time, or fails to submit the assessment notwithstanding the extension of time granted pursuant to paragraph (2), the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply with the requirements of this part relating to the submission of the water supply assessment.

(h) Notwithstanding any other provision of this part, if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project for which a water supply assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:

(1) Changes in the project that result in a substantial increase

in water demand for the project.

(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.

(3) Significant new information becomes available which was not known and could not have been known at the time when the assessment was prepared.

10911. (a) If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the city or county its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. If the city or county, if either is required to comply with this part pursuant to subdivision (b), concludes as a result of its assessment, that water supplies are, or will be, insufficient, the city or county shall include in its water supply assessment its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. Those plans may include, but are not limited to, information concerning all of the following:

(1) The estimated total costs, and the proposed method of financing the costs, associated with acquiring the additional water supplies.

(2) All federal, state, and local permits, approvals, or entitlements that are anticipated to be required in order to acquire and develop the additional water supplies.

(3) Based on the considerations set forth in paragraphs (1) and (2), the estimated timeframes within which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), expects to be able to acquire additional water supplies.

(b) The city or county shall include the water supply assessment provided pursuant to Section 10910, and any information provided pursuant to subdivision (a), in any environmental document prepared for the project pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.

(c) The city or county may include in any environmental document an evaluation of any information included in that environmental

document provided pursuant to subdivision (b). The city or county shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If the city or county determines that water supplies will not be sufficient, the city or county shall include that determination in its findings for the project.

10912. For the purposes of this part, the following terms have the following meanings:

(a) "Project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

(4) A proposed hotel or motel, or both, having more than 500 rooms.

(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

(6) A mixed-use project that includes one or more of the projects specified in this subdivision.

(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

(b) If a public water system has fewer than 5,000 service connections, then "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

(c) "Public water system" means a system for the provision of piped water to the public for human consumption that has 3000 or more service connections. A public water system includes all of the

following:

(1) Any collection, treatment, storage, and distribution facility under control of the operator of the system which is used primarily in connection with the system.

(2) Any collection or pretreatment storage facility not under the control of the operator that is used primarily in connection with the system.

(3) Any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

10914. (a) Nothing in this part is intended to create a right or entitlement to water service or any specific level of water service.

(b) Nothing in this part is intended to either impose, expand, or limit any duty concerning the obligation of a public water system to provide certain service to its existing customers or to any future potential customers.

(c) Nothing in this part is intended to modify or otherwise change existing law with respect to projects which are not subject to this part.

(d) This part applies only to a project for which a notice of preparation is submitted on or after January 1, 1996.

10915. The County of San Diego is deemed to comply with this part if the Office of Planning and Research determines that all of the following conditions have been met:

(a) Proposition C, as approved by the voters of the County of San Diego in November 1988, requires the development of a regional growth management plan and directs the establishment of a regional planning and growth management review board.

(b) The County of San Diego and the cities in the county, by agreement, designate the San Diego Association of Governments as that review board.

(c) A regional growth management strategy that provides for a comprehensive regional strategy and a coordinated economic development and growth management program has been developed pursuant to Proposition C.

(d) The regional growth management strategy includes a water element to coordinate planning for water that is consistent with the

requirements of this part.

(e) The San Diego County Water Authority, by agreement with the San Diego Association of Governments in its capacity as the review board, uses the association's most recent regional growth forecasts for planning purposes and to implement the water element of the strategy.

(f) The procedures established by the review board for the development and approval of the regional growth management strategy, including the water element and any certification process established to ensure that a project is consistent with that element, comply with the requirements of this part.

(g) The environmental documents for a project located in the County of San Diego include information that accomplishes the same purposes as a water supply assessment that is prepared pursuant to Section 10910.

Appendix F

Metropolitan Water District of Southern California

(APPENDIX A)

APPENDIX A

The Metropolitan Water District of Southern California

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

INTRODUCTION 1

Formation and Purpose 1
Member Agencies 1
Service Area 2

GOVERNANCE AND MANAGEMENT 3

Board of Directors 3
Management 3
Employee Relations 5
Risk Management 5
Information Security 6

METROPOLITAN'S WATER SUPPLY 6

General 6
Current Water Conditions 7
Recent Events at Oroville Dam 7
Integrated Water Resources Plan 8
State Water Project 10
Colorado River Aqueduct 14
Endangered Species Act and Other Environmental Considerations 20
Water Transfer, Storage and Exchange Programs 22
Storage Capacity and Water in Storage 27

CONSERVATION AND WATER SHORTAGE MEASURES 29

General 29
Water Surplus and Drought Management Plan 30
Water Supply Allocation Plan 30
Drought Response Actions 31

REGIONAL WATER RESOURCES 31

Los Angeles Aqueduct 33
Local Water Supplies 34

METROPOLITAN'S WATER DELIVERY SYSTEM 36

Primary Facilities and Method of Delivery 36
Water Treatment 37
Seismic Considerations 38
Security Measures 39

CAPITAL INVESTMENT PLAN 40

General Description 40
Projection of Capital Investment Plan Expenditures 40
Capital Investment Plan Financing 41
Other Capital Expenses 41
Major Projects of Metropolitan's Capital Investment Plan 42

METROPOLITAN REVENUES 43

General 43
Summary of Revenues by Source 44

Revenue Allocation Policy and Tax Revenues 44
Water Sales Revenues 45
Principal Customers 46
Rate Structure 46
Member Agency Purchase Orders 47
Other Charges 48
Classes of Water Service 49
Water Rates 50
Financial Reserve Policy 51
California Ballot Initiatives 52
Preferential Rights 53
Litigation Challenging Rate Structure 53
Other Revenue Sources 56
Investment of Moneys in Funds and Accounts 56

METROPOLITAN EXPENSES 58

General 58
Revenue Bond Indebtedness and Other Obligations 59
Limitations on Additional Revenue Bonds 59
Variable Rate Exposure Policy 60
Outstanding Senior Revenue Bonds and Senior Parity Obligations 60
Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations 69
Other Junior Obligations 70
General Obligation Bonds 70
State Water Contract Obligations 70
Other Long-Term Commitments 73
Power Sources and Costs 73
Defined Benefit Pension Plan and Other Post-Employment Benefits 75

HISTORICAL AND PROJECTED REVENUES AND EXPENSES 78

MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES 83

Water Sales Projections 83
Water Sales Revenues 83
Projected Fiscal Year 2016-17 Results 83

INTRODUCTION

This Appendix A provides general information regarding The Metropolitan Water District of Southern California ("Metropolitan"), including information regarding Metropolitan's operations and finances. Statements included or incorporated by reference in this Appendix A constitute "forward-looking statements." Such statements are generally identifiable by the terminology used such as "plan," "project," "expect," "estimate," "budget" or other similar words. Such statements are based on facts and assumptions set forth in Metropolitan's current planning documents including, without limitation, its most recent biennial budget. The achievement of results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Actual results may differ from Metropolitan's forecasts. Metropolitan is not obligated to issue any updates or revisions to the forward-looking statements in any event.

Metropolitan maintains a website that may include information on programs or projects described in this Appendix A; however, none of the information on Metropolitan's website is incorporated by reference or intended to assist investors in making an investment decision or to provide any additional information with respect to the information included in this Appendix A. The information presented on Metropolitan's website is not part of the Official Statement and should not be relied upon in making investment decisions.

Formation and Purpose

Metropolitan is a metropolitan water district created in 1928 under authority of the Metropolitan Water District Act (California Statutes 1927, Chapter 429, as reenacted in 1969 as Chapter 209, as amended (herein referred to as the "Act")). The Act authorizes Metropolitan to: levy property taxes within its service area; establish water rates; impose charges for water standby and service availability; incur general obligation bonded indebtedness and issue revenue bonds, notes and short-term revenue certificates; execute contracts; and exercise the power of eminent domain for the purpose of acquiring property. In addition, Metropolitan's Board of Directors (the "Board") is authorized to establish terms and conditions under which additional areas may be annexed to Metropolitan's service area.

Metropolitan's primary purpose is to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member public agencies. If additional water is available, such water may be sold for other beneficial uses. Metropolitan serves its member agencies as a water wholesaler and has no retail customers.

The mission of Metropolitan, as promulgated by the Board, is to provide its service area with adequate and reliable supplies of high quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan's charges for water sales and availability are fixed by its Board, and are not subject to regulation or approval by the California Public Utilities Commission or any other state or federal agency. Metropolitan imports water from two principal sources: northern California via the Edmund G. Brown California Aqueduct (the "California Aqueduct") of the State Water Project owned by the State of California (the "State" or "California") and the Colorado River via the Colorado River Aqueduct ("CRA") owned by Metropolitan.

Member Agencies

Metropolitan is comprised of 26 member public agencies, including 14 cities, 11 municipal water districts, and one county water authority, which collectively serve the residents and businesses of more than 300 cities and numerous unincorporated communities. Member agencies request water from Metropolitan at

various delivery points within Metropolitan's system and pay for such water at uniform rates established by the Board for each class of water service. Metropolitan's water is a supplemental supply for its member agencies, most of whom have other sources of water. See "METROPOLITAN REVENUES–Principal Customers" in this Appendix A for a listing of the ten member agencies with the highest water purchases from Metropolitan during the fiscal year ended June 30, 2016. Metropolitan's member agencies may, from time to time, develop additional sources of water. No member is required to purchase water from Metropolitan, but all member agencies are required to pay readiness-to-serve charges whether or not they purchase water from Metropolitan. See "METROPOLITAN REVENUES–Rate Structure", "–Member Agency Purchase Orders" and "–Other Charges" in this Appendix A.

The following table lists the 26 member agencies of Metropolitan.

Municipal Water Districts		**Cities**		**County Water Authority**
Calleguas	Las Virgenes	Anaheim	Los Angeles	San Diego[(1)]
Central Basin	Orange County	Beverly Hills	Pasadena	
Eastern	Three Valleys	Burbank	San Fernando	
Foothill	West Basin	Compton	San Marino	
Inland Empire Utilities Agency		Fullerton	Santa Ana	
Upper San Gabriel Valley		Glendale	Santa Monica	
Western of Riverside County		Long Beach	Torrance	

(1) The San Diego County Water Authority, currently Metropolitan's largest customer, is a plaintiff in litigation challenging the allocation of costs to certain rates adopted by the Board and asserting other claims. See "METROPOLITAN REVENUES–Litigation Challenging Rate Structure" in this Appendix A.

Service Area

Metropolitan's service area comprises approximately 5,200 square miles and includes portions of the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura. When Metropolitan began delivering water in 1941, its service area consisted of approximately 625 square miles. Its service area has increased by 4,500 square miles since that time. The expansion was primarily the result of annexation of the service areas of additional member agencies.

Metropolitan estimates that approximately 18.8 million people lived in Metropolitan's service area in 2016, based on official estimates from the California Department of Finance and on population distribution estimates from the Southern California Association of Governments ("SCAG") and the San Diego Association of Governments ("SANDAG"). Population projections prepared by SCAG in 2012 and SANDAG in 2013, as part of their planning process to update regional transportation and land use plans, show expected population growth of about 18 percent in Metropolitan's service area between 2010 and 2035. The economy of Metropolitan's service area is exceptionally diverse. In 2015, the economy of the six counties which contain Metropolitan's service area had a gross domestic product larger than all but eleven nations of the world. Metropolitan has historically provided between 40 and 60 percent of the water used annually within its service area. For additional economic and demographic information concerning the six county area containing Metropolitan's service area, see Appendix E–"SELECTED DEMOGRAPHIC AND ECONOMIC INFORMATION FOR METROPOLITAN'S SERVICE AREA."

The climate in Metropolitan's service area ranges from moderate temperatures throughout the year in the coastal areas to hot and dry summers in the inland areas. Annual rainfall in an average year has historically been approximately 13 to 15 inches along the coastal area, up to 20 inches in foothill areas and less than 10 inches inland.

GOVERNANCE AND MANAGEMENT

Board of Directors

Metropolitan is governed by a 38-member Board of Directors, made up of representatives from all of Metropolitan's member agencies. Each member public agency is entitled to have at least one representative on the Board, plus an additional representative for each full five percent of the total assessed valuation of property in Metropolitan's service area that is within the member public agency. Changes in relative assessed valuation do not terminate any director's term. Accordingly, the Board may, from time to time, have more or fewer than 38 directors.

The Board includes business, professional and civic leaders. Directors are appointed by member agencies in accordance with those agencies' processes. They serve on the Board without compensation from Metropolitan. Voting is based on assessed valuation, with each member agency being entitled to cast one vote for each $10 million or major fractional part of $10 million of assessed valuation of property within the member agency, as shown by the assessment records of the county in which the member agency is located. The Board administers its policies through the Metropolitan Water District Administrative Code (the "Administrative Code"), which was adopted by the Board in 1977. The Administrative Code is periodically amended to reflect new policies or changes in existing policies that occur from time to time.

Management

Metropolitan's day-to-day management is under the direction of its General Manager, who serves at the pleasure of the Board, as do Metropolitan's General Counsel, General Auditor and Ethics Officer. Following is a biographical summary of Metropolitan's principal executive officers.

Jeffrey Kightlinger, General Manager – Mr. Kightlinger was appointed as General Manager in February 2006, leaving the position of General Counsel, which he had held since February 2002. Before becoming General Counsel, Mr. Kightlinger was a Deputy General Counsel and then Assistant General Counsel, representing Metropolitan primarily on Colorado River matters, environmental issues, water rights and a number of Metropolitan's water transfer and storage programs. Prior to joining Metropolitan in 1995, Mr. Kightlinger worked in private practice representing numerous public agencies including municipalities, redevelopment agencies and special districts. Mr. Kightlinger earned his bachelor's degree in history from the University of California, Berkeley, and his law degree from Santa Clara University.

Marcia Scully, General Counsel – Ms. Scully assumed the position of General Counsel in March 2012. She previously served as Metropolitan's Interim General Counsel from March 2011 to March 2012. Ms. Scully joined Metropolitan in 1995, after a decade of private law practice, providing legal representation to Metropolitan on construction, employment, Colorado River and significant litigation matters. From 1981 to 1985 she was assistant city attorney for the City of Inglewood. Ms. Scully served as president of University of Michigan's Alumnae Club of Los Angeles and is a recipient of the 1996 State Bar of California, District 7 President's Pro Bono Service Award and the Southern California Association of Non-Profit Housing Advocate of the Year Award. She is also a member of the League of Women Voters for Whittier and was appointed for two terms on the City of Whittier's Planning Commission, three years of which were served as chair. Ms. Scully earned a bachelor's degree in liberal arts from the University of Michigan, a master's degree in urban planning from Wayne State University and law degree from Loyola Law School.

Gerald C. Riss, General Auditor – Mr. Riss was appointed as Metropolitan's General Auditor in July 2002 and is responsible for the independent evaluation of the policies, procedures and systems of control throughout Metropolitan. Mr. Riss is a certified fraud examiner, certified financial services auditor and certified risk professional with more than 25 years of experience in accounting, audit and risk management. Prior to joining Metropolitan, Mr. Riss was Vice President and Assistant Division Head of Risk Management

Administration at United California Bank/Bank of the West. He also served as Senior Vice President, director of Risk Management and General Auditor of Tokai Bank of California from 1988 until its reorganization as United California Bank in 2001. He earned a bachelor's degree in accounting and master's degree in business administration from Wayne State University in Detroit, Michigan.

Deena Ghaly, Ethics Officer – Ms. Ghaly was appointed Ethics Officer in November 2012. Ms. Ghaly joined Metropolitan with over 20 years of legal and ethics-related experience. Prior to joining Metropolitan, she served as an administrative law judge for the California Office of Administrative Hearings. She previously was head of enforcement and general counsel for the Los Angeles City Ethics Commission, which administers and enforces the laws regarding campaign contributions, lobbying, and government ethics for the City of Los Angeles. Before moving to Southern California in 2001, Ms. Ghaly worked in New York City, where she headed the labor department in the general counsel's office of a large city agency. Licensed to practice law in California, New York and New Jersey, Ms. Ghaly is knowledgeable in workplace investigations, government ethics, regulatory affairs, and labor and employment matters. She has lectured throughout the nation on various topics, including parallel criminal and administrative prosecution, due process in administrative procedures, and effective internal investigations. Ms. Ghaly earned a bachelor's degree in philosophy from Wellesley College in Massachusetts and a law degree from Cornell Law School.

Gary Breaux, Assistant General Manager/Chief Financial Officer – Mr. Breaux has had extensive experience working for local governments since 1983. From 1994 until joining Metropolitan in October 2011, he served as Director of Finance for East Bay Municipal Utility District ("EBMUD"). At EBMUD, he was responsible for all financial areas, including treasury operations, debt management, rates, internal audit, accounting and reporting, risk management and customer and community services. Prior to joining EBMUD, he was Director of Finance for the City of Oakland, California. A native of Colorado, Mr. Breaux received a Bachelor of Science degree in Business from the University of Colorado in 1977 and a master's degree in Public Administration in 1987 from Virginia Commonwealth University.

Debra Man, Assistant General Manager/Chief Operating Officer – Ms. Man was appointed to her current position in December 2003. Ms. Man has worked at Metropolitan since 1986, beginning as an engineer and advancing to Chief of the Planning and Resources Division. As Chief of Planning and Resources she was responsible for major initiatives adopted by Metropolitan's Board, such as the Integrated Water Resources Plan, rate structure, and facility plans for expansion of Metropolitan's distribution system. In 1999, she was appointed as Vice President of Water Transfers and Exchanges, responsible for securing water supplies through agreements and partnerships with other water and agricultural interests in San Joaquin Valley and Southern California and demonstrating Metropolitan's water supply reliability in compliance with current laws. Ms. Man is a registered professional civil engineer in California and Hawaii. She has a bachelor's degree in civil engineering from the University of Hawaii and a master's degree in civil/environmental engineering from Stanford University.

Roger Patterson, Assistant General Manager/Strategic Initiatives – Mr. Patterson was appointed Assistant General Manager in March 2006. He is responsible for overseeing water supply and planning issues, including the Colorado River and State Water Project. He previously served as a consultant to Metropolitan on Colorado River issues. Mr. Patterson was the director of the Nebraska Department of Natural Resources from 1999 to 2005, where he was responsible for water administration, water planning, flood-plain delineation, dam safety and the state databank. Prior to his work in Nebraska, Mr. Patterson spent 25 years with the U.S. Bureau of Reclamation ("Bureau of Reclamation"), retiring from the Bureau of Reclamation as the Regional Director for the Mid-Pacific Region. He is a registered professional engineer in Nebraska and Colorado, and earned bachelor's and master's degrees in engineering from the University of Nebraska.

Fidencio M. Mares, Interim Assistant General Manager/Chief Administrative Officer – Mr. Mares was appointed the Interim Assistant General Manager/Chief Administrative Officer in July 2015 and is

responsible for the strategic direction and management of Metropolitan's administrative functions. His primary responsibilities include managing human resources, information technology, real property and administrative services. Prior to joining Metropolitan, Mr. Mares was the owner of the Mares Company, where he served as a consultant to companies in the overall assessment of their management programs and processes. Prior to becoming a consultant, Mares worked both in the private and public sectors, serving as vice president of human resources and corporate communications for Beckham Coulter and as chief administrative officer of BHP/Pacific Resources and President & CEO of Gas Operations. He worked for more than 15 years for The Gas Company in Hawaii and Southern California Edison Company. A graduate of the California State University, Fresno, he also serves on the National Board of Visitors (Distinguished Graduates) for the University.

Dee Zinke, Assistant General Manager/Chief External Affairs Officer– Ms. Zinke was appointed Assistant General Manager in January 2016. She is responsible for Metropolitan's communications, business outreach, education and legislative matters. She joined Metropolitan in 2009 as Manager of the Legislative Services Section. Before coming to Metropolitan, Ms. Zinke was the Manager of Governmental and Legislative Affairs at the Calleguas Municipal Water District for nearly 10 years, where she received recognition for her significant contributions to the Association of California Water Agencies, the Ventura County Special Districts Association and the Association of Water Agencies of Ventura County. During her tenure at Calleguas, she was named Chair of the Ventura County Watersheds Coalition and appointed by then-Secretary of Resources Mike Chrisman to the State Watershed Advisory Committee. Prior to her public service, she worked in the private sector as the Executive Officer and Senior Legislative Advocate for Building Industry Association of Greater Los Angeles and Ventura Counties and as Director of Communications for E-Systems, a defense contractor specializing in communication, surveillance and navigation systems in Washington, D.C. Ms. Zinke holds a Bachelor of Arts degree in Communication and Psychology from Virginia Polytechnic Institute and State University.

Employee Relations

The total number of regular full-time Metropolitan employees on January 1, 2017 was 1,765, of whom 1,223 were represented by AFSCME Local 1902, 95 by the Supervisors Association, 294 by the Management and Professional Employees Association and 129 by the Association of Confidential Employees. The remaining 24 employees are unrepresented. The four bargaining units represent 99 percent of Metropolitan's employees. The Memorandum of Understanding ("MOU") with each of the Association of Confidential Employees, the Management and Professional Employees Association and AFSCME Local 1902 covered the period January 1, 2011 through December 31, 2016. The MOU with the Supervisors Association covered the period September 13, 2011 to December 31, 2016. Although the contracts with the bargaining units are expired, the provisions of such contracts will govern until a successor contract is negotiated. The Board authorized the General Manager to exercise discretion under Administrative Code Section 6101(k) to enter into a successor MOU with the Management and Professional Employees Association on February 14, 2017. Negotiations with the remaining bargaining units are underway and are currently expected to be completed in early 2017.

Risk Management

Metropolitan is exposed to various risks of loss related to the design and construction of facilities, and the treatment and delivery of water. With the assistance of third party claims administrators, Metropolitan is self-insured for liability, property and workers' compensation. Metropolitan self-insures the first $25 million per liability occurrence, with commercial liability coverage of $75 million in excess of the self-insured retention. The $25 million self-insured retention is maintained as a separate restricted reserve. Metropolitan is also self-insured for loss or damage to its property, with the $25 million self-insured retention also being accessible for emergency repairs and Metropolitan property losses. In addition, Metropolitan obtains other excess and specialty insurance coverages such as directors' and officers' liability, fiduciary liability and aircraft hull and liability coverage.

Metropolitan self-insures the first $5 million for workers' compensation with statutory excess coverage. The self-insurance retentions and reserve levels currently maintained by Metropolitan may be modified by the Board at its sole discretion.

Information Security

Metropolitan has adopted and maintains an active Information Security program ("ISP") that includes comprehensive policies and procedures reviewed annually by its internal Information Security Team, Audit and independent third party auditors and consultants. Metropolitan has appointed an Information Security Manager who is responsible for overseeing the annual review of the ISP and its alignment with the strategic plan and direction of Metropolitan. Metropolitan's policies and procedures are consistent with public agency standards as well as staying aligned with governance, risk, and compliance. All Metropolitan users are required to participate in Metropolitan's Information Security education and awareness training. Metropolitan's Information Security Team is responsible for providing guidance and education on the implementation of new technologies based on Metropolitan's ISP as well as overseeing the monitoring of potential threats and vulnerabilities, utilizing and executing security controls to validate policy enforcement, protecting against virus and malware attacks, and investigating any potential unauthorized activity on Metropolitan's network.

METROPOLITAN'S WATER SUPPLY

General

Metropolitan's principal sources of water supplies are the State Water Project and the Colorado River. Metropolitan receives water delivered from the State Water Project under State Water Contract provisions, including contracted supplies, use of carryover storage in San Luis Reservoir, and surplus supplies. Metropolitan holds rights to a basic apportionment of Colorado River water and has priority rights to an additional amount depending on availability of surplus supplies. Water management programs supplement these Colorado River supplies. To secure additional supplies, Metropolitan also has groundwater banking partnerships and water transfer and storage arrangements within and outside its service area. Metropolitan's principal water supply sources, and other supply arrangements and water management are more fully described herein.

Metropolitan faces a number of challenges in providing adequate, reliable and high quality supplemental water supplies for southern California. These include, among others: (1) population growth within the service area; (2) increased competition for low-cost water supplies; (3) variable weather conditions; (4) increased environmental regulations; and (5) climate change. Metropolitan's resources and strategies for meeting these long-term challenges are set forth in its Integrated Water Resources Plan, as updated from time to time. See "–Integrated Water Resources Plan." In addition, Metropolitan manages water supplies in response to the prevailing hydrologic conditions by implementing its Water Surplus and Drought Management ("WSDM") Plan, and in times of prolonged or severe shortages, the Water Supply Allocation Plan (the "Water Supply Allocation Plan"). See "CONSERVATION AND WATER SHORTAGE MEASURES–Water Surplus and Drought Management Plan" and "–Water Supply Allocation Plan."

Hydrologic conditions can have a significant impact on Metropolitan's imported water supply sources. For Metropolitan's State Water Project supplies, precipitation in California's northern Sierra Nevada during the fall and winter helps replenish storage levels in Lake Oroville, a key State Water Project facility. The subsequent runoff from the spring snowmelt helps satisfy regulatory requirements in the San Francisco Bay/Sacramento-San Joaquin River Delta ("Bay-Delta") bolstering water supply reliability in the same year. See "–State Water Project – Bay-Delta Proceedings Affecting State Water Project." The source of Metropolitan's Colorado River supplies is primarily the watersheds of the Upper Colorado River basin in

the states of Colorado, Utah, and Wyoming. Although precipitation is primarily observed in the winter and spring, summer storms are common and can affect water supply conditions.

Uncertainties from potential future temperature and precipitation changes in a climate driven by increased concentrations of atmospheric carbon dioxide also present challenges. Areas of concern to California water planners identified by researchers include: reduction in Sierra Nevada and Colorado Basin snowpack; increased intensity and frequency of extreme weather events; and rising sea levels resulting in increased risk of damage from storms, high-tide events, and the erosion of levees and potential cutbacks of deliveries of imported water. While potential impacts from climate change remain subject to study and debate, climate change is among the uncertainties that Metropolitan seeks to address through its planning processes.

Current Water Conditions

Following the drought period from 2012-2015, current hydrologic conditions have improved. As of February 1, 2017, the northern Sierra precipitation was 197 percent of normal with a snowpack accumulation that was 140 percent of normal. Lake Oroville, the principal State Water Project reservoir, began flood control releases in early January. See "–Recent Events at Oroville Dam" below. On January 18, 2017, the California Department of Water Resources ("DWR") notified State Water Contractors that its calendar year 2017 allocation estimate to State Water Contractors was 60 percent of contracted amounts, or 1,146,900 acre-feet for Metropolitan. (An acre-foot is the amount of water that will cover one acre to a depth of one foot and equals approximately 326,000 gallons, which represents the needs of two average families in and around the home for one year.) See "–State Water Project."

As of February 1, 2017, the Upper Colorado River Basin snowpack measured 156 percent of normal and total system storage in the Colorado River Basin was 49 percent of capacity. As of such date, the projected base supply of Colorado River water in calendar year 2017 was estimated to be 960,000 acre-feet. See "–Colorado River Aqueduct."

See also "–Storage Capacity and Water in Storage."

Recent Events at Oroville Dam

Oroville Dam, the earthfill embankment dam on the Feather River which impounds Lake Oroville, is operated by DWR as a facility of the State Water Project. On February 7, 2017, the main flood control spillway at Oroville Dam, a gated and concrete lined facility, experienced significant damage as DWR increased releases to 55,000 cubic feet per second to manage higher inflows driven by continued precipitation in the Feather River basin. Subsequently, DWR halted releases at the main spillway to inspect the damage and conduct flow tests. After testing, the main spillway was returned to service on February 8 at a reduced flow rate to offset inflows into Lake Oroville. On February 11, the water elevation in Lake Oroville reached 901 feet, leading water to flow over the emergency spillway structure, an ungated, 1,730 foot long concrete barrier located adjacent to and north of the main flood control spillway structure. Releases from the emergency spillway flow uncontrolled down an earthen hillside to the Feather River. On February 12, erosion began to progress up the right side of the emergency spillway. Concerns about the erosion at the emergency spillway prompted DWR to increase releases through the damaged main spillway and led the Butte County Sheriff to evacuate downstream communities for two days to ensure the safety of the residents. As of February 14, water levels in Lake Oroville were 13 feet below the crest of the emergency spillway and the mandatory evacuation order was lifted. DWR has begun repairs to the erosion areas below the emergency spillway. As of February 15, 2017, the cause of the damage to the main spillway was unknown.

The State has requested federal emergency funding to help offset costs related to the response efforts. The Federal Emergency Management Agency has approved the State's request for federal assistance.

Following the rainy season, the spillways will be repaired on a more permanent basis in preparation for the following winter. DWR's initial assessments indicate costs may range from $100-200 million. These estimates are subject to revision as more detailed information becomes known. Metropolitan is unable to assess at this time what costs, if any, it will incur as a State Water Contractor, associated with the spillway repairs.

State Water Project water allocations to State Water Contractors for calendar year 2017 are currently estimated to be 60 percent of contracted amounts. In spite of the damage to the main spillway and the unknowns associated with DWR's corresponding repair plan, the State Water Project allocation is expected to increase from the current estimate of 60 percent. If realized, this would result in an allocation that is higher than average, and likely higher than any allocation since 2011. Nonetheless, future water supplies will be primarily dependent on hydrology.

Integrated Water Resources Plan

Overview. The Integrated Water Resources Plan ("IRP") is Metropolitan's principal water resources planning document. Metropolitan, its member agencies, subagencies and groundwater basin managers developed their first IRP as a long-term planning guideline for resources and capital investments. The purpose of the IRP was the development of a portfolio of preferred resources to meet the water supply reliability and water quality needs for the region in a cost-effective and environmentally sound manner. The first IRP was adopted by the Board in January 1996 and has been subsequently updated in 2004, 2010 and 2015.

On January 12, 2016, Metropolitan's Board adopted the most recent IRP update (the "2015 IRP Update") as a strategy to set goals and a framework for water resources development. This strategy enables Metropolitan and its member agencies to manage future challenges and changes in California's water conditions and to balance investments with water reliability benefits. The 2015 IRP Update provides an adaptive management approach to address future uncertainty, including uncertainty from climate change. It was formulated with input from member agencies, retail water agencies, and other stakeholders including water and wastewater managers, environmental and business interests and the community.

The 2015 IRP Update seeks to provide regional reliability through 2040 by stabilizing Metropolitan's traditional imported water supplies and continuing to develop additional conservation programs and local resources, with an increased emphasis on regional collaboration. It also advances long-term planning for potential future contingency resources, such as storm water capture and seawater desalination.

Specific projects that may be developed by Metropolitan in connection with the implementation of the 2015 IRP Update will be subject to future Board consideration and approval, as well as environmental and regulatory documentation and compliance. The 2015 IRP Update and associated materials are available on Metropolitan's website at: http://www.mwdh2o.com/AboutYourWater/Planning/Planning-Documents/Pages/default.aspx. The information set forth on Metropolitan's website is not incorporated by reference.

An Adaptive Management Strategy. Adaptive water management, as opposed to a rigid set of planned actions over the coming decades, is the most nimble and cost-effective manner for Metropolitan and local water districts throughout Southern California to effectively prepare for the future. An adaptive management approach began to evolve with Metropolitan's first IRP in 1996, after drought-related shortages in 1991 prompted a rethinking of Southern California's long-term water strategy. Reliance on imported supplies to meet future water needs has decreased steadily over time, replaced by plans for local actions to

meet new demands. The 2015 IRP Update continues to build a robust portfolio approach to water management.

The following paragraphs describe the goals, approaches and targets for each of the resource areas that are needed to ensure reliability under planned conditions.

State Water Project. The State Water Project is one of Metropolitan's two major sources of water. The goal for State Water Project supplies is to adaptively manage flow and export regulations in the near term and to achieve a long-term Bay-Delta solution that addresses ecosystem and water supply reliability challenges. Achieving this goal will require continued participation and successful outcomes in the California WaterFix and the California EcoRestore efforts. See "–State Water Project" and "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A. The stated goal of the IRP is to manage State Water Project supplies in compliance with regulatory restrictions in the near-term for an average of 980,000 acre-feet of annual supplies, and to pursue a successful outcome in the California WaterFix and California EcoRestore efforts for long-term average supplies of approximately 1.2 million acre-feet annually from this resource. See "–State Water Project – Bay-Delta Proceedings Affecting State Water Project."

Colorado River Aqueduct. The CRA delivers water from the Colorado River, Metropolitan's original source of supply. Metropolitan has helped to fund and implement agricultural conservation programs, improvements to river operation facilities, land management programs and water transfers and exchanges through agreements with agricultural water districts in southern California, entities in Arizona and Nevada that use Colorado River water, and the Bureau of Reclamation. See "–Colorado River Aqueduct" and "–Water Transfer, Storage and Exchange Programs – Colorado River Aqueduct." The stated goal of the IRP for the CRA supplies is to maintain current levels of water supplies from existing programs, while also developing flexibility through dry-year programs and storage to ensure that a minimum of 900,000 acre-feet of CRA deliveries are available when needed, with a target of 1.2 million acre-feet in dry years.

Water Transfers and Exchanges. Under voluntary water transfer or exchange agreements, agricultural communities using irrigation water may periodically sell or conserve some of their water allotments for use in urban areas. The water may be delivered through existing State Water Project or CRA facilities, or may be exchanged for water that is delivered through such facilities. Metropolitan's policy toward potential transfers states that the transfers will be designed to protect and, where feasible, enhance environmental resources and avoid the mining of local groundwater supplies. See "–Water Transfer, Storage and Exchange Programs." The stated goal of the IRP is to pursue transfers and exchanges to hedge against shorter-term water demand and supply imbalances while long-term water supply solutions are developed and implemented.

Water Conservation. Conservation and other water use efficiencies are integral components of Metropolitan's IRP. Metropolitan has invested in conservation programs since the 1980s. Historically, most of the investments have been in water efficient fixtures in the residential sector. With outdoor water use comprising at least 50 percent of residential water demand, Metropolitan has increased its conservation efforts to target outdoor water use reduction in its service area. See "CONSERVATION AND WATER SHORTAGE MEASURES." The stated goal of the IRP is to pursue further water conservation savings of 485,000 acre-feet annually by 2040 through continued increased emphasis on outdoor water-use efficiency using incentives, outreach/education and other programs.

Local Water Supplies. Local supplies are a significant and growing component to the region's diverse water portfolio. While the extent to which each member agency's water supply is provided by imported water purchased from Metropolitan varies, in the aggregate, local supplies can provide over half of the region's water in a given year, and the maintenance of these supplies remain an integral part of the IRP. Similar to water conservation, local supplies serve the important function of reducing demands for imported water supplies and thereby making regional water system capacity and storage available and accessible to

meet the needs of the region. Local water supply projects may include, among other things, recycled water, groundwater recovery, conjunctive use, and seawater desalination. Metropolitan offers financial incentives to member agencies to help fund the development of a number of these types of local supply projects. The stated goal of the IRP is to seek to develop 230,000 acre-feet of additional local supplies produced by existing and future projects, with the region reaching a target of 2.4 million acre-feet of total dependable local supply by 2040. See "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A.

State Water Project

Background

One of Metropolitan's two major sources of water is the State Water Project, which is owned by the State, and managed and operated by DWR. The State Water Project is the largest state-built, multipurpose, user-financed water project in the country. It was designed and built primarily to deliver water, but also provides flood control, generates power for pumping, is used for recreation, and enhances habitat for fish and wildlife. The State Water Project provides irrigation water to 750,000 acres of farmland, mostly in the San Joaquin Valley, and provides municipal and industrial water to approximately 25 million of California's estimated 39.2 million residents, including the population within the service area of Metropolitan.

The State Water Project's watershed encompasses the mountains and waterways around the Feather River, the principal tributary of the Sacramento River, in the Sacramento Valley of Northern California. Through the State Water Project, Feather River water stored in and released from Oroville Dam (located about 70 miles north of Sacramento, east of the city of Oroville, California) and unregulated flows diverted directly from the Bay-Delta are transported south through the Central Valley of California, over the Tehachapi Mountains and into Southern California, via the California Aqueduct, to four delivery points near the northern and eastern boundaries of Metropolitan's service area. The total length of the California Aqueduct is approximately 444 miles long. See "METROPOLITAN'S WATER DELIVERY SYSTEM–Primary Facilities and Method of Delivery – State Water Project" in this Appendix A.

State Water Contract

In 1960, Metropolitan signed a water supply contract (as amended, the "State Water Contract") with DWR to receive water from the State Water Project. Metropolitan is one of 29 agencies and districts that have long-term contracts for water service from DWR (known collectively as the "State Water Contractors" and sometimes referred to herein as "Contractors"). Metropolitan is the largest of the State Water Contractors in terms of the number of people it serves (approximately 18.8 million), the share of State Water Project water that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with State water contracts (approximately 52 percent for 2016). Metropolitan received its first delivery of State Water Project water in 1972.

Pursuant to the terms of the State water contracts, all water-supply related expenditures for capital and operations, maintenance, power, and replacement costs associated with the State Water Project facilities are paid for by the State Water Contractors. In exchange, Contractors have the right to participate in the system, with an entitlement to water service from the State Water Project and the right to use the portion of the State Water Project conveyance system necessary to deliver water to them. Each year DWR estimates the total State Water Project water available for delivery to the State Water Contractors and allocates the available project water among the State Water Contractors in accordance with the State water contracts. DWR's total water supply availability projections are refined over the course of the winter season based upon updated rainfall and snowpack values and allocations to the State Water Contractors are adjusted accordingly.

Metropolitan's State Water Contract has been amended a number of times since its original execution and delivery. Several of the amendments, entered into by DWR and various subsets of State Water Contractors, relate to the financing and construction of a variety of State Water Project facilities and

improvements and impose certain cost responsibility therefor on the affected Contractors, including Metropolitan. For a description of Metropolitan's financial obligations under its State Water Contract, including with respect to such amendments, see "METROPOLITAN EXPENSES–State Water Contract Obligations" in this Appendix A.

Amendments, approved by Metropolitan's Board in 1995, and since executed by DWR and 27 of the State Water Contractors (collectively known as the "Monterey Amendment"), among other things, made explicit that the Contractors' rights to use the portion of the State Water Project conveyance system necessary to deliver water to them also includes the right to convey non-State Water Project water at no additional cost as long as capacity exists. These amendments also expanded the ability of the State Water Contractors to carry over State Water Project water in State Water Project storage facilities, allowed participating Contractors to borrow water from terminal reservoirs, and allowed Contractors to store water in groundwater storage facilities outside a Contractor's service area for later use. These amendments provided the means for individual Contractors to increase supply reliability through water transfers and storage outside their service area. Metropolitan has subsequently developed and actively manages a portfolio of water supplies to convey through the California Aqueduct pursuant to these contractual rights. See "–Water Transfer, Storage and Exchange Programs." The Monterey Amendment is the subject of ongoing litigation. See "–Related Litigation – Monterey Amendment Litigation" below.

Under its State Water Contract, Metropolitan has a contractual right to its proportionate share of the State Water Project water that DWR determines annually is available for allocation to the Contractors. This determination is made by DWR each year based on existing supplies in storage, forecasted hydrology, and other factors. Available State Water Project water is then allocated to the Contractors in proportion to the amounts set forth in "Table A" of their respective State water contract. Pursuant to Table A of its State Water Contract, Metropolitan is entitled to approximately 46 percent of the total annual allocation made available to State Water Contractors each year.

Metropolitan's State Water Contract, under a 100 percent allocation, provides Metropolitan 1,911,500 acre-feet of water. The 100 percent allocation is referred to as the contracted amount. Late each year, DWR announces an initial allocation estimate for the upcoming year, but periodically provides subsequent estimates throughout the year if warranted by developing precipitation and water supply conditions. From calendar years 2004 through 2016, the amount of water received by Metropolitan from the State Water Project, including water from water transfer, groundwater banking and exchange programs delivered through the California Aqueduct (described under "–Water Transfer, Storage and Exchange Programs"), varied from a low of 593,000 acre-feet in calendar year 2015 to a high of 1,800,000 acre-feet in 2004. In calendar year 2016, DWR's allocation to State Water Contractors was 60 percent of contracted amounts, or 1,146,000 acre-feet, for Metropolitan.

On December 1, 2016, DWR announced an initial calendar year 2017 allocation of 20 percent. On December 21, 2016, DWR increased the allocation estimate to 45 percent. On January 18, 2017, DWR increased the allocation estimate to 60 percent of contracted amounts based on runoff from storms that increased the combined storage in Oroville and San Luis Reservoir by over 600,000 acre-feet. This increased allocation estimate reflects improving hydrologic conditions in California and increasing storage levels in the State's major reservoirs, but also takes into account federally mandated environmental restrictions that have been imposed upon water deliveries from the Bay-Delta, including the biological opinions discussed below. See "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESA Biological Opinions." If necessary, Metropolitan may augment its State Water Project deliveries using withdrawals from its storage programs along the State Water Project and through water transfer and exchange programs. However, in light of current water conditions in California and the estimated 2017 allocation, supplies are expected to exceed projected demands and Metropolitan anticipates it will add water to its storage programs. See "–Water Transfer, Storage and Exchange Programs."

The term of Metropolitan's State Water Contract currently extends to December 31, 2035. Upon expiration of the State Water Contract term, Metropolitan has the option to continue service under substantially the same terms and conditions. Metropolitan and other State Water Contractors have undertaken negotiations with DWR to extend their State water contracts. In June 2014, DWR and the State Water Contractors reached an Agreement in Principle (the "Agreement in Principle") on an amendment to the State water contract to extend the contract and to make certain changes related to financial management of the State Water Project in the future. DWR and 25 of the State Water Contractors, including Metropolitan, have signed the Agreement in Principle. Under the Agreement in Principle, the term of the State water contract for each Contractor that signs an amendment would be extended until December 31, 2085. The Agreement in Principle will serve as the "proposed project" for purposes of environmental review under the California Environmental Quality Act ("CEQA"). DWR issued a Notice of Availability of the Draft Environmental Impact Report ("EIR") for the proposed project on August 17, 2016. The review period ended October 17, 2016. Following CEQA review, a State Water Project contract amendment will be prepared. Such amendment will be subject to review by the Legislature.

Bay-Delta Proceedings Affecting State Water Project

General. In addition to being a source of water for diversion into the State Water Project, the Bay-Delta is also the source of water for local agricultural, municipal and industrial needs, and, in addition, supports significant resident and anadromous fish and wildlife resources and important recreational uses of water. Both the State Water Project's upstream reservoir operations and its Bay-Delta diversions can at times affect these other uses of Bay-Delta water directly, or indirectly, through impacts on Bay-Delta water quality. A variety of proceedings and other activities are ongoing with the participation of various State and federal agencies, as well as California's environmental, urban and agricultural communities, in an effort to develop long-term, collectively-negotiated solutions to the environmental and water management issues concerning the Bay-Delta, and Metropolitan actively participates in these proceedings. Metropolitan cannot predict the ultimate outcome of any of the litigation or regulatory processes described below, but believes that a materially adverse impact on the operation of State Water Project pumps, Metropolitan's State Water Project deliveries or Metropolitan's water reserves could result.

SWRCB Regulatory Activities and Decisions. The State Water Resources Control Board (the "SWRCB") is the agency responsible for setting water quality standards and administering water rights throughout California. The SWRCB exercises its regulatory authority over the Bay-Delta by means of public proceedings leading to regulations and decisions that can affect the availability of water to Metropolitan and other users of State Water Project water. These include the Water Quality Control Plan ("WQCP") for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, which establishes the water quality objectives and proposed flow regime of the estuary, and water rights decisions, which assign responsibility for implementing the objectives of the WQCP to users throughout the system by adjusting their respective water rights permits.

The WQCP gets reviewed periodically and new standards and allocations of responsibility can be imposed on the State Water Project as a result. The last review was completed in 2006, and the current review has been ongoing since approximately 2010.

Since 2000, SWRCB's Water Rights Decision 1641 ("D-1641") has governed the State Water Project's ability to export water from the Bay-Delta for delivery to Metropolitan and other agencies receiving water from the State Water Project. D-1641 allocated responsibility for meeting flow requirements and salinity and other water quality objectives established earlier by the WQCP. In response to ongoing drought conditions in 2014 and 2015, DWR and the Bureau of Reclamation requested temporary relief from certain WQCP standards and filed petitions requesting changes to D-1641 terms that govern outflows and salinity standards in the Bay-Delta. The SWRCB approved temporary urgency changes in the Bay-Delta in 2014 and 2015, enabling water to be conserved in reservoirs in case of continued drought.

Bay-Delta Planning Activities. In 2000, several State and federal agencies released the CALFED Bay Delta Programmatic Record of Decision ("ROD") and Environmental Impact Report/Environmental Impact Statement ("EIR/EIS") that outlined and disclosed the environmental impacts of a 30-year plan to improve the Bay-Delta's ecosystem, water supply reliability, water quality, and levee stability. The CALFED ROD remains in effect and many of the State, federal, and local projects begun under CALFED continue.

Building on CALFED and other Bay-Delta planning activities, in 2006 multiple State and federal resource agencies, water agencies, and other stakeholder groups entered into a planning agreement for the Bay-Delta Conservation Plan ("BDCP"). The BDCP was originally conceived as a comprehensive conservation strategy for the Bay-Delta designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework to be implemented over a 50-year time frame with corresponding long-term permit authorizations from fish and wildlife regulatory agencies. The BDCP includes both alternatives for new water conveyance infrastructure and extensive habitat restoration in the Bay-Delta.

In 2015, the State and federal lead agencies proposed an alternative implementation strategy and new alternatives to the BDCP to provide for the protection of water supplies conveyed through the Bay-Delta and the restoration of the ecosystem of the Bay-Delta, termed "California WaterFix" and "California EcoRestore," respectively. In this alternative approach, DWR and the Bureau of Reclamation would implement planned water conveyance improvements (California WaterFix) as a stand-alone project that would seek incidental take authorization for an unspecified period and would include only limited amounts of habitat restoration. The habitat restoration to be required would be that directly related to construction mitigation and the associated costs of such mitigation which would be underwritten by the public water agencies participating in the California WaterFix project. Ecosystem improvements and habitat restoration more generally (California EcoRestore) would be undertaken under a more phased approach than previously contemplated by the BDCP and would not be linked with the California WaterFix project or permits. Accelerated restoration actions totaling 30,000 acres of tidal marsh habitat were proposed to be undertaken in the coming decade to provide public benefits for listed fish in the Bay-Delta. (See also "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project.") Subsequent actions would be based on the proven merits of restoration. Preliminary cost estimates for the WaterFix alternative are currently estimated to be $17 billion. When a decision selecting the final project has been made, costs will be updated and allocated. Metropolitan anticipates that it could bear approximately 25 percent of the costs of the project. The Final EIR/EIS for the BDCP/California WaterFix was completed and made available to the public and other agencies on December 22, 2016. The Notice of Availability of the Final EIR/EIS was published by the Bureau of Reclamation in the Federal Register on December 30, 2016. On January 4, 2017, the U.S. Secretary of the Interior issued an order to federal agencies involved in the California WaterFix stating the U.S. Fish and Wildlife Service will issue a final biological opinion by April 2017. A similar schedule is anticipated for the biological opinion to be issued by the National Marine Fisheries Service. Upon receipt of the biological opinions, the Bureau of Reclamation will be able to issue a Record of Decision for the project. Certification of the EIR/EIS under CEQA and final decision-making by DWR is expected at that same time. See also "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project."

Related Litigation

California Water Impact Network Litigation. On September 3, 2010, the California Water Impact Network and two other non-profit organizations filed a petition for writ of mandate and for declaratory and injunctive relief in Sacramento Superior Court against the SWRCB and DWR. The petition alleges that by permitting and carrying out the export of large volumes of water from the Bay-Delta through the State Water Project, the SWRCB and DWR have failed to protect public trust fishery resources in the delta; have been diverting water from the Bay-Delta wastefully and unreasonably in violation of the prohibition against waste

and unreasonable use in the California Constitution; and have failed to enforce and comply with water quality and beneficial use standards in D-1641, the 1995 WQCP, and the federal Porter-Cologne Act. Among the relief sought in the petition is an injunction against Bay-Delta exports by the State Water Project pending compliance with the various laws and administrative orders that are alleged to have been violated. The State Water Contractors filed a motion to intervene in this action, which was granted on March 25, 2011. In August 2016, the court dismissed the case without prejudice based on the failure of the petitioners to bring the case to trial within five years of filing their original petition.

Monterey Amendment Litigation. On May 4, 2010, DWR completed an EIR and concluded a remedial CEQA review for the Monterey Amendment, which reflects the settlement of certain disputes regarding the allocation of State Water Project water. See "– State Water Contract" above. Central Delta Water Agency, South Delta Water Agency, California Water Impact Network, California Sportfishing Protection Alliance, and the Center For Biological Diversity filed a lawsuit against DWR in Sacramento County Superior Court challenging the validity of the EIR under CEQA and the validity of underlying agreements under a reverse validation action (the "Central Delta I" case). In January 2013, the Court ruled that the validation cause of action in Central Delta I was time barred by the statute of limitations. The court also held that DWR must complete a limited scope remedial CEQA review addressing the potential impacts of the Kern Water Bank, a portion of the Monterey Amendment that does not directly affect Metropolitan. The court also ruled that the State Water Project may continue to be operated under the terms of the Monterey Amendment while the remedial CEQA review is prepared and leaves in place the underlying project approvals while DWR prepares the remedial CEQA review. Plaintiffs appealed. Briefing by the parties was completed, but no date for oral argument has been set. Any adverse impact of this litigation and rulings on Metropolitan's State Water Project supplies cannot be determined at this time.

In September 2016, DWR certified the Final Revised Draft EIR for the Monterey Amendment, recorded a Notice of Determination, and filed papers in the trial demonstrating compliance with the court's order for remedial CEQA review. On October 21, 2016, the petitioner group from Central Delta I and a new lead petitioner, Center for Food Safety, filed litigation against DWR challenging this EIR and named Metropolitan and the other State Water Project contractors as respondent parties. Any adverse impact of this litigation and rulings on Metropolitan's State Water Project supplies cannot be determined at this time.

Colorado River Aqueduct

Background

The Colorado River was Metropolitan's original source of water after Metropolitan's establishment in 1928. Metropolitan has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. Water from the Colorado River and its tributaries is also available to other users in California, as well as users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming (collectively, the "Colorado River Basin States"), resulting in both competition and the need for cooperation among these holders of Colorado River entitlements. In addition, under a 1944 treaty, Mexico has an allotment of 1.5 million acre-feet of Colorado River water annually except in the event of extraordinary drought or serious accident to the delivery system in the United States, in which event the water allotted to Mexico would be curtailed. Mexico can also schedule delivery of an additional 200,000 acre-feet of Colorado River water per year if water is available in excess of the requirements in the United States and the 1.5 million acre-feet allotted to Mexico.

Construction of the CRA, which is owned and operated by Metropolitan, was undertaken by Metropolitan to provide for the transportation of its Colorado River water entitlement to its service area. The CRA originates at Lake Havasu on the Colorado River and extends approximately 242 miles through a series of pump stations and reservoirs to its terminus at Lake Mathews in Riverside County. Up to 1.25 million acre-feet of water per year may be conveyed through the CRA to Metropolitan's member agencies, subject to

availability of Colorado River water for delivery to Metropolitan as described below. Metropolitan first delivered CRA water to its member agencies in 1941.

Colorado River Water Apportionment and Seven-Party Agreement

Pursuant to the federal Boulder Canyon Project Act of 1928, California is apportioned the use of 4.4 million acre-feet of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California and Nevada (the "Lower Basin States"). Under an agreement entered into in 1931 among the California entities that expected to receive a portion of California's apportionment of Colorado River water (the "Seven-Party Agreement") and which has formed the basis for the distribution of Colorado River water made available to California, Metropolitan holds the fourth priority right to 550,000 acre-feet per year. This is the last priority within California's basic apportionment. In addition, Metropolitan holds the fifth priority right to 662,000 acre-feet of water, which is in excess of California's basic apportionment. Until 2003, Metropolitan had been able to take full advantage of its fifth priority right as a result of the availability of surplus water and water apportioned to Arizona and Nevada that was not needed by those states. However, during the 1990s Arizona and Nevada increased their use of water from the Colorado River, and by 2002 no unused apportionment was available for California. As a result, California has limited its annual use to 4.4 million acre-feet since 2003, not including supplies made available under water supply programs such as intentionally-created surplus and certain conservation and storage agreements. In addition, a severe drought in the Colorado River Basin from 2000-2004 reduced storage in system reservoirs, ending the availability of surplus deliveries to Metropolitan. Prior to 2003, Metropolitan could divert over 1.25 million acre-feet in any year, but since that time, Metropolitan's net diversions of Colorado River water have ranged from a low of nearly 633,000 acre-feet in 2006 to a high of approximately 1,179,000 acre-feet in 2015, and totaled over 996,000 acre-feet in 2016. Average annual net deliveries for 2007 through 2016 were approximately 962,000 acre-feet, with annual volumes dependent primarily on programs to augment supplies, including transfers of conserved water from agriculture. See "– Quantification Settlement Agreement" and "– Colorado River Operations: Surplus and Shortage Guidelines – Interim Surplus Guidelines" below. See also "–Water Transfer, Storage and Exchange Programs – Colorado River Aqueduct."

The following table sets forth the existing priorities of the California users of Colorado River water established under the 1931 Seven-Party Agreement.

[Remainder of page intentionally left blank.]

PRIORITIES UNDER THE 1931 CALIFORNIA SEVEN-PARTY AGREEMENT[1]

Priority	Description	Acre-Feet Annually
1	Palo Verde Irrigation District gross area of 104,500 acres of land in the Palo Verde Valley	3,850,000
2	Yuma Project in California not exceeding a gross area of 25,000 acres in California	
3(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys[2] to be served by All-American Canal	
3(b)	Palo Verde Irrigation District - 16,000 acres of land on the Lower Palo Verde Mesa	
4	Metropolitan Water District of Southern California for use on the coastal plain	550,000
	SUBTOTAL	4,400,000
5(a)	Metropolitan Water District of Southern California for use on the coastal plain	550,000
5(b)	Metropolitan Water District of Southern California for use on the coastal plain[3]	112,000
6(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys to be served by the All-American Canal	300,000
6(b)	Palo Verde Irrigation District - 16,000 acres of land on the Lower Palo Verde Mesa	
	TOTAL	5,362,000
7	Agricultural use in the Colorado River Basin in California	Remaining surplus

Source: Metropolitan.

(1) Agreement dated August 18, 1931, among Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, Metropolitan, the City of Los Angeles, the City of San Diego and the County of San Diego. These priorities were memorialized in the agencies' respective water delivery contracts with the Secretary of the Interior.

(2) The Coachella Valley Water District serves Coachella Valley.

(3) In 1946, the City of San Diego, the San Diego County Water Authority, Metropolitan and the Secretary of the Interior entered into a contract that merged and added the City and County of San Diego's rights to storage and delivery of Colorado River water to the rights of Metropolitan.

Quantification Settlement Agreement

The Quantification Settlement Agreement ("QSA"), executed by the Coachella Valley Water District ("CVWD"), Imperial Irrigation District ("IID") and Metropolitan in October 2003, establishes Colorado River water use limits for IID and CVWD, and provides for specific acquisitions of conserved water and water supply arrangements for up to 75 years. The QSA and related agreements provide a framework for Metropolitan to enter into other cooperative Colorado River supply programs and set aside several disputes among California's Colorado River water agencies.

Specific programs under the QSA and related agreements include lining portions of the All-American and Coachella Canals, which were completed in 2009 and conserve approximately 96,000 acre-feet annually. As a result, about 80,000 acre-feet of conserved water is delivered to the San Diego County Water Authority ("SDCWA") by exchange with Metropolitan. Metropolitan takes delivery of the remaining 16,000 acre-feet annually. The 16,000 acre-feet provided annually to Metropolitan will eventually be made available for the benefit of the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission Indians, the San Luis Rey River Indian Water Authority, the City of Escondido and the Vista Irrigation District, upon completion of a water rights settlement. Also included under the QSA is a delivery and exchange agreement between Metropolitan and CVWD that provides for Metropolitan, when requested, to deliver annually up to 35,000 acre-feet of Metropolitan's State Water Project contractual water to CVWD by exchange with Metropolitan's available Colorado River supplies. The QSA and related agreements also authorized the transfer of water (up to a maximum expected amount in 2021 of 205,000 acre-feet) annually by IID to SDCWA. See description below under the caption "– Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" below; see also "METROPOLITAN REVENUES–Principal Customers" in this Appendix A. With full implementation of the programs identified in the QSA, at times when California is limited to its basic apportionment of 4.4 million acre-feet per year, Metropolitan expects to be able to annually divert to its service area approximately 850,000 acre-feet of Colorado River water plus water from other water augmentation programs it develops, including the Palo Verde Land Management, Crop Rotation and Water Supply Program (described under "Water Transfer, Storage and Exchange Programs–Colorado River Aqueduct" below), which provides up to approximately 133,000 acre-feet of water per year. (Amounts of Colorado River water received by Metropolitan in 2007 through 2016 are discussed under the heading "–Colorado River Aqueduct–Colorado River Water Apportionment and Seven-Party Agreement" above.)

A complicating factor in completing the QSA was the fate of the Salton Sea. The Sea and its environs provide a habitat complex supporting more than 400 species of birds. Located at the lowest elevation of an inland basin and fed primarily by agricultural drainage with no outflows other than evaporation, the Salton Sea was naturally trending towards hyper-salinity, which had already impacted the Salton Sea's fishery. Without mitigation, the transfer of water from IID to SDCWA, one of the core programs implemented under the QSA, would reduce the volume of agricultural drainage from IID's service area flowing into the Salton Sea, which would reduce the volume of water in the Sea, exposing shoreline and accelerating the natural trend of the Salton Sea to hyper-salinity. See "– Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" below. In 2002, the SWRCB issued Water Rights Order 2002-0013, which gave approval for the transfer of water from IID to SDCWA and CVWD, and which required Salton Sea mitigation water deliveries from 2003 through 2017.

In 2003, to facilitate implementation of the QSA, the Legislature directed the Secretary for the California Natural Resources Agency to undertake a restoration study to determine a preferred alternative for the restoration of the Salton Sea ecosystem and the protection of wildlife dependent on that ecosystem. In May 2007, the Secretary submitted his $8.9 billion preferred alternative to the Legislature. While withholding authorization of the preferred alternative, in 2008 the Legislature directed the California Natural Resources Agency to undertake demonstration projects and investigations called for in the Secretary's May 2007 recommendation. Since then, the California Natural Resources Agency and the U.S. Fish and Wildlife Service have been developing various pilot-scale projects which are at various stages of planning and implementation.

Concerned that the California Natural Resources Agency has not made sufficient progress to develop a long-term restoration plan for the Salton Sea, in November 2014, IID filed a petition with the SWRCB asking it to modify the SWRCB's 2002 order. IID stated that it is concerned that the scheduled termination of mitigation water deliveries to the Salton Sea at the end of 2017 will result in the shrinking of the Sea and an increase in exposed playa and fugitive dust emissions. IID's petition requested that the SWRCB modify its order to include a requirement that "the State fulfill its statutory obligation to restore the Salton Sea as a

condition of the QSA transfers." See "– Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" below. The SWRCB has held various workshops to receive input on the petition.

During the spring of 2015, the Governor tasked a number of individuals from his staff, known as the "Salton Sea Task Force," to look into actions that could be taken at the Sea. In October 2015, the Salton Sea Task Force announced that it would implement a number of actions to address the Salton Sea ecosystem, including immediate implementation and further development of the Salton Sea management plan, meeting a short-term goal by 2020 of 9,000-12,000 acres of habitat creation and dust suppression projects and a medium-term goal after 2020 of 18,000-25,000 acres of habitat creation and dust suppression projects. In August 2016, the U.S. Department of the Interior and the California Natural Resources Agency entered into an MOU which outlines the manner in which federal agencies would cooperate with State and local agencies to assist the Salton Sea Task Force in achieving its stated goals. While projects that are currently underway or are anticipated to begin in 2017 are not expected to meet the Salton Sea Task Force's short-term goal, the Salton Sea Task Force continues its efforts to identify a long-term plan for the Salton Sea for construction to begin as early as 2018. In the absence of a Salton Sea restoration project, the QSA and related agreements provide for the control of exposed playa by IID as a mitigation measure funded by CVWD, IID, and SDCWA, with the State of California obligated to meet all mitigation costs that exceed $133 million in 2003 dollars. Metropolitan has no obligation to pay any costs associated with restoration of the Salton Sea.

Sale of Water by the Imperial Irrigation District to San Diego County Water Authority

On April 29, 1998, SDCWA and IID executed an agreement (the "Transfer Agreement") for SDCWA's purchase from IID of Colorado River water that is conserved within IID. An amended Transfer Agreement, executed as one of the QSA agreements, set the maximum transfer amount at 205,000 acre-feet in 2021, with the transfer gradually ramping up to that amount over an approximately twenty-year period, then stabilizing at 200,000 acre-feet per year beginning in 2023.

No facilities exist to deliver water directly from IID to SDCWA. Accordingly, Metropolitan and SDCWA entered into an exchange agreement, pursuant to which SDCWA makes available to Metropolitan at its intake at Lake Havasu on the Colorado River the conserved Colorado River water acquired by SDCWA from IID and water allocated to SDCWA that has been conserved as a result of the lining of the All-American and Coachella Canals. See "–Quantification Settlement Agreement" above. Metropolitan delivers an equal volume of water from its own sources of supply through portions of its delivery system to SDCWA. The deliveries to both Metropolitan and SDCWA are deemed to be made in equal monthly increments. In consideration for the conserved water made available to Metropolitan by SDCWA, a lower rate is paid by SDCWA for the exchange water delivered by Metropolitan. The price payable by SDCWA is calculated using the charges set by Metropolitan's Board from time to time to be paid by its member agencies for the conveyance of water through Metropolitan's facilities. See "METROPOLITAN REVENUES–Litigation Challenging Rate Structure" in this Appendix A for a description of Metropolitan's charges for the conveyance of water through Metropolitan's facilities and litigation in which SDCWA is challenging such charges. In 2016, 178,493 acre-feet were delivered to Metropolitan by SDCWA for exchange, consisting of 100,000 acre-feet of IID conservation plus 78,493 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects.

Colorado River Operations: Surplus and Shortage Guidelines

General. The Secretary of the Interior is vested with the responsibility of managing the mainstream waters of the lower Colorado River pursuant to federal law. Each year, the Secretary of the Interior is required to declare the Colorado River water supply availability conditions for the Lower Basin States in terms of "normal," "surplus" or "shortage" and has adopted operations criteria in the form of guidelines to determine the availability of surplus or potential shortage allocations among the Lower Basin States and reservoir operations for such conditions.

Interim Surplus Guidelines. In January 2001, the Secretary of the Interior adopted guidelines (the "Interim Surplus Guidelines"), initially for use through 2016, in determining if there is surplus Colorado River water available for use in California, Arizona and Nevada. The Interim Surplus Guidelines were amended in 2007 and now extend through 2026. The purpose of the Interim Surplus Guidelines was to provide mainstream users of Colorado River water, particularly those in California who utilize surplus flows, a greater degree of predictability with respect to the availability and quantity of surplus water.

Under the Interim Surplus Guidelines, Metropolitan initially expected to divert up to 1.25 million acre-feet of Colorado River water annually under foreseeable runoff and reservoir storage scenarios from 2004 through 2016. However, an extended drought in the Colorado River Basin reduced these initial expectations. In May 2002, the Southern Nevada Water Authority ("SNWA") and Metropolitan entered into an Agreement Relating to Implementation of Interim Colorado River Surplus Guidelines, in which SNWA and Metropolitan agreed to the allocation of unused apportionment as provided in the Interim Surplus Guidelines and on the priority of SNWA for interstate banking of water in Arizona. SNWA and Metropolitan entered into a storage and interstate release agreement on October 21, 2004. Under this agreement, SNWA can request that Metropolitan store unused Nevada apportionment in California. The amount of water stored through 2014 under this agreement was approximately 205,000 acre-feet. In subsequent years, SNWA may request recovery of the stored water. As part of a 2012 executed amendment to the agreement, it is expected that SNWA will not request return of the water stored with Metropolitan before 2022. In October 2015, SNWA and Metropolitan executed an additional amendment to the agreement under which Metropolitan paid SNWA approximately $44.4 million and SNWA stored an additional 150,000 acre-feet with Metropolitan during 2015. Of that amount, 125,000 acre-feet has been added to SNWA's storage account with Metropolitan, increasing the total amount of water stored to approximately 330,000 acre-feet. When SNWA requests the return of any of the stored 125,000 acre-feet, SNWA will reimburse Metropolitan for an equivalent proportion of the $44.4 million plus inflation based on the amount of water returned. The stored water allowed Metropolitan to have a full water supply from the Colorado River in 2015.

Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead. In May 2005, the Secretary of the Interior directed the Bureau of Reclamation to develop additional strategies for improving coordinated management of the reservoirs of the Colorado River system. In November 2007, the Bureau of Reclamation issued a Final Environmental Impact Statement ("EIS") regarding new federal guidelines concerning the operation of the Colorado River system reservoirs, particularly during drought and low reservoir conditions. These guidelines provide water release criteria from Lake Powell and water storage and water release criteria from Lake Mead during shortage and surplus conditions in the Lower Basin, provide a mechanism for the storage and delivery of conserved system and non-system water in Lake Mead and extend the Interim Surplus Guidelines through 2026. The Secretary of the Interior issued the final guidelines through a Record of Decision signed in December 2007. The Record of Decision and accompanying agreement among the Colorado River Basin States protect reservoir levels by reducing deliveries during drought periods, encourage agencies to develop conservation programs and allow the Colorado River Basin States to develop and store new water supplies. The Colorado River Basin Project Act of 1968 insulates California from shortages in all but the most extreme hydrologic conditions. Consistent with these legal protections, under the guidelines, Arizona and Nevada are first subject to the initial annual shortages identified by the Secretary up to 500,000 acre-feet.

The guidelines also created the Intentionally Created Surplus ("ICS") program, which allows the Lower Basin States to store conserved water in Lake Mead. Under this program, ICS water (water that has been conserved through an extraordinary conservation measure, such as land fallowing) is eligible for storage in Lake Mead by Metropolitan. See the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage" below. The Secretary of the Interior delivers the stored ICS water to Metropolitan in accordance with the terms of December 13, 2007, January 6, 2010, and November 20, 2012 Delivery Agreements between the United States and Metropolitan. As of January 1, 2017, Metropolitan had an estimated 71,000 acre-feet in its ICS accounts. These surplus accounts are made

up of water conserved by fallowing in the Palo Verde Valley, projects implemented with IID in its service area, groundwater desalination, the Warren H. Brock Reservoir Project, and the Yuma Desalting Plant pilot run, which have not been delivered to the region.

Related Litigation

Navajo Nation Litigation. The Navajo Nation filed litigation against the Department of the Interior, specifically the Bureau of Reclamation and the Bureau of Indian Affairs, in 2003, alleging that the Bureau of Reclamation has failed to determine the extent and quantity of the water rights of the Navajo Nation in the Colorado River and that the Bureau of Indian Affairs has failed to otherwise protect the interests of the Navajo Nation. The complaint challenges the adequacy of the environmental review for the Interim Surplus Guidelines (described under "– Colorado River Operations: Surplus and Shortage Guidelines" above) and seeks to prohibit the Department of the Interior from allocating any "surplus" water until such time as a determination of the rights of the Navajo Nation is completed. Metropolitan and other California water agencies filed motions to intervene in this action. In October 2004 the court granted the motions to intervene and stayed the litigation to allow negotiations among the Navajo Nation, federal defendants, Central Arizona Water Conservation District ("CAWCD"), State of Arizona and Arizona Department of Water Resources. After years of negotiations, a tentative settlement was proposed in 2012 that would provide the Navajo Nation with specified rights to water from the Little Colorado River and groundwater basins under the reservation, along with federal funding for development of water supply systems on the tribe's reservation. The proposed agreement was rejected by tribal councils for both the Navajo and the Hopi, who were seeking to intervene. On May 16, 2013, the stay of proceedings was lifted. On June 3, 2013, the Navajo Nation moved for leave to file a first amended complaint, which the court granted on June 27, 2013. The amended complaint added a legal challenge to the Lower Basin Shortage Guidelines adopted by the Secretary of the Interior in 2007 that allow Metropolitan and other Colorado River water users to store water in Lake Mead (described under "– Colorado River Operations: Surplus and Shortage Guidelines" above). Metropolitan has used these new guidelines to store over 500,000 acre-feet of water in Lake Mead, a portion of which has been delivered, and the remainder of which may be delivered at Metropolitan's request in future years. On July 22, 2014, the district court dismissed the lawsuit in its entirety, ruling that the Navajo Nation lacked standing and that the claim was barred against the federal defendants. The district court denied a motion by the Navajo Nation for leave to amend the complaint further after the dismissal. On September 19, 2014, the Navajo Nation appealed the dismissal of its claims related to the Interim Surplus Guidelines, the Lower Basin Shortage Guidelines, and breach of the federal trust obligation to the tribe. Briefing by the parties was completed by May 20, 2015. Oral argument in the Ninth Circuit Court of Appeals has been set for February 14, 2017. Metropolitan is unable to assess at this time the likelihood of success of this appeal or any future claims, or their potential effect on Colorado River water supplies.

Endangered Species Act and Other Environmental Considerations

Endangered Species Act Considerations – State Water Project

General. DWR has altered the operations of the State Water Project to accommodate species of fish listed as threatened or endangered under the Federal ESA or California ESA. Currently, five species (the winter-run and spring-run Chinook salmon, Delta smelt, North American green sturgeon and Central Valley steelhead) are listed under the ESAs. In addition, the longfin smelt is listed as a threatened species under the California ESA. These changes in project operations have limited the flexibility of the State Water Project and adversely affected State Water Project deliveries to Metropolitan. State Water Project operational requirements may be further modified in the future under new biological opinions for listed species under the Federal ESA or by the California Department of Fish and Wildlife's issuance of incidental take authorizations under the California ESA. Additionally, new litigation, listings of additional species or new regulatory requirements could further adversely affect State Water Project operations in the future by requiring additional export reductions, releases of additional water from storage or other operational changes impacting the water supply available for export. Such operational constraints are likely to continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. See also "–State Water Project – Bay-Delta Proceedings Affecting State Water Project."

The Federal ESA requires that before any federal agency authorizes funds or carries out an action that may affect a listed species or designated critical habitat, it must consult with the appropriate federal fishery agency to determine whether the action would jeopardize the continued existence of any threatened or endangered species, or adversely modify habitat critical to the species' needs. The result of the consultation is known as a "biological opinion." In the biological opinion the federal fishery agency determines whether the action would cause jeopardy to a threatened or endangered species or adverse modification to critical habitat, and recommends reasonable and prudent alternatives or measures that would allow the action to proceed without causing jeopardy or adverse modification. The biological opinion also includes an "incidental take statement." The incidental take statement allows the action to go forward even though it will result in some level of "take," including harming or killing some members of the species, incidental to the agency action, provided that the agency action does not jeopardize the continued existence of any threatened or endangered species and complies with reasonable mitigation and minimization measures recommended by the federal fishery agency.

Delta Smelt and Salmon Federal ESA Biological Opinions. The United States Fish and Wildlife Service (USFWS) released a biological opinion on December 15, 2008 on the impacts of the State Water Project and the federal Central Valley Project on Delta smelt. On June 4, 2009, the National Marine Fisheries Service (NMFS) released a biological opinion for salmonid species. The water supply restrictions imposed by these biological opinions on Delta smelt and salmonid species have a range of impacts on Metropolitan's deliveries from the State Water Project, depending on hydrologic conditions. The impact on total State Water Project deliveries to State Water Contractors attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be one million acre-feet in an average year, reducing total State Water Project deliveries to State Water Contractors from approximately 3.3 million acre-feet to approximately 2.3 million acre-feet for the year under average hydrology. Reductions are estimated to range from 0.3 million acre-feet during critically dry years to 1.3 million acre-feet in above normal water years. Total State Water Project delivery impacts to Metropolitan for calendar years 2008 through 2016 are estimated to be 2.0 million acre-feet.

Endangered Species Act Considerations - Colorado River

Federal and state environmental laws protecting fish species and other wildlife species have the potential to affect Colorado River operations. A number of species that are on either "endangered" or "threatened" lists under the ESAs are present in the area of the Lower Colorado River, including among others, the bonytail chub, razorback sucker, southwestern willow flycatcher and Yuma clapper rail. To address this issue, a broad-based state/federal/tribal/private regional partnership that includes water, hydroelectric power and wildlife management agencies in Arizona, California and Nevada have developed a multi-species conservation program for the main stem of the Lower Colorado River (the Lower Colorado River Multi-Species Conservation Program or "MSCP"). The MSCP allows Metropolitan to obtain federal and state permits for any incidental take of protected species resulting from current and future water and power operations of its Colorado River facilities and to minimize any uncertainty from additional listings of endangered species. The MSCP also covers operations of federal dams and power plants on the river that deliver water and hydroelectric power for use by Metropolitan and other agencies. The MSCP covers 27 species and habitat in the Lower Colorado River from Lake Mead to the Mexican border for a term of 50 years (commencing in 2005). Over the 50-year term of the program, the total cost to Metropolitan will be about $88.5 million (in 2003 dollars), and annual costs will range between $0.8 million and $4.7 million (in 2003 dollars).

Invasive Species - Mussel Control Programs

Zebra and quagga mussels are established in many regions of the United States. Mussels can reproduce quickly and, if left unmanaged, can clog intakes and raw water conveyance systems, alter or destroy fish habitats and affect lakes and beaches. Quagga mussels were introduced in the Great Lakes in the late 1980s. These organisms infest much of the Great Lakes basin, the St. Lawrence Seaway, and much of the Mississippi River drainage system. In January 2007 quagga mussels were discovered in Lake Mead. The

most likely source of the quagga mussel infestation in the Colorado River was recreational boats with exposure to water bodies around the Great Lakes. Metropolitan developed a program in 2007 to address the long term introduction of mussel larvae into the CRA from the Lower Colorado River, which is now heavily colonized from Lake Mead through Lake Havasu. The quagga mussel control program consists of surveillance activities and control measures. Surveillance activities are conducted annually in conjunction with regularly scheduled two- to three-week long CRA shutdowns, which have the added benefit of desiccating exposed quagga mussels. Control activities consist of continuous chlorination at Copper Basin, Lake Skinner outlet conduit, and Lake Mathews Forebay, quarterly chlorination of the outlet towers at Lake Skinner and Mathews, and physical removal of mussels from the trash racks in Lake Havasu. Recent shutdown inspections have demonstrated that the combined use of chlorine and regular cleaning during scheduled shutdowns effectively control mussel infestation in the CRA. Metropolitan's costs for controlling quagga mussels in the CRA are between $4 million and $5 million per year.

Quagga and zebra mussel populations are located within 16 miles of the State Water Project. An isolated population of zebra mussels is established in San Justo Reservoir in Central California and Lake Piru in Southern California has been infested with quagga mussels since 2013. To prevent the further spread of the mussels into the State Water Project, the Bay-Delta and other bodies of water and water systems, DWR has joined the California Department of Fish and Wildlife, as the lead agency, and other state and federal agencies on a number of activities. These include boat inspections, monitoring of water bodies and water systems and education of the public. In addition, DWR has developed a Rapid Response Plan, Vector Management Plan, and Long-Term Mussel Management and Control Plan as mandated by the California Fish and Game Code.

In December 2016, DWR found dead adult mussels in the Angeles Tunnel, which connects Pyramid Lake to Castaic Lake. Through DNA testing, they were confirmed to be quagga mussels. As a result of such findings, the California Department of Fish and Wildlife has deemed the State Water Project West Branch (including Pyramid and Castaic Lakes) to be infested with quagga mussels and has implemented boat inspection requirements on boats leaving Pyramid Lake and Castaic Lake to help prevent the spreading of the invasive species.

In February 2017, DWR detected mussel veligers (microscopic, free-floating larval lifestage) in water samples collected on the State Water Project East Branch at the North Park valve of the Santa Ana Valley Pipeline, which transports water from Silverwood Lake located in San Bernardino County to Lake Perris located in Riverside County. Extensive sampling has occurred upstream and downstream of the North Park valve and no mussels have been detected. Currently, there is no evidence of mussels in Silverwood Lake or Lake Perris.

There are no impacts on State Water Project allocation or deliveries at this time and the future level of mussel impacts is unknown. Metropolitan will coordinate with other agencies to increase the monitoring of mussels and adapt the existing quagga mussel control program for the State Water Project as required.

Water Transfer, Storage and Exchange Programs

General

To supplement its State Water Project and Colorado River water supplies, Metropolitan has developed and actively manages a portfolio of water supply programs, including water transfer, storage and exchange agreements, the supplies created by which are conveyed through the California Aqueduct of the State Water Project, utilizing Metropolitan's rights under its State Water Contract to use the portion of the State Water Project conveyance system necessary to deliver water to it, or through available CRA capacity. Consistent with its IRP, Metropolitan will continue to pursue voluntary water transfer and exchange programs with State, federal, public and private water districts and individuals to help mitigate supply/demand imbalances and provide additional dry-year supply sources. A summary description of certain of Metropolitan's supply programs are set forth below. In addition to the arrangements described

below, Metropolitan is entitled to storage and access to stored water in connection with various other storage programs and facilities. See "–Colorado River Aqueduct" above in this Appendix A, as well as the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage."

State Water Project

In addition to the basic State Water Project contract provisions, Metropolitan has other contract rights that accrue to the overall value of the State Water Project. Because each contractor is paying for physical facilities, they also have the right to use the facilities to move water supplies associated with agreements, water transfers and water exchanges. Metropolitan has entered into agreements and exchanges that provide additional water supplies.

Castaic Lake and Lake Perris. Metropolitan has contractual rights to store up to 65,000 acre-feet of water in Lake Perris (East Branch terminal reservoir) and 153,940 acre-feet of water in Castaic Lake (West Branch terminal reservoir). This storage provides Metropolitan with additional options for managing State Water Project deliveries to maximize yield from the project. Any water used must be returned to the State Water Project within five years or it is deducted from allocated amounts in the sixth year.

Metropolitan Article 56 Carryover. Metropolitan has the right to store its allocated contract amount for delivery in the following year. Metropolitan can store between 100,000 and 200,000 acre-feet, depending on the final water supply allocation percentage.

California's agricultural activities consume approximately 34 million acre-feet of water annually, which is approximately 80 percent of the total water used in the State for agricultural and urban uses and 40 percent of the water used for all consumptive uses, including environmental demands. Voluntary water transfers and exchanges can make a portion of this agricultural water supply available to support the State's urban areas. Such existing and potential water transfers and exchanges are an important element for improving the water supply reliability within Metropolitan's service area and accomplishing the reliability goal set by Metropolitan's Board. The portfolio of supplemental supplies that Metropolitan has developed to be conveyed through the State Water Project California Aqueduct extend from north of the Bay-Delta to Southern California. Certain of these arrangements are described below.

Yuba River Accord. Metropolitan entered into an agreement with DWR in December 2007 to purchase a portion of the water released by the Yuba County Water Agency ("YCWA"). YCWA was involved in a SWRCB proceeding in which it was required to increase Yuba River fishery flows. Within the framework of agreements known as the Yuba River Accord, DWR entered into an agreement for the long-term purchase of water from YCWA. The agreement permits YCWA to transfer additional supplies at its discretion. Metropolitan, other State Water Contractors, and the San Luis Delta Mendota Water Authority entered into separate agreements with DWR for the purchase of portions of the water made available. Metropolitan's agreement allows Metropolitan to purchase, in dry years through 2025, available water supplies which have ranged from approximately 6,555 acre-feet to 67,068 acre-feet per year.

In addition to water made available under the Yuba River Accord, Metropolitan has developed groundwater storage agreements that allow Metropolitan to store available supplies in the Central Valley for return later. Metropolitan has also developed exchanges and transfers with other State Water Contractors.

Arvin-Edison/Metropolitan Water Management Program. In December 1997, Metropolitan entered into an agreement with the Arvin-Edison Water Storage District ("Arvin-Edison"), an irrigation agency located southeast of Bakersfield, California. Under the program, Arvin-Edison stores water on behalf of Metropolitan. In January 2008, Metropolitan and Arvin-Edison amended the agreement to enhance the program's capabilities and to increase the delivery of water to the California Aqueduct. Up to 350,000 acre-feet of Metropolitan's water may be stored and Arvin-Edison is obligated to return up to 75,000 acre-feet of stored water in any year to Metropolitan, upon request. The agreement will terminate in 2035 unless

extended. To facilitate the program, new wells, spreading basins and a return conveyance facility connecting Arvin-Edison's existing facilities to the California Aqueduct have been constructed. The agreement also provides Metropolitan priority use of Arvin-Edison's facilities to convey high quality water available on the east side of the San Joaquin Valley to the California Aqueduct. Metropolitan's current storage account under the Arvin-Edison/Metropolitan Water Management Program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage."

Semitropic/Metropolitan Groundwater Storage and Exchange Program. In 1994, Metropolitan entered into an agreement with the Semitropic Water Storage District ("Semitropic"), located adjacent to the California Aqueduct north of Bakersfield, to store water in the groundwater basin underlying land within Semitropic. The minimum annual yield available to Metropolitan from the program is 39,700 acre-feet of water and the maximum annual yield is 231,200 acre-feet of water depending on the available unused capacity and the State Water Project allocation. Metropolitan's current storage account under the Semitropic program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage."

Kern Delta Storage Program. Metropolitan entered into an agreement with Kern Delta Water District ("Kern Delta") in May 2003, for a groundwater banking and exchange transfer program to allow Metropolitan to store up to 250,000 acre-feet of State Water Contract water in wet years and to permit Metropolitan, at Metropolitan's option, a return of up to 50,000 acre-feet of water annually during hydrologic and regulatory droughts.

Mojave Storage Program. Metropolitan entered into a groundwater banking and exchange transfer agreement with Mojave Water Agency ("Mojave") in October 2003. This agreement was amended in 2011 to allow for the cumulative storage of up to 390,000 acre-feet. The agreement allows for Metropolitan to store water in an exchange account for later return. Through 2021, and when the State Water Project allocation is 60 percent or less, Metropolitan can annually withdraw Mojave's State Water Project contractual amounts in excess of a 10 percent reserve. When the State Water Project allocation is over 60 percent, the reserved amount for Mojave's local needs increases to 20 percent. Under a 100 percent allocation, the State Water Contract provides Mojave 82,800 acre-feet of water. Metropolitan's current storage account under this program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage."

Antelope Valley East Kern Storage and Exchange Program. In 2016, Metropolitan entered into an agreement with the Antelope Valley-East Kern Water Agency ("AVEK"), the third largest State Water Project Contractor, to both exchange supplies and store water in the Antelope Valley groundwater basin. Under this agreement, AVEK would provide at least 30,000 acre-feet over ten years of its unused Table A State Water Project water to Metropolitan. For every two acre-feet provided to Metropolitan as part of the exchange, AVEK would receive back one acre-foot in the future. For the one acre-foot that is retained by Metropolitan, Metropolitan would pay AVEK under a set price schedule based on the State Water Project allocation at the time. The payment would range from $587/acre-foot under a 5 percent State Water Project allocation to $38/acre-foot under an 86 percent State Water Project allocation.

San Bernardino Valley Municipal Water District Coordinated Operating Agreement. Metropolitan entered into an agreement with the San Bernardino Valley Municipal Water District ("SBVMWD") in April 2001 to coordinate the use of facilities and State Water Project water supplies. The agreement allows Metropolitan a minimum purchase of 20,000 acre-feet on an annual basis with the option to purchase additional water when available. The program includes 50,000 acre-feet of storage capacity for the carryover of water purchased from SBVMWD. In addition to water being supplied using the State Water Project, the previously stored water can be returned using an interconnection between the San Bernardino Central Feeder and Metropolitan's Inland Feeder.

San Gabriel Valley Municipal Water District and Other Exchange Programs. In 2013, Metropolitan entered into an agreement with the San Gabriel Valley Municipal Water District ("SGVMWD"). Under this agreement, Metropolitan delivers treated water to a SGVMWD subagency in exchange for twice as much untreated State Water Project supplies delivered into the groundwater basin that supplies this agency and metropolitan subagencies. Metropolitan can purchase at least 5,000 acre-feet per year, in excess of the unbalanced exchange amount. This program has the potential to increase Metropolitan's reliability by providing 115,000 acre-feet through 2035.

Metropolitan has been negotiating, and will continue to pursue, water purchase, storage and exchange programs with other agencies in the Sacramento and San Joaquin Valleys. These programs involve the storage of both State Water Project supplies and water purchased from other sources to enhance Metropolitan's dry-year supplies and the exchange of normal year supplies to enhance Metropolitan's water reliability and water quality, in view of dry conditions and potential impacts from the ESA cases discussed above under the heading "–Endangered Species Act and Other Environmental Considerations–Endangered Species Act Considerations - State Water Project." In 2016, Metropolitan entered into an agreement with the State Water Contractors, Inc. to pursue water transfer supplies. These purchases were not completed, however due to the 60 percent State Water Project allocation, which resulted in no conveyance capacity to move the transfer supplies to Metropolitan.

Metropolitan has also entered into an agreement with certain State Water Contractors for the exchange of a portion of its Colorado River supply for their State Water Project contracted amounts. One benefit of the agreement is reducing Metropolitan's State Water Project fixed costs in wetter years when there are more than sufficient supplies to meet Metropolitan's water management goals, while preserving its dry-year State Water Project Supply.

Metropolitan/CVWD/Desert Water Agency Exchange and Advance Delivery Agreement. Metropolitan has agreements with the CVWD and the Desert Water Agency ("DWA") in which Metropolitan exchanges its Colorado River water for those agencies' State Water Project contractual water on an annual basis. Because CVWD and DWA do not have a physical connection to the State Water Project, Metropolitan takes delivery of CVWD's and DWA's State Water Project supplies and delivers a like amount of Colorado River water to the agencies. In accordance with an advance delivery agreement executed by Metropolitan, CVWD and DWA, Metropolitan has delivered Colorado River water in advance to these agencies for storage in the Upper Coachella Valley groundwater basin. In years when it is necessary to augment available supplies to meet local demands, Metropolitan has the option to meet the exchange delivery obligation through drawdowns of the advance delivery account, rather than deliver its Colorado River supply. Metropolitan's current storage account under the CVWD/DWA program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage." In addition to the CVWD/DWA exchange agreements, Metropolitan has entered into separate agreements with CVWD and DWA for delivery of non-State Water Project supplies acquired by CVWD or DWA. Similarly, Metropolitan takes delivery of these supplies from State Water Project facilities and incurs an exchange obligation to CVWD or DWA. From 2008 through 2016, Metropolitan has received a net additional supply of 88,527 acre-feet of water acquired by CVWD and DWA.

Colorado River Aqueduct

Metropolitan has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water, including through cooperative programs with other water agencies to conserve and develop supplies and through programs to exchange water with other agencies. These supplies are conveyed through the CRA. Metropolitan determines the delivery schedule of these supplies throughout the year based on changes in the availability of State Water Project and Colorado River water. Under certain of these programs, water may be delivered to Metropolitan's service area in the year made available or in a subsequent year as ICS water from Lake Mead storage. See "–Colorado River

Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead."

IID/Metropolitan Conservation Agreement. Under a 1988 water conservation agreement, as amended in 2003 and 2007 (the "1988 Conservation Agreement") between Metropolitan and IID, Metropolitan provided funding for IID to construct and operate a number of conservation projects that have conserved up to 109,460 acre-feet of water per year that has been provided to Metropolitan. As amended, the agreement's initial term has been extended to at least 2041 or 270 days after the termination of the QSA. In 2016, 105,000 acre-feet of conserved water was made available by IID to Metropolitan. Under the QSA and related agreements, Metropolitan, at the request of CVWD, forgoes up to 20,000 acre-feet of this water each year for diversion by CVWD. In 2015 and 2016, CVWD's requests were for 6,715 and an estimated 15,942 acre-feet, respectively, leaving 101,105 acre-feet in 2015 and an estimated 89,058 acre-feet in 2016 for Metropolitan. See "–Colorado River Aqueduct – Quantification Settlement Agreement."

Palo Verde Land Management, Crop Rotation and Water Supply Program. In August 2004, Metropolitan and the Palo Verde Irrigation District ("PVID") signed the program agreement for a Land Management, Crop Rotation and Water Supply Program. Under this program, participating landowners in the PVID service area are compensated for reducing water use by not irrigating a portion of their land. This program provides up to 133,000 acre-feet of water to be available to Metropolitan in certain years. The term of the program is 35 years. Fallowing began on January 1, 2005. In March 2009, Metropolitan and PVID entered into a supplemental fallowing program within PVID that provided for the fallowing of additional acreage in 2009 and 2010. In calendar years 2009 and 2010, an additional 24,100 acre-feet and 32,300 acre-feet of water, respectively, were saved and made available to Metropolitan under the supplemental program. The following table shows annual volumes of water saved and made available to Metropolitan under the Land Management, Crop Rotation and Water Supply Program with PVID:

WATER AVAILABLE FROM PVID LAND MANAGEMENT, CROP ROTATION AND WATER SUPPLY PROGRAM

Calendar Year	Volume (acre-feet)
2006	105,000
2007	72,300
2008	94,300
2009(1)	144,300
2010(1)	148,600
2011	122,200
2012	73,700
2013	32,750
2014	43,010
2015	94,480
2016(2)	125,000

Source: Metropolitan.

(1) Includes water from the supplemental fallowing program that provided for fallowing of additional acreage in 2009 and 2010.
(2) Estimate.

Lake Mead Storage Program. As described under "–Colorado River Aqueduct–Colorado River Operations: Surplus and Shortage Guidelines–Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead," in December 2007, Metropolitan entered into agreements to set forth the guidelines under which ICS water is developed, and stored in and delivered from Lake Mead. The amount of water stored in Lake Mead must be created through extraordinary conservation,

system efficiency, or tributary conservation methods. Metropolitan has participated in projects to create ICS as described below:

Drop 2 (Warren H. Brock) Reservoir. In May 2008, Metropolitan provided $28.7 million to join the CAWCD and the SNWA in funding the Bureau of Reclamation's construction of an 8,000 acre-foot off-stream regulating reservoir near Drop 2 of the All-American Canal in Imperial County (officially named the Warren H. Brock Reservoir). Construction was completed in October 2010 and the Bureau of Reclamation refunded approximately $3.71 million in unused contingency funds to Metropolitan. The Warren H. Brock Reservoir conserves about 70,000 acre-feet of water per year by capturing and storing water that would otherwise be lost from the system. In return for its funding, Metropolitan received 100,000 acre-feet of water that was stored in Lake Mead for its future use, and has the ability to receive up to 25,000 acre-feet of water in any single year. Besides the additional water supply, the addition of the Warren H. Brock reservoir adds to the flexibility of Colorado River operations by storing underutilized Colorado River water orders caused by unexpected canal outages, changes in weather conditions, and high runoff into the Colorado River. As of January 1, 2016, Metropolitan had taken delivery of 43,992 acre-feet of this water, and had 56,008 acre-feet remaining in storage.

Yuma Desalting Plant. In September 2009, Metropolitan authorized participation with SNWA, the Colorado River Commission of Nevada, the CAWCD and the Bureau of Reclamation in the pilot operation of the Yuma Desalting Plant. The Bureau of Reclamation concluded the pilot operation of the Yuma Desalting Plant in March 2011. Metropolitan's contribution for the funding agreement was approximately $8.4 million, of which approximately $1.1 million was refunded to Metropolitan. Metropolitan's yield from the pilot run of the project was 24,397 acre-feet. As of January 1, 2016, that water was stored in Lake Mead for Metropolitan's future use.

Mexico Pilot Project. In November 2012, Metropolitan executed agreements in support of a program to augment Metropolitan's Colorado River supply from 2013 through 2017 through an international pilot project in Mexico. Metropolitan's total share of costs was $5 million for 47,500 acre-feet of project supplies. In December 2013, Metropolitan and IID executed an agreement under which IID has paid half of Metropolitan's program costs, or $2.5 million, in return for half of the project supplies, or 23,750 acre-feet. In addition, 23,750 acre-feet of conserved water will be credited to Metropolitan's binational ICS water account no later than December 31, 2017. See "–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead."

Storage Capacity and Water in Storage

Metropolitan's storage capacity, which includes reservoirs, conjunctive use and other groundwater storage programs within Metropolitan's service area and groundwater and surface storage accounts delivered through the State Water Project or CRA, is approximately 5.83 million acre-feet. In 2016, approximately 626,000 acre-feet of stored water was emergency storage that was reserved for use in the event of supply interruptions from earthquakes or similar emergencies (see "METROPOLITAN'S WATER DELIVERY SYSTEM–Seismic Considerations" in this Appendix A), as well as extended drought. Metropolitan's emergency storage requirement is established periodically to provide a six-month water supply at 75 percent of member agencies' retail demand under normal hydrologic conditions. Metropolitan's ability to replenish water storage, both in the local groundwater basins and in surface storage and banking programs, has been limited by Bay-Delta pumping restrictions under the biological opinions issued for listed species. See "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESAs Biological Opinions." Metropolitan replenishes its storage accounts when available imported supplies exceed demands. Effective storage management is dependent on having sufficient years of excess supplies to store water so that it can be used during times of shortage. Historically, excess supplies have been available in about seven of every ten years. Metropolitan forecasts that, with anticipated supply reductions from the State Water Project due to pumping

restrictions, it will need to draw down on storage in about seven of ten years and will be able to replenish storage in about three years out of ten. This reduction in available supplies extends the time required for storage to recover from drawdowns and could require Metropolitan to implement its Water Supply Allocation Plan during extended dry periods. See "CONSERVATION AND WATER SHORTAGE MEASURES–Water Supply Allocation Plan." As a result of increased State Water Project supplies and reduced demands from 2010 to 2012, Metropolitan rebuilt its storage after several years of withdrawals to approximately 3.375 million acre-feet, including emergency storage. This was the highest end-of-year total water reserves in Metropolitan's history. In 2014, Metropolitan withdrew approximately 1.2 million acre-feet from storage, reducing overall storage to approximately 1.8 million acre-feet. Approximately 300,000 acre-feet were withdrawn from storage reserves in 2015, leaving approximately 1.5 million acre-feet in storage reserves as of January 1, 2016. Approximately 350,000 acre-feet were returned to storage reserves in 2016, providing for nearly 1.9 million acre-feet in reserves as of January 1, 2017. The following table shows three years of Metropolitan's water in storage as of January 1, including emergency storage.

METROPOLITAN'S WATER STORAGE CAPACITY AND WATER IN STORAGE[(1)]
(in Acre-Feet)

Water Storage Resource	Storage Capacity	Water in Storage January 1, 2017	Water in Storage January 1, 2016	Water in Storage January 1, 2015
Colorado River Aqueduct				
Desert / CVWD Advance Delivery Account	800,000	38,000	200,000	249,000
Lake Mead ICS	1,500,000	71,000	80,000	151,000
Subtotal	**2,300,000**	**109,000**	**280,000**	**400,000**
State Water Project				
Arvin-Edison Storage Program	350,000	108,000	124,000	166,000
Semitropic Storage Program	350,000	125,000	137,000	194,000
Kern Delta Storage Program	250,000	99,000	119,000	150,000
San Bernardino Valley MWD Coordinated Operating Agreement	50,000	-0-	-0-	-0-
Mojave Storage Program	390,000[(5)]	27,000	31,000	39,000
Castaic Lake and Lake Perris[(2)]	219,000	154,000	30,000	-0-
Metropolitan Article 56 Carryover[(3)]	200,000[(6)]	210,000	3,000	36,000
Other State Water Project Carryover[(4)]	n/a	-0-	-0-	-0-
Emergency Storage	334,000	328,000	328,000	328,000
Subtotal	**2,143,000**	**1,051,000**	**772,000**	**913,000**
Within Metropolitan's Service Area				
Diamond Valley Lake	810,000	566,000	315,000	394,000
Lake Mathews	182,000	135,000	141,000	78,000
Lake Skinner	44,000	37,000	34,000	30,000
Subtotal[(7)]	**1,036,000**	**738,000**	**490,000**	**502,000**
Member Agency Storage Programs				
Cyclic Storage and Conjunctive Use	352,000	1,000	7,000	28,000
Total	**5,831,000**	**1,899,000**	**1,549,000**	**1,843,000**

Source: Metropolitan.

(footnotes on next page)

(footnotes to table on prior page)

(1) Water storage capacity and water in storage are measured based on engineering estimates and are subject to change.

(2) Flexible storage allocated to Metropolitan under its State Water Contract. Withdrawals must be returned within 5 years.

(3) Article 56 Carryover storage capacity is dependent on the annual State Water Project allocation, which varies from year to year. Article 56 supplies represent water that is allocated to a State Water Project contractor in a given year and carried over to the next year pursuant to the State Water Contract. The January 1, 2017 value includes 42,000 acre-feet of Article 56 carried over by Metropolitan on behalf of Desert Water Agency and Coachella Valley Water District.

(4) Includes Article 56 Carryover from prior years, non-project carryover, and carryover of curtailed deliveries pursuant to Article 14(b) of Metropolitan's State Water Contract.

(5) The Mojave Storage Program agreement was amended in 2011 to allow for cumulative storage of up to 390,000 acre-feet.

(6) Metropolitan's State Water Project carryover capacity ranges from 100,000 to 200,000 acre-feet, on a sliding scale that depends on the final State Water Project allocation. At allocations of 50 percent or less, Metropolitan may store 100,000 acre-feet, and at allocations of 75 percent or greater, Metropolitan may store up to 200,000 acre-feet. For the purposes of this table, the highest possible carryover capacity is displayed.

(7) Includes 298,000 acre-feet of emergency storage in Metropolitan's reservoirs in 2015, 2016, and 2017.

CONSERVATION AND WATER SHORTAGE MEASURES

General

The central objective of Metropolitan's water conservation program is to help ensure adequate, reliable and affordable water supplies for Southern California by actively promoting efficient water use. The importance of conservation to the region has increased in recent years because of drought conditions in the State Water Project watershed and court-ordered restrictions on Bay-Delta pumping, as described under "METROPOLITAN'S WATER SUPPLY–State Water Project – Bay-Delta Proceedings Affecting Water Supply" and "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESAs Biological Opinions." Conservation reduces the need to import water to deliver to member agencies through Metropolitan's system. Water conservation is an integral component of Metropolitan's IRP, WSDM Plan and Water Supply Allocation Plan.

Metropolitan's conservation program has largely been developed to assist its member agencies in meeting the "best management practices" ("BMPs") of the California Urban Water Conservation Council's Memorandum of Understanding Regarding Urban Water Conservation in California ("CUWCC MOU") and to meet the conservation goals of the most recent IRP Update. See "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan." Under the terms of the CUWCC MOU and Metropolitan's Conservation Credits Program, Metropolitan administers regional conservation programs and also co-funds member agency conservation programs designed to achieve greater water use efficiency in residential, commercial, industrial, institutional and landscape uses. Metropolitan uses its Water Stewardship Rate, which is charged for every acre-foot of water conveyed by Metropolitan, together with available grant funds, to fund conservation incentives and other water management programs. All users of Metropolitan's system benefit from the system capacity made available by investments in demand management programs like the Conservation Credits Program. See "METROPOLITAN REVENUES–Rate Structure – Water Stewardship Rate" in this Appendix A. Direct spending by Metropolitan on active conservation incentives, including rebates for water-saving plumbing fixtures, appliances and equipment, from fiscal year 1989-90 through fiscal year 2015-16 was about $731 million. The 2015 IRP Update estimates that 1,197,000 acre-feet of water will be conserved annually in southern California by 2025. See also "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" in this Appendix A and "–Drought Response Actions" below.

In addition to ongoing conservation, Metropolitan has developed a WSDM Plan, which splits resource actions into two major categories: Surplus Actions and Shortage Actions. See "–Water Surplus and Drought Management Plan." Conservation and water efficiency programs are part of Metropolitan's resource management strategy which makes up these Surplus and Shortage actions.

Metropolitan's Water Supply Allocation Plan allocates Metropolitan's water supplies among its member agencies, based on the principles contained in the WSDM Plan, to reduce water use and drawdowns from water storage reserves. See "–Water Supply Allocation Plan." Metropolitan's member agencies and retail water suppliers in Metropolitan's service area also have the ability to implement water conservation and allocation programs, and some of the retail suppliers in Metropolitan's service area have initiated conservation measures. The success of conservation measures in conjunction with the Water Supply Allocation Plan is evidenced as a contributing factor in the lower than budgeted water sales during fiscal years 2009-10, 2010-11, 2011-12 and 2015-16.

Legislation approved in November 2009 sets a statewide conservation target for urban per capita water use of 20 percent reductions by 2020 (with credits for existing conservation) at the retail level, providing an additional catalyst for conservation by member agencies and retail suppliers. Metropolitan's water sales projections incorporate an estimate of conservation savings that will reduce retail demands. Current projections include an estimate of additional water use efficiency savings that would result from local agencies reducing their per capita water use in response to the 20 percent by 2020 conservation savings goals required by the 2009 legislation, as well as an estimate of additional conservation that would have to occur to reach Metropolitan's IRP goal of reducing overall regional per capita water use by 20 percent by 2020.

Water Surplus and Drought Management Plan

In addition to the long-term planning guidelines and strategy provided by its IRP, Metropolitan has developed its WSDM Plan for the on-going management of its resources and water supplies in response to hydrologic conditions. The WSDM Plan, which was adopted by Metropolitan's Board in April 1999, evolved from Metropolitan's experiences during the droughts of 1976-77 and 1987-92. The WSDM Plan is a planning document that Metropolitan uses to guide inter-year and intra-year storage operations, and splits resource actions into two major categories: surplus actions and shortage actions. The surplus actions emphasize storage of surplus water inside the region, followed by storage of surplus water outside the region. The shortage actions emphasize critical storage programs and facilities and conservation programs that make up part of Metropolitan's response to shortages. Implementation of the plan is directed by a WSDM team, made up of Metropolitan staff, that meets regularly throughout the year and more frequently between November and April as hydrologic conditions develop. The WSDM team develops and recommends storage actions to senior management on a regular basis and provides updates to the Board on hydrological conditions, storage levels and planned storage actions through detailed reports.

Water Supply Allocation Plan

In times of prolonged or severe water shortages, Metropolitan manages its water supplies through the implementation of its Water Supply Allocation Plan. The Water Supply Allocation Plan was originally approved by Metropolitan's Board in February 2008, and has been implemented three times since its adoption, including most recently in April 2015. The Water Supply Allocation Plan provides a formula for equitable distribution of available water supplies in case of extreme water shortages within Metropolitan's service area. In December 2014, the Board approved certain adjustments to the formula for calculating member agency supply allocations during subsequent periods of implementation of the Water Supply Allocation Plan. Although the Act gives each of Metropolitan's member agencies a preferential entitlement to purchase a portion of the water served by Metropolitan (see "METROPOLITAN REVENUES–Preferential Rights"), historically, these rights have not been used in allocating Metropolitan's water. Metropolitan's member agencies and retail water suppliers in Metropolitan's service area also may implement water conservation and allocation programs within their respective service territories in times of shortage. See also "–Drought Response Actions."

On April 14, 2015, the Board declared a Water Supply Condition 3 and the implementation of the Water Supply Allocation Plan at a Level 3 Regional Shortage Level, effective July 1, 2015 through June 30, 2016. Implementation of the Water Supply Allocation Plan at a Level 3 Regional Shortage Level, and

response to the Governor's Order and related implementing regulations (described under "–Drought Response Actions"), reduced supplies delivered by Metropolitan to Metropolitan's member agencies to approximately 1.6 million acre-feet in fiscal year 2015-16. See also "CONSERVATION AND WATER SHORTAGE MEASURES–General." Due to improved hydrologic conditions, on May 10, 2016, the Board rescinded the Water Supply Allocation Plan, declared a Condition 2 Water Supply Alert, and decided not to implement the Water Supply Allocation Plan for fiscal year 2016-17. In April 2017, the Board will evaluate current water supply conditions and determine if implementation of the Water Supply Allocation Plan is needed for fiscal year 2017-18. In light of current hydrologic conditions and current DWR State Water Project allocation estimates, implementation of the Water Supply Allocation Plan for fiscal year 2017-18 is not currently expected.

Drought Response Actions

The most recent drought of 2012-2015 represents one of the driest periods in the hydrologic record since 1931-1934. In calendar years 2012-2015, to offset reductions in State Water Project supplies and mitigate impacts of the California drought, in addition to utilizing the limited available supplies from the Colorado River and State Water Project deliveries, Metropolitan met water demands in its service area by supplemental water transfers and purchases, and drawing on storage reserves, while also encouraging responsible and efficient water use to lower demands.

As noted under "–Water Supply Allocation Plan" above, actions taken in response to the drought by the State, Metropolitan's Board, and Metropolitan member agencies have contributed to reduced demands in Metropolitan's service area. Following the declaration by Governor Brown on January 17, 2014 of a drought state of emergency for California, on April 1, 2015 Governor Brown issued an Executive Order ("Order") calling for a 25 percent reduction in consumer water use in response to the historically dry conditions. The Governor's Order was implemented through emergency regulation adopted by the SWRCB. On May 18, 2016, the SWRCB adopted modifications to the emergency regulation which replace the state-mandated conservation targets with a supply-based approach that mandates urban water suppliers take actions to ensure at least a three year supply of water to their customers under drought conditions. As a wholesale water agency providing a supplemental water supply to its member agencies, Metropolitan is not subject to the requirements of the Order, which applies to retail water agencies. However, water sales of Metropolitan's member agencies have declined as a result of conservation efforts and other actions taken to comply with the Order and implementing regulation. In addition, since Governor Brown's initial drought emergency proclamation in January 2014, Metropolitan has worked proactively with its member agencies to conserve water supplies in its service area, and significantly expanded its water conservation and outreach programs and increased funding for conservation incentive programs. See "CONSERVATION AND WATER SHORTAGE MEASURES–General." In calendar year 2016, Metropolitan returned approximately 350,000 acre-feet of water to storage and continued to encourage responsible and efficient water use.

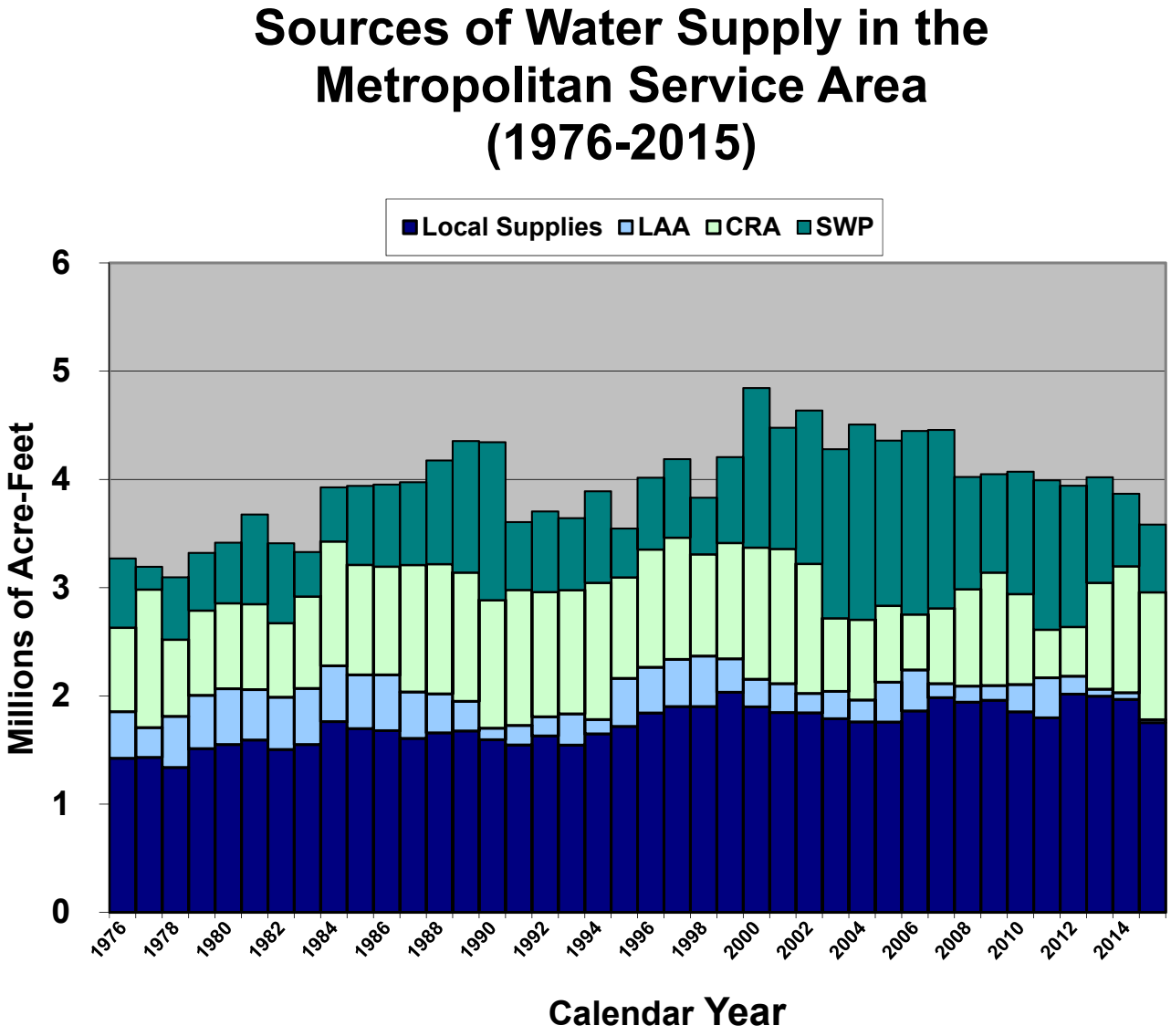
REGIONAL WATER RESOURCES

The water supply for Metropolitan's service area is provided in part by Metropolitan and in part by non-Metropolitan sources available to members. Approximately 60 percent of the water supply for Metropolitan's service area is imported water received by Metropolitan from the CRA and the State Water Project and by the City of Los Angeles (the "City") from the Los Angeles Aqueduct. While the City is one of the largest water customers of Metropolitan, it receives a substantial portion of its water from the Los Angeles Aqueduct and local groundwater supply. The balance of water within the region is produced locally, primarily from groundwater supplies and runoff.

Metropolitan's member agencies are not required to purchase or use any of the water available from Metropolitan. Some agencies depend on Metropolitan to supply nearly all of their water needs, regardless of the weather. Other agencies, with local surface reservoirs or aqueducts that capture rain or snowfall, rely on Metropolitan more in dry years than in years with heavy rainfall, while others, with ample groundwater supplies, purchase Metropolitan water only to supplement local supplies and to recharge groundwater basins.

The demand for supplemental supplies provided by Metropolitan is dependent on water use at the retail consumer level and the amount of locally supplied and conserved water. See "CONSERVATION AND WATER SHORTAGE MEASURES" in this Appendix A and "–Local Water Supplies" below. Consumer demand and locally supplied water vary from year to year, resulting in variability in water sales. Future reliance on Metropolitan supplies will depend on, among other things, local projects and the amount of water, if any, that may be derived from sources other than Metropolitan. In recent years, supplies and demands have been affected by drought, water use restrictions, economic conditions, weather conditions and environmental laws, regulations and judicial decisions, as described in this Appendix A under "METROPOLITAN'S WATER SUPPLY." For information on Metropolitan's water sales revenues, see "METROPOLITAN REVENUES" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

The following graph shows a summary of the regional sources of water supply for the years 1976 to 2015. Local supplies available within Metropolitan's service area are augmented by water imported by the City through the Los Angeles Aqueduct and Metropolitan supplies provided through the CRA and State Water Project.



Source: Metropolitan.

The major sources of water available to some or all of Metropolitan's member agencies in addition to supplies provided by Metropolitan are described below.

Los Angeles Aqueduct

The City, through its Department of Water and Power ("LADWP"), operates its Los Angeles Aqueduct system to import water from the Owens Valley and the Mono Basin on the eastern slopes of the Sierra Nevada in eastern California. Prior to the 1990-1991 drought, the City had imported an average of 440,000 acre-feet of water annually from the combined Owens Valley/Mono Basin system, of which about 90,000 acre-feet came from the Mono Basin. Under the Mono Lake Basin Water Right Decision (Decision 1631) issued in September 1994, which revised LADWP's water rights licenses in the Mono Basin, the City is limited to export 4,500 acre-feet annually when Mono Lake elevation is between 6,377 to 6,380 feet above mean sea level, and 16,000 acre-feet annually when the elevation is between 6,380 to 6,391 feet above mean sea level, on April 1 of the runoff year. On April 1, 2016, the water level of Mono Lake was 6,378.1 feet above mean sea level. Therefore, Mono Basin water exports for runoff year 2016 were limited to 4,500 acre-feet. The 4,500 acre-feet export limit will remain until the water level in Mono Lake reaches 6,380 feet above mean sea level. Once the elevation of Mono Lake reaches 6,391 feet above mean sea level, a moderate increase in water exports from the Mono Basin above the 16,000 acre-feet limit will be permitted pursuant to Decision 1631.

Pursuant to the City's turnout agreement with DWR, AVEK and Metropolitan, LADWP commenced construction in 2010 of the turnout facilities along the California Aqueduct within AVEK's service area. Upon completion, which is expected in 2017, the turnout will enable delivery of water from the California Aqueduct to the Los Angeles Aqueduct. Conditions precedent to such delivery of water include obtaining agreements for the transfer of non-State Water Project water directly from farmers, water districts or others in Northern and Central California, available capacity in the California Aqueduct and compliance with State Water Project water quality requirements. The agreement allows for use of the turnout for delivery of non-State Water Project water to the City in amounts not to exceed the supplies lost to the City as a result of its Eastern Sierra environmental obligations.

Historically, the Los Angeles Aqueduct and local groundwater supplies have been nearly sufficient to meet the City's water demands during normal water supply years. As a result, prior to the 1990-1991 drought, only about 13 percent of the City's water needs (approximately 82,000 acre-feet) were supplied by Metropolitan. From fiscal year 2000-01 to fiscal year 2015-16, approximately 31 to 75 percent of the City's total water requirements were met by Metropolitan. For the five fiscal years ended June 30, 2016, the City's water deliveries from Metropolitan averaged approximately 348,680 acre-feet per year, which constituted approximately 64 percent of the City's total water supply. Deliveries from Metropolitan to the City during this period varied between approximately 166,000 acre-feet per year and approximately 442,000 acre-feet per year. See "METROPOLITAN REVENUES–Principal Customers" in this Appendix A. According to LADWP's 2015 Urban Water Management Plan, the City is planning to increase locally-developed supplies including recycled water, new conservation, stormwater capture and local groundwater from the average for the five-year period ending June 30, 2015 of 14 percent to 47 percent of its normal year supplies by fiscal year 2039-40. Accordingly, the City's reliance on Metropolitan supplies is expected to decrease from the five year average ending June 30, 2016 of 64 percent to 11 percent of its normal year supplies by fiscal year 2039-40. However, the City may still purchase up to 311,000 acre-feet per year or 44 percent of its dry year supplies from Metropolitan until 2040. This corresponds to an increase from normal to dry years of approximately 237,000 acre-feet in potential demand for supplies from Metropolitan.

LADWP analyzed the additional impacts to the Los Angeles Aqueduct's water supply deliveries for various environmental projects aimed at improving air quality and fish and riparian habitat in the Owens Valley. In November 2014, LADWP reached an agreement over implementation of dust control measures on Owens Lake which saved approximately 12,000 to 14,000 acre-feet of water in 2015 and is expected to expand water savings in the future. LADWP reports that in 2016, 71,400 acre-feet of water was devoted to

dust and environmental mitigation projects in the Owens Valley and Eastern Sierra, resulting in the need to purchase an equivalent amount of Metropolitan supply.

Local Water Supplies

Local water supplies are made up of groundwater, groundwater recovery, surface runoff, recycled water, and seawater desalination. Metropolitan supports local resources development through its Local Resources Program ("LRP"), which provides financial incentives up to $340 per acre-foot of water production from local water recycling, groundwater recovery and seawater desalination projects. Metropolitan utilizes conjunctive use of groundwater to encourage storage in groundwater basins. Member agencies and other local agencies have also independently funded and developed additional local supplies, including groundwater clean-up, recycled water and desalination of brackish or high salt content water.

Metropolitan's water sales projections are based in part on projections of locally-supplied water. Projections of future local supplies are based on estimated yields from sources and projects that are currently producing water or are under construction at the time a water sales projection is made. Additional reductions in Metropolitan's water sales projections are made to account for future local supply augmentation projects, based on the IRP Update goals. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES–Water Sales Projections" and "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" in this Appendix A.

Groundwater. Demands for about 1.35 million acre-feet per year, about one-third of the annual water demands for approximately 18.8 million residents of Metropolitan's service area, are met from groundwater production. Local groundwater supplies are supported by recycled water, which is blended with imported water and recharged into groundwater basins, and also used for creating seawater barriers that protect coastal aquifers from seawater intrusion.

Member Agency Storage Programs. Metropolitan has developed a number of local programs to work with its member agencies to increase storage in groundwater basins. Metropolitan has encouraged storage through its cyclic and conjunctive use storage programs. These programs allow Metropolitan to deliver water into a groundwater basin in advance of agency demands. Metropolitan has drawn on dry-year supply from cyclic storage accounts and nine contractual conjunctive use storage programs to address shortages from the State Water Project and the CRA.

Cyclic storage agreements allow pre-delivery of imported water for recharge into groundwater basins in excess of an agency's planned and budgeted deliveries making best use of available capacity in conveyance pipelines, use of storm channels for delivery to spreading basins, and spreading basins. This water is then purchased at a later time when the agency has a need for groundwater replenishment deliveries.

Conjunctive use agreements provide for storage of imported water that can be called for use by Metropolitan during dry, drought, or emergency conditions. During a dry period, Metropolitan has the option to call water stored in the groundwater basins pursuant to its contractual conjunctive use agreements. At the time of the call, the member agency pays Metropolitan the prevailing rate for that water. Nine conjunctive use projects provide about 210,000 acre-feet of groundwater storage and have a combined extraction capacity of about 70,000 acre-feet per year. As of January 2017, the balance in the nine accounts was approximately 1,000 acre-feet. See table "Metropolitan's Water Storage Capacity and Water in Storage" under "METROPOLITAN'S WATER SUPPLY–Storage Capacity and Water in Storage" in this Appendix A.

Recovered Groundwater. Contamination of groundwater supplies is a growing threat to local groundwater production. Metropolitan has been supporting increased groundwater production and improved regional supply reliability by offering financial incentives to agencies for production and treatment of degraded groundwater since 1991. Metropolitan has executed agreements with local agencies to provide financial incentives to 25 projects that recover contaminated groundwater with total contract yields of about

118,000 acre-feet per year. During fiscal year 2015-16, Metropolitan provided incentives for approximately 49,000 acre-feet of recovered water under these agreements. Total groundwater recovery use under executed agreements is expected to grow to 79,000 acre-feet in 2020.

Surface Runoff. Local surface water resources consist of runoff captured in storage reservoirs and diversions from streams. Since 1980, agencies have used an average of 116,000 acre-feet per calendar year of local surface water. Local surface water supplies are heavily influenced by year to year local weather conditions, varying from a high of 188,000 acre-feet in calendar year 1998 to a low of 65,000 acre-feet in calendar year 2003.

Recycled Water. Metropolitan has supported recycled water use to offset water demands and improve regional supply reliability by offering financial incentives to agencies for production and sales of recycled water since 1982. Metropolitan has executed agreements with local agencies to provide financial incentives to 82 recycled water projects with total contract yields of about 323,000 acre-feet per year. During fiscal year 2015-16, Metropolitan provided incentives for approximately 179,000 acre-feet of reclaimed water under these agreements. Total recycled water use under executed agreements is expected to be approximately 193,000 acre-feet by 2020.

Seawater Desalination. Metropolitan's IRP includes seawater desalination as a part of the region's local supply that could help increase supply reliability in Metropolitan's service area. The IRP also supports foundational actions to lay the groundwork for accelerating seawater desalination development as needed in the future. To encourage local development, Metropolitan has signed Seawater Desalination Program ("SDP") incentive agreements with three of its member agencies: Long Beach, Municipal Water District of Orange County ("MWDOC") and West Basin Municipal Water District. The SDP agreements provide incentives to the member agencies of up to $250 per acre-foot when the desalinated supplies are produced. Agreement terms are for the earlier of 25 years or through 2040 and are designed to phase out if Metropolitan's rates surpass the unit cost of producing desalinated seawater. SDP agreements are subject to final approval by Metropolitan's Board after review of the complete project description and environmental documentation. These projects are currently in the development phase and collectively, if completed, are anticipated to produce up to 46,000 acre-feet annually. Each agreement automatically terminates in 2020 if the related project is not operational by that time. In October 2014, seawater desalination projects became eligible for funding under Metropolitan's Local Resources Program.

In late 2015, Poseidon Resources LLC ("Poseidon") completed and began operating the 56,000 acre-foot capacity Carlsbad Desalination Project ("Carlsbad Project") and associated pipeline. The SDCWA has a purchase agreement with Poseidon for a minimum of 48,000 acre-feet per year with an option to purchase an additional 8,000 acre-feet per year. Other seawater desalination projects that could provide supplies to Metropolitan's service area are under development or consideration. In partnership with the Orange County Water District, Poseidon is also developing a 56,000 acre-feet per year plant in Huntington Beach which is currently in the permitting phase. SDCWA is also studying the potential for a seawater desalination plant in Camp Pendleton which would initially produce up to 56,000 acre-feet per year and potentially up to 168,000 acre-feet per year with a phased build out. Calleguas Municipal Water District is studying the potential for a 20,000 to 80,000 acre-feet per year project in Ventura County. Otay Water District, located in San Diego County along the Mexico border, is considering the feasibility of purchasing water from a seawater desalination project in Rosarito Beach, Mexico. The 56,000 to 112,000 acre-feet per year project is in the pre-construction phase, and could also supply Metropolitan's service area through exchange agreements. Approvals from a number of U.S. and Mexican federal agencies, along with State and local approvals, would be needed for the cross-border project to proceed.

METROPOLITAN'S WATER DELIVERY SYSTEM

Primary Facilities and Method of Delivery

Metropolitan's water delivery system is made up of three basic components: the CRA, the California Aqueduct of the State Water Project and Metropolitan's internal water distribution system. Metropolitan's delivery system is integrated and designed to meet the differing needs of its member agencies. Metropolitan seeks redundancy in its delivery system to assure reliability in the event of an outage. Improvements are designed to increase the flexibility of the system. Since local sources of water are generally used to their maximum each year, growth in the demand for water is partially met by Metropolitan. Accordingly, the operation of Metropolitan's water system is being made more reliable through the rehabilitation of key facilities as needed, improved preventive maintenance programs and the upgrading of Metropolitan's operational control systems. See "CAPITAL INVESTMENT PLAN" in this Appendix A.

Colorado River Aqueduct. Work on the CRA commenced in 1933 and water deliveries started in 1941. Additional facilities were completed by 1961 to meet additional requirements of Metropolitan's member agencies. The CRA is 242 miles long, starting at the Lake Havasu intake and ending at the Lake Mathews terminal reservoir. Metropolitan owns all of the components of the CRA, which include five pumping plants, 64 miles of canal, 92 miles of tunnels, 55 miles of concrete conduits and 144 underground siphons totaling 29 miles in length. The pumping plants lift the water approximately 1,617 feet over several mountain ranges to Metropolitan's service area. See "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct" in this Appendix A.

State Water Project. The initial portions of the State Water Project serving Metropolitan were completed in 1973. The State Water Project, managed and operated by DWR, is one of the largest water supply projects undertaken in the history of water development. The State Water Project facilities dedicated to water delivery consist of a complex system of dams, reservoirs, power plants, pumping plants, canals and aqueducts to deliver water. Water from rainfall and snowmelt runoff is captured and stored in State Water Project conservation facilities and then delivered through State Water Project transportation facilities to water agencies and districts located throughout the Upper Feather River, Bay Area, Central Valley, Central Coast, and Southern California. Metropolitan receives water from the State Water Project through the main stem of the aqueduct system, the California Aqueduct, which is 444 miles long and includes 381 miles of canals and siphons, 49 miles of pipelines or tunnels and 13 miles of channels and reservoirs.

As described herein, Metropolitan is the largest (in terms of number of people it serves, share of State Water Project water it has contracted to receive, and percentage of total annual payments made to DWR therefor) of twenty-nine agencies and districts that have entered into contracts with DWR to receive a water entitlement from the State Water Project. Contractors pay all costs of the facilities in exchange for participation rights in the system. Thus, Contractors also have the right to use the portion of the State Water Project conveyance system necessary to deliver water to them at no additional cost as long as capacity exists. See "METROPOLITAN'S WATER SUPPLY–State Water Project" in this Appendix A.

Internal Distribution System. Metropolitan's internal water distribution system includes components that were built beginning in the 1930s and through the present. Metropolitan owns all of these components, including 14 dams and reservoirs, five regional treatment plants, over 800 miles of transmission pipelines, feeders and canals, and 16 hydroelectric plants with an aggregate capacity of 131 megawatts.

Diamond Valley Lake. Diamond Valley Lake, a man-made reservoir, built, owned and operated by Metropolitan, is located southwest of the city of Hemet, California. It covers approximately 4,410 acres and has capacity to hold approximately 810,000 acre-feet or 265 billion gallons of water. Diamond Valley Lake was constructed to serve approximately 90 percent of Metropolitan's service area by gravity flow. Imported water is delivered to Diamond Valley Lake during surplus periods. The reservoir provides more reliable delivery of imported water from the State Water Project and the CRA during summer months, droughts and emergencies. In addition, Diamond Valley Lake is capable of providing more than one-third of Southern

California's water needs from storage for approximately six months after a major earthquake (assuming that there has been no impairment of Metropolitan's internal distribution network). See the table "Metropolitan's Water Storage Capacity and Water in Storage" under "METROPOLITAN'S WATER SUPPLY–Storage Capacity and Water in Storage" in this Appendix A for the amount of water in storage at Diamond Valley Lake. Excavation at the project site began in May 1995. Diamond Valley Lake was completed in March 2000, at a total cost of $2 billion, and was in full operation in December 2001.

Inland Feeder. Metropolitan's Inland Feeder is a 44-mile-long conveyance system that connects the State Water Project to Diamond Valley Lake and the CRA. The Inland Feeder provides greater flexibility in managing Metropolitan's major water supplies and allows greater amounts of State Water Project water to be accepted during wet seasons for storage in Diamond Valley Lake. In addition, the Inland Feeder increases the conveyance capacity from the East Branch of the State Water Project by 1,000 cubic feet per second, allowing the East Branch to operate up to its full capacity. Construction of the Inland Feeder was completed in September 2009 at a total cost of $1.14 billion.

Operations Control Center. Metropolitan's water conveyance and distribution system operations are coordinated from the Operations Control Center ("OCC") located in the Eagle Rock area of Los Angeles. The OCC plans, balances and schedules daily water and power operations to meet member agencies' demands, taking into consideration the operational limits of the entire system.

Water Treatment

Metropolitan filters and disinfects water at five water treatment plants: the F.E. Weymouth Treatment Plant, the Joseph Jensen Treatment Plant, the Henry J. Mills Treatment Plant, the Robert B. Diemer Treatment Plant, and the Robert A. Skinner Treatment Plant. In recent years, the plants typically treat between 0.8 billion and 1.0 billion gallons of water per day, and have a maximum capacity of approximately 2.6 billion gallons per day. Approximately 50 percent of Metropolitan's water deliveries are treated water.

Federal and state regulatory agencies continually monitor and establish new water quality standards. New water quality standards could affect availability of water and impose significant compliance costs on Metropolitan. The federal Safe Drinking Water Act ("SDWA") establishes drinking water quality standards, monitoring, and public notification and enforcement requirements for public water systems. To achieve these objectives, the USEPA, as the lead regulatory authority, promulgates national drinking water regulations and develops the mechanism for individual states to assume primary enforcement responsibilities. The SWRCB Division of Drinking Water ("DDW"), formerly the Drinking Water Program under the California Department of Public Health ("CDPH"), has primary responsibility for the regulation of public water supply systems in the State. Drinking water delivered to customers must comply with statutory and regulatory water quality standards designed to protect public health and safety that are now administered by DDW. Metropolitan operates its five water treatment plants under a domestic water supply permit issued by DDW which is amended, as necessary, such as when significant facility modifications occur. Metropolitan operates and maintains water storage, treatment and conveyance facilities, implements watershed management and protection activities, performs inspections, monitors drinking water quality, and submits monthly and annual compliance reports. In addition, public water system discharges to state and federal waters are regulated under general National Pollutant Discharge Elimination System ("NPDES") permits. The SWRCB issued these NPDES permits to Metropolitan which contain numerical effluent limitations, monitoring, reporting, and notification requirements for water discharges from the facilities and pipelines of Metropolitan's water supply and distribution system.

Metropolitan continually monitors new water quality laws and regulations and frequently comments on new legislative proposals and regulatory rules. Metropolitan is currently operating in compliance with all state and federal drinking water regulations and permit requirements.

Seismic Considerations

General. Although the magnitude of damages resulting from a significant seismic event are impossible to predict, Metropolitan's water conveyance and distribution facilities are designed either to withstand a maximum probable seismic event or to minimize the potential repair time in the event of damage. The five pumping plants on the CRA have been buttressed to better withstand seismic events. Other components of the CRA are monitored for any necessary rehabilitation and repair. Metropolitan personnel and independent consultants periodically reevaluate the internal water distribution system's vulnerability to earthquakes. As facilities are evaluated and identified for seismic retrofitting, they are prioritized, with those facilities necessary for delivering or treating water scheduled for upgrade before non-critical facilities. However, major portions of the California Aqueduct and the CRA are located near major earthquake faults, including the San Andreas Fault. A significant earthquake could damage structures and interrupt the supply of water, adversely affecting Metropolitan's revenues and its ability to pay its obligations. Therefore, emergency supplies are stored for use throughout Metropolitan's service area, and a six-month reserve supply of water normally held in local storage (including emergency storage in Diamond Valley Lake) provides reasonable assurance of continuing water supplies during and after such events (assuming there has been no impairment of Metropolitan's internal distribution network).

Metropolitan has an ongoing surveillance program that monitors the safety and structural performance of its 14 dams and reservoirs. Operating personnel perform regular inspections that include monitoring and analyzing seepage flows and pressures. Engineers responsible for dam safety review the inspection data and monitor the horizontal and vertical movements for each dam. Major on-site inspections are performed at least twice each year. Instruments that transmit seismic acceleration time histories for analysis any time a dam is subjected to strong motion during an earthquake are located at a number of selected sites.

In addition, Metropolitan has developed an emergency plan that calls for specific levels of response appropriate to an earthquake's magnitude and location. Included in this plan are various communication tools, as well as a structured plan of management that varies with the severity of the event. Pre-designated personnel follow detailed steps for field facility inspection and distribution system patrol. Approximately 40 employees are designated to respond immediately under certain identifiable seismic events. An emergency operations center is maintained at the OCC. The OCC, which is specifically designed to be earthquake resistant, contains communication equipment, including a radio transmitter, microwave capability and a response line linking Metropolitan with its member agencies, DWR, other utilities and the State's Office of Emergency Services.

Metropolitan also maintains machine, fabrication and coating shops at its facility in La Verne, California. Several construction projects have been completed to upgrade and expand these shops. A total of nearly $40 million has been invested to enhance Metropolitan's capacity not only to provide fabrication and coating services for planned rehabilitation work, maintenance activities, and capital projects, but also to perform emergency fabrication support to Metropolitan and its member agencies. Metropolitan has also maintained reimbursable agreements with DWR to perform machining, fabrication, and coating services for critical repair and rehabilitation of State Water Project facilities. These agreements have enhanced timely and cost-effective emergency response capabilities. Materials to fabricate pipe and other appurtenant fittings are kept in inventory at the La Verne site. In the event of earthquake damage, Metropolitan has taken measures to provide the design and fabrication capacity to fabricate pipe and related fittings. Metropolitan is also staffed to perform emergency repairs and has pre-qualified contractors for emergency repair needs at various locations throughout Metropolitan's service area.

State Water Project Facilities- California Aqueduct. The California Aqueduct crosses all major faults either by canal at ground level or by pipeline at very shallow depths to ease repair in case of damage from movement along a fault. State Water Project facilities are designed to withstand major earthquakes along a local fault or magnitude 8.1 earthquakes along the San Andreas Fault without major damage. Dams, for example, are designed to accommodate movement along their foundations and to resist earthquake forces

on their embankments. Earthquake loads have been taken into consideration in the design of project structures such as pumping and power plants. The location of check structures on the canal allows for hydraulic isolation of the fault-crossing repair.

While the dams, canals, pump stations and other constructed State Water Project facilities have been designed to withstand earthquake forces, the critical supply of water from Northern California must traverse the Bay-Delta through hundreds of miles of varying levels of engineered levees that are susceptible to major failures due to flood and seismic risk. In the event of a failure of the Bay-Delta levees, the quality of the Bay-Delta's water could be severely compromised as salt water comes in from the San Francisco Bay. Metropolitan's supply of State Water Project water would be adversely impacted if pumps that move Bay-Delta water southward to the Central Valley and Southern California are shut down to contain the salt water intrusion. Metropolitan estimates that stored water supplies, CRA supplies and local water resources that would be available in case of a levee breach or other interruption in State Water Project supplies would meet demands in Metropolitan's service area for approximately twelve months. See "METROPOLITAN'S WATER SUPPLY–Storage Capacity and Water in Storage" in this Appendix A. Since the State and federal governments control the Bay-Delta levees, repair of any levee failures would be the responsibility of and controlled by the State and federal governments.

Metropolitan, in cooperation with the State Water Contractors, developed recommendations to DWR for emergency preparedness measures to maintain continuity in export water supplies and water quality during emergency events. These measures include improvements to emergency construction materials stockpiles in the Bay-Delta, improved emergency contracting capabilities, strategic levee improvements and other structural measures of importance to Bay-Delta water export interests, including development of an emergency freshwater pathway to export facilities in a severe earthquake. DWR utilized $12 million in fiscal year 2007-08 for initial stockpiling of rock for emergency levee repairs and development of Bay-Delta land and marine loading facilities and has identified future funding for expanded stockpiles.

State Water Project-Perris Dam. Perris Dam forms Lake Perris, the southernmost terminal reservoir for the State Water Project in Riverside County, with maximum capacity of approximately 130,000 acre-feet of water. Metropolitan uses water from Lake Perris for delivery to customers in Riverside and San Diego counties. Deliveries from the lake are used as a redundant source for the Mills Water Treatment Plant, drought supply from a flexible storage account, and for consumptive use by Metropolitan's customers. DWR reported in July 2005 that seismic studies indicate that DWR's Perris Dam facility could sustain damage from moderate earthquakes along the San Jacinto or San Andreas faults due to potential weaknesses in the dam's foundation. In late 2005, DWR lowered the water level in the reservoir by about 25 feet and reduced the amount of water stored in the reservoir to about 75,000 acre-feet as DWR evaluated alternatives for repair of the dam. In December 2006, DWR completed a study identifying various repair options, began additional geologic exploration along the base of Perris Dam and started preliminary design. DWR's preferred alternative is to repair the dam to restore the reservoir to its historical level. On November 11, 2011, DWR certified the final EIR and filed a Notice of Determination stating its intent to proceed with the preferred alternative. DWR estimates that repairs will cost approximately $141 million to be completed in mid-2017. Under the original allocation of joint costs for this facility, the State would have paid approximately six percent of the repair costs. However, because of the recreational benefit this facility provides to the public, the Legislature has approved a recommendation from DWR that the State assume 32.2 percent of these repair costs. The remaining 67.8 percent of repairs costs will be paid for by the three agencies that use the water stored in Lake Perris: Metropolitan (42.9 percent), DWA (3.0 percent) and CVWD (21.9 percent). DWR recovers the cost of repairs through its annual statement of charges sent to each agency. See "METROPOLITAN EXPENSES–State Water Contract Obligations" in this Appendix A.

Security Measures

Metropolitan conducts ground and air patrols of the CRA and monitoring and testing at all treatment plants and along the CRA. Similarly, DWR has in place security measures reasonably designed to protect critical facilities of the State Water Project, including both ground and air patrols of the State Water Project.

Although Metropolitan has constructed redundant systems and other safeguards to ensure its ability to continually deliver water to its customers, and DWR has made similar efforts, a terrorist attack or other security breach against water facilities could materially impair Metropolitan's ability to deliver water to its customers, its operations, and revenues and its ability to pay its obligations.

CAPITAL INVESTMENT PLAN

General Description

Metropolitan's current Capital Investment Plan (the "Capital Investment Plan" or "CIP") involves expansion and rehabilitation of existing facilities and construction of new facilities to meet future water demands, ensure system reliability as well as enhance operational efficiency and flexibility, and comply with water quality regulations. Metropolitan's CIP is regularly reviewed and updated. Metropolitan's biennial budget process includes a review of the projected long-term capital needs and the development of a capital expenditure forecast for the ten-year financial forecast, as well as the identification of the capital priorities of Metropolitan over the biennial budget term. Implementation and construction of specific elements of the program are subject to Board approval, and the amount and timing of borrowings will depend upon, among other factors, status of construction activity and water demands within Metropolitan's service area. From time to time, projects that have been undertaken are delayed, redesigned or deferred by Metropolitan for various reasons, and no assurance can be given that a project in the CIP will be completed in accordance with its original schedule or that any project will be completed as currently planned. In addition, from time to time, when circumstances warrant, Metropolitan's Board may approve capital expenditures other than or in addition to those contemplated by the CIP at the time of the then current biennial budget.

Projection of Capital Investment Plan Expenditures

The table below sets forth the projected CIP expenditures in the adopted biennial budget for fiscal years 2016-17 and 2017-18, including replacement and refurbishment expenditures, by project type for the fiscal years ending June 30, 2017 through 2021. This estimate is updated every two years as a result of the periodic review and adoption of the capital budget by Metropolitan's Board of Directors. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

CAPITAL INVESTMENT PLAN
PROJECTION OF EXPENDITURES[1] [2]
(Fiscal Years Ended June 30 - Dollars in Thousands)

Cost of Service	2017	2018	2019	2020	2021	Total
Conveyance & Aqueduct	$ 19,772	$ 32,934	$ 32,433	$ 30,396	$ 29,042	$ 144,578
Storage	1,455	--	--	--	--	1,455
Distribution	50,818	80,197	95,411	107,446	126,015	459,887
Treatment	88,345	67,691	55,746	50,292	37,678	299,753
Administrative and General	36,649	18,846	16,325	11,398	7,229	90,448
Hydroelectric	2,960	332	84	468	36	3,880
Total[2]	$200,000[3]	$200,000	$200,000	$200,000	$200,000	$1,000,000

Source: Metropolitan.

(1) Fiscal years 2016-17 and 2017-18 based on the adopted biennial budget for fiscal years 2016-17 and 2017-18. Fiscal years 2018-19 through 2020-21 based on the ten-year financial forecast provided in the adopted biennial budget. Totals are rounded.

(2) Annual totals include replacement and refurbishment expenditures for fiscal years 2016-17 through 2020-21 of $115 million, $159 million, $176 million, $182 million, and $192 million, respectively, for a total of $823 million for fiscal years 2016-17 through 2020-21.

(3) Fiscal year 2016-17 capital expenditures are currently estimated to be approximately $212 million.

The above projections do not include amounts for contingencies, but include escalation at 2.77 percent per year for projects for which formal construction contracts have not been awarded. Additional

capital costs may arise in the future as a result of, among other things, federal and State water quality regulations, project changes and mitigation measures necessary to satisfy environmental and regulatory requirements, and for additional facilities. See "METROPOLITAN'S WATER DELIVERY SYSTEM–Water Treatment" in this Appendix A.

Capital Investment Plan Financing

The CIP requires funding from debt financing (see "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A) as well as from pay-as-you-go funding. The Board has adopted an internal funding objective to fund 60 percent of capital program expenditures from current revenues. The remainder of capital program expenditures will be funded through the issuance from time to time of water revenue bonds, which are payable from Net Operating Revenues. However, as in prior years, pay-as-you-go funding may be reduced or increased by the Board during the fiscal year.

On April 8, 2014, Metropolitan's Board approved a total of $466 million for pay-as-you-go expenditures as part of the biennial budget for fiscal year 2014-15 and fiscal year 2015-16. These pay-as-you-go funds, together with funds available in the Replacement and Refurbishment Fund, were expected to fund $513 million in capital expenditures for fiscal year 2014-15 and fiscal year 2015-16. On October 13, 2015, Metropolitan's Board adopted an ordinance finding that the interests of the district require the use of new revenue bonds in an amount not to exceed $500 million. On December 17, 2015, Metropolitan issued its $208,255,000 Water Revenue Bonds, 2015 Authorization Series A to reimburse certain pay-as-you-go capital expenditures and to fund a portion of fiscal year 2016-17 capital expenditures.

Metropolitan's budget assumptions for the adopted biennial budget for fiscal years 2016-17 and 2017-18 and projections for later years provide for the issuance of approximately $80 million of additional water revenue bonds to fund or to reimburse prior capital expenditures in each of fiscal years 2016-17 through 2020-21. These revenue bonds could be issued either as Senior Revenue Bonds under the Senior Debt Resolutions or as Subordinate Revenue Bonds under the Subordinate Debt Resolutions (each as defined under "METROPOLITAN EXPENSES–Limitations on Additional Revenue Bonds" in this Appendix A). The cost of these projected bond issues are reflected in the financial projections under, "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. Metropolitan expects to issue its $80,000,000 Water Revenue Bonds, 2017 Authorization Series A in March 2017 for the purposes of financing a portion of its capital expenditures through fiscal year 2017-18.

Other Capital Expenses

On July 14, 2015, Metropolitan's Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves.

On March 8, 2016, Metropolitan's Board authorized the General Manager to enter into an agreement to purchase certain property from Delta Wetlands Properties, LLC in Contra Costa, San Joaquin, and Solano Counties (the "Delta Islands"). Although no determination has been made, potential applications for these properties include: (1) tidal wetlands; (2) water quality; (3) studies and research; (4) re-creation of food web; (5) subsidence studies or prevention; (6) habitat restoration; (7) mitigation credits; (8) carbon sequestration; (9) emergency preparedness, including seismic preparation and study; (10) water transfers; and (11) using portions for access or staging of a future Delta fix, like the proposed California Water Fix project. On July 18, 2016, escrow closed and purchase of these properties was completed. On December 21, 2016, Metropolitan issued its $175,000,000 Subordinate Water Revenue Bonds, 2016 Authorization Series A (Taxable) to reimburse itself for the purchase. See "METROPOLITAN EXPENSES–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations" in this Appendix A.

Major Projects of Metropolitan's Capital Investment Plan

Oxidation Retrofit Facilities. The oxidation retrofit facilities program includes the design and construction of oxidation facilities and appurtenances at all five of Metropolitan's treatment plants. This program is intended to allow Metropolitan to meet drinking water standards for disinfection by-products and reduce taste and odor incidents. The oxidation retrofit improvements have been completed at three treatment plants: the Henry J. Mills Treatment Plant, the Joseph Jensen Treatment Plant and the Robert B. Diemer Treatment Plant. Completion of the improvements at the F.E. Weymouth plant is expected in 2017. Total oxidation program costs at the F.E. Weymouth plant are estimated to be $270.0 million. Oxidation retrofit at the Robert A. Skinner plant was substantially completed in December 2009 and operational in 2010, with additional follow-up work planned for completion in June 2018. The total estimated cost for all prior and projected oxidation retrofit facilities program improvements at the five treatment plants is approximately $1.12 billion, with $1.07 billion spent through September 2016. Budgeted aggregate capital expenditures for improvements remaining to be completed at the F.E. Weymouth and Robert A. Skinner plants for fiscal years 2016-17 and 2017-18 are $25 million.

F.E. Weymouth Treatment Plant Improvements. The F.E. Weymouth Treatment Plant, built in 1938, is Metropolitan's oldest water treatment facility. It has been subsequently expanded several times since its original construction. Metropolitan has completed several upgrades and refurbishment/replacement projects to maintain the plant's reliability and improve its efficiency. These include power systems upgrades, a residual solids dewatering facility, refurbishment/replacement of the mechanical equipment in two of the eight flocculation and settling basins, a new plant maintenance facility, new chemical feed systems and storage tanks, replacement of the plant domestic/fire water system, seismic upgrades to the plant inlet structure and filter buildings, and a new chlorine handling and containment facility. Planned projects over the next several years include refurbishment of the plant's filters and settling basins, seismic retrofits to the administration building, and replacement of the valves used to control filter operation. The cost estimate for all prior and projected improvements at the Weymouth plant, not including the ozone facilities, is approximately $407.1 million, with $243 million spent through September 2016. Budgeted aggregate capital expenditures for improvements at the Weymouth plant for fiscal years 2016-17 and 2017-18 are $31.5 million.

Robert B. Diemer Treatment Plant Improvements. The Robert B. Diemer Treatment Plant, built in in 1963 and subsequently expanded in 1968, is Metropolitan's second oldest water treatment facility. Several upgrades and refurbishment/replacement projects have been completed at the Diemer plant, including power system upgrades, a new residual solids dewatering facility, new vehicle and plant maintenance facilities, new chemical feed systems and storage tanks, a new chlorine handling and containment facility, construction of a roller-compacted concrete slope stabilization system and a new secondary access road. Planned projects over the next several years include refurbishment of the plant's settling basins, seismic retrofits to the filter buildings and administration building, and replacement of the valves used to control filter operation. The current cost estimate for all prior and projected improvements at the Diemer Treatment Plant, not including the ozone facilities, is approximately $381.1 million, with $234.5 million spent through September 2016. Budgeted aggregate capital expenditures for improvements at the Diemer plant for fiscal years 2016-17 and 2017-18 are $42.3 million.

Colorado River Aqueduct Facilities. As previously noted, deliveries through the CRA began in 1941. Through annual inspections and maintenance activities, the performance and reliability of the various components of the CRA are regularly evaluated. Projects under the CRA facilities program are designed to replace or refurbish facilities and components on the CRA system in order to reliably convey water from the Colorado River to Southern California. A variety of projects have been completed over the past 10 years, including, among other things, replacement of high voltage circuit breakers and transformers at the five pumping plant switchyards, refurbishment of operators and power centers on the head gates downstream of the pumping plants, replacement of several miles of deteriorated concrete canal liner, new wastewater systems at the Hinds and Eagle Mountain Pumping Plants, and replacement of the outlet gates and appurtenant electrical, mechanical, and control systems at the Copper Basin Reservoir. Refurbishment or

replacement of many of the electrical system components, including the transformers, circuit breakers and motor control centers, is currently under way. Additionally, many of the mechanical and electrical components at all five pumping plants will be evaluated and replaced or refurbished over the next several years. The currently projected cost estimate for all prior and planned refurbishment or replacement projects is $650.2 million. Costs through September 2016 were $208.2 million. Budgeted aggregate capital expenditures for improvements on the CRA for fiscal years 2016-17 and 2017-18 are $87.9 million.

Distribution System – Prestressed Concrete Cylinder Pipe. Metropolitan's distribution system is comprised of approximately 830 miles of pipelines ranging in diameter from 30 inches to over 200 inches. (See "METROPOLITAN'S WATER DELIVERY SYSTEM" in this Appendix A.) 163 miles of the distribution system is made up of prestressed concrete cylinder pipe ("PCCP"). In response to PCCP failures experienced by several water agencies, Metropolitan initiated the PCCP Assessment Program in December 1996 to evaluate the condition of Metropolitan's PCCP lines and investigate inspection and refurbishment methods. As a result, Metropolitan has identified and made repairs to several sections of PCCP. The costs for these repairs through September 2016 were $90.3 million. Rather than continue to make spot repairs to pipe segments, Metropolitan has initiated a long-term capital program to rehabilitate approximately 100 miles of PCCP in five pipelines. The estimated cost to reline all 100 miles of PCCP is approximately $2.6 billion and is expected to be undertaken over a period of approximately 20 years. Budgeted aggregate capital expenditures for PCCP rehabilitation for fiscal years 2016-17 and 2017-18 are $39.3 million.

Distribution System – Refurbishments and Improvements. In addition to the long-term program to rehabilitate Metropolitan's PCCP lines, several other components of the distribution system are being refurbished and/or improved. Ongoing projects to ensure the reliability of the distribution system, primarily due to age, include multiple replacements or refurbishments of isolation and control valves and gates, lining replacement on the Etiwanda Pipeline and portions of the Orange County Feeder, a new steel liner for the Bernasconi Tunnel, seismic upgrades to the Santa Ana River Bridge, refurbishment to pressure control and hydroelectric power facilities, system improvements to provide drought relief, and various other upgrades totaling approximately $228.2 million through September 2016. The currently projected cost estimate for the prior and planned refurbishment or replacement projects, other than the PCCP relining, is $749.3 million. For fiscal years 2016-17 and 2017-18, budgeted aggregate capital expenditures for improvements on the distribution system, other than PCCP rehabilitation, are $74.2 million.

METROPOLITAN REVENUES

General

Until water deliveries began in 1941, Metropolitan's activities were, by necessity, supported entirely through the collection of *ad valorem* property taxes. Since the mid-1980s, water sales revenues have provided approximately 75 to 85 percent of total revenues and *ad valorem* property taxes have accounted for about 10 percent of revenues, declining to seven percent of revenues in fiscal year 2015-16. See "–Revenue Allocation Policy and Tax Revenues." The remaining revenues have been derived principally from the sale of hydroelectric power, interest on investments and additional revenue sources (water standby charges and availability of service charges) beginning in 1992. *Ad valorem* taxes do not constitute a part of Operating Revenues and are not available to make payments with respect to the water revenue bonds issued by Metropolitan.

The basic rate for untreated water service for domestic and municipal uses is $666 per acre-foot at the Tier 1 level, which became effective January 1, 2017. This rate will increase to $695 effective January 1, 2018. See "–Rate Structure" and "–Water Rates." The *ad valorem* tax rate for Metropolitan purposes has gradually been reduced from a peak equivalent rate of 0.1250 percent of full assessed valuation in fiscal year 1945-46 to 0.0035 percent of full assessed valuation for fiscal year 2016-17. The rates charged by Metropolitan represent the cost of Metropolitan wholesale water service to its member agencies, and not the cost of water to the ultimate consumer. Metropolitan does not exercise control over the rates charged by its member agencies or their subagencies to their customers.

Summary of Revenues by Source

The following table sets forth Metropolitan's sources of revenues for the five fiscal years ended June 30, 2016. The table provides cash basis information for fiscal year 2012, and modified accrual basis information for fiscal years 2013-2016. All information is unaudited. Audited financial statements for the fiscal years ended June 30, 2016 and June 30, 2015 and unaudited financial statements for the six months ended December 31, 2016 and December 31, 2015 are provided in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

SUMMARY OF REVENUES BY SOURCE[1]
Fiscal Years Ended June 30
(Dollars in Millions)

	2012	2013	2014	2015	2016
Water Sales[2]	$1,062	$1,283	$1,485	$1,383	$1,166
Net Tax Collections[3]	90	95	95	104	108
Additional Revenue Sources[4]	167	173	182	199	200
Interest on Investments	18	(2)	19	16	17
Hydroelectric Power Sales	31	25	15	8	7
Other Revenues [5]	54	23	19	163	246
Total Receipts	$1,422	$1,597	$1,815	$1,873	$1,744

Source: Metropolitan.

(1) Does not include any proceeds from the sale of bonded indebtedness.
(2) Gross revenues in each year are for sales in the twelve months ended June 30 of such year. Water sales revenues include revenues from water wheeling and exchanges.
(3) *Ad valorem* taxes levied by Metropolitan are applied solely to the payment of outstanding general obligation bonds of Metropolitan and to State Water Contract obligations.
(4) Includes receipts derived from water standby charges, readiness-to-serve, and capacity charges.
(5) Includes miscellaneous revenues and Build America Bonds (BABs) subsidy payment of $13.3 million, $12.7 million, $12.3 million, $12.3 million, and $12.3 million, in fiscal years 2011-12 through 2015-16, respectively. In fiscal years 2014-15 and 2015-16, includes $142 million and $222 million of water conservation and water purchase expenditures, funded from a like amount of funds transferred from the Water Management Fund.

Revenue Allocation Policy and Tax Revenues

The Board determines the water revenue requirement for each fiscal year after first projecting the *ad valorem* tax levy for that year. The tax levy for any year is subject to limits imposed by the State Constitution, the Act and Board policy and to the requirement under the State Water Contract that in the event that Metropolitan fails or is unable to raise sufficient funds by other means, Metropolitan must levy upon all property within its boundaries not exempt from taxation a tax or assessment sufficient to provide for all payments under the State Water Contract. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. From fiscal year 1990-91 through 2012-13, and pursuant to the Act, the tax levy was set to not exceed the amount needed to pay debt service on Metropolitan's general obligation bonds and to satisfy a portion of Metropolitan's State Water Contract obligation. However, Metropolitan has authority to impose a greater tax levy to pay debt service on Metropolitan's general obligation bonds and to satisfy Metropolitan's State Water Contract obligations in full if, following a public hearing, the Board finds that such revenue is essential Metropolitan's fiscal integrity. For each fiscal year since 2013-14, the Board has exercised that authority and voted to suspend the tax limit clause in the Act, maintaining the fiscal year 2012-13 *ad valorem* tax rate for fiscal years 2013-14 through 2016-17. Any deficiency between tax levy receipts and Metropolitan's share of debt service obligations on general obligation bonded debt issued by the State is expected to be paid from Operating Revenues, as defined in the Senior Debt Resolutions (defined herein under "METROPOLITAN EXPENSES–Limitations on Additional Revenue Bonds").

Water Sales Revenues

General; Authority. Water rates are established by the Board and are not subject to regulation or approval by the Public Utilities Commission of California or by any other local, State or federal agency. In accordance with the Act, water rates must be uniform for like classes of service. Metropolitan currently provides two classes of water service (1) full service treated and untreated, and (2) wheeling service. See "–Classes of Water Service."

No member agency of Metropolitan is obligated to purchase water from Metropolitan. However, 21 of Metropolitan's 26 member agencies have entered into 10-year voluntary water supply purchase orders ("Purchase Orders") effective through December 31, 2024. See "–Member Agency Purchase Orders." Consumer demand and locally supplied water vary from year to year, resulting in variability in water sales revenues. Metropolitan uses its financial reserves and budgetary tools to manage the financial impact of the variability in revenues due to fluctuations in annual water sales. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

Payment Procedure. Water is delivered to the member agencies on demand and is metered at the point of delivery. Member agencies are billed monthly and a late charge of one percent of the delinquent payment is assessed for a payment that is delinquent for no more than five business days. A late charge of two percent of the amount of the delinquent payment is charged for a payment that is delinquent for more than five business days for each month or portion of a month that the payment remains delinquent. Metropolitan has the authority to suspend service to any member agency delinquent for more than 30 days. Delinquencies have been rare; in such instances late charges have been collected. No service has been suspended because of delinquencies.

Water Sales. The following table sets forth the acre-feet of water sold and water sales (including sales from water wheeling and exchanges) for the five fiscal years ended June 30, 2016. Water sales revenues of Metropolitan for the four fiscal years ended June 30, 2013 through June 30, 2016, respectively, on an accrual basis, are shown in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

SUMMARY OF WATER SOLD AND WATER SALES
Fiscal Years Ended June 30

Year	Acre-Feet[(1)] Sold	Water Sales[(2)] (in millions)	Dollars Per Acre-Foot[(3)]	Average Dollars Per 1,000 Gallons
2012	1,676,855	$1,062.5	$634	$1.94
2013	1,856,685	1,282.5	691	2.12
2014	2,043,720	1,484.6	726	2.23
2015	1,905,502	1,383.0	726	2.23
2016	1,623,052	1,166.0	718	2.20

Source: Metropolitan.

(1) Year ended April 30 for fiscal year 2011-12, water sales recorded on a cash-basis. Beginning fiscal year 2012-13, water sales recorded on an accrual basis, with water sales for the fiscal year ended June 30.

(2) Water Sales in fiscal year 2011-12 are recorded on a cash basis for sales in the twelve months ended April 30 of such year, with rates and charges invoiced in May and payable by the last business day of June of each year. Water sales for fiscal years 2012-13 through 2015-16 are recorded on a modified accrual basis for sales in the twelve months ended June 30 of such year, with rates and charges recorded as revenues in the same months as invoiced. Includes revenues from water wheeling and exchanges.

(3) Gross water sales divided by acre-feet sold. An acre-foot is approximately 326,000 gallons. See table entitled "SUMMARY OF WATER RATES" under "–Water Rates" for a description of water rates and classes of service.

Principal Customers

Total water sales accrued for the fiscal year ended June 30, 2016 were 1.62 million acre-feet, generating $1.17 billion in water sales revenues for such period. Metropolitan's ten largest water customers in the year ended June 30, 2016 are shown in the following table, on an accrual basis. The SDCWA has filed litigation challenging Metropolitan's rates. See "–Litigation Challenging Rate Structure."

TEN LARGEST WATER CUSTOMERS
Year Ended June 30, 2016
Accrual Basis (Dollars in Millions)

Agency	Water Sales Revenues[1]	Percent of Total	Water Sales in Acre-Feet[1]	Percent of Total
San Diego County Water Authority	$ 270.9	23.2%	465,568	28.7%
City of Los Angeles	224.3	19.2	332,527	20.5
MWD of Orange County	140.3	12.0	171,666	10.6
West Basin MWD	100.0	8.6	107,319	6.6
Calleguas MWD	77.7	6.7	83,346	5.1
Eastern MWD	53.1	4.6	62,631	3.9
Western MWD	51.6	4.4	65,532	4.0
Three Valleys MWD	42.5	3.6	54,356	3.3
Central Basin MWD	35.5	3.0	46,745	2.9
City of Long Beach	24.3	2.1	27,684	1.7
Total	$1,020.2	87.5%	1,417,374	87.3%
Total Water Sales Revenues	$1,166.0	**Total Acre-Feet**	1,623,052	

Source: Metropolitan.

(1) Includes wheeling and exchange water sales, revenues and deliveries.

Rate Structure

The following rates and charges are elements of Metropolitan's rate structure for full service water deliveries:

Tier 1 and Tier 2 Water Supply Rates. The rate structure recovers supply costs through a two-tiered price structure. The Tier 1 Supply Rate supports a regional approach through the uniform, postage stamp rate. The Tier 1 Supply Rate is calculated as the amount of the total supply revenue requirement that is not covered by the Tier 2 Supply Rate divided by the estimated amount of Tier 1 water sales. The Tier 2 Supply Rate is a volumetric rate that reflects Metropolitan's cost of purchasing water transfers north of the Delta. Member agencies are charged the Tier 1 or Tier 2 Water Supply Rate for water purchases, as described under "–Member Agency Purchase Orders."

System Access Rate. The System Access Rate (SAR) recovers the cost of the Conveyance and Distribution System that is used on an average annual basis through a uniform, volumetric rate. The SAR is charged for each acre-foot of water transported by Metropolitan, regardless of the ownership of the water being transported. All users (including member agencies and third-party wheelers) using the Metropolitan system to transport water pay the same SAR for the use of the system conveyance and distribution capacity to meet average annual demands.

Water Stewardship Rate. The Water Stewardship Rate (WSR) provides a dedicated source of funding for conservation and local resources development through a uniform, volumetric rate. The WSR is

charged to each acre-foot of water delivered by Metropolitan, regardless of the water being transported. All users (member agencies and third-party wheelers) benefit from the system capacity made available by investments in Demand Management Programs like Metropolitan's Conservation Credits Program and Local Resources Program. Therefore, all users pay the WSR.

System Power Rate. The System Power Rate (SPR) recovers the cost of energy required to pump water to Southern California through the State Water Project and CRA. The cost of power is recovered through a uniform, volumetric rate. The SPR is applied to all deliveries of Metropolitan water to member agencies. Wheeling parties pay for actual cost (not system average) of power needed to move the water. Member agencies engaging in wheeling transaction of up to one year pay the wheeling rate (consisting of the actual cost of power, SAR, WSR, and an administrative fee). Other wheeling transactions are pursuant to individual contracts.

Treatment Surcharge. The Treatment Surcharge recovers all of the costs of providing treatment capacity and operations through a uniform, volumetric rate per acre-foot of treated water sales. The Treatment Surcharge is charged to all treated water sales.

The amount of each of these rates since January 1, 2012, is shown in the table entitled "SUMMARY OF WATER RATES" under "–Water Rates."

Member Agency Purchase Orders

The current rate structure allows member agencies to choose to purchase water from Metropolitan by means of a Purchase Order. Purchase Orders are voluntary agreements that determine the amount of water that a member agency can purchase at the Tier 1 Supply Rate. They allow member agencies to purchase a greater amount of water at the lower Tier 1 Supply Rate than would otherwise be authorized by the Administrative Code. In exchange for the higher Tier 1 Maximum, the member agency commits to purchase a specific amount of water (based on past purchase levels) over the term of the agreement. Such agreements allow member agencies to manage costs and provide Metropolitan with a measure of secure revenue.

In November 2014, the Metropolitan Board approved new Purchase Orders effective January 1, 2015 through December 31, 2024 (the "Purchase Order Term"). Twenty-one of the twenty-six member agencies have Purchase Orders, which commit the member agencies to purchase a minimum amount of supply from Metropolitan (the "Purchase Order Commitment").

The key terms of the Purchase Orders include:

- A ten-year term, effective January 1, 2015 through December 31, 2024;
- A higher Tier 1 limit based on the Base Period Demand, determined by the member agency's choice between (1) the Revised Base Firm Demand, which is the highest fiscal year purchases during the 13-year period of fiscal year 1989-90 through fiscal year 2001-02, or (2) the highest year purchases in the most recent 12-year period of fiscal year 2002-03 through 2013-14. The demand base is unique for each member agency, reflecting its use of Metropolitan's system water over time;
- An overall purchase commitment by the member agency based on the Demand Base period chosen, times ten to reflect the ten-year Purchase Order term. Those agencies choosing the more recent 12-year period may have a higher Tier 1 Maximum and commitment. The commitment is also unique for each member agency;
- The opportunity to reset the Base Period Demand using a five-year rolling average;

- Any obligation to pay the Tier 2 Supply Rate will be calculated over the ten-year period, consistent with the calculation of any Purchase Order commitment obligation; and

- An appeals process for agencies with unmet purchase commitments that will allow each acre-foot of unmet commitment to be reduced by the amount of production from a local resource project that commences operation on or after January 1, 2014.

Member agencies that do not have Purchase Orders in effect are subject to Tier 2 Supply Rates for amounts exceeding 60 percent of their base amount (equal to the member agency's highest fiscal year demand between 1989-90 and 2001-02) annually.

Other Charges

The following paragraphs describe the additional charges for the availability of Metropolitan's water:

Readiness-to-Serve Charge. The Readiness-to-Serve Charge ("RTS") recovers the cost of the portion of the system that is available to provide emergency service and available capacity during outages and hydrologic variability. The RTS is a fixed charge that is allocated among the member agencies based on a ten-fiscal year rolling average of firm demands. Water transfers and exchanges are included for purposes of calculating the ten-fiscal-year rolling average. The Standby Charge, described below, will continue to be collected at the request of member agency and applied as a direct offset to the member agency's RTS obligation. The RTS generated $154.0 million in fiscal year 2013-14, $162.0 million in 2014-15, and $155.5 million in 2015-16. Based on the adopted rates and charges, the RTS is projected to generate $144 million in fiscal year 2016-17 and $137.5 million in fiscal year 2017-18.

Water Standby Charges. The Standby Charge is authorized by the State Legislature and has been levied by Metropolitan since fiscal year 1992-93. Metropolitan will continue to levy the Standby Charge only within the service areas of the member agencies that request that the Standby Charge be utilized to help fund a member agency's RTS obligation. See "– Readiness-to-Serve Charge" above. The Standby Charge for each acre or parcel of less than an acre will vary from member agency to member agency, reflecting current rates, which have remained the same since fiscal year 1993-94, and range from $6.94 to $15 for each acre or parcel less than an acre within Metropolitan's service area, subject to specified exempt categories. Standby charges are assessments under the terms of Proposition 218, a State constitutional ballot initiative approved by the voters on November 5, 1996, but Metropolitan's current standby charges are exempt from Proposition 218's procedural requirements. See "–California Ballot Initiatives."

Twenty-two member agencies collect their RTS charges through standby charges. For fiscal years 2013-14, 2014-15, and 2015-16, RTS charges collected by means of such standby charges were $41.7 million, $41.7 million, and $42.8 million, respectively.

Capacity Charge. The Capacity Charge recovers costs incurred to provide peaking capacity within Metropolitan's distribution system. The Capacity Charge provides a price signal to encourage agencies to reduce peak demands on the distribution system and to shift demands that occur during the May 1 through September 30 period into the October 1 through April 30 period. This results in more efficient utilization of Metropolitan's existing infrastructure and deferring capacity expansion costs. Each member agency will pay the Capacity Charge per cubic feet per second based on a three-year trailing maximum peak day demand. Effective January 1, 2014, the Capacity Charge was $8,600 per cubic feet per second. The Capacity Charge was $11,100 per cubic feet per second on January 1, 2015, and $10,900 per cubic feet per second on January 1, 2016, and will be $8,000 per cubic feet per second on January 1, 2017, and $8,700 per cubic feet per second on January 1, 2018. The Capacity Charge is projected to generate $39.7 million in fiscal year 2016-17 and $35.2 million in fiscal year 2017-18.

Classes of Water Service

Metropolitan offers two classes of water service:

(1) *Full Service Water* - Full service water service, formerly known as non-interruptible water service, includes water sold to member agencies for domestic and municipal uses; and

(2) Wheeling Service - Wheeling Service refers to the use of Metropolitan's facilities, including its rights to use State Water Project facilities, to transport water not owned or controlled by Metropolitan to its member public agencies, in transactions entered into by Metropolitan for a period of up to one year.

The applicable rate components and fixed charges for each class of water service are shown in the chart below.

Current Services and Rate Components

	Rates & Charges That Apply					
Service	**System Access**	**Water Stewardship**	**System Power**	**Tier 1/ Tier 2**	**Readiness to Serve**	**Capacity Charge**
Full Service (Treated or Untreated)	Yes	Yes	Yes	Yes	Yes	Yes
Wheeling Service	Yes	Yes	No	No	Yes	Yes

Metropolitan offers two programs that encourage the member agencies to increase groundwater and emergency storage and for which certain Metropolitan charges are inapplicable.

(1) Conjunctive Use Program. The Conjunctive Use Program is operated through individual agreements with member and retail agencies for groundwater storage within Metropolitan's service area. Wet-year imported supplies are stored to enhance reliability during dry, drought, and emergency conditions. Metropolitan has the option to call water stored in the groundwater basins for the participating member agency pursuant to its contractual conjunctive use agreement. At the time of the call, the member agency pays the prevailing rate for that water, but the deliveries are excluded from the calculation of the Capacity Charge because Conjunctive Use Program deliveries are made at Metropolitan's Discretion. See "REGIONAL WATER RESOURCES–Local Water Supplies."

(2) Emergency Storage Program. The Emergency Storage Program is used for delivering water for emergency storage in surface water reservoirs and storage tanks. Emergency Storage Program purposes include initially filling a newly constructed reservoir or storage tank and replacing water used during an emergency.

The applicable rate components and fixed charges applicable for each such program are shown in the following chart.

Current Programs and Rate Components

	Rates & Charges That Apply					
Full Service Program	**System Access**	**Water Stewardship**	**System Power**	**Tier 1/ Tier 2**	**Readiness to Serve**	**Capacity Charge**
Conjunctive Use Program	Yes	Yes	Yes	Yes	Yes	No
Emergency Storage Program	Yes	Yes	Yes	No*	No	No

*Emergency Storage Program pays the Tier 1 Supply Rate; purchases under Emergency Storage program do not count towards a member agency's Tier 1 Maximum.

Water Rates

The following table sets forth Metropolitan's water rates by category beginning January 1, 2012. See also "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES–Water Sales Revenues" in this Appendix A. In addition to the base rates for untreated water sold in the different classes of service, the columns labeled "Treated" include the surcharge that Metropolitan charges for water treated at its water treatment plants. See "–Rate Structure" and "–Classes of Water Service" above for a description of current rates. See also "–Litigation Challenging Rate Structure" for a description of litigation challenging Metropolitan's water rates.

SUMMARY OF WATER RATES
(Dollars per Acre-Foot)

	SUPPLY RATE		SYSTEM ACCESS RATE	WATER STEWARDSHIP RATE	SYSTEM POWER RATE	TREATMENT SURCHARGE
	Tier 1	Tier 2				
January 1, 2012	$164[1]	$290	$217	$43	$136	$234
January 1, 2013	$140	$290	$223	$41	$189	$254
January 1, 2014	$148	$290	$243	$41	$161	$297
January 1, 2015	$158	$290	$257	$41	$126	$341
January 1, 2016	$156	$290	$259	$41	$138	$348
January 1, 2017*	$201	$295	$289	$52	$124	$313
January 1, 2018*	$209	$295	$299	$55	$132	$320

	FULL SERVICE TREATED[2]		FULL SERVICE UNTREATED[3]		INTERIM AGRICULTURAL PROGRAM		REPLENISHMENT RATE	
	Tier 1	Tier 2	Tier 1	Tier 2	Treated	Untreated	Treated	Untreated
January 1, 2012	$794	$920	$560	$686	$765	$537	$651	$442
January 1, 2013	$847	$997	$593	$743	**	**	**	**
January 1, 2014	$890	$1,032	$593	$735	**	**	**	**
January 1, 2015	$923	$1,055	$582	$714	**	**	**	**
January 1, 2016	$942	$1,076	$594	$728	**	**	**	**
January 1, 2017*	$979	$1,073	$666	$760	**	**	**	**
January 1, 2018*	$1,015	$1,101	$695	$781	**	**	**	**

Source: Metropolitan.

* Rates effective January 1, 2017 and January 1, 2018 were adopted by Metropolitan's Board on April 12, 2016.

** The Interim Agricultural Water Program and Replenishment Service Program were discontinued after 2012. The Interim Agricultural Water Program provided a discounted rate for agricultural water users that, pursuant to the Act, were permitted to receive only surplus water not needed for domestic or municipal purposes. Under the Replenishment Service Program, water was sold at a discounted rate to member agencies, subject to interruption upon notice by Metropolitan. The program allowed Metropolitan to deliver surplus imported water to local groundwater basins and surface storage facilities when supplies were available, with the intent that member agencies could reduce imported water deliveries from Metropolitan during periods of high demand, emergencies or times of shortage.

(1) Includes $58 per acre-foot Delta Supply Surcharge for January 1, 2012.

(2) Full service treated water rates are the sum of the applicable Supply Rate, System Access Rate, Water Stewardship Rate, System Power Rate and Treatment Surcharge.

(3) Full service untreated water rates are the sum of the applicable Supply Rate, System Access Rate, Water Stewardship Rate and System Power Rate.

Financial Reserve Policy

Metropolitan's reserve policy currently provides for a minimum unrestricted reserve balance at June 30 of each year that is based on probability studies of the wet periods that affect Metropolitan's water sales. The policy establishes a minimum targeted unrestricted reserve level based on an 18-month revenue shortfall estimate and a target level based on an additional two years revenue shortfall estimate. Funds representing the minimum reserve level are held in the Revenue Remainder Fund, and any funds in excess of the minimum reserve level are held in the Water Rate Stabilization Fund. Metropolitan established the Water Rate Stabilization Fund for the principal purpose of maintaining stable and predictable water rates and charges. If Metropolitan's fixed charge coverage ratio, which measures the total coverage of all fixed obligations (which includes all revenue bond debt service obligations, State Water Contract capital payments paid from current year operations and subordinate obligations) after payment of operating expenditures, is less than 1.2 times, funds above the target reserve level may be utilized for funding of capital expenditures or for the redemption, defeasance or purchase of outstanding bonds or commercial paper, as determined by the Board. If Metropolitan's fixed charge coverage ratio, is at or above 1.2 times, funds above the target may be used for any lawful purpose of Metropolitan, as determined by the Board. See "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

At June 30, 2016, unrestricted reserves, which consist of the Water Rate Stabilization Fund and the Revenue Remainder Fund, totaled $475 million on a modified accrual basis. As of June 30, 2016, the minimum reserve requirement was $205 million and the target reserve level was $490 million.

From time to time, Metropolitan's Board approves the use of unrestricted reserves. On May 26, 2015, Metropolitan's Board approved the use of $160 million of unrestricted reserves, above the target reserve level, for conservation incentives. In addition, $50 million from the Water Stewardship Fund and $140 million from the Water Management Fund funded conservation incentives. On July 14, 2015, Metropolitan's Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves. On September 22, 2015, Metropolitan's Board approved $44.4 million to pay SNWA to store 150,000 acre-feet of water with Metropolitan. Metropolitan took delivery of this water in 2015. When SNWA requests the return of any of the stored water, SNWA will reimburse Metropolitan for an equivalent proportion of the $44.4 million, based on the amount of water returned plus inflation. See "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Interim Surplus Guidelines*"* in this Appendix A.

Due to SDCWA's litigation challenging Metropolitan's rates and pursuant to the exchange agreement between Metropolitan and SDCWA, Metropolitan is required to set aside funds based on the quantities of exchange water that Metropolitan provides to SDCWA and the amount of charges disputed by SDCWA. This amount included disputed payments and interest earned thereon, which is based on the rate earned by Metropolitan's investment portfolio. In April 2016, Metropolitan transferred these funds from unrestricted financial reserves to a new designated fund, the Exchange Agreement Set-Aside Fund. As of December 31, 2016, Metropolitan had set aside $278.7 million in the Exchange Agreement Set-Aside Fund. This amount includes disputed payments and interest earned thereon based on the rate earned by Metropolitan's investment portfolio. The amounts held do not include the statutory prejudgment interest, post-judgment interest, attorneys' fees, or costs awards, none of which the exchange agreement requires to be held. Amounts held pursuant to the exchange agreement will continue to accumulate based on the quantities of exchange water that Metropolitan provides to SDCWA and the payments disputed by SDCWA, until the litigation, including all appeals, is concluded. See "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct – Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" and "METROPOLITAN REVENUES–Litigation Challenging Rate Structure" in this Appendix A.

As described below, Metropolitan has executed two $200 million Short-Term Revolving Credit Facilities (as defined below), under which Metropolitan may borrow from time-to-time. Funds drawn under

the Short-Term Revolving Credit Facilities may be used for any lawful purpose. In April 2016, Metropolitan drew $125 million from each Short-Term Revolving Credit Facility (as defined below), for a total of $250 million, and deposited these amounts in Metropolitan's unrestricted financial reserves. An additional draw of approximately $50 million is expected by the end of June 2017, with such amount to be deposited in Metropolitan's unrestricted financial reserves. See "METROPOLITAN EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Senior Parity Obligations – Short-Term Revolving Credit Facilities" in this Appendix A.

Metropolitan projects that its unrestricted reserves as of June 30, 2017 will be approximately $378 million. This amount does not include funds held in the Exchange Agreement Set-Aside Fund. This projection is based on the assumptions set forth in the table entitled "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" under "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. In addition, this projection is based on the assumption that Metropolitan's Board will not authorize the use of any additional amounts in the unrestricted reserves.

California Ballot Initiatives

Proposition 218, a State ballot initiative known as the "Right to Vote on Taxes Act," was approved by the voters on November 5, 1996 adding Articles XIIIC and XIIID to the California Constitution. Article XIIID provides substantive and procedural requirements on the imposition, extension or increase of any "fee" or "charge" levied by a local government upon a parcel of real property or upon a person as an incident of property ownership. As a wholesaler, Metropolitan serves water to its member agencies, not to persons or properties as an incident of property ownership. Thus, water rates charged by Metropolitan to its member agencies are not property related fees and charges and therefore are exempt from the requirements of Article XIIID. Fees for retail water service by Metropolitan's member agencies or their agencies are subject to the requirements of Article XIIID.

Article XIIID also imposes certain procedures with respect to assessments. Under Article XIIID, "standby charges" are considered "assessments" and must follow the procedures required for "assessments," unless they were in existence on the effective date of Article XIIID. Metropolitan has imposed its water standby charges since 1992 and therefore its current standby charges are exempt from the Article XIIID procedures. Changes to Metropolitan's current standby charges could require notice to property owners and approval by a majority of such owners returning mail-in ballots approving or rejecting any imposition or increase of such standby charge. Twenty-two member agencies have elected to collect all or a portion of their readiness-to-serve charges through standby charges. See "–Other Charges – Readiness-to-Serve Charge" and "– Water Standby Charges" above. Even if Article XIIID is construed to limit the ability of Metropolitan and its member agencies to impose or collect standby charges, the member agencies will continue to be obligated to pay the readiness-to-serve charges.

Article XIIIC makes all taxes general or special taxes and imposes voting requirements for each kind of tax. It also extends the people's initiative power to reduce or repeal previously authorized local taxes, assessments, fees and charges. This extension of the initiative power is not limited by the terms of Article XIIIC to fees imposed after November 6, 1996 or to property-related fees and charges and absent other authority could result in retroactive reduction in existing taxes, assessments or fees and charges.

Proposition 26, a State ballot initiative aimed at restricting regulatory fees and charges, was approved by the California voters on November 2, 2010. Proposition 26 broadens the definition of "tax" in Article XIIIC of the California Constitution to include levies, charges and exactions imposed by local governments, except for charges imposed for benefits or privileges or for services or products granted to the payor (and not provided to those not charged) that do not exceed their reasonable cost; regulatory fees that do not exceed the cost of regulation and are allocated in a fair or reasonable manner; fees for the use of local governmental property; fines and penalties imposed for violations of law; real property development fees; and assessments and property-related fees imposed under Article XIIID of the California Constitution.

Special taxes imposed by a special district such as Metropolitan are subject to approval by two-thirds of the electorate voting on the ballot measure for authorization. Proposition 26 applies to charges imposed or increased by local governments after the date of its approval. Metropolitan believes its water rates and charges are not taxes under Proposition 26. SDCWA's lawsuit challenging the rates adopted by Metropolitan in April 2012, part of which became effective January 1, 2013 and part of which became effective January 1, 2014, alleged that such rates violate Proposition 26. On April 24, 2014, a trial court decision stated such rates, effective in 2013 and 2014, violate Proposition 26. The trial court's rulings, including the decision that specific rates violate certain laws, are on appeal. (See "–Litigation Challenging Rate Structure.")

Propositions 218 and 26 were adopted as measures that qualified for the ballot pursuant to the State's initiative process. From time to time, other initiative measures could be adopted or legislative measures could be approved by the Legislature, which may place limitations on the ability of Metropolitan or its member agencies to increase revenues or to increase appropriations. Such measures may further affect Metropolitan's ability to collect taxes, assessments or fees and charges, which could have an effect on Metropolitan's revenues.

Preferential Rights

Section 135 of the Act gives each of Metropolitan's member agencies a preferential entitlement to purchase a portion of the water served by Metropolitan, based upon a ratio of all payments on tax assessments and otherwise, except purchases of water, made to Metropolitan by the member agency compared to total payments made by all member agencies on tax assessments and otherwise since Metropolitan was formed, except purchases of water. Historically, these rights have not been used in allocating Metropolitan's water. The California Court of Appeal has upheld Metropolitan's methodology for calculation of the respective member agencies' preferential rights under Section 135 of the Act. SDCWA's litigation challenging Metropolitan's water rates also challenges Metropolitan's exclusion of payments for exchange water from the calculation of SDCWA's preferential right. On August 28, 2015, the trial court ruled that SDCWA "is entitled to a judicial declaration (a) that Metropolitan's current methodology for calculating San Diego's preferential rights violates Section 135 of the Metropolitan Water District Act; and (b) directing Metropolitan to include San Diego's payments for the transportation of water under the Exchange Agreement in Metropolitan's calculation of San Diego's preferential rights." This ruling is subject to appeal. See "–Litigation Challenging Rate Structure."

Litigation Challenging Rate Structure

SDCWA filed *San Diego County Water Authority v. Metropolitan Water District of Southern California, et al.* on June 11, 2010. The complaint alleges that the rates adopted by the Board on April 13, 2010, which became effective January 1, 2011 and January 1, 2012, misallocate certain State Water Contract costs to the System Access Rate and the System Power Rate, and thus to charges for transportation of water, and that this results in an overcharge to SDCWA by at least $24.5 million per year. The complaint alleges that all State Water Project costs should be allocated instead to Metropolitan's Supply Rate, even though under the State Water Contract Metropolitan is billed separately for transportation, power and supply costs. It states additionally that Metropolitan will overcharge SDCWA by another $5.4 million per year by including the Water Stewardship Rate in transportation charges. Eight of Metropolitan's member agencies (the Cities of Glendale, Los Angeles and Torrance, MWDOC and Foothill, Las Virgenes, Three Valleys and West Basin Municipal Water Districts) answered the complaint in support of Metropolitan. IID joined the litigation in support of SDCWA's challenge to Metropolitan's charges for transportation of water, but withdrew and dismissed all claims against Metropolitan with prejudice on October 30, 2013.

The complaint requested a court order invalidating the rates adopted April 13, 2010, and that Metropolitan be mandated to allocate costs associated with the State Water Contract and the Water Stewardship Rate to water supply rates and not to transportation rates. Rates in effect in prior years are not

challenged in this lawsuit. Metropolitan contends that its rates are reasonable, equitably apportioned among its member agencies and lawful, and were adopted under a valid rate structure and cost of service approach developed in a multi-year collaborative process with its member agencies that was adopted in 2001 and has been in place since 2003. Nevertheless, to the extent that a final court ruling invalidates Metropolitan's adopted rates, Metropolitan will be obligated to reconsider and modify rates to comply with any final court rulings related to Metropolitan's rates. While components of the rate structure and costs may change as a result of any final ruling, Metropolitan expects that aggregate rates and charges would still recover Metropolitan's cost of service. As such, revenues would not be affected. If Metropolitan's rates are revised in the manner proposed by SDCWA in the complaint, other member agencies may pay higher rates unless other actions are taken by the Board.

SDCWA filed its First Amended Petition for Writ of Mandate and Complaint on October 27, 2011, adding five new claims to this litigation, two of which were eliminated from the case on January 4, 2012. The three remaining new claims are for breach of the water exchange agreement between Metropolitan and SDCWA (described herein under "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct–Sale of Water by the Imperial Irrigation District to San Diego County Water Authority") based on allegedly illegal rates; improper exclusion of SDCWA's payments under this exchange agreement from calculation of SDCWA's preferential rights to purchase Metropolitan supplies (see "–Preferential Rights"); and illegality of the "rate structure integrity" provision in conservation and local resources incentive agreements between Metropolitan and SDCWA. The "rate structure integrity" provision permits the Board to terminate incentives payable under conservation and local resources incentive agreements between Metropolitan and a member agency due to certain actions by the member agency to challenge the rates that are the source of incentive payments. In June 2011, Metropolitan's Board authorized termination of two incentive agreements with SDCWA under the "rate structure integrity" provision in such agreements after SDCWA filed its initial complaint challenging Metropolitan's rates. SDCWA filed a Second Amended Petition for Writ of Mandate and Complaint on April 17, 2012, which contains additional allegations but no new causes of action.

On June 8, 2012, SDCWA filed a new lawsuit challenging the rates adopted by Metropolitan on April 10, 2012 and effective on January 1, 2013 and January 1, 2014. See "–Rate Structure" above and "–Water Rates" for a description of Metropolitan's water rate structure and the rates and charges adopted on April 10, 2012. The complaint contains allegations similar to those in the Second Amended Petition for Writ of Mandate and Complaint and new allegations asserting that Metropolitan's rates, adopted in April 2012, violate Proposition 26. See "–California Ballot Initiatives" for a description of Proposition 26. Metropolitan contends that its rates adopted on April 10, 2012 are reasonable, equitably apportioned among its member agencies and lawful and were adopted under a valid rate structure and cost of service approach. Ten of Metropolitan's member agencies (the eight member agency parties to SDCWA's first lawsuit, Eastern Municipal Water District and Western Municipal Water District of Riverside County) answered the complaint in support of Metropolitan and IID joined the litigation in support of SDCWA. Subsequently, IID dismissed all claims with prejudice in this second case too, and the City of Glendale withdrew from both cases.

SDCWA filed a Third Amended Petition for Writ of Mandate and Complaint on January 23, 2013, to add new allegations that Metropolitan's rates adopted in April 2010 did not meet the requirements of Proposition 26, approved by California voters in November 2010. The court granted Metropolitan's motion to strike allegations relating to Proposition 26 on March 29, 2013, expressly ruling that SDCWA may not allege a violation of Proposition 26 in its challenge to the rates adopted in April 2010. This ruling does not affect SDCWA's separate challenge to Metropolitan's rates adopted in April 2012, which also includes Proposition 26 allegations. On December 4, 2013, the court granted Metropolitan's motion for summary adjudication of the cause of action alleging illegality of the "rate structure integrity" provision in conservation and local resources incentive agreements, dismissing this claim in the first lawsuit.

Trial of the first phase of both lawsuits before the Superior Court of California, County of San Francisco (Case Nos. CPF-10-510830 and CPF-12-512466) concluded January 23, 2014. This phase concerned the challenges to Metropolitan's rates. On April 24, 2014, the trial court issued its "Statement of Decision on Rate Setting Challenges," determining that SDCWA prevailed on two of its claims and that Metropolitan prevailed on the third claim. The trial court found that there was not sufficient evidence in the administrative record to support Metropolitan's inclusion in its transportation rates, and hence in its wheeling rate, of 100 percent of (1) payments it makes to the California Department of Water Resources for the State Water Project, or (2) the costs incurred by Metropolitan for conservation and local water supply development programs recovered through the Water Stewardship Rate. The trial court decision stated that the System Access Rate, System Power Rate, Water Stewardship Rate and wheeling rate violate specified statutes and the common law and such rates effective in 2013 and 2014 violate Proposition 26. The trial court's decision was based on its conclusion that these rates are unfair to wheelers. The trial court found that SDCWA failed to prove its "dry-year peaking" claim that Metropolitan's rates do not adequately account for variations in member agency purchases.

SDCWA's claims asserting breach of the exchange agreement and miscalculation of preferential rights were tried in a second phase of the case which concluded April 30, 2015. On August 28, 2015, the trial court issued a final statement of decision for the second phase. The decision found in favor of SDCWA on both claims and that SDCWA is entitled to contract damages in the amount of $188,295,602 plus interest. On October 9 and 30, 2015, the trial court granted SDCWA's motion for prejudgment interest at the statutory rate of 10 percent on these damages. The prejudgment interest award through entry of judgment is $46,637,180. After entry of judgment, post-judgment interest began accruing at the statutory rate of 7 percent. On November 18, 2015, the court issued the Final Judgment and a Peremptory Writ of Mandate in the 2010 and 2012 SDCWA v. Metropolitan cases. On January 21, 2016, the trial court awarded $320,084 in costs to SDCWA, after deducting amounts based on Metropolitan's motion. On March 24, 2016, the trial court awarded $8,910,354 in attorneys' fees to SDCWA, rejecting its demand for over $17.0 million. Metropolitan filed a Notice of Appeal of the Judgment and Writ in each case, and SDCWA filed a Notice of Cross-Appeal of the court's ruling on the rate structure integrity provision claim and the attorneys' fees order. Appellate briefing by the parties was completed on October 28, 2016. No date for oral argument has been set. Metropolitan is unable to assess at this time the likelihood of success of this litigation, including the appeal, or any future claims.

Due to SDCWA's litigation challenging Metropolitan's rates, and pursuant to the exchange agreement between Metropolitan and SDCWA, as of December 31, 2016, Metropolitan held $278.7 million in a designated fund, the Exchange Agreement Set-Aside Fund. See "–Financial Reserve Policy." This amount includes both SDCWA's disputed payments and interest earned thereon, which is based on the rate earned by Metropolitan's investment portfolio. Amounts held pursuant to the exchange agreement will continue to accumulate based on the quantities of exchange water that Metropolitan provides to SDCWA and the payments disputed by SDCWA, until the litigation, including all appeals, is concluded. The amounts held do not include the statutory prejudgment interest, post-judgment interest, attorneys' fees, or costs awards, none of which the exchange agreement requires to be held.

In May 2014, SDCWA filed a new lawsuit asserting essentially the same rate claims and breach of contract claim in connection with the Board's April 2014 rate adoption. Metropolitan filed its answer on June 30, 2014. On February 9, 2015, pursuant to stipulation by the parties, the San Francisco Superior Court ordered that the case be stayed. The stay may be lifted upon motion by any party. On November 20, 2015, SDCWA filed a motion to partially lift the stay. On December 21, 2015, the trial court decided that motion and the case remains stayed. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On April 13, 2016, SDCWA filed a new lawsuit that alleges all rates and charges for 2017 and 2018 adopted by Metropolitan's Board on April 12, 2016 violate the California Constitution, statutes, and common

law. The Petition for Writ of Mandate and Complaint asserts misallocation of costs as alleged in the previous cases listed above and additional claims of over-collection and misallocation of costs and procedural violations, and states SDCWA intends to amend to allege further claims including breach of contract. In a claim letter dated May 2, 2016, SDCWA asserted three breaches of the exchange agreement: the same breach alleged in the previous cases listed above, breach of the set-aside provision noted above, and breach of a provision concerning characterizing exchange water for certain purposes in the same manner as local water of other member agencies. On June 30, 2016, the nine member agencies that are interested parties to the 2010, 2012, and 2014 cases filed answers to also join the 2016 case as interested parties in support of Metropolitan. On October 27, 2016, SDCWA filed a Motion for Leave to File Amended Complaint alleging the same exchange agreement breach alleged in the previous cases listed above and breach of the set-aside provision noted above relating to the manner in which Metropolitan has set aside the amounts. The proposed amended petition/complaint also requests a judicial declaration that, if a judgment is owed to SDCWA under the exchange agreement, SDCWA will not be required to pay any portion of that judgment, and requests a refund to SDCWA of any amount Metropolitan has collected in excess of the reasonable costs of services provided or, alternatively, a reduction in SDCWA's future fees. On September 27, 2016, the case was transferred to San Francisco Superior Court. On November 10, 2016, pursuant to stipulation by the parties, the court ordered that the case be stayed pending final resolution of the appeals of the 2010 and 2012 SDCWA v. Metropolitan cases. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

Other Revenue Sources

Hydroelectric Power Recovery Revenues. Metropolitan has constructed 16 small hydroelectric plants on its distribution system. The plants are located in Los Angeles, Orange, Riverside and San Diego Counties at existing pressure control structures and other locations. The combined generating capacity of these plants is approximately 131 megawatts. The total capital cost of the 16 facilities is approximately $176.1 million. Since 2000, annual energy generation sales revenues have ranged between $7.5 million and nearly $29.6 million. Energy generation sales revenues were $8.5 million in fiscal year 2014-15 and $7.5 million in fiscal year 2015-16. Low State Water Project supplies and reduced demands due to mandatory conservation resulted in diminished flows thorough Metropolitan's pipelines and hydroelectric power plants and decreased revenues.

Investment Income. In fiscal years 2013-14, 2014-15, and 2015-16, Metropolitan's earnings on investments, including adjustments for gains and losses and premiums and discounts, including construction account and trust fund earnings, excluding gains and losses on swap terminations, on an accrual basis (audited) were $21.2 million, $22.3 million, and $19.4 million, respectively.

Investment of Moneys in Funds and Accounts

All moneys in any of the funds and accounts established pursuant to Metropolitan's water revenue or general obligation bond resolutions are invested by the Treasurer in accordance with Metropolitan's Statement of Investment Policy. All Metropolitan funds available for investment are currently invested in United States Treasury and agency securities, commercial paper, negotiable certificates of deposit, banker's acceptances, corporate notes, municipal bonds, asset-backed securities, mortgage-backed securities and the California Local Agency Investment Fund ("LAIF"). The LAIF is a voluntary program created by statute as an investment alternative for California's local governments and special districts. LAIF permits such local agencies to participate in an investment portfolio, which invests billions of dollars, using the investment expertise of the State Treasurer's Office.

The Statement of Investment Policy provides that in managing Metropolitan's investments, the primary objective shall be to safeguard the principal of the invested funds. The secondary objective shall be to meet all liquidity requirements and the third objective shall be to achieve a return on the invested funds. Although the Statement of Investment Policy permits investments in some asset-backed securities, the

portfolio does not include any of the special investment vehicles related to sub-prime mortgages. The Statement of Investment Policy allows Metropolitan to exceed the portfolio and single issuer limits for purchases of California local agency securities when purchasing Metropolitan tendered bonds in conjunction with its self-liquidity program. See "METROPOLITAN EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations" in this Appendix A. Metropolitan's current investments comply with the Statement of Investment Policy.

As of December 31, 2016, the total market value (cash-basis) of all Metropolitan funds was $1.37 billion, including bond reserves of $53.9 million. The market value of Metropolitan's investment portfolio is subject to market fluctuation and volatility and general economic conditions. Over the three years ended December 31, 2016, the market value of the month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) averaged approximately $1.23 billion. The minimum month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) during such period was approximately $936.3 million on August 31, 2016. See Footnote 3 to Metropolitan's audited financial statements in Appendix B for additional information on the investment portfolio.

Metropolitan's administrative code requires that (1) the Treasurer provide an annual Statement of Investment Policy for approval by Metropolitan's Board, (2) the Treasurer provide a monthly investment report to the Board and the General Manager showing by fund the description, maturity date, yield, par, cost and current market value of each security, and (3) the General Counsel review as to eligibility the securities invested in by the Treasurer for that month and report his or her determinations to the Board. The Board approved the Statement of Investment Policy for fiscal year 2016-17 on June 14, 2016.

Subject to the provisions of Metropolitan's water revenue or general obligation bond resolutions, obligations purchased by the investment of bond proceeds in the various funds and accounts established pursuant to a bond resolution are deemed at all times to be a part of such funds and accounts and any income realized from investment of amounts on deposit in any fund or account therein will be credited to such fund or account. The Treasurer is required to sell or present for redemption any investments whenever it may be necessary to do so in order to provide moneys to meet required payments or transfers from such funds and accounts. For the purpose of determining at any given time the balance in any such funds, any such investments constituting a part of such funds and accounts will be valued at the then estimated or appraised market value of such investments.

All investments, including those authorized by law from time to time for investments by public agencies, contain certain risks. Such risks include, but are not limited to, a lower rate of return than expected and loss or delayed receipt of principal. The occurrence of these events with respect to amounts held under Metropolitan's water revenue or general obligation revenue bond resolutions, or other amounts held by Metropolitan, could have a material adverse effect on Metropolitan's finances. These risks may be mitigated, but are not eliminated, by limitations imposed on the portfolio management process by Metropolitan's Statement of Investment Policy.

The Statement of Investment Policy requires that investments have a minimum credit rating of "A1/P1/F1" for short-term securities and "A" for longer-term securities at the time of purchase. If immediate liquidation of a security downgraded below these levels is not in the best interests of Metropolitan, the Treasurer or investment manager, in consultation with an ad hoc committee made up of the Chairman of the Board, the Chairman of the Finance and Insurance Committee and the General Manager, and with the concurrence of the General Counsel, may dispose of the security in an orderly and prudent manner considering the circumstances, under terms and conditions approved by a majority of the members of such ad hoc committee. The Treasurer is required to include a description of any securities that have been downgraded below investment grade and the status of their disposition in the Treasurer's monthly report.

The Statement of Investment Policy also limits the amount of securities that can be purchased by category, as well as by issuer, and prohibits investments that can result in zero interest income. Metropolitan's securities are settled on a delivery versus payment basis and are held by an independent third-party custodian. See APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)" for a description of Metropolitan's investments at September 30, 2016.

Metropolitan retains two outside investment firms to manage the long-term portion of Metropolitan's portfolio. The outside managers are required to adhere to Metropolitan's Statement of Investment Policy. As of December 31, 2016, such managers were managing approximately $342.3 million in investments on behalf of Metropolitan. Metropolitan's Statement of Investment Policy may be changed at any time by the Board (subject to State law provisions relating to authorized investments). There can be no assurance that the State law and/or the Statement of Investment Policy will not be amended in the future to allow for investments that are currently not permitted under State law or the Statement of Investment Policy, or that the objectives of Metropolitan with respect to investments or its investment holdings at any point in time will not change.

METROPOLITAN EXPENSES

General

The following table sets forth a summary of Metropolitan's expenses, by major function, for the five years ended June 30, 2016. The table provides cash basis information for fiscal year 2012, and modified accrual basis information for fiscal years 2013-2016. All information is unaudited. Expenses of Metropolitan for the fiscal years ended June 30, 2016 and June 30, 2015, on an accrual basis, are shown in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

SUMMARY OF EXPENSES
Fiscal Years Ended June 30
(Dollars in Millions)

	2012	2013	2014	2015	2016
Operation and Maintenance Costs[1]	$ 425	$ 456	$ 512	$ 697	$ 799
Total State Water Project[2]	536	480	465	436	512
Total Debt Service	323	339	384	303	332
Construction Disbursements from Revenues[3]	44	55	117	210	273
Other[4]	3	5	6	7	6
Total Disbursements (net of reimbursements)	$1,331	$1,335	$1,484	$1,653	$1,922

Source: Metropolitan.

(1) Includes operation and maintenance, debt administration, conservation and local resource programs, CRA power, and water supply expenses. For fiscal years 2014-15 and 2015-16, includes $142 million, and $222 million, respectively, of conservation projects funded from transfers from the Water Management Fund.

(2) Includes both operating and capital expense portions.

(3) At the discretion of the Board, in any given year, Metropolitan may increase or decrease funding available for construction disbursements to be paid from revenues. Includes $160 million for acquiring properties in Riverside and Imperial Counties, funded by $160 million from the Replacement and Refurbishment Fund Reserves. Does not include expenditures of bond proceeds.

(4) Includes operating equipment.

Revenue Bond Indebtedness and Other Obligations

As of February 1, 2017, Metropolitan had total outstanding indebtedness, secured by a lien on Net Operating Revenues, of $4.49 billion. This indebtedness is comprised of $4.06 billion water revenue bonds, issued under the Senior Debt Resolutions (defined below), which includes $3.01 billion fixed rate revenue bonds, and $1.04 billion variable rate revenue bonds; $250.0 million Short-Term Revolving Credit Facilities, which pay a variable rate, and are on parity with the senior lien water revenue bonds; $175.0 million subordinate water revenue bonds issued under the Subordinate Debt Resolutions (defined below), which pay a variable rate; and $8.6 million State of California Revolving Fund Loan, on parity with the subordinate water revenue bonds. In addition, Metropolitan has $493.6 million of fixed-payor interest rate swaps which provides a fixed interest rate hedge to an equivalent amount of variable rate debt. Metropolitan's revenue bonds and other revenue obligations are more fully described in this section below.

Limitations on Additional Revenue Bonds

Resolution 8329, adopted by Metropolitan's Board on July 9, 1991, as amended and supplemented (collectively with all such supplemental resolutions, the "Senior Debt Resolutions"), provides for the issuance of Metropolitan's senior lien water revenue bonds. The Senior Debt Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues. Under the Senior Debt Resolutions, no additional bonds, notes or other evidences of indebtedness payable out of Operating Revenues may be issued having any priority in payment of principal, redemption premium, if any, or interest over any water revenue bonds authorized by the Senior Debt Resolutions ("Senior Revenue Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with such Senior Revenue Bonds ("Senior Parity Obligations"). No additional Senior Revenue Bonds or Senior Parity Obligations may be issued or incurred unless the conditions of the Senior Debt Resolutions have been satisfied.

Resolution 9199, adopted by Metropolitan's Board on March 8, 2016, as amended and supplemented (collectively with all such supplemental resolutions, the "Subordinate Debt Resolutions," and together with the Senior Debt Resolutions, the "Revenue Bond Resolutions"), provides for the issuance of Metropolitan's subordinate water revenue bonds and other obligations secured by a pledge of Net Operating Revenues that is subordinate to the pledge securing Senior Revenue Bonds and Senior Parity Obligations. The Subordinate Debt Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues. Under the Subordinate Debt Resolutions, with the exception of Senior Revenue Bonds and Senior Parity Obligations, no additional bonds, notes or other evidences of indebtedness payable out of Operating Revenues may be issued having any priority in payment of principal, redemption premium, if any, or interest over any subordinate water revenue bonds authorized by the Subordinate Debt Resolutions ("Subordinate Revenue Bonds" and, together with Senior Revenue Bonds, "Revenue Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with the Subordinate Revenue Bonds ("Subordinate Parity Obligations"). No additional Subordinate Revenue Bonds or Subordinate Parity Obligations may be issued or incurred unless the conditions of the Subordinate Debt Resolutions have been satisfied.

The laws governing Metropolitan's ability to issue water revenue bonds currently provide two additional limitations on indebtedness that may be incurred by Metropolitan. The Act provides for a limit on general obligation bonds, water revenue bonds and other evidences of indebtedness at 15 percent of the assessed value of all taxable property within Metropolitan's service area. As of February 1, 2017, outstanding general obligation bonds, water revenue bonds and other evidences of indebtedness in the amount of $4.58 billion represented approximately 0.18 percent of the fiscal year 2016-17 taxable assessed valuation of $2,583 billion. The second limitation under the Act specifies that no revenue bonds may be issued, except for the purpose of refunding, unless the amount of net assets of Metropolitan as shown on its balance sheet as of the end of the last fiscal year prior to the issuance of such bonds, equals at least 100 percent of the aggregate amount of revenue bonds outstanding following the issuance of such bonds. The net

assets of Metropolitan at June 30, 2016 were $6.68 billion. The aggregate amount of revenue bonds outstanding as of February 1, 2017 was $4.23 billion. The limitation does not apply to other forms of financing available to Metropolitan. Audited financial statements including the net assets of Metropolitan as of June 30, 2016 and June 30, 2015, respectively, are shown in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2015 AND JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

Metropolitan provides no assurance that the Act's limitations on indebtedness will not be revised or removed by future legislation. Limitations under the Revenue Bond Resolutions respecting the issuance of additional obligations payable from Net Operating Revenues on parity with the Senior Revenue Bonds and Subordinate Revenue Bonds of Metropolitan will remain in effect so long as any Senior Revenue Bonds and Subordinate Revenue Bonds authorized pursuant to the Revenue Bond Resolutions are outstanding, provided however, that the Revenue Bond Resolutions are subject to amendment and supplement in accordance with their terms.

Variable Rate Exposure Policy

As of February 1, 2017, Metropolitan had outstanding $1.30 billion of variable rate obligations issued under the Senior Debt Resolutions, including variable rate Senior Revenue Bonds (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations– Variable Rate and Swap Obligations") and Senior Parity Obligations incurred pursuant to Short-Term Revolving Credit Facilities (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations–Senior Parity Obligations–Short-Term Revolving Credit Facilities" below). In addition, as of February 1, 2017, all of Metropolitan's $175 million of outstanding Subordinate Revenue Bonds issued under the Subordinate Debt Resolutions were variable rate obligations (described under "–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations–Subordinate Revenue Bonds" below.

As of February 1, 2017, of Metropolitan's $1.47 billion of variable rate obligations, $493.6 million of such variable rate demand obligations are treated by Metropolitan as fixed rate debt, by virtue of interest rate swap agreements (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations–Variable Rate and Swap Obligations–Interest Rate Swap Transactions"), for the purpose of calculating debt service requirements. The remaining $974.7 million of variable rate obligations represent approximately 21.7 percent of total outstanding water revenue secured indebtedness (including Senior Revenue Bonds and Senior Parity Debt and Subordinate Revenue Bonds and Subordinate Debt), as of February 1, 2017.

Metropolitan's variable rate exposure policy requires that variable rate debt be managed to limit net interest cost increases within a fiscal year as a result of interest rate changes to no more than $5 million. In addition, the maximum amount of variable interest rate exposure (excluding variable rate bonds associated with interest rate swap agreements) is limited to 40 percent of total outstanding water revenue bond debt. Variable rate debt capacity will be reevaluated as interest rates change and managed within these parameters.

Outstanding Senior Revenue Bonds and Senior Parity Obligations

Senior Revenue Bonds

The water revenue bonds issued under the Senior Debt Resolutions outstanding as of February 1, 2017, are set forth below:

Name of Issue	Principal Outstanding
Water Revenue Refunding Bonds, 1993 Series A	$ 70,340,000
Water Revenue Bonds, 2000 Authorization, Series B-3[(1)]	88,800,000
Water Revenue Bonds, 2006 Authorization, Series A	302,245,000
Water Revenue Refunding Bonds, 2008 Series B	119,830,000
Water Revenue Refunding Bonds, 2008 Series C	27,255,000
Water Revenue Bonds, 2008 Authorization, Series A	174,530,000
Water Revenue Refunding Bonds, 2009 Series A-2[(1)]	104,180,000
Water Revenue Refunding Bonds, 2009 Series B	106,690,000
Water Revenue Refunding Bonds, 2009 Series C	91,165,000
Water Revenue Bonds, 2008 Authorization, Series B	10,360,000
Water Revenue Bonds, 2008 Authorization, Series C[(2)]	78,385,000
Water Revenue Bonds, 2008 Authorization, Series D[(2)]	250,000,000
Water Revenue Refunding Bonds, 2009 Series D	50,005,000
Water Revenue Refunding Bonds, 2009 Series E	12,715,000
Water Revenue Bonds, 2010 Authorization, Series A[(2)]	250,000,000
Water Revenue Refunding Bonds, 2010 Series B	74,325,000
Water Revenue Refunding Bonds, 2011 Series A-1[(1)]	64,305,000
Water Revenue Refunding Bonds, 2011 Series A-2[(1)]	49,920,000
Water Revenue Refunding Bonds, 2011 Series A-3[(1)]	64,300,000
Water Revenue Refunding Bonds, 2011 Series A-4[(1)]	49,920,000
Water Revenue Refunding Bonds, 2011 Series B	5,080,000
Water Revenue Refunding Bonds, 2011 Series C	147,435,000
Water Revenue Refunding Bonds, 2012 Series A	181,180,000
Water Revenue Refunding Bonds, 2012 Series B-1 and B-2[(1)]	98,585,000
Water Revenue Refunding Bonds, 2012 Series C	175,635,000
Water Revenue Refunding Bonds, 2012 Series F	59,335,000
Water Revenue Refunding Bonds, 2012 Series G	111,890,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D[(1)]	87,445,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series E[(1)]	104,820,000
Water Revenue Refunding Bonds, 2014 Series A	95,935,000
Water Revenue Refunding Bonds, 2014 Series B	10,575,000
Water Revenue Refunding Bonds, 2014 Series C-1–C-3	30,335,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D[(1)]	38,465,000
Water Revenue Refunding Bonds, 2014 Series E	86,060,000
Water Revenue Refunding Bonds, 2014 Series G-2–G-5	43,275,000
Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and A-2[(1)]	188,900,000
Water Revenue Bonds, 2015 Authorization, Series A	208,255,000
Water Revenue Refunding Bonds, 2016 Series A	239,455,000
Special Variable Rate Water Revenue Refunding Bonds, 2016 Series B-1 and B-2[(1)]	103,670,000
Total	**$4,055,600,000**

Source: Metropolitan.

(1) Outstanding variable rate obligation.

(2) Designated as "Build America Bonds" pursuant to the American Recovery and Reinvestment Act of 2009.

Variable Rate and Swap Obligations

As of February 1, 2017, Metropolitan had outstanding $1.30 billion of variable rate obligations issued under the Senior Debt Resolutions, including variable rate Senior Revenue Bonds (described under this caption "–Variable Rate and Swap Obligations") and Senior Parity Obligations incurred pursuant to Short-Term Revolving Credit Facilities (described under "–Short-Term Revolving Credit Facilities" below).

The outstanding variable rate Senior Revenue Bonds include bonds bearing interest in the Index Mode or Flexible Index Mode (the "Index Tender Bonds"), special variable rate bonds initially designated as self-liquidity bonds (the "Self-Liquidity Bonds") and variable rate demand obligations supported by standby bond purchase agreements between Metropolitan and various liquidity providers.

Index Tender Bonds. The Index Tender Bonds have substantially similar terms and conditions; however, the mandatory tender dates and related tender periods for the Index Tender Bonds may differ. The

Index Tender Bonds bear interest at a rate that fluctuates weekly based on the SIFMA Municipal Swap Index published weekly by Municipal Market Data plus a spread. The Index Tender Bonds outstanding as of February 1, 2017, are summarized in the following table:

Index Tender Bonds

Series	Date of Issuance	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date	Maturity Date
2009 A-2	May 20, 2009	$104,180,000	July 10, 2017	July 1, 2030
2011 A-1	June 2, 2011	64,305,000	July 10, 2017	July 1, 2036
2011 A-2	June 2, 2011	49,920,000	March 27, 2018	July 1, 2036
2011 A-3	June 2, 2011	64,300,000	July 10, 2017	July 1, 2036
2011 A-4	June 2, 2011	49,920,000	March 27, 2018	July 1, 2036
2012 B-1	April 27, 2012	49,295,000	March 27, 2018	July 1, 2027
2012 B-2	April 27, 2012	49,290,000	March 27, 2018	July 1, 2027
2013 E (1)	July 2, 2013	104,820,000	June 5, 2017	July 1, 2030
Total		**$536,030,000**		

Source: Metropolitan.

(1) Flexible Index Mode Bonds. The terms and conditions of Flexible Index Mode Bonds are substantially similar to Index Mode Bonds except that each tender period may not exceed 270 days.

The Index Tender Bonds are subject to mandatory tender under certain circumstances, including on certain scheduled mandatory tender dates (unless earlier remarketed or otherwise retired). Metropolitan anticipates that it will pay the purchase price of tendered Index Tender Bonds from the proceeds of remarketing such Index Tender Bonds or from other available funds. Metropolitan's obligation to pay the purchase price of any tendered Index Tender Bonds is an unsecured, special limited obligation of Metropolitan payable from Net Operating Revenues. Purchase price payments of Index Tender Bonds are subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate Parity Obligations. Metropolitan has not secured any liquidity facility or letter of credit to support the payment of the purchase price of Index Tender Bonds in connection with a scheduled mandatory tender. If the purchase price of the Index Tender Bonds of any Series is not paid from the proceeds of remarketing or other funds following a scheduled mandatory tender, such Index Tender Bonds then will bear interest at a default rate of up to 12 percent per annum until purchased by Metropolitan or redeemed. Failure to pay the purchase price of a series of Index Tender Bonds on a scheduled mandatory tender date is a default under the related paying agent agreement, upon the occurrence and continuance of which a majority in aggregate principal amount of the owners of such series of Index Tender Bonds may elect a bondholders' committee to exercise rights and powers of such owners under such paying agent agreement. Failure to pay the purchase price of a series of Index Tender Bonds on a scheduled mandatory tender date is not a default under the Senior Debt Resolutions. If the purchase price of the Index Tender Bonds of any series is not paid on a scheduled mandatory tender date, such Index Tender Bonds will also be subject to special mandatory redemption, in part, 18, 36 and 54 months following the purchase default. Any such special mandatory redemption payment will constitute an obligation payable on parity with the Senior Revenue Bonds and Senior Parity Obligations and senior to the Subordinate Revenue Bonds and Subordinate Parity Obligations.

Self-Liquidity Bonds. As of February 1, 2017, Metropolitan had $314.8 million of outstanding Self-Liquidity Bonds issued under the Senior Debt Resolutions. The Self-Liquidity Bonds are subject to optional tender upon seven days' notice by the owners thereof and mandatory tender upon specified events. Metropolitan is irrevocably committed to purchase all Self-Liquidity Bonds tendered pursuant to any optional or mandatory tender to the extent that remarketing proceeds are insufficient therefor and no standby bond purchase agreement or other liquidity facility is in effect. Metropolitan's obligation to pay the purchase

price of any tendered Self-Liquidity Bonds is an unsecured, special limited obligation of Metropolitan payable from Net Operating Revenues. Purchase price payments of Self-Liquidity Bonds are subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate Parity Obligations. In addition, Metropolitan's investment policy permits it to purchase tendered Self-Liquidity Bonds as an investment for its investment portfolio (other than from amounts in its investment portfolio consisting of bond reserve funds). Thus, while Metropolitan is only obligated to purchase tendered Self-Liquidity Bonds from Net Operating Revenues, it may use the cash and investments in its investment portfolio (other than amounts in its investment portfolio consisting of bond reserve funds and amounts posted as collateral with interest rate swap counterparties as described below) to purchase tendered Self-Liquidity Bonds. Metropolitan has not secured any liquidity facility or letter of credit to pay the purchase price of any tendered Self-Liquidity Bonds; however, Metropolitan has entered into a Revolving Credit Agreement (as described below) pursuant to which it may make borrowings for the purpose of paying the purchase price of Self-Liquidity Bonds. See "–Senior Parity Obligations – Wells Fargo Revolving Credit Agreement." Failure to pay the purchase price of Self-Liquidity Bonds upon optional or mandatory tender is not a default under the related paying agent agreement or a default under the Senior Debt Resolutions.

The following table lists the outstanding Self-Liquidity Bonds as of February 1, 2017.

Self-Liquidity Bonds

Name of Issue	Principal Outstanding
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D	$ 87,445,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D	38,465,000
Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and A-2	188,900,000
Total	$314,810,000

Source: Metropolitan.

Liquidity Supported Bonds. The interest rates for Metropolitan's other variable rate demand obligations issued under the Senior Debt Resolutions, totaling $192.5 million as of February 1, 2017, are reset on a daily basis. Such variable rate demand obligations are supported by Standby Bond Purchase Agreements between Metropolitan and liquidity providers that provide for purchase of variable rate bonds by the applicable liquidity provider upon tender of such variable rate bonds and a failed remarketing. Metropolitan has secured its obligation to repay principal and interest advanced under the Standby Bond Purchase Agreements as Senior Parity Obligations. A decline in the creditworthiness of a liquidity provider will likely result in an increase in the interest rate of the applicable variable rate bonds, as well as an increase in the risk of a failed remarketing of such tendered variable rate bonds. Variable rate bonds purchased by a liquidity provider bear interest at a significantly higher interest rate and Metropolitan's obligation to reimburse the liquidity provider may convert the term of the variable rate bonds purchased by the liquidity provider into a term loan amortizable under the terms of the current liquidity facilities over a period of up to three years, depending on the applicable liquidity facility.

The following table lists the liquidity providers, the expiration date of each facility and the principal amount of outstanding variable rate demand obligations covered under each facility as of February 1, 2017.

Liquidity Facilities and Expiration Dates

Liquidity Provider	Bond Issue	Principal Outstanding	Facility Expiration
Wells Fargo Bank, N.A.	2000 Authorization Series B-3	$ 88,800,000	April 2017[(1)]
Landesbank Hessen-Thuringen Girozentrale (Helaba)	2016 Series B-1 and Series B-2	$103,670,000	September 2019
Total		$192,470,000	

Source: Metropolitan.

(1) Metropolitan expects to replace such liquidity facility prior to its expiration date.

Interest Rate Swap Transactions. By resolution adopted on September 11, 2001, Metropolitan's Board authorized the execution of interest rate swap transactions and related agreements in accordance with a master swap policy, which was subsequently amended by resolutions adopted on July 14, 2009 and May 11, 2010. Metropolitan may execute interest rate swaps if the transaction can be expected to reduce exposure to changes in interest rates on a particular financial transaction or in the management of interest rate risk derived from Metropolitan's overall asset/liability balance, result in a lower net cost of borrowing or achieve a higher net rate of return on investments made in connection with or incidental to the issuance, incurring or carrying of Metropolitan's obligations or investments, or manage variable interest rate exposure consistent with prudent debt practices and Board-approved guidelines. The Chief Financial Officer reports to the Finance and Insurance Committee of Metropolitan's Board each quarter on outstanding swap transactions, including notional amounts outstanding, counterparty exposures and termination values based on then-existing market conditions.

Metropolitan currently has one type of interest rate swap, referred to in the table below as "Fixed Payor Swaps." Under this type of swap, Metropolitan receives payments that are calculated by reference to a floating interest rate and makes payments that are calculated by reference to a fixed interest rate.

Metropolitan's obligations to make regularly scheduled net payments under the terms of the interest rate swap agreements are payable on a parity with the Senior Parity Obligations. Termination payments under the 2002A and 2002B interest rate swap agreements would be payable on a parity with the Senior Parity Obligations. Termination payments under all other interest rate swap agreements would be on parity with the Subordinate Parity Obligations.

The following swap transactions were outstanding as of February 1, 2017:

FIXED PAYOR SWAPS:

Designation	Notional Amount Outstanding	Swap Counterparty	Fixed Payor Rate	MWD Receives	Maturity Date
2002 A	$75,838,400	Morgan Stanley Capital Services, Inc.	3.300%	57.74% of one-month LIBOR	7/1/2025
2002 B	28,371,600	JPMorgan Chase Bank	3.300	57.74% of one-month LIBOR	7/1/2025
2003	158,597,500	Wells Fargo Bank	3.257	61.20% of one-month LIBOR	7/1/2030
2003	158,597,500	JPMorgan Chase Bank	3.257	61.20% of one-month LIBOR	7/1/2030
2004 C	7,760,500	Morgan Stanley Capital Services, Inc.	2.980	61.55% of one-month LIBOR	10/1/2029
2004 C	6,349,500	Citigroup Financial Products, Inc.	2.980	61.55% of one-month LIBOR	10/1/2029
2005	29,057,500	JPMorgan Chase Bank	3.360	70% of 3-month LIBOR	7/1/2030
2005	29,057,500	Citigroup Financial Products, Inc.	3.360	70% of 3-month LIBOR	7/1/2030
Total	$493,630,000				

Source: Metropolitan.

These interest rate swap agreements entail risk to Metropolitan. The counterparty may fail or be unable to perform, interest rates may vary from assumptions, Metropolitan may be required to post collateral in favor of its counterparties and Metropolitan may be required to make significant payments in the event of an early termination of an interest rate swap. Metropolitan believes that if such an event were to occur, it would not have a material adverse impact on its financial position. Metropolitan seeks to manage counterparty risk by diversifying its swap counterparties, limiting exposure to any one counterparty, requiring collateralization or other credit enhancement to secure swap payment obligations, and by requiring minimum credit rating levels. Initially swap counterparties must be rated at least "Aa3" or "AA-", or equivalent by any two of the nationally recognized credit rating agencies; or use a "AAA" subsidiary as rated by at least one nationally recognized credit rating agency. Should the credit rating of an existing swap counterparty drop below the required levels, Metropolitan may enter into additional swaps if those swaps are "offsetting" and risk-reducing swaps. Each counterparty is initially required to have minimum capitalization of at least $150 million. See Note 5(f) in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

Early termination of an interest rate swap agreement could occur due to a default by either party or the occurrence of a termination event. As of December 31, 2016, Metropolitan would have been required to pay to its counterparties termination payments if some of its swaps were terminated on that date. Metropolitan's net exposure to its counterparties for all such termination payments on that date was approximately $75.3 million. Metropolitan does not presently anticipate early termination of any of its interest rate swap agreements due to default by either party or the occurrence of a termination event. However, effective June 28, 2012, Metropolitan exercised optional early termination provisions to terminate all or a portion of certain interest rate swap agreements totaling a notional amount of $322 million. Effective February 12, 2014, Metropolitan exercised optional early termination provisions to terminate a portion of certain interest rate swap agreements, totaling a notional amount of $147 million. Effective July 29, 2014,

Metropolitan optionally terminated portions of certain interest rate swap agreements totaling a notional amount of $163 million.

Metropolitan is required to post collateral in favor of a counterparty to the extent that Metropolitan's total exposure for termination payments to that counterparty exceeds the threshold specified in the applicable swap agreement. Conversely, the counterparties are required to release collateral to Metropolitan or post collateral for the benefit of Metropolitan as market conditions become favorable to Metropolitan. As of December 31, 2016, Metropolitan had no collateral posted with any counterparty. The highest, month-end, amount of collateral posted was $36.8 million, on June 30, 2012, which was based on an outstanding swap notional amount of $1.4 billion. The amount of required collateral varies from time to time due primarily to interest rate movements and can change significantly over a short period of time. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. In the future, Metropolitan may be required to post additional collateral, or may be entitled to a reduction or return of the required collateral amount. Collateral deposited by Metropolitan is held by the counterparties; a bankruptcy of any counterparty holding collateral posted by Metropolitan could adversely affect the return of the collateral to Metropolitan. Moreover, posting collateral limits Metropolitan's liquidity. If collateral requirements increase significantly, Metropolitan's liquidity may be materially adversely affected. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A.

Term Mode Bonds

As of February 1, 2017, Metropolitan had outstanding $73.6 million of Senior Revenue Bonds bearing interest in a term mode, comprised of $30.3 million of 2014 Series C Bonds in three series, and $43.3 million of 2014 Series G in four series (collectively, the "Term Mode Bonds"). The Term Mode Bonds initially bear interest at a fixed rate for a specified period from their date of issuance, after which there shall be determined a new interest mode for each series (which may be another term mode, a daily mode, a weekly mode, a short-term mode or an index mode) or the Term Mode Bonds may be converted to bear fixed interest rates through the maturity date thereof. The owners of the Term Mode Bonds of a series must tender for purchase, and Metropolitan must purchase, all of the Term Mode Bonds of such series on the specified scheduled mandatory tender date of each term period for such series. The Term Mode Bonds outstanding as of February 1, 2017, are summarized in the following table:

Term Mode Bonds

Series	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date
2014 C-1	$13,505,000	October 1, 2019
2014 C-2	14,020,000	October 1, 2020
2014 C-3	2,810,000	October 1, 2021
2014 G-2	14,300,000	October 1, 2017
2011 G-3	11,165,000	October 1, 2018
2012 G-4	11,605,000	October 1, 2019
2012 G-5	6,205,000	October 1, 2020
Total	**$73,610,000**	

Source: Metropolitan.

Metropolitan will pay the principal of, and interest on, the Term Mode Bonds on parity with its other Senior Revenue Bonds. Metropolitan anticipates that it will pay the purchase price of tendered Term Mode Bonds from the proceeds of remarketing such Term Mode Bonds or from other available funds. Metropolitan's obligation to pay the purchase price of any tendered Term Mode Bonds is an unsecured, special limited obligation of Metropolitan payable from Net Operating Revenues. Purchase price payments of Term Mode Bonds are subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to

the Subordinate Revenue Bonds and Subordinate Parity Obligations. Metropolitan has not secured any liquidity facility or letter of credit to support the payment of the purchase price of Term Mode Bonds in connection with any scheduled mandatory tender. If the purchase price of the Term Mode Bonds of any series is not paid from the proceeds of remarketing or other funds following a scheduled mandatory tender, such Term Mode Bonds will then bear interest at a default rate of up to 12 percent per annum until purchased by Metropolitan or redeemed. Failure to pay the purchase price of a series of Term Mode Bonds on a scheduled mandatory tender date is a default under the related paying agent agreement, upon the occurrence and continuance of which a majority in aggregate principal amount of the owners of such series of Term Mode Bonds may elect a bondholders' committee to exercise rights and powers of such owners under such paying agent agreement. Failure to pay the purchase price of a series of Term Mode Bonds on a scheduled mandatory tender date is not a default under the Senior Debt Resolutions. If the purchase price of the Term Mode Bonds of any series is not paid on a scheduled mandatory tender date, such Term Mode Bonds will also be subject to special mandatory redemption, in part, 18, 36 and 54 months following the purchase default. Any such special mandatory redemption payment will constitute an obligation payable on parity with the Senior Revenue Bonds and Senior Parity Obligations.

Build America Bonds

Metropolitan previously issued and designated three series of Senior Revenue Bonds in the aggregate principal amount of $578,385,000 as "Build America Bonds" under the provisions of the American Recovery and Reinvestment Act of 2009 (the "Build America Bonds"). Metropolitan currently expects to receive cash subsidies from the United States Treasury (the "Interest Subsidy Payments") equal to 35 percent of the interest payable on all such outstanding Build America Bonds less any federal budget sequestration offsets as described in the following paragraph. The Interest Subsidy Payments in connection with the Build America Bonds do not constitute Operating Revenues under the Senior Debt Resolutions or the Subordinate Debt Resolutions. Such Interest Subsidy Payments will constitute Additional Revenues, which Metropolitan may take into consideration when establishing its rates and charges and will be available to Metropolitan to pay principal of and interest on Metropolitan's Bonds.

The Budget Control Act of 2011 (the "Budget Control Act") provided for increases in the federal debt limit and established procedures designed to reduce the federal budget deficit. The Budget Control Act provided that a failure to reduce the deficit would result in sequestration, which are automatic, generally across-the-board, spending reductions. These reductions began on March 1, 2013 pursuant to an executive order that reduced budgetary authority for expenditures subject to sequestration, including subsidies for Build America Bonds. Pursuant to this executive order, the approximately $6.64 million Interest Subsidy Payment that Metropolitan was to receive on or about July 1, 2013 was reduced by 8.7 percent, or $578,000, to $6.06 million. Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2014 were reduced by the federal fiscal year 2014 sequestration rate of 7.2 percent and Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2015 were reduced by the federal fiscal year 2015 sequestration rate of 7.3 percent. Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2016 were reduced by the federal fiscal year 2016 sequestration rate of 6.8 percent, and Interest Subsidy Payments processed on or after October 1, 2016 and on or before September 30, 2017 are anticipated to be reduced by the federal fiscal year 2017 sequestration rate of 6.9 percent. The sequestration reduction rate will be applied unless and until a law is enacted that cancels or otherwise impacts the sequester, at which time the sequestration reduction rate is subject to change. Metropolitan can offer no assurances as to future subsidy payments and expects that once it receives less than any full 35 percent subsidy payment, the United States Treasury will not thereafter reimburse Metropolitan for payments not made.

Senior Parity Obligations

Short-Term Revolving Credit Facilities. In April 2016, Metropolitan entered into a noteholder's agreement with RBC Municipal Products, LLC ("RBC") for the purchase by RBC and sale by Metropolitan of Metropolitan's Index Notes, Series 2016 ("RBC Facility"). Also in April 2016, Metropolitan entered into

a note purchase and continuing covenant agreement with U.S. Bank National Association ("US Bank"), for the purchase by US Bank and sale by Metropolitan of Metropolitan's Flexible Rate Revolving Notes, Series 2016 ("US Bank Facility," and together with the RBC Facility, the "Short-Term Revolving Credit Facilities"). Metropolitan is permitted to sell up to $200 million of notes (including, subject to certain terms and conditions, notes to refund maturing notes) under each of the Short-Term Revolving Credit Facilities during the term of the respective bank's commitment to purchase notes thereunder, which currently extends to April 5, 2019, for an aggregate amount of available borrowings of $400 million. Metropolitan may borrow, pay down and re-borrow amounts under each of the Short-Term Revolving Credit Facilities. Currently, Metropolitan has sold approximately $250 million of notes under the Short-Term Revolving Credit Facilities ($125 million under the RBC Facility and approximately $125 million under the US Bank Facility). Of that amount, Metropolitan has deposited $250 million in its unrestricted financial reserves. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. An additional draw of approximately $50 million is expected by the end of June 2017. Subject to the satisfaction of certain terms and conditions, unpaid principal remaining outstanding at the April 5, 2019 commitment end date may be amortizable over a period of approximately one to three years, depending on the applicable facility.

Each of the Short-Term Revolving Credit Facilities bears interest at a variable rate of interest. The US Bank Facility bears interest at a spread to one-month London interbank offering rate ("LIBOR") for taxable borrowings or to 70 percent of one-month LIBOR for tax-exempt borrowings, while the RBC Facility bears interest at a spread to one-month LIBOR for taxable borrowings or to the SIFMA Municipal Swap Index for tax-exempt borrowings. Under the Short-Term Revolving Credit Facilities, upon a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, or other specified events of default, each bank could terminate its commitments and declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the Short-Term Credit Facilities as Senior Parity Obligations.

In the Short-Term Revolving Credit Facilities agreements, Metropolitan designated the principal and interest payable as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable under the Short-Term Revolving Credit Facilities on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the Short-Term Revolving Credit Facilities over a period of 30 years at a fixed interest rate of approximately 3.3 percent.

Wells Fargo Revolving Credit Agreement. On July 1, 2015, Metropolitan executed a revolving credit agreement with Wells Fargo Bank, N.A. (the "Wells Fargo Revolving Credit Agreement"). Under the terms and conditions of the Wells Fargo Revolving Credit Agreement, Metropolitan will be able to borrow up to $180 million for purposes of paying the purchase price of any Self-Liquidity Bonds. The scheduled expiration date of the Wells Fargo Revolving Credit Agreement is July 1, 2018. On November 4, 2015, Wells Fargo Bank assigned $100 million of its share of the Wells Fargo Revolving Credit Agreement to the Industrial and Commercial Bank of China ("ICBC"). Wells Fargo will retain the remaining $80 million commitment. ICBC assumed all of Wells Fargo's obligations with respect to its $100 million share under the Wells Fargo Revolving Credit Agreement.

Under the Wells Fargo Revolving Credit Agreement, a failure by Metropolitan to perform or observe certain covenants could result in a termination of Wells Fargo Bank and ICBC's commitments and entitle them to declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the Wells Fargo Revolving Credit Agreement as Senior Parity Obligations. Metropolitan has no obligation to make borrowings under, maintain, or renew the Wells Fargo Revolving Credit Agreement. See "–Limitations on Additional Revenue Bonds" above.

In the Wells Fargo Revolving Credit Agreement, Metropolitan designated the principal and interest payable as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable

under the Revolving Credit Agreements on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the Revolving Credit Agreements over a period of 30 years at a fixed interest rate of 3.75 percent. Pursuant to the terms of the Senior Debt Resolutions, while the Wells Fargo Revolving Credit Agreement is in force and effect, when Metropolitan calculates its covenant relating to the creation or incurrence of additional indebtedness, it will add an amount to its Net Operating Revenues relating to an assumed annual debt service payment that Metropolitan would receive if it were to use the proceeds of the Wells Fargo Revolving Credit Agreement to purchase Self-Liquidity Bonds.

Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations

Subordinate Revenue Bonds

In December 2016, Metropolitan entered into a Continuing Covenant Agreement with Bank of America, N.A. ("BANA", and the "2016 BANA Agreement"), for the purchase by BANA and sale by Metropolitan of Metropolitan's $175 million Subordinate Water Revenue Bonds, 2016 Authorization Series A (the "Subordinate 2016 Series A Bonds"), which is the first series of bonds issued under the Subordinate Debt Resolutions. Proceeds were used to reimburse Metropolitan for the purchase of the Delta Islands in the San Francisco Bay\Sacramento-San Joaquin River Delta that was funded from Metropolitan's reserves in July 2016. See "CAPITAL INVESTMENT PLAN–Other Capital Expenses" and "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A.

The Subordinate 2016 Series A Bonds bears interest at a variable rate of interest, at a spread to one-month LIBOR. Under the 2016 BANA Agreement, upon a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, or other specified events of default, BANA could terminate its commitments and declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the 2016 BANA Agreement as a Subordinate Parity Obligation. The Subordinate 2016 Series A Bonds are Index Tender Bonds and are subject to mandatory tender for purchase on the scheduled mandatory tender date of December 21, 2018, or, if directed by BANA upon the occurrence and continuance of an event of default under the 2016 BANA Agreement, five business days after receipt of such direction. On or before the scheduled mandatory tender date, Metropolitan may request an extension of the 2016 BANA Agreement for another tender period or may request BANA to purchase the Subordinate 2016 Series A Bonds in another interest rate mode, or Metropolitan may seek to remarket the 2016 Series A Bonds to another bank or in the public debt markets. In the event the 2016 BANA Agreement is not extended, Metropolitan is obligated under the 2016 BANA Agreement to cause unremarketed Subordinate 2016 Series A Bonds to be redeemed five business days after the scheduled mandatory tender date in the event the purchase price of the Subordinate 2016 Series A Bonds is not paid from the proceeds of a remarketing or other funds on the scheduled mandatory tender date. A failure to pay the purchase price of the Subordinate 2016 Series A Bonds upon a mandatory tender would constitute a default under the Subordinate Debt Resolutions if not remedied within five business days.

The water revenue bonds issued under the Subordinate Debt Resolutions outstanding as of February 1, 2017, are set forth below:

Name of Issue	Principal Outstanding
Subordinate Water Revenue Bonds, 2016 Authorization Series A[(1)]	$175,000,000

Source: Metropolitan.

(1) Outstanding variable rate obligation.

Subordinate Parity Obligations

In 2003, Metropolitan obtained a $20 million California Safe Drinking Water Revolving Fund Loan in 2003 at an interest rate of 2.39 percent per annum to reimburse construction costs for oxidation retrofit facilities at the Henry J. Mills Treatment Plant in Riverside County. The loan payment obligation is subordinate to the Senior Revenue Bonds and Senior Obligations and on parity with the Subordinate Revenue Bonds. As of February 1, 2017, the principal balance outstanding was $8.6 million.

Other Junior Obligations

Metropolitan currently is authorized to issue up to $400,000,000 of Commercial Paper Notes payable from Net Operating Revenues on a basis subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate Parity Obligations. Although no Commercial Paper Notes are currently outstanding, the authorization remains in full force and effect and Metropolitan may issue Commercial Paper Notes from time to time.

General Obligation Bonds

As of February 1, 2017, $92,865,000 aggregate principal amount of general obligation bonds payable from *ad valorem* property taxes were outstanding. See "METROPOLITAN REVENUES–General" and "–Revenue Allocation Policy and Tax Revenues" in this Appendix A. Metropolitan's revenue bonds are not payable from the levy of *ad valorem* property taxes.

General Obligation Bonds	Amount Issued[(1)]	Principal Outstanding
Waterworks General Obligation Refunding Bonds, 2009 Series A	$45,515,000	$30,745,000
Waterworks General Obligation Refunding Bonds, 2010 Series A	39,485,000	23,065,000
Waterworks General Obligation Refunding Bonds, 2014 Series A	49,645,000	39,055,000
Total	$134,645,000	$92,865,000

Source: Metropolitan.

(1) Voters authorized Metropolitan to issue $850,000,000 of Waterworks General Obligation Bonds, Election 1966, in multiple series, in a special election held on June 7, 1966. This authorization has been fully utilized. This table lists bonds that refunded such Waterworks General Obligation Bonds, Election 1966.

State Water Contract Obligations

General. As described herein, in 1960, Metropolitan entered into its State Water Contract with DWR to receive water from the State Water Project. All expenditures for capital and operations, maintenance, power and replacement costs associated with the State Water Project facilities used for water delivery are paid for by the 29 Contractors that have executed State Water Contracts with DWR, including Metropolitan. Contractors are obligated to pay allocable portions of the cost of construction of the system and ongoing operating and maintenance costs through at least 2035, regardless of quantities of water available from the project. Other payments are based on deliveries requested and actual deliveries received, costs of power required for actual deliveries of water, and offsets for credits received. In exchange, Contractors have the right to participate in the system, with an entitlement to water service from the State Water Project and the right to use the portion of the State Water Project conveyance system necessary to deliver water to them at no additional cost as long as capacity exists. Metropolitan's State Water Contract accounts for nearly one-half of the total entitlement for State Water Project water contracted for by all Contractors.

DWR and other State Water Project Contractors, including Metropolitan, have reached an Agreement in Principle to extend their State Water Contracts to 2085 and to make certain changes related to the financial management of the State Water Project in the future. See "METROPOLITAN'S WATER SUPPLY–State Water Project" in this Appendix A.

Metropolitan's payment obligation for the State Water Project for the fiscal year ended June 30, 2016 was $511 million, which amount reflects prior year's credits of $61.6 million. For the fiscal year ended June 30, 2016, Metropolitan's payment obligations under the State Water Contract were approximately 27 percent of Metropolitan's total annual expenses. A portion of Metropolitan's annual property tax levy is for payment of State Water Contract obligations, as described above under "METROPOLITAN REVENUES–General" in this Appendix A. See Note 9(a) to Metropolitan's audited financial statements in Appendix B for an estimate of Metropolitan's payment obligations under the State Water Contract. Also see "–Power Sources and Costs" below for a description of current and future costs for electric power required to operate State Water Project pumping systems and a description of litigation involving the federal relicensing of the Hyatt-Thermalito hydroelectric generating facilities at Lake Oroville.

The State Water Contract requires that in the event that Metropolitan fails or is unable to raise sufficient funds by other means, Metropolitan must levy upon all property within its boundaries not exempt from taxation a tax or assessment sufficient to provide for all payments under the State Water Contract. Currently, a portion of the capital costs under the State Water Contract are paid from *ad valorem* taxes levied by Metropolitan. In the opinion of Metropolitan's General Counsel, a tax increase to provide for additional payments under the State Water Contract would be within the exemption permitted under Article XIIIA of the State Constitution as a tax to pay pre-1978 voter approved indebtedness.

Metropolitan capitalizes its share of the State Water Project capital costs as participation rights in State Water Project facilities as such costs are costs paid in exchange for participation in the system, regardless of whether there is water available to be delivered. Unamortized participation rights essentially represent a prepayment for future costs as Metropolitan will likely continue to participate in the system at least through 2035. Metropolitan's share of system operating and maintenance costs are annually expensed.

DWR and various subsets of the State Water Contractors have entered into amendments to the State Water Contract related to the financing of certain State Water Project facilities. The amendments establish procedures to provide for the payment of construction costs financed by DWR bonds by establishing separate subcategories of charges to produces the revenues required to pay all of the annual financing costs (including coverage on the allocable bonds) relating to the financed project. If any affected Contractor defaults on payment under certain of such amendments, the shortfall may be collected from the non-defaulting affected Contractors, subject to certain limitations.

These amendments represent additional long-term obligations of Metropolitan, as described below.

Devil Canyon-Castaic Contract. On June 23, 1972, Metropolitan and five other southern California public agencies entered into a contract (the "Devil Canyon-Castaic Contract") with DWR for the financing and construction of the Devil Canyon and Castaic power recovery facilities, located on the aqueduct system of the State Water Project. Under this contract, DWR agreed to build the Devil Canyon and Castaic facilities, using the proceeds of revenue bonds issued by DWR under the State Central Valley Project Act. DWR also agreed to use and apply the power made available by the construction and operation of such facilities to deliver water to Metropolitan and the other contracting agencies. Metropolitan, in turn, agreed to pay to DWR 88 percent of the debt service on the revenue bonds issued by DWR. For calendar year 2016, this represented a payment of $7.8 million. In addition, Metropolitan agreed to pay 78.5 percent of the operation and maintenance expenses of the Devil Canyon facilities and 96 percent of the operation and maintenance expenses of the Castaic facilities. Metropolitan's obligations under the Devil Canyon-Castaic Contract continue until the bonds are fully retired in 2022 even if DWR is unable to operate the facilities or deliver power from these facilities.

Off-Aqueduct Power Facilities. In addition to system "on-aqueduct" power facilities costs, DWR has, either on its own or by joint venture, financed certain off-aqueduct power facilities. The power generated is utilized by the system for water transportation and other State Water Project purposes. Power

generated in excess of system needs is marketed to various utilities and the California Independent System Operator. Metropolitan is entitled to a proportionate share of the revenues resulting from sales of excess power. By virtue of a 1982 amendment to the State Water Contract and the other water supply contracts, Metropolitan and the other water contractors are responsible for paying the capital and operating costs of the off-aqueduct power facilities regardless of the amount of power generated. Other costs of Metropolitan in relation to the State Water Project and the State Water Contract may increase as a result of restructuring of California's electric utility industry and new Federal Energy Regulatory Commission ("FERC") regulations.

East Branch Enlargement Amendment. In 1986, Metropolitan's State Water Contract and the water supply contracts of certain other State Water Project Contractors were amended for the purpose, among others, of financing the enlargement of the East Branch of the California Aqueduct. Under the amendment, enlargement of the East Branch can be initiated either at Metropolitan's request or by DWR finding that enlargement is needed to meet demands.

The amendment establishes a separate subcategory of the Transportation Charge under the State Water Contract for the East Branch Enlargement and provides for the payment of costs associated with financing and operating the East Branch Enlargement. Under the amendment, the annual financing costs for such facilities financed by bonds issued by DWR are allocated among the participating contractors based upon the delivery capacity increase allocable to each participating contractor. Such costs include, but are not limited to, debt service, including coverage requirements, deposits to reserves, and certain operation and maintenance expenses, less any credits, interest earnings or other moneys received by DWR in connection with this facility.

If any participating contractor defaults on payment of its allocable charges under the amendment, among other things, the non-defaulting participating contractors may assume responsibility for such charges and receive delivery capability that would otherwise be available to the defaulting participating contractor in proportion to the non-defaulting contractor's participation in the East Branch Enlargement. If participating contractors fail to cure the default, Metropolitan will, in exchange for the delivery capability that would otherwise be available to the defaulting participating contractor, assume responsibility for the capital charges of the defaulting participating contractor.

Water System Revenue Bond Amendment. In 1987, the State Water Contract and other water supply contracts were amended for the purpose of financing State Water Project facilities through revenue bonds. This amendment establishes a separate subcategory of the Delta Water Charge and the Transportation Charge for projects financed with DWR water system revenue bonds. This subcategory of charge provides the revenues required to pay the annual financing costs of the bonds and consists of two elements. The first element is an annual charge for repayment of capital costs of certain revenue bond financed water system facilities under the existing water supply contract procedures. The second element is a water system revenue bond surcharge to pay the difference between the total annual charges under the first element and the annual financing costs, including coverage and reserves, of DWR's water system revenue bonds.

If any contractor defaults on payment of its allocable charges under this amendment, DWR is required to allocate a portion of the default to each of the nondefaulting contractors, subject to certain limitations, including a provision that no nondefaulting contractor may be charged more than 125 percent of the amount of its annual payment in the absence of any such default. Under certain circumstances, the nondefaulting contractors would be entitled to receive an allocation of the water supply of the defaulting contractor.

The following table sets forth Metropolitan's projected costs of State Water Project water based upon DWR's Annual Billing to Metropolitan for calendar year 2017 and, for fiscal year 2016-17, preliminary financial results through December 30, 2016. For all other years the projections are based on Metropolitan's adopted biennial budget for fiscal years 2016-17 and 2017-18 and the ten-year financial forecast included in

the adopted budget. See "METROPOLITAN'S WATER SUPPLY–State Water Project – Bay-Delta Proceedings Affecting State Water Project – Bay-Delta Planning Activities" in this Appendix A.

PROJECTED COSTS OF METROPOLITAN FOR STATE WATER PROJECT WATER[(1)]
(Dollars in Millions)

Year Ending June 30	Capital Costs	Minimum OMP&R[(2)]	Power Costs[(3)]	Refunds & Credits	Total[(4)]
2017	$173.4	$225.0	$150.0	$(46.4)	$502.0
2018	184.2	294.7	158.4	(37.9)	599.4
2019	195.3	315.9	170.4	(36.1)	645.5
2020	212.1	340.5	191.1	(35.0)	708.7
2021	236.3	264.8	212.1	(34.7)	778.6

Source: Metropolitan.

(1) Projections are based upon DWR's Annual Billing to Metropolitan for 2017 and attachments (dated July 1, 2015) and, for fiscal year 2016-17, preliminary financial results through December 31, 2016. For other years, the projections are based on Metropolitan's adopted biennial budget for fiscal years 2016-17 and 2017-18, and the ten-year financial forecast included in the adopted budget. All costs are adjusted from calendar year to fiscal year periods ending June 30. The total charges shown above differ from those shown in Note 9 of Metropolitan's audited financial statements for the fiscal year ended June 30, 2016 and June 30, 2015, in Appendix B, due to the inclusion of allowances for inflation and anticipated construction of additional State Water Project facilities. See "METROPOLITAN EXPENSES–Power Sources and Costs – State Water Project" in this Appendix A.

(2) Minimum Operations, Maintenance, Power and Replacement ("OMP&R") represents costs which are fixed and do not vary with the amount of water delivered.

(3) Assumptions for water deliveries through the California Aqueduct (not including SBVMWD and DWA/CVWD transfers and exchanges) into Metropolitan's service area and to storage programs are as follows: 0.75 million acre-feet for fiscal year 2016-17, 0.77 million acre-feet for fiscal year 2017-18, 0.82 million acre-feet for fiscal year 2018-19, 0.88 million acre-feet for fiscal year 2019-20, and 0.93 million acre-feet for fiscal year 2020-21. Availability of State Water Project supplies vary and deliveries may include transfers and storage. All deliveries are within maximum contract amount and are based upon availability, as determined by hydrology, water quality and wildlife conditions. See "METROPOLITAN'S WATER SUPPLY–State Water Project" and "–Endangered Species Act and Other Environmental Considerations" in this Appendix A.

(4) Annual totals include California WaterFix related costs for the fiscal years ended June 30, 2017 through June 30, 2021 of $-0- in fiscal year 2016-17 and fiscal year 2017-18, $20 million in fiscal year 2018-19, $38 million in fiscal year 2019-20, and $63 million in fiscal year 2020-21. Projected California WaterFix costs are reflected in the ten-year financial forecast provided in the biennial budget for fiscal years 2016-17 and 2017-18 that was approved by Metropolitan's Board on April 12, 2016.

Other Long-Term Commitments

Metropolitan also has various ongoing fixed annual obligations under its contract with the United States Department of Energy for power from the Hoover Power Plant. Under the terms of the Hoover Power Plant contract, Metropolitan purchases energy to pump water through the CRA. In fiscal year 2015-16 Metropolitan paid approximately $15.7 million under this contract. Payments made under the Hoover Power Plant contract are treated as operation and maintenance expenses. On March 12, 2014, Metropolitan and the other Hoover Contractors funded the defeasance of $124 million of bonds issued by the U.S. Treasury Department for facilities related to the Hoover Dam and Power Plant. Following this repayment, Metropolitan expects to reduce its annual payment for Hoover power by approximately $2.3 million.

Power Sources and Costs

Current and future costs for electric power required for operating the pumping systems of the CRA and the State Water Project are a substantial part of Metropolitan's overall expenses. Expenses for electric power for the CRA (not including credits from power sales and related revenues) for the fiscal years 2014-15 and 2015-16 were approximately $39.2 million, and $35.5 million, respectively. Expenses for electric power

and transmission service for the State Water Project for fiscal years 2014-15 and 2015-16 were approximately $140.8 million and $125.4 million, respectively. Given the continuing uncertainty surrounding the electricity markets in California and in the electric industry in general, Metropolitan is unable to give any assurance with respect to the magnitude of future power costs.

Colorado River Aqueduct. Generally, 55 to 70 percent of the annual power requirements for pumping at full capacity (1.25 million acre-feet of Colorado River water) in Metropolitan's CRA are secured through long-term contracts with the United States Department of Energy for energy generated from facilities located on the Colorado River (Hoover Power Plant and Parker Power Plant) and Southern California Edison ("Edison"). These contracts provide Metropolitan with reliable and economical power resources to pump Colorado River water to Metropolitan's service area.

The Hoover Power Allocation Act of 2011 (H.R. 470) requires the Western Area Power Administration (Western) to renew existing contracts for electric energy generated at the Hoover Power Plant for an additional 50 years through September 2067. The contractors will retain 95 percent of their existing power rights. Metropolitan and Western have completed negotiations and have executed the new contract.

As provided for under the Hoover Power Allocation Act of 2011 (H.R. 470), Metropolitan has executed a 50-year agreement with the Western Area Power Administration for the continued purchase of electric energy generated at the Hoover Power Plant through September 2067. Under the successor agreement (which will replace Metropolitan's existing Hoover contract expiring in 2017), Metropolitan will retain 95 percent of its existing power rights.

The remaining approximately 30 to 45 percent of annual pumping power requirements for full capacity pumping on the CRA is obtained through energy purchases from municipal and investor-owned utilities or power marketers. Gross diversions of water from Lake Havasu for the fiscal years ended June 30, 2015 and June 30, 2016 were approximately 1.2 million acre-feet and 1.1 million acre-feet, respectively, including Metropolitan's basic apportionment of Colorado River water and supplies from water transfer and storage programs.

The Metropolitan-Edison 1987 Service and Interchange Agreement includes provisions for the sharing of the benefits realized by the integrated operation of Edison's and Metropolitan's electric systems. Under this agreement, with a prior year pumping operation of 1 million acre-feet, Edison provides Metropolitan additional energy (benefit energy) sufficient to pump approximately 140,000 acre-feet annually. As the amount of pumping is increased, the amount of benefit energy provided by Edison is reduced.

Depending on pumping conditions, Metropolitan can require additional energy in excess of the base resources available to Metropolitan from the Hoover Power Plant, the Parker Power Plant, and Edison benefit energy. Metropolitan is a member of the Western Systems Power Pool ("WSPP"), and utilizes its industry standard form contract to make wholesale power purchases at market cost. Metropolitan also purchases California market-priced power through its agreement with Edison. In fiscal years 2014-15 and 2015-16, Metropolitan purchased approximately 710,000 and 690,000 megawatt-hours, respectively, of additional energy.

The Metropolitan-Edison 1987 Service and Interchange Agreement will expire on September 30, 2017. Metropolitan is negotiating with several parties on successor agreements. In particular, Metropolitan will no longer receive benefit energy from Edison. Metropolitan anticipates market power purchases will replace benefit energy and has reflected the additional costs in the CRA power cost projections for fiscal year 2017-18 and the ten-year financial forecast.

State Water Project. The State Water Project's power requirements are met from a diverse mix of resources, including State-owned hydroelectric generating facilities. DWR has long-term contracts with Metropolitan (hydropower), Kern River Conservation District (hydropower), Northern California Power Agency (natural gas generation), Alameda Municipal Power (geothermal and landfill gas), Sun Power Corporation (solar) and Dominion Solar Holdings (solar). The remainder of its power needs is met by short-term purchases. Metropolitan pays approximately 70 percent of State Water Project power costs.

DWR is seeking renewal of the license issued by FERC for the State Water Project's Hyatt-Thermalito hydroelectric generating facilities at Lake Oroville. A Settlement Agreement containing recommended conditions for the new license was submitted to FERC in March 2006. That agreement was signed by over 50 stakeholders, including Metropolitan and other State Water Contractors. With only a few minor modifications, FERC staff recommended that the Settlement Agreement be adopted as the condition for the new license. DWR issued a Final EIR for the relicensing project on July 22, 2008. On August 21, 2008, Butte County and Plumas County filed separate lawsuits against DWR challenging the adequacy of the Final EIR. This lawsuit also named all of the signatories to the Settlement Agreement as "real parties in interest," since they could be adversely affected by this litigation. On May 16, 2012, the trial court found that the EIR prepared in conjunction with the relicensing was adequate and dismissed the lawsuit against DWR. On August 7, 2012, Butte and Plumas Counties filed a notice of appeal. Briefing on the appeal was completed in May 2013. Supplemental briefing was completed in the fall of 2016. No date has been set for oral argument. Regulatory permits and authorizations are also required before the new license can take effect. In December 2016, the National Marine Fisheries Service issued a biological opinion setting forth the terms and conditions under which the relicensing project must operate in order to avoid adverse impacts to threatened and endangered species. This was the last major regulatory hurdle prior to FERC issuing a new license. Metropolitan anticipates that FERC will issue the new license in 2017. However, FERC has issued one-year renewals of the existing license since its initial expiration date on January 31, 2007, and is expected to issue successive one-year renewals until a new license is obtained.

DWR receives transmission service from the California Independent System Operator ("CAISO"), a nonprofit public benefit corporation formed in 1996 pursuant to legislation that restructured and deregulated the electric utility industry in California. The transmission service providers participating in the CAISO may seek increased transmission rates, subject to the approval of FERC. DWR has the right to contest any such proposed increase. DWR may be subject to increases in the cost of transmission service as new electric grid facilities are constructed.

Defined Benefit Pension Plan and Other Post-Employment Benefits

Metropolitan is a member of the California Public Employees' Retirement System ("PERS"), a multiple-employer pension system that provides a contributory defined-benefit pension for substantially all Metropolitan employees. PERS provides retirement and disability benefits, annual cost-of-living adjustments and death benefits to plan members and beneficiaries. PERS acts as a common investment and administrative agent for participating public entities within the State. PERS is a contributory plan deriving funds from employee contributions as well as from employer contributions and earnings from investments. A menu of benefit provisions is established by State statutes within the Public Employees' Retirement Law. Metropolitan selects optional benefit provisions from the benefit menu by contract with PERS.

Metropolitan makes contributions to PERS based on actuarially determined employer contribution rates. The actuarial methods and assumptions used are those adopted by the PERS Board of Administration. Employees are required to contribute seven percent of their earnings (excluding overtime pay) to PERS. Pursuant to the current memoranda of understanding, Metropolitan contributes the requisite seven percent contribution for all employees represented by the Management and Professional Employees Association, the Association of Confidential Employees, Supervisors and Professional Personnel Association and AFSCME Local 1902 and who were hired prior to January 1, 2012. Employees in all four bargaining

units who were hired on or after January 1, 2012, pay the full seven percent employee contribution to PERS. Metropolitan contributes the entire seven percent on behalf of unrepresented employees. Employees hired on or after January 1, 2013 and who are "new" PERS members as defined by Public Employees' Pension Reform Act of 2013 pay a member contribution of 6.75 and 6.00 percent in fiscal years 2016-17 and 2017-18, respectively. In addition, Metropolitan is required to contribute the actuarially determined remaining amounts necessary to fund the benefits for its members.

The contribution requirements of the plan members are established by State statute and the employer contribution rate is established and may be amended by PERS. The fiscal year 2015-16 contribution is based on the June 30, 2013 valuation report, the fiscal year 2016-17 contribution is based on the June 30, 2014 valuation report, and the fiscal year 2017-18 contribution is based on the June 30, 2015 valuation report. The PERS' projected investment return (the discount rate) for each of these fiscal years is 7.5 percent.

For fiscal year 2015-16, Metropolitan contributed 19.74 percent of annual covered payroll. The fiscal year 2015-16 annual pension cost was $50.8 million, of which $12.4 million was for Metropolitan's pick-up of the employees' seven percent share. For fiscal years 2016-17 and 2017-18, Metropolitan is required to contribute 20.75 and 22.89 percent of annual covered payroll, respectively, in addition to member contributions paid by Metropolitan.

Metropolitan's required contributions to PERS fluctuate each year and include a normal cost component and a component equal to an amortized amount of the unfunded liability. Many assumptions are used to estimate the ultimate liability of pensions and the contributions that will be required to meet those obligations. The PERS Board of Administration has adjusted and may in the future further adjust certain assumptions used in the PERS actuarial valuations, which adjustments may increase Metropolitan's required contributions to PERS in future years. Accordingly, Metropolitan cannot provide any assurances that its required contributions to PERS in future years will not significantly increase (or otherwise vary) from any past or current projected levels of contributions.

On April 17, 2013, the PERS Board of Administration approved changes to the amortization and rate smoothing policies to spread all gains and losses over a fixed 30-year period from a rolling 30-year period, and to recognize increases or decreases in investment returns over a 5-year period versus a 15-year period beginning with the June 30, 2013 valuations. In addition, PERS no longer uses an actuarial valuation of assets and instead uses the market value of assets to determine contribution rates per PERS direct smoothing policy. These changes will result in higher employer contribution rates in the near term but lower rates in the long term. The new policies are effective for determining contribution requirements beginning fiscal year 2015-16. On December 21, 2016 the PERS Board of Administration approved lowering the discount rate to 7.00 percent over a three year period. As a result, the discount rate for fiscal year 2018-19 will be 7.375 percent, for fiscal year 2019-20 it will be 7.25 percent, and for fiscal year 2020-21 it will be 7.00 percent. PERS has estimated that with a reduction in the rate of return to 7.00 percent, most employers could expect a 1 to 3 percent increase in the normal cost for miscellaneous plans. As a result, required contributions of employers, including Metropolitan, toward unfunded accrued liabilities, and as a percentage of payroll for normal costs, are expected to increase. The following table shows the funding progress of Metropolitan's pension plan.

The following table shows the funding progress of Metropolitan's pension plan.

Metropolitan Pension Plan Assets
(dollars in billions)

				Funded (Unfunded)		Funded Ratios	
Valuation Date	**Accrued Liability**	**Actuarial Value of Assets**	**Market Value of Assets**	**Actuarial Value**	**Market Value**	**Actuarial Value**	**Market Value**
6/30/15	$2.060	N/A	$1.556	N/A	$(0.504)	N/A	75.5%
6/30/14	$1.983	N/A	$1.560	N/A	$(0.423)	N/A	78.7%
6/30/13	$1.805	N/A	$1.356	N/A	($0.449)	N/A	75.1%
6/30/12	$1.731	$1.471	$1.227	($0.260)	($0.504)	85.0%	70.9%
6/30/11	$1.674	$1.416	$1.257	($0.258)	($0.417)	84.5%	75.1%
6/30/10	$1.563	$1.351	$1.059	($0.212)	($0.504)	86.4%	67.7%
6/30/09	$1.478	$1.287	$0.940	($0.191)	($0.538)	87.1%	63.6%

Source: California Public Employees' Retirement System.

Effective July 1, 2014, Metropolitan implemented Governmental Accounting Standards Board Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27* (GASB 68), affecting the reporting of pension liabilities for accounting purposes. Under GASB 68, Metropolitan is required to report the Net Pension Liability (*i.e.*, the difference between the Total Pension Liability and the Pension Plan's Net Position or market value of assets) in its financial statements.

For Metropolitan's fiscal year ended June 30, 2016 financial statements, the Net Pension Liability reported for the Miscellaneous Plan was $479.6 million (an increase of $72.8 million over the prior year), representing a Total Pension Liability as of such date of $2,038.6 million (an increase of $69.2 million over the prior year) less the Plan Fiduciary Net Position as of such date of $1,559.0 million (a decrease of $3.5 million over the prior year). For fiscal year 2016, the Miscellaneous Plan Net Pension Liability as a percentage of covered-employee payroll was 231.10 percent and the Plan Net Position as a percentage of the Total Pension Liability was 76.48 percent. The Net Pension Liability for Metropolitan's Miscellaneous Plan for the year ended June 30, 2016 was measured as of June 30, 2015, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of that date.

For the fiscal year ended June 30, 2015 financial statements, Metropolitan reported a Net Pension Liability of $406.8 million (a decrease of $118.1 million over the prior year), representing a Total Pension Liability as of such date of $1,969.3 million (an increase of $86.3 million over the prior year) less the Plan Fiduciary Net Position as of such date of $1,562.5 million (an increase of $204.4 million over the prior year). For fiscal year 2015, the Miscellaneous Plan Net Pension Liability as a percentage of covered-employee payroll was 200.53 percent and the Plan Net Position as a percentage of the Total Pension Liability was 79.34 percent. The Net Pension Liability for Metropolitan's Miscellaneous Plan for the year ended June 30, 2015 was measured as of June 30, 2014, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of that date.

For more information on the plan, see APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC

FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

Metropolitan currently provides post-employment medical insurance to retirees and pays the post-employment medical insurance premiums to PERS. On January 1, 2012, Metropolitan implemented a longer vesting schedule for retiree medical benefits, which applies to all new employees hired on or after January 1, 2012. Payments for this benefit were $23.1 million in fiscal year 2015-16. Under Governmental Accounting Standards Board Statement No. 45, Accounting and Financial Reporting by Employers for Post-employment Benefits Other Than Pensions, Metropolitan is required to account for and report the outstanding obligations and commitments related to such benefits, commonly referred to as other post-employment benefits (OPEB), on an accrual basis.

The actuarial valuation dated June 30, 2015, was released in June of 2016. This valuation indicates that the Annual Required Contribution (ARC) in fiscal years 2016-17 and 2017-18 will be $29.3 million and $30.1 million, respectively. The ARC was based on the entry-age normal actuarial cost method with contributions determined as a level percent of pay. The actuarial assumptions included (a) a 7.25 percent investment rate of return, (b) a general inflation component of 3.0 percent and (c) increases to basic medical premiums of 7.0 percent for non-Medicare plans for 2017, grading down to 5.0 percent for 2021 and thereafter. As of June 30, 2015, the date of the OPEB actuarial report, the unfunded actuarial accrued liability was estimated to be $258.8 million. The unfunded actuarial accrued liability is amortized over a fixed 30-year period starting with fiscal year 2007-08 and ending in 2037. Changes to assumptions, actuarial gains and losses, and plan changes are amortized over a fixed 15-year period.

In September 2013, Metropolitan's Board established an irrevocable OPEB trust fund with an initial deposit of $40.0 million. During fiscal year 2013-14, the Board approved funding of an additional $100.0 million which was deposited into the irrevocable OPEB trust fund. As part of its biennial budget process, the Board approved the full funding of the ARC for fiscal years 2016-17 and 2017-18.

Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, was issued in June 2015, relating to accounting and financial reporting by state and local governments for OPEB. This statement establishes standards for measuring and recognizing liabilities, deferred outflows and deferred inflows of resources, and expenses. For defined benefit OPEB, this statement identifies the methods and assumptions that should be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about OPEB also are addressed. This statement is effective for Metropolitan for 2018. Major changes would be: (i) the inclusion of net OPEB liabilities on Metropolitan's Statement of Net Position (they are currently included as notes to Metropolitan's financial statements); and (ii) more variable OPEB expense as it will now be based on the net OPEB liability change between reporting dates, with some sources of change recognized immediately and others spread over years, instead of being based on actual contributions.

HISTORICAL AND PROJECTED REVENUES AND EXPENSES

The "Historical and Projected Revenues and Expenses" table below provides a summary of revenues and expenses of Metropolitan prepared on a modified accrual basis. This is consistent with the adopted biennial budget for fiscal years 2016-17 and 2017-18. The table does not reflect the accrual basis of accounting, which is used to prepare Metropolitan's annual audited financial statements. The modified accrual basis of accounting varies from the accrual basis of accounting in the following respects: depreciation and amortization will not be recorded and payments of debt service will be recorded when due and payable. Under the modified accrual basis of accounting, revenues are recognized in the fiscal year in which they are

earned and expenses are recognized when incurred. Thus water sales revenues are recognized in the month the water is sold and expenses are recognized when goods have been received and services have been rendered. The change to modified accrual accounting is for budgeting purposes and Metropolitan will continue to calculate compliance with its rate covenant, limitations on additional bonds and other financial covenants in the Resolutions in accordance with their terms.

The projections are based on assumptions concerning future events and circumstances that may impact revenues and expenses and represent management's best estimates of results at this time. See footnotes to the table below entitled "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" for relevant assumptions, including projected water sales and average annual increase in the effective water rate, and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" for a discussion of potential impacts. Some assumptions inevitably will not materialize and unanticipated events and circumstances may occur. Therefore, the actual results achieved during the projection period will vary from the projections and the variations may be material.

Metropolitan's resource planning projections are developed using a comprehensive analytical process that incorporates demographic growth projections from recognized regional planning entities, historical and projected data acquired through coordination with local agencies, and the use of generally accepted empirical and analytical methodologies. See "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" in this Appendix A. Metropolitan has conservatively set the water sales projections in the following table. Due to the variability of supplemental wholesale water sales and unpredictability of future hydrologic conditions, sales projections are based on long-term average forecasts consistent with Metropolitan's latest Board adopted Integrated Resources Plan, the 2015 IRP Update.

Nevertheless, Metropolitan's assumptions have been questioned by directors representing SDCWA on Metropolitan's Board. Metropolitan has reviewed SDCWA's concerns and, while recognizing that assumptions may vary, believes that the estimates and assumptions that support Metropolitan's projections are reasonable based upon history, experience and other factors as described above.

Metropolitan's water sales projections are the result of a comprehensive retail demand, conservation, and local supply estimation process, including supply projections from member agencies and other water providers within Metropolitan's service area. Retail demands for water are estimated with a model driven by projections of relevant demographics provided by SCAG and SANDAG. Retail demands are adjusted downward for conservation savings and local supplies, with the remainder being the estimated demand for Metropolitan supplies. Conservation savings estimates include all conservation programs in place to date as well as estimates of future conservation program goals that will result from regional 20 percent reductions by 2020 conservation savings. See "CONSERVATION AND WATER SHORTAGE MEASURES" in this Appendix A. Local supplies include water produced by local agencies from various sources including but not limited to groundwater, surface water, locally-owned imported supplies, recycled water, and seawater desalination (see "REGIONAL WATER RESOURCES" in this Appendix A). For example, water sales projections for fiscal year 2016-17 assumed that local projects such as groundwater recovery and desalination projects (see "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A) would become operational and produce local supplies in 2017. For additional description of Metropolitan's water sales projections, see "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

The water sales projections used to determine water rates and charges assume an average year hydrology. Actual water sales are likely to vary from projections. As shown in the *Historical Water Sales* chart below, sales can vary significantly from average and demonstrates the degree to which Metropolitan's commitments to meet supplemental demands can impact sales. In years when actual sales exceed projections, the revenues from water sales during the fiscal year will exceed budget, potentially resulting in

an increase in financial reserves. In years when actual sales are less than projections, Metropolitan uses various tools to manage reductions in revenues, such as reducing expenses below budgeted levels, reducing funding of capital from revenues, and drawing on reserves. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. Metropolitan considers actual sales, revenues and expenses, and financial reserve balances in setting rates for future fiscal years.

Projections for fiscal year 2016-17 in the following table reflect actual financial results through December 31, 2016 and revised projections for the balance of the fiscal year. The financial projections for fiscal year 2017-18 reflects the adopted biennial budget that was approved by the Board on April 12, 2016, with revised preliminary water sales projections as of February 2017, but with no adjustments for lower expenses that can accompany lower water sales. Financial projections for fiscal years 2018-19 through 2020-21 are reflected in the ten-year financial forecast provided in the adopted biennial budget. This includes the projected issuance of $320 million of bonds in fiscal years 2017-18 through 2019-21 to finance the CIP. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES–Water Sales Revenues" and "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

Water sales were 1.62 million acre-feet in fiscal year 2015-16. Water sales are projected to be 1.60 million acre-feet in fiscal year 2016-17 and 1.50 million acre-feet for fiscal year 2017-18, and 1.75 million acre-feet for fiscal years 2018-19 through 2020-21. Rates and charges increased by 1.5 percent on January 1, 2015 and January 1, 2016, and by 4.0 percent on January 1, 2017. On April 12, 2016 the Board adopted average increases in rate and charges of 4.0 percent, which will become effective on January 1, 2018. Rates and charges are projected to increase an average of 4.5 percent annually thereafter. Actual rates and charges to be effective in 2019 and thereafter are subject to adoption by Metropolitan's Board. The projections were prepared by Metropolitan and have not been reviewed by independent certified public accountants or any entity other than Metropolitan. Dollar amounts are rounded.

[Remainder of page intentionally left blank.]

HISTORICAL AND PROJECTED REVENUES AND EXPENSES[a]
(Dollars in Millions)

	Actual				Projected				
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Water Sales[b]	$1,283	$1,485	$1,383	$1,166	$1,198	$1,233	$1,473	$1,533	$1,597
Additional Revenue Sources[c]	173	182	199	200	191	173	179	184	192
Total Operating Revenues	1,456	1,667	1,582	1,366	1,389	1,405	1,652	1,717	1,789
O&M, CRA Power and Water Transfer Costs[d]	(456)	(512)	(697)	(799)	(646)	(631)	(661)	(681)	(695)
Total SWC OMP&R and Power Costs[e]	(337)	(342)	(308)	(402)	(365)	(453)	(486)	(532)	(577)
Total Operation and Maintenance	(793)	(854)	(1,005)	(1,201)	(1,011)	(1,084)	(1,147)	(1,212)	(1,272)
Net Operating Revenues	$ 663	$ 813	$ 577	$ 165	$ 378	$ 321	$ 505	$ 505	$ 517
Miscellaneous Revenue[f]	23	19	21	24	21	24	24	24	25
Transfer from Reserve Funds[g]	--	--	142	222	46	--	--	--	--
Sales of Hydroelectric Power[h]	25	15	8	7	13	22	22	23	22
Interest on Investments[i]	(2)	19	13	17	3	12	19	19	20
Adjusted Net Operating Revenues[j]	709	866	761	435	461	378	569	571	584
Senior Bond Service[k]	(298)	(343)	(280)	(309)	(307)	(330)	(328)	(322)	(314)
Subordinate Obligations[l]	(1)	(1)	(1)	(1)	(4)	(4)	(6)	(6)	(6)
Funds Available from Operations	$ 410	$ 522	$ 480	$ 125	$ 150	$ 44	$ 236	$ 243	$ 265
Senior Bond Debt Service Coverage [m]	2.38	2.52	2.72	1.41	1.50	1.15[q]	1.74	1.77	1.86
Subordinate Lien Debt Service Coverage	--	--	--	--	39.45	11.52[q]	43.57	44.83	48.72
Debt Service Coverage on all Senior and Subordinate Bonds[n]	2.37	2.51	2.71	1.40	1.48	1.13[q]	1.71	1.74	1.83
Funds Available from Operations	$ 410	$ 522	$ 480	$ 125	$ 150	$ 44	$ 236	$ 243	$ 265
Other Revenues (Expenses)	(5)	(6)	(7)	(6)	(6)	(6)	(7)	(7)	(7)
Pay-As-You Go Construction[p]	(55)	(117)	(210)	(273)	(132)	(120)	(120)	(120)	(120)
Pay-As-You Go Funded from Replacement & Refurbishment Fund Reserves[p]	--	--	--	160	--	--	--	--	--
Total SWC Capital Costs Paid from Current Year Operations	(88)	(68)	(46)	(24)	(54)	(65)	(71)	(86)	(103)
Remaining Funds Available from Operations	262	331	217	(18)	(42)	(147)	39	30	35
Fixed Charge Coverage[o]	1.83	2.10	2.33	1.30	1.26	0.95[q]	1.41	1.38	1.38
Property Taxes	95	95	104	108	106	101	103	105	107
General Obligation Bonds Debt Service	(40)	(40)	(22)	(22)	(22)	(23)	(19)	(14)	(14)
SWC Capital Costs Paid from Taxes	(55)	(55)	(82)	(86)	(83)	(75)	(82)	(88)	(91)
Net Funds Available from Current Year[p]	$ 262	$ 331	$ 217	$ (18)	$ (42)	$(147)	$ 39	$ 30	$ 35

_____
Source: Metropolitan.

(Footnotes on next page)

(Footnotes to table on prior page)

(a) Unaudited. Prepared on a modified accrual basis. Projected revenues and expenses in fiscal year 2016-17 are based on preliminary financial results through December 31, 2016, and revised projections for the balance of fiscal year 2016-17. Projections for fiscal year 2017-18 are based on assumptions and estimates used in the adopted biennial budget for fiscal years 2016-17 and 2017-18 and revised for water sales of 1.5 million acre-feet. Projections for fiscal years 2018-19 through 2020-21 are based on assumptions and estimates used in the adopted fiscal years 2016-17 and 2017-18 biennial budget and reflect the projected issuance of additional bonds.

(b) During the fiscal years ended June 30, 2013 through June 30, 2016, annual water sales (in acre-feet) were 1.86 million, 2.04 million, 1.905 million and 1.62 million, respectively. See "METROPOLITAN REVENUES–Water Sales Revenues," the table entitled "SUMMARY OF WATER SOLD AND WATER SALES" in this Appendix A. The water sales projections (in acre-feet) are 1.60 million acre-feet for fiscal year 2016-17, 1.50 million acre-feet for fiscal years 2017-18, and 1.75 million acre-feet for fiscal years 2018-19, 2019-20 and 2020-21. Projections reflect Board adopted rate and charge increases of 4.0 percent, effective on January 1, 2017 and January 1, 2018. Rates and charges are projected to increase an average of 4.5 percent per fiscal year thereafter, subject to adoption by Metropolitan's Board. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES."

(c) Includes receipts from water standby, readiness-to-serve, and capacity charges. The term Operating Revenues excludes *ad valorem* taxes. See "METROPOLITAN REVENUES–Other Charges" in this Appendix A.

(d) Water Transfer Costs are included in operation and maintenance expenses for purposes of calculating the debt service coverage on all Obligations.

(e) Includes on- and off-aqueduct power and operation, maintenance, power and replacement costs payable under the State Water Contract. See "METROPOLITAN EXPENSES–State Water Contract Obligations" in this Appendix A.

(f) May include lease and rental net proceeds, net proceeds from sale of surplus property, reimbursements, and federal interest subsidy payments for Build America Bonds.

(g) Reflects transfers from the Water Management Fund, the Water Stewardship Fund, and the Water Rate Stabilization Fund, of $142 million in fiscal year 2014-15, $222 million in fiscal year 2015-16, and projected transfers of $46 million in fiscal year 2016-17 to fund a like amount of costs for conservation and supply programs. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES."

(h) Includes CRA power sales.

(i) Does not include interest applicable to Bond Construction Funds, the Excess Earnings Funds, other trust funds and the Deferred Compensation Trust Fund. Fiscal year 2012-13 included Fair Value Adjustment of $(13.8) million, as per modified accrual accounting

(j) Adjusted Net Operating Revenues is the sum of all available revenues that the revenue bond resolutions specify may be considered by Metropolitan in setting rates and issuing additional Senior Revenue Bonds and Senior Parity Obligations and Subordinate Revenue Bonds and Subordinate Parity Obligations.

(k) Includes debt service on outstanding Senior Revenue Bonds, and additional Senior Revenue Bonds (projected). Assumes issuance of $80 million annually in additional Senior Revenue Bonds as provided in budget assumptions for the adopted biennial budget for fiscal years 2016-17 and 2017-18 and as projected for fiscal years 2018-19, 2019-20, and 2020-21. For fiscal years 2013-14 and 2014-15, reflects the defeasance of the 2004 Series B Water Revenue Refunding Bonds, payable on July 1, 2014, through a payment of $33.7 million to an escrow account on May 29, 2014. Fiscal year 2015-16 debt service increased $7.0 million for debt service paid on June 30, 2016, rather than July 1, 2017 and fiscal year 2016-17 debt service was therefore reduced by $7.0 million. See "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

(l) Consisting of subordinate lien California Safe Drinking Water Revolving Fund Loan and Subordinate 2016 Series A Bonds.

(m) Adjusted Net Operating Revenues divided by the sum of debt service on outstanding Senior Revenue Bonds and additional Senior Revenue Bonds (projected).

(n) Adjusted Net Operating Revenues, divided by the sum of debt service on outstanding Senior Revenue Bonds, Senior Parity Obligations, Subordinate Revenue Bonds and Subordinate Parity Obligations, including the subordinate lien California Safe Drinking Water Revolving Fund Loan and projected Revenue Bonds. See "METROPOLITAN EXPENSES–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations" in this Appendix A.

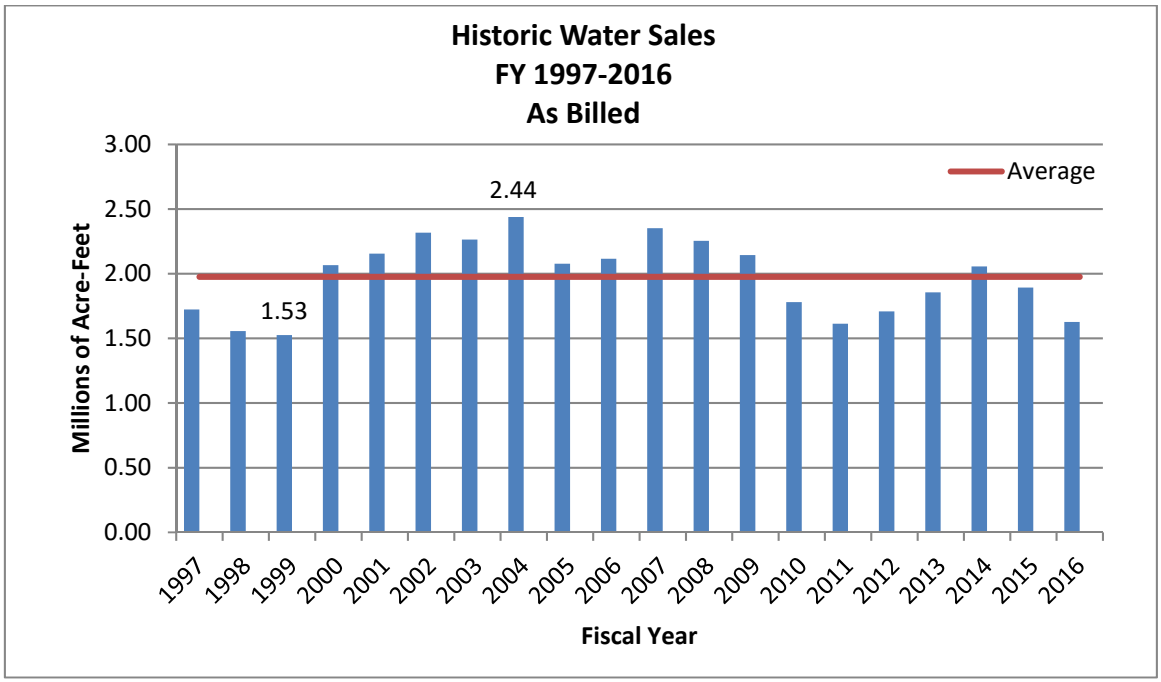
(o) Adjusted Net Operating Revenues, divided by the sum of State Water Contract capital costs paid from current year operations and debt service on outstanding Revenue Bonds, the subordinate lien California Safe Drinking Water Revolving Fund Loan, Subordinate 2016 Series A Bonds and additional Revenue Bonds (projected).

(p) For Fiscal Year 2012-13, includes amounts that were transferred prior to June 30, 2013: $25 million to the Water Transfer Fund, $25 million to a trust to pre-fund Metropolitan's unfunded liability for other post-employment benefits, and $25 million for pay-as-you-go Construction. For Fiscal Year 2013-14, includes amounts transferred prior to June 30, 2014: $100 million to a trust to pre-fund Metropolitan's unfunded liability for other post-employment benefits; $100 million for pay-as-you-go Construction, $232 million to the Water Management Fund, for water purchases to replenish storage and funding drought response programs. For Fiscal Year 2014-15, includes amounts transferred prior to June 30, 2015: $160 million to the Water Management Fund, for water conservation programs. For fiscal year 2015-16, Metropolitan used $264 million for acquiring properties in Riverside and Imperial Counties, funded by $160 million from the Replacement and Refurbishment Fund Reserves and the balance from unrestricted reserves. This land purchase is reflected as a pay-as-you-go expenditure for fiscal year 2015-16.

(q) The financial projection for fiscal year 2017-18 reflects the revised preliminary water sales projection of 1.50 million acre-feet and a corresponding reduction in projected water sales revenues. It does not take into account any potential reduction in expenses that may accompany such reduced water sales. As discussed, Metropolitan uses its financial reserves and budgetary tools to manage the financial impact of the variability in revenues due to fluctuations in annual water sales. See also "METROPOLITAN REVENUES–Financial Reserve Policy."

Water Sales Projections

Water sales forecast in the table above for fiscal year 2016-17 is 1.60 million acre-feet, 100 thousand acre-feet under budget. The updated water sales forecast is 1.50 million acre-feet for fiscal year 2017-18, and 1.75 million acre-feet for fiscal years 2018-19 and 2019-21, consistent with the biennial budget and ten-year financial forecast. For purposes of comparison, Metropolitan's highest water sales during the past 20 fiscal years was approximately 2.44 million acre-feet in fiscal year 2003-04 and the lowest was 1.53 million acre-feet in fiscal year 1998-1999. The chart below shows the last 20 fiscal years of water sales.



Water Sales Revenues

Metropolitan relies on revenues from water sales for about 85 to 90 percent of its total revenues. In adopting the budget and rates and charges for each fiscal year, Metropolitan's board reviews the anticipated revenue requirements and projected water sales to determine the rates necessary to produce the required revenues to be derived from water sales during the fiscal year. Metropolitan sets rates and charges estimated to provide operating revenues sufficient, with other sources of funds, to provide for payment of its expenses. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

Metropolitan's Board has adopted annual increases in water rates each year beginning with the rates effective January 1, 2004. See "METROPOLITAN REVENUES–Rate Structure" and "–Classes of Water Service" in this Appendix A. On April 10, 2012, Metropolitan's Board adopted annual water rate increases of 5.0 percent, which became effective January 1, 2013 and January 1, 2014. On April 8, 2014, Metropolitan's Board adopted 1.5 percent average water rate increases effective January 1, 2015, and January 1, 2016, and on April 12, 2016, Metropolitan's Board adopted an average 4.0 percent water rate increase, effective January 1, 2017, and an additional average 4.0 percent water rate increase effective January 1, 2018.

Projected Fiscal Year 2016-17 Results

Projections for fiscal year 2016-17, in the table above, are based on preliminary financial results through December 31, 2016, and revised projections for the balance of fiscal year 2016-17. The financial

projection for fiscal year 2017-18 reflects the adopted biennial budget for this fiscal year as approved by the Board on April 12, 2016, with revised preliminary water sales projections. Financial projections for fiscal years 2018-19 through 2020-21 are reflected in the ten-year financial forecast provided in the adopted biennial budget. The fiscal year 2016-17 and 2017-18 biennial budget and rates set the stage for predictable and reasonable rate increases over the ten-year planning period, with Board adopted rate increases of 4.0 percent annually in both fiscal years 2016-17 and 2017-18, and projected average increases of 4.5 percent per year thereafter. Actual rates and charges to be effective in fiscal year 2018-19 and thereafter are subject to adoption by Metropolitan's Board as part of the biennial budget process, at which point the ten-year forecast will also be updated as well. Increases in rates and charges reflect the impact of reduced water sales projections, increasing operations and maintenance costs, and increasing State Water Project costs, when compared to prior fiscal years.

Metropolitan's revenues exceeded expenses during fiscal year 2014-15, resulting in a significant increase in unrestricted reserves. On May 29, 2015, Metropolitan's Board approved the use of $160 million of unrestricted reserves over the target reserve level, $50 million from the Water Stewardship Fund, and $140 million from the Water Management Fund to fund conservation incentives. As of June 30, 2015, Metropolitan's unrestricted reserves were $476 million, on a modified accrual basis. On July 14, 2015, Metropolitan's Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves. Unrestricted reserves, as of April 30, 2016, include $250 million drawn from Short-Term Revolving Credit Facilities with RBC Municipal Products, LLC, and U.S. Bank N.A, and deposited in Metropolitan's financial reserves. See "METROPOLITAN REVENUES–Financial Reserve Policy" and "METROPOLITAN EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Senior Parity Obligations – Short-Term Revolving Credit Facilities" in this Appendix A.

In fiscal years 2014-15 and 2015-16, Adjusted Net Operating Revenues reflect the use of $142 million and $222 million respectively, from reserves to fund a like amount of costs for conservation and supply programs. In fiscal year 2016-17, $46 million of Adjusted Net Operating Revenues are projected to come from reserves to fund a like amount of costs for conservation and supply programs.

Financial projections for fiscal year 2016-17 reflect lower water sales revenues that are estimated to be $107.0 million, or 8 percent, below budget, based on the revised water sales projection of 1.60 million acre-feet, compared to the budgeted 1.70 million acre-feet, a reduction of 6 percent.

Operation and maintenance expenses in fiscal year 2016-17 are projected to be $1.01 billion, which represents approximately 63 percent of total costs. These expenses include the costs of labor, electrical power, materials and supplies of both Metropolitan and its contractual share of the State Water Project. Metropolitan's operation and maintenance expenditures are project to be on budget in fiscal year 2016-17. Metropolitan's State Water Project costs are projected to be $80.3 million lower than budgeted. Overall, projected expenditures for the twelve months ending June 30, 2017 are $1.6 billion. This is $89 million, or 5 percent, less than budgeted expenditures.

The combination of lower than budgeted water sales revenue and expenditures has resulted in projected fiscal year 2016-17 revenue bond debt service coverage to be 1.48x and fixed charge coverage to be 1.26x, compared to budgeted debt service coverage of 1.55x and budgeted fixed charge coverage of 1.27x. Fiscal year 2016-17 capital expenditures, currently estimated at $212 million, will be primarily funded by pay-as-you-go funding and the remainder from bond proceeds. Metropolitan's unrestricted reserves are projected to be approximately $378 million at June 30, 2017. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. This amount does not include funds held in the Exchange Agreement Set-Aside Fund.

See also the "Management's Discussion and Analysis" contained in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

THIS PAGE INTENTIONALLY LEFT BLANK

Appendix G

Water Supply Assessment Checklist

Water Supply Assessment Checklist

Water Code Section	Water Supply Assessment Content	Page # in WSA
10910(c)(2)	Incorporate data from UWMP.	1-46
10910(d)(1)	Identification of existing water supply entitlements, water rights, or water service contracts relevant to identified water supply for proposed project, and description of quantity of water received in prior years.	26-46
10910(d)(2)(A)	Written contracts or other proof of entitlement to an identified water supply.	26-46
10910(d)(2)(B)	Capital outlay program for financing the delivery of a water supply that has been adopted.	46
10910(d)(2)(C)	Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.	15-46
10910(d)(2)(D)	Any necessary regulatory approval to deliver/convey the water supply.	15-46
10910(f)(1)	Review of any information contained in the UWMP relevant to the identified water supply for the proposed project.	1-46
10910(f)(2)	Description of any groundwater basin(s) from which proposed project will be supplied. For basins with adjudicated groundwater pumping rights, include a copy of the order/decree adopted by the court or the board and a description of quantity of groundwater public water system has the legal right to pump under the order/decree.	26-28, 31-33, Appendix D
10910(f)(3)	Description and analysis of amount and location of groundwater pumped for the past 5 years from any groundwater basin from which the proposed project will be supplied.	31-33
10910(f)(4)	Description and analysis of amount and location of groundwater that is projected to be pumped from any basin to provided water to the proposed project.	26-28, 31-33
10910(f)(5)	Analysis of sufficiency of groundwater from the basins from which the proposed project will be supplied to meet projected water demand of the proposed project.	26-28, 31-33

Mitigation Monitoring Program

3440 Wilshire Project
ENV-2016-3693-MND

1 Introduction

This Mitigation Monitoring Program (MMP) has been prepared pursuant to Public Resources Code Section 21081.6, which requires a Lead Agency to adopt a "reporting or monitoring program for changes to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment." In addition, Section 15097(a) of the State CEQA Guidelines requires that a public agency adopt a program for monitoring or reporting mitigation measures and project revisions, which it has required to mitigate or avoid significant environmental effects. This MMP has been prepared in compliance with the requirements of CEQA, Public Resources Code Section 21081.6 and Section 15097 of the CEQA Guidelines.

The City of Los Angeles is the Lead Agency for the Project and therefore is responsible for administering and implementing the MMP. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity that accepts the delegation; however, until mitigation measures have been completed, the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

A Mitigated Negative Declaration (MND) has been prepared to address the potential environmental impacts of the Project. The evaluation of the Project's impacts in the MND applies mitigation measures (MM) needed to avoid or reduce potentially significant environmental impacts. This MMP is designed to monitor implementation of the MMs identified for the Project.

2 Organization

As shown on the following pages, each identified mitigation measure for the Project is listed and categorized by environmental impact area, with accompanying identification of the following:

- Enforcement Agency: the agency with the power to enforce the MM.
- Monitoring Agency: the agency to which reports involving feasibility, compliance, implementation, and development are made.
- Monitoring Phase: the phase of the Project during which the MM shall be monitored.
- Monitoring Frequency : the frequency at which the MM shall be monitored.

- Action Indicating Compliance: the action by which the Enforcement or Monitoring Agency indicates that compliance with the required MM has been implemented.

3 Administrative Procedures and Enforcement

This MMP shall be enforced throughout all phases of the Project. The Applicant shall be responsible for implementing each MM and shall be obligated to provide certification, as identified below, to the appropriate monitoring and enforcement agencies that each MM has been implemented. The Applicant shall maintain records demonstrating compliance with each MM. Such records shall be made available to the City upon request.

During the construction phase and prior to the issuance of building permits, the Applicant shall retain an independent Construction Monitor (either via the City or through a third-party consultant), approved by the Department of City Planning, who shall be responsible for monitoring implementation of MMs during construction activities consistent with the monitoring phase and frequency set forth in this MMP.

The Construction Monitor shall also prepare documentation of the Applicant's compliance with the MMs during construction every 90 days in a form satisfactory to the Department of City Planning. The documentation must be signed by the Applicant and Construction Monitor and be included as part of the Applicant's Compliance Report. The Construction Monitor shall be obligated to immediately report to the Enforcement Agency any non-compliance with the MMs within two businesses days if the Applicant does not correct the non-compliance within a reasonable time of notification to the Applicant by the monitor or if the non-compliance is repeated. Such non-compliance shall be appropriately addressed by the Enforcement Agency.

4 Program Modification

After review and approval of the final MMP by the Lead Agency, minor changes and modifications to the MMP are permitted, but can only be made subject to City approval. The Lead Agency, in conjunction with any appropriate agencies or departments, will determine the adequacy of any proposed change or modification. This flexibility is necessary in light of the nature of the MMP and the need to protect the environment. No changes will be permitted unless the MMP continues to satisfy the requirements of CEQA, as determined by the Lead Agency.

The Project shall be in substantial conformance with the MMs contained in this MMP. The enforcing departments or agencies may determine substantial conformance with MMs in the MMP in their reasonable discretion. If the department or agency cannot find substantial conformance, a MM may be modified or deleted as follows: the enforcing department or agency, or the decision maker for a subsequent discretionary project related approval finds that the modification or deletion complies with CEQA, including CEQA Guidelines Sections 15162 and 15164, which could include the preparation of an addendum or subsequent environmental clearance, if necessary, to analyze the impacts from the modifications to or deletion of the MMs. Any addendum or subsequent CEQA clearance shall explain why the MM is no longer

needed, not feasible, or the other basis for modifying or deleting the MM, and that the modification will not result in a new significant impact consistent with the requirements of CEQA. Under this process, the modification or deletion of a MM shall not, in and of itself, require a modification to any Project discretionary approval unless the Director of Planning also finds that the change to the MM results in a substantial change to the Project or the non-environmental conditions of approval.

5 Mitigation Monitoring Program

Mitigation Measure: TRAN-MM-1 Construction Activity Near Schools

The developer shall maintain ongoing contact with administrators of RFK Community Schools. The administrators shall be contacted when demolition, grading and construction activity begin on the Project Site so that students and their parents will know when such activities are to occur. The developer shall obtain school walk and bus routes to the schools from either the administrators or from LAUSD's Transportation Branch (323) 342-1400 and guarantee that safe and convenient pedestrian and bus routes to the school are maintained.

Impact Area: Transportation

Enforcement Agency: City of Los Angeles Department of Transportation

Monitoring Agency: City of Los Angeles Department of Transportation

Monitoring Phase: Pre-construction; construction

Monitoring Frequency: Once at Project plan check prior to issuance of grading or building permit; once during field inspection

Action Indicating Compliance: Plan approval and issuance of grading permit; field inspection sign-off

Mitigation Measure: TRAN-MM-2 Safety Hazards

- The developer shall install appropriate construction related traffic signs around the Project Site to ensure pedestrian and vehicle safety.
- The Applicant shall plan construction and construction staging as to maintain pedestrian access on adjacent sidewalks throughout all construction phases. This requires the applicant to maintain adequate and safe pedestrian protection, including physical separation (including utilization of barriers such as K-Rails or scaffolding) from

work space and vehicular traffic, and overhead protection, due to sidewalk closure or blockage, at all times.

- Temporary pedestrian facilities shall be adjacent to the Project Site and provide safe, accessible routes that replicate as nearly as practical the most desirable characteristics of the existing facility.

- Covered walkways shall be provided where pedestrians are exposed to potential injury from falling objects.

- Applicant shall keep sidewalk open during construction until only when it is absolutely required to close or block sidewalk for construction and/or construction staging. Sidewalk shall be reopened as soon as reasonably feasible taking construction and construction staging into account.

Impact Area: Transportation

Enforcement Agency: City of Los Angeles Department of Transportation

Monitoring Agency: City of Los Angeles Department of Transportation

Monitoring Phase: Pre-construction; construction

Monitoring Frequency: Once at Project plan check prior to issuance of grading or building permit; once during field inspection

Action Indicating Compliance: Plan approval and issuance of grading permit; field inspection sign-off

Project Design Features

3440 Wilshire Project
ENV-2016-3693-MND

In addition to the required mitigation measures, the project also includes project design features that prevent any significant impacts from occurring through design. These project design features are included below, and are conditions of the project that must be monitored and enforced as if they were mitigation measures. While these project design features are not required by the code, the City of Los Angeles has required them of the project, and they may not be deleted except by public hearing. These project design features are listed below:

Project Design Feature: TRAN-PDF-1

A Construction Traffic Management Plan will be developed by the contractor and approved by the City of Los Angeles to alleviate construction period impacts, which may include but is not limited to the following measures:

- Provide off-site truck staging in a legal area furnished by the construction truck contractor. Anticipated truck access to the project site will be off Mariposa Avenue and 7th Street.

- Schedule deliveries and pick-ups of construction materials during non-peak travel periods to the extent possible and coordinate to reduce the potential of trucks waiting to load or unload for protracted periods.

- As parking lane and/or sidewalk closures are anticipated along 7th Street, worksite traffic control plan(s), approved by the City of Los Angeles, should be implemented to route vehicular traffic, bicyclists, and pedestrians around any such closures.

- Establish requirements for loading/unloading and storage of materials on the project site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses and residences.

- Ensure that access will remain unobstructed for land uses in proximity to the project site during project construction.

- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses and residences.

A Construction Worker Parking Plan will also be developed by the contractor and approved by the City of Los Angeles to ensure that the parking location requirements for construction workers will be strictly enforced. These could include but are not limited to the following measures:

- During construction activities when construction worker parking cannot be accommodated on the project site, the plan shall identify alternate parking location(s) for construction workers and the method of transportation to and from the project site (if beyond walking distance) for approval by the City 30 days prior to commencement of construction.

- Provide all construction contractors with written information on where their workers and their subcontractors are permitted to park, and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets.

Impact Area: Transportation

Enforcement Agency: City of Los Angeles Department of Transportation

Monitoring Agency: City of Los Angeles Department of Transportation

Monitoring Phase: Pre-construction; construction

Monitoring Frequency: Once at Project plan check prior to issuance of grading or building permit; once during field inspection

Action Indicating Compliance: Plan approval and issuance of grading permit; field inspection sign-off

VTT-74602-1A
EXHIBIT H
ERRATUM (March 2, 2020)
ENV-2016-3693-MND

DEPARTMENT OF
CITY PLANNING

COMMISSION OFFICE
(213) 978-1300

CITY PLANNING COMMISSION

SAMANTHA MILLMAN
PRESIDENT

VAHID KHORSAND
VICE-PRESIDENT

DAVID H. J. AMBROZ
CAROLINE CHOE
HELEN LEUNG
KAREN MACK
MARC MITCHELL
VERONICA PADILLA-CAMPOS
DANA M. PERLMAN

CITY OF LOS ANGELES
CALIFORNIA

ERIC GARCETTI
MAYOR

KEVIN J. KELLER, AICP
EXECUTIVE OFFICER

SHANA M.M. BONSTIN
DEPUTY DIRECTOR

TRICIA KEANE
DEPUTY DIRECTOR

ARTHI L. VARMA, AICP
DEPUTY DIRECTOR

LISA M. WEBBER, AICP
DEPUTY DIRECTOR

ERRATUM to the Initial Study/ Mitigated Negative Declaration

3440 Wilshire Project

Case Number: ENV-2016-3693-MND

PREPARED FOR:
The City of Los Angeles
Department of City Planning

PREPARED BY:
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

APPLICANT:
Central Plaza, LLC
3450 Wilshire Blvd. Suite 1200-115
Los Angeles, CA 90010

March 2, 2020

PROJECT BACKGROUND

The Site currently consists of 6 subdivided lots and a non-subdivided remainder. The Project is requesting a Vesting Tentative Tract to merge the existing lots and re-subdivide the Site into 6 lots: 1) ground (master) lot with a lot area of 316,438 square feet; 2) residential (apartment) (airspace) with up to 640 residential units in up to 701,315 square feet of floor area; 3) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 2,360 square feet of commercial space; 4) parking (residential, commercial, office, and bike) (airspace); 5) existing 5-story parking structure (airspace); and 6) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 3,700 square feet of commercial space.

The mixed-use project will include**:** (i) 640 apartment units (441 studio units and 199 2-bedroom units); (ii) 10,738 square feet of commercial floor area (5,538 square feet of retail area and 5,200 square feet of restaurant area [3,700 square feet with 138 indoor and outdoor patio seats of high-turnover restaurant and 1,500 square feet with 68 indoor and outdoor patio seats of fast-food restaurant]); (iii) 1,921 vehicle parking spaces (consisting of 500 residential and 714 commercial spaces and 707 existing spaces to remain**)**. The Project would involve demolishing the existing three-story parking structure, constructing two commercial kiosks (one 1,073 square foot, 16 foot in height kiosk along Irolo Street and one 805 square foot, 16 foot in height kiosk along the pedestrian space between the existing buildings and proposed building, just off Mariposa Avenue), and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. The Project provides 500 residential (23 short-term and 477 long-term) and 1,340 commercial (5 short-term and 1,335 long-term) bicycle parking spaces.

There are 30 trees in the public right-of-way, of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees would be removed and replaced. There are 29 trees on the private portion of the Project Site, none of which are protected species. Of these, 24 would be removed. The amount of soils removed or exported would be 137,000 cubic yards.

A Draft Initial Study/Mitigated Negative Declaration (IS/MND) was prepared for the Project and circulated from February 6, 2020 through March 9, 2020, for a 33-day public review. The Draft IS/MND identified potential impacts and mitigation measures associated with Transportation, and found that mitigation measures identified in the Draft IS/MND would reduce impact levels to less than significant.

ERRATUM

This Erratum addresses modifications to Section IX. Hazards and Hazardous Materials in the published Draft IS/MND. Deletions to text of the Draft IS/MND are shown with strikethrough. Additions to text of the Draft IS/MND are shown with italic text and underline. Portions of the Draft IS/MND text to remain are included to provide context for the corrections.

Section IX. Hazardous and Hazardous Materials [IS/MND page B-143]

…

Methane

The Project Site is ~~not~~ within a Methane Buffer Zone. *Therefore, the Project is required to comply with Los Angeles Department of Building and Safety (LADBS) regulatory requirements for methane defined in the Los Angeles Methane Seepage Regulations (LAMC, Chapter IX, Article 1, Division 71), including requirements for site testing, including appropriate Site Design Level, which will prevent or retard potential methane gas seepage into the building.*

The methane designation is correctly noted in the Preliminary Geotechnical Engineering Investigation, Geotechnologies, Inc., December 5, 2018 (included as Appendix G-1 to the IS/MND), which was approved by the LADBS in Soils Approval Letter, Los Angeles Department of Building and Safety, December 24, 2018 (included as Appendix G-2 to the IS/MND).

This correction does not constitute new information since the technical appendices included as part of the administrative case file in the IS/MND noted this designation.

This correction does not constitute mitigation because there is an existing regulatory compliance process in place that the Project would comply as part of the building permit process and plan check. No new identified significant impact or worsening of an impact would occur.

Recirculation is Not Required

Once an MND has been circulated, it may need to be recirculated for another round of review and comment if it is "substantially revised" after the public notice of the first circulation period has been given. (CEQA Guidelines § 15073.5(a).) A substantial revision includes two situations (CEQA Guidelines § 15073.5(b)):

1. A new, avoidable significant effect is identified, and to reduce that effect to a level of insignificance, mitigation measures or project revisions must be added.

2. The lead agency finds that the mitigation measures or project revisions originally included in the negative declaration will not reduce potentially significant impacts to a level of insignificance, and new mitigation measures or project revisions are required.

Recirculation is required when the addition of new information deprives the public of a meaningful opportunity to comment on substantial adverse project impacts or feasible mitigation measures or alternatives that are not adopted. (Laurel Heights Improvement Ass'n v Regents of Univ. of Cal. (1993) 6 Cal.4th 1112, 1130 ("Laurel Heights II") (emphasis added); CEQA Guidelines § 15088.5(a).) The purpose of recirculation is to give the public and other agencies an opportunity to evaluate the new data and the validity of conclusions drawn from it. (Silverado Modjeska Recreation & Park Dist. v. County of Orange (2011) 197 Cal.App.4th 282, 305; Save

Our Peninsula Comm. v. Monterey County Bd. of Supervisors (2001) 87 Cal.App.4th 99, 131; Sutter Sensible Planning, Inc. v Board of Supervisors (1981) 122 Cal.App.3d 813, 822.) The critical issue in determining whether recirculation is required is whether any new information added to the environment document is substantial. (Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova (2007) 40 Cal.4th 41 449.)

Recirculation is not required where the new information added to the MND "merely clarifies or amplifies [citations] or makes insignificant modifications in [citation] an adequate" MND. (CEQA Guidelines § 15088.5(b); Sutter Sensible Planning Inc., 122 Cal.App.3d at 822-823; Marin Mun. Water Dist. v. KG Land Cal. Corp. (1991) 235 Cal.App.3d 1652, 1667 [recirculation was not required when the final environmental document contained a revised water moratorium estimate because the new information merely served to clarify an environmental effect that was adequately discussed in the draft document].) Recirculation is "intended to be an exception, rather than the rule." (Laurel Heights II, 6 Cal.4th at 1132.)

Unless these changes result in a new impacts unavoidable impacts or new mitigation measures, recirculation is not required. (W. Placer Citizens for an Agric. & Rural Envtl. v. County of Placer (2006) 144 Cal.App.4th 890, 898 [changes in the project that "reflect an improvement in the environmental condition when compared to the original project or the mitigated design alternatives" do not necessitate recirculation]; Rialto Citizens for Responsible Growth v. City of Rialto (2012) 208 Cal.App.4th 899 ("Rialto Citizens").)

As is the case here, the addition of new information that clarifies, amplifies, or makes insignificant modifications to an MND does not require recirculation. (CEQA Guidelines § 15073.5(c)(4).) New information will only require recirculation when it amounts to a substantial revision of the MND, as defined above. (CEQA Guidelines § 15073.5(b).) As demonstrated herein, is neither a significant, avoidable impact that requires the addition of mitigation measures nor ineffective mitigation measure requiring revisions.

Conclusion

The information contained in this section clarifies, amplifies, or refines information in the IS/MND but does not make any changes that would meet the definition of "significant new information" as defined above. The information added does not change the IS/MND in a way that deprives the public of a meaningful opportunity to comment upon a new or substantially increased significant environmental effect of the Project. As analyzed in the IS/MND, the whole of the record supports the conclusion that the Project would result in impacts below a level of significance.

The City, as lead agency, has reviewed the information in this Erratum and has determined that it does not change any of the basic findings or conclusions of the Draft IS/MND, nor does it constitute "substantial revisions" pursuant to CEQA Guidelines Section 15073.5, or require recirculation of the Draft IS/MND. This Erratum, combined with the Draft IS/MND, including technical appendices and reports thereof, comprise the Final IS/MND.

VTT-74602-1A

EXHIBIT I

ERRATUM (March 10, 2020)
ENV-2016-3693-MND

DEPARTMENT OF
CITY PLANNING

COMMISSION OFFICE
(213) 978-1300

CITY PLANNING COMMISSION

SAMANTHA MILLMAN
PRESIDENT

VAHID KHORSAND
VICE-PRESIDENT

DAVID H. J. AMBROZ
CAROLINE CHOE
HELEN LEUNG
KAREN MACK
MARC MITCHELL
VERONICA PADILLA-CAMPOS
DANA M. PERLMAN

CITY OF LOS ANGELES
CALIFORNIA

ERIC GARCETTI
MAYOR

DIRECTOR

KEVIN J. KELLER, AICP
EXECUTIVE OFFICER

SHANA M.M. BONSTIN
DEPUTY DIRECTOR

TRICIA KEANE
DEPUTY DIRECTOR

ARTHI L. VARMA, AICP
DEPUTY DIRECTOR

LISA M. WEBBER, AICP
DEPUTY DIRECTOR

ERRATUM to the Initial Study/ Mitigated Negative Declaration

3440 Wilshire Project

Case Number: ENV-2016-3693-MND

PREPARED FOR:
The City of Los Angeles
Department of City Planning

PREPARED BY:
CAJA Environmental Services, LLC
15350 Sherman Way, Suite 315
Van Nuys, CA 91406

APPLICANT:
Central Plaza, LLC
3450 Wilshire Blvd. Suite 1200-115
Los Angeles, CA 90010

March 10, 2020

PROJECT BACKGROUND

The Project Site currently consists of 6 subdivided lots and a non-subdivided remainder. The Project is requesting a Vesting Tentative Tract to merge the existing lots and re-subdivide the Site into 6 lots: 1) ground (master) lot with a lot area of 316,438 square feet; 2) residential (apartment) (airspace) with up to 640 residential units in up to 701,315 square feet of floor area; 3) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 2,360 square feet of commercial space; 4) parking (residential, commercial, office, and bike) (airspace); 5) existing 5-story parking structure (airspace); and 6) commercial (retail) (airspace) with an allocation of two commercial condominiums comprising up to 3,700 square feet of commercial space. The applicant also filed an incidental request under Case No. CPC-2016-3692-VZC-MCUP-SPR, for a Vesting Zone Change from PB-2 and P-2 to C4-2, a Master Conditional Use Permit to permit on-site alcoholic beverages, and Site Plan Review for developments with over 50 dwelling units.

The mixed-use project will include**:** (i) 640 apartment units (441 studio units and 199 two-bedroom units); (ii) 10,738 square feet of commercial floor area (5,538 square feet of retail area and 5,200 square feet of restaurant area [3,700 square feet with 138 indoor and outdoor patio seats of high-turnover restaurant and 1,500 square feet with 68 indoor and outdoor patio seats of fast-food restaurant]); (iii) 1,921 vehicle parking spaces (consisting of 714 residential and 500 commercial spaces and 707 existing spaces to remain**)**. The Project would involve demolishing the existing three-story parking structure, constructing two commercial kiosks (a 1,073 square foot kiosk, 16 foot in height along Irolo Street and a 805 square foot kiosk, 16 foot in height along the pedestrian space between the existing buildings and proposed building, off Mariposa Avenue), and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. The Project provides 500 residential (23 short-term and 477 long-term) and 1,340 commercial (5 short-term and 1,335 long-term) bicycle parking spaces.

There are 30 trees in the public right-of-way, of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees would be removed and replaced. There are 29 trees on the private portion of the Project Site, none of which are protected species. Of these, 24 would be removed. The amount of soils removed or exported would be 137,000 cubic yards.

A Draft Initial Study/Mitigated Negative Declaration (IS/MND) was prepared for the Project and circulated from February 6, 2020 through March 9, 2020, for a 33-day public review. The Draft IS/MND identified potential impacts and mitigation measures associated with Transportation, and found that mitigation measures identified in the Draft IS/MND would reduce impact levels to less than significant. An Erratum dated March 2, 2020, was prepared to address modifications to Section IX. Hazards and Hazardous Materials in the published Draft IS/MND, pertaining to the methane buffer zone designation applicable to the site.

ERRATUM

This Erratum addresses modifications to the designation of proposed vehicular parking spaces in the published Draft IS/MND. Deletions to text of the Draft IS/MND are shown with

strikethrough. Additions to text of the Draft IS/MND are shown with italic text and underline. Portions of the Draft IS/MND text to remain are included to provide context for the corrections.

Cover Page of the IS/MND

…

(iii) 1,921 vehicle parking spaces (consisting of 500 *commercial* ~~residential~~ and 714 *residential* ~~commercial~~ spaces and 707 existing spaces to remain).

The designation of commercial and residential parking spaces was inadvertently swapped on the Cover page only. The MND document, including the Project Description's Table A-5 (Vehicle Parking) has the correct designation. The total number of parking spaces remains correct. As shown in the MND and Project Plans, the Project's new parking spaces and remaining existing parking spaces meet the total number of required parking spaces.

This correction does not constitute new information since the technical appendices included as part of the administrative case file in the IS/MND noted this designation.

This correction does not constitute mitigation because there is an existing regulatory compliance process in place that the Project would comply as part of the building permit process and plan check. No new identified significant impact or worsening of an impact would occur.

Recirculation is Not Required

Once an MND has been circulated, it may need to be recirculated for another round of review and comment if it is "substantially revised" after the public notice of the first circulation period has been given. (CEQA Guidelines § 15073.5(a).) A substantial revision includes two situations (CEQA Guidelines § 15073.5(b)):

1. A new, avoidable significant effect is identified, and to reduce that effect to a level of insignificance, mitigation measures or project revisions must be added.

2. The lead agency finds that the mitigation measures or project revisions originally included in the negative declaration will not reduce potentially significant impacts to a level of insignificance, and new mitigation measures or project revisions are required.

Recirculation is required when the addition of new information deprives the public of a meaningful opportunity to comment on substantial adverse project impacts or feasible mitigation measures or alternatives that are not adopted. (Laurel Heights Improvement Ass'n v Regents of Univ. of Cal. (1993) 6 Cal.4th 1112, 1130 ("Laurel Heights II") (emphasis added); CEQA Guidelines § 15088.5(a).) The purpose of recirculation is to give the public and other agencies an opportunity to evaluate the new data and the validity of conclusions drawn from it. (Silverado Modjeska Recreation & Park Dist. v. County of Orange (2011) 197 Cal.App.4th 282, 305; Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors (2001) 87 Cal.App.4th 99, 131; Sutter Sensible Planning, Inc. v Board of Supervisors (1981) 122 Cal.App.3d 813, 822.) The

critical issue in determining whether recirculation is required is whether any new information added to the environment document is substantial. (Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova (2007) 40 Cal.4th 41 449.)

Recirculation is not required where the new information added to the MND "merely clarifies or amplifies [citations] or makes insignificant modifications in [citation] an adequate" MND. (CEQA Guidelines § 15088.5(b); Sutter Sensible Planning Inc., 122 Cal.App.3d at 822-823; Marin Mun. Water Dist. v. KG Land Cal. Corp. (1991) 235 Cal.App.3d 1652, 1667 [recirculation was not required when the final environmental document contained a revised water moratorium estimate because the new information merely served to clarify an environmental effect that was adequately discussed in the draft document].) Recirculation is "intended to be an exception, rather than the rule." (Laurel Heights II, 6 Cal.4th at 1132.)

Unless these changes result in a new impacts unavoidable impacts or new mitigation measures, recirculation is not required. (W. Placer Citizens for an Agric. & Rural Envtl. v. County of Placer (2006) 144 Cal.App.4th 890, 898 [changes in the project that "reflect an improvement in the environmental condition when compared to the original project or the mitigated design alternatives" do not necessitate recirculation]; Rialto Citizens for Responsible Growth v. City of Rialto (2012) 208 Cal.App.4th 899 ("Rialto Citizens").)

As is the case here, the addition of new information that clarifies, amplifies, or makes insignificant modifications to an MND does not require recirculation. (CEQA Guidelines § 15073.5(c)(4).) New information will only require recirculation when it amounts to a substantial revision of the MND, as defined above. (CEQA Guidelines § 15073.5(b).) As demonstrated herein, is neither a significant, avoidable impact that requires the addition of mitigation measures nor ineffective mitigation measure requiring revisions.

Conclusion

The information contained in this section clarifies, amplifies, or refines information in the IS/MND but does not make any changes that would meet the definition of "significant new information" as defined above. The information added does not change the IS/MND in a way that deprives the public of a meaningful opportunity to comment upon a new or substantially increased significant environmental effect of the Project. As analyzed in the IS/MND, the whole of the record supports the conclusion that the Project would result in impacts below a level of significance.

The City, as lead agency, has reviewed the information in this Erratum and has determined that it does not change any of the basic findings or conclusions of the Draft IS/MND, nor does it constitute "substantial revisions" pursuant to CEQA Guidelines Section 15073.5, or require recirculation of the Draft IS/MND. This Erratum, combined with the Draft IS/MND, including technical appendices and reports thereof, comprise the Final IS/MND.

INITIAL SUBMISSIONS

The following submissions by the public are in compliance with the Commission Rules and Operating Procedures (ROPs), Rule 4.3a. The Commission's ROPs can be accessed at **http://planning.lacity.org**, by selecting "Commissions, Boards & Hearings" and selecting the specific Commission.

The following submissions are not integrated or addressed in the Staff Report but have been distributed to the Commission.

Material which does not comply with the submission rules is not distributed to the Commission.

ENABLE BOOKMARKS ONLINE:

**If you are using Explorer, you will need to enable the Acrobat toolbar to see the bookmarks on the left side of the screen.

If you are using Chrome, the bookmarks are on the upper right-side of the screen. If you do not want to use the bookmarks, simply scroll through the file.

If you have any questions, please contact the Commission Office at (213) 978-1300.

LOZEAU DRURY LLP

T 510.836.4200
F 510.836.4205

1939 Harrison Street, Ste. 150
Oakland, CA 94612

www.lozeaudrury.com
rebecca@lozeaudrury.com

May 1, 2020

Via E-mail

Samantha Millman, President
Vahid Khorsand, Vice President
David H. Ambroz, Commissioner
Caroline Choe, Commissioner
Helen Leung, Commissioner
Karen Mack, Commissioner
Marc Mitchell, Commissioner
Veronica Padilla-Campos, Commissioner
Dana Perlman, Commissioner
Los Angeles City Planning Commission
City of Los Angeles
Email: cpc@lacity.org

Iris Wan, City Planner
200 North Spring Street, Room 621
Los Angeles, CA 90012
Iris.wan@lacity.org

Re: Comment on the Initial Study/Mitigated Negative Declaration for the 3440 Wilshire Project; CPC-2016-3692-VZC-MCUP-SPR; VTT-74602

Dear Honorable Members of the Los Angeles City Planning Commission and Ms. Wan:

I am writing on behalf of Supporters Alliance for Environmental Responsibility and its members living in and around the City of Los Angeles ("SAFER"). These comments support SAFER's appeal of the Initial Study/Mitigated Negative Declaration ("IS/MND") for the 3440 Wilshire Project, a mixed use development proposed for a 7.3-acre lot area located at 3432-3470 Wilshire Boulevard in Los Angeles, and the related project approvals (the "Project"). After reviewing the IS/MND, we conclude that it fails to analyze all environmental impacts and to implement all necessary mitigation measures. SAFER respectfully requests that the City Planning Commission grant SAFER's appeal and send the Project back to staff to prepare an EIR in order to incorporate our concerns discussed below.

This comment has been prepared with the assistance of Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH. Mr. Offerman's comment and curriculum vitae are attached as Exhibit A hereto and is incorporated herein by reference in its entirety. This comment was also prepared with assistance from Ecologist Shawn Smallwood, Ph.D. Dr. Smallwood's comments and curriculum vitae are attached as Exhibit B hereto and is incorporated herein by reference in its entirety. Finally, this comment has been prepared with the assistance of the

environmental consulting firm Soil/Water/Air Protection Enterprise ("SWAPE"). SWAPE's comment the consultants' curriculum vitae are attached as Exhibit C hereto and are incorporated herein by reference in their entirety.

I. PROJECT DESCRIPTION

The Project proposes to develop a mixed-use project on a 7.3-acre site consisting: 1) 640 apartment units; 2) 10,738 square feet ("sq. ft.") of commercial floor area; and 2) 1,921 vehicle parking spaces. The Project site is currently developed with four commercial office buildings with ground floor retail uses that front West Wilshire Boulevard and South Irolo Street (the "Existing Office Buildings"), a three-story parking garage, a five-story parking structure, two vehicle driveways, and internal private roadways. The Project involves demolishing the existing three-story parking structure, constructing two commercial kiosks, and constructing a 23-story mixed-use building and a 28-story mixed-use building on top of a podium that is four stories above grade and two stories subterranean. The commercial space will consist of 5,538 sq. ft. of retail area and 5,200 sq. ft. of restaurant area. The restaurant area will consist of 3,700 sq. ft. with 138 indoor and outdoor patio seats of high-turnover restaurant and 1,500 sq. ft. with 68 indoor and outdoor patio seats of fast-food restaurant.

II. LEGAL STANDARD

As the California Supreme Court has held, "[i]f no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR." *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319-320 (*CBE v. SCAQMD*) (citing *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 88; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491, 504–505). "Significant environmental effect" is defined very broadly as "a substantial or potentially substantial adverse change in the environment." Pub. Res. Code ("PRC") § 21068; *see also* 14 CCR § 15382. An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial*." No Oil, Inc.*, 13 Cal.3d at 83. "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." *Communities for a Better Env't v. Cal. Res. Agency* (2002) 103 Cal.App.4th 98, 109 (*CBE v. CRA*).

The EIR is the very heart of CEQA. *Bakersfield Citizens for Local Control v. City of Bakersfield (*2004) 124 Cal.App.4th 1184, 1214 (*Bakersfield Citizens*); *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 927. The EIR is an "environmental 'alarm bell' whose purpose is to alert the public and its responsible officials to environmental changes before they have reached the ecological points of no return." *Bakersfield Citizens*, 124 Cal.App.4th at 1220. The EIR also functions as a "document of accountability," intended to "demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action." *Laurel Heights Improvements Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 392. The EIR process "protects not only the environment but also informed self-

government." *Pocket Protectors*, 124 Cal.App.4th at 927.

An EIR is required if "there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment." PRC § 21080(d); see also *Pocket Protectors*, 124 Cal.App.4th at 927. In very limited circumstances, an agency may avoid preparing an EIR by issuing a negative declaration, a written statement briefly indicating that a project will have no significant impact thus requiring no EIR (14 CCR § 15371), only if there is not even a "fair argument" that the project will have a significant environmental effect. PRC, §§ 21100, 21064. Since "[t]he adoption of a negative declaration . . . has a terminal effect on the environmental review process," by allowing the agency "to dispense with the duty [to prepare an EIR]," negative declarations are allowed only in cases where "the proposed project will not affect the environment at all." *Citizens of Lake Murray v. San Diego* (1989) 129 Cal.App.3d 436, 440.

Where an initial study shows that the project may have a significant effect on the environment, a mitigated negative declaration may be appropriate. However, a mitigated negative declaration is proper *only* if the project revisions would avoid or mitigate the potentially significant effects identified in the initial study "to a point where clearly no significant effect on the environment would occur, and…there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." PRC §§ 21064.5 and 21080(c)(2); *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 331. In that context, "may" means a reasonable possibility of a significant effect on the environment. PRC §§ 21082.2(a), 21100, 21151(a); *Pocket Protectors*, 124 Cal.App.4th at 927; *League for Protection of Oakland's etc. Historic Res. v. City of Oakland* (1997) 52 Cal.App.4th 896, 904–05.

Under the "fair argument" standard, an EIR is required if any substantial evidence in the record indicates that a project may have an adverse environmental effect—even if contrary evidence exists to support the agency's decision. 14 CCR § 15064(f)(1); *Pocket Protectors,* 124 Cal.App.4th at 931; *Stanislaus Audubon Society v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602. The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA. *Pocket Protectors*, 124 Cal.App.4th at 928.

The "fair argument" standard is virtually the opposite of the typical deferential standard accorded to agencies. As a leading CEQA treatise explains:

> This 'fair argument' standard is very different from the standard normally followed by public agencies in making administrative determinations. Ordinarily, public agencies weigh the evidence in the record before them and reach a decision based on a preponderance of the evidence. [Citations]. The fair argument standard, by contrast, prevents the lead agency from weighing competing evidence to determine who has a better argument concerning the likelihood or extent of a potential environmental impact. The lead agency's decision is thus

> largely legal rather than factual; it does not resolve conflicts in the evidence but determines only whether substantial evidence exists in the record to support the prescribed fair argument.

Kostka & Zischke*, Practice Under CEQA*, §6.29, pp. 273-274. The Courts have explained that "it is a question of law, not fact, whether a fair argument exists, and the courts owe no deference to the lead agency's determination. Review is de novo, with *a preference for resolving doubts in favor of environmental review*." *Pocket Protectors*, 124 Cal.App.4th at 928 (emphasis in original).

CEQA requires that an environmental document include a description of the project's environmental setting or "baseline." CEQA Guidelines § 15063(d)(2). The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. *CBE v. SCAQMD*, 48 Cal.4th at 321. CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA:

> …must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

See Save Our Peninsula Committee v. County of Monterey (2001) 87 Cal.App.4th 99, 124–25 ("*Save Our Peninsula*").) As the court of appeal has explained, "the impacts of the project must be measured against the 'real conditions on the ground,'" and not against hypothetical permitted levels. *Id*. at 121–23.

III. DISCUSSION

A. There is Substantial Evidence of a Fair Argument that the Project Will Have a Significant Health Risk Impact from its Indoor Air Quality Impacts.

Certified Industrial Hygienist, Francis "Bud" Offermann, PE, CIH, has conducted a review of the proposed Project and relevant documents regarding the Project's indoor air emissions. Indoor Environmental Engineering Comments (April 10, 2020) (Exhibit A). Mr. Offermann concludes that it is likely that the Project will expose residents of the Project to significant impacts related to indoor air quality, and in particular, emissions of the cancer-causing chemical formaldehyde. Mr. Offermann is a leading expert on indoor air quality and has published extensively on the topic. *See* attached CV.

Mr. Offermann explains that many composite wood products used in modern apartment home construction contain formaldehyde-based glues which off-gas formaldehyde over a very long time period. He states, "The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and particleboard. These materials are commonly used in building construction for

flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims." Offermann, pp. 2-3.

Formaldehyde is a known human carcinogen. Mr. Offermann states that there is a fair argument that future residents of the Project will be exposed to a cancer risk from formaldehyde of approximately 112 per million, assuming all materials are compliant with the California Air Resources Board's formaldehyde airborne toxics control measure. *Id*., p. 3. This more than 11 times the SCAQMD's CEQA significance threshold for airborne cancer risk of 10 per million. In addition, Mr. Offermann concludes that people working the commercial spaces of the Project will be exposed to an increased cancer risk from formaldehyde of 16.4 per million, which also exceeds the threshold of significance. *Id*. at 5. Mr. Offermann concludes that these significant environmental impacts should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. *Id*., p .45.

Mr. Offermann also notes that the high cancer risk that may be posed by the Project's indoor air emissions likely will be exacerbated by the additional cancer risk that exists as a result of the Project's location near roadways with moderate to high traffic (i.e. Wilshire Boulevard, S. Mariposa Boulevard, Sm. Normandy Ave., and W. 7th Street) and the high levels of PM 2.5 already present in the ambient air. Offermann, pp. 10-11. No analysis has been conducted of the significant cumulative health impacts that will result to future residents of the Project.

Mr. Offermann concludes that these significant environmental impacts should be analyzed in an EIR and mitigation measures should be imposed to reduce the risk of formaldehyde exposure. *Id*. Mr. Offermann identifies mitigation measures that are available to reduce these significant health risks, including the installation of air filters and a requirement that the applicant use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins in the buildings' interiors. *Id*. at 12-13.

The City has a duty to investigate issues relating to a project's potential environmental impacts, especially those issues raised by an expert's comments. *See Cty. Sanitation Dist. No. 2 v. Cty. of Kern*, (2005) 127 Cal.App.4th 1544, 1597–98 ("under CEQA, the lead agency bears a burden to investigate potential environmental impacts"). In addition to assessing the Project's potential health impacts to residents, Mr. Offermann identifies the investigatory path that the City should be following in developing an EIR to more precisely evaluate the Projects' future formaldehyde emissions and establishing mitigation measures that reduce the cancer risk below the SCAQMD level. *Id*., pp. 5-10. Such an analysis would be similar in form to the air quality modeling and traffic modeling typically conducted as part of a CEQA review.

The failure to address the project's formaldehyde emissions is contrary to the California Supreme Court's decision in *California Building Industry Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2015) 62 Cal.4th 369, 386 ("*CBIA"*). At issue in *CBIA* was whether the Air District could enact CEQA guidelines that advised lead agencies that they must analyze the impacts of adjacent environmental conditions on a project. The Supreme Court held that CEQA does not generally

require lead agencies to consider the environment's effects on a project. *CBIA*, 62 Cal.4th at 800-801. However, to the extent a project may exacerbate existing adverse environmental conditions at or near a project site, those would still have to be considered pursuant to CEQA. *Id*. at 801 ("CEQA calls upon an agency to evaluate existing conditions in order to assess whether a project could exacerbate hazards that are already present"). In so holding, the Court expressly held that CEQA's statutory language required lead agencies to disclose and analyze "impacts on ***a project's users or residents*** that arise ***from the project's effects*** on the environment." *Id*. at 800 (emphasis added).

The carcinogenic formaldehyde emissions identified by Mr. Offermann are not an existing environmental condition. Those emissions to the air will be from the Project. Residents and workers will be users of the Project. Currently, there is presumably little if any formaldehyde emissions at the site. Once the project is built, emissions will begin at levels that pose significant health risks. Rather than excusing the City from addressing the impacts of carcinogens emitted into the indoor air from the project, the Supreme Court in *CBIA* expressly finds that this type of effect by the project on the environment and a "project's users and residents" must be addressed in the CEQA process.

The Supreme Court's reasoning is well-grounded in CEQA's statutory language. CEQA expressly includes a project's effects on human beings as an effect on the environment that must be addressed in an environmental review. "Section 21083(b)(3)'s express language, for example, requires a finding of a 'significant effect on the environment' (§ 21083(b)) whenever the 'environmental effects of a project will cause substantial adverse effects *on human beings,* either directly or indirectly.'" *CBIA*, 62 Cal.4th at 800 (emphasis in original). Likewise, "the Legislature has made clear—in declarations accompanying CEQA's enactment—that public health and safety are of great importance in the statutory scheme." *Id*., citing e.g., §§ 21000, subds. (b), (c), (d), (g), 21001, subds. (b), (d). It goes without saying that the hundreds of future residents of the Project are human beings and the health and safety of those workers is as important to CEQA's safeguards as nearby residents currently living near the project site.

Because Mr. Offermann's expert review is substantial evidence of a fair argument of a significant environmental impact to future users of the project, an EIR must be prepared to disclose and mitigate those impacts.

B. The IS/MND Failed to Adequately Analyze and Mitigate the Potential Adverse Impacts of the Project on Wildlife.

The comment of Dr. Shawn Smallwood is attached as Exhibit B. Dr. Smallwood has identified several issues with the IS/MND for the Project. His concerns are summarized below.

1. <u>There is substantial evidence that Project may have a significant impact on bird species from window collisions.</u>

According to wildlife expert Dr. Shawn Smallwood, the Project will have a significant impact on birds as a result of window collisions. The City has not analyzed or mitigated these

potential impacts to special-species birds. Analyzing the potential impact on wildlife of window collisions is especially important because "[w]indow collisions are often characterized as either the second or third largest source of human-caused bird mortality." Smallwood, p. 6.

The wildlife database eBirds lists 44 special-status species of birds have been document right around the Project site. Smallwood, p. 2. Of these 44 species, Dr. Smallwood determined that 15 have been known to collide with windows. *Id*. "Many of these species are undoubtedly already experiencing annual mortality caused by window collisions in Los Angeles, but the proposed new project would substantially add window-collision hazards to birds flying over Los Angeles. A fair argument can be made for the need to prepare an EIR to assess project impacts from bird-window collisions, and to formulate appropriate mitigation." *Id.*

Dr. Smallwood reviewed a number of studies in order to calculate the number of bird collisions that would occur annually as a result of the Project. Smallwood, p. 7-8. According to his calculations, each m^2 of glass would result in 0.077 bird deaths per year. *Id.* at 8. Dr. Smallwood then looked at the building design for the Project and estimated that the Project would include approximately at least 24,000 m^2 of glass windows. *Id*. Based on the estimated 24,000 m^2 of glass windows and the 0.077 bird deaths per m^2 of glass windows, Dr. Smallwood estimates that the project could result in 1,848 bird deaths per year. *Id*. Over 50 years, this will amount to 92,400 bird deaths. *Id*. Most of these deaths would be of birds protected under Fish & Game Code section 3513. *Id*.

These bird deaths constitute a significant impact that must be analyzed. *Id*. The City must prepare an EIR to disclose, analyze, and mitigate the full scope of the Project's impact resulting from window collisions.

2. <u>There is no evidence to support the IS/MND's conclusion that the Project will not have a significant impact on biological species.</u>

No wildlife surveys were conducted by biologist in preparation of the IS/MND. As a result, the IS/MND fails to inform the public and decisionmakers about avian use of the area. Dr. Smallwood explains that "[s]urveys are needed to learn how many of each bird species fly through the area and at what times of day (and night)." Smallwood, p. 2. Conducting these types of surveys could then inform an analysis of collision risk and mitigion measures to reduce that risk. *Id*. Mitigation measures may include things like interior light mangement and design modiications to facades facing the previaling approach directions of mighrating birds. *Id*. Wihtout conducting surceys, there is no substantail evidncec to support the IS/MND's conclusion that the Project will not have a signficant impact on biological resources.

3. <u>The City fails to mitigate the Project's adverse impact on bird species from window collisions.</u>

In order to mitigate the impact of the window collisions on bird species, Dr. Smallwood has suggested several mitigation measures. As a starting point, before construction, "[a]ny new

project should be informed by preconstruction surveys of daytime and nocturnal flight activity." Smallwood, p. 13. Dr. Smallwood explains:

> [Pre-construction] surveys can reveal the one or more façades facing the prevailing approach direction of birds, and these revelations can help prioritize where certain types of mitigation can be targeted. It is critical to formulate effective measures prior to construction, because post-construction options will be limited, likely more expensive, and probably less effective.

Id.

Dr. Smallwood also notes the importance of post-construction fatality monitoring, which he says "should be an essential feature of any new building project." Smallwood, p. 12. These surveys should be combined with threshold fatality rates that would trigger additional mitigation. *Id*. at 15. The City should identify candidate impact-reduction measures that can be implemented in case the original measure(s) proves ineffective or inadequate, including compensatory mitigation.

In addition, for mitigation measures involving the siting and design of the Project, Dr. Smallwood suggests: (1) deciding on the location of structures; (2) deciding on the façade and orientation of structures; (3) selecting types and sizes of windows; (4) minimizing transparency through two parallel façades; (5) minimizing views of interior plants; (6) landscaping so as to increase distance between windows and vegetation; (7) monitoring for fatalities to identify seasonal and spatial patterns; and (8) adjusted light management, window markings, and other measures as needed based on survey results. Smallwood, p. 14. Dr. Smallwood also suggests that the City also look to the guidelines developed by the American Bird Conservancy and the City of San Francisco to minimize injuries and fatalities to bird species. *Id*.

Finally, Dr. Smallwood recommends compensatory mitigation including contributions to wildlife rehabilitation facilities to cover the costs of injured animals that may be delivered to these facilities for care from this Project or other projects. Smallwood, p. 15. These and other feasible mitigation measures must be considered in an EIR.

4. <u>The IS/MND fails to adequately analyze the Project's impact on wildlife movement.</u>

The IS/MND improperly dismisses the Project's potential to impact wildlife movement based on the urbanized location of the Project, which, the IS/MND claims, does not support a wildlife corridor. These conclusions rely on a false CEQA standard. A project will have a significant biological impact if it would "[i]nterfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites." CEQA Guidelines, App. G. As Dr. Smallwood explains:

> [W]hether a site supports a wildlife movement corridor is not the standard at issue with Initial Study question 4d; rather, it is whether the project would interfere with wildlife movement. City of Los Angeles apparently neglected to consider that birds fly. Birds fly to forage, defend territories, disperse, and migrate. Birds, including special-status species of birds, inhabit the airspaces of Los Angeles, some as residents of Los Angeles and others as dispersers or migrants. Inserting two high-rises into the airspaces used by birds would interfere with wildlife movement while also killing many birds. Collision mortality would be worsened by constructing two high-rises as planned – high-rises composed of glass façades.

Smallwood, p. 2.

Because of its reliance on a false CEQA standard for determining impacts on wildlife movement, the IS/MND contains no evidence to support the conclusion that the Project will not have a significant impact on wildlife movement. In contrast, Dr. Smallwood's comments constitute substantial evidence that the Project will have a significant impact on wildlife movement. As a result, an EIR must be prepared to analyze the Project's impacts on wildlife movement.

5. The IS/MND fails to analyze the Project's cumulative biological impacts.

The IS/MND does not include an analysis of the Project's potential cumulative biological impacts on the grounds that no wildlife habitat occurs in the City of Los Angeles. Smallwood, p. 14. As a result, the IS/MND provides no analysis of the Project's cumulative contribution to window collisions. *Id*. Dr. Smallwood explains that "[t]his missing analysis is a critical shortfall, because bird abundance across North American has declined 29% over the last 48 years (Rosenberg et al. 2019). The proposed project alone is predicted to kill 1,848 bird deaths per year (95% CI: 960-2,640), which would add to many thousands more killed by windows in Los Angeles." *Id*. The City violates CEQA by not conducting an analysis of the Project's cumulative impact to biological resources as a result of window collisions.

C. The IS/MND's Traffic Analysis is Not Supported by Substantial Evidence and Greatly Underestimates Project-Generated Traffic.

A significant transportation impact would occur if roadways and intersections that would carry project-generated traffic would exceed adopted City of Los Angeles Department of Transportation thresholds of significance. IS/MND, B-215. The IS/MND's conclusion that the Project will not result in significant transportation impacts is not supported by substantial evidence. As described below, and in the expert comments of traffic engineer Dan Smith (attached hereto as Exhibit B), the IS/MND greatly underestimates the vehicle trips generated by the Project. Mr. Smith concludes that there is "overwhelming evidence that there is fair argument that demonstrates that the Project's impacts are not fully disclosed and mitigated in the IS/MND. Consequently, the Project cannot be approved under a mitigated negative declaration and a full EIR must be prepared." Smith, p. 5.

1. The IS/MND underestimates traffic generated from the retail component of the Project.

The Project includes 5,538 square feet of commercial retail space. The IS/MND estimates the gross number of trips generated from this retail space based on *Trip Generation, 10th Edition's* average rates for Land Use Category 820, which is the land use category for "Shopping Center." Smith, p. 2. But Traffic Engineer Dan Smith explains in his expert comments, that this land use is inapplicable to the Project because 5,538 square feet of retail space is not a shopping center. *Id*. To generate the average trip rates used for the Shopping Center land use category requires approximately 400,000 square feet of floor area. *Id*. Mr. Smith determined that a convenience market would be a much more accurate land use category to use. *Id*. Using the *Trip Generation, 10th Edition*, shopping centers generate daily vehicle trips at an average rate of 37.75 trips per thousand square feet of floor area, where as convenience markets generate 762.28 trips per thousand square feet. *Id.* This amounts to 20 times more traffic generated from the retail space than was disclosed in the IS/MND. The same flaw is reflected in the IS/MND's peak hour trip analysis.

Making matters worse, the IS/MND then discounts 90 percent of the gross trip generation of this small retail space. *Id*. This 90 percent reduction is based on 15 percent for trips internal to the Project, 25 percent as transit trips, and 50 percent as trips attached to passerby traffic. *Id*. As Mr. Smith explains, these reductions do not hold up to scrutiny. "[T]he notion that the convenience retail would attract 50 percent of its patronage from existing passerby vehicle traffic is absurd." *Id*. Mr. Smith explains that these types of passerby attraction rates are normally attained by convenience markets on busy urban or suburban streets and where the retail store has its own surface parking lot. *Id*. Here, in contrast, the retail space is contained within a larger building, where the passerby is forced to enter and leave a large parking garage. *Id.* Moreover, the retail space is not visible from either Wilshire Boulevard or Irolo. It is only visible form S. Mariposa Avenue and/or W. 7th Street. *Id*. The IS/MND discloses that S. Mariposa carries only 680 vehicles past the Project site in the A.M. peak hour and 672 in the P.M. peak hour, while W. 7th Street carries only 349 vehicles past the Project site in the A.M. peak hour and 542 in the P.M. peak hour. IS/MND Appendix K-1, Figure 1. Mr. Smith concludes that "These totals are insufficient to support the claimed passerby attraction discount, particularly where the on-street parking spaces are usually occupied and passers-by would be forced to enter and leave a parking garage." *Id*. "The notion that 25 percent of the people visiting a convenience market would make purposeful transit trips to reach that market is similarly implausible. This is likely to be true only of a handful of employees of the market." *Id*.

2. The IS/MND underestimates traffic generated from the fast-casual restaurant component of the Project.

Like the retail space, the IS/MND assumes again that 90 percent of the fast-casual restaurant's gross trip generation will not add to traffic except at Project driveways. Just as with the retail space, the IS/MND reduces traffic by 90 percent, with 50 percent attracted from passer-by traffic, 25 percent from transit, and 15 percent internal. Smith, p. 3. Mr. Smith concludes that "[a]ll of the discussion above with respect to the discounting of trips to a convenience

market is similarly applicable to the fast-causal restaurant." *Id*.

3. The IS/MND underestimates traffic generated from the high-turnover sit-down restaurant component of the Project.

The Project also includes a high-turnover sit-down restaurant. For this component of the Project, the IS/MND discounts 60 percent of the trip generation, made up of 25 percent transit, 20 percent passer-by attraction, and 15 percent internal. *Id.* But Mr. Smith points out that "[e]xcept for negligible numbers of restaurant employees, few if any people would take transit in a purposeful trip to reach or depart from a restaurant of this type. Certainly, patrons of the restaurant will include persons who arrived and will depart the area via transit but these comprise part if not most of the attracted passer-by category." *Id*. The need for drivers to park inside a parking garage and the fact that the restaurant will only be visible from the lightly trafficked S. Mariposa and W. 7th street further minimizes the patrons that will be attracted from street traffic. *Id.*

4. The IS/MND underestimates traffic generated from the residential component of the Project.

For the residential portion of the Project, the IS/MND analysis assumes a 15 percent internalization deduction. It does not, however apply a 25 percent transit deduction to the peak hour trip generation because, the IS/MND says, the basin trip generation rate was derived from surveys of similar local area residential high rises, where the transit utilization was already reflected in the observed vehicle trip generation rate. Mr. Smith raises the question of "whether or not those surveyed buildings had comparable trip internalization that would have already been reflected in the observed vehicle trip rates." Smith, p. 4. The IS/MND must be revised to make this clarification.

Mr. Smith's comments constitute substantial evidence that the Project's traffic impact have been significantly underestimated. The IS/MND must be revised to address these inaccuracies.

5. The IS/MND fails to account for trips by transportation network company services.

Mr. Smith explains that the rise of transportation network companies ("TNCs") (also known as ride hailing services) like Uber and Lyft, has substantially changed the nature of transportation in urban areas. Smith, p. 4. Recent research has shown that TNCs are problematic because: "a) a large part of the transportation demand they serve is drawn from trips that would otherwise been carried out by walking, bicycling or transit, b) a large share of the trips they serve are induced trips – trips that would not be made at all were the service not available or trips to distant destinations that would have been satisfied locally by walking absent the service and c) each passenger service trip actually involves 2 vehicle trips – the trip from where the vehicle is circulating or waiting to the point of call and the trip from the point of call to the actual destination." *Id*. Despite the major impact of TNCs on transportation in Los Angeles and

elsewhere, the IS/MND makes no effort to estimate the transportation impacts of TNC services related to the Project. Without counting any trips generated by TNCs, the IS/MND underestimates the Project's transportation impact.

D. The IS/MND Fails to Establish a Baseline for Hazardous Substances.

SWAPE, an environmental consulting firm, reviewed the IS/MND. SWAPE's comment letter is attached as Exhibit C and their findings are summarized in the following sections.

SWAPE notes that the Phase I Environmental Site Assessment ("Phase I Assessment") prepared for the Project site in 2014 identified an 8,000 gallon oil underground storage tank ("UST"), and three USTs associated with a gas station formerly located at the site. SWAPE, p. 1. According to the Phase I, the 8,000-gallon UST was removed in 1988.

However, SWAPE points out that there is no record of removal of the three gas station USTs cite in the Phase I. SWAPE, pp. 1-2. Instead, there is only a vague statement that:

> An Application for Permit; Abandonment by Removal Fire Department-City of Los Angeles, was also reviewed as part of our previous assessment, which discussed the removal of one waste oil UST and two gasoline USTs, dated June 8, 1988.

While the application for removal is cited in the Phase I, there is no documentation of the actual removal of the three USTs. References to the gas station USTs in the Phase I use uncertain language. For example:

> It is suspected that these USTs were related to the gas & oil station noted on the 1961 Sanborn Map.
>
> It should also be noted that based on our regulatory review, the Subject [Project site] was identified as a registered storage tank site featuring a "inactive" regulatory status for two previous onsite "regulated unleaded" USTs. These gasoline USTs are suspected to be associated with the removal of the aforementioned gasoline USTs noted in the permit.

Without documentation of removal of the USTs, the Phase I fails to confirm the presence or absence of the USTs at the Project site. *Id*. SWAPE concludes that a Phase II is necessary to identify the presence or absence of the USTs and to conduct soil and soil vapor sampling. Without this information, the IS/MND fails to establish a baseline set of environmental conditions against which environmental impact can be evaluated.

It is well-established that CEQA requires analysis of toxic soil contamination that may be disturbed by a Project, and that the effects of this disturbance on human health and the environment must be analyzed. CEQA requires a finding that a project has a "significant effect on the environment" if "the environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly." (PRC §21083(b)(3).) As the Court of Appeal has stated, "[a] new project located in an area that will expose its occupants to preexisting dangerous pollutants can be said to have substantial adverse effect on human beings."

(*Cal. Building Industry Assn. v. Bay Area Air Quality Mgm't Dist.* (2013) 218 Cal.App.4th 1171 (*CBIA v. BAAQMD*).) The existence of toxic soil contamination at a project site is a significant impact requiring review and mitigation in an EIR. (*McQueen v. Bd. of Dirs.* (1988) 202 Cal.App.3d 1136, 1149; *Assoc. For A Cleaner Env't v. Yosemite Comm. College Dist.* (2004) 116 Cal.App.4th 629 (*ACE v. Yosemite*).) This mitigation may not be deferred until a future time after Project approval. (*Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d 296, 306; *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 330-31 (*CREED*).)

The City must thoroughly investigate the site and prepare an EIR to adequately analyze and mitigate the potential impact of USTs at the Project site.

E. The IS/MND Relied on Unsubstantiated Input Parameters to Estimate Project Emissions and Thus Failed to Adequately Analyze the Project's Air Quality Impacts.

The IS/MND for the Project relies on emissions calculated from the California Emissions Estimator Model Version CalEEMod.2016.3.2 ("CalEEMod"). This model relies on recommended default values for on-site specific information related to a number of factors. The model is used to generate a project's construction and operational emissions. SWAPE reviewed the Project's CalEEMod output files and found that the values input into the model were unsubstantiated or inconsistent with information provided in the IS/MND. This results in an underestimation of the Project's emissions. As a result, the Project may have a significant air quality impacts and an EIR is required to properly analyze these potential impacts.

1. <u>The IS/MND uses an incorrect construction schedule.</u>

According to the IS/MND, the Project's building construction period for Tower 1 and 2 would each be 19 months, with Tower 1 construction starting in June 2022, and Tower 2 construction starting in June 2024. IS/MND, p. A-15, Table A-8. When combined with 2 months of site prep and 3 months of grading, this amounts to a total of 43-months of active construction. However, the CalEEMod output files show that the model included a construction schedule that lasted 48 months, rather than 43 months, and failed to include the five-month break between construction of Tower 1 and Tower 2. SWAPE, p. 4. According to the "User Entered Comments & Non-Default Data" table, the justification for this was "consultant assumptions." IS/MND, App. C, pp. 1, 31, 66. This does not justify the inconsistency between the model and the information provided in the IS/MND. SWAPE, p. 5.

SWAPE explains that "[b]y spreading out construction emissions over a 48-month period, rather than the 43-month period indicated by the IS/MND, maximum daily emissions associated with construction are artificially reduced." *Id*. Because the construction schedule used in the CalEEMod model is incorrect, the model underestimates the Project's construction-related emissions.

2. The IS/MND underestimated the number of hauling trips during site preparation and grading.

The CalEEMod output files indicate that several of the hauling, vendor, and worker trips were manually altered from their default values. SWAPE, p. 5. According to the "User Entered Comments & Non-Default Data" table, the justification for this was "Developer information." IS/MND, App. C, pp. 2, 32, 67. No information is provided to justify these changes. The Traffic Study provides an estimate of *peak daily* trips for each construction phase, but does not provide the *total* number of hauling, vendor, and worker trips for each phase, which is what was changed in the model.

In addition, the Traffic Study estimates a maximum daily number of hauling trips of one. As a result, the CalEEMod model should have included *at least* one hauling trip for construction. Yet the CalEEMod output files demonstrate that the model failed to include any hauling trips for construction. SWAPE, p. 6. The model is therefore inconsistent with the model. *Id*.

The number of worker, hauling, and vendor trips and the associated vehicle miles traveled ("VMT") are used by CalEEMod to determine the exhaust emissions associated with the vehicle use and fugitive dust emissions. SWAPE, p. 6. "[B]y failing to include the correct number of hauling, vendor, and worker trips, the model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance." *Id*.

3. The IS/MND made unsubstantiated changes to acres of grading in the CalEEMod model.

The amount of grading included in the CalEEMod model was manually reduced for different phases from 33 to 2.33 acres and from 30 to zero acres. SWAPE, p. 7. According to the "User Entered Comments & Non-Default Data" table, the justification for this was "Developer information." But nothing in the IS/MND provides evidence to justify these reductions. The number of acres to be graded in the CalEEMod model is used to calculate fugitive dust emissions associated with dozers, graders, scrapers, and haul trucks. *Id*. By under reporting the acres of grading required as part of construction, the model underestimates construction-related emissions.

4. The IS/MND relied on unsubstantiated construction mitigation measures.

The CalEEMod output files show that the model included the following construction-related mitigation measures: "Replace Ground Cover," "Water Exposed Area," and "Clean Paved Roads." SWAPE, p. 7 (citing Appendix C, pp. 8-9, 39, 73-74). The model also included a 46% reduction in particulate matter emissions as a result of cleaning paved roads. *Id*. (citing Appendix C, pp. 2, 32, 67). The "User Entered Comments & Non-Default Data" provided the following justification: "Assumes SCAQMD Rule 403 control efficiencies." *Id*.

The IS/MND explains:

> [I]t is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying water and/or soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce regional PM2.5 and PM10 emissions associated with construction activities by approximately 61 percent.

IS/MND, p. B-41(emphasis added).

Accordingly, the Project has the option to either apply water and/or soil binders but has not committed to either or both. Moreover, Rule 403 fails to justify the 46% reduction in particulate matter as a result of "clean paved roads." Without evidence that this equates to a mitigation measure that is mandatory and enforceable, the reduction is not supported by substantial evidence and should not be included in the model.

5. The IS/MND relied on an unsubstantiated number of daily trips.

The IS/MND includes a 25% "transit credit" for both retail and multifamily housing trip generation. IS/MND, App. K-1, pp. 24, Table 4. According to the Traffic Study, this reduction credit was based on the 2016 Los Angeles Department of Transportation's ("LADOT") "Traffic Study Policies and Procedures." *Id*. Reliance on this document is misplaced. As SWAPE points out, this document was replaced by the City in 2019 with the LADOT's "Transportation Assessment Guidelines ("TAG"). SWAPE, p. 3. The TAG now provides that "LADOT, **at its discretion, may allow up to** a 25% transit/walk trip generation reduction" applied "**on a case by case basis.**" *Id*. SWAPE reviewed the Traffic Study and found no verification of or permission to rely on the 25% reduction by LADOT. *Id*. Without this information, the IS/MND errs in relying on the 25% transit reduction credit, and the Project's traffic counts may be underestimated.

F. The IS/MND Failed to Adequately Evaluate Health Risks from Diesel Particulate Matter Emissions

1. The IS/MND lacks substantial evidence to support its finding that the Project's emissions will not cause a significant health impact.

The IS/MND concludes that the health risk impact from diesel particulate matter related to Project construction and operation will be less than significant. In making this finding, the IS/MND does not conduct a quantified a health risk assessment ("HRA") for Project construction or operation. SWAPE, p. 8. The IS/MND attempts to justify this by stating:

> Because there is such a short-term exposure period, construction TAC emissions would result in a less-than significant impact. Therefore, construction of the Project would not expose sensitive receptors to substantial diesel PM concentrations, and this impact would be less than significant.

IS/MND, p. B-46. The IS/MND explains the omission of an operational HRA as follows:

> [T]he SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[48] The Project would not generate a substantial number of truck trips since it would not be a truck stop or distribution center. Based on the limited activity of TAC sources, the Project would not warrant the need for a health risk assessment associated with on-site activities. Therefore, Project impacts would be less than significant.

IS/MND p. B-48.

The IS/MND's failure to conduct an operational HRA is inconsistent with the approach recommended by the California Office of Environmental Health Hazard Assessment ("OEHHA"). SWAPE, p. 10. OEHHA recommends a health risk assessment of a project's operational emissions for projects that will be in place for more than 6 months. *Id*. Projects lasting more than 6 months should be evaluated for the duration of the project, and an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident. *Id*. The Project would last at least 30 years and certainly much longer than six months. These recommendations reflect the most recent health risk assessment policy.

Rather than preparing an HRA, the IS/MND relies on a Localized Significance Threshold ("LST") methodology to support its finding that the Project will not have a significant health risk impact. Reliance on the LST methodology is incorrect. As the SCAQMD guidance on the LST explains, the LST methodology only evaluates impact from criteria pollutants (NOx, CO, PM10, and PM2.5). SWAPE, p. 9. Toxic air contaminants ("TACs") such as diesel particulate matter ("DPM") are not criteria pollutants. *Id*. By relying on the LST analysis, the IS/MND failed to analyze TAC exposure as a result Project construction and operation. Without this information, the City lacks substantial evidence to support the IS/MND's conclusion that the Project will not have a significant health risk impact.

2. <u>SWAPE conducted a screening-level health risk assessment that indicates a significant health risk impact.</u>

SWAPE prepared a screening-level HRA to evaluate potential impacts from Project construction and operation. SWAPE used AERSCREEN, the leading screening-level air quality

dispersion model. SWAPE, p. 11. SWAPE used a sensitive receptor distance of 100 meters[1] and analyzed impacts to individuals at different stages of life based on OEHHA and SCAQMD guidance utilizing age sensitivity factors. SWAPE, pp. 11-14.

SWAPE found that the excess cancer risk for adults, children, and infants at a sensitive receptor located approximately 100 meters away over the course of Project construction and operation are approximately 12, 99, and 43 in one million, respectively. SWAPE, p. 14. Moreover, the excess lifetime cancer risk over the course of a Project operation is approximately 160 in one million. *Id*.) The risks to adults, children, infants, and lifetime residents appreciably exceed the SCAQMD's threshold of 10 in one million.[2] SWAPE's analysis constitutes substantial evidence that the Project may have a significant health impact as a result of diesel particulate emissions. The City must prepare an EIR with a more refined HRA that is representative of site conditions in order to evaluate the Project's health risk impact and to include suitable mitigation measures.

G. Contrary to the IS/MND's Conclusion, the Project Will Have a Significant GHG Impact.

1. The IS/MND's GHG analysis violates CEQA.

The IS/MND concludes that the Project's GHG impact would be less than significant as a result of consistency with CARB's Climate Change Scoping Plan., SCAG's 2016-2040 TRP/SCS, the City's LA Green Plan, and the City's Sustainable City pLAn. IS/MND, p. B-111. Specifically, the IS/MND states,

> [G]iven the Project's consistency with State, SCAG, and City GHG emission reduction goals and objectives, the Project is consistent with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs. *In the absence of adopted standards and established significance thresholds*, and given this consistency, it is concluded that the Project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable.

IS/MND, p. B-139 (emphasis added).

[1] The closest sensitive receptor is located 18 meters from the Project site. However, 100 meters was used in the HRA based on AERSCREEN output files which demonstrate that the maximally exposed receptor is located 100 meters from the Project site. SWAPE, p. 12.
[2] While OEHHA and SCAQMD recommend using age sensitivity factors in conducting an HRA, even without using age sensitivity factors, the SWAPE determined that the excess cancer risks would exceed the threshold of significance. SWAPE, p. 14. The excess cancer risk posed to adults and children would be 12 and 33 in one million, while the excess lifetime cancer risk over the course of a Project operation would be 49 in one million. *Id*.

The IS/MND's justifications and conclusion that the Project's GHG impacts are less-than-significant violate CEQA for several reasons.

First, none of these regulatory plans meet the criteria for an officially adopted GHG reduction program, commonly referred to as a Climate Action Plan ("CAP"), for use as a threshold of significance for GHG emissions. SWAPE, pp. 15-16. As CEQA Guideline section 15064.4(b)(3) makes clear, a qualified CAP "must be adopted by the relevant public agency through a public review process," and, as explained by CEQA Guideline section 15183.5(b)(1), the CAP should include:

(1) **Inventory**: Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities (e.g., projects) within a defined geographic area (e.g., lead agency jurisdiction);
(2) **Establish GHG Reduction Goal**: Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
(3) **Analyze Project Types**: Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
(4) **Craft Performance Based Mitigation Measures**: Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
(5) **Monitoring**: Establish a mechanism to monitor the CAP progress toward achieving said level and to require amendment if the plan is not achieving specified levels; and

Here, the IS/MND fails to demonstrate that CARB's Climate Change Scoping Plan., SCAG's 2016-2040 TRP/SCS, the City's LA Green Plan, or the City's Sustainable City pLAn include the above-listed requirements to be considered a qualified CAP for the City. As such, the IS/MND leaves an analytical gap and fails to demonstrate that compliance with said plans can be used for project-level significance determination. *Id*.

Second, reliance on these plans is misplaced because the plans are either not directly applicable to the Project, are outdated, or the Project is not consistent with the plan at all. For example, consistency with the LA Green Plan is misplaced because the LA Green Plan does not include project-level measures. Instead, the mitigation measures in the plan are primarily city-level actions. SWAPE, p. 16. Similarly, reliance on the Sustainable City pLAn cannot be relied on because it is out of date and has been superseded by the LA Green New Deal. SWAPE, p. 18. In addition, while the IS/MND claims that the Project is consistent with CARB's Scoping Plan or SCAG's 2016-2040 RTP/SCS, SWAPE found dozens of inconsistencies between the Project and the plans. SWAPE, pp. 19-32. These inconsistencies must be analyzed and remedies in an EIR.

Moreover, consistency with relevant policies cannot be used to determine a Project's significance, as projects must incorporate emission reductions measures beyond those that comprise basic requirements. The California Supreme Court has made clear that just because "a project is designed to meet high building efficiency and conservation standards … does not

establish that its [GHG] emissions from transportation activities lack significant impacts." (*Center for Biological Diversity v. Cal. Dept. of Fish and Wildlife* ("*Newhall Ranch*") (2015) 62 Cal.4th 204, 229.) As such, newer developments must be more GHG-efficient. (*See Newhall Ranch,* 62 Cal.4th at 226.)

2. The Project will have a significant GHG impact.

Since the IS/MND improperly relies entirely on consistency with CARB's Climate Change Scoping Plan., SCAG's 2016-2040 TRP/SCS, the City's LA Green Plan, and the City's Sustainable City pLAn to determine GHG impact significance, the IS/MND fails to compare the Project's GHG emissions to the correct SCAQMD thresholds.

SCAQMD has interim thresholds that the City should have compared the Project's GHG emissions to. SWAPE, p. 32. When compared to the thresholds, even when relying on the IS/MND's incorrect and unsubstantiated CalEEMod model, the Project would result in a significant GHG impact. The IS/MND's CalEEMod output files demonstrate that the Project's mitigated emissions include approximately 8,699 MT CO_2e/year (amortized construction and operational emissions). This far exceeds the SCAQMD 3,000 MT CO_2e/year mixed-use development threshold. SWAPE, p. 36. These exceedances are even greater when SWAPE updated the CalEEMod model to correct the above-identified deficiencies. *Id*. at 37. SWAPE's updated model shows the Project will emit 9,502.4 MT CO_2e/year. *Id*.

SWAPE Annual Greenhouse Gas Emissions	
Project Phase	**Proposed Project (MT CO_2e/year)**
Construction (amortized over 30 years)	255.6
Area	11.1
Energy	4,530.7
Mobile	3,968.9
Waste	190.1
Water	546.0
Total	**9,502.4**
Threshold	3,000
Exceed?	***Yes***

Because the project threshold is exceeded, a service population analysis is warranted. *Id*. SWAPE found that, dividing the Project's GHG emission by its service population of 1,88- people means that the Project would emit approximately 4.63 MT CO_2e/SP/year, which exceeds the SCAQMD 2035 efficiency target of 3.0 of MT CO_2e/SP/year. *Id.* at 36-37. SWAPE's updated CalEEMod model reveals an even greater service population efficiency of 5.05 MT CO_2e/SP/year.

SWAPE Service Population Efficiency Analysis	
Project Phase	**Proposed Project ($MT CO_2e/yr$)**
Total	**9502.37**
Service Population	1880.00
Service Population Efficiency	**5.05**
Threshold	3.00
Exceed?	***Yes***

SWAPE's comments constitute substantial evidence that the Project may have a significant greenhouse gas impact. This impact must be fully analyzed and mitigated in an EIR. SWAPE's comments include a number of mitigation measures available to reduce the Project's GHG emissions, and these should all be considered by the City.

H. The Project Lacks Sufficient Affordable Housing in Conflict with Ballot Measure JJJ.

Only 5% (32 units) of the Project's 640 units will be set aside for affordable housing. IS/MND, p. B-174. All 32 of the affordable housing units will be considered Moderate Income housing, using the State's level of affordability and Los Angeles Housing Community Investment Department's schedule of rents. Not a single unit being made available for Low Income, Very Low Income, or Extremely Low-Income tenants. This lack of affordable housing units violates t Measure JJJ.

Measure JJJ, as codified at Los Angeles Municipal Code ("LAMC") section 11.5.11, was approved by Los Angeles voters on November 8, 2016 and became effective on December 13, 2016. The residential affordability requirements of Measure JJJ apply to projects with ten or more residential units which seek: (1) a discretionary General Plan Amendment; (2) any zone change or height-district change that results in increased allowable residential floor area, density, or height; or (3) a residential use where such use was not allowed previously. (LAMC § 11.5.11(a).)

Pursuant to Measure JJJ, "Rental Projects" which satisfy at least one of the above provisions must provide the following:

(i) No less than the affordability percentage corresponding to the level of density increase as provided in California Government Code Section 65915(f), inclusive of any Replacement Units; or

(ii) If the General Plan amendment, zone change or height district change results in a residential density increase greater than 35%, then the Project shall provide no less than 5% of the total units at rents affordable to Extremely Low Income households, and either 6% of the total units at

rents affordable to Very Low Income households or 15% of the total units at rents affordable to Lower Income households, inclusive of any Replacement Units; or

(iii) If the General Plan amendment, zone change or height district change allows a residential use where not previously allowed, then the Project shall provide no less than 5% of the total units at rents affordable to Extremely Low Income households, and either 11% of the total units at rents affordable to Very Low Income households or 20% of the total units at rents affordable to Lower Income households, inclusive of any Replacement Units. (LAMC § 11.5.11(a)(1).)

Measure JJJ also contains alternative compliance options under which a project can satisfy Measure JJJ's affordability provisions without providing affordable units on-site. These alternative compliance options are (1) construction of affordable units off-site, (2) acquiring property containing "At-Risk Affordable Units," or (3) payment of an in-lieu fee. (LAMC § 11.5.11(b).)

The Project site's General Plan land use designation is currently Regional Center Commercial. The lots that make up the Project site are zoned PB-2, and P-2, which are for parking buildings and surface or underground parking. Residential units are not permitted in PB-2 or P-2 zones. The Project proposes to rezone the entire Project site to C4, which is a commercial zone that may include R4 uses, which include multiple dwelling residential uses. Since the Project will have ten or more residential units and is seeking a zone change that results in increased allowable residential floor area, Measure JJJ applies. LAMC § 11.5.11(a). Specifically, the zone change will allow a residential use where not previously allowed. As a result, "the Project shall provide no less than 5% of the total units at rents affordable to Extremely Low Income households, and either 11% of the total units at rents affordable to Very Low Income households or 20% of the total units at rents affordable to Lower Income households, inclusive of any Replacement Units." LAMC § 11.5.11(a)(1). The Project does not meet the requirements of Measure JJJ because it will only provide 5% of total units at rents affordable to Moderate Income households. The Project must be revised to comply with the affordable housing requirements of Measure JJJ.

IV. CONCLUSION

In light of the above comments, the City must prepare an EIR for the Project and the draft EIR should be circulated for public review and comment in accordance with CEQA. Thank you for considering these comments.

Sincerely,

Rebecca L. Davis
Lozeau | Drury LLP

EXHIBIT A

IEE INDOOR ENVIRONMENTAL ENGINEERING IEE
1448 Pine Street, Suite 103 San Francisco, California 94109
Telephone: (415) 567-7700
E-mail: offermann@IEE-SF.com
http://www.iee-sf.com

Date: April 10, 2020

To: Richard Drury
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, California 94612

From: Francis J. Offermann PE CIH

Subject: Indoor Air Quality: 3440 Wilshire Project – Los Angeles, CA (IEE File Reference: P-4349)

Pages: 16

Indoor Air Quality Impacts

Indoor air quality (IAQ) directly impacts the comfort and health of building occupants, and the achievement of acceptable IAQ in newly constructed and renovated buildings is a well-recognized design objective. For example, IAQ is addressed by major high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014). Indoor air quality in homes is particularly important because occupants, on average, spend approximately ninety percent of their time indoors with the majority of this time spent at home (EPA, 2011). Some segments of the population that are most susceptible to the effects of poor IAQ, such as the very young and the elderly, occupy their homes almost continuously. Additionally, an increasing number of adults are working from home at least some of the time during the workweek. Indoor air quality also is a serious concern for workers in hotels, offices and other business establishments.

The concentrations of many air pollutants often are elevated in homes and other buildings relative to outdoor air because many of the materials and products used indoors contain and release a variety of pollutants to air (Hodgson et al., 2002; Offermann and Hodgson,

2011). With respect to indoor air contaminants for which inhalation is the primary route of exposure, the critical design and construction parameters are the provision of adequate ventilation and the reduction of indoor sources of the contaminants.

Indoor Formaldehyde Concentrations Impact. In the California New Home Study (CNHS) of 108 new homes in California (Offermann, 2009), 25 air contaminants were measured, and formaldehyde was identified as the indoor air contaminant with the highest cancer risk as determined by the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), No Significant Risk Levels (NSRL) for carcinogens. The NSRL is the daily intake level calculated to result in one excess case of cancer in an exposed population of 100,000 (i.e., ten in one million cancer risk) and for formaldehyde is 40 µg/day. The NSRL concentration of formaldehyde that represents a daily dose of 40 µg is 2 µg/m^3, assuming a continuous 24-hour exposure, a total daily inhaled air volume of 20 m^3, and 100% absorption by the respiratory system. All of the CNHS homes exceeded this NSRL concentration of 2 µg/m^3. The median indoor formaldehyde concentration was 36 µg/m^3, and ranged from 4.8 to 136 µg/m^3, which corresponds to a median exceedance of the 2 µg/m^3 NSRL concentration of 18 and a range of 2.3 to 68.

Therefore, the cancer risk of a resident living in a California home with the median indoor formaldehyde concentration of 36 µg/m^3, is 180 per million as a result of formaldehyde alone. The CEQA significance threshold for airborne cancer risk is 10 per million, as established by the South Coast Air Quality Management District (SCAQMD, 2015).

Besides being a human carcinogen, formaldehyde is also a potent eye and respiratory irritant. In the CNHS, many homes exceeded the non-cancer reference exposure levels (RELs) prescribed by California Office of Environmental Health Hazard Assessment (OEHHA, 2017b). The percentage of homes exceeding the RELs ranged from 98% for the Chronic REL of 9 µg/m^3 to 28% for the Acute REL of 55 µg/m^3.

The primary source of formaldehyde indoors is composite wood products manufactured with urea-formaldehyde resins, such as plywood, medium density fiberboard, and

particleboard. These materials are commonly used in building construction for flooring, cabinetry, baseboards, window shades, interior doors, and window and door trims.

In January 2009, the California Air Resources Board (CARB) adopted an airborne toxics control measure (ATCM) to reduce formaldehyde emissions from composite wood products, including hardwood plywood, particleboard, medium density fiberboard, and also furniture and other finished products made with these wood products (California Air Resources Board 2009). While this formaldehyde ATCM has resulted in reduced emissions from composite wood products sold in California, they do not preclude that homes built with composite wood products meeting the CARB ATCM will have indoor formaldehyde concentrations that are below cancer and non-cancer exposure guidelines.

A follow up study to the California New Home Study (CNHS) was conducted in 2016-2018 (Chan et. al., 2019), and found that the median indoor formaldehyde in new homes mostly (69 of 70) built in 2012 or later with CARB Phase 2 Formaldehyde ATCM materials had lower indoor formaldehyde concentrations, with a median indoor concentrations of 22.4 $\mu g/m^3$ (18.2 ppb) as compared to a median of 36 $\mu g/m^3$ found in the 2007 CNHS.

Thus, while new homes built after the 2009 CARB formaldehyde ATCM have a 38% lower median indoor formaldehyde concentration and cancer risk, the median lifetime cancer risk is still 112 per million for homes built with CARB compliant composite wood products, which is more than 11 times the OEHHA 10 in a million cancer risk threshold (OEHHA, 2017a).

With respect to this project, the buildings in the 3440 Wilshire Project in Los Angels, CA consist of residential and commercial retail spaces

The residential occupants will potentially have continuous exposure (e.g. 24 hours per day, 52 weeks per year). These exposures are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in residential construction.

Because these residences will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor residential formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 22.4 $\mu g/m^3$ (Chan et. al., 2019)

Assuming that the residential occupants inhale 20 m^3 of air per day, the average 70-year lifetime formaldehyde daily dose is 448 µg/day for continuous exposure in the residences. This exposure represents a cancer risk of 112 per million, which is more than 11 times the Bay Area Air Quality Management District CEQA cancer risk of 10 per million (BAAQMD, 2007). For occupants that do not have continuous exposure, the cancer risk will be proportionally less but still substantially over the BAAQMD CEQA cancer risk of 10 per million (e.g. for 12/hour/day occupancy, more than 5 times the BAAQMD CEQA cancer risk of 10 per million).

The employees of the commercial spaces are also expected to experience significant indoor exposures (e.g., 40 hours per week, 50 weeks per year). These exposures for employees are anticipated to result in significant cancer risks resulting from exposures to formaldehyde released by the building materials and furnishing commonly found in offices, warehouses, residences and hotels.

Because these commercial will be constructed with CARB Phase 2 Formaldehyde ATCM materials, and be ventilated with the minimum code required amount of outdoor air, the indoor warehouse formaldehyde concentrations are likely similar to those concentrations observed in residences built with CARB Phase 2 Formaldehyde ATCM materials, which is a median of 22.4 $\mu g/m^3$ (Chan et. al., 2019).

Assuming that the commercial space employees work 8 hours per day and inhale 20 m^3 of air per day, the formaldehyde dose per work-day at the offices is 149 µg/day.

Assuming that the commercial space employees work 5 days per week and 50 weeks per year for 45 years (start at age 20 and retire at age 65) the average 70-year lifetime

formaldehyde daily dose is 65.6 µg/day.

This is 1.64 times the NSRL (OEHHA, 2017a) of 40 µg/day and represents a cancer risk of 16.4 per million, which exceeds the CEQA cancer risk of 10 per million. This impact should be analyzed in an environmental impact report ("EIR"), and the agency should impose all feasible mitigation measures to reduce this impact.

Several feasible mitigation measures are discussed below and these and other measures should be analyzed in an EIR.

While measurements of the indoor concentrations of formaldehyde in residences built with CARB Phase 2 Formaldehyde ATCM materials (Chan et. al., 2019), indicate that indoor formaldehyde concentrations in buildings built with similar materials (e.g. hotels, residences, offices, warehouses, schools) will pose cancer risks in excess of the CEQA cancer risk of 10 per million, a determination of the cancer risk that is specific to this project and the materials used to construct these buildings can and should be conducted prior to completion of the environmental review.

The following describes a method that should be used prior to construction in the environmental review under CEQA, for determining whether the indoor concentrations resulting from the formaldehyde emissions of the specific building materials/furnishings selected for the building exceed cancer and non-cancer guidelines. Such a design analyses can be used to identify those materials/furnishings prior to the completion of the City's CEQA review and project approval, that have formaldehyde emission rates that contribute to indoor concentrations that exceed cancer and non-cancer guidelines, so that alternative lower emitting materials/furnishings may be selected and/or higher minimum outdoor air ventilation rates can be increased to achieve acceptable indoor concentrations and incorporated as mitigation measures for this project.

Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment.

This formaldehyde emissions assessment should be used in the environmental review under CEQA to assess the indoor formaldehyde concentrations from the proposed loading of building materials/furnishings, the area-specific formaldehyde emission rate data for building materials/furnishings, and the design minimum outdoor air ventilation rates. This assessment allows the applicant (and the City) to determine before the conclusion of the environmental review process and the building materials/furnishings are specified, purchased, and installed if the total chemical emissions will exceed cancer and non-cancer guidelines, and if so, allow for changes in the selection of specific material/furnishings and/or the design minimum outdoor air ventilations rates such that cancer and non-cancer guidelines are not exceeded.

1.) Define Indoor Air Quality Zones. Divide the building into separate indoor air quality zones, (IAQ Zones). IAQ Zones are defined as areas of well-mixed air. Thus, each ventilation system with recirculating air is considered a single zone, and each room or group of rooms where air is not recirculated (e.g. 100% outdoor air) is considered a separate zone. For IAQ Zones with the same construction material/furnishings and design minimum outdoor air ventilation rates. (e.g. hotel rooms, apartments, condominiums, etc.) the formaldehyde emission rates need only be assessed for a single IAQ Zone of that type.

2.) Calculate Material/Furnishing Loading. For each IAQ Zone, determine the building material and furnishing loadings (e.g., m^2 of material/m^2 floor area, units of furnishings/m^2 floor area) from an inventory of all potential indoor formaldehyde sources, including flooring, ceiling tiles, furnishings, finishes, insulation, sealants, adhesives, and any products constructed with composite wood products containing urea-formaldehyde resins (e.g., plywood, medium density fiberboard, particleboard).

3.) Calculate the Formaldehyde Emission Rate. For each building material, calculate the formaldehyde emission rate (µg/h) from the product of the area-specific formaldehyde emission rate (µg/m^2-h) and the area (m^2) of material in the IAQ Zone, and from each furnishing (e.g. chairs, desks, etc.) from the unit-specific formaldehyde emission rate (µg/unit-h) and the number of units in the IAQ Zone.

NOTE: As a result of the high-performance building rating systems and building codes (California Building Standards Commission, 2014; USGBC, 2014), most manufacturers of building materials furnishings sold in the United States conduct chemical emission rate tests using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), or other equivalent chemical emission rate testing methods. Most manufacturers of building furnishings sold in the United States conduct chemical emission rate tests using ANSI/BIFMA M7.1 Standard Test Method for Determining VOC Emissions (BIFMA, 2018), or other equivalent chemical emission rate testing methods.

CDPH, BIFMA, and other chemical emission rate testing programs, typically certify that a material or furnishing does not create indoor chemical concentrations in excess of the maximum concentrations permitted by their certification. For instance, the CDPH emission rate testing requires that the measured emission rates when input into an office, school, or residential model do not exceed one-half of the OEHHA Chronic Exposure Guidelines (OEHHA, 2017b) for the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017). These certifications themselves do not provide the actual area-specific formaldehyde emission rate (i.e., $\mu g/m^2$-h) of the product, but rather provide data that the formaldehyde emission rates do not exceed the maximum rate allowed for the certification. Thus for example, the data for a certification of a specific type of flooring may be used to calculate that the area-specific emission rate of formaldehyde is less than 31 $\mu g/m^2$-h, but not the actual measured specific emission rate, which may be 3, 18, or 30 $\mu g/m^2$-h. These area-specific emission rates determined from the product certifications of CDPH, BIFA, and other certification programs can be used as an initial estimate of the formaldehyde emission rate.

If the actual area-specific emission rates of a building material or furnishing is needed (i.e. the initial emission rates estimates from the product certifications are higher than desired), then that data can be acquired by requesting from the manufacturer the complete chemical emission rate test report. For instance if the complete CDPH emission test report is requested for a CDHP certified product, that report will provide the actual area-specific

emission rates for not only the 35 specific VOCs, including formaldehyde, listed in Table 4-1 of the CDPH test method (CDPH, 2017), but also all of the cancer and reproductive/developmental chemicals listed in the California Proposition 65 Safe Harbor Levels (OEHHA, 2017a), all of the toxic air contaminants (TACs) in the California Air Resources Board Toxic Air Contamination List (CARB, 2011), and the 10 chemicals with the greatest emission rates.

Alternatively, a sample of the building material or furnishing can be submitted to a chemical emission rate testing laboratory, such as Berkeley Analytical Laboratory (https://berkeleyanalytical.com), to measure the formaldehyde emission rate.

4.) Calculate the Total Formaldehyde Emission Rate. For each IAQ Zone, calculate the total formaldehyde emission rate (i.e. µg/h) from the individual formaldehyde emission rates from each of the building material/furnishings as determined in Step 3.

5.) Calculate the Indoor Formaldehyde Concentration. For each IAQ Zone, calculate the indoor formaldehyde concentration (µg/m^3) from Equation 1 by dividing the total formaldehyde emission rates (i.e. µg/h) as determined in Step 4, by the design minimum outdoor air ventilation rate (m^3/h) for the IAQ Zone.

$$C_{in} = \frac{E_{total}}{Q_{oa}} \quad \text{(Equation 1)}$$

where:

C_{in} = indoor formaldehyde concentration (µg/m^3)

E_{total} = total formaldehyde emission rate (µg/h) into the IAQ Zone.

Q_{oa} = design minimum outdoor air ventilation rate to the IAQ Zone (m^3/h)

The above Equation 1 is based upon mass balance theory, and is referenced in Section 3.10.2 “Calculation of Estimated Building Concentrations” of the California Department of Health “Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers”, (CDPH, 2017).

6.) Calculate the Indoor Exposure Cancer and Non-Cancer Health Risks. For each IAQ Zone, calculate the cancer and non-cancer health risks from the indoor formaldehyde concentrations determined in Step 5 and as described in the OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments (OEHHA, 2015).

7.) Mitigate Indoor Formaldehyde Exposures of exceeding the CEQA Cancer and/or Non-Cancer Health Risks. In each IAQ Zone, provide mitigation for any formaldehyde exposure risk as determined in Step 6, that exceeds the CEQA cancer risk of 10 per million or the CEQA non-cancer Hazard Quotient of 1.0.

Provide the source and/or ventilation mitigation required in all IAQ Zones to reduce the health risks of the chemical exposures below the CEQA cancer and non-cancer health risks.

Source mitigation for formaldehyde may include:

1.) reducing the amount materials and/or furnishings that emit formaldehyde
2.) substituting a different material with a lower area-specific emission rate of formaldehyde

Ventilation mitigation for formaldehyde emitted from building materials and/or furnishings may include:

1.) increasing the design minimum outdoor air ventilation rate to the IAQ Zone.

NOTE: Mitigating the formaldehyde emissions through use of less material/furnishings, or use of lower emitting materials/furnishings, is the preferred mitigation option, as mitigation with increased outdoor air ventilation increases initial and operating costs associated with the heating/cooling systems.

Further, we are not asking that the builder to "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile

Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Impact. Another important finding of the CNHS, was that the outdoor air ventilation rates in the homes were very low. Outdoor air ventilation is a very important factor influencing the indoor concentrations of air contaminants, as it is the primary removal mechanism of all indoor air generated air contaminants. Lower outdoor air exchange rates cause indoor generated air contaminants to accumulate to higher indoor air concentrations. Many homeowners rarely open their windows or doors for ventilation as a result of their concerns for security/safety, noise, dust, and odor concerns (Price, 2007). In the CNHS field study, 32% of the homes did not use their windows during the 24-hour Test Day, and 15% of the homes did not use their windows during the entire preceding week. Most of the homes with no window usage were homes in the winter field session. Thus, a substantial percentage of homeowners never open their windows, especially in the winter season. The median 24-hour measurement was 0.26 ach, with a range of 0.09 ach to 5.3 ach. A total of 67% of the homes had outdoor air exchange rates below the minimum California Building Code (2001) requirement of 0.35 ach. Thus, the relatively tight envelope construction, combined with the fact that many people never open their windows for ventilation, results in homes with low outdoor air exchange rates and higher indoor air contaminant concentrations.

The 3440 Wilshire Project in Los Angeles, CA is close to roads with moderate to high traffic (e.g. Wilshire Boulevard, S. Mariposa Boulevard, S. Normandy Avenue, and W. 7th Street. As a result of the outdoor vehicle traffic noise, the Project site is likely to be a sound impacted site. The noise analyses provided in the Mitigated Negative Declaration (CAJA Environmental Services, 2020), reports in Tables B. 13-7 and B.13-8 Future + Project AM and PM Peak Hour Mobile Source Noise Levels, that the noise levels will range from 60.8 to 64.0 dBA L_{eq} 1hr.

As a result of the high outdoor noise levels, the current project will require the need for mechanical supply of outdoor air ventilation air to allow for a habitable interior environment with closed windows and doors. Such a ventilation system would allow windows and doors to be kept closed at the occupant's discretion to control exterior noise within building interiors.

$PM_{2.5}$ Outdoor Concentrations Impact. An additional impact of the nearby motor vehicle traffic associated with this project, are the outdoor concentrations of $PM_{2.5}$. According to the Mitigated Negative Declaration (CAJA Environmental Services, 2020), this Project is located in the Los Angels County portion of the South Coast Air Basin, which is a State and Federal non-attainment area for $PM_{2.5}$.

An air quality analyses should to be conducted to determine the concentrations of $PM_{2.5}$ in the outdoor and indoor air that people inhale each day. This air quality analyses needs to consider the cumulative impacts of the project related emissions, existing and projected future emissions from local $PM_{2.5}$ sources (e.g. stationary sources, motor vehicles, and airport traffic) upon the outdoor air concentrations at the project site. If the outdoor concentrations are determined to exceed the California and National annual average $PM_{2.5}$ exceedence concentration of 12 $\mu g/m^3$, or the National 24-hour average exceedence concentration of 35 $\mu g/m^3$, then the buildings need to have a mechanical supply of outdoor air that has air filtration with sufficient $PM_{2.5}$ removal efficiency, such that the indoor concentrations of outdoor $PM_{2.5}$ particles is less than the California and National $PM_{2.5}$ annual and 24-hour standards.

It is my experience that based on the projected high traffic noise levels, the annual average concentration of $PM_{2.5}$ will exceed the California and National $PM_{2.5}$ annual and 24-hour standards and warrant installation of high efficiency air filters (i.e. MERV 13 or higher) in all mechanically supplied outdoor air ventilation systems.

Indoor Air Quality Impact Mitigation Measures

The following are recommended mitigation measures to minimize the impacts upon indoor quality:

- indoor formaldehyde concentrations
- outdoor air ventilation
- $PM_{2.5}$ outdoor air concentrations

Indoor Formaldehyde Concentrations Mitigation. Use only composite wood materials (e.g. hardwood plywood, medium density fiberboard, particleboard) for all interior finish systems that are made with CARB approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins (CARB, 2009). Other projects such as the AC by Marriott Hotel – West San Jose Project (Asset Gas SC Inc.) and 2525 North Main Street, Santa Ana (AC 2525 Main LLC, 2019) have entered into settlement agreements stipulating the use of composite wood materials only containing NAF or ULEF resins.

Alternatively, conduct the previously described Pre-Construction Building Material/Furnishing Chemical Emissions Assessment, to determine that the combination of formaldehyde emissions from building materials and furnishings do not create indoor formaldehyde concentrations that exceed the CEQA cancer and non-cancer health risks.

It is important to note that we are not asking that the builder to "speculate" on what and how much composite materials be used, but rather at the design stage to select composite wood materials based on the formaldehyde emission rates that manufacturers routinely conduct using the California Department of Health "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers", (CDPH, 2017), and use the procedure described earlier (i.e. Pre-Construction Building Material/Furnishing Formaldehyde Emissions Assessment) to insure that the materials selected achieve acceptable cancer risks from material off gassing of formaldehyde.

Outdoor Air Ventilation Mitigation. Provide each habitable room with a continuous mechanical supply of outdoor air that meets or exceeds the California 2016 Building Energy Efficiency Standards (California Energy Commission, 2015) requirements of the greater of 15 cfm/occupant or 0.15 cfm/ft^2 of floor area. Following installation of the system conduct testing and balancing to insure that required amount of outdoor air is entering each habitable room and provide a written report documenting the outdoor airflow rates. Do not use exhaust only mechanical outdoor air systems, use only balanced outdoor air supply and exhaust systems or outdoor air supply only systems. Provide a manual for the occupants or maintenance personnel, that describes the purpose of the mechanical outdoor air system and the operation and maintenance requirements of the system.

$PM_{2.5}$ Outdoor Air Concentration Mitigation. Install air filtration with sufficient $PM_{2.5}$ removal efficiency (e.g. MERV 13 or higher) to filter the outdoor air entering the mechanical outdoor air supply systems, such that the indoor concentrations of outdoor $PM_{2.5}$ particles are less than the California and National $PM_{2.5}$ annual and 24-hour standards. Install the air filters in the system such that they are accessible for replacement by the occupants or maintenance personnel. Include in the mechanical outdoor air ventilation system manual instructions on how to replace the air filters and the estimated frequency of replacement.

References

AC 2525 Main LLC. 2019. Environmental Settlement Agreement with Laborers' International Union of North America Local 652.

Asset Gas SC. Inc. 2019. Settlement Agreement and Release with Jose Mexicano, Alejandro Martinez, and Laborers' International Union of North America Local 652.

BIFA. 2018. BIFMA Product Safety and Performance Standards and Guidelines. www.bifma.org/page/standardsoverview

CAJA Environmental Services. 2020. Mitigative Negative Declaration – 3440 Wilshire Project. Case Number: Env-2016-3693-MND.

California Air Resources Board. 2009. Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products. California Environmental Protection Agency, Sacramento, CA. https://www.arb.ca.gov/regact/2007/compwood07/fro-final.pdf

California Air Resources Board. 2011. Toxic Air Contaminant Identification List. California Environmental Protection Agency, Sacramento, CA. https://www.arb.ca.gov/toxics/id/taclist.htm

California Building Code. 2001. California Code of Regulations, Title 24, Part 2 Volume 1, Appendix Chapter 12, Interior Environment, Division 1, Ventilation, Section 1207: 2001 California Building Code, California Building Standards Commission. Sacramento, CA.

California Building Standards Commission (2014). 2013 California Green Building Standards Code. California Code of Regulations, Title 24, Part 11. California Building Standards Commission, Sacramento, CA http://www.bsc.ca.gov/Home/CALGreen.aspx.

California Energy Commission, 2015. 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, California Code of Regulations, Title 24, Part 6. http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf

CDPH. 2017. *Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions for Indoor Sources Using Environmental Chambers, Version 1.1.* California Department of Public Health, Richmond, CA. https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

Chan, W., Kim, Y., Singer, B., and Walker I. 2019. Ventilation and Indoor Air Quality in New California Homes with Gas Appliances and Mechanical Ventilation. Lawrence

Berkeley National Laboratory, Energy Technologies Area, LBNL-2001200, DOI: 10.20357/B7QC7X.

EPA. 2011. Exposure Factors Handbook: 2011 Edition, Chapter 16 – Activity Factors. Report EPA/600/R-09/052F, September 2011. U.S. Environmental Protection Agency, Washington, D.C.

Hodgson, A. T., D. Beal, J.E.R. McIlvaine. 2002. Sources of formaldehyde, other aldehydes and terpenes in a new manufactured house. Indoor Air 12: 235–242.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. Air Toxics Hot Spots Program Risk Assessment Guidelines; Guidance Manual for Preparation of Health Risk Assessments.

OEHHA (Office of Environmental Health Hazard Assessment). 2017a. Proposition 65 Safe Harbor Levels. No Significant Risk Levels for Carcinogens and Maximum Allowable Dose Levels for Chemicals Causing Reproductive Toxicity. Available at: http://www.oehha.ca.gov/prop65/pdf/safeharbor081513.pdf

OEHHA - Office of Environmental Health Hazard Assessment. 2017b. All OEHHA Acute, 8-hour and Chronic Reference Exposure Levels. Available at: http://oehha.ca.gov/air/allrels.html

Offermann, F. J. 2009. Ventilation and Indoor Air Quality in New Homes. California Air Resources Board and California Energy Commission, PIER Energy-Related Environmental Research Program. Collaborative Report. CEC-500-2009-085. https://www.arb.ca.gov/research/apr/past/04-310.pdf

Offermann, F. J. and A. T. Hodgson. 2011. Emission Rates of Volatile Organic Compounds in New Homes. Proceedings Indoor Air 2011 (12th International Conference on Indoor Air Quality and Climate 2011), June 5-10, 2011, Austin, TX USA.

Price, Phillip P., Max Sherman, Robert H. Lee, and Thomas Piazza. 2007. Study of Ventilation Practices and Household Characteristics in New California Homes.

South Coast Air Quality Management District (SCAQMD). 2015. California Environmental Quality Act Air Quality Handbook. South Coast Air Quality Management District, Diamond Bar, CA,http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook

USGBC. 2014. LEED BD+C Homes v4. U.S. Green Building Council, Washington, D.C. http://www.usgbc.org/credits/homes/v4

Francis (Bud) J. Offermann III PE, CIH

Indoor Environmental Engineering
1448 Pine Street, Suite 103, San Francisco, CA 94109
Phone: 415-567-7700
Email: Offermann@iee-sf.com
http://www.iee-sf.com

Education

M.S. Mechanical Engineering (1985)
Stanford University, Stanford, CA.

Graduate Studies in Air Pollution Monitoring and Control (1980)
University of California, Berkeley, CA.

B.S. in Mechanical Engineering (1976)
Rensselaer Polytechnic Institute, Troy, N.Y.

Professional Experience

President: Indoor Environmental Engineering, San Francisco, CA. December, 1981 - present.

Direct team of environmental scientists, chemists, and mechanical engineers in conducting State and Federal research regarding indoor air quality instrumentation development, building air quality field studies, ventilation and air cleaning performance measurements, and chemical emission rate testing.

Provide design side input to architects regarding selection of building materials and ventilation system components to ensure a high quality indoor environment.

Direct Indoor Air Quality Consulting Team for the winning design proposal for the new State of Washington Ecology Department building.

Develop a full-scale ventilation test facility for measuring the performance of air diffusers; ASHRAE 129, Air Change Effectiveness, and ASHRAE 113, Air Diffusion Performance Index.

Develop a chemical emission rate testing laboratory for measuring the chemical emissions from building materials, furnishings, and equipment.

Principle Investigator of the California New Homes Study (2005-2007). Measured ventilation and indoor air quality in 108 new single family detached homes in northern and southern California.

Develop and teach IAQ professional development workshops to building owners, managers, hygienists, and engineers.

Air Pollution Engineer: Earth Metrics Inc., Burlingame, CA, October, 1985 to March, 1987.

Responsible for development of an air pollution laboratory including installation a forced choice olfactometer, tracer gas electron capture chromatograph, and associated calibration facilities. Field team leader for studies of fugitive odor emissions from sewage treatment plants, entrainment of fume hood exhausts into computer chip fabrication rooms, and indoor air quality investigations.

Staff Scientist: Building Ventilation and Indoor Air Quality Program, Energy and Environment Division, Lawrence Berkeley Laboratory, Berkeley, CA. January, 1980 to August, 1984.

Deputy project leader for the Control Techniques group; responsible for laboratory and field studies aimed at evaluating the performance of indoor air pollutant control strategies (i.e. ventilation, filtration, precipitation, absorption, adsorption, and source control).

Coordinated field and laboratory studies of air-to-air heat exchangers including evaluation of thermal performance, ventilation efficiency, cross-stream contaminant transfer, and the effects of freezing/defrosting.

Developed an *in situ* test protocol for evaluating the performance of air cleaning systems and introduced the concept of effective cleaning rate (ECR) also known as the Clean Air Delivery Rate (CADR).

Coordinated laboratory studies of portable and ducted air cleaning systems and their effect on indoor concentrations of respirable particles and radon progeny.

Co-designed an automated instrument system for measuring residential ventilation rates and radon concentrations.

Designed hardware and software for a multi-channel automated data acquisition system used to evaluate the performance of air-to-air heat transfer equipment.

Assistant Chief Engineer: Alta Bates Hospital, Berkeley, CA, October, 1979 to January, 1980.

Responsible for energy management projects involving installation of power factor correction capacitors on large inductive electrical devices and installation of steam meters on physical plant steam lines. Member of Local 39, International Union of Operating Engineers.

Manufacturing Engineer: American Precision Industries, Buffalo, NY, October, 1977 to October, 1979.

Responsible for reorganizing the manufacturing procedures regarding production of shell and tube heat exchangers. Designed customized automatic assembly, welding, and testing equipment. Designed a large paint spray booth. Prepared economic studies justifying new equipment purchases. Safety Director.

Project Engineer: Arcata Graphics, Buffalo, N.Y. June, 1976 to October, 1977.

Responsible for the design and installation of a bulk ink storage and distribution system and high speed automatic counting and marking equipment. Also coordinated material handling studies which led to the purchase and installation of new equipment.

PROFESSIONAL ORGANIZATION MEMBERSHIP

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

- Chairman of SPC-145P, Standards Project Committee - Test Method for Assessing the Performance of Gas Phase Air Cleaning Equipment (1991-1992)
- Member SPC-129P, Standards Project Committee - Test Method for Ventilation Effectiveness (1986-97)
  - Member of Drafting Committee
- Member Environmental Health Committee (1992-1994, 1997-2001, 2007-2010)
  - Chairman of EHC Research Subcommittee
  - Member of Man Made Mineral Fiber Position Paper Subcommittee
  - Member of the IAQ Position Paper Committee
  - Member of the Legionella Position Paper Committee
  - Member of the Limiting Indoor Mold and Dampness in Buildings Position Paper Committee
- Member SSPC-62, Standing Standards Project Committee - Ventilation for Acceptable Indoor Air Quality (1992 to 2000)
  - Chairman of Source Control and Air Cleaning Subcommittee
- Chairman of TC-4.10, Indoor Environmental Modeling (1988-92)
  - Member of Research Subcommittee
- Chairman of TC-2.3, Gaseous Air Contaminants and Control Equipment (1989-92)
  - Member of Research Subcommittee

American Society for Testing and Materials (ASTM)

- D-22 Sampling and Analysis of Atmospheres
  - Member of Indoor Air Quality Subcommittee
- E-06 Performance of Building Constructions

American Board of Industrial Hygiene (ABIH)

American Conference of Governmental Industrial Hygienists (ACGIH)

- Bioaerosols Committee (2007-2013)

American Industrial Hygiene Association (AIHA)

Cal-OSHA Indoor Air Quality Advisory Committee

International Society of Indoor Air Quality and Climate (ISIAQ)

- Co-Chairman of Task Force on HVAC Hygiene

U. S. Green Building Council (USGBC)
- Member of the IEQ Technical Advisory Group (2007-2009)
- Member of the IAQ Performance Testing Work Group (2010-2012)

Western Construction Consultants (WESTCON)

PROFESSIONAL CREDENTIALS

Licensed Professional Engineer - Mechanical Engineering

Certified Industrial Hygienist - American Board of Industrial Hygienists

SCIENTIFIC MEETINGS AND SYMPOSIA

Biological Contamination, Diagnosis, and Mitigation, Indoor Air'90, Toronto, Canada, August, 1990.

Models for Predicting Air Quality, Indoor Air'90, Toronto, Canada, August, 1990.

Microbes in Building Materials and Systems, Indoor Air '93, Helsinki, Finland, July, 1993.

Microorganisms in Indoor Air Assessment and Evaluation of Health Effects and Probable Causes, Walnut Creek, CA, February 27, 1997.

Controlling Microbial Moisture Problems in Buildings, Walnut Creek, CA, February 27, 1997.

Scientific Advisory Committee, Roomvent 98, 6th International Conference on Air Distribution in Rooms, KTH, Stockholm, Sweden, June 14-17, 1998.

Moisture and Mould, Indoor Air '99, Edinburgh, Scotland, August, 1999.

Ventilation Modeling and Simulation, Indoor Air '99, Edinburgh, Scotland, August, 1999.

Microbial Growth in Materials, Healthy Buildings 2000, Espoo, Finland, August, 2000.

Co-Chair, Bioaerosols X- Exposures in Residences, Indoor Air 2002, Monterey, CA, July 2002.

Healthy Indoor Environments, Anaheim, CA, April 2003.

Chair, Environmental Tobacco Smoke in Multi-Family Homes, Indoor Air 2008, Copenhagen, Denmark, July 2008.

Co-Chair, ISIAQ Task Force Workshop; HVAC Hygiene, Indoor Air 2002, Monterey, CA, July 2002.

Chair, ETS in Multi-Family Housing: Exposures, Controls, and Legalities Forum, Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

Chair, Energy Conservation and IAQ in Residences Workshop, Indoor Air 2011, Austin, TX, June 6, 2011.

Chair, Electronic Cigarettes: Chemical Emissions and Exposures Colloquium, Indoor Air 2016, Ghent, Belgium, July 4, 2016.

SPECIAL CONSULTATION

Provide consultation to the American Home Appliance Manufacturers on the development of a standard for testing portable air cleaners, AHAM Standard AC-1.

Served as an expert witness and special consultant for the U.S. Federal Trade Commission regarding the performance claims found in advertisements of portable air cleaners and residential furnace filters.

Conducted a forensic investigation for a San Mateo, CA pro se defendant, regarding an alleged homicide where the victim was kidnapped in a steamer trunk. Determined the air exchange rate in the steamer trunk and how long the person could survive.

Conducted *in situ* measurement of human exposure to toluene fumes released during nailpolish application for a plaintiffs attorney pursuing a California Proposition 65 product labeling case. June, 1993.

Conducted a forensic *in situ* investigation for the Butte County, CA Sheriff's Department of the emissions of a portable heater used in the bedroom of two twin one year old girls who suffered simultaneous crib death.

Consult with OSHA on the 1995 proposed new regulation regarding indoor air quality and environmental tobacco smoke.

Consult with EPA on the proposed Building Alliance program and with OSHA on the proposed new OSHA IAQ regulation.

Johnson Controls Audit/Certification Expert Review; Milwaukee, WI. May 28-29, 1997.

Winner of the nationally published 1999 Request for Proposals by the State of Washington to conduct a comprehensive indoor air quality investigation of the Washington State Department of Ecology building in Lacey, WA.

Selected by the State of California Attorney General's Office in August, 2000 to conduct a comprehensive indoor air quality investigation of the Tulare County Court House.

Lawrence Berkeley Laboratory IAQ Experts Workshop: "Cause and Prevention of Sick Building Problems in Offices: The Experience of Indoor Environmental Quality Investigators", Berkeley, California, May 26-27, 2004.

Provide consultation and chemical emission rate testing to the State of California Attorney General's Office in 2013-2015 regarding the chemical emissions from e-cigarettes.

PEER-REVIEWED PUBLICATIONS :

F.J.Offermann, C.D.Hollowell, and G.D.Roseme, "Low-Infiltration Housing in Rochester, New York: A Study of Air Exchange Rates and Indoor Air Quality," *Environment International*, *8*, pp. 435-445, 1982.

W.W.Nazaroff, F.J.Offermann, and A.W.Robb, "Automated System for Measuring Air Exchange Rate and Radon Concentration in Houses," *Health Physics*, *45*, pp. 525-537, 1983.

F.J.Offermann, W.J.Fisk, D.T.Grimsrud, B.Pedersen, and K.L.Revzan, "Ventilation Efficiencies of Wall- or Window-Mounted Residential Air-to-Air Heat Exchangers," *ASHRAE Annual Transactions*, *89-2B*, pp 507-527, 1983.

W.J.Fisk, K.M.Archer, R.E Chant, D. Hekmat, F.J.Offermann, and B.Pedersen, "Onset of Freezing in Residential Air-to-Air Heat Exchangers," *ASHRAE Annual Transactions*, *91-1B*, 1984.

W.J.Fisk, K.M.Archer, R.E Chant, D. Hekmat, F.J.Offermann, and B.Pedersen, "Performance of Residential Air-to-Air Heat Exchangers During Operation with Freezing and Periodic Defrosts," *ASHRAE Annual Transactions*, *91-1B*, 1984.

F.J.Offermann, R.G.Sextro, W.J.Fisk, D.T.Grimsrud, W.W.Nazaroff, A.V.Nero, and K.L.Revzan, "Control of Respirable Particles with Portable Air Cleaners," *Atmospheric Environment*, Vol. 19, pp.1761-1771, 1985.

R.G.Sextro, F.J.Offermann, W.W.Nazaroff, A.V.Nero, K.L.Revzan, and J.Yater, "Evaluation of Indoor Control Devices and Their Effects on Radon Progeny Concentrations," *Atmospheric Environment*, *12*, pp. 429-438, 1986.

W.J. Fisk, R.K.Spencer, F.J.Offermann, R.K.Spencer, B.Pedersen, R.Sextro, "Indoor Air Quality Control Techniques," *Noyes Data Corporation*, Park Ridge, New Jersey, (1987).

F.J.Offermann, "Ventilation Effectiveness and ADPI Measurements of a Forced Air Heating System," *ASHRAE Transactions* , Volume 94, Part 1, pp 694-704, 1988.

F.J.Offermann and D. Int-Hout "Ventilation Effectiveness Measurements of Three Supply/Return Air Configurations," *Environment International* , Volume 15, pp 585-592 1989.

F.J. Offermann, S.A. Loiselle, M.C. Quinlan, and M.S. Rogers, "A Study of Diesel Fume Entrainment in an Office Building," *IAQ '89*, The Human Equation: Health and Comfort, pp 179-183, ASHRAE, Atlanta, GA, 1989.

R.G.Sextro and F.J.Offermann, "Reduction of Residential Indoor Particle and Radon Progeny Concentrations with Ducted Air Cleaning Systems," submitted to *Indoor Air*, 1990.

S.A.Loiselle, A.T.Hodgson, and F.J.Offermann, "Development of An Indoor Air Sampler for Polycyclic Aromatic Compounds", *Indoor Air* , Vol 2, pp 191-210, 1991.

F.J.Offermann, S.A.Loiselle, A.T.Hodgson, L.A. Gundel, and J.M. Daisey, "A Pilot Study to Measure Indoor Concentrations and Emission Rates of Polycyclic Aromatic Compounds", *Indoor Air* , Vol 4, pp 497-512, 1991.

F.J. Offermann, S. A. Loiselle, R.G. Sextro, "Performance Comparisons of Six Different Air Cleaners Installed in a Residential Forced Air Ventilation System," *IAQ'91*, Healthy Buildings, pp 342-350, ASHRAE, Atlanta, GA (1991).

F.J. Offermann, J. Daisey, A. Hodgson, L. Gundell, and S. Loiselle, "Indoor Concentrations and Emission Rates of Polycyclic Aromatic Compounds", *Indoor Air,* Vol 4, pp 497-512 (1992).

F.J. Offermann, S. A. Loiselle, R.G. Sextro, "Performance of Air Cleaners Installed in a Residential Forced Air System," *ASHRAE Journal*, pp 51-57, July, 1992.

F.J. Offermann and S. A. Loiselle, "Performance of an Air-Cleaning System in an Archival Book Storage Facility," *IAQ'92*, ASHRAE, Atlanta, GA, 1992.

S.B. Hayward, K.S. Liu, L.E. Alevantis, K. Shah, S. Loiselle, F.J. Offermann, Y.L. Chang, L. Webber, “Effectiveness of Ventilation and Other Controls in Reducing Exposure to ETS in Office Buildings,” Indoor Air ’93, Helsinki, Finland, July 4-8, 1993.

F.J. Offermann, S. A. Loiselle, G. Ander, H. Lau, "Indoor Contaminant Emission Rates Before and After a Building Bake-out," *IAQ'93*, Operating and Maintaining Buildings for Health, Comfort, and Productivity, pp 157-163, ASHRAE, Atlanta, GA, 1993.

L.E. Alevantis, Hayward, S.B., Shah, S.B., Loiselle, S., and Offermann, F.J. "Tracer Gas Techniques for Determination of the Effectiveness of Pollutant Removal From Local Sources," *IAQ '93*, Operating and Maintaining Buildings for Health, Comfort, and Productivity, pp 119-129, ASHRAE, Atlanta, GA, 1993.

L.E. Alevantis, Liu, L.E., Hayward, S.B., Offermann, F.J., Shah, S.B., Leiserson, K. Tsao, E., and Huang, Y., "Effectiveness of Ventilation in 23 Designated Smoking Areas in California Buildings," *IAQ '94*, Engineering Indoor Environments, pp 167-181, ASHRAE, Atlanta, GA, 1994.

L.E. Alevantis, Offermann, F.J., Loiselle, S., and Macher, J.M., "Pressure and Ventilation Requirements of Hospital Isolation Rooms for Tuberculosis (TB) Patients: Existing Guidelines in the United States and a Method for Measuring Room Leakage", Ventilation and Indoor air quality in Hospitals, M. Maroni, editor, Kluwer Academic publishers, Netherlands, 1996.

F.J. Offermann, M. A. Waz, A.T. Hodgson, and H.M. Ammann, "Chemical Emissions from a Hospital Operating Room Air Filter," *IAQ'96*, Paths to Better Building Environments, pp 95-99, ASHRAE, Atlanta, GA, 1996.

F.J. Offermann, "Professional Malpractice and the Sick Building Investigator," *IAQ'96*, Paths to Better Building Environments, pp 132-136, ASHRAE, Atlanta, GA, 1996.

F.J. Offermann, "Standard Method of Measuring Air Change Effectiveness," *Indoor Air,* Vol 1, pp.206-211, 1999.

F. J. Offermann, A. T. Hodgson, and J. P. Robertson, "Contaminant Emission Rates from PVC Backed Carpet Tiles on Damp Concrete", Healthy Buildings 2000, Espoo, Finland, August 2000.

K.S. Liu, L.E. Alevantis, and F.J. Offermann, "A Survey of Environmental Tobacco Smoke Controls in California Office Buildings", *Indoor Air*, Vol 11, pp. 26-34, 2001.

F.J. Offermann, R. Colfer, P. Radzinski, and J. Robertson, "Exposure to Environmental Tobacco Smoke in an Automobile", Indoor Air 2002, Monterey, California, July 2002.

F. J. Offermann, J.P. Robertson, and T. Webster, "The Impact of Tracer Gas Mixing on Airflow Rate Measurements in Large Commercial Fan Systems", Indoor Air 2002, Monterey, California, July 2002.

M. J. Mendell, T. Brennan, L. Hathon, J.D. Odom, F.J.Offermann, B.H. Turk, K.M. Wallingford, R.C. Diamond, W.J. Fisk, "Causes and prevention of Symptom Complaints

in Office Buildings: Distilling the Experience of Indoor Environmental Investigators", submitted to Indoor Air 2005, Beijing, China, September 4-9, 2005.

F.J. Offermann, "Ventilation and IAQ in New Homes With and Without Mechanical Outdoor Air Systems", Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

F.J. Offermann, "ASHRAE 62.2 Intermittent Residential Ventilation: What's It Good For, Intermittently Poor IAQ", IAQVEC 2010, Syracuse, CA, April 21, 2010.

F.J. Offermann and A.T. Hodgson, "Emission Rates of Volatile Organic Compounds in New Homes", Indoor Air 2011, Austin, TX, June, 2011.

P. Jenkins, R. Johnson, T. Phillips, and F. Offermann, "Chemical Concentrations in New California Homes and Garages", Indoor Air 2011, Austin, TX, June, 2011.

W. J. Mills, B. J. Grigg, F. J. Offermann, B. E. Gustin, and N. E. Spingarm, "Toluene and Methyl Ethyl Ketone Exposure from a Commercially Available Contact Adhesive", Journal of Occupational and Environmental Hygiene, 9:D95-D102 May, 2012.

F. J. Offermann, R. Maddalena, J. C. Offermann, B. C. Singer, and H, Wilhelm, "The Impact of Ventilation on the Emission Rates of Volatile Organic Compounds in Residences", HB 2012, Brisbane, AU, July, 2012.

F. J. Offermann, A. T. Hodgson, P. L. Jenkins, R. D. Johnson, and T. J. Phillips, "Attached Garages as a Source of Volatile Organic Compounds in New Homes", HB 2012, Brisbane, CA, July, 2012.

R. Maddalena, N. Li, F. Offermann, and B. Singer, "Maximizing Information from Residential Measurements of Volatile Organic Compounds", HB 2012, Brisbane, AU, July, 2012.

W. Chen, A. Persily, A. Hodgson, F. Offermann, D. Poppendieck, and K. Kumagai, "Area-Specific Airflow Rates for Evaluating the Impacts of VOC emissions in U.S. Single-Family Homes", Building and Environment, Vol. 71, 204-211, February, 2014.

F. J. Offermann, A. Eagan A. C. Offermann, and L. J. Radonovich, "Infectious Disease Aerosol Exposures With and Without Surge Control Ventilation System Modifications", Indoor Air 2014, Hong Kong, July, 2014.

F. J. Offermann, "Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposures", Building and Environment, Vol. 93, Part 1, 101-105, November, 2015.

F. J. Offermann, "Formaldehyde Emission Rates From Lumber Liquidators Laminate Flooring Manufactured in China", Indoor Air 2016, Belgium, Ghent, July, 2016.

F. J. Offermann, "Formaldehyde and Acetaldehyde Emission Rates for E-Cigarettes", Indoor Air 2016, Belgium, Ghent, July, 2016.

OTHER REPORTS:

W.J.Fisk, P.G.Cleary, and F.J.Offermann, "Energy Saving Ventilation with Residential Heat Exchangers," a Lawrence Berkeley Laboratory brochure distributed by the Bonneville Power Administration, 1981.

F.J.Offermann, J.R.Girman, and C.D.Hollowell, "Midway House Tightening Project: A Study of Indoor Air Quality," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-12777, 1981.

F.J.Offermann, J.B.Dickinson, W.J.Fisk, D.T.Grimsrud, C.D.Hollowell, D.L.Krinkle, and G.D.Roseme, "Residential Air-Leakage and Indoor Air Quality in Rochester, New York," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-13100, 1982.

F.J.Offermann, W.J.Fisk, B.Pedersen, and K.L.Revzan, Residential Air-to-Air Heat Exchangers: A Study of the Ventilation Efficiencies of Wall- or Window- Mounted Units," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-14358, 1982.

F.J.Offermann, W.J.Fisk, W.W.Nazaroff, and R.G.Sextro, "A Review of Portable Air Cleaners for Controlling Indoor Concentrations of Particulates and Radon Progeny," An interim report for the Bonneville Power Administration, 1983.

W.J.Fisk, K.M.Archer, R.E.Chant, D.Hekmat, F.J.Offermann, and B.S. Pedersen, "Freezing in Residential Air-to-Air Heat Exchangers: An Experimental Study," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16783, 1983.

R.G.Sextro, W.W.Nazaroff, F.J.Offermann, and K.L.Revzan, "Measurements of Indoor Aerosol Properties and Their Effect on Radon Progeny," Proceedings of the American Association of Aerosol Research Annual Meeting, April, 1983.

F.J.Offermann, R.G.Sextro, W.J.Fisk, W.W. Nazaroff, A.V.Nero, K.L.Revzan, and J.Yater, "Control of Respirable Particles and Radon Progeny with Portable Air Cleaners," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16659, 1984.

W.J.Fisk, R.K.Spencer, D.T.Grimsrud, F.J.Offermann, B.Pedersen, and R.G.Sextro, "Indoor Air Quality Control Techniques: A Critical Review," Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-16493, 1984.

F.J.Offermann, J.R.Girman, and R.G.Sextro, "Controlling Indoor Air Pollution from Tobacco Smoke: Models and Measurements,", Indoor Air, Proceedings of the 3rd International Conference on Indoor Air Quality and Climate, Vol 1, pp 257-264, Swedish Council for Building Research, Stockholm (1984), Lawrence Berkeley Laboratory, Berkeley, CA, Report LBL-17603, 1984.

R.Otto, J.Girman, F.Offermann, and R.Sextro,"A New Method for the Collection and Comparison of Respirable Particles in the Indoor Environment," Lawrence Berkeley Laboratory, Berkeley, CA, Special Director Fund's Study, 1984.

A.T.Hodgson and F.J.Offermann, "Examination of a Sick Office Building," Lawrence Berkeley Laboratory, Berkeley, CA, an informal field study, 1984.

R.G.Sextro, F.J.Offermann, W.W.Nazaroff, and A.V.Nero, "Effects of Aerosol Concentrations on Radon Progeny," Aerosols, Science, & Technology, and Industrial Applications of Airborne Particles, editors B.Y.H.Liu, D.Y.H.Pui, and H.J.Fissan, p525, Elsevier, 1984.

K.Sexton, S.Hayward, F.Offermann, R.Sextro, and L.Weber, "Characterization of Particulate and Organic Emissions from Major Indoor Sources, Proceedings of the Third International Conference on Indoor Air Quality and Climate, Stockholm, Sweden, August 20-24, 1984.

F.J.Offermann, "Tracer Gas Measurements of Laboratory Fume Entrainment at a Semi-Conductor Manufacturing Plant," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Tracer Gas Measurements of Ventilation Rates in a Large Office Building," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Measurements of Volatile Organic Compounds in a New Large Office Building with Adhesive Fastened Carpeting," an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Designing and Operating Healthy Buildings", an Indoor Environmental Engineering R&D Report, 1986.

F.J.Offermann, "Measurements and Mitigation of Indoor Spray-Applicated Pesticides", an Indoor Environmental Engineering R&D Report, 1988.

F.J.Offermann and S. Loiselle, "Measurements and Mitigation of Indoor Mold Contamination in a Residence", an Indoor Environmental Engineering R&D Report, 1989.

F.J.Offermann and S. Loiselle, "Performance Measurements of an Air Cleaning System in a Large Archival Library Storage Facility", an Indoor Environmental Engineering R&D Report, 1989.

F.J. Offermann, J.M. Daisey, L.A. Gundel, and A.T. Hodgson, S. A. Loiselle, "Sampling, Analysis, and Data Validation of Indoor Concentrations of Polycyclic Aromatic Hydrocarbons", Final Report, Contract No. A732-106, California Air Resources Board, March, 1990.

L.A. Gundel, J.M. Daisey, and F.J. Offermann, "A Sampling and Analytical Method for Gas Phase Polycyclic Aromatic Hydrocarbons", Proceedings of the 5th International Conference on Indoor Air Quality and Climate, Indoor Air '90, July 29-August 1990.

A.T. Hodgson, J.M. Daisey, and F.J. Offermann "Development of an Indoor Sampling and Analytical Method for Particulate Polycyclic Aromatic Hydrocarbons", Proceedings of the 5th International Conference on Indoor Air Quality and Climate, Indoor Air '90, July 29-August, 1990.

F.J. Offermann, J.O. Sateri, "Tracer Gas Measurements in Large Multi-Room Buildings", Indoor Air '93, Helsinki, Finland, July 4-8, 1993.

F.J.Offermann, M. T. O'Flaherty, and M. A. Waz "Validation of ASHRAE 129 - Standard Method of Measuring Air Change Effectiveness", Final Report of ASHRAE Research Project 891, December 8, 1997.

S.E. Guffey, F.J. Offermann et. al., "Proceedings of the Workshop on Ventilation Engineering Controls for Environmental Tobacco smoke in the Hospitality Industry", U.S. Department of Labor Occupational Safety and Health Administration and ACGIH, 1998.

F.J. Offermann, R.J. Fiskum, D. Kosar, and D. Mudaari, "A Practical Guide to Ventilation Practices & Systems for Existing Buildings", *Heating/Piping/Air Conditioning Engineering* supplement to April/May 1999 issue.

F.J. Offermann, P. Pasanen, "Workshop 18: Criteria for Cleaning of Air Handling Systems", Healthy Buildings 2000, Espoo, Finland, August 2000.

F.J. Offermann, Session Summaries: Building Investigations, and Design & Construction, Healthy Buildings 2000, Espoo, Finland, August 2000.

F.J. Offermann, "The IAQ Top 10", Engineered Systems, November, 2008.

L. Kincaid and F.J. Offermann, "Unintended Consequences: Formaldehyde Exposures in Green Homes, AIHA Synergist, February, 2010.

F.J. Offermann, " IAQ in Air Tight Homes", ASHRAE Journal, November, 2010.

F.J. Offermann, "The Hazards of E-Cigarettes", ASHRAE Journal, June, 2014.

PRESENTATIONS :

"Low-Infiltration Housing in Rochester, New York: A Study of Air Exchange Rates and Indoor Air Quality," Presented at the International Symposium on Indoor Air Pollution, Health and Energy Conservation, Amherst, MA, October 13-16,1981.

"Ventilation Efficiencies of Wall- or Window-Mounted Residential Air-to-Air Heat Exchangers," Presented at the American Society of Heating, Refrigeration, and Air Conditioning Engineers Summer Meeting, Washington, DC, June, 1983.

"Controlling Indoor Air Pollution from Tobacco Smoke: Models and Measurements," Presented at the Third International Conference on Indoor Air Quality and Climate, Stockholm, Sweden, August 20-24, 1984.

"Indoor Air Pollution: An Emerging Environmental Problem", Presented to the Association of Environmental Professionals, Bar Area/Coastal Region 1, Berkeley, CA, May 29, 1986.

"Ventilation Measurement Techniques," Presented at the Workshop on Sampling and Analytical Techniques, Georgia Institute of Technology, Atlanta, Georgia, September 26, 1986 and September 25, 1987.

"Buildings That Make You Sick: Indoor Air Pollution", Presented to the Sacramento Association of Professional Energy Managers, Sacramento, CA, November 18, 1986.

"Ventilation Effectiveness and Indoor Air Quality", Presented to the American Society of Heating, Refrigeration, and Air Conditioning Engineers Northern Nevada Chapter, Reno, NV, February 18, 1987, Golden Gate Chapter, San Francisco, CA, October 1, 1987, and the San Jose Chapter, San Jose, CA, June 9, 1987.

"Tracer Gas Techniques for Studying Ventilation," Presented at the Indoor Air Quality Symposium, Georgia Tech Research Institute, Atlanta, GA, September 22-24, 1987.

"Indoor Air Quality Control: What Works, What Doesn't," Presented to the Sacramento Association of Professional Energy Managers, Sacramento, CA, November 17, 1987.

"Ventilation Effectiveness and ADPI Measurements of a Forced Air Heating System," Presented at the American Society of Heating, Refrigeration, and Air Conditioning Engineers Winter Meeting, Dallas, Texas, January 31, 1988.

"Indoor Air Quality, Ventilation, and Energy in Commercial Buildings", Presented at the Building Owners &Managers Association of Sacramento, Sacramento, CA, July 21, 1988.

"Controlling Indoor Air Quality: The New ASHRAE Ventilation Standards and How to Evaluate Indoor Air Quality", Presented at a conference "Improving Energy Efficiency and Indoor Air Quality in Commercial Buildings," National Energy Management Institute, Reno, Nevada, November 4, 1988.

"A Study of Diesel Fume Entrainment Into an Office Building," Presented at Indoor Air '89: The Human Equation: Health and Comfort, American Society of Heating, Refrigeration, and Air Conditioning Engineers, San Diego, CA, April 17-20, 1989.

"Indoor Air Quality in Commercial Office Buildings," Presented at the Renewable Energy Technologies Symposium and International Exposition, Santa Clara, CA June 20, 1989.

"Building Ventilation and Indoor Air Quality", Presented to the San Joaquin Chapter of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, September 7, 1989.

"How to Meet New Ventilation Standards: Indoor Air Quality and Energy Efficiency," a workshop presented by the Association of Energy Engineers; Chicago, IL, March 20-21, 1989; Atlanta, GA, May 25-26, 1989; San Francisco, CA, October 19-20, 1989; Orlando, FL, December 11-12, 1989; Houston, TX, January 29-30, 1990; Washington D.C., February 26-27, 1990; Anchorage, Alaska, March 23, 1990; Las Vegas, NV, April 23-24, 1990; Atlantic City, NJ, September 27-28, 1991; Anaheim, CA, November 19-20, 1991; Orlando, FL, February 28 - March 1, 1991; Washington, DC, March 20-21, 1991; Chicago, IL, May 16-17, 1991; Lake Tahoe, NV, August 15-16, 1991; Atlantic City, NJ, November 18-19, 1991; San Jose, CA, March 23-24, 1992.

"Indoor Air Quality," a seminar presented by the Anchorage, Alaska Chapter of the American Society of Heating, Refrigeration, and Air Conditioning Engineers, March 23, 1990.

"Ventilation and Indoor Air Quality", Presented at the 1990 HVAC & Building Systems Congress, Santa, Clara, CA, March 29, 1990.

"Ventilation Standards for Office Buildings", Presented to the South Bay Property Managers Association, Santa Clara, May 9, 1990.

"Indoor Air Quality", Presented at the Responsive Energy Technologies Symposium & International Exposition (RETSIE), Santa Clara, CA, June 20, 1990.

"Indoor Air Quality - Management and Control Strategies", Presented at the Association of Energy Engineers, San Francisco Bay Area Chapter Meeting, Berkeley, CA, September 25, 1990.

"Diagnosing Indoor Air Contaminant and Odor Problems", Presented at the ASHRAE Annual Meeting, New York City, NY, January 23, 1991.

"Diagnosing and Treating the Sick Building Syndrome", Presented at the Energy 2001, Oklahoma, OK, March 19, 1991.

"Diagnosing and Mitigating Indoor Air Quality Problems" a workshop presented by the Association of Energy Engineers, Chicago, IL, October 29-30, 1990; New York, NY, January 24-25, 1991; Anaheim, April 25-26, 1991; Boston, MA, June 10-11, 1991; Atlanta, GA, October 24-25, 1991; Chicago, IL, October 3-4, 1991; Las Vegas, NV, December 16-17, 1991; Anaheim, CA, January 30-31, 1992; Atlanta, GA, March 5-6, 1992; Washington, DC, May 7-8, 1992; Chicago, IL, August 19-20, 1992; Las Vegas,

NV, October 1-2, 1992; New York City, NY, October 26-27, 1992, Las Vegas, NV, March 18-19, 1993; Lake Tahoe, CA, July 14-15, 1994; Las Vegas, NV, April 3-4, 1995; Lake Tahoe, CA, July 11-12, 1996; Miami, Fl, December 9-10, 1996.

"Sick Building Syndrome and the Ventilation Engineer", Presented to the San Jose Engineers Club, May, 21, 1991.

"Duct Cleaning: Who Needs It ? How Is It Done ? What Are The Costs ?" What Are the Risks ?, Moderator of Forum at the ASHRAE Annual Meeting, Indianapolis ID, June 23, 1991.

"Operating Healthy Buildings", Association of Plant Engineers, Oakland, CA, November 14, 1991.

"Duct Cleaning Perspectives", Moderator of Seminar at the ASHRAE Semi-Annual Meeting, Indianapolis, IN, June 24, 1991.

"Duct Cleaning: The Role of the Environmental Hygienist," ASHRAE Annual Meeting, Anaheim, CA, January 29, 1992.

"Emerging IAQ Issues", Fifth National Conference on Indoor Air Pollution, University of Tulsa, Tulsa, OK, April 13-14, 1992.

"International Symposium on Room Air Convection and Ventilation Effectiveness", Member of Scientific Advisory Board, University of Tokyo, July 22-24, 1992.

"Guidelines for Contaminant Control During Construction and Renovation Projects in Office Buildings," Seminar paper at the ASHRAE Annual Meeting, Chicago, IL, January 26, 1993.

"Outside Air Economizers: IAQ Friend or Foe", Moderator of Forum at the ASHRAE Annual Meeting, Chicago, IL, January 26, 1993.

"Orientation to Indoor Air Quality," an EPA two and one half day comprehensive indoor air quality introductory workshop for public officials and building property managers; Sacramento, September 28-30, 1992; San Francisco, February 23-24, 1993; Los Angeles, March 16-18, 1993; Burbank, June 23, 1993; Hawaii, August 24-25, 1993; Las Vegas, August 30, 1993; San Diego, September 13-14, 1993; Phoenix, October 18-19, 1993; Reno, November 14-16, 1995; Fullerton, December 3-4, 1996; Fresno, May 13-14, 1997.

"Building Air Quality: A Guide for Building Owners and Facility Managers," an EPA one half day indoor air quality introductory workshop for building owners and facility managers. Presented throughout Region IX 1993-1995.

“Techniques for Airborne Disease Control”, EPRI Healthcare Initiative Symposium; San Francisco, CA; June 7, 1994.

“Diagnosing and Mitigating Indoor Air Quality Problems”, CIHC Conference; San Francisco, September 29, 1994.

”Indoor Air Quality: Tools for Schools,” an EPA one day air quality management workshop for school officials, teachers, and maintenance personnel; San Francisco, October 18-20, 1994; Cerritos, December 5, 1996; Fresno, February 26, 1997; San Jose, March 27, 1997; Riverside, March 5, 1997; San Diego, March 6, 1997; Fullerton, November 13, 1997; Santa Rosa, February 1998; Cerritos, February 26, 1998; Santa Rosa, March 2, 1998.

ASHRAE 62 Standard “Ventilation for Acceptable IAQ”, ASCR Convention; San Francisco, CA, March 16, 1995.

“New Developments in Indoor Air Quality: Protocol for Diagnosing IAQ Problems”, AIHA-NC; March 25, 1995.

"Experimental Validation of ASHRAE SPC 129, Standard Method of Measuring Air Change Effectiveness", 16th AIVC Conference, Palm Springs, USA, September 19-22, 1995.

“Diagnostic Protocols for Building IAQ Assessment”, American Society of Safety Engineers Seminar: ‘Indoor Air Quality – The Next Door’; San Jose Chapter, September 27, 1995; Oakland Chapter, 9, 1997.

“Diagnostic Protocols for Building IAQ Assessment”, Local 39; Oakland, CA, October 3, 1995.

“Diagnostic Protocols for Solving IAQ Problems”, CSU-PPD Conference; October 24, 1995.

“Demonstrating Compliance with ASHRAE 62-1989 Ventilation Requirements”, AIHA; October 25, 1995.

“IAQ Diagnostics: Hands on Assessment of Building Ventilation and Pollutant Transport”, EPA Region IX; Phoenix, AZ, March 12, 1996; San Francisco, CA, April 9, 1996; Burbank, CA, April 12, 1996.

“Experimental Validation of ASHRAE 129P: Standard Method of Measuring Air Change Effectiveness”, Room Vent ‘96 / International Symposium on Room Air Convection and Ventilation Effectiveness"; Yokohama, Japan, July 16-19, 1996.

“IAQ Diagnostic Methodologies and RFP Development”, CCEHSA 1996 Annual Conference, Humboldt State University, Arcata, CA, August 2, 1996.

“The Practical Side of Indoor Air Quality Assessments”, California Industrial Hygiene Conference ‘96, San Diego, CA, September 2, 1996.

"ASHRAE Standard 62: Improving Indoor Environments", Pacific Gas and Electric Energy Center, San Francisco, CA, October 29, 1996.

"Operating and Maintaining Healthy Buildings", April 3-4, 1996, San Jose, CA; July 30, 1997, Monterey, CA.

"IAQ Primer", Local 39, April 16, 1997; Amdahl Corporation, June 9, 1997; State Compensation Insurance Fund's Safety & Health Services Department, November 21, 1996.

"Tracer Gas Techniques for Measuring Building Air Flow Rates", ASHRAE, Philadelphia, PA, January 26, 1997.

"How to Diagnose and Mitigate Indoor Air Quality Problems"; Women in Waste; March 19, 1997.

"Environmental Engineer: What Is It?", Monte Vista High School Career Day; April 10, 1997.

"Indoor Environment Controls: What's Hot and What's Not", Shaklee Corporation; San Francisco, CA, July 15, 1997.

"Measurement of Ventilation System Performance Parameters in the US EPA BASE Study", Healthy Buildings/IAQ'97, Washington, DC, September 29, 1997.

"Operations and Maintenance for Healthy and Comfortable Indoor Environments", PASMA; October 7, 1997.

"Designing for Healthy and Comfortable Indoor Environments", Construction Specification Institute, Santa Rosa, CA, November 6, 1997.

"Ventilation System Design for Good IAQ", University of Tulsa 10th Annual Conference, San Francisco, CA, February 25, 1998.

"The Building Shell", Tools For Building Green Conference and Trade Show, Alameda County Waste Management Authority and Recycling Board, Oakland, CA, February 28, 1998.

"Identifying Fungal Contamination Problems In Buildings", The City of Oakland Municipal Employees, Oakland, CA, March 26, 1998.

"Managing Indoor Air Quality in Schools: Staying Out of Trouble", CASBO, Sacramento, CA, April 20, 1998.

"Indoor Air Quality", CSOOC Spring Conference, Visalia, CA, April 30, 1998.

"Particulate and Gas Phase Air Filtration", ACGIH/OSHA, Ft. Mitchell, KY, June 1998.

"Building Air Quality Facts and Myths", The City of Oakland / Alameda County Safety Seminar, Oakland, CA, June 12, 1998.

"Building Engineering and Moisture", Building Contamination Workshop, University of California Berkeley, Continuing Education in Engineering and Environmental Management, San Francisco, CA, October 21-22, 1999.

"Identifying and Mitigating Mold Contamination in Buildings", Western Construction Consultants Association, Oakland, CA, March 15, 2000; AIG Construction Defect Seminar, Walnut Creek, CA, May 2, 2001; City of Oakland Public Works Agency, Oakland, CA, July 24, 2001; Executive Council of Homeowners, Alamo, CA, August 3, 2001.

"Using the EPA BASE Study for IAQ Investigation / Communication", Joint Professional Symposium 2000, American Industrial Hygiene Association, Orange County & Southern California Sections, Long Beach, October 19, 2000.

"Ventilation," Indoor Air Quality: Risk Reduction in the 21st Century Symposium, sponsored by the California Environmental Protection Agency/Air Resources Board, Sacramento, CA, May 3-4, 2000.

"Workshop 18: Criteria for Cleaning of Air Handling Systems", Healthy Buildings 2000, Espoo, Finland, August 2000.

"Closing Session Summary: 'Building Investigations' and 'Building Design & Construction', Healthy Buildings 2000, Espoo, Finland, August 2000.

"Managing Building Air Quality and Energy Efficiency, Meeting the Standard of Care", BOMA, MidAtlantic Environmental Hygiene Resource Center, Seattle, WA, May 23rd, 2000; San Antonio, TX, September 26-27, 2000.

"Diagnostics & Mitigation in Sick Buildings: When Good Buildings Go Bad," University of California Berkeley, September 18, 2001.

"Mold Contamination: Recognition and What To Do and Not Do", Redwood Empire Remodelers Association; Santa Rosa, CA, April 16, 2002.

"Investigative Tools of the IAQ Trade", Healthy Indoor Environments 2002; Austin, TX; April 22, 2002.

"Finding Hidden Mold: Case Studies in IAQ Investigations", AIHA Northern California Professionals Symposium; Oakland, CA, May 8, 2002.

"Assessing and Mitigating Fungal Contamination in Buildings", Cal/OSHA Training; Oakland, CA, February 14, 2003 and West Covina, CA, February 20-21, 2003.

"Use of External Containments During Fungal Mitigation", Invited Speaker, ACGIH Mold Remediation Symposium, Orlando, FL, November 3-5, 2003.

Building Operator Certification (BOC), 106-IAQ Training Workshops, Northwest Energy Efficiency Council; Stockton, CA, December 3, 2003; San Francisco, CA, December 9, 2003; Irvine, CA, January 13, 2004; San Diego, January 14, 2004; Irwindale, CA, January 27, 2004; Downey, CA, January 28, 2004; Santa Monica, CA, March 16, 2004; Ontario, CA, March 17, 2004; Ontario, CA, November 9, 2004, San Diego, CA, November 10, 2004; San Francisco, CA, November 17, 2004; San Jose, CA, November 18, 2004; Sacramento, CA, March 15, 2005.

"Mold Remediation: The National QUEST for Uniformity Symposium", Invited Speaker, Orlando, Florida, November 3-5, 2003.

"Mold and Moisture Control", Indoor Air Quality workshop for The Collaborative for High Performance Schools (CHPS), San Francisco, December 11, 2003.

"Advanced Perspectives In Mold Prevention & Control Symposium", Invited Speaker, Las Vegas, Nevada, November 7-9, 2004.

"Building Sciences: Understanding and Controlling Moisture in Buildings", American Industrial Hygiene Association, San Francisco, CA, February 14-16, 2005.

"Indoor Air Quality Diagnostics and Healthy Building Design", University of California Berkeley, Berkeley, CA, March 2, 2005.

"Improving IAQ = Reduced Tenant Complaints", Northern California Facilities Exposition, Santa Clara, CA, September 27, 2007.

"Defining Safe Building Air", Criteria for Safe Air and Water in Buildings, ASHRAE Winter Meeting, Chicago, IL, January 27, 2008.

"Update on USGBC LEED and Air Filtration", Invited Speaker, NAFA 2008 Convention, San Francisco, CA, September 19, 2008.

"Ventilation and Indoor air Quality in New California Homes", National Center of Healthy Housing, October 20, 2008.

"Indoor Air Quality in New Homes", California Energy and Air Quality Conference, October 29, 2008.

"Mechanical Outdoor air Ventilation Systems and IAQ in New Homes", ACI Home Performance Conference, Kansas City, MO, April 29, 2009.

"Ventilation and IAQ in New Homes with and without Mechanical Outdoor Air Systems", Healthy Buildings 2009, Syracuse, CA, September 14, 2009.

"Ten Ways to Improve Your Air Quality", Northern California Facilities Exposition, Santa Clara, CA, September 30, 2009.

"New Developments in Ventilation and Indoor Air Quality in Residential Buildings", Westcon meeting, Alameda, CA, March 17, 2010.

"Intermittent Residential Mechanical Outdoor Air Ventilation Systems and IAQ", ASHRAE SSPC 62.2 Meeting, Austin, TX, April 19, 2010.

"Measured IAQ in Homes", ACI Home Performance Conference, Austin, TX, April 21, 2010.

"Respiration: IEQ and Ventilation", AIHce 2010, How IH Can LEED in Green buildings, Denver, CO, May 23, 2010.

"IAQ Considerations for Net Zero Energy Buildings (NZEB)", Northern California Facilities Exposition, Santa Clara, CA, September 22, 2010.

"Energy Conservation and Health in Buildings", Berkeley High SchoolGreen Career Week, Berkeley, CA, April 12, 2011.

"What Pollutants are Really There ?", ACI Home Performance Conference, San Francisco, CA, March 30, 2011.

"Energy Conservation and Health in Residences Workshop", Indoor Air 2011, Austin, TX, June 6, 2011.

"Assessing IAQ and Improving Health in Residences", US EPA Weatherization Plus Health, September 7, 2011.

"Ventilation: What a Long Strange Trip It's Been", Westcon, May 21, 2014.

"Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposures", Indoor Air 2014, Hong Kong, July, 2014.

"Infectious Disease Aerosol Exposures With and Without Surge Control Ventilation System Modifications", Indoor Air 2014, Hong Kong, July, 2014.

"Chemical Emissions from E-Cigarettes", IMF Health and Welfare Fair, Washington, DC, February 18, 2015.

"Chemical Emissions and Health Hazards Associated with E-Cigarettes", Roswell Park Cancer Institute, Buffalo, NY, August 15, 2014.

"Formaldehyde Indoor Concentrations, Material Emission Rates, and the CARB ATCM", Harris Martin's Lumber Liquidators Flooring Litigation Conference, WQ Minneapolis Hotel, May 27, 2015.

"Chemical Emissions from E-Cigarettes: Direct and Indirect Passive Exposure", FDA Public Workshop: Electronic Cigarettes and the Public Health, Hyattsville, MD June 2, 2015.

"Creating Healthy Homes, Schools, and Workplaces", Chautauqua Institution, Athenaeum Hotel, August 24, 2015.

"Diagnosing IAQ Problems and Designing Healthy Buildings", University of California Berkeley, Berkeley, CA, October 6, 2015.

"Diagnosing Ventilation and IAQ Problems in Commercial Buildings", BEST Center Annual Institute, Lawrence Berkeley National Laboratory, January 6, 2016.

"A Review of Studies of Ventilation and Indoor Air Quality in New Homes and Impacts of Environmental Factors on Formaldehyde Emission Rates From Composite Wood Products", AIHce2016, May, 21-26, 2016.

"Admissibility of Scientific Testimony", Science in the Court, Proposition 65 Clearinghouse Annual Conference, Oakland, CA, September 15, 2016.

"Indoor Air Quality and Ventilation", ASHRAE Redwood Empire, Napa, CA, December 1, 2016.

EXHIBIT B

Shawn Smallwood, PhD
3108 Finch Street
Davis, CA 95616

City of Los Angeles
Department of City Planning
221 N. Figueroa St., Room 1350
Los Angeles, CA 90012

19 April 2020

RE: 3440 Wilshire Project

To Whom It May Concern,

I write to comment on the City of Los Angeles (2016) Initial Study and Negative Declaration (IS/MND) prepared for the 3440 Wilshire Project, which I understand would add 1,472,509 ft^2 of floor space between a 23-story building and a 28-story building, and including 10,738 ft^2 of commercial floor space and 839 residential units on 7.36 acres of land. I estimate the project's façades would support about 24,000 m^2 of glass windows and balcony rails, which would pose collision hazards to birds. Adding to the collision hazards would be the abundant use of window recessing, over-window balconies, between-building interior space, and use of transparent glass and abundant interior lighting at night. I write to comment on bird-window collisions that would result from this project – a type of impact that is not addressed in the IS/MND.

My qualifications for preparing expert comments are the following. I hold a Ph.D. degree in Ecology from University of California at Davis, where I subsequently worked for four years as a post-graduate researcher in the Department of Agronomy and Range Sciences. My research has been on animal density and distribution, habitat selection, habitat restoration, interactions between wildlife and human infrastructure and activities, conservation of rare and endangered species, and on the ecology of invading species. I perform research on wildlife mortality caused by wind turbines, electric distribution lines, agricultural practices, and road traffic. I authored numerous papers on special-status species issues, including "Using the best scientific data for endangered species conservation" (Smallwood et al. 1999), and "Suggested standards for science applied to conservation issues" (Smallwood et al. 2001). I served as Chair of the Conservation Affairs Committee for The Wildlife Society – Western Section. I am a member of The Wildlife Society and the Raptor Research Foundation, and I've been a part-time lecturer at California State University, Sacramento. I was Associate Editor of wildlife biology's premier scientific journal, The Journal of Wildlife Management, as well as of Biological Conservation, and I was on the Editorial Board of Environmental Management. I have performed wildlife surveys in California for thirty-three years, including at many proposed project sites. My CV is attached.

BIOLOGICAL IMPACTS ASSESSMENT

I disagree with the determinations of 'No Impact' to Initial Study questions 4a and 4d made by City of Los Angeles (2016). City of Los Angeles reasoned that special-status species do not occur in the urbanized landscape of the City, so the proposed project would risk no significant impacts to special-status species of wildlife. The City further reasoned that the urbanized location of the project does not support a wildlife movement corridor, so the project would risk no significant impacts to wildlife movement. However, whether a site supports a wildlife movement corridor is not the standard at issue with Initial Study question 4d; rather, it is whether the project would interfere with wildlife movement. City of Los Angeles apparentely neglected to consider that birds fly. Birds fly to forage, defend territories, disperse, and migrate. Birds, including special-status species of birds, inhabit the airspaces of Los Angeles, some as residents of Los Angeles and others as dispersers or migrants. Inserting two high-rises into the airspaces used by birds would interfere with wildlife movement while also killing many birds. Collision mortality would be worsened by constructing two high-rises as planned – high-rises composed of glass façades.

City of Los Angeles (2016) mischaracterizes bird occurrences in the urban environment of Los Angeles. Based on recent eBird records, 44 special-status species of birds have been documented right around the site of the proposed project (Table 1). Fifteen of these species have been known to collide with windows (Table 1). Many of these species are undoubtedly already experiencing annual mortality caused by window collisions in Los Angeles, but the proposed new project would substantially add window-collision hazards to birds flying over Los Angeles. A fair argument can be made for the need to prepare an EIR to assess project impacts from bird-window collisions, and to formulate appropriate mitigation.

WINDOW COLLISIONS

Recent advances in structural glass engineering have contributed to a proliferation of glass windows on building façades. This proliferation is readily observable in newer buildings and in recent project planning documents, and it is represented by a worldwide 20% increase in glass manufacturing for building construction since 2016. Increasing window to wall ratios and glass façades have become popular for multiple reasons, including a growing demand for 'daylighting.' Not only is glass a major feature of the Project, but depictions of the project are of buildings gleaming in transparent glass in daylight and lit from the interior in the evening hours (IS/MND Appendix A updated in January 2020).

The IS/MND has not been prepared with the benefit of survey visits by wildlife biologists, so it inadequately informs the public about avian use of the area. Surveys are needed to learn how many of each bird species fly through the area and at what times of day (and night). Nocturnal surveys can be performed using a thermal-imaging camera or radar. Such surveys would inform of collision risk, and could inform mitigation strategies involving interior light management and design modifications to facades facing the prevailing approach directions of migrating birds. Below I review the bird-

window collision issue, hypothesized causal factors and recommended mitigation solutions. I also predict bird-window collision rates based on studies performed across the USA at structures ranging widely in height, window-to-wall ratio, types of glass, orientation, and structural context. My aim is to make a robust prediction from this range of study conditions, and to present the associated large confidence interval that I believe is appropriate in the face of uncertainty over how many birds fly through the project area and what proportion of the birds are more susceptible that others to window collision.

Glass-façades of buildings intercept and kill many birds, but these façades are differentially hazardous to birds based on spatial extent, contiguity, orientation, and other factors. At Washington State University, Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a three-story glass walkway (no fatality adjustments attempted). Prior to marking the windows to warn birds of the collision hazard, the collision rate was 84.7 per year. At that rate, and not attempting to adjust the fatality estimate for the proportion of fatalities not found, 4,235 birds were likely killed over the 50 years since the start of their study, and that's at a relatively small building façade (Figure 1). Accounting for the proportion of fatalities not found, the number of birds killed by this walkway over the last 50 years would have been about 12,705. And this is just for one 3-story, glass-sided walkway between two college campus buildings.

Figure 1. *A walkway connecting two buildings at Washington State University where one of the earliest studies of bird collision mortality found 85 bird fatalities per year prior to marking windows (254 annual deaths adjusted for the proportion not found). Given that the window markers have long since disappeared, this walkway has likely killed at least 12,705 birds since 1968, and continues to kill birds. Notice that the transparent glass on both sides of the walkway gives the impression of unimpeded airspace that can be navigated safely by birds familiar with flying between tree branches. Also note the reflected images of trees, which can mislead birds into seeing safe perch sites. Further note the distances of ornamental trees, which allow birds taking off from those trees to reach full speed upon arrival at the windows.*

Table 1. *Reports of special-status species occurrences within close proximity of the proposed project site.*

Common name	***Species name***	**Status**	**eBird post(s)**	**Known window collision fatalities**
California gull	Larus californicus	TWL	Nearby	
Caspian tern	*Hydroprogne caspia*	BCC	Nearby	
Turkey vulture	*Cathartes aura*	FGC 3503.5	Nearby	
Osprey	*Pandion haliaetus*	TWL, FGC 3503.5	Nearby	
Swainson's hawk	*Buteo swainsoni*	CT, FGC 3503.5	Nearby	
Red-tailed hawk	*Buteo jamaicensis*	FGC 3503.5	Adjacent	Yes
Red-shouldered hawk	*Buteo lineatus*	FGC 3503.5	Nearby	Yes
Northern harrier	*Circus cyaneus*	SSC3, FGC 3503.5	Nearby	
White-tailed kite	*Elanus leucurus*	CFP, FGC 3503.5	Regional	
Sharp-shinned hawk	*Accipiter striatus*	FGC 3503.5	Nearby	Yes
Cooper's hawk	*Accipiter cooperi*	FGC 3503.5	Nearby	Yes
American kestrel	*Falco sparverius*	FGC 3503.5	Nearby	Yes
Merlin	*Falco columbarius*	FGC 3503.5	Adjacent	Yes
Prairie falcon	*Falco mexicanus*	FGC 3503.5	Regional	
Peregrine falcon	*Falco peregrinus*	CE, CFP, FGC 3503.5	Nearby	Yes
Barn owl	*Tyto alba*	FGC 3503.5	Nearby	
Great-horned owl	*Bubo virginianus*	FGC 3503.5	Nearby	
Burrowing owl	*Athene cunicularia*	BCC, SSC2, FGC 3503.5	Nearby	
Western screech-owl	*Megascops kennicottii*	FGC 3503.5	Nearby	
Vaux's swift	*Chaetura vauxi*	SCC2	Nearby	
Black swift	*Cypseloides niger*	SSC3	Nearby	
Allen's hummingbird	*Selasphorus sasin*	BCC	Nearby	Yes
Costa's hummingbird	*Calypte costae*	BCC	Nearby	Yes
Nuttall's woodpecker	*Picoides nuttallii*	BCC	Nearby	
Lewis's woodpecker	*Melanerpes lewis*	BCC	Regional	
Horned lark	*Eremophila alpestris actia*	TWL	Regional	
California gnatcatcher	*Polioptila c. californica*	FT, SSC	Regional	
Willow flycatcher	*Empidonax traillii*	FE, CE	Nearby	
Vermilion flycatcher	*Pyrocephalus rubinus*	SSC2	Nearby	
Olive-sided flycatcher	*Contopus cooperi*	SSC2	Nearby	

Common name	***Species name***	**Status**	**eBird post(s)**	**Known window collision fatalities**
Purple martin	*Progne subis*	SSC2	Nearby	Yes
Oak titmouse	*Baeolophus inornatus*	BCC	Nearby	Yes
Loggerhead shrike	*Lanius ludovicianus*	BCC, SSC2	Nearby	
Least Bell's vireo	*Vireo belli pusillus*	FE, CE	Regional	
Yellow warbler	*Setophaga petechia*	SSC2	Nearby	Yes
Yellow-breasted chat	*Icteria virens*	SSC3	Nearby	Yes
Summer tanager	*Piranga rubra*	SSC1	Nearby	Yes
Bell's sage sparrow	*Amphispiza b. belli*	TWL	Regional	
Oregon vesper sparrow	*Pooecetes gramineus affinis*	SSC2	Regional	
Grasshopper sparrow	*Ammodramus savannarum*	SSC2	Regional	Yes
Southern California rufous-crowned sparrow	*Aimophila ruficeps canescens*	BCC, SSC	Nearby	
Tricolored blackbird	*Agelaius tricolor*	CT, BCC	Nearby	
Yellow-headed blackbird	*X. xanthocephalus*	SSC3	Regional	
Lawrence's goldfinch	*Spinus lawrencei*	BCC	Nearby	

[1] Listed as FE and FT = federal endangered and threatened species, BCC = U.S. Fish and Wildlife Service Bird Species of Conservation Concern, CE and CT = California endangered and threatened species, SSC = California species of special concern (not threatened with extinction, but rare, very restricted in range, declining throughout range, peripheral portion of species' range, associated with habitat that is declining in extent), CFP = California Fully Protected (CDFW Code 3511), FGC 3503.5 = California Department of Fish and Wildlife Code 3503.5 (Birds of prey), and SSC1, SSC2 and SSC3 = California Bird Species of Special Concern priorities 1, 2 and 3, respectively (Shuford and Gardali 2008), and TWL = Taxa to Watch List (Shuford and Gardali 2008).

Window collisions are often characterized as either the second or third largest source or human-caused bird mortality. The numbers behind these characterizations are often attributed to Klem's (1990) and Dunn's (1993) estimates of about 100 million to 1 billion bird fatalities in the USA, or more recently Loss et al.'s (2014) estimate of 365-988 million bird fatalities in the USA or Calvert et al.'s (2013) and Machtans et al.'s (2013) estimates of 22.4 million and 25 million bird fatalities in Canada, respectively. However, these estimates and their interpretation warrant examination because they were based on opportunistic sampling, volunteer study participation, and fatality monitoring by more inexperienced than experienced searchers.

Klem's (1990) estimate was based on speculation that 1 to 10 birds are killed per building per year, and this speculated range was extended to the number of buildings estimated by the US Census Bureau in 1986. Klem's speculation was supported by fatality monitoring at only two houses, one in Illinois and the other in New York. Also, the basis of his fatality rate extension has changed greatly since 1986. Whereas his estimate served the need to alert the public of the possible magnitude of the bird-window collision issue, it was highly uncertain at the time and undoubtedly outdated more than three decades hence. Indeed, by 2010 Klem (2010) characterized the upper end of his estimated range – 1 billion bird fatalities – as conservative. Furthermore, the estimate lumped species together as if all birds are the same and the loss of all birds to windows has the same level of impact.

Homes with birdfeeders are associated with higher rates of window collisions than are homes without birdfeeders (Kummer and Bayne 2015, Kummer et al. 2016a), so the developed area might pose even greater hazard to birds if it includes numerous birdfeeders. Another factor potentially biasing national or North American estimates low was revealed by Bracey et al.'s (2016) finding that trained fatality searchers found 2.6× the number of fatalities found by homeowners on the days when both trained searchers and homeowners searched around homes. The difference in carcass detection was 30.4-fold when involving carcasses volitionally placed by Bracey et al. (2016) in blind detection trials. This much larger difference in trial carcass detection rates likely resulted because their placements did not include the sounds that typically alert homeowners to actual window collisions, but this explanation also raises the question of how often homeowner participants with such studies miss detecting window-caused fatalities because they did not hear the collisions.

By the time Loss et al. (2014) performed their effort to estimate annual USA bird-window fatalities, many more fatality monitoring studies had been reported or were underway. Loss et al. (2014) were able to incorporate many more fatality rates based on scientific monitoring, and they were more careful about which fatality rates to include. However, they included estimates based on fatality monitoring by homeowners, which in one study were found to detect only 38% of the available window fatalities (Bracey et al. 2016). Loss et al. (2014) excluded all fatality records lacking a dead bird in hand, such as injured birds or feather or blood spots on windows. Loss et al.'s (2014) fatality metric was the number of fatalities per building (where in this context a building can include a house, low-rise, or high-rise structure), but they assumed that this metric was based on window collisions. Because most of the bird-window collision studies were

limited to migration seasons, Loss et al. (2014) developed an admittedly assumption-laden correction factor for making annual estimates. Also, only 2 of the studies included adjustments for carcass persistence and searcher detection error, and it was unclear how and to what degree fatality rates were adjusted for these factors. Although Loss et al. (2014) attempted to account for some biases as well as for large sources of uncertainty mostly resulting from an opportunistic rather than systematic sampling data source, their estimated annual fatality rate across the USA was highly uncertain and vulnerable to multiple biases, most of which would have resulted in fatality estimates biased low.

In my review of bird-window collision monitoring, I found that the search radius around homes and buildings was very narrow, usually 2 meters. Based on my experience with bird collisions in other contexts, I would expect that a large portion of bird-window collision victims would end up farther than 2 m from the windows, especially when the windows are higher up on tall buildings. In my experience, searcher detection rates tend to be low for small birds deposited on ground with vegetation cover or woodchips or other types of organic matter. Also, vertebrate scavengers entrain on anthropogenic sources of mortality and quickly remove many of the carcasses, thereby preventing the fatality searcher from detecting these fatalities. Adjusting fatality rates for these factors – search radius bias, searcher detection error, and carcass persistence rates – would greatly increase nationwide estimates of bird-window collision fatalities.

Buildings can intercept many nocturnal migrants as well as birds flying in daylight. As mentioned above, Johnson and Hudson (1976) found 266 bird fatalities of 41 species within 73 months of monitoring of a four-story glass walkway at Washington State University (no adjustments attempted). Somerlot (2003) found 21 bird fatalities among 13 buildings on a university campus within only 61 days. Monitoring twice per week, Hager at al. (2008) found 215 bird fatalities of 48 species, or 55 birds/building/year, and at another site they found 142 bird fatalities of 37 species for 24 birds/building/year. Gelb and Delacretaz (2009) recorded 5,400 bird fatalities under buildings in New York City, based on a decade of monitoring only during migration periods, and some of the high-rises were associated with hundreds of fatalities each. Klem et al. (2009) monitored 73 building façades in New York City during 114 days of two migratory periods, tallying 549 collision victims, nearly 5 birds per day. Borden et al. (2010) surveyed a 1.8 km route 3 times per week during 12-month period and found 271 bird fatalities of 50 species. Parkins et al. (2015) found 35 bird fatalities of 16 species within only 45 days of monitoring under 4 building façades. From 24 days of survey over a 48 day span, Porter and Huang (2015) found 47 fatalities under 8 buildings on a university campus. Sabo et al. (2016) found 27 bird fatalities over 61 days of searches under 31 windows. In San Francisco, Kahle et al. (2016) found 355 collision victims within 1,762 days under a 5-story building. Ocampo-Peñuela et al. (2016) searched the perimeters of 6 buildings on a university campus, finding 86 fatalities after 63 days of surveys. One of these buildings produced 61 of the 86 fatalities, and another building with collision-deterrent glass caused only 2 of the fatalities, thereby indicating a wide range in impacts likely influenced by various factors. There is ample evidence available to support my prediction that the proposed project would result in many collision fatalities of birds.

Project Impact Prediction

Predicting the number of bird collisions at a new project is challenging because the study of window collisions remains in its early stages. Researchers have yet to agree on a collision rate metric. Some have reported findings as collisions per building per year and some as collisions per building per day. Some have reported findings as collisions per m^2 of window. The problem with the temporal factor in the collision rate metrics has been monitoring time spans varying from a few days to 10 years, and even in the case of the 10-year span, monitoring was largely restricted to spring and fall migration seasons. Short-term monitoring during one or two seasons of the year cannot represent a 'year,' but monitoring has rarely spanned a full year. Using 'buildings' in the metric treats buildings as all the same size, when we know they are not. Using square meters of glass in the metric treats glass as the only barrier upon which birds collide against a building's façade, when we know it is not. It also treats all glass as equal, even though we know that collision risk varies by type of glass as well as multiple factors related to contextual settings.

Without the benefit of more advanced understanding of window collision factors, my prediction of project impacts will be uncertain. Klem's (1990) often-cited national estimate of avian collision rate relied on an assumed average collision rate of 1 to 10 birds per building per year, but studies since then have all reported higher rates of collisions 12 to 352 birds per building per year. Because the more recent studies were likely performed at buildings known or suspected to cause many collisions, collision rates from them could be biased high. By the time of these comments I had reviewed and processed results of bird collision monitoring at 181 buildings and façades for which bird collisions per m^2 of glass per year could be calculated and averaged (Johnson and Hudson 1976, O'Connell 2001, Somerlot 2003, Hager et al. 2008, Borden et al. 2010, Hager et al. 2013, Porter and Huang 2015, Parkins et al. 2015, Kahle et al. 2016, Ocampo-Peñuela et al. 2016, Sabo et al. 2016, Barton et al. 2017, Schneider et al. 2018). These study results averaged 0.077 bird deaths per m^2 of glass per year (95% CI: 0.04-0.11). Looking over the proposed building design, I estimated the buildings would include at least 24,000 m^2 of glass windows, which applied to the mean fatality rate would predict **1,848 bird deaths per year (95% CI: 960-2,640)** at the buildings. The 50-year toll from this average annual fatality rate would be 92,400 bird deaths (95% CI: 48,000-132,000), which would continue until the buildings are either renovated to reduce bird collisions or they come down. The vast majority of these deaths would be of birds newly protected under Fish and Game Code section 3513, which was amended by Governor Newsom's signing of AB 454 on 27 September 2019 to reinstate as state law the recently repealed federal Migratory Bird Treaty Act. If the project moves forward as proposed, and annually kills hundreds of birds protected by AB 454, the project will cause significant unmitigated impacts.

As mentioned earlier, the accuracy of my window collision predictions depends on factors known or hypothesized to affect window collision rates. However, from the national average collision rate, I used all the variation in collision rates that was available and which resulted from a wide range in building height, type of glass, indoor and outdoor landscaping, interior light management, window to wall ratio, and

structural context of the façade. This variation contributed to a robust bird-window collision rate represented by a wide 95% confidence interval. According to the confidence interval, which again was based on the wide range of conditions in the underlying data, the proposed project built as designed at 100 locations would be predicted to kill between 960 and 2,640 birds per year at 95 of those 100 locations, leaving the other 5 to kill birds at rates either lower or higher than this range. Even at the low end of the interval, the death toll would be excessive, amounting to 48,000 bird deaths over 50 years. This impact would be significant, especially considering that the predicted fatality rate can be prevented by implementing appropriate mitigation measures. A fair argument can be made for the need to prepare an EIR to assess project impacts from bird-window collisions, and to formulate appropriate mitigation.

Below I will discuss hypothesized bird-window collision factors, and I will recommend mitigation measures.

Bird-Window Collision Factors

Below is a list of collision factors I found in the scientific literature. Following this list are specific notes and findings taken from the literature and my own experience.

(1) Inherent hazard of a structure in the airspace used for nocturnal migration or other flights
(2) Window transparency, falsely revealing passage through structure or to indoor plants
(3) Window reflectance, falsely depicting vegetation, competitors, or open airspace
(4) Black hole or passage effect
(5) Window or façade extent, or proportion of façade consisting of window or other reflective surface
(6) Size of window
(7) Type of glass
(8) Lighting, which is correlated with window extent and building operations
(9) Height of structure (collision mechanisms shift with height above ground)
(10) Orientation of façade with respect to winds and solar exposure
(11) Structural layout causing confusion and entrapment
(12) Context in terms of urban-rural gradient, or surrounding extent of impervious surface vs vegetation
(13) Height, structure, and extent of vegetation grown near home or building
(14) Presence of birdfeeders or other attractants
(15) Relative abundance
(16) Season of the year
(17) Ecology, demography and behavior
(18) Predatory attacks or cues provoking fear of attack
(19) Aggressive social interactions

(1) Inherent hazard of structure in airspace.—Not all of a structure's collision risk can be attributed to windows. Overing (1938) reported 576 birds collided with the Washington Monument in 90 minutes on one night, 12 September 1937. The average annual fatality

count had been 328 birds from 1932 through 1936. Gelb and Delacretaz (2009) and Klem et al. (2009) also reported finding collision victims at buildings lacking windows, although many fewer than they found at buildings fitted with widows. The takeaway is that any building going up at the project site would likely kill birds, although the impacts of a glass-sided building would likely be much greater.

(2) Window transparency.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the transparency of glass used in windows on the buildings (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred where transparent windows revealed interior vegetation.

(3) Window reflectance.—Widely believed as one of the two principal factors contributing to avian collisions with buildings is the reflectance of glass used in windows on the buildings (Klem 1989). Reflectance can deceptively depict open airspace, vegetation as habitat destination, or competitive rivals as self-images (Klem 1989). Gelb and Delacretaz (2009) felt that many of the collisions they detected occurred toward the lower parts of buildings where large glass exteriors reflected outdoor vegetation. Klem et al. (2009) and Borden et al. (2010) also found that reflected outdoor vegetation associated positively with collisions.

(4) Black hole or passage effect.—Although this factor was not often mentioned in the bird-window collision literature, it was suggested in Sheppard and Phillips (2015). The black hole or passage effect is the deceptive appearance of a cavity or darkened ledge that certain species of bird typically approach with speed when seeking roosting sites. The deception is achieved when shadows from awnings or the interior light conditions give the appearance of cavities or protected ledges. This factor appears potentially to be nuanced variations on transparency or reflectance or possibly an interaction effect of both of these factors.

(5) Window or façade extent.—Klem et al. (2009), Borden et al. (2010), Hager et al. (2013), and Ocampo-Peñuela et al. (2016) reported increased collision fatalities at buildings with larger reflective façades or higher proportions of façades composed of windows. However, Porter and Huang (2015) found a negative relationship between fatalities found and proportion of façade that was glazed.

(6) Size of window.—According to Kahle et al. (2016), collision rates were higher on large-pane windows compared to small-pane windows.

(7) Type of glass.—Klem et al. (2009) found that collision fatalities associated with the type of glass used on buildings. Otherwise, little attention has been directed towards the types of glass in buildings.

(8) Lighting.—Parkins et al. (2015) found that light emission from buildings correlated positively with percent glass on the façade, suggesting that lighting is linked to the extent of windows. Zink and Eckles (2010) reported fatality reductions, including an 80% reduction at a Chicago high-rise, upon the initiation of the Lights-out Program.

However, Zink and Eckles (2010) provided no information on their search effort, such as the number of searches or search interval or search area around each building.

(9) Height of structure.—I found little if any hypothesis-testing related to building height, including whether another suite of factors might relate to collision victims of high-rises. Are migrants more commonly the victims of high-rises or of smaller buildings?

(10) Orientation of façade.—Some studies tested façade orientation, but not convincingly. Confounding factors such as the extent and types of windows would require large sample sizes of collision victims to parse out the variation so that some portion of it could be attributed to orientation of façade. Whether certain orientations cause disproportionately stronger or more realistic-appearing reflections ought to be testable through measurement, but counting dead birds under façades of different orientations would help.

(11) Structural layout.—Bird-safe building guidelines have illustrated examples of structural layouts associated with high rates of bird-window collisions, but little attention has been directed towards hazardous structural layouts in the scientific literature. An exception was Johnson and Hudson (1976), who found high collision rates at 3 stories of glassed-in walkways atop an open breezeway, located on a break in slope with trees on one side of the structure and open sky on the other, Washington State University.

(12) Context in urban-rural gradient.—Numbers of fatalities found in monitoring have associated negatively with increasing developed area surrounding the building (Hager et al. 2013), and positively with more rural settings (Kummer et al. 2016a).

(13) Height, structure and extent of vegetation near building.—Correlations have sometimes been found between collision rates and the presence or extent of vegetation near windows (Hager et al. 2008, Borden et al. 2010, Kummer et al. 2016a, Ocampo-Peñuela et al. 2016). However, Porter and Huang (2015) found a negative relationship between fatalities found and vegetation cover near the building. In my experience, what probably matters most is the distance from the building that vegetation occurs. If the vegetation that is used by birds is very close to a glass façade, then birds coming from that glass will be less likely to attain sufficient speed upon arrival at the façade to result in a fatal injury. Too far away and there is probably no relationship. But 30 to 50 m away, birds alighting from vegetation can attain lethal speeds by the time they arrive at the windows.

(14) Presence of birdfeeders.—Dunn (1993) reported a weak correlation ($r = 0.13$, $P < 0.001$) between number of birds killed by home windows and the number of birds counted at feeders. However, Kummer and Bayne (2015) found that experimental installment of birdfeeders at homes increased bird collisions with windows 1.84-fold.

(15) Relative abundance.—Collision rates have often been assumed to increase with local density or relative abundance (Klem 1989), and positive correlations have been

measured (Dunn 1993, Hager et al. 2008). However, Hager and Craig (2014) found a negative correlation between fatality rates and relative abundance near buildings.

(16) Season of the year.—Borden et al. (2010) found 90% of collision fatalities during spring and fall migration periods. The significance of this finding is magnified by 7-day carcass persistence rates of 0.45 and 0.35 in spring and fall, rates which were considerably lower than during winter and summer (Hager et al. 2012). In other words, the concentration of fatalities during migration seasons would increase after applying seasonally-explicit adjustments for carcass persistence. Fatalities caused by collisions into the glass façades of the project's building would likely be concentrated in fall and spring migration periods.

(17) Ecology, demography and behavior.—Klem (1989) noted that certain types of birds were not found as common window-caused fatalities, including soaring hawks and waterbirds. Cusa et al. (2015) found that species colliding with buildings surrounded by higher levels of urban greenery were foliage gleaners, and species colliding with buildings surrounded by higher levels of urbanization were ground foragers. Sabo et al. (2016) found no difference in age class, but did find that migrants are more susceptible to collision than resident birds.

(18) Predatory attacks.—Panic flights caused by raptors were mentioned in 16% of window strike reports in Dunn's (1993) study. I have witnessed Cooper's hawks chasing birds into windows, including house finches next door to my home and a northern mocking bird chased directly into my office window. Predatory birds likely to collide with the project's windows would include Peregrine falcon, red-shouldered hawk, Cooper's hawk, and sharp-shinned hawk.

(19) Aggressive social interactions.—I found no hypothesis-testing of the roles of aggressive social interactions in the literature other than the occasional anecdotal account of birds attacking their self-images reflected from windows. However, I have witnessed birds chasing each other and sometimes these chases resulting in one of the birds hitting a window.

Window Collision Solutions

Given the magnitude of bird-window collision impacts, there are obviously great opportunities for reducing and minimizing these impacts going forward. Existing structures can be modified or retrofitted to reduce impacts, and proposed new structures can be more carefully sited, designed, and managed to minimize impacts. However, the costs of some of these measures can be high and can vary greatly, but most importantly the efficacies of many of these measures remain uncertain. Both the costs and effectiveness of all of these measures can be better understood through experimentation and careful scientific investigation. **Post-construction fatality monitoring should be an essential feature of any new building project**. Below is a listing of mitigation options, along with some notes and findings from the literature.

Any new project should be informed by preconstruction surveys of daytime and nocturnal flight activity. Such surveys can reveal the one or more façades facing the prevailing approach direction of birds, and these revelations can help prioritize where certain types of mitigation can be targeted. It is critical to formulate effective measures prior to construction, because post-construction options will be limited, likely more expensive, and probably less effective.

(1) Retrofitting to reduce impacts

(1A) Marking windows
(1B) Managing outdoor landscape vegetation
(1C) Managing indoor landscape vegetation
(1D) Managing nocturnal lighting

(1A) Marking windows.—Whereas Klem (1990) found no deterrent effect from decals on windows, Johnson and Hudson (1976) reported a fatality reduction of about 69% after placing decals on windows. In an experiment of opportunity, Ocampo-Peñuela et al. (2016) found only 2 of 86 fatalities at one of 6 buildings – the only building with windows treated with a bird deterrent film. At the building with fritted glass, bird collisions were 82% lower than at other buildings with untreated windows. Kahle et al. (2016) added external window shades to some windowed façades to reduce fatalities 82% and 95%. Many external and internal glass markers have been tested experimentally, some showing no effect and some showing strong deterrent effects (Klem 1989, 1990, 2009, 2011; Klem and Saenger 2013; Rössler et al. 2015).

Following up on the results of Johnson and Hudson (1976), I decided to mark windows of my home, where I have documented 5 bird collision fatalities between the time I moved in and 6 years later. I marked my windows with decals delivered to me via US Postal Service from a commercial vendor. I have documented no fatalities at my windows during the 8 years hence. On 8 December 2018, I photographed a ruby-crowned kinglet pulling up short of my window (Figure 2), right at one of my installed markers. In my assessment, markers can be effective in some situations.

Figure 2. *Ruby-crowned kinglet puts on the brakes in front of a decal I applied to mark windows of my home, 8 December 2018. This window killed birds prior to marking, but I have found no window collision victims since marking the windows. Windows with attractive built-in marking are commercially available.*

(2) Siting and Designing to minimize impacts

(2A) Deciding on location of structure
(2B) Deciding on façade and orientation
(2C) Selecting type and sizes of windows
(2D) Designing to minimize transparency through two parallel façades
(2E) Designing to minimize views of interior plants
(2F) Landscaping to increase distances between windows and trees and shrubs

(3) Monitoring for adaptive management to reduce impacts

(3A) Systematic monitoring for fatalities to identify seasonal and spatial patterns
(3B) Adjust light management, window marking and other measures as needed.

Guidelines on Building Design

If the project goes forward, it should at a minimum adhere to available guidelines on building design intended to minimize collision hazards to birds. The American Bird Conservancy (ABC) produced an excellent set of guidelines recommending actions to: (1) Minimize use of glass; (2) Placing glass behind some type of screening (grilles, shutters, exterior shades); (3) Using glass with inherent properties to reduce collisions, such as patterns, window films, decals or tape; and (4) Turning off lights during migration seasons (Sheppard and Phillips 2015). The City of San Francisco (San Francisco Planning Department 2011) also has a set of building design guidelines, based on the excellent guidelines produced by the New York City Audubon Society (Orff et al. 2007). The ABC document and both the New York and San Francisco documents provide excellent alerting of potential bird-collision hazards as well as many visual examples. The San Francisco Planning Department's (2011) building design guidelines are more comprehensive than those of New York City, but they could have gone further. For example, the San Francisco guidelines probably should have also covered scientific monitoring of impacts as well as compensatory mitigation for impacts that could not be avoided, minimized or reduced. Monitoring and the use of compensatory mitigation should be incorporated at any new building project because the measures recommended in the available guidelines remain of uncertain effectiveness, and even if these measures are effective, they will not reduce collision fatalities to zero. The only way to assess effectiveness and to quantify post-construction fatalities is to monitor the project for fatalities.

CUMULATIVE IMPACTS

City of Los Angeles (2016) denies that wildlife habitat occurs in the City. The IS/MND therefore provides no analysis of cumulative impacts on birds caused by window collisions in the City, nor any analysis of the proposed project's contribution to cumulative impacts of window collisions. This missing analysis is a critical shortfall, because bird abundance across North American has declined 29% over the last 48 years (Rosenberg et al. 2019). The proposed project alone is predicted to kill 1,848 bird deaths per year (95% CI: 960-2,640), which would add to many thousands more killed by windows in Los Angeles. City of Los Angeles needs to provide an estimate of the extent of windows already constructed, as well as an estimate of projected future extent

of windows in the City. From such estimates, the City's cumulative toll on birds colliding with windows can be estimated.

Given the predicted avian death toll resulting from the project, and the obvious need for a cumulative effects analysis, a fair argument can be made for the need to prepare an EIR to assess project impacts and formulate appropriate mitigation.

MITIGATION

Bird surveys need to be performed to adequately characterize flight patterns across the project area. These surveys need to inform an EIR, which should require adherence to the available guidelines on minimizing bird-window collisions (see earlier comments). Compensatory mitigation should be formulated for those collision fatalities that cannot be avoided through implementation of guidelines. Unavoidable collision fatalities should be measured through two or more years of post-construction fatality monitoring, and the EIR should tie levels of compensatory mitigation to threshold fatality rates.

Fund Wildlife Rehabilitation Facilities

Compensatory mitigation ought also to include funding contributions to wildlife rehabilitation facilities to cover the costs of injured animals that will be delivered to these facilities for care. Most of the wildlife injuries will likely be caused by window collisions. But the project's impacts can also be offset by funding the treatment of injuries to animals caused by other buildings, electric lines, cars, and house cats.

Thank you for your attention,

_____

Shawn Smallwood, Ph.D.

REFERENCES CITED

Barton, C. M., C. S. Riding, and S. R. Loss. 2017. Magnitude and correlates of bird collisions at glass bus shelters in an urban landscape. Plos One 12. (6): e0178667. https://doi.org/10.1371/journal.pone.0178667

Borden, W. C., O. M. Lockhart, A. W. Jones, and M. S. Lyons. 2010. Seasonal, taxonomic, and local habitat components of bird-window collisions on an urban university campus in Cleveland, OH. Ohio Journal of Science 110(3):44-52.

Bracey, A. M., M. A. Etterson, G. J. Niemi, and R. F. Green. 2016. Variation in bird-window collision mortality and scavenging rates within an urban landscape. The Wilson Journal of Ornithology 128:355-367.

Calvert, A. M., C. A. Bishop, R. D. Elliot, E. A. Krebs, T. M. Kydd, C. S. Machtans, and G. J. Robertson. 2013. A synthesis of human-related avian mortality in Canada. Avian Conservation and Ecology 8(2): 11. http://dx.doi.org/10.5751/ACE-00581-080211

City of Los Angeles. 2020. Mitigated Negative Declaration: 3440 Wilshire, Case Number CPC-2016-3692-VZC-MCUP-SPR. Department of City Planning, City of Los Angeles, California.

Cusa M, Jackson DA, Mesure M. 2015. Window collisions by migratory bird species: urban geographical patterns and habitat associations. Urban Ecosystems 18(4):1–20. DOI 10.1007/s11252-015-0459-3.

Dunn, E. H. 1993. Bird mortality from striking residential windows in winter. Journal of Field Ornithology 64:302-309.

Gelb, Y. and N. Delacretaz. 2009. Windows and vegetation: Primary factors in Manhattan bird collisions. Northeastern Naturalist 16:455-470.

Hager, S. B, and M. E. Craig. 2014. Bird-window collisions in the summer breeding season. PeerJ 2:e460 DOI 10.7717/peerj.460.

Hager, S. B., H. Trudell, K. J. McKay, S. M. Crandall, and L. Mayer. 2008. Bird density and mortality at windows. Wilson Journal of Ornithology 120:550-564.

Hager, S. B., B. J. Cosentino, and K. J. McKay. 2012. Scavenging effects persistence of avian carcasses resulting from window collisions in an urban landscape. Journal of Field Ornithology 83:203-211.

Hager S. B., B. J. Cosentino, K J. McKay, C. Monson, W. Zuurdeeg, and B. Blevins. 2013. Window area and development drive spatial variation in bird-window collisions in an urban landscape. PLoS ONE 8(1): e53371. doi:10.1371/journal.pone.0053371

Johnson, R. E., and G. E. Hudson. 1976. Bird mortality at a glassed-in walkway in Washington State. Western Birds 7:99-107.

Kahle, L. Q., M. E. Flannery, and J. P. Dumbacher. 2016. Bird-window collisions at a west-coast urban park museum: analyses of bird biology and window attributes from Golden Gate Park, San Francisco. PLoS ONE 11(1):e144600 DOI 10.1371/journal.pone.0144600.

Klem, D., Jr. 1989. Bird-window collisions. Wilson Bulletin 101:606-620.

Klem, D., Jr. 1990. Collisions between birds and windows: mortality and prevention. Journal of Field Ornithology 61:120-128.

Klem, D., Jr. 2009. Preventing bird-window collisions. The Wilson Journal of Ornithology 121:314-321.

Klem, D., Jr. 2010. Avian mortality at windows: the second largest human source of bird mortality on earth. Pages 244-251 in Proc. Fourth Int. Partners in Flight Conference: Tundra to Tropics.

Klem, D., Jr. 2011. Evaluating the effectiveness of Acopian Birdsavers to deter or prevent bird-glass collisions. Unpublished report.

Klem, D., Jr. and P. G. Saenger. 2013. Evaluating the effectiveness of select visual signals to prevent bird-window collisions. The Wilson Journal of Ornithology 125:406–411.

Klem, D. Jr., C. J. Farmer, N. Delacretaz, Y. Gelb and P. G. Saenger. 2009. Architectural and landscape risk factors associated with bird-glass collisions in an urban environment. Wilson Journal of Ornithology 121:126-134.

Kummer J. A., and E. M. Bayne. 2015. Bird feeders and their effects on bird-window collisions at residential houses. Avian Conservation and Ecology 10(2):6 DOI 10.5751/ACE-00787-100206.

Kummer, J. A., E. M. Bayne, and C. S. Machtans. 2016. Use of citizen science to identify factors affecting bird-window collision risk at houses. The Condor: Ornithological Applications 118:624-639. DOI: 10.1650/CONDOR-16-26.1

Kunz, T. H., and L. F. Lumsden. 2003. Ecology of cavity and foliage roosting bats. Pages 3–89 in T. H. Kunz and M. B. Fenton, Eds., Bat ecology. The University of Chicago Press, Chicago.

Loss, S. R., T. Will, S. S. Loss, and P. P. Marra. 2014. Bird–building collisions in the United States: Estimates of annual mortality and species vulnerability. The Condor: Ornithological Applications 116:8-23. DOI: 10.1650/CONDOR-13-090.1

Machtans, C. S., C. H. R. Wedeles, and E. M. Bayne. 2013. A first estimate for Canada of the number of birds killed by colliding with building windows. Avian Conservation and Ecology 8(2):6. http://dx.doi.org/10.5751/ACE-00568-080206

Ocampo-Peñuela, N., R. S. Winton, C. J. Wu, E. Zambello, T. W. Wittig and N. L. Cagle . 2016. Patterns of bird-window collisions inform mitigation on a university campus. PeerJ4:e1652;DOI10.7717/peerj.1652

O'Connell, T. J. 2001. Avian window strike mortality at a suburban office park. The Raven 72:141-149.

Orff, K., H. Brown, S. Caputo, E. J. McAdams, M. Fowle, G. Phillips, C. DeWitt, and Y. Gelb. 2007. Bird-safe buildings guidelines. New York City Audubon, New York.

Overing, R. 1938. High mortality at the Washington Monument. The Auk 55:679.

Parkins, K. L., S. B. Elbin, and E. Barnes. 2015. Light, glass, and bird–building collisions in an urban park. Northeastern Naturalist 22:84-94.

Porter, A., and A. Huang. 2015. Bird collisions with glass: UBC pilot project to assess bird collision rates in Western North America. UBC Social Ecological Economic Development Studies (SEEDS) Student Report. Report to Environment Canada, UBC SEEDS and UBC BRITE.

Rosenberg, K. V., A. M. Dokter, P. J. Blancher, J. R. Sauer, A. C. Smith, P. A. Smith, J. C. Stanton, A. Panjabi , L. Helft , M. Parr, and P. P. Marra. 2019. Decline of the North American avifauna. Science 10.1126/science.aaw1313 (2019).

Rössler, M., E. Nemeth, and A. Bruckner. 2015. Glass pane markings to prevent bird-window collisions: less can be more. Biologia 70: 535—541. DOI: 10.1515/biolog-2015-0057

Sabo, A. M., N. D. G. Hagemeyer, A. S. Lahey, and E. L. Walters. 2016. Local avian density influences risk of mortality from window strikes. PeerJ 4:e2170; DOI 10.7717/peerj.2170

San Francisco Planning Department. 2011. Standards for bird-safe buildings. San Francisco Planning Department, City and County of San Francisco, California.

Schneider, R. M., C. M. Barton, K. W. Zirkle, C. F. Greene, and K. B. Newman. 2018. Year-round monitoring reveals prevalence of fatal bird-window collisions at the Virginia Tech Corporate Research Center. *PeerJ* 6:e4562 https://doi.org/10.7717/peerj.4562

Sheppard, C., and G. Phillips. 2015. Bird-friendly building design, 2nd Ed., American Bird Conservancy, The Plains, Virginia.

Shuford, W. D., and T. Gardali, [eds.]. 2008. California bird species of special concern: a ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California.

Smallwood, K.S., J. Beyea and M. Morrison. 1999. Using the best scientific data for endangered species conservation. Environmental Management 24:421-435.

Smallwood, K.S., A. Gonzales, T. Smith, E. West, C. Hawkins, E. Stitt, C. Keckler, C. Bailey, and K. Brown. 2001. Suggested standards for science applied to conservation issues. Transactions of the Western Section of the Wildlife Society 36:40-49.

Somerlot, K. E. 2003. Survey of songbird mortality due to window collisions on the Murray State University campus. Journal of Service Learning in Conservation Biology 1:1–19.

Zink, R. M., and J. Eckles. 2010. Twin cities bird-building collisions: a status update on "Project Birdsafe." The Loon 82:34-37.

Kenneth Shawn Smallwood
Curriculum Vitae

3108 Finch Street
Davis, CA 95616
Phone (530) 756-4598
Cell (530) 601-6857
puma@dcn.org

Born May 3, 1963 in Sacramento, California. Married, father of two.

Ecologist

Expertise

- Finding solutions to controversial problems related to wildlife interactions with human industry, infrastructure, and activities;
- Wildlife monitoring and field study using GPS, thermal imaging, behavior surveys;
- Using systems analysis and experimental design principles to identify meaningful ecological patterns that inform management decisions.

Education

Ph.D. Ecology, University of California, Davis. September 1990.
M.S. Ecology, University of California, Davis. June 1987.
B.S. Anthropology, University of California, Davis. June 1985.
Corcoran High School, Corcoran, California. June 1981.

Experience

- 477 professional publications, including:
- 81 peer reviewed publications
- 24 in non-reviewed proceedings
- 370 reports, declarations, posters and book reviews
- 8 in mass media outlets
- 87 public presentations of research results at meetings
- Reviewed many professional papers and reports
- Testified in 4 court cases.

Editing for scientific journals: Guest Editor, *Wildlife Society Bulletin*, 2012-2013, of invited papers representing international views on the impacts of wind energy on wildlife and how to mitigate the impacts. Associate Editor, *Journal of Wildlife Management*, March 2004 to 30 June 2007. Editorial Board Member, *Environmental Management*, 10/1999 to 8/2004. Associate Editor, *Biological Conservation*, 9/1994 to 9/1995.

Member, Alameda County Scientific Review Committee (SRC), August 2006 to April 2011. The

five-member committee investigated causes of bird and bat collisions in the Altamont Pass Wind Resource Area, and recommended mitigation and monitoring measures. The SRC reviewed the science underlying the Alameda County Avian Protection Program, and advised the County on how to reduce wildlife fatalities.

Consulting Ecologist, 2004-2007, California Energy Commission (CEC). Provided consulting services as needed to the CEC on renewable energy impacts, monitoring and research, and produced several reports. Also collaborated with Lawrence-Livermore National Lab on research to understand and reduce wind turbine impacts on wildlife.

Consulting Ecologist, 1999-2013, U.S. Navy. Performed endangered species surveys, hazardous waste site monitoring, and habitat restoration for the endangered San Joaquin kangaroo rat, California tiger salamander, California red-legged frog, California clapper rail, western burrowing owl, salt marsh harvest mouse, and other species at Naval Air Station Lemoore; Naval Weapons Station, Seal Beach, Detachment Concord; Naval Security Group Activity, Skaggs Island; National Radio Transmitter Facility, Dixon; and, Naval Outlying Landing Field Imperial Beach.

Fulbright Research Fellow, Indonesia, 1988. Tested use of new sampling methods for numerical monitoring of Sumatran tiger and six other species of endemic felids, and evaluated methods used by other researchers.

Peer Reviewed Publications

Smallwood, K. S. 2017. Long search intervals under-estimate bird and bat fatalities caused by wind turbines. Wildlife Society Bulletin 41:224-230.

Smallwood, K. S. 2017. The challenges of addressing wildlife impacts when repowering wind energy projects. Pages 175-187 in Köppel, J., Editor, Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference. Springer. Cham, Switzerland.

May, R., Gill, A. B., Köppel, J. Langston, R. H.W., Reichenbach, M., Scheidat, M., Smallwood, S., Voigt, C. C., Hüppop, O., and Portman, M. 2017. Future research directions to reconcile wind turbine–wildlife interactions. Pages 255-276 in Köppel, J., Editor, Wind Energy and Wildlife Impacts: Proceedings from the CWW2015 Conference. Springer. Cham, Switzerland.

Smallwood, K. S. 2017. Monitoring birds. M. Perrow, Ed., Wildlife and Wind Farms - Conflicts and Solutions, Volume 2. Pelagic Publishing, Exeter, United Kingdom. www.bit.ly/2v3cR9Q

Smallwood, K. S., L. Neher, and D. A. Bell. 2017. Siting to Minimize Raptor Collisions: an example from the Repowering Altamont Pass Wind Resource Area. M. Perrow, Ed., Wildlife and Wind Farms - Conflicts and Solutions, Volume 2. Pelagic Publishing, Exeter, United Kingdom. www.bit.ly/2v3cR9Q

Johnson, D. H., S. R. Loss, K. S. Smallwood, W. P. Erickson. 2016. Avian fatalities at wind energy facilities in North America: A comparison of recent approaches. Human–Wildlife Interactions 10(1):7-18.

Sadar, M. J., D. S.-M. Guzman, A. Mete, J. Foley, N. Stephenson, K. H. Rogers, C. Grosset, K. S. Smallwood, J. Shipman, A. Wells, S. D. White, D. A. Bell, and M. G. Hawkins. 2015. Mange Caused by a novel Micnemidocoptes mite in a Golden Eagle (*Aquila chrysaetos*). Journal of Avian Medicine and Surgery 29(3):231-237.

Smallwood, K. S. 2015. Habitat fragmentation and corridors. Pages 84-101 in M. L. Morrison and H. A. Mathewson, Eds., Wildlife habitat conservation: concepts, challenges, and solutions. John Hopkins University Press, Baltimore, Maryland, USA.

Mete, A., N. Stephenson, K. Rogers, M. G. Hawkins, M. Sadar, D. Guzman, D. A. Bell, J. Shipman, A. Wells, K. S. Smallwood, and J. Foley. 2014. Emergence of Knemidocoptic mange in wild Golden Eagles (Aquila chrysaetos) in California. Emerging Infectious Diseases 20(10):1716-1718.

Smallwood, K. S. 2013. Introduction: Wind-energy development and wildlife conservation. Wildlife Society Bulletin 37: 3-4.

Smallwood, K. S. 2013. Comparing bird and bat fatality-rate estimates among North American wind-energy projects. Wildlife Society Bulletin 37:19-33. + Online Supplemental Material.

Smallwood, K. S., L. Neher, J. Mount, and R. C. E. Culver. 2013. Nesting Burrowing Owl Abundance in the Altamont Pass Wind Resource Area, California. Wildlife Society Bulletin: 37:787-795.

Smallwood, K. S., D. A. Bell, B. Karas, and S. A. Snyder. 2013. Response to Huso and Erickson Comments on Novel Scavenger Removal Trials. Journal of Wildlife Management 77: 216-225.

Bell, D. A., and K. S. Smallwood. 2010. Birds of prey remain at risk. Science 330:913.

Smallwood, K. S., D. A. Bell, S. A. Snyder, and J. E. DiDonato. 2010. Novel scavenger removal trials increase estimates of wind turbine-caused avian fatality rates. Journal of Wildlife Management 74: 1089-1097 + Online Supplemental Material.

Smallwood, K. S., L. Neher, and D. A. Bell. 2009. Map-based repowering and reorganization of a wind resource area to minimize burrowing owl and other bird fatalities. Energies 2009(2):915-943. http://www.mdpi.com/1996-1073/2/4/915

Smallwood, K. S. and B. Nakamoto. 2009. Impacts of West Nile Virus Epizootic on Yellow-Billed Magpie, American Crow, and other Birds in the Sacramento Valley, California. The Condor 111:247-254.

Smallwood, K. S., L. Rugge, and M. L. Morrison. 2009. Influence of Behavior on Bird Mortality in Wind Energy Developments: The Altamont Pass Wind Resource Area, California. Journal of Wildlife Management 73:1082-1098.

Smallwood, K. S. and B. Karas. 2009. Avian and Bat Fatality Rates at Old-Generation and

Repowered Wind Turbines in California. Journal of Wildlife Management 73:1062-1071.

Smallwood, K. S. 2008. Wind power company compliance with mitigation plans in the Altamont Pass Wind Resource Area. Environmental & Energy Law Policy Journal 2(2):229-285.

Smallwood, K. S., C. G. Thelander. 2008. Bird Mortality in the Altamont Pass Wind Resource Area, California. Journal of Wildlife Management 72:215-223.

Smallwood, K. S. 2007. Estimating wind turbine-caused bird mortality. Journal of Wildlife Management 71:2781-2791.

Smallwood, K. S., C. G. Thelander, M. L. Morrison, and L. M. Rugge. 2007. Burrowing owl mortality in the Altamont Pass Wind Resource Area. Journal of Wildlife Management 71:1513-1524.

Cain, J. W. III, K. S. Smallwood, M. L. Morrison, and H. L. Loffland. 2005. Influence of mammal activity on nesting success of Passerines. J. Wildlife Management 70:522-531.

Smallwood, K.S. 2002. Habitat models based on numerical comparisons. Pages 83-95 *in* Predicting species occurrences: Issues of scale and accuracy, J. M. Scott, P. J. Heglund, M. Morrison, M. Raphael, J. Haufler, and B. Wall, editors. Island Press, Covello, California.

Morrison, M. L., K. S. Smallwood, and L. S. Hall. 2002. Creating habitat through plant relocation: Lessons from Valley elderberry longhorn beetle mitigation. Ecological Restoration 21: 95-100.

Zhang, M., K. S. Smallwood, and E. Anderson. 2002. Relating indicators of ecological health and integrity to assess risks to sustainable agriculture and native biota. Pages 757-768 *in* D.J. Rapport, W.L. Lasley, D.E. Rolston, N.O. Nielsen, C.O. Qualset, and A.B. Damania (eds.), Managing for Healthy Ecosystems, Lewis Publishers, Boca Raton, Florida USA.

Wilcox, B. A., K. S. Smallwood, and J. A. Kahn. 2002. Toward a forest Capital Index. Pages 285-298 *in* D.J. Rapport, W.L. Lasley, D.E. Rolston, N.O. Nielsen, C.O. Qualset, and A.B. Damania (eds.), Managing for Healthy Ecosystems, Lewis Publishers, Boca Raton, Florida USA.

Smallwood, K.S. 2001. The allometry of density within the space used by populations of Mammalian Carnivores. Canadian Journal of Zoology 79:1634-1640.

Smallwood, K.S., and T.R. Smith. 2001. Study design and interpretation of Sorex density estimates. Annales Zoologi Fennici 38:141-161.

Smallwood, K.S., A. Gonzales, T. Smith, E. West, C. Hawkins, E. Stitt, C. Keckler, C. Bailey, and K. Brown. 2001. Suggested standards for science applied to conservation issues. Transactions of the Western Section of the Wildlife Society 36:40-49.

Geng, S., Yixing Zhou, Minghua Zhang, and K. Shawn Smallwood. 2001. A Sustainable Agro-ecological Solution to Water Shortage in North China Plain (Huabei Plain). Environmental Planning and Management 44:345-355.

Smallwood, K. Shawn, Lourdes Rugge, Stacia Hoover, Michael L. Morrison, Carl Thelander. 2001. Intra- and inter-turbine string comparison of fatalities to animal burrow densities at Altamont Pass. Pages 23-37 in S. S. Schwartz, ed., Proceedings of the National Avian-Wind Power Planning Meeting IV. RESOLVE, Inc., Washington, D.C.

Smallwood, K.S., S. Geng, and M. Zhang. 2001. Comparing pocket gopher (*Thomomys bottae*) density in alfalfa stands to assess management and conservation goals in northern California. Agriculture, Ecosystems & Environment 87: 93-109.

Smallwood, K. S. 2001. Linking habitat restoration to meaningful units of animal demography. Restoration Ecology 9:253-261.

Smallwood, K. S. 2000. A crosswalk from the Endangered Species Act to the HCP Handbook and real HCPs. Environmental Management 26, Supplement 1:23-35.

Smallwood, K. S., J. Beyea and M. Morrison. 1999. Using the best scientific data for endangered species conservation. Environmental Management 24:421-435.

Smallwood, K. S. 1999. Scale domains of abundance among species of Mammalian Carnivora. Environmental Conservation 26:102-111.

Smallwood, K.S. 1999. Suggested study attributes for making useful population density estimates. Transactions of the Western Section of the Wildlife Society 35: 76-82.

Smallwood, K. S. and M. L. Morrison. 1999. Estimating burrow volume and excavation rate of pocket gophers (Geomyidae). Southwestern Naturalist 44:173-183.

Smallwood, K. S. and M. L. Morrison. 1999. Spatial scaling of pocket gopher (*Geomyidae*) density. Southwestern Naturalist 44:73-82.

Smallwood, K. S. 1999. Abating pocket gophers (*Thomomys* spp.) to regenerate forests in clearcuts. Environmental Conservation 26:59-65.

Smallwood, K. S. 1998. Patterns of black bear abundance. Transactions of the Western Section of the Wildlife Society 34:32-38.

Smallwood, K. S. 1998. On the evidence needed for listing northern goshawks (*Accipter gentilis*) under the Endangered Species Act: a reply to Kennedy. J. Raptor Research 32:323-329.

Smallwood, K. S., B. Wilcox, R. Leidy, and K. Yarris. 1998. Indicators assessment for Habitat Conservation Plan of Yolo County, California, USA. Environmental Management 22: 947-958.

Smallwood, K. S., M. L. Morrison, and J. Beyea. 1998. Animal burrowing attributes affecting hazardous waste management. Environmental Management 22: 831-847.

Smallwood, K. S, and C. M. Schonewald. 1998. Study design and interpretation for mammalian

carnivore density estimates. Oecologia 113:474-491.

Zhang, M., S. Geng, and K. S. Smallwood. 1998. Nitrate contamination in groundwater of Tulare County, California. Ambio 27(3):170-174.

Smallwood, K. S. and M. L. Morrison. 1997. Animal burrowing in the waste management zone of Hanford Nuclear Reservation. Proceedings of the Western Section of the Wildlife Society Meeting 33:88-97.

Morrison, M. L., K. S. Smallwood, and J. Beyea. 1997. Monitoring the dispersal of contaminants by wildlife at nuclear weapons production and waste storage facilities. The Environmentalist 17:289-295.

Smallwood, K. S. 1997. Interpreting puma (*Puma concolor*) density estimates for theory and management. Environmental Conservation 24(3):283-289.

Smallwood, K. S. 1997. Managing vertebrates in cover crops: a first study. American Journal of Alternative Agriculture 11:155-160.

Smallwood, K. S. and S. Geng. 1997. Multi-scale influences of gophers on alfalfa yield and quality. Field Crops Research 49:159-168.

Smallwood, K. S. and C. Schonewald. 1996. Scaling population density and spatial pattern for terrestrial, mammalian carnivores. Oecologia 105:329-335.

Smallwood, K. S., G. Jones, and C. Schonewald. 1996. Spatial scaling of allometry for terrestrial, mammalian carnivores. Oecologia 107:588-594.

Van Vuren, D. and K. S. Smallwood. 1996. Ecological management of vertebrate pests in agricultural systems. Biological Agriculture and Horticulture 13:41-64.

Smallwood, K. S., B. J. Nakamoto, and S. Geng. 1996. Association analysis of raptors on an agricultural landscape. Pages 177-190 in D.M. Bird, D.E. Varland, and J.J. Negro, eds., Raptors in human landscapes. Academic Press, London.

Erichsen, A. L., K. S. Smallwood, A. M. Commandatore, D. M. Fry, and B. Wilson. 1996. White-tailed Kite movement and nesting patterns in an agricultural landscape. Pages 166-176 in D. M. Bird, D. E. Varland, and J. J. Negro, eds., Raptors in human landscapes. Academic Press, London.

Smallwood, K. S. 1995. Scaling Swainson's hawk population density for assessing habitat-use across an agricultural landscape. J. Raptor Research 29:172-178.

Smallwood, K. S. and W. A. Erickson. 1995. Estimating gopher populations and their abatement in forest plantations. Forest Science 41:284-296.

Smallwood, K. S. and E. L. Fitzhugh. 1995. A track count for estimating mountain lion *Felis*

concolor californica population trend. Biological Conservation 71:251-259

Smallwood, K. S. 1994. Site invasibility by exotic birds and mammals. Biological Conservation 69:251-259.

Smallwood, K. S. 1994. Trends in California mountain lion populations. Southwestern Naturalist 39:67-72.

Smallwood, K. S. 1993. Understanding ecological pattern and process by association and order. Acta Oecologica 14(3):443-462.

Smallwood, K. S. and E. L. Fitzhugh. 1993. A rigorous technique for identifying individual mountain lions *Felis concolor* by their tracks. Biological Conservation 65:51-59.

Smallwood, K. S. 1993. Mountain lion vocalizations and hunting behavior. The Southwestern Naturalist 38:65-67.

Smallwood, K. S. and T. P. Salmon. 1992. A rating system for potential exotic vertebrate pests. Biological Conservation 62:149-159.

Smallwood, K. S. 1990. Turbulence and the ecology of invading species. Ph.D. Thesis, University of California, Davis.

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

April 21, 2020

Richard Drury
Lozeau | Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94618

Subject: Comments on the 3440 Wilshire Project (Case No. ENV-2016-3693-MND)

Dear Mr. Drury,

We have reviewed the January 2020 Initial Study/Mitigated Negative Declaration ("IS/MND") for the 3440 Wilshire Project ("Project") located in the City of Los Angeles ("City"). The Project proposes to demolish an existing 3-story parking structure with 1,191 spaces totaling 266,571-SF and maintain four existing commercial office buildings with ground floor retail space and an existing 5-story parking structure with 707 spaces. Furthermore, the Project proposes to construct up to 640 residential units totaling 701,315-SF, 10,738-SF of commercial space, including 5,538-SF of retail space, a 3,700-SF high turnover restaurant, and a 1,500-SF fast food restaurant, as well as 2 commercial kiosks totaling 1,878-SF, and 1,214 parking spaces on the 7.26-acre site.

Our review concludes that the IS/MND fails to adequately evaluate the Project's hazards, air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project are underestimated and inadequately addressed. A DEIR should be prepared to adequately assess and mitigate the potential hazards, air quality, health risk, and greenhouse gas impacts that the project may have on the surrounding environment.

Hazards and Hazardous Materials

A 2014 Phase I Environmental Site Assessment (ESA) performed for the Project site (Appendix H) identified an 8,000-gallon oil storage underground storage tank (UST) and a three USTs associated with a former gas station on the site. The 8,000-gallon UST was reportedly removed in 1988, according to the Phase I.

No record of removal of the three gas station USTs was cited in the Phase I – the Phase I only vaguely states (p. 1):

> "An Application for Permit; Abandonment by Removal Fire Department-City of Los Angeles, was also reviewed as part of our previous assessment, which discussed the removal of one waste oil UST and two gasoline USTs, dated June 8, 1988."

Only the application for removal is cited in the Phase I – no documentation of the actual removal of the USTs is cited in the Phase I. In fact, the Phase I can only state with respect to the gas station USTs (p. 1):

> "It is suspected that these USTs were related to the gas & oil station noted on the 1961 Sanborn Map."

> "It should also be noted that based on our regulatory review, the Subject [Project site] was identified as a registered storage tank site featuring a "inactive" regulatory status for two previous onsite "regulated unleaded" USTs. These gasoline USTs are suspected to be associated with the removal of the aforementioned gasoline USTs noted in the permit."

The Phase I failed to confirm the presence of the of the USTs at the Project site. A Phase II ESA is necessary for inclusion in a DEIR to include the results of a geophysical survey, a report commonly used to identify large underground objects such as a UST, to confirm the presence or absence of USTs at the Project site. A Phase II is also necessary to include the results of soil and soil vapor sampling from the locations where the presence (or the former presence) of the USTs is likely, based on the geophysical survey.

Air Quality

Unsubstantiated Reductions to Number of Daily Trips

Review of the Traffic Study, provided as Appendix K-1 to the IS/MND, reveals that the analysis includes an unsubstantiated reduction to the Project's estimated trip generation. Specifically, the Traffic Study includes a 25% "Transit Credit" reduction for both the retail and multifamily housing trip generation (see excerpt below) (Appendix K-1, pp. 24, Table 4).

TABLE 4
3440 WILSHIRE PROJECT
TRIP GENERATION - ITE 10TH EDITION

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a] Daily	AM Peak Hour Rate	AM Peak Hour In%	AM Peak Hour Out%	PM Peak Hour Rate	PM Peak Hour In%	PM Peak Hour Out%	Daily
PROPOSED PROJECT										
Retail	820	18.454 ksf	37.75	0.94	62%	38%	3.81	48%	52%	697
Less: Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(105)*
Less: Transit Credit [c]			*25%*	*25%*			*25%*			*(148)*
Total Driveway Trips										444
Less: Pass-by [d]			*50%*	*50%*			*50%*			*(222)*
Net External Vehicle Trips										222
Multifamily Houseing (High-Rise) [e]	222	641 DU	4.45	0.23	12%	88%	0.3	70%	30%	2,852
Internal Capture [b]			*15%*		*15%*	*15%*		*15%*	*15%*	*(428)*
Less: Transit Credit [f]			*25%*							*(606)*
Net External Vehicle Trips										1,818
TOTAL DRIVEWAY TRIPS										2,262
NET INCREMENTAL EXTERNAL TRIPS										2,040

According to the Traffic Study, this reduction is based on the Los Angeles Department of Transportation's ("LADOT") *Traffic Study Policies and Procedures* (Appendix K-1, pp. 24). However, this is incorrect. The LADOT's *Traffic Study Policies and Procedures* document is from 2016 and has since been replaced and updated by the LADOT's 2019 *Transportation Assessment Guidelines (*"TAG"*)*.[1] According to this more recent document, "LADOT, **at its discretion, may allow up to** a 25% transit/walk trip generation reduction" applied "**on a case by case basis**" (emphasis added) (p. 39). However, review of the Traffic Study demonstrates that no verification of this 25% reduction was provided by LADOT and, as a result, we are unable to certify that it is correct. Thus, the number of daily trips calculated for the Project may be underestimated and should not be utilized in the model or relied upon to determine Project significance.

Unsubstantiated Input Parameters Used to Estimate Project Emissions

The IS/MND's air quality analysis relies on emissions calculated with CalEEMod.2016.3.2.[2] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act (CEQA) requires that such changes be justified by substantial evidence.[3] Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output files disclose to the reader what parameters were utilized in calculating the Project's air pollutant

[1] "Los Angeles Department of Transportation (LADOT) Transportation Assessment Guidelines." July 2019, LADOT, available at: https://ladot.lacity.org/sites/default/files/documents/ta_guidelines_-20190731_0.pdf.
[2] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4.
[3] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 1, 9.

emissions and make known which default values were changed as well as provide justification for the values selected.[4]

Review of the Project's air modeling demonstrates that the IS/MND underestimates emissions associated with Project activities. As previously stated, the IS/MND's air quality analysis relies on air pollutant emissions calculated using CalEEMod. When reviewing the Project's CalEEMod output files, provided as Appendix C to the IS/MND, we found that several of the values inputted into the model were not consistent with information disclosed in the IS/MND. As a result, the Project's construction and operational emissions are underestimated. An EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

Use of an Incorrect Construction Schedule

According to the IS/MND, the proposed Project's building construction period for Tower 1 would last approximately 19 months, beginning in June 2022 and ending in January 2024, and the building construction period for Tower 2 would last approximately 19 months, beginning in June 2024 and ending in January 2026 (see excerpt below) (p. A-15, Table A-8).

Table A-8
Construction Schedule

Phase	Tower 1		Tower 2	
	Scheduled	Length	Scheduled	Length
Demolition	Jan 2022 – March 2022	2 months	Under Tower 1	
Site Prep	Within demolition		Under Tower 1	
Grading	March 2022 – June 2022	3 months	Under Tower 1	
Construction	June 2022 – January 2024	19 months	June 2024 – January 2026	19 months
Architectural Coatings	August 2023 – January 2024	5 months	August 2025 – January 2026	5 months
Construction schedule, including start, end, and duration dates are estimates only. Client provided information, September 2018.				

As you can see in the excerpt above, the IS/MND proposes two 19-month construction periods for the two towers, along with 2 months of site prep and demolition and 3 months of grading, for a total of 43-months of active construction. However, review of the IS/MND's CalEEMod output files demonstrates that the model included a construction schedule that lasted over 43-months and failed to include the 5-month break between the construction of Tower 1 and construction of Tower 2 (see excerpt below) (Appendix C, pp. 6-7, 37, 71-72).

[4] CAPCOA (November 2017) CalEEMod User's Guide, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, fn 1, p. 11, 12 – 13. A key feature of the CalEEMod program is the "remarks" feature, where the user explains why a default setting was replaced by a "user defined" value. These remarks are included in the report.

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	1/31/2022	5	21	
2	Site Preparation	Site Preparation	2/1/2022	2/28/2022	5	20	
3	Grading	Grading	3/1/2022	5/31/2022	5	66	
4	Building Construction	Building Construction	6/1/2022	1/2/2026	5	938	
5	Architectural Coating	Architectural Coating	3/1/2025	1/2/2026	5	220	

As you can see in the excerpt above, the Project's construction schedule is inconsistent with the information provided in the IS/MND, as the length of active construction exceeds 43-months. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[5] According to the "User Entered Comments & Non-Default Data" table, the justification provided is: "Consultant assumptions" (Appendix C, pp. 1, 31, 66). However, the construction schedule used in the model is inconsistent with the information provided in the IS/MND, as discussed above. As we cannot verify "consultant assumptions," we are unable to verify this longer construction schedule.

By spreading out construction emissions over a 48-month period, rather than the 43-month period indicated by the IS/MND, maximum daily emissions associated with construction are artificially reduced. Thus, the construction schedule included in the model is incorrect, and as a result, the model may underestimate the Project's construction-related emissions.

Underestimated Number of Hauling Truck Trips

Review of the Project's CalEEMod output files demonstrates that several of the hauling, vendor, and worker trips were manually altered (see excerpt below) (Appendix C, pp. 3, 33, 68).

Table Name	Column Name	Default Value	New Value
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	17,125.00	13,700.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	196.00	20.00
tblTripsAndVMT	VendorTripNumber	0.00	40.00
tblTripsAndVMT	WorkerTripNumber	30.00	15.00
tblTripsAndVMT	WorkerTripNumber	28.00	20.00
tblTripsAndVMT	WorkerTripNumber	788.00	200.00
tblTripsAndVMT	WorkerTripNumber	158.00	5.00

As you can see in the excerpt above, numerous hauling, vendor, and worker trip values were manually altered. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[6] According to the "User Entered Comments & Non-Default Data" table, the justification provided for this change is: "Developer information" (Appendix C, pp. 2, 32, 67). However, the Project

[5] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[6] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

documents fail to address these changes. Furthermore, while the Traffic Study includes estimates of *peak daily* trips for each construction phase, this fails to substantiate the changes to the *total* numbers of hauling, vendor, and worker trips for each phase (Appendix K-1, p. 45, Table 13).

Furthermore, the Traffic Study estimates a maximum daily number of hauling truck trips of 1 for Construction (see excerpt below) (Appendix K-1, p. 45, Table 13).

Peak Daily Activity Under Each Phase

	Demolition & Site Preparation	Grading	Construction	Architectural Coating
Construction Workers	*15*	*20*	*200*	*5*
Passenger Car Equivalent (PCE) factor	1.0	1.0	1.0	1.0
Haul Trucks	*30*	*55*	*1*	*0*
Passenger Car Equivalent (PCE) factor	2.5	2.5	2.5	2.5
Delivery/Equipment Trucks	*4*	*4*	*20*	*40*
Passenger Car Equivalent (PCE) factor	2.0	2.0	2.0	2.0

Thus, the model should have included *at least* 1 hauling trip for construction. However, review of the Project's CalEEMod output files demonstrates that 0 hauling truck trips were included for construction (see excerpt below) (Appendix C, pp. 8, 39, 73).

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	15.00	4.00	1,978.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	20.00	4.00	13,700.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	200.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	5.00	40.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

As you can see in the excerpt above, the model failed to include any hauling trips for construction. Thus, the model is inconsistent with the IS/MND. This inconsistency, as well as the unsubstantiated changes described above, presents an issue; the number of worker, hauling, and vendor trips and associated vehicle miles traveled ("VMT") are used by CalEEMod to determine the exhaust emissions associated with on-road vehicle use and fugitive dust emissions.[7] Thus, by failing to include the correct number of hauling, vendor, and worker trips, the model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance.

[7] CAPCOA (Oct 2017) CalEEMod User's Guide: Appendix A, p. 13, http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6.

Unsubstantiated Changes to Acres of Grading

Review of the Project's CalEEMod output files demonstrates that the amount of grading included in the model was manually reduced from 33 to 2.33 acres, and the amount of grading included in the model was manually reduced from 30 to 0 acres (see excerpt below) (Appendix C, pp. 2, 32, 67).

Table Name	Column Name	Default Value	New Value
tblGrading	AcresOfGrading	33.00	2.33
tblGrading	AcresOfGrading	30.00	0.00

As you can see in the excerpt above, the number of acres of grading for the site preparation and grading construction phases were reduced in the model. As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[8] According to the "User Entered Comments & Non-Default Data" table, the justification provided for these changes is: "Developer information" (Appendix C, pp. 2, 32, 67). However, the IS/MND and associated appendices fail to mention or justify these changes, and as a result, we cannot verify the altered values. This presents an issue, as the CalEEMod User's Guide states that grading is used by the model to calculate fugitive dust emissions associated with dozers, graders, scrapers, and haul trucks. [9] Thus, by potentially underestimating the acres of grading required by the Project, the model underestimates the Project's construction-related emissions and should not be relied upon to determine Project significance.

Unsubstantiated Application of Construction Mitigation Measures

Review of the Project's CalEEMod output files demonstrates that the following construction-related mitigation measures were included in the model: "Replace Ground Cover," "Water Exposed Area," and "Clean Paved Roads" (see excerpt below) (Appendix C, pp. 8-9, 39, 73-74).

3.1 Mitigation Measures Construction

Replace Ground Cover
Water Exposed Area
Clean Paved Roads

Furthermore, the model included a 46% reduction of particulate matter emissions as a result of cleaning paved roads (see excerpt below) (Appendix C, pp. 2, 32, 67).

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	46

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[10] According to the "User Entered Comments & Non-Default Data" table, these measures are

[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9
[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 31, 33.
[10] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 2, 9

justified by stating: "Assumes SCAQMD Rule 403 control efficiencies" (Appendix C, pp. 2, 32, 67). Furthermore, according to the IS/MND,

> "[I]t is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying water and/or soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce regional PM2.5 and PM10 emissions associated with construction activities by approximately 61 percent" (emphasis added) (p. B-41).

As you can see in the excerpt above, the Project has the option to either apply water **and/or** soil binders but has not actually committed to either one. Furthermore, this explanation fails to justify the inclusion of the "Clean Paved Roads" mitigation measure or address the 46% reduction included in the model. Finally, the IS/MND states that compliance with Rule 403 would reduce particulate matter emissions by 61%, but also fails to explain or justify this calculation. As a result, we are unable to verify the inclusion of these mitigation measures and reductions in the model. Thus, emissions may be underestimated and the model should not be relied upon to determine Project significance.

Diesel Particulate Matter Health Risk Emissions Inadequately Evaluated

The IS/MND concludes that the Project's construction and operational health risk impacts would be less than significant as a result of LST analysis, without conducting a quantified construction or operational health risk assessment ("HRA") (p. B-46). In an attempt to justify the omission of a construction HRA, the IS/MND states:

> "Because there is such a short-term exposure period, construction TAC emissions would result in a less-than significant impact. **Therefore, construction of the Project would not expose sensitive receptors to substantial diesel PM concentrations, and this impact would be less than significant**" (p. B-46).

Furthermore, regarding the omission of an operational HRA, the IS/MND states:

> "[T]he SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[48] The Project would not generate a substantial number of truck trips since it would not be a truck stop or distribution center. Based on the limited activity of TAC sources, the Project would not warrant the need for a health risk assessment associated with on-site activities. **Therefore, Project impacts would be less than significant**" (p. B-48).

However, this justification and subsequent less than significant impact finding is incorrect for several reasons.

First, while the LST method assesses the impact of pollutants at a local level, it only evaluates impacts from criteria air pollutants. According to the Final Localized Significance Threshold Methodology document prepared by the SCAQMD, the LST analysis is only applicable to NO_x, CO, PM_{10}, and $PM_{2.5}$ emissions, which are collectively referred to as criteria air pollutants.[11] Because the LST method can only be applied to criteria air pollutants, this method cannot be used to determine whether emissions from diesel particulate matter ("DPM"), a known human carcinogen, will result in a significant health risk impact to nearby sensitive receptors. As a result, health risk impacts from exposure to toxic air contaminants ("TACs"), such as DPM, were not analyzed for the proposed Project, thus leaving a gap within the IS/MND's analysis.

Second, the IS/MND's claim that "the SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[48]" is incorrect and unsubstantiated (p. B-48). Specifically, the reference cited as a source for this justification, footnote 48, SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions,* fails to substantiate this argument. According to the SCAQMD website discussing Mobile Source Toxics Analysis and this document in particular, "[i]t is suggested that projects with diesel powered mobile sources use the following guidance document to quantify potential cancer risks from the diesel particulate emissions."[12] Review of the IS/MND and CalEEMod model reveals that the proposed Project will, in fact, include mobile emissions during both construction and operation (see excerpts below) (Appendix C, pp. 8, 26).

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	15.00	4.00	1,978.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	20.00	4.00	13,700.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Building Construction	16	200.00	20.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	2	5.00	40.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	1,817.60	1,817.60	1817.60	6,991,856	6,991,856
Enclosed Parking with Elevator	0.00	0.00	0.00		
Strip Mall	66.48	66.48	66.48	229,312	229,312
Fast Food Restaurant w/o Drive Thru	201.08	201.08	201.08	602,965	602,965
High Turnover (Sit Down Restaurant)	264.22	264.22	264.22	847,516	847,516
Total	2,349.38	2,349.38	2,349.38	8,671,650	8,671,650

As you can see in the excerpts above, the proposed Project is anticipated to produce mobile source emissions as a result of worker, vendor, and hauling trips during Project construction, as well as roughly 2,349 daily trips throughout Project operation, according to the model. Thus, the IS/MND's claim that "[t]he Project would not generate a substantial number of truck trips since it would not be a truck stop

[11] "Final Localized Significance Threshold Methodology." SCAQMD, Revised July 2008, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf.

[12] "Mobile Source Toxics Analysis." SCAQMD, *available at:* http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis.

or distribution center" is incorrect. As a result, per the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions*, as cited by the IS/MND, the proposed Project should have conducted a quantified HRA.

Third, the omission of a quantified HRA is inconsistent with the most recent guidance published by the Office of Environmental Health Hazard Assessment ("OEHHA"), the organization responsible for providing guidance on conducting HRAs in California. In February 2015, OEHHA released its most recent *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*.[13] This document describes the types of projects that warrant the preparation of an HRA. Construction of the Project will produce emissions of DPM through the exhaust stacks of construction equipment over a construction period of approximately 43-months, as stated by the IS/MND (p. A-15, Table A-8). The OEHHA document recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors.[14] Therefore, per OEHHA guidelines, we recommend that health risk impacts from Project construction be evaluated by a revised CEQA evaluation. Furthermore, once construction of the Project is complete, the Project will operate for many years. As previously stated, the Traffic Study indicates that operation of the Project would generate a net increase of approximately 2,262 daily vehicle trips, which will generate additional exhaust emissions and continue to expose nearby sensitive receptors to DPM emissions (Appendix K-1, 19, Table 4). The OEHHA document recommends that exposure from projects lasting more than 6 months be evaluated for the duration of the project, and recommends that an exposure duration of 30 years be used to estimate individual cancer risk for the maximally exposed individual resident ("MEIR").[15] Even though we were not provided with the expected lifetime of the Project, we can reasonably assume that the Project will operate for at least 30 years, if not more. Therefore, we recommend that health risk impacts from Project operation also be evaluated in a revised CEQA evaluation, as a 30-year exposure duration vastly exceeds the 2-month and 6-month requirements set forth by OEHHA. These recommendations reflect the most recent health risk policy, and as such, we recommend that an updated assessment of health risks to nearby sensitive receptors from Project construction and operation be included in a revised CEQA evaluation for the Project.

Fourth, by claiming a less than significant impact without conducting a quantified HRA for Project construction and operation, the IS/MND fails to compare the excess health risk to the SCAQMD's specific numeric threshold of 10 in one million.[16] Thus, the IS/MND cannot conclude less than significant health risk impacts resulting from Project construction and operation without quantifying emissions to compare to the proper threshold.

---

[13] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html

[14] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-18

[15] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf, p. 8-6, 8-15

[16] "South Coast AQMD Air Quality Significance Thresholds." SCAQMD, April 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

Screening-Level Assessment Indicates Significant Impact

In an effort to demonstrate the potential risk posed by Project construction and operation to nearby sensitive receptors, we prepared a simple screening-level HRA. The results of our assessment, as described below, provide substantial evidence that the Project's construction and operational DPM emissions may result in a potentially significant health risk impact not previously identified by the IS/MND.

In order to conduct our screening level risk assessment, we relied upon AERSCREEN, which is a screening level air quality dispersion model. [17] The model replaced SCREEN3, and AERSCREEN is included in the OEHHA[18] and the California Air Pollution Control Officers Associated (CAPCOA)[19] guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs"). A Level 2 HRSA utilizes a limited amount of site-specific information to generate maximum reasonable downwind concentrations of air contaminants to which nearby sensitive receptors may be exposed. If an unacceptable air quality hazard is determined to be possible using AERSCREEN, a more refined modeling approach is required prior to approval of the Project.

We prepared a preliminary HRA of the Project's construction and operational health-related impact to residential sensitive receptors using the annual PM_{10} exhaust estimates from SWAPE's updated CalEEMod. According to the IS/MND, the closest sensitive receptor is located approximately 60 feet, or 18 meters, east of the Project site (p. B-29). Consistent with recommendations set forth by OEHHA, we assumed exposure begins during the third trimester stage of life. The Project's construction CalEEMod output files indicate that construction activities will generate approximately 342 pounds of DPM over the 1,459-day construction period. The AERSCREEN model relies on a continuous average emission rate to simulate maximum downward concentrations from point, area, and volume emission sources. To account for the variability in equipment usage and truck trips over Project construction, we calculated an average DPM emission rate by the following equation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{342.2\ lbs}{1{,}459\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.001231}\boldsymbol{g/s}$$

Using this equation, we estimated a construction emission rate of 0.001231 grams per second ("g/s"). Subtracting the 1,459-day construction period from the total residential duration of 30 years, we assumed that after Project construction, the sensitive receptor would be exposed to the Project's operational DPM for an additional 26 years, approximately. The Project's operational CalEEMod emissions, calculated by subtracting the existing emissions from the proposed Project, indicate that operational activities will generate approximately 193 pounds of DPM per year throughout operation.

[17] "AERSCREEN Released as the EPA Recommended Screening Model," USEPA, April 11, 2011, *available at:* http://www.epa.gov/ttn/scram/guidance/clarification/20110411_AERSCREEN_Release_Memo.pdf
[18] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf
[19] "Health Risk Assessments for Proposed Land Use Projects," CAPCOA, July 2009, *available at:* http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf

Applying the same equation used to estimate the construction DPM rate, we estimated the following emission rate for Project operation:

$$Emission\ Rate\ \left(\frac{grams}{second}\right) = \frac{192.8\ lbs}{365\ days} \times \frac{453.6\ grams}{lbs} \times \frac{1\ day}{24\ hours} \times \frac{1\ hour}{3{,}600\ seconds} = \mathbf{0.002773\ g/s}$$

Using this equation, we estimated an operational emission rate of 0.002773 g/s. Construction and operational activity was simulated as a 7.26-acre rectangular area source in AERSCREEN with dimensions of 182.5 by 161 meters. A release height of three meters was selected to represent the height of exhaust stacks on operational equipment and other heavy-duty vehicles, and an initial vertical dimension of one and a half meters was used to simulate instantaneous plume dispersion upon release. An urban meteorological setting was selected with model-default inputs for wind speed and direction distribution.

The AERSCREEN model generates maximum reasonable estimates of single-hour DPM concentrations from the Project site. EPA guidance suggests that in screening procedures, the annualized average concentration of an air pollutant be estimated by multiplying the single-hour concentration by 10%.[20] As previously stated, there are residential receptors located approximately 18 meters from the Project boundary. However, review of the AERSCREEN output files demonstrates that the *maximally* exposed receptor is located 100 meters from the Project site. The single-hour concentration estimated by AERSCREEN for Project construction is approximately 1.302 µg/m^3 DPM at approximately 100 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.1302 µg/m^3 for Project construction at the MEIR. For Project operation, the single-hour concentration estimated by AERSCREEN is 2.933 µg/m^3 DPM at approximately 100 meters downwind. Multiplying this single-hour concentration by 10%, we get an annualized average concentration of 0.2933 µg/m^3 for Project operation at the MEIR.

We calculated the excess cancer risk to the MEIR using applicable HRA methodologies prescribed by OEHHA. Consistent with the construction schedule included in the IS/MND, the annualized average concentration for construction was used for the entire third trimester of pregnancy (0.25 years), the entire infantile stage of life (0 – 2 years), and the first 1.75 years of the child stages of life (2 – 16 years). The annualized average concentration for operation was used for the remainder of the 30-year exposure period, which makes up the remainder of the child stages of life (2 – 16 years) and entire adult stage of life (16 – 30 years).

Consistent with OEHHA[21], SCAQMD, BAAQMD, and SJVAPCD guidance, we used Age Sensitivity Factors ("ASF") to account for the heightened susceptibility of young children to the carcinogenic toxicity of air

[20] "Screening Procedures for Estimating the Air Quality Impact of Stationary Sources Revised." EPA, 1992, *available at*: http://www.epa.gov/ttn/scram/guidance/guide/EPA-454R-92-019_OCR.pdf; *see also* "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf p. 4-36.

[21] "The Office of Environmental Health Hazards Assessment issued updated guidance for the preparation of health risk assessments in March 2015 (OEHHA 2015)" (p. 5.2-29).

pollution.[22, 23, 24, 25] According to this guidance, the quantified cancer risk should be multiplied by a factor of ten during the third trimester of pregnancy and during the first two years of life (infant) as well as multiplied by a factor of three during the child stage of life (2 to 16 years). We also included the quantified cancer risk without adjusting for the heightened susceptibility of young children to the carcinogenic toxicity of air pollution in accordance with older OEHHA guidance from 2003. This guidance utilizes a less health protective scenario than what is currently recommended by SCAQMD, the air quality district responsible for the City, and several other air districts in the state. Furthermore, in accordance with guidance set forth by OEHHA, we used the 95th percentile breathing rates for infants.[26] Finally, according to SCAQMD guidance, we used a Fraction of Time At Home ("FAH") Value of 1 for the 3rd trimester and infant receptors.[27] We used a cancer potency factor of 1.1 (mg/kg-day)$^{-1}$ and an averaging time of 25,550 days. The results of our calculations are shown below.

The Maximally Exposed Individual at an Existing Residential Receptor						
Activity	**Duration (years)**	**Concentration (ug/m3)**	**Breathing Rate (L/kg-day)**	**Cancer Risk without ASFs***	**ASF**	**Cancer Risk with ASFs***
Construction	0.25	0.1302	361	1.8E-07	10	1.8E-06
3rd Trimester Duration	***0.25***			***1.8E-07***	***3rd Trimester Exposure***	***1.8E-06***
Construction	2.00	0.1302	1090	4.3E-06	10	4.3E-05
Infant Exposure Duration	***2.00***			***4.3E-06***	***Infant Exposure***	***4.3E-05***

[22] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

[23] "Draft Environmental Impact Report (DEIR) for the Proposed The Exchange (SCH No. 2018071058)." SCAQMD, March 2019, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190115-03.pdf?sfvrsn=8, p. 4.

[24] "California Environmental Quality Act Air Quality Guidelines." BAAQMD, May 2017, *available at:* http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, p. 56; see also "Recommended Methods for Screening and Modeling Local Risks and Hazards." BAAQMD, May 2011, *available at:* http://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CEQA/BAAQMD%20Modeling%20Approach.ashx, p. 65, 86.

[25] "Update to District's Risk Management Policy to Address OEHHA's Revised Risk Assessment Guidance Document." SJVAPCD, May 2015, *available at:* https://www.valleyair.org/busind/pto/staff-report-5-28-15.pdf, p. 8, 20, 24.

[26] "Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics 'Hot Spots' Information and Assessment Act," June 5, 2015, *available at:* http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab2588-risk-assessment-guidelines.pdf?sfvrsn=6, p. 19.
"Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

[27] "Risk Assessment Procedures for Rules 1401, 1401.1, and 212." SCAQMD, August 2017, *available at:* http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf, p. 7.

Construction	1.75	0.1302	572	2.0E-06	3	5.9E-06
Operation	12.25	0.2933	572	3.1E-05	3	9.3E-05
Child Exposure Duration	***14.00***			***3.3E-05***	***Child Exposure***	***9.9E-05***
Operation	14.00	0.2933	261	1.2E-05	1	1.2E-05
Adult Exposure Duration	***14.00***			***1.2E-05***	***Adult Exposure***	***1.2E-05***
Lifetime Exposure Duration	**30.00**			**4.9E-05**	**Lifetime Exposure**	**1.6E-04**

* We, along with CARB and SCAQMD, recommend using the more updated and health protective 2015 OEHHA guidance, which includes ASFs.

As demonstrated in the table above, the excess cancer risk to adults, children, infants, and during the 3rd trimester of pregnancy at the MEIR located approximately 100 meters away, over the course of Project construction and operation, utilizing age sensitivity factors, are approximately 12, 99, 43, and 1.8 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years), utilizing age sensitivity factors, is approximately 160 in one million. The infant, child, adult, and lifetime cancer risks all exceed the SCAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified by the IS/MND. Utilizing age sensitivity factors is the most conservative, health-protective analysis according to the most recent guidance by OEHHA and recommendations from the air district. Results without age sensitivity factors are presented in the table above, although we **do not** recommend utilizing these values for health risk analysis. Regardless, the excess cancer risk posed to adults, children, infants, and during the third trimester of pregnancy at the MEIR, located approximately 100 meters away, over the course of Project construction and operation, without age sensitivity factors, are approximately 12, 33, 4.3, and 0.18 in one million, respectively. The excess cancer risk over the course of a residential lifetime (30 years) at the MEIR, without age sensitivity factors, is approximately 49 in one million. The child, adult, and lifetime cancer risks, without age sensitivity factors, exceed the SCAQMD threshold of 10 in one million, thus resulting in a potentially significant impact not previously addressed or identified. While we recommend the use of age sensitivity factors, health risk impacts exceed the SCAQMD threshold regardless.

An agency must include an analysis of health risks that connects the Project's air emissions with the health risk posed by those emissions. Our analysis represents a screening-level HRA, which is known to be conservative and tends to err on the side of health protection. [28] The purpose of the screening-level construction and operational HRA shown above is to demonstrate the link between the proposed Project's emissions and the potential health risk. Our screening-level HRA demonstrates that construction and operation of the Project could result in a potentially significant health risk impact, when correct exposure assumptions and up-to-date, applicable guidance are used. Therefore, since our screening-level HRA indicates a potentially significant impact, the City should prepare a CEQA analysis with a revised HRA which makes a reasonable effort to connect the Project's air quality emissions and

[28] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf, p. 1-5

the potential health risks posed to nearby receptors. Thus, the City should prepare an updated, quantified air pollution model as well as an updated, quantified refined health risk assessment which adequately and accurately evaluates health risk impacts associated with both Project construction and operation.

Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The IS/MND concludes that the Project's construction and operation would result in annual greenhouse gas ("GHG") emissions of 8,698 metric tons of CO_2 equivalent per year (MT CO_2e/yr) (p. B-112, B-113, Table B.8-4). In addition, the IS/MND relies upon the Project's consistency with CARB's Climate Change Scoping Plan, SCAG's 2016–2040 RTP/SCS, the City's LA Green Plan, and the City's Sustainable City pLAn in order to determine the significance of the Project's GHG impact (p. B-111). Specifically, the IS/MND states:

> "[G]iven the Project's consistency with State, SCAG, and City GHG emission reduction goals and objectives, the Project is consistent with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs. *In the absence of adopted standards and established significance thresholds*, and given this consistency, it is concluded that the Project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable" (emphasis added) (p. B-139).

As you can see in the excerpt above, the IS/MND claims that there are no SCAQMD-established significance thresholds, and as a result, relies upon the Project's consistency with applicable plans, policies, and regulations. However, these justifications and the subsequent less than significant impact conclusion are incorrect for several reasons.

1) CARB's Scoping Plan, 2016–2040 RTP/SCS, LA Green Plan, and Sustainable City pLAn cannot be relied upon to determine Project significance;
2) Incorrect reliance on the LA Green Plan;
3) Incorrect reliance on the Sustainable City pLAn;
4) Failure to demonstrate consistency with the Climate Change Scoping Plan, 2016–2040 RTP/SCS, LA Green Plan, and Sustainable City pLAn;
5) Failure to apply the relevant SCAQMD threshold;
6) Incorrect and unsubstantiated air model demonstrates a potentially significant GHG impact; and
7) SWAPE's updated analysis demonstrates a potentially significant GHG impact.

(1) The Climate Change Scoping Plan, 2016–2040 RTP/SCS, LA Green Plan, and Sustainable City pLAn are not Qualified CAPs

As discussed above, the IS/MND relies upon the Project's consistency with CARB's Climate Change Scoping Plan, SCAG's 2016–2040 RTP/SCS, the City's LA Green Plan, and the Sustainable City pLAn to determine Project GHG significance. However, these plans do not qualify as adequate GHG reduction plans or Climate Action Plans ("CAP"). CEQA Guidelines §§ 15064.4(b)(3) and 15183(b) allow a lead agency to consider a project's consistency with a statewide, regional, or local plan adopted to achieve

the reduction or mitigation of GHG emissions. When read together, CEQA Guidelines §§ 15064.4(b)(3) and 15183.5(b)(1) indicate that qualified GHG reduction plans or CAPs should include the following features:

(1) **Inventory**: Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities (e.g., projects) within a defined geographic area (e.g., lead agency jurisdiction);
(2) **Establish GHG Reduction Goal**: Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
(3) **Analyze Project Types**: Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
(4) **Craft Performance Based Mitigation Measures**: Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
(5) **Monitoring**: Establish a mechanism to monitor the CAP progress toward achieving said level and to require amendment if the plan is not achieving specified levels;

Collectively, these features connect qualitative measures to quantitative results, which become binding through proper monitoring and enforcement—all resulting in GHG reductions that demonstrate that the project's impacts are not cumulatively considerable. Here, however, the IS/MND fails to demonstrate that these plans include the above-listed requirements. As such, the IS/MND fails to demonstrate that compliance with these plans can be used to determine the Project's GHG significance. Thus, the IS/MND's GHG analysis regarding CARB's Climate Change Scoping Plan, SCAG's 2016–2040 RTP/SCS, the City's LA Green Plan, and the Sustainable City pLAn should not be relied upon to determine Project significance.

(2) Incorrect Reliance on the LA Green Plan

As discussed above, the IS/MND relies upon the Project's consistency with the City's LA Green Plan to determine the significance of the Project's GHG impact (p. B-138). However, this is incorrect, as the LA Green Plan fails to include project-level measures.

Review of the IS/MND's consistency evaluation with the LA Green Plan demonstrates that the measures discussed are predominantly city-level actions or measures (see excerpt below) (p. B-135, B-136, B-137).

Table B.8-9
Consistency with Applicable GHG Emissions Goals and Actions of the LA Green Plan

Action		Description	Consistency Analysis
Focus Area: Energy			
E6	Present a comprehensive set of green building policies to guide and support private sector development.	The City initiated an effort to establish green building requirements, paired with incentives, for medium- to large- private projects. Buildings account for a majority of electricity use. Each building site relates to a wide range of environmental issues faced by the City, so addressing each site in a comprehensive manner will provide a variety of environmental benefits.	**Consistent.** While this action primarily applies to the City, the Project would be designed and operated to meet the applicable requirements of the State Green Building Standards Code and the City's Green Building Code.
Focus Area: Water			
W1	Meet all additional demand for water resulting from growth through water conservation and recycling.	The Mayor's Office and LADWP developed the *Securing LA's Water Supply* plan, which is an aggressive, multi-faceted approach to developing a locally sustainable water supply. The plan includes a set of key short-term and long-term strategies to secure our water future, such as: Short-Term Conservation Strategies: • Enforcing prohibited uses of water (levying fines and sanctions against water abusers and increase water conservation awareness). • Expanding the list of prohibited uses of water (possible further restrictions on watering landscape and washing/rinsing vehicles without a self-closing nozzle). • Extending outreach efforts, water conservation incentives, and rebates. • Encouraging regional conservation measures (encourage all water agencies in the region to adopt water conservation ordinances which include prohibited uses and enforcement). Long-Term Conservation Strategies:	**Consistent.** While this action primarily applies to the City and LADWP, the Project would incorporate water conservation features to reduce indoor water use by at least 20 percent. Water conservation measures include: Energy Star-certified appliances in residential units and use of ultra low flow toilets and hand wash faucets in public facilities. Further detail is provided in **Section B.19, Utilities and Service Systems - Water**, of the MND.

As you can see in the above excerpt, actions E6 and W1 required by the LA Green Plan are aimed at the City and are not project-level measures. Furthermore, regarding the LA Green Plan, the IS/MND states:

> "To facilitate implementation of the LA Green Plan, **the City** has a Climate LA Plan that lays out **departmental programs to implement** the Action Plan's initiatives. **The City** also adopted the Los Angeles Green Building Code, as discussed below" (emphasis added) (p. B-109).

This excerpt further demonstrates that the LA Green Plan includes *city-wide initiatives*, not *project-level measures*. As a result, the IS/MND's reliance on the LA Green Plan to determine the Project's GHG significance is incorrect, and the less than significant impact determination should not be relied upon.

(3) Incorrect Reliance on the Sustainable City pLAn

As discussed above, the IS/MND relies upon the Project's consistency with the Sustainable City pLAn to determine the Project's GHG significance (p. B-138). However, this is incorrect for two reasons.

First, the April 2015 Sustainable City pLAn referenced in the IS/MND is outdated and superseded by the L.A. Green New Deal. According to the L.A. Green New Deal:

> "When the Mayor released the first Sustainable City pLAn in 2015 he committed to annual progress reports and a major update to the pLAn every four years…This report is the first four-year update to the 2015 pLAn. It augments, expands, and elaborates in even more detail L.A.'s vision for a sustainable future and it tackles the climate emergency with accelerated targets and new aggressive goals. This is L.A.'s Green New Deal."[29]

As you can see in the excerpt above, the Sustainable City pLAn requires a major update every 4 years and has been replaced by the LA Green New Deal. As such, the IS/MND's reliance on the Sustainable City pLAn and GHG significance determination is incorrect.

Second, both the Sustainable City pLAn and the L.A. Green New Deal fail to include project-level measures for land use development projects.[30] Regarding the Project's consistency with the Sustainable City pLAn, the IS/MND states:

> "Specific targets ***related to*** housing and development and mobility and transit include the decrease of vehicle miles traveled per capita by 5 percent by 2025, and increasing trips made by walking, biking or transit by at least 35 percent by 2025. The Project would ***generally comply with these aspirations*** as the Project is an infill development consisting of residential, hotel, and commercial uses on the Project Site, which is located near regional and local transit services" (emphasis added) (p. B-138).

As you can see, the Sustainable City pLAn contains city-level goals that *relate* to housing and development, not project-level measures. Similarly, review of the L.A. Green New Deal demonstrates that it also fails to include project-level measures. As such, the IS/MND's reliance on the Sustainable City pLAn is incorrect and the IS/MND GHG significance determination should not be relied upon.

(4) Failure to Demonstrate Consistency with CARB's Scoping Plan and SCAG's 2016–2040 RTP/SCS

As previously stated, the IS/MND claims that the proposed Project is consistent with CARB's Climate Change Scoping Plan and SCAG's 2016–2040 RTP/SCS, and as a result, the Project will result in less than significant GHG impacts. However, review of the aforementioned plans reveals that the Project is inconsistent with several goals and policies of the plans, including but not limited to those listed below:

[29] "L.A.'s Green New Deal." 2019, available at: http://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf, p. 8.

[30] "L.A.'s Green New Deal." 2019, available at: http://plan.lamayor.org/sites/default/files/pLAn_2019_final.pdf, p. 8.

CARB 2017 Scoping Plan[31]	
Measures – Construction	
Enforce idling time restrictions for construction vehicles	Here, the IS/MND states that "[i]n 2004, CARB adopted an ATCM [airborne toxic control measure] to limit heavy-duty diesel motor vehicle idling" (p. B-18). Furthermore, the IS/MND states that "Section 2485 in CCR Title 13 states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) used during construction shall be limited to five minutes at any location" (p. B-19). However, the IS/MND fails to mention any idling time restrictions for construction vehicles other than heavy-duty vehicles (over 10,000 pounds). Without evaluating the feasibility of implementing this measure across all vehicles, the proposed Project has not adequately demonstrated compliance. Furthermore, simply stating that these plans and policies have adopted idling time restriction requirements does not guarantee that the Project would enforce these restrictions. Thus, the Project fails to demonstrate that these policies would be implemented, monitored, and enforced.
Require construction vehicles to operate with the highest tier engines commercially available	Here, while the IS/MND discusses the USEPA Tier 1 through Tier 4 engine emission reductions, the IS/MND fails to specify the use of Tier 4 Final mitigation or evaluate the feasibility of obtaining these cleaner engines (p. B-16). As a result, the proposed Project fails to require construction vehicles to operate with the highest tier engines commercially available. Thus, the Project is not consistent with this measure.
Divert and recycle construction and demolition waste, and use locally-sourced building materials with a high recycled material content to the greatest extent feasible	Here, the IS/MND states that construction of the proposed Project "would generate approximately 1,560 tons of construction waste" (p. B-256). The IS/MND goes on to state that "California Assembly Bill (AB) 939, also known as the Integrated Waste Management Act, requires each city and county in the state to divert 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting" (p. B-256).

[31] California Air Resources Board ("CARB") (Jan. 2017) 2017 Scoping Plan, Appendix B-Local Action, *available at:* https://ww3.arb.ca.gov/cc/scopingplan/2030sp_appb_localaction_final.pdf, p. 8-10.

	However, the IS/MND fails to include any information regarding construction and demolition waste reduction beyond what is already required. The IS/MND also fails to indicate how the proposed Project will implement, monitor, and enforce these requirements. Furthermore, the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…Recycling of asphalt, concrete, metal, wood and carboard waste generated during demolition and construction" (emphasis added) (p. B-67). However, the IS/MND fails to require this measure, stating that measures *could include* recycling during demolition and construction. The IS/MND also fails to evaluate the feasibility of this measure, or discuss the Project's implementation, monitoring, and enforcement. Thus, the proposed Project does not reduce demolition and construction waste "to the greatest extent feasible," and the Project is not consistent with this measure.
Minimize tree removal, and mitigate indirect GHG emissions increases that occur due to vegetation removal, loss of sequestration, and soil disturbance	According to the IS/MND, "There are 30 trees in the public right-of-way (sidewalk or called a street tree), of which one is a protected species and will not be removed. Of the 29 non-protected street trees, 19 trees would be removed and replaced. There are 29 trees on the private portion of the Project Site, none of which are protected species. Of these, 24 would be removed. The amount of soils removed or exported would be 137,000 cubic yards" (pp. 2). However, the IS/MND fails to discuss ways to minimize tree removal or mitigate GHG emissions increases due to vegetation removal, loss of sequestration, and soil disturbance. Thus, the Project is not consistent with this measure.
Increase use of electric and renewable fuel powered construction equipment and require renewable diesel fuel where commercially available	Here, the IS/MND states that "[h]eavy duty construction equipment needed during construction of the Project would include air compressors, concrete pumps, forklifts, lifts, welders, backhoes, dozers, forklifts, lifts, loaders, and rollers, the majority of which would be diesel fueled. Construction equipment fuels would be provided by local or regional suppliers and vendors" (p. B-74). However, the IS/MND fails to address renewable diesel fuel or evaluate if it is available. Thus, the Project is not consistent with this measure.

Require diesel equipment fleets to be lower emitting than any current emission standard	Here, the IS/MND fails to require that diesel equipment fleets be lower emitting than current standards. Thus, the Project is not consistent with this measure.
Measures – Operation	
Comply with lead agency's standards for mitigating transportation impacts under SB 743	Here, the IS/MND states that "[t]he City of Los Angeles Department of Transportation (LADOT) has developed the Transportation Impact Study Guidelines (TISG) (December 2016) to provide the public, private consultants, and City staff with standards, guidelines, objectives, and criteria to be used in the preparation of a transportation impact study" (p. B-110). However, this is incorrect, as the LADOT has most recently released its Transportation Assessment Guidelines (TAG) in July 2019 that supersede the previous 2016 guidance. Thus, the IS/MND's analysis relies upon outdated guidance. Furthermore, the TAG relies upon the California Office of Planning and Research (OPR) 2018 Technical Advisory, which "recommends that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold."[32] According to the LADOT's TAG document, "[t]he California Natural Resources Agency certified and adopted the CEQA Guidelines in December of 2018, and are now in effect."[33] In order to comply with the transportation standards under SB 743, the Project should have demonstrated a per capita VMT that is at least 15% below existing development. Thus, the Project is not consistent with this measure.
Dedicate on-site parking for shared vehicles	Here, the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…Provision of electric vehicle charging stations in the parking structure; 5% of total spaces will be designated for low emitting, fuel efficient and carpool/van pool vehicles" (emphasis added) (p. B-67-68). However, the IS/MND fails to require this measure, stating that measures *could include* designated parking for shared vehicles. The IS/MND also fails to evaluate the feasibility of implementing, monitoring, and

[32] "Technical Advisory on Evaluating Transportation Impacts in CEQA" California Office of Planning and Research (OPR), December 2018, *available at:* http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf, p. 10.
[33] "Transportation Assessment Guidelines" Los Angeles Department of Transportation (LADOT), July 2019, *available at:* https://ladot.lacity.org/sites/default/files/documents/ta_guidelines_-20190731_0.pdf, p. 15.

	enforcing this measure. Thus, we cannot verify this measure and the Project is not consistent.
Require on-site renewable energy generation	Here, the IS/MND states that the "LADWP is required to commit to the use of renewable energy sources for compliance with the California Renewable Energy Resources Act" (p. B-62, B-79, B-120 Table B.8-6). The IS/MND goes on to state, "[w]ith respect to on-site renewable energy sources, because of the Project's location, there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydro, digester gas, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels" (p. B-80). However, while other locations may be "more suitable for large-scale solar power generation" and there may be a "lack of sufficient wind in the Los Angeles basin," the IS/MND fails to discuss potentially feasible options, such as small-scale solar generation or other sources (B-80). Furthermore, the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…15% of the roof area set aside for future solar panels" (emphasis added) (p. B-67-68). However, the IS/MND fails to require this measure, stating that measures *could include* rooftop solar panels. The IS/MND also fails to evaluate the measure's feasibility, or discuss the Project's potential to implement, monitor, and enforce it. As a result, the Project fails to comply with this measure.
Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing	Here, the IS/MND fails to address "cool parking" or the promotion of cool surface treatment for parking facilities. While the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…Installation of a "cool roof" that reflects the sun's heat and reduces urban heat island effect," the IS/MND fails to require this measure, stating that measures *could* include a cool roof (emphasis added) (p. B-67-68). The IS/MND also fails to evaluate the feasibility of implementing, monitoring, and enforcing the measure on the Project site. Thus, the Project is not consistent with this measure.

Require solar-ready roofs	Here, the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…15% of the roof area set aside for future solar panels" (emphasis added) (p. B-67-68). However, the IS/MND fails to require this measure, stating that measures *could include* rooftop solar panels. The IS/MND also fails to evaluate the feasibility of this measure, or the Project's potential to implement, monitor, and enforce the measure on the Project site. Thus, the Project is not consistent with this measure.
Require organic collection in new developments	Here, while the IS/MND discusses recycling, it fails to mention organic collection (p. B-258-259). Thus, the Project is not consistent with this measure.
Require low-water landscaping in new developments (see CALGreen Divisions 4.3 and 5.3 and the Model Water Efficient Landscape Ordinance [MWELO], which is referenced in CALGreen). Require water efficient landscape maintenance to conserve water and reduce landscape waste.	Here, the IS/MND states that "[l]andscaping water use is estimated per California Code of Regulations Title 23, Division 2, Chapter 2.7. Model Water Efficient Landscape Ordinance" (p. B-249, Table B.19-1). The IS/MND also states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…Use of indigenous and/or water-appropriate plants in landscaping" (emphasis added) (p. B-67-68). However, the IS/MND fails to require this measure, stating that measures *could include* use of indigenous and/or water-appropriate plants in landscaping. The IS/MND also fails to discuss the Project's potential to implement, monitor, and enforce the Model Water Efficient Landscape Ordinance or the feasibility of using indigenous and/or water-appropriate plants. As a result, the Project is not consistent with this measure.
Achieve Zero Net Energy performance building standards prior to dates required by the Energy Code	Here, the IS/MND states that the CARB Scoping Plan First Update "discussed new residential and commercial building energy efficiency improvements, specifically identifying progress towards zero net energy buildings" (p. B-100). However, the IS/MND fails to indicate that the proposed Project would even attempt to achieve Zero Net Energy performance, as required by the Energy Code. Thus, the Project is not consistent with this measure.
Encourage new construction, including municipal building construction, to achieve third-party green building certifications,	Here, the IS/MND fails to mention green building certifications, such as the GreenPoint Rated program,

such as the GreenPoint Rated program, LEED rating system, or Living Building Challenge	LEED rating system, or Living Building Challenge. As a result, the Project is not consistent with this measure.
Require the design of bike lanes to connect to the regional bicycle network	Here, the IS/MND states that "S. Oxford Avenue contains a bike lane that extends from W. 3rd Street northwards. W. 7th Street contains a bike lane from S. Catalina Street eastwards" (p. B-238). However, the IS/MND fails to indicate that the proposed Project would require or even include the design of bike lanes to connect to the regional bicycle network. Thus, the Project is not consistent with this measure.
Expand urban forestry and green infrastructure in new land development	Here, the IS/MND fails to mention or evaluate the Project's potential to expand urban forestry and green infrastructure. Thus, the Project is not consistent with this measure.
Require preferential parking spaces for park and ride to incentivize carpooling, vanpooling, commuter bus, electric vehicles, and rail service use	Here, the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…Provision of electric vehicle charging stations in the parking structure; 5% of total spaces will be designated for low emitting, fuel efficient and carpool/van pool vehicles" (emphasis added) (p. B-67-68). However, the IS/MND fails mention requiring preferential parking spaces for park and ride. Thus, we cannot verify this measure will be required and the Project may not be consistent.
Develop a rideshare program targeting commuters to major employment centers	Here, the IS/MND fails to mention or evaluate the feasibility of implementing, monitoring, and enforcing a rideshare program on the Project site, specifically targeting commuters to major employment centers. Thus, the proposed Project is not consistent with this measure.
Require the design of bus stops/shelters/express lanes in new developments to promote the usage of mass-transit	Here, the IS/MND fails to mention or require the design of bus stops/shelters/express lanes for the proposed Project. Thus, the proposed Project is not consistent with this measure.
Require gas outlets in residential backyards for use with outdoor cooking appliances such as gas barbeques if natural gas service is available	Here, the IS/MND fails to mention or require gas outlets in residential backyards. Thus, the proposed Project is not consistent with this measure.
Require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment	Here, the IS/MND fails to mention or require the installation of electrical outlets on the exterior walls of both the front and back of residences. Thus, the proposed Project is not consistent with this measure.

Require the design of the electric outlets and/or wiring in new residential unit garages to promote electric vehicle usage	Here, the IS/MND fails to mention or require the design of the electric outlets and/or wiring in new residential unit garages to promote electric vehicle usage. Thus, the proposed Project is not consistent with this measure.
Require electric vehicle charging station (Conductive/inductive) and signage for non-residential developments	Here, the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…Provision of electric vehicle charging stations in the parking structure" (emphasis added) (p. B-67-68). However, the IS/MND fails to require this measure, stating that measures *could include* electric charging stations. The IS/MND also fails to evaluate the feasibility of implementing, monitoring, and enforcing this measure on the Project site. Furthermore, the IS/MND states that "Project Site signage would include building identification, wayfinding, and security markings" (p. A-13). However, the IS/MND fails to demonstrate that the Project would include signage dedicated to electric vehicle charging stations. Finally, the IS/MND failed to discuss how the measure would be implemented, monitored, and enforced. Thus, the Project is not consistent with this measure.
Provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands	Here, the IS/MND fails to mention electric outlets or the promotion of electric landscape maintenance equipment. Thus, the Project is not consistent with this measure.
Require each residential unit to be "solar ready," including installing the appropriate hardware and proper structural engineering	Here, the IS/MND mentions solar ready buildings in regard to the City's Green Building Code (Section 99.04.211) (p. B-80). However, the IS/MND fails to *require* that each residential unit will be "solar ready" or mention installation of the appropriate hardware and proper structural engineering. Thus, we cannot confirm that this will actually be implemented, monitored, and enforced on the Project site, and the Project is not consistent with this measure.
Require the installation of energy conserving appliances such as on-demand tank-less water heaters and whole-house fans	Here, the IS/MND states that "[s]pecific measures to be incorporated into the Project **to the extent feasible could include, but are not limited to**:…Use of Energy Star appliances in residential units" (emphasis added) (p. B-67-68). The IS/MND goes on to state that "Energy Star-certified and high-efficiency clothes washers and dishwashers, nonresidential kitchen faucets (except

	restaurant kitchens) with ha maximum flow rate of 1.5 gallons per minute, and installation of tankless and on-demand water heaters in commercial kitchens and restrooms, **when appropriate**" (emphasis added) (p. B-125, Table B.8-6). However, the IS/MND fails to require this measure, stating that measures *could include* use of energy star appliances in residential units. Finally, the IS/MND fails to mention or address whole-house fans. Thus, as the IS/MND fails to actually *require* this measure, or discuss the Project's potential to implement, monitor, and enforce the measure, we cannot verify its inclusion and the Project may be inconsistent.
Require each residential and commercial building equip buildings with energy efficient AC units and heating systems with programmable thermostats/timers	Here, the IS/MND states, "[a]s required under SB 350, doubling of the energy efficiency savings from final end uses of retail customers by 2030 would primarily rely on the existing suite of building energy efficiency standards under the California Code of Regulations (CCR), Title 24, Part 6 (consistency with this regulation is discussed below) and utility-sponsored programs such as rebates for high-efficiency appliances, heating ventilation and air-conditioning (HVAC) systems and insulation. The Project would support this action/strategy because it includes compliance with specific requirements of the Los Angeles Green Code" (p. B-121, Table B.8-6). However, the IS/MND fails to indicate any *project-specific* requirements for energy efficient AC units or heating systems with programmable thermostats/timers. Thus, the Project is not consistent with this measure.
Require large-scale residential developments and commercial buildings to report energy use, and set specific targets for per-capita energy use	Here, the IS/MND fails to mention or require the residential and commercial buildings included in the proposed Project to report energy use or set specific targets or per-capita energy use. Thus, the Project is not consistent with this measure.
Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets (see CALGreen Divisions 4.3 and 5.3 as well as Appendices A4.3 and A5.3)	Here, the IS/MND states that "[s]pecific measures to be incorporated into the Project **to the extent feasible could include, but are not limited to**:…Use of ultra-low-flow toilets and low-flow metered hand-wash faucets in public facilities" (emphasis added) (p. B-67-68). However, the IS/MND fails to require this measure, stating that measures *could include* use of ultra-low-flow toilets and low-flow faucets. The IS/MND also fails to evaluate the

	feasibility of this measure or elaborate on the Project's potential to implement, monitor, and enforce it. Thus, the Project is not consistent with this measure.
Require the use of energy-efficient lighting for all street, parking, and area lighting	The IS/MND fails to require the use of energy-efficient lighting for street, parking, and area lighting. While the IS/MND states that "[s]pecific measures to be incorporated into the Project **to the extent feasible could include, but are not limited to**:…Use of energy efficient lighting," it fails to evaluate the feasibility of this measure or elaborate on the Project's potential to implement, monitor, and enforce the measure (emphasis added) (p. B-67-B-68). Thus, the Project is not consistent with this measure.
Require the landscaping design for parking lots to utilize tree cover and compost/mulch	Here, the IS/MND fails to mention or consider tree cover or compost/mulch in the landscaping design for parking lots. Thus, the Project is not consistent with this measure.
Incorporate water retention in the design of parking lots and landscaping, including using compost/mulch	Here, the IS/MND fails to incorporate water retention into the design of parking lots and landscaping, including the use of compost/mulch. Thus, the Project is not consistent with this measure.
Require the development project to propose an off-site mitigation project which should generate carbon credits equivalent to the anticipated GHG emission reductions. This would be implemented via an approved protocol for carbon credits from California Air Pollution Control Officers Association (CAPCOA), the California Air Resources Board, or other similar entities determined acceptable by the local air district	Here, the IS/MND fails to mention or require off-site mitigation projects or carbon credits. The IS/MND also fails to discuss the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registries. Thus, the Project is not consistent with this measure.
Require the project to purchase carbon credits from the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registry determined to be acceptable by the local air district	Here, the IS/MND fails to mention the CAPCOA GHG Reduction Exchange Program, American Carbon Registry (ACR), Climate Action Reserve (CAR) or other similar carbon credit registries. Thus, the Project is not consistent with this measure.
Consider generating or purchasing local and California-only carbon credits as the preferred mechanism to implement its offsite mitigation measure for GHG	Here, the IS/MND fails to mention or consider carbon credits, or California-only carbon credits. Thus, the Project is not consistent with this measure.

emissions and that will facilitate the State's efforts in achieving the GHG emission reduction goal	

SCAG 2016 – 2040 RTP/SCS[34]	
Measures – Air Quality (transportation control measures TCM)	
Reduce emissions with the use of clean fuels and reducing petroleum dependency.	Here, while the IS/MND mentions several policies that increase the use of clean fuels and reduce petroleum dependency, the IS/MND fails to demonstrate how the Project would implement this measure (p. B-64, B-94, B-127). Thus, the Project is not consistent with this measure.
Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas	Here, the IS/MND states that "it is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying water and/or soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas" (p. B-41). Thus, the Project has the option to *either* apply water *and/or* soil binders but has not actually committed to either. The IS/MND also fails to discuss the Project's potential to implement, monitor, and enforce the use of watering trucks to minimize dust. As a result, the Project is not consistent with this measure.
Revegetate disturbed lands, including vehicular paths created during construction to avoid future off-road vehicular activities.	Here, the IS/MND states that "it is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying water and/or soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages

[34] Southern California Association of Governments ("SCAG") (Apr. 2016) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, *available at:* https://ww3.arb.ca.gov/cc/scopingplan/2030sp_appb_localaction_final.pdf, p.

	before vehicles exit the Project Site, and maintaining effective cover over exposed areas" (p. B-41). As such, the Project has the option to reestablish ground cover *and/or* implement one of the other measures listed but has not committed to any one measure. The IS/MND also fails to discuss the Project's potential to implement, monitor, and enforce the measure. Thus, the Project is not consistent with this measure.
As appropriate, require that portable engine-driven equipment units used at the project work site, with the exception of on-road and offroad motor vehicles, obtain ARB Portable Equipment Registration with the state or local district permit.	Here, the IS/MND fails to require that portable engine-driven equipment units obtain ARB Portable Equipment Registration. Thus, the Project is not consistent with this measure.
Measures – Greenhouse Gases	
Incorporate Best Available Control Technology (BACT) during design, construction and operation of projects to minimize greenhouse gas emissions.	Here, the IS/MND states that CARB's Airborne Toxic Contro Measure "requires that best available control technology turnovers or retrofits be fully implemented by 2023 for large and medium equipment fleets and by 2028 for small fleets" (p. B-65). However, stating that this requirement exists does not demonstrate that the Project would implement, monitor, and enforce the measure during design, construction, and operation. Furthermore, the Project is anticipated to begin construction in 2022, so the 2023 and 2028 requirements would not be achieved by the time that construction of the Project begins (Appendix C, pp. 6, 37, 71). Thus, the Project is not consistent with this measure.
Use energy- and fuel-efficient vehicles and equipment.	Here, while the IS/MND discusses the USEPA Tier 1 through Tier 4 engine emission reductions, the IS/MND fails to require the use or evaluate the feasibility of obtaining these cleaner engines (p. B-16). As a result, the proposed Project fails to require the use of energy- and fuel-efficient vehicles and equipment. Thus, the Project is not consistent with this measure.
Incorporate design measures to reduce greenhouse gas emissions from solid waste management through encouraging solid waste recycling and reuse.	Regarding solid waste recycling, the IS/MND states, "In compliance with LAMC provisions, the Project shall provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, and

	metals" (p. B-257). The IS/MND goes on to state, "In compliance with AB341, recycling bins shall be provided at appropriate locations to promote recycling of paper, metal, glass and other recyclable material. These bins shall be emptied and recycled accordingly as a part of the Project's regular solid waste disposal program. The Project Applicant shall only contract for waste disposal services with a company that recycles solid waste in compliance with AB3 41" (p. B-257). However, the IS/MND fails to discuss the Project's potential to implement, monitor, and enforce this measure. Furthermore, the IS/MND fails to mention how the Project would encourage the reuse of solid waste. Thus, the Project is not consistent with this measure.
Incorporate design measures to reduce energy consumption and increase use of renewable energy	Here, the IS/MND states that the "LADWP is required to commit to the use of renewable energy sources for compliance with the California Renewable Energy Resources Act" (p. B-62, B-79, B-120 Table B.8-6). The IS/MND goes on to state, "[w]ith respect to on-site renewable energy sources, because of the Project's location, there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydro, digester gas, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels" (p. B-80). However, while other locations may be "more suitable for large-scale solar power generation" and there may be a "lack of sufficient wind in the Los Angeles basin," the IS/MND fails to discuss potentially feasible options, such as small-scale solar generation or other sources (B-80). Furthermore, the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…15% of the roof area set aside for future solar panels" (emphasis added) (p. B-67-68). However, the IS/MND fails to require this measure, stating that measures *could include* rooftop solar panels. The IS/MND also fails to evaluate the measure's feasibility, or discuss the Project's potential to implement, monitor, and enforce it. As a result, the Project fails to comply with this measure.

Plant shade trees in or near construction projects where feasible.	Here, the IS/MND fails to mention planting shade trees during construction. Thus, the Project is not consistent with this measure.
Construct buildings to Leadership in Energy and Environmental Design (LEED) certified standards.	Here, the IS/MND fails to mention or consider constructing buildings to LEED standards. Thus, the Project is not consistent with this measure.
Measures – Transportation, Traffic and Safety	
Promote ride sharing programs e.g., by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to accommodate vans used for ride-sharing, and designating adequate passenger loading and unloading and waiting areas.	Here, the IS/MND states that "[s]pecific measures to be incorporated into the **Project to the extent feasible could include, but are not limited to**:…Provision of electric vehicle charging stations in the parking structure; 5% of total spaces will be designated for low emitting, fuel efficient and carpool/van pool vehicles" (emphasis added) (p. B-67-68). However, the IS/MND fails to require this measure, stating that measures *could include* designated parking for shared vehicles. The IS/MND also fails to evaluate the feasibility of this measure or the Project's potential to implement, monitor, and enforce this measure on the Project site. Finally, the IS/MND fails to mention designating passenger loading and unloading and waiting areas. Thus, the Project is not consistent with this measure.
Encourage bicycling to transit facilities by providing additional bicycle parking, locker facilities, and bike lane access to transit facilities when feasible.	Here, the IS/MND states that "S. Oxford Avenue contains a bike lane that extends from W. 3rd Street northwards. W. 7th Street contains a bike lane from S. Catalina Street eastwards" (p. B-238). The IS/MND goes on to state that "[t]he Project would provide residents and visitors with convenient access to public transit and opportunities for walking and biking, including the installation of bicycle parking spaces in accordance with LAMC requirements" (p. B-136). However, the IS/MND fails to evaluate the feasibility of this measure or the Project's potential to implement, monitor, and enforce this measure on the Project site. The IS/MND also fails to indicate that the Project would provide locker facilities and bike lane access to transit facilities. Thus, the Project is not consistent with this measure.
Encourage the use of public transit systems by • enhancing safety and cleanliness on vehicles and in and around stations • providing shuttle service to public transit	Here, the IS/MND states that "[t]he Project would provide residents and visitors with convenient access to public transit and opportunities for walking and biking" (p. B-136). However, the IS/MND fails to describe what specific measures the Project would incorporate to achieve this.

• offering public transit incentives • providing public education and publicity about public transportation services.	The IS/MND also fails to mention how the Project would enhance safety and cleanliness on vehicles and in and around stations, provide shuttle service to public transit, offer public transit incentives, or provide public education and publicity about public transportation services. Thus, the Project is not consistent with this measure.

As the above tables indicate, the IS/MND fails to provide sufficient information and analysis to determine Project consistency with various measures under CARB's Climate Change Scoping Plan and SCAG's 2016–2040 RTP/SCS. Thus, we cannot verify that "the Project is consistent with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs" as indicated in the IS/MND (p. B-139). As a result, we recommend that an updated CEQA evaluation include further information and analysis in order to conclude consistency for the proposed Project.

(5) Inconsistent with Evolving Scientific Knowledge and Regulatory Schemes

As a result of reliance upon CARB's Climate Change Scoping Plan, SCAG's 2016–2040 RTP/SCS, the City's LA Green Plan, and the Sustainable City pLAn, the IS/MND fails to compare the Project's GHG emissions to correct SCAQMD thresholds. As explained below, consistent with CEQA Guidelines, the SCAQMD's interim thresholds should have been used by the IS/MND to evaluate the Project's GHG impact. It is commonly recognized by California air districts that a project's impact on climate change is cumulative in nature.[35] According to the Technical Advisory prepared by the Office of Planning and Research

[35] *See e.g.,* SCAQMD (Oct. 2008), *supra* fn. 28, p. 1-4-5 (citing the OPR Technical Advisor: "When assessing whether a project's effects on climate change are 'cumulatively considerable' even though its GHG contribution may be individually limited, the lead agency must consider the impact of the project when viewed in connection with the effects of past, current, and probable future projects."), http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf; Bay Area Air Quality Management District ("BAAQMD") (May 2017) CEQA Air Quality Guidelines, p. 2-1 ("No single project could generate enough GHG emissions to noticeably change the global average temperature [but rather] [t]he combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts."), http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en; San Luis Obispo County Air Pollution Control District ("SLOAPCD") (Mar. 28, 2012) GHG Threshold and Supporting Evidence, p. 5 ("No single land use project could generate enough GHG emissions to noticeably change the global average temperature. Cumulative GHG emissions, however, contribute to global climate change and its significant adverse environmental impacts. Thus, the primary goal in adopting GHG significance thresholds, analytical methodologies, and mitigation measures is to ensure new land use development provides its fair share of the GHG reductions needed to address cumulative environmental impacts from those emissions.), https://storage.googleapis.com/slocleanair-org/images/cms/upload/files/Greenhouse%20Gas%20Thresholds%20and%20Supporting%20Evidence%204-2-2012.pdf; Sacramento Metropolitan Air Quality Management District ("SMAQMD") (May 2018) Guide to Air Quality Assessment in Sacramento County, p. 6-1-3, ("(GHG) emissions adversely affect the environment through contributing, on a cumulative basis, to global climate change … *the District recommends that lead agencies address the impacts of climate change on a proposed project and its ability to adapt to these changes in CEQA documents*… [thus urging] evaluating whether the GHG emissions associated with a proposed project will be responsible for making a cumulatively considerable contribution to global climate change."[emphasis original]), http://www.airquality.org/LandUseTransportation/Documents/Ch6GHGFinal5-2018.pdf.

("OPR"), "[t]he potential effects of a project may be individually limited but cumulatively considerable[]" and that "[l]ead agencies should not dismiss a proposed project's direct and/or indirect climate change impacts without careful consideration, supported by substantial evidence … [including] analysis should be provided for any project that may significantly contribute to new GHG emissions, either individually or cumulatively, directly or indirectly."[36] Furthermore, OPR rightfully acknowledge, consistent with state regulatory schemes and CEQA case law, that "thresholds cannot be used to determine automatically whether a given effect will or will not be significant; instead, thresholds of significance can be used only as a measure of whether a certain environmental effect will normally be determined to be significant or normally will be determined to be less than significant by the agency."[37] Recognizing this principle, CEQA Guidelines 15064.7(c) permits the use of thresholds developed by other public agencies.

Similarly, the California Supreme Court has made clear that CEQA demands robust GHG analysis to assess a project's impact on climate change, and while lead agencies have discretion, that discretion must be exercised "based to the extent possible on scientific and factual data" and "stay[ing] in step with evolving scientific knowledge and state regulatory schemes." *Cleveland National Forest Foundation v. San Diego Assn. of Governments* ("*Cleveland II*") (2017) 3 Cal.5th 497, 504, 515, 518 (quoting CEQA Guidelines § 15064(b)); *see also* 519 (noting to meet the State's long-term climate goals, "regulatory clarification, together with improved methods of analysis, may well change the manner in which CEQA analysis of long-term [GHG] emission impacts is conducted."). Hence, a GHG analysis which "understates the severity of a project's impacts impedes meaningful public discussion and skews the decision maker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of project approval." *Id*., on remand ("*Cleveland III*"), 17 Cal.App.5th 413, 444; *see also Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564 (quoting *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 392).

SCAQMD's multi-tiered approach under its *Interim Threshold* was not officially adopted as a valid threshold or part of a plan "adopted by the relevant public agency through a public review process" as CEQA requires.[38] Moreover, SCAQMD developed its thresholds when AB 32 was the governing statute for GHG reductions in California. AB 32 requires California to reduce GHG emissions to 1990 levels by 2020. Health & Saf. Code § 38500 *et seq*. However, in September 2016, before the release of the IS/MND, Governor Brown signed Senate Bill 32, enacting Health & Saf. Code § 38566. This statute ("SB 32") requires California to achieve a new, more aggressive 40 percent reduction in GHG emissions over the 1990 level by the end of 2030.

Consistent with the edicts of SB 32, other air control districts have adopted more aggressive GHG thresholds for project-level analysis, including but not limited to the Sacramento Metropolitan Air Quality Management District (SMAQMD), the Bay Area Air Quality Management District (BAAQMD), and

---

[36] OPR (June 19, 2008) Technical Advisory on CEQA and Climate Change, p. 6, http://opr.ca.gov/docs/june08-ceqa.pdf.

[37] OPR (Nov. 2017) Proposed Updates to the CEQA Guidelines, p. 7 (citing CEQA Guidelines §§ 15064 and 15064.7 and *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-1109), http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf.

[38] SCAQMD (Dec. 5, 2008), *supra* fn. 50, p. 3.

the San Luis Obispo Air Pollution Control District (SLOAPCD) (as summarized in the tables below). Given the cumulative nature of GHG emissions and consistent with CEQA Guidelines § 15064.7(c), these recommended thresholds are appropriate for projects in the SCAQMD regions.

SMAQMD (May 2018) Guide to Air Quality Assessment[39]

Land Development and Construction Projects		
	Construction Phase	Operational Phase
Greenhouse Gas Emissions (GHG) Thresholds		
GHG as CO2e	1,100 metric tons/year	1,100 metric tons/year

Stationary Source Only		
	Construction Phase	Operational Phase
Greenhouse Gas Emissions (GHG) Thresholds		
GHG as CO2e	1,100 metric tons/year	10,000 metric tons/year

1) Construction phase of all project types – 1,100 MT CO_2e/yr.
2) Operational phase of a land development project – 1,100 MT CO_2e/yr (noting a 72-room hotel and a 122-unit high-rise apartment building would each be equivalent to the 1,100 MT CO_2e/yr threshold).[40]
3) Stationary source operational emissions – 10,000 MT CO_2e/yr.

BAAQMD (May 2017) CEQA Air Quality Guidelines[41]

GHGs – Projects other than Stationary Sources	Compliance with Qualified GHG Reduction Strategy OR 1,100 MT of CO_2e/yr OR 4.6 MT CO_2e/SP/yr (residents+employees)
GHGs –Stationary Sources	10,000 MT/yr

While providing 10,000 MT CO_2e/yr for stationary-source projects, other projects (e.g., residential, commercial, public land uses):

1) CAP: Compliance with a qualified GHG Reduction Strategy; or
2) Bright Line: Annual emissions less than 1,100 MT CO_2e/year; or
3) Efficiency Level: 4.6 MT CO_2e/SP/year (residents + employees). [42]

---

[39] SMAQMD (May 2018), *supra* fn. 50, p. 6-10-12; *see also* SMAQMD Thresholds of Significance Table, http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable5-2015.pdf.

[40] SMAQMD (Apr. 2018) SMAQMD Operational Screening Levels (showing that a 190-room hotel like Option A or a 160-unit high-rise apartment like Option B would exceed the 72-room and 122-unit thresholds), http://www.airquality.org/LandUseTransportation/Documents/Ch4+Ch6OperationalScreening4-2018.pdf.

[41] BAAQMD (May 2017), *supra* fn. 50, p. 2-2-4. Like the SCAQMD area, BAAQMD is designated as a nonattainment area for state/national ozone and particulate matter (PM) and thresholds would seem particularly apt for the 5th and Hill Project. *Compare id*. at p. 2-1 *with* SCAQMD NAAQS/CAAQS Attainment Status (noting "extreme" and "serious" nonattainment for multiple ozone and PM standards), http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf.

[42] The BAAQMD has not formally adopted an efficiency level after 2020. However, other projects within BAAQMD's jurisdiction have extrapolated 2030 efficiency thresholds in order to comply with SB 32 reduction targets. For example, the Park View Towers Project's Addendum to the Final Supplemental Environmental Impact Report utilizes a 2030 efficiency threshold of 2.6 MT CO_2e/year. Based on this efficiency threshold, the proposed Project would exceed threshold and result in a significant impact. Park View Tower's Addendum available at: http://www.sanjoseca.gov/DocumentCenter/View/80743

SLOAPCD (Mar. 2012) GHG Thresholds and Supporting Evidence[43]

GHG Emissions Threshold Summary	
Residential and Commercial Projects	Compliance with Qualified GHG Reduction Strategy OR Bright-Line Threshold of 1,150 MT of CO_2e/yr. OR Efficiency Threshold of 4.9 MT CO_2e/SP*/yr.
Industrial (Stationary Sources)	10,000 MT of CO_2e/yr.

1) CAP: Consistency with qualitative reduction strategies (e.g., Climate Action Plans).
2) Bright-Line Threshold: 1,150 MT CO_2e/year after inclusion of emission-reducing features of a proposed project, those still exceeding the threshold would have to reduce their emissions below that level to be considered less than significant.
3) Efficiency-Based Threshold: 4.9 MT CO_2e/SP/year dependent on per capita basis for residential projects or the sum of jobs and residents for mixed-use projects (noting 0.64 employees per 1,000 SF of hotel development).

Although more demanding, the above-listed thresholds adopted by these air districts are analogous with the application of SCAQMD's screening threshold for mixed-use developments (3,000 MT CO_2e/year) and SCAQMD's Tier 4 efficiency target goals (4.8 MTCO_2e/SP/year for target year 2020 and 3.0 MTCO_2e/SP/year for target year 2035).[44] The actions taken by other air districts to reduce GHG emissions through more stringent thresholds is the most persuasive rationale as to why the *Interim Thresholds* apply as the current standard set of evolving scientific knowledge and regulatory schemes. Even though the SCAQMD's interim thresholds may be outdated and may not be officially adopted, they are consistent with the methods of analysis that are regularly practiced by other air districts and furthers CEQA's demand for "'conservative analysis' to afford 'fullest possible protection of the environment.'"[45] Hence, the IS/MND's GHG analysis is not consistent with evolving standards, nor is the conclusion that the Project has a less than significant GHG impact supported by substantial evidence.

[43] SLOAPCD (Mar. 28, 2012), supra fn. 50, p. 25-30, 42.
[44] See SCAQMD (Dec. 5, 2008) Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2; *see also* SCAQMD (Oct. 2008) Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf; SCAQMD (Sep. 28, 2010) Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group # 15, http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf.
[45] "Warehouse Truck Trip Study Data Results and Usage Presentation: Inland Empire Logistics Council." SCAQMD, June 2014, http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/final-ielc_6-19-2014.pdf?sfvrsn=2, p. 3; *see also Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 390 ("The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.") (internal citations omitted).

(6) Incorrect and Unsubstantiated Air Model Demonstrate a Potentially Significant Impact

Notwithstanding the IS/MND CalEEMod's underestimated emissions, as discussed above, the Project's CalEEMod output files demonstrate that the Project would result in a potentially significant GHG impact.

The IS/MND's CalEEMod output files demonstrate that the Project's mitigated emissions include roughly 8,699 MT CO_2e/yr (amortized construction and operational emissions). When we compare the Project's GHG emissions to the 3,000 MT CO_2e/year mixed-use threshold (SCAQMD Tier 3 Option #1), we find that the Project's GHG emissions exceed the threshold (see table below).

IS/MND Annual Greenhouse Gas Emissions	
Project Phase	**Proposed Project (MT CO_2e/year)**
Construction (amortized over 30 years)	139.8
Area	11.1
Energy	4,530.7
Mobile	3,281.0
Waste	190.1
Water	546.0
Total	**8,698.7**
Threshold	3,000
Exceed?	***Yes***

As demonstrated in the table above, the proposed Project, even when modeled with underestimated emissions, would exceed the SCAQMD's 3,000 MT CO_2e/yr mixed-use threshold. Hence, a service population analysis is warranted. According to CAPCOA's *CEQA & Climate Change* report, service population is defined as "the sum of the number of residents and the number of jobs supported by the project."[46] According to the IS/MND, the Project would require 50 employees (p. B-35). According to the IS/MND's CalEEMod model, the residential land use would house 1,830 people. Thus, we estimate a service population of 1,880.[47] Dividing the Project's GHG emissions by a service population of 1,880 people, we find that the Project would emit approximately 4.63 MT CO_2e/SP/yr (see table below).[48]

IS/MND Service Population Efficiency Analysis	
Project Phase	**Proposed Project (MT CO_2e/year)**
Total	**8,698.67**
Service Population	1,880

[46] CAPCOA (Jan. 2008) CEQA & Climate Change, p. 71-72, http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf.
[47] Calculated: 50 employees + 1,830 residents = 1,880 service population.
[48] Calculated: (8,698.7 MT CO_2e/year) / (1,880 service population) = (4.63 MT CO_2e/SP/year)

Service Population Efficiency	4.63
Threshold	3.00
Exceed?	***Yes***

When we compare the Project's per service population GHG emissions to the SCAQMD 2035 efficiency target of 3.0 MT CO_2e/SP/yr, we find that the Project would result in a significant GHG impact not previously identified or addressed by the IS/MND. According to CEQA Guidelines § 15064.4(b), if there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, a full CEQA analysis must be prepared for the project. Therefore, an updated CEQA analysis must be prepared for the Project, and mitigation should be implemented where necessary, per CEQA Guidelines.

(7) Updated Analysis Demonstrates a Potentially Significant GHG Impact

Applicable thresholds and site-specific modeling demonstrate that the proposed Project would result in a potentially significant GHG impact not previously identified or addressed by the IS/MND. The updated CalEEMod output files, modeled by SWAPE with Project-specific information, disclose the Project's mitigated emissions, which include approximately 7,667 MT CO_2e of total construction emissions (sum of 2022, 2023, 2024, 2025, and 2026) and approximately 9,247 MT CO_2e/yr of annual operational emissions (sum of area, energy, mobile, waste, and water-related emissions). When we compare the Project's GHG emissions to the 3,000 MT CO_2e/yr mixed-use threshold (SCAQMD Tier 3 Option #1), we find that the Project's GHG emissions exceed the threshold (see table below).

SWAPE Annual Greenhouse Gas Emissions	
Project Phase	**Proposed Project (MT CO_2e/year)**
Construction (amortized over 30 years)	255.6
Area	11.1
Energy	4,530.7
Mobile	3,968.9
Waste	190.1
Water	546.0
Total	**9,502.4**
Threshold	3,000
Exceed?	***Yes***

As demonstrated in the table above, the proposed Project would exceed the SCAQMD's 3,000 MT CO_2e/yr mixed-use threshold. Hence, a service population analysis is warranted. When dividing the Project's GHG emissions (amortized construction + operational) by a service population value of 1,880 people, we find that the Project would emit approximately 5.05 MT CO_2e/SP/yr.[49] This exceeds the

[49] Calculated: (9,502 MT CO_2e/year) / (1,880 service population) = (5.05 MT CO_2e/SP/year).

SCAQMD 2035 efficiency target of 3.0 MT CO_2e/SP/yr and the inapplicable SCAQMD 2020 threshold of 4.8 MT CO_2e/SP/yr (see table below).

SWAPE Service Population Efficiency Analysis	
Project Phase	**Proposed Project (MT CO_2e/yr)**
Total	**9502.37**
Service Population	1880.00
Service Population Efficiency	**5.05**
Threshold	3.00
Exceed?	***Yes***

As the table above demonstrates, the Project's GHG emissions exceed the SCAQMD's 2035 service population efficiency threshold of 3.0 MT CO_2e/SP/yr, thus resulting in a significant impact not previously assessed or identified in the IS/MND. Thus, an updated GHG analysis should be prepared in a Project-specific EIR and additional mitigation should be incorporated accordingly (see below).

Feasible Mitigation Measures Available to Reduce Construction Emissions

Our analysis demonstrates that, when Project activities are modeled correctly, the Project's health risk and GHG impacts would be potentially significant. Therefore, additional mitigation measures must be identified and incorporated in an IS/MND to reduce these emissions to a less than significant level.

Additional mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures,* which attempt to reduce GHG levels, as well as reduce criteria air pollutants such as particulate matter, VOCs, and NO_x.[50] Mitigation for criteria pollutant emissions should include consideration of the following measures in an effort to reduce construction emissions.[51]

Require Implementation of Diesel Control Measures

The Northeast Diesel Collaborative (NEDC) is a regionally coordinated initiative to reduce diesel emissions, improve public health, and promote clean diesel technology. The NEDC recommends that contracts for all construction projects require the following diesel control measures: [52]

- All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85 percent.

[50] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[51] For measures to reduce operational DPM emissions, see section titled "Additional Feasible Mitigation Measures Available to Reduce Operational Emissions" on p. 42 of this letter. These measures would effectively reduce operational emissions, DPM emissions, and GHG emissions.

[52] Diesel Emission Controls in Construction Projects, *available at:* http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf

- All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[53] approved by the original engine manufacturer with sulfur content of 15 parts per million (ppm) or less.

Repower or Replace Older Construction Equipment Engines

The NEDC recognizes that availability of equipment that meets the EPA's newer standards is limited.[54] Due to this limitation, the NEDC proposes actions that can reduce emissions from existing equipment in the *Best Practices for Clean Diesel Construction* report.[55] These actions include but are not limited to:

- Repowering equipment (i.e. replacing older engines with newer, cleaner engines and leaving the body of the equipment intact).

Engine repower may be a cost-effective emissions reduction strategy when a vehicle or machine has a long useful life and the cost of the engine does not approach the cost of the entire vehicle or machine. Examples of good potential replacement candidates include marine vessels, locomotives, and large construction machines.[56] Older diesel vehicles or machines can be repowered with newer diesel engines or in some cases with engines that operate on alternative fuels. The original engine is taken out of service and a new engine with reduced emission characteristics is installed. Significant emission reductions can be achieved, depending on the newer engine and the vehicle or machine's ability to accept a more modern engine and emission control system.

- Replacement of older equipment with equipment meeting the latest emission standards.

Engine replacement can include substituting a cleaner highway engine for a nonroad engine. Diesel equipment may also be replaced with other technologies or fuels. Examples include hybrid switcher locomotives, electric cranes, LNG, CNG, LPG or propane yard tractors, forklifts or loaders. Replacements often require some re-engineering work due to differences in size and configuration. Typically, there are benefits in fuel efficiency, reliability, warranty, and maintenance costs.[57]

Install Retrofit Devices on Existing Construction Equipment

PM emissions from alternatively-fueled construction equipment can be further reduced by installing retrofit devices on existing and/or new equipment. The most common retrofit technologies are retrofit devices for engine exhaust after-treatment. These devices are installed in the exhaust system to reduce

---

[53] Biodiesel blends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf

[54] https://www.northeastdiesel.org/pdf/construction/BestPractices4CleanDieselConstructionAug2012.pdf

[55] https://www.northeastdiesel.org/pdf/construction/BestPractices4CleanDieselConstructionAug2012.pdf

[56] Repair, Rebuild, and Repower, EPA, *available at:*https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#repair

[57] Cleaner Fuels, EPA, *available at:*https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#cleaner

emissions and should not impact engine or vehicle operation. [58] It should be noted that actual emissions reductions and costs will depend on specific manufacturers, technologies and applications.

Use Electric and Hybrid Construction Equipment

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[59] report also proposes the use of electric and/or hybrid construction equipment to mitigate DPM emissions. When construction equipment is powered by grid electricity rather than fossil fuel, direct emissions from fuel combustion are replaced with indirect emissions associated with the electricity used to power the equipment. When construction equipment is powered by hybrid-electric drives, emissions from fuel combustion are also greatly reduced. Electric construction equipment is available commercially from companies such as Peterson Pacific Corporation,[60] which specialize in mechanical processing equipment like grinders and shredders. Equipment powered by hybrid-electric drives is commercially available from companies such as Caterpillar.[61] For example, Caterpillar reports that during an 8-hour shift, its D7E hybrid dozer burns 19.5 percent fewer gallons of fuel than a conventional dozer while achieving a 10.3 percent increase in productivity. The D7E model burns 6.2 gallons per hour compared to a conventional dozer which burns 7.7 gallons per hour.[62] Fuel usage and savings are dependent on the make and model of the equipment.

Implement a Construction Vehicle Inventory Tracking System

CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures*[63] report recommends that the Project Applicant provide a detailed plan that discusses a construction vehicle inventory tracking system to ensure compliances with construction mitigation measures. The system should include strategies such as requiring engine run time meters on equipment, documenting the serial number, horsepower, manufacture age, fuel, etc. of all onsite equipment and daily logging of the operating hours of the equipment. Specifically, for each on-road construction vehicle, nonroad construction equipment, or generator, the contractor should submit to the developer's representative a report prior to bringing said equipment on site that includes:[64]

- Equipment type, equipment manufacturer, equipment serial number, engine manufacturer, engine model year, engine certification (Tier rating), horsepower, and engine serial number.
- The type of emission control technology installed, serial number, make, model, manufacturer, and EPA/CARB verification number/level.

---

[58] Retrofit Technologies, EPA, *available at:*https://www.epa.gov/verified-diesel-tech/learn-about-verified-technologies-clean-diesel#retrofit

[59]http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[60] Peterson Electric Grinders Brochure, *available at:*http://www.petersoncorp.com/wp-content/uploads/peterson_electric_grinders1.pdf

[61] Electric Power Products, *available at:*http://www.cat.com/en_US/products/new/power-systems/electric-power-generation.html

[62]http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[63]http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

[64] Diesel Emission Controls in Construction Projects, *available at:*http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf

- The Certification Statement[65] signed and printed on the contractor's letterhead.

Furthermore, the contractor should submit to the developer's representative a monthly report that, for each on-road construction vehicle, nonroad construction equipment, or generator onsite, includes: [66]

- Hour-meter readings on arrival on-site, the first and last day of every month, and off-site date.
- Any problems with the equipment or emission controls.
- Certified copies of fuel deliveries for the time period that identify: source of supply, quantity of fuel, and quantity of fuel (including sulfur content as percent by weight).

Enhanced Exhaust Control Practices

In addition, we also recommend that the Project implement the following mitigation measures that are recommended by the Sacramento Metropolitan Air Quality Management District ("SMAQMD")[67]:

1. The project representative shall submit to the lead agency a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that will be used an aggregate of 40 or more hours during any portion of the construction project.
    - The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment.
    - The project representative shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman.
    - This information shall be submitted at least 4 business days prior to the use of subject heavy-duty off-road equipment.
    - The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs.
2. The project representative shall provide a plan for approval by the lead agency demonstrating that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20% NOX reduction and 45% particulate reduction compared to the most recent California Air Resources Board (ARB) fleet average.
    - This plan shall be submitted in conjunction with the equipment inventory.
    - Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available.
    - The District's Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction.

---

[65] Diesel Emission Controls in Construction Projects, *available at:*http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf The NEDC Model Certification Statement can be found in Appendix A.

[66] Diesel Emission Controls in Construction Projects, *available at:*http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf

[67]http://www.airquality.org/ceqa/Ch3EnhancedExhaustControl_10-2013.pdf

3. The project shall ensure that emissions from all off-road diesel-powered equipment used on the project site do not exceed 40% opacity for more than three minutes in any one hour.
    - Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment will be documented and a summary provided to the lead agency monthly.
    - A visual survey of all in-operation equipment shall be made at least weekly.
    - A monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey.
4. The District and/or other officials may conduct site inspections to determine compliance.

Use of Spray Equipment with Greater Transfer Efficiencies

Various coatings and adhesives are required to be applied by specified methods such as electrostatic spray, high-volume, low-pressure (HVLP) spray, roll coater, flow coater, dip coater, etc. in order to maximize the transfer efficiency. Transfer efficiency is defined as the ratio of the weight of coating solids adhering to an object to the total weight of coating solids used in the application process, expressed as a percentage. For spray applications, the rules typically require the use of either electrostatic spray equipment or HVLP spray equipment. Specifically, the SCAQMD has been able to certify HVLP spray applicators and other application technologies at efficiency rates of 65 percent or greater.[68] Thus, a revised CEQA evaluation should consider this measure to reduce air quality impacts.

These measures offer a cost-effective, feasible way to incorporate lower-emitting equipment into the Project's construction fleet, which reduces construction emissions. A revised CEQA evaluation should be prepared to include additional mitigation, as well as include an updated air quality analysis that ensures the necessary mitigation measures are implemented. The revised CEQA evaluation should also demonstrate a commitment to the implementation of these measures prior to Project approval to ensure that construction-related emissions are reduced to the maximum extent possible.

Feasible Mitigation Measures Available to Reduce Operational Emissions

In an effort to reduce the Project's operational emissions, we identified several mitigation measures that are applicable to the Project. Feasible mitigation measures can be found in CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures,* which attempt to reduce emissions.[69] Therefore, to reduce the Project's operational emissions, consideration of the following measures should be made:

- Integrate affordable and below market rate housing
- Energy-related mitigation:
    - Install programmable thermostat timers
    - Establish onsite renewable energy systems, including solar power and wind power
    - Limit outdoor lighting requirements

[68] http://www.aqmd.gov/home/permits/spray-equipment-transfer-efficiency
[69] http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

    - Reduce unnecessary outdoor lighting by utilizing design features such as limiting the hours of operation of outdoor lighting.
    - Provide education on energy efficiency to residents, customers, and/or tenants. Provide information on energy management services for large energy users.
    - Meet "reach" goals for building energy efficiency and renewable energy use.
    - Limit the use of outdoor lighting to only that needed for safety and security purposes.
    - Require use of electric or alternatively fueled sweepers with HEPA filters.
    - Include energy storage where appropriate to optimize renewable energy generation systems and avoid peak energy use.
    - Prohibit gas powered landscape equipment and implement electric yard equipment
- Transportation-related mitigation:
    - Provide EV parking
    - Require residential area parking permits
    - Implement ride-sharing, vanpool, shuttle, bike-sharing programs
    - Provide bike parking near transit
    - Provide local shuttles
    - Implement area or cordon pricing
    - Install a park-and-ride lot
- Water-related mitigation:
    - Install an infiltration basin to provide an opportunity for 100% of the storm water to infiltrate on-site.
    - Install a system to reutilize gray water
    - Use locally-sourced water supply
    - Plant native and drought-resistant trees and vegetation
- Develop and follow a "green streets guide" that requires:
    - Use of minimal amounts of concrete and asphalt;
    - Use of groundcovers rather than pavement to reduce heat reflection.[70]
- Implement Project design features such as:
    - Shade HVAC equipment from direct sunlight;
    - Install high-albedo white thermoplastic polyolefin roof membrane;
    - Install formaldehyde-free insulation; and
    - Use recycled-content gypsum board.
    - Require all buildings to become "LEED" and "WELL" certified.
- Plant low-VOC emitting shade trees, e.g., in parking lots to reduce evaporative emissions from parked vehicles.

[70] Cool Houston Plan; http://www.harcresearch.org/sites/default/files/documents/projects/CoolHoustonPlan_0.pdf

Finally, the Kimball Business Park Project Final Environmental Impact Report includes various feasible mitigation measures that would reduce on-site area emissions that are applicable to the proposed Project's retail land use, and include, but are not limited to:[71]

- Increase in insulation such that heat transfer and thermal bridging is minimized.
- Limit air leakage through the structure/within the heating and cooling distribution system.
- Installation of dual-paned or other energy efficient windows.
- Installation of automatic devices to turn off lights where they are not needed.

These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduces emissions released during Project operation. A revised CEQA evaluation should be prepared to include additional mitigation measures, as well as include an updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised CEQA evaluation should also demonstrate commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

[71] Mitigation Monitoring Plan for the Kimball Business Park Project Final Environmental Impact Report, July 2016.

Start date and time 04/14/20 12:43:23

AERSCREEN 16216

3440 Wilshire Construction

3440 Wilshire Construction

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.123E-02 g/s	0.977E-02 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	182.50 meters	598.75 feet
Area Source Width:	161.00 meters	528.22 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	3990000	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2020.04.14_3440Wilshire_Construction.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

****

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 04/14/20 12:47:05

****

Running AERMOD

Processing Winter

Processing surface roughness sector 1

```
**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  40

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector  10
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  45


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************


  Running AERMOD

 Processing Spring


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20


    ********   WARNING MESSAGES   ********
```

```
               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  40

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector  10

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  45

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 ****************************************

  Running AERMOD
 Processing Summer

Processing surface roughness sector  1

**************************************************

Processing wind flow sector   1
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   8


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  35


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   9


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  40


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector  10


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  45
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   9
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector  10

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  45

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

FLOWSECTOR   ended 04/14/20 12:47:22

REFINE       started 04/14/20 12:47:22

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

REFINE       ended 04/14/20 12:47:24
```

****

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

****

Ending date and time 04/14/20 12:47:25

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.97582E+00         1.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10648E+01        25.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11561E+01        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12336E+01        75.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13019E+01       100.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.13097E+01       103.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11610E+01       125.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79891E+00       150.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.61151E+00       175.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.50071E+00       200.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42521E+00       225.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36990E+00       250.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32680E+00       275.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29210E+00       300.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26364E+00       325.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23992E+00       350.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.21964E+00       375.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20234E+00       400.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18720E+00       425.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17397E+00       450.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16229E+00       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15182E+00       500.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14251E+00       525.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13410E+00       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12659E+00       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11969E+00       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11344E+00       625.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10775E+00       650.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10251E+00       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.97725E-01       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93277E-01       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89180E-01       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85398E-01       775.00      0.00   0.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.81862E-01   800.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.78583E-01   825.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.75524E-01   850.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.72676E-01   875.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.69989E-01   900.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.67472E-01   925.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.65113E-01   950.01   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.62891E-01   975.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.60796E-01   1000.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.58815E-01   1025.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.56955E-01   1050.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.55198E-01   1075.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.53527E-01   1100.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.51937E-01   1125.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.50428E-01   1150.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.48995E-01   1175.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.47628E-01      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.46316E-01      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45066E-01      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.43879E-01      1275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42748E-01      1300.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.41667E-01      1325.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40632E-01      1350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39635E-01      1375.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38680E-01      1400.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37765E-01      1425.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36887E-01      1450.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36044E-01      1475.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35234E-01      1500.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34457E-01      1525.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33708E-01      1550.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32988E-01      1575.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32295E-01      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.31629E-01      1625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30986E-01      1650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30364E-01      1675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29762E-01      1700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29180E-01      1725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28618E-01      1750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28074E-01      1775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27545E-01      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27033E-01      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26538E-01      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26058E-01      1875.01      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25595E-01      1900.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25144E-01      1924.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24709E-01      1950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24287E-01      1975.01      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23877E-01      2000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23481E-01      2025.00      0.00  15.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.23095E-01   2050.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.22720E-01   2075.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.22355E-01   2100.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21999E-01   2125.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21652E-01   2150.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.21315E-01   2175.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20987E-01   2200.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20667E-01   2224.99   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20356E-01   2250.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.20053E-01   2275.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19757E-01   2300.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19469E-01   2325.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.19188E-01   2350.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.18914E-01   2375.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.18646E-01   2400.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.18386E-01   2425.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.18133E-01      2450.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17885E-01      2475.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17642E-01      2500.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17406E-01      2525.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17174E-01      2550.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16948E-01      2575.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16727E-01      2600.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16511E-01      2625.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16300E-01      2650.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.16094E-01      2675.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15893E-01      2700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15696E-01      2725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15503E-01      2750.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15426E-01      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15238E-01      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15054E-01      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14873E-01      2850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.14696E-01      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14523E-01      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14353E-01      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14187E-01      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.14024E-01      2975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13865E-01      3000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13708E-01      3025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13554E-01      3050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13404E-01      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13256E-01      3100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13111E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12969E-01      3150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12829E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12692E-01      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12558E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12426E-01      3250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.12296E-01      3275.00      0.00   0.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12169E-01   3300.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12044E-01   3325.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11921E-01   3350.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11800E-01   3375.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11681E-01   3400.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11565E-01   3425.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11450E-01   3450.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11338E-01   3475.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11227E-01   3500.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11118E-01   3525.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11011E-01   3550.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10906E-01   3575.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10802E-01   3600.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10701E-01   3625.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10600E-01   3650.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.10502E-01   3675.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.10405E-01      3700.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10309E-01      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10216E-01      3750.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10123E-01      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10032E-01      3800.00      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.99423E-02      3825.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98541E-02      3849.99      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.97672E-02      3875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96816E-02      3900.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95973E-02      3925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95143E-02      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.94325E-02      3975.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93519E-02      4000.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.92726E-02      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91943E-02      4050.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91172E-02      4074.99      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.90412E-02      4100.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.89663E-02      4125.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.88925E-02      4149.99      0.00  20.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.88197E-02      4175.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87480E-02      4200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.86772E-02      4225.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.86075E-02      4249.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85387E-02      4275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.84708E-02      4300.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.84039E-02      4325.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83379E-02      4349.99      0.00  45.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82728E-02      4375.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.82085E-02      4400.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.81451E-02      4425.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80826E-02      4449.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.80209E-02      4475.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79600E-02      4500.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.78998E-02      4525.00      0.00  10.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.78405E-02   4550.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.77820E-02   4575.00   0.00 20.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.77242E-02   4599.99   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.76671E-02   4625.00   0.00 25.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.76107E-02   4650.00   0.00 20.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.75551E-02   4674.99   0.00 45.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.75002E-02   4700.00   0.00 35.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.74460E-02   4725.00   0.00 25.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.73924E-02   4750.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.73395E-02   4774.99   0.00 45.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.72872E-02   4800.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.72356E-02   4825.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.71847E-02   4850.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.71343E-02   4875.00   0.00 25.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.70846E-02   4900.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.70354E-02   4924.99   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.69868E-02      4950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69389E-02      4975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68914E-02      5000.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

Start date and time 04/14/20 12:47:46

AERSCREEN 16216

3440 Wilshire Operation

3440 Wilshire Operation

---------- DATA ENTRY VALIDATION ----------

	METRIC	ENGLISH
** AREADATA **	---	---
Emission Rate:	0.277E-02 g/s	0.220E-01 lb/hr
Area Height:	3.00 meters	9.84 feet
Area Source Length:	182.50 meters	598.75 feet
Area Source Width:	161.00 meters	528.22 feet
Vertical Dimension:	1.50 meters	4.92 feet
Model Mode:	URBAN	
Population:	3990000	
Dist to Ambient Air:	1.0 meters	3. feet

** BUILDING DATA **

No Building Downwash Parameters

** TERRAIN DATA **

No Terrain Elevations

Source Base Elevation: 0.0 meters 0.0 feet

Probe distance: 5000. meters 16404. feet

No flagpole receptors

No discrete receptors used

** FUMIGATION DATA **

No fumigation requested

** METEOROLOGY DATA **

Min/Max Temperature: 250.0 / 310.0 K -9.7 / 98.3 Deg F

Minimum Wind Speed: 0.5 m/s

Anemometer Height: 10.000 meters

Dominant Surface Profile: Urban

Dominant Climate Type: Average Moisture

Surface friction velocity (u*): not adjusted

DEBUG OPTION ON

AERSCREEN output file:

2020.04.14_3440Wilshire_Operational.out

*** AERSCREEN Run is Ready to Begin

No terrain used, AERMAP will not be run

****

SURFACE CHARACTERISTICS & MAKEMET

Obtaining surface characteristics...

Using AERMET seasonal surface characteristics for Urban with Average Moisture

Season	Albedo	Bo	zo
Winter	0.35	1.50	1.000
Spring	0.14	1.00	1.000
Summer	0.16	2.00	1.000
Autumn	0.18	2.00	1.000

Creating met files aerscreen_01_01.sfc & aerscreen_01_01.pfl

Creating met files aerscreen_02_01.sfc & aerscreen_02_01.pfl

Creating met files aerscreen_03_01.sfc & aerscreen_03_01.pfl

Creating met files aerscreen_04_01.sfc & aerscreen_04_01.pfl

Buildings and/or terrain present or rectangular area source, skipping probe

FLOWSECTOR started 04/14/20 12:48:47

****

Running AERMOD

Processing Winter

Processing surface roughness sector 1

```
**************************************************

Processing wind flow sector   1

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  40

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector  10
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Winter sector  45


    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 *****************************************


  Running AERMOD

 Processing Spring


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector   5
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   3


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  10


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   4


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  15


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   5


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  20


    ********   WARNING MESSAGES   ********
```

```
               ***  NONE  ***

**************************************************
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   9

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  40

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************

Processing wind flow sector  10

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Spring sector  45

    ********   WARNING MESSAGES   ********
               ***  NONE  ***
 ****************************************

  Running AERMOD
 Processing Summer

Processing surface roughness sector  1

**************************************************

Processing wind flow sector   1
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   2

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector   5

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  25

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  30
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   8


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  35


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   9


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  40


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector  10


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Summer sector  45
```

```
    ********   WARNING MESSAGES   ********

               ***  NONE  ***

 ****************************************


  Running AERMOD

 Processing Autumn


Processing surface roughness sector  1


**************************************************

Processing wind flow sector   1


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   0


    ********   WARNING MESSAGES   ********

               ***  NONE  ***


**************************************************

Processing wind flow sector   2


 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector   5


    ********   WARNING MESSAGES   ********

               ***  NONE  ***
```

```
**************************************************

Processing wind flow sector   3

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  10

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   4

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  15

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************

Processing wind flow sector   5

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  20

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
```

```
Processing wind flow sector   6

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  25

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   7

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  30

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   8

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  35

    ********   WARNING MESSAGES   ********
               ***  NONE  ***

**************************************************
Processing wind flow sector   9
```

```
 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  40

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

**************************************************
Processing wind flow sector  10

 AERMOD Finishes Successfully for FLOWSECTOR stage 2 Autumn sector  45

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

FLOWSECTOR   ended 04/14/20 12:49:04

REFINE       started 04/14/20 12:49:04

 AERMOD Finishes Successfully for REFINE stage 3 Winter sector   0

    ********   WARNING MESSAGES   ********

               ***  NONE  ***

REFINE       ended 04/14/20 12:49:05
```

****

AERSCREEN Finished Successfully

With no errors or warnings

Check log file for details

****

Ending date and time 04/14/20 12:49:07

```
 Concentration     Distance Elevation  Diag  Season/Month   Zo sector       Date
 H0     U*     W*  DT/DZ ZICNV ZIMCH  M-O LEN    Z0  BOWEN ALBEDO  REF WS     HT
REF TA     HT
   0.21981E+01         1.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23984E+01        25.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26041E+01        50.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27786E+01        75.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29326E+01       100.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
*  0.29501E+01       103.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26153E+01       125.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17996E+01       150.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.13774E+01       175.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.11279E+01       200.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.95778E+00       225.00      0.00  40.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83319E+00       250.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.73612E+00       275.00      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65797E+00       300.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59385E+00       325.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54042E+00       350.00      0.00  30.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.49475E+00       375.00      0.00  25.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.45576E+00       400.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.42167E+00       425.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39187E+00       450.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36555E+00       475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34198E+00       500.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32101E+00       525.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30207E+00       550.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28514E+00       575.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.26960E+00       600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.25552E+00       625.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.24271E+00       650.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23091E+00       675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22013E+00       700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21011E+00       725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20088E+00       750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19236E+00       775.00      0.00   0.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.18440E+00   800.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17701E+00   825.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17012E+00   850.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16370E+00   875.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.15765E+00   900.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.15198E+00   925.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.14667E+00   950.01   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.14166E+00   975.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13694E+00   1000.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.13248E+00   1025.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12829E+00   1050.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12433E+00   1075.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.12057E+00   1100.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11699E+00   1125.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11359E+00   1150.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.11036E+00   1175.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.10728E+00      1200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10433E+00      1225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.10151E+00      1250.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.98837E-01      1275.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.96290E-01      1300.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.93856E-01      1325.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.91524E-01      1350.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.89278E-01      1375.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.87127E-01      1400.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.85066E-01      1425.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.83088E-01      1450.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.81190E-01      1475.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.79364E-01      1500.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.77614E-01      1525.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.75928E-01      1550.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.74305E-01      1575.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.72746E-01      1600.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.71244E-01      1625.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.69796E-01      1650.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.68396E-01      1675.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.67039E-01      1700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.65729E-01      1725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.64463E-01      1750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.63238E-01      1775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.62046E-01      1800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.60892E-01      1825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.59776E-01      1850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.58697E-01      1875.01      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.57653E-01      1900.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.56638E-01      1924.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.55657E-01      1950.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.54706E-01      1975.01      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.53784E-01      2000.00      0.00  15.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.52891E-01      2025.00      0.00  15.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.52022E-01   2050.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.51176E-01   2075.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.50354E-01   2100.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.49552E-01   2125.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.48772E-01   2150.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.48012E-01   2175.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.47272E-01   2200.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.46553E-01   2224.99   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.45852E-01   2250.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.45169E-01   2275.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.44504E-01   2300.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.43854E-01   2325.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.43221E-01   2350.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.42604E-01   2375.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.42001E-01   2400.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.41416E-01   2425.00   0.00 10.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.40845E-01      2450.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.40286E-01      2475.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39740E-01      2500.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.39206E-01      2525.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38685E-01      2550.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.38176E-01      2575.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37678E-01      2600.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.37190E-01      2625.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36716E-01      2650.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.36252E-01      2675.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35798E-01      2700.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.35355E-01      2725.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34920E-01      2750.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34748E-01      2775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.34324E-01      2800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33908E-01      2825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.33502E-01      2850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.33104E-01      2875.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32713E-01      2900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.32331E-01      2925.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31957E-01      2950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31590E-01      2975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.31230E-01      3000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30877E-01      3025.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30531E-01      3050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.30192E-01      3075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29859E-01      3100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29532E-01      3125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.29212E-01      3150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28898E-01      3175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28589E-01      3200.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.28286E-01      3225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27989E-01      3250.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.27697E-01      3275.00      0.00   0.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.27410E-01   3300.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.27128E-01   3325.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26851E-01   3350.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26580E-01   3375.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26313E-01   3400.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.26050E-01   3425.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.25792E-01   3450.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.25538E-01   3475.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.25289E-01   3500.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.25044E-01   3525.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.24803E-01   3550.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.24566E-01   3575.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.24332E-01   3600.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.24103E-01   3625.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.23877E-01   3650.00   0.00   5.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.23655E-01   3675.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.23437E-01      3700.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23222E-01      3725.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.23010E-01      3750.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22802E-01      3775.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22597E-01      3800.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22395E-01      3825.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22196E-01      3850.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.22001E-01      3875.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21808E-01      3900.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21618E-01      3925.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21431E-01      3950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21247E-01      3975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.21065E-01      4000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20886E-01      4025.00      0.00   5.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20710E-01      4050.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20537E-01      4075.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20365E-01      4100.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
```

```
310.0    2.0
   0.20197E-01      4125.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.20030E-01      4150.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19867E-01      4175.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19705E-01      4200.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19545E-01      4225.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19388E-01      4250.00      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19233E-01      4275.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.19080E-01      4300.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18930E-01      4325.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18781E-01      4350.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18634E-01      4375.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18490E-01      4400.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18347E-01      4425.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18206E-01      4449.99      0.00  10.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.18067E-01      4475.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17930E-01      4499.99      0.00  35.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.17794E-01      4525.00      0.00  10.0        Winter       0-360   10011001
```

-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17661E-01   4550.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17529E-01   4575.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17399E-01   4600.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17270E-01   4625.00   0.00 25.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17143E-01   4650.00   0.00 25.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.17018E-01   4675.00   0.00 15.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16894E-01   4700.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16772E-01   4725.00   0.00 25.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16651E-01   4750.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16532E-01   4775.00   0.00 40.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16415E-01   4800.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16298E-01   4825.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16183E-01   4850.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.16070E-01   4875.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.15958E-01   4900.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0
   0.15847E-01   4925.00   0.00   0.0   Winter   0-360   10011001
-1.30 0.043 -9.000 0.020 -999.   21.   6.0 1.000   1.50   0.35   0.50   10.0
310.0   2.0

```
   0.15738E-01      4950.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15630E-01      4975.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
   0.15523E-01      5000.00      0.00   0.0        Winter       0-360   10011001
-1.30  0.043 -9.000  0.020 -999.   21.      6.0 1.000   1.50   0.35    0.50   10.0
310.0    2.0
```

3440 Wilshire Boulevard Future

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,921.00	Space	1.00	768,400.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.05	2,000.00	0
High Turnover (Sit Down Restaurant)	4.60	1000sqft	0.09	4,600.00	0
Apartments High Rise	640.00	Dwelling Unit	1.10	701,315.00	1830
Strip Mall	5.54	1000sqft	0.09	5,538.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Annual

Project Characteristics -

Land Use - Consistent with IS/MND's model.

Construction Phase - See SWAPE comment about construction schedule.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Same as Tower 1 Construction.

Off-road Equipment - Same as Tower 1 Construction.

Trips and VMT - See SWAPE comment about hauling, vendor, and worker trips.

Demolition - Consistent with IS/MND's model.

Grading - See SWAPE comment about acres of grading. Material export consistent with IS/MND's model.

Vehicle Trips - See SWAPE comment about trip rates.

Woodstoves - Consistent with IS/MND's model.

Construction Off-road Equipment Mitigation - See SWAPE comment about construction-related mitigation measures.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	110.00
tblConstructionPhase	NumDays	10.00	110.00
tblConstructionPhase	NumDays	220.00	414.00
tblConstructionPhase	NumDays	220.00	414.00
tblConstructionPhase	NumDays	20.00	24.00
tblConstructionPhase	NumDays	6.00	65.00
tblConstructionPhase	NumDays	3.00	21.00
tblFireplaces	NumberGas	544.00	0.00
tblFireplaces	NumberNoFireplace	64.00	641.00

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Annual

tblFireplaces	NumberWood	32.00	0.00
tblGrading	MaterialExported	0.00	137,000.00
tblLandUse	LandUseSquareFeet	640,000.00	701,315.00
tblLandUse	LandUseSquareFeet	5,540.00	5,538.00
tblLandUse	LotAcreage	17.29	1.00
tblLandUse	LotAcreage	0.11	0.09
tblLandUse	LotAcreage	10.32	1.10
tblLandUse	LotAcreage	0.13	0.09
tblOffRoadEquipment	LoadFactor	0.36	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00

tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.98	3.79
tblVehicleTrips	ST_TR	696.00	69.95
tblVehicleTrips	ST_TR	158.37	39.97
tblVehicleTrips	ST_TR	42.04	8.35
tblVehicleTrips	SU_TR	3.65	3.79
tblVehicleTrips	SU_TR	500.00	69.95
tblVehicleTrips	SU_TR	131.84	39.97
tblVehicleTrips	SU_TR	20.43	8.35
tblVehicleTrips	WD_TR	4.20	3.79
tblVehicleTrips	WD_TR	716.00	69.95
tblVehicleTrips	WD_TR	127.15	39.97
tblVehicleTrips	WD_TR	44.32	8.35
tblWoodstoves	NumberCatalytic	32.00	0.00
tblWoodstoves	NumberNoncatalytic	32.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.7414	7.4701	6.2273	0.0238	1.3799	0.1711	1.5510	0.3951	0.1626	0.5577	0.0000	2,212.9645	2,212.9645	0.2063	0.0000	2,218.1229
2023	3.2017	5.3521	7.6597	0.0240	1.3774	0.1606	1.5380	0.3695	0.1546	0.5242	0.0000	2,172.1854	2,172.1854	0.1499	0.0000	2,175.9326
2024	0.4755	2.8155	4.1481	0.0132	0.7707	0.0738	0.8445	0.2069	0.0715	0.2784	0.0000	1,196.8547	1,196.8547	0.0746	0.0000	1,198.7203
2025	3.1028	4.6550	7.1194	0.0228	1.3824	0.1143	1.4966	0.3709	0.1107	0.4816	0.0000	2,062.5941	2,062.5941	0.1238	0.0000	2,065.6900
2026	0.0246	0.0185	0.0287	9.0000e-005	5.8000e-003	4.7000e-004	6.2700e-003	1.5500e-003	4.6000e-004	2.0100e-003	0.0000	8.2925	8.2925	4.8000e-004	0.0000	8.3046
Maximum	**3.2017**	**7.4701**	**7.6597**	**0.0240**	**1.3824**	**0.1711**	**1.5510**	**0.3951**	**0.1626**	**0.5577**	**0.0000**	**2,212.9645**	**2,212.9645**	**0.2063**	**0.0000**	**2,218.1229**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.7414	7.4700	6.2273	0.0238	1.3799	0.1711	1.5510	0.3951	0.1626	0.5577	0.0000	2,212.9639	2,212.9639	0.2063	0.0000	2,218.1223
2023	3.2017	5.3521	7.6597	0.0240	1.3774	0.1606	1.5380	0.3695	0.1546	0.5242	0.0000	2,172.1848	2,172.1848	0.1499	0.0000	2,175.9320
2024	0.4755	2.8155	4.1481	0.0132	0.7707	0.0738	0.8445	0.2069	0.0715	0.2784	0.0000	1,196.8544	1,196.8544	0.0746	0.0000	1,198.7200
2025	3.1028	4.6550	7.1194	0.0228	1.3824	0.1143	1.4966	0.3709	0.1107	0.4816	0.0000	2,062.5935	2,062.5935	0.1238	0.0000	2,065.6894
2026	0.0246	0.0185	0.0287	9.0000e-005	5.8000e-003	4.7000e-004	6.2700e-003	1.5500e-003	4.6000e-004	2.0100e-003	0.0000	8.2925	8.2925	4.8000e-004	0.0000	8.3046
Maximum	**3.2017**	**7.4700**	**7.6597**	**0.0240**	**1.3824**	**0.1711**	**1.5510**	**0.3951**	**0.1626**	**0.5577**	**0.0000**	**2,212.9639**	**2,212.9639**	**0.2063**	**0.0000**	**2,218.1223**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-3-2022	4-2-2022	1.9273	1.9273
2	4-3-2022	7-2-2022	2.7310	2.7310
3	7-3-2022	10-2-2022	1.7318	1.7318
4	10-3-2022	1-2-2023	1.7450	1.7450
5	1-3-2023	4-2-2023	1.4852	1.4852
6	4-3-2023	7-2-2023	1.4853	1.4853

7	**7-3-2023**	**10-2-2023**	2.5557	2.5557
8	**10-3-2023**	**1-2-2024**	3.0425	3.0425
9	**1-3-2024**	**4-2-2024**	0.0315	0.0315
10	**4-3-2024**	**7-2-2024**	0.4733	0.4733
11	**7-3-2024**	**10-2-2024**	1.3612	1.3612
12	**10-3-2024**	**1-2-2025**	1.3757	1.3757
13	**1-3-2025**	**4-2-2025**	1.2899	1.2899
14	**4-3-2025**	**7-2-2025**	1.2894	1.2894
15	**7-3-2025**	**10-2-2025**	2.3467	2.3467
16	**10-3-2025**	**1-2-2026**	2.8138	2.8138
		Highest	3.0425	3.0425

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0637	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Energy	0.0401	0.3469	0.1788	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	4,519.9312	4,519.9312	0.1050	0.0274	4,530.7266
Mobile	0.7146	3.4842	10.0734	0.0428	3.9838	0.0320	4.0159	1.0676	0.0297	1.0973	0.0000	3,964.4885	3,964.4885	0.1779	0.0000	3,968.9366
Waste						0.0000	0.0000		0.0000	0.0000	76.7306	0.0000	76.7306	4.5347	0.0000	190.0968
Water						0.0000	0.0000		0.0000	0.0000	13.9948	484.9258	498.9206	1.4489	0.0363	545.9621
Total	**3.8184**	**3.9073**	**16.8706**	**0.0453**	**3.9838**	**0.0964**	**4.0802**	**1.0676**	**0.0941**	**1.1617**	**90.7254**	**8,980.1747**	**9,070.9000**	**6.2769**	**0.0637**	**9,246.8124**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.0637	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Energy	0.0401	0.3469	0.1788	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	4,519.9312	4,519.9312	0.1050	0.0274	4,530.7266
Mobile	0.7146	3.4842	10.0734	0.0428	3.9838	0.0320	4.0159	1.0676	0.0297	1.0973	0.0000	3,964.4885	3,964.4885	0.1779	0.0000	3,968.9366
Waste						0.0000	0.0000		0.0000	0.0000	76.7306	0.0000	76.7306	4.5347	0.0000	190.0968
Water						0.0000	0.0000		0.0000	0.0000	13.9948	484.9258	498.9206	1.4489	0.0363	545.9621
Total	**3.8184**	**3.9073**	**16.8706**	**0.0453**	**3.9838**	**0.0964**	**4.0802**	**1.0676**	**0.0941**	**1.1617**	**90.7254**	**8,980.1747**	**9,070.9000**	**6.2769**	**0.0637**	**9,246.8124**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	2/3/2022	5	24	
2	Site Preparation	Site Preparation	2/4/2022	3/4/2022	5	21	
3	Grading	Grading	3/5/2022	6/3/2022	5	65	
4	Tower 1 Construction	Building Construction	6/4/2022	1/4/2024	5	414	
5	Tower 1 Architectural Coating	Architectural Coating	8/1/2023	1/1/2024	5	110	
6	Tower 2 Construction	Building Construction	6/1/2024	1/1/2026	5	414	
7	Tower 2 Architectural Coating	Architectural Coating	8/1/2025	1/1/2026	5	110	

Acres of Grading (Site Preparation Phase): 31.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 1

Residential Indoor: 1,420,163; Residential Outdoor: 473,388; Non-Residential Indoor: 18,207; Non-Residential Outdoor: 6,069; Striped Parking Area: 46,104 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Dumpers/Tenders	3	8.00	16	0.38
Demolition	Dumpers/Tenders	0		16	0.38
Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	6.00	221	0.50
Site Preparation	Bore/Drill Rigs	0		221	0.50

Site Preparation	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Cement and Mortar Mixers	0		9	0.56
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Bore/Drill Rigs	1	6.00	221	0.50
Grading	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Welders	1	6.00	46	0.45
Tower 1 Construction	Aerial Lifts	2	6.00	63	0.31
Tower 1 Construction	Aerial Lifts	0		63	0.31
Tower 1 Construction	Air Compressors	2	6.00	78	0.48
Tower 1 Construction	Air Compressors	0		78	0.48
Tower 1 Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Tower 1 Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Tower 1 Construction	Cranes	2	8.00	231	0.29
Tower 1 Construction	Forklifts	2	7.00	89	0.20
Tower 1 Construction	Generator Sets	1	8.00	84	0.74
Tower 1 Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tower 1 Construction	Welders	2	8.00	46	0.45

Tower 1 Architectural Coating	Air Compressors	2	6.00	78	0.48
Tower 2 Construction	Aerial Lifts	2	6.00	63	0.31
Tower 2 Construction	Aerial Lifts	0		63	0.31
Tower 2 Construction	Air Compressors	2	6.00	78	0.48
Tower 2 Construction	Air Compressors	0		78	0.48
Tower 2 Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Tower 2 Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Tower 2 Construction	Cranes	1	8.00	231	0.29
Tower 2 Construction	Forklifts	2	7.00	89	0.20
Tower 2 Construction	Generator Sets	1	8.00	84	0.74
Tower 2 Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tower 2 Construction	Welders	3	8.00	46	0.45
Tower 2 Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	1,978.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	28.00	0.00	17,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Tower 1 Construction	16	788.00	196.00	1.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Tower 1 Architectural Coating	2	158.00	0.00	1.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Tower 2 Construction	16	788.00	196.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Tower 2 Architectural Coating	2	158.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2140	0.0000	0.2140	0.0324	0.0000	0.0324	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0357	0.3298	0.3175	5.9000e-004		0.0158	0.0158		0.0149	0.0149	0.0000	51.3984	51.3984	0.0127	0.0000	51.7165
Total	**0.0357**	**0.3298**	**0.3175**	**5.9000e-004**	**0.2140**	**0.0158**	**0.2298**	**0.0324**	**0.0149**	**0.0473**	**0.0000**	**51.3984**	**51.3984**	**0.0127**	**0.0000**	**51.7165**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0111	0.3372	0.0883	1.0800e-003	0.0255	1.0500e-003	0.0265	7.0000e-003	1.0100e-003	8.0000e-003	0.0000	106.9304	106.9304	7.0300e-003	0.0000	107.1062
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4500e-003	1.0900e-003	0.0125	4.0000e-005	3.9400e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.4350	3.4350	9.0000e-005	0.0000	3.4373
Total	**0.0126**	**0.3383**	**0.1008**	**1.1200e-003**	**0.0294**	**1.0800e-003**	**0.0305**	**8.0500e-003**	**1.0400e-003**	**9.0800e-003**	**0.0000**	**110.3654**	**110.3654**	**7.1200e-003**	**0.0000**	**110.5435**

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2140	0.0000	0.2140	0.0324	0.0000	0.0324	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0357	0.3298	0.3175	5.9000e-004		0.0158	0.0158		0.0149	0.0149	0.0000	51.3984	51.3984	0.0127	0.0000	51.7165
Total	**0.0357**	**0.3298**	**0.3175**	**5.9000e-004**	**0.2140**	**0.0158**	**0.2298**	**0.0324**	**0.0149**	**0.0473**	**0.0000**	**51.3984**	**51.3984**	**0.0127**	**0.0000**	**51.7165**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0111	0.3372	0.0883	1.0800e-003	0.0255	1.0500e-003	0.0265	7.0000e-003	1.0100e-003	8.0000e-003	0.0000	106.9304	106.9304	7.0300e-003	0.0000	107.1062
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4500e-003	1.0900e-003	0.0125	4.0000e-005	3.9400e-003	3.0000e-005	3.9800e-003	1.0500e-003	3.0000e-005	1.0800e-003	0.0000	3.4350	3.4350	9.0000e-005	0.0000	3.4373
Total	**0.0126**	**0.3383**	**0.1008**	**1.1200e-003**	**0.0294**	**1.0800e-003**	**0.0305**	**8.0500e-003**	**1.0400e-003**	**9.0800e-003**	**0.0000**	**110.3654**	**110.3654**	**7.1200e-003**	**0.0000**	**110.5435**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0167	0.0000	0.0167	1.8000e-003	0.0000	1.8000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.2039	0.1583	3.9000e-004		7.8400e-003	7.8400e-003		7.2200e-003	7.2200e-003	0.0000	34.2747	34.2747	0.0110	0.0000	34.5499
Total	**0.0188**	**0.2039**	**0.1583**	**3.9000e-004**	**0.0167**	**7.8400e-003**	**0.0245**	**1.8000e-003**	**7.2200e-003**	**9.0200e-003**	**0.0000**	**34.2747**	**34.2747**	**0.0110**	**0.0000**	**34.5499**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	4.8000e-004	5.4900e-003	2.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5028	1.5028	4.0000e-005	0.0000	1.5038
Total	**6.4000e-004**	**4.8000e-004**	**5.4900e-003**	**2.0000e-005**	**1.7300e-003**	**1.0000e-005**	**1.7400e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.5028**	**1.5028**	**4.0000e-005**	**0.0000**	**1.5038**

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0167	0.0000	0.0167	1.8000e-003	0.0000	1.8000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0188	0.2039	0.1583	3.9000e-004		7.8400e-003	7.8400e-003		7.2200e-003	7.2200e-003	0.0000	34.2747	34.2747	0.0110	0.0000	34.5498
Total	**0.0188**	**0.2039**	**0.1583**	**3.9000e-004**	**0.0167**	**7.8400e-003**	**0.0245**	**1.8000e-003**	**7.2200e-003**	**9.0200e-003**	**0.0000**	**34.2747**	**34.2747**	**0.0110**	**0.0000**	**34.5498**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.4000e-004	4.8000e-004	5.4900e-003	2.0000e-005	1.7300e-003	1.0000e-005	1.7400e-003	4.6000e-004	1.0000e-005	4.7000e-004	0.0000	1.5028	1.5028	4.0000e-005	0.0000	1.5038
Total	**6.4000e-004**	**4.8000e-004**	**5.4900e-003**	**2.0000e-005**	**1.7300e-003**	**1.0000e-005**	**1.7400e-003**	**4.6000e-004**	**1.0000e-005**	**4.7000e-004**	**0.0000**	**1.5028**	**1.5028**	**4.0000e-005**	**0.0000**	**1.5038**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2207	0.0000	0.2207	0.1106	0.0000	0.1106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0922	0.9075	0.7023	1.5900e-003		0.0395	0.0395		0.0367	0.0367	0.0000	138.4906	138.4906	0.0413	0.0000	139.5222
Total	**0.0922**	**0.9075**	**0.7023**	**1.5900e-003**	**0.2207**	**0.0395**	**0.2602**	**0.1106**	**0.0367**	**0.1473**	**0.0000**	**138.4906**	**138.4906**	**0.0413**	**0.0000**	**139.5222**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0686	2.2000	0.5466	6.5400e-003	0.1472	6.1700e-003	0.1533	0.0404	5.9000e-003	0.0463	0.0000	644.9542	644.9542	0.0446	0.0000	646.0693
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6700e-003	2.7500e-003	0.0317	1.0000e-004	9.9700e-003	8.0000e-005	0.0101	2.6500e-003	7.0000e-005	2.7200e-003	0.0000	8.6828	8.6828	2.4000e-004	0.0000	8.6888
Total	**0.0723**	**2.2027**	**0.5783**	**6.6400e-003**	**0.1571**	**6.2500e-003**	**0.1634**	**0.0431**	**5.9700e-003**	**0.0490**	**0.0000**	**653.6371**	**653.6371**	**0.0448**	**0.0000**	**654.7581**

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2207	0.0000	0.2207	0.1106	0.0000	0.1106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0922	0.9075	0.7023	1.5900e-003		0.0395	0.0395		0.0367	0.0367	0.0000	138.4905	138.4905	0.0413	0.0000	139.5220
Total	**0.0922**	**0.9075**	**0.7023**	**1.5900e-003**	**0.2207**	**0.0395**	**0.2602**	**0.1106**	**0.0367**	**0.1473**	**0.0000**	**138.4905**	**138.4905**	**0.0413**	**0.0000**	**139.5220**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0686	2.2000	0.5466	6.5400e-003	0.1472	6.1700e-003	0.1533	0.0404	5.9000e-003	0.0463	0.0000	644.9542	644.9542	0.0446	0.0000	646.0693
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6700e-003	2.7500e-003	0.0317	1.0000e-004	9.9700e-003	8.0000e-005	0.0101	2.6500e-003	7.0000e-005	2.7200e-003	0.0000	8.6828	8.6828	2.4000e-004	0.0000	8.6888
Total	**0.0723**	**2.2027**	**0.5783**	**6.6400e-003**	**0.1571**	**6.2500e-003**	**0.1634**	**0.0431**	**5.9700e-003**	**0.0490**	**0.0000**	**653.6371**	**653.6371**	**0.0448**	**0.0000**	**654.7581**

3.5 Tower 1 Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2280	1.9303	1.9333	3.5400e-003		0.0928	0.0928		0.0895	0.0895	0.0000	300.2032	300.2032	0.0524	0.0000	301.5120
Total	**0.2280**	**1.9303**	**1.9333**	**3.5400e-003**		**0.0928**	**0.0928**		**0.0895**	**0.0895**	**0.0000**	**300.2032**	**300.2032**	**0.0524**	**0.0000**	**301.5120**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0196	0.0196	0.0000	0.0000	0.0196
Vendor	0.0428	1.3783	0.3722	3.7000e-003	0.0926	2.5900e-003	0.0952	0.0267	2.4700e-003	0.0292	0.0000	359.1674	359.1674	0.0215	0.0000	359.7037
Worker	0.2385	0.1788	2.0592	6.2400e-003	0.6476	5.1700e-003	0.6528	0.1720	4.7600e-003	0.1768	0.0000	563.9055	563.9055	0.0155	0.0000	564.2937
Total	**0.2813**	**1.5572**	**2.4314**	**9.9400e-003**	**0.7402**	**7.7600e-003**	**0.7480**	**0.1987**	**7.2300e-003**	**0.2060**	**0.0000**	**923.0924**	**923.0924**	**0.0370**	**0.0000**	**924.0170**

3.5 Tower 1 Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2280	1.9303	1.9333	3.5400e-003		0.0928	0.0928		0.0895	0.0895	0.0000	300.2028	300.2028	0.0524	0.0000	301.5117
Total	**0.2280**	**1.9303**	**1.9333**	**3.5400e-003**		**0.0928**	**0.0928**		**0.0895**	**0.0895**	**0.0000**	**300.2028**	**300.2028**	**0.0524**	**0.0000**	**301.5117**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	6.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0196	0.0196	0.0000	0.0000	0.0196
Vendor	0.0428	1.3783	0.3722	3.7000e-003	0.0926	2.5900e-003	0.0952	0.0267	2.4700e-003	0.0292	0.0000	359.1674	359.1674	0.0215	0.0000	359.7037
Worker	0.2385	0.1788	2.0592	6.2400e-003	0.6476	5.1700e-003	0.6528	0.1720	4.7600e-003	0.1768	0.0000	563.9055	563.9055	0.0155	0.0000	564.2937
Total	**0.2813**	**1.5572**	**2.4314**	**9.9400e-003**	**0.7402**	**7.7600e-003**	**0.7480**	**0.1987**	**7.2300e-003**	**0.2060**	**0.0000**	**923.0924**	**923.0924**	**0.0370**	**0.0000**	**924.0170**

3.5 Tower 1 Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3685	3.1009	3.3254	6.1300e-003		0.1413	0.1413		0.1362	0.1362	0.0000	520.3796	520.3796	0.0891	0.0000	522.6065
Total	**0.3685**	**3.1009**	**3.3254**	**6.1300e-003**		**0.1413**	**0.1413**		**0.1362**	**0.1362**	**0.0000**	**520.3796**	**520.3796**	**0.0891**	**0.0000**	**522.6065**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	7.0000e-005	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0326	0.0326	0.0000	0.0000	0.0326
Vendor	0.0551	1.8050	0.5787	6.2100e-003	0.1605	2.1100e-003	0.1626	0.0463	2.0100e-003	0.0483	0.0000	603.0669	603.0669	0.0329	0.0000	603.8884
Worker	0.3886	0.2804	3.2822	0.0104	1.1225	8.7100e-003	1.1313	0.2982	8.0200e-003	0.3062	0.0000	941.6689	941.6689	0.0242	0.0000	942.2750
Total	**0.4438**	**2.0854**	**3.8610**	**0.0166**	**1.2831**	**0.0108**	**1.2939**	**0.3445**	**0.0100**	**0.3545**	**0.0000**	**1,544.7683**	**1,544.7683**	**0.0571**	**0.0000**	**1,546.1960**

3.5 Tower 1 Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3685	3.1009	3.3254	6.1300e-003		0.1413	0.1413		0.1362	0.1362	0.0000	520.3790	520.3790	0.0891	0.0000	522.6059
Total	**0.3685**	**3.1009**	**3.3254**	**6.1300e-003**		**0.1413**	**0.1413**		**0.1362**	**0.1362**	**0.0000**	**520.3790**	**520.3790**	**0.0891**	**0.0000**	**522.6059**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	7.0000e-005	3.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0326	0.0326	0.0000	0.0000	0.0326
Vendor	0.0551	1.8050	0.5787	6.2100e-003	0.1605	2.1100e-003	0.1626	0.0463	2.0100e-003	0.0483	0.0000	603.0669	603.0669	0.0329	0.0000	603.8884
Worker	0.3886	0.2804	3.2822	0.0104	1.1225	8.7100e-003	1.1313	0.2982	8.0200e-003	0.3062	0.0000	941.6689	941.6689	0.0242	0.0000	942.2750
Total	**0.4438**	**2.0854**	**3.8610**	**0.0166**	**1.2831**	**0.0108**	**1.2939**	**0.3445**	**0.0100**	**0.3545**	**0.0000**	**1,544.7683**	**1,544.7683**	**0.0571**	**0.0000**	**1,546.1960**

3.5 Tower 1 Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3300e-003	0.0447	0.0508	9.0000e-005		1.9200e-003	1.9200e-003		1.8500e-003	1.8500e-003	0.0000	8.0061	8.0061	1.3500e-003	0.0000	8.0399
Total	**5.3300e-003**	**0.0447**	**0.0508**	**9.0000e-005**		**1.9200e-003**	**1.9200e-003**		**1.8500e-003**	**1.8500e-003**	**0.0000**	**8.0061**	**8.0061**	**1.3500e-003**	**0.0000**	**8.0399**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.0000e-004
Vendor	8.3000e-004	0.0277	8.6300e-003	1.0000e-004	2.4700e-003	3.0000e-005	2.5000e-003	7.1000e-004	3.0000e-005	7.4000e-004	0.0000	9.2410	9.2410	5.0000e-004	0.0000	9.2534
Worker	5.6600e-003	3.9300e-003	0.0470	1.6000e-004	0.0173	1.3000e-004	0.0174	4.5900e-003	1.2000e-004	4.7100e-003	0.0000	14.0380	14.0380	3.4000e-004	0.0000	14.0466
Total	**6.4900e-003**	**0.0316**	**0.0557**	**2.6000e-004**	**0.0198**	**1.6000e-004**	**0.0199**	**5.3000e-003**	**1.5000e-004**	**5.4500e-003**	**0.0000**	**23.2795**	**23.2795**	**8.4000e-004**	**0.0000**	**23.3005**

3.5 Tower 1 Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3300e-003	0.0447	0.0508	9.0000e-005		1.9200e-003	1.9200e-003		1.8500e-003	1.8500e-003	0.0000	8.0060	8.0060	1.3500e-003	0.0000	8.0399
Total	**5.3300e-003**	**0.0447**	**0.0508**	**9.0000e-005**		**1.9200e-003**	**1.9200e-003**		**1.8500e-003**	**1.8500e-003**	**0.0000**	**8.0060**	**8.0060**	**1.3500e-003**	**0.0000**	**8.0399**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	5.0000e-004	5.0000e-004	0.0000	0.0000	5.0000e-004
Vendor	8.3000e-004	0.0277	8.6300e-003	1.0000e-004	2.4700e-003	3.0000e-005	2.5000e-003	7.1000e-004	3.0000e-005	7.4000e-004	0.0000	9.2410	9.2410	5.0000e-004	0.0000	9.2534
Worker	5.6600e-003	3.9300e-003	0.0470	1.6000e-004	0.0173	1.3000e-004	0.0174	4.5900e-003	1.2000e-004	4.7100e-003	0.0000	14.0380	14.0380	3.4000e-004	0.0000	14.0466
Total	**6.4900e-003**	**0.0316**	**0.0557**	**2.6000e-004**	**0.0198**	**1.6000e-004**	**0.0199**	**5.3000e-003**	**1.5000e-004**	**5.4500e-003**	**0.0000**	**23.2795**	**23.2795**	**8.4000e-004**	**0.0000**	**23.3005**

3.6 Tower 1 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.1420	0.1974	3.2000e-004		7.7200e-003	7.7200e-003		7.7200e-003	7.7200e-003	0.0000	27.8305	27.8305	1.6700e-003	0.0000	27.8721
Total	**2.3567**	**0.1420**	**0.1974**	**3.2000e-004**		**7.7200e-003**	**7.7200e-003**		**7.7200e-003**	**7.7200e-003**	**0.0000**	**27.8305**	**27.8305**	**1.6700e-003**	**0.0000**	**27.8721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.1000e-004	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0514	0.0514	0.0000	0.0000	0.0514
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0327	0.0236	0.2759	8.8000e-004	0.0944	7.3000e-004	0.0951	0.0251	6.7000e-004	0.0257	0.0000	79.1557	79.1557	2.0400e-003	0.0000	79.2067
Total	**0.0327**	**0.0237**	**0.2759**	**8.8000e-004**	**0.0944**	**7.3000e-004**	**0.0951**	**0.0251**	**6.7000e-004**	**0.0257**	**0.0000**	**79.2071**	**79.2071**	**2.0400e-003**	**0.0000**	**79.2581**

3.6 Tower 1 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0209	0.1420	0.1974	3.2000e-004		7.7200e-003	7.7200e-003		7.7200e-003	7.7200e-003	0.0000	27.8304	27.8304	1.6700e-003	0.0000	27.8721
Total	**2.3567**	**0.1420**	**0.1974**	**3.2000e-004**		**7.7200e-003**	**7.7200e-003**		**7.7200e-003**	**7.7200e-003**	**0.0000**	**27.8304**	**27.8304**	**1.6700e-003**	**0.0000**	**27.8721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.1000e-004	4.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0514	0.0514	0.0000	0.0000	0.0514
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0327	0.0236	0.2759	8.8000e-004	0.0944	7.3000e-004	0.0951	0.0251	6.7000e-004	0.0257	0.0000	79.1557	79.1557	2.0400e-003	0.0000	79.2067
Total	**0.0327**	**0.0237**	**0.2759**	**8.8000e-004**	**0.0944**	**7.3000e-004**	**0.0951**	**0.0251**	**6.7000e-004**	**0.0257**	**0.0000**	**79.2071**	**79.2071**	**2.0400e-003**	**0.0000**	**79.2581**

3.6 Tower 1 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8000e-004	1.2200e-003	1.8100e-003	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.2553	0.2553	1.0000e-005	0.0000	0.2557
Total	**0.0216**	**1.2200e-003**	**1.8100e-003**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**1.0000e-005**	**0.0000**	**0.2557**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	4.7000e-004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.0000e-004	2.3600e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7037	0.7037	2.0000e-005	0.0000	0.7041
Total	**2.8000e-004**	**2.0000e-004**	**2.3600e-003**	**1.0000e-005**	**8.8000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7042**	**0.7042**	**2.0000e-005**	**0.0000**	**0.7046**

3.6 Tower 1 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8000e-004	1.2200e-003	1.8100e-003	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.2553	0.2553	1.0000e-005	0.0000	0.2557
Total	**0.0216**	**1.2200e-003**	**1.8100e-003**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**1.0000e-005**	**0.0000**	**0.2557**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	4.7000e-004	4.7000e-004	0.0000	0.0000	4.7000e-004
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.0000e-004	2.3600e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7037	0.7037	2.0000e-005	0.0000	0.7041
Total	**2.8000e-004**	**2.0000e-004**	**2.3600e-003**	**1.0000e-005**	**8.8000e-004**	**1.0000e-005**	**8.8000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7042**	**0.7042**	**2.0000e-005**	**0.0000**	**0.7046**

3.7 Tower 2 Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1952	1.5370	1.9226	3.3400e-003		0.0654	0.0654		0.0636	0.0636	0.0000	280.0072	280.0072	0.0405	0.0000	281.0192
Total	**0.1952**	**1.5370**	**1.9226**	**3.3400e-003**		**0.0654**	**0.0654**		**0.0636**	**0.0636**	**0.0000**	**280.0072**	**280.0072**	**0.0405**	**0.0000**	**281.0192**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0315	1.0513	0.3280	3.6100e-003	0.0938	1.2100e-003	0.0951	0.0271	1.1600e-003	0.0282	0.0000	351.1576	351.1576	0.0189	0.0000	351.6308
Worker	0.2152	0.1495	1.7869	5.9000e-003	0.6563	5.0200e-003	0.6613	0.1743	4.6200e-003	0.1789	0.0000	533.4449	533.4449	0.0130	0.0000	533.7696
Total	**0.2467**	**1.2007**	**2.1149**	**9.5100e-003**	**0.7501**	**6.2300e-003**	**0.7563**	**0.2014**	**5.7800e-003**	**0.2072**	**0.0000**	**884.6025**	**884.6025**	**0.0319**	**0.0000**	**885.4004**

3.7 Tower 2 Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1952	1.5370	1.9226	3.3400e-003		0.0654	0.0654		0.0636	0.0636	0.0000	280.0069	280.0069	0.0405	0.0000	281.0189
Total	**0.1952**	**1.5370**	**1.9226**	**3.3400e-003**		**0.0654**	**0.0654**		**0.0636**	**0.0636**	**0.0000**	**280.0069**	**280.0069**	**0.0405**	**0.0000**	**281.0189**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0315	1.0513	0.3280	3.6100e-003	0.0938	1.2100e-003	0.0951	0.0271	1.1600e-003	0.0282	0.0000	351.1576	351.1576	0.0189	0.0000	351.6308
Worker	0.2152	0.1495	1.7869	5.9000e-003	0.6563	5.0200e-003	0.6613	0.1743	4.6200e-003	0.1789	0.0000	533.4449	533.4449	0.0130	0.0000	533.7696
Total	**0.2467**	**1.2007**	**2.1149**	**9.5100e-003**	**0.7501**	**6.2300e-003**	**0.7563**	**0.2014**	**5.7800e-003**	**0.2072**	**0.0000**	**884.6025**	**884.6025**	**0.0319**	**0.0000**	**885.4004**

3.7 Tower 2 Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3149	2.4862	3.2875	5.7400e-003		0.0975	0.0975		0.0947	0.0947	0.0000	480.8299	480.8299	0.0683	0.0000	482.5363
Total	**0.3149**	**2.4862**	**3.2875**	**5.7400e-003**		**0.0975**	**0.0975**		**0.0947**	**0.0947**	**0.0000**	**480.8299**	**480.8299**	**0.0683**	**0.0000**	**482.5363**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0526	1.7896	0.5486	6.1600e-003	0.1611	2.0500e-003	0.1632	0.0465	1.9600e-003	0.0485	0.0000	599.6890	599.6890	0.0320	0.0000	600.4897
Worker	0.3514	0.2348	2.8476	9.7300e-003	1.1269	8.4400e-003	1.1353	0.2993	7.7700e-003	0.3071	0.0000	880.5133	880.5133	0.0203	0.0000	881.0215
Total	**0.4040**	**2.0244**	**3.3962**	**0.0159**	**1.2880**	**0.0105**	**1.2985**	**0.3458**	**9.7300e-003**	**0.3555**	**0.0000**	**1,480.2023**	**1,480.2023**	**0.0524**	**0.0000**	**1,481.5113**

3.7 Tower 2 Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3149	2.4862	3.2875	5.7400e-003		0.0975	0.0975		0.0947	0.0947	0.0000	480.8294	480.8294	0.0683	0.0000	482.5357
Total	**0.3149**	**2.4862**	**3.2875**	**5.7400e-003**		**0.0975**	**0.0975**		**0.0947**	**0.0947**	**0.0000**	**480.8294**	**480.8294**	**0.0683**	**0.0000**	**482.5357**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0526	1.7896	0.5486	6.1600e-003	0.1611	2.0500e-003	0.1632	0.0465	1.9600e-003	0.0485	0.0000	599.6890	599.6890	0.0320	0.0000	600.4897
Worker	0.3514	0.2348	2.8476	9.7300e-003	1.1269	8.4400e-003	1.1353	0.2993	7.7700e-003	0.3071	0.0000	880.5133	880.5133	0.0203	0.0000	881.0215
Total	**0.4040**	**2.0244**	**3.3962**	**0.0159**	**1.2880**	**0.0105**	**1.2985**	**0.3458**	**9.7300e-003**	**0.3555**	**0.0000**	**1,480.2023**	**1,480.2023**	**0.0524**	**0.0000**	**1,481.5113**

3.7 Tower 2 Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2100e-003	9.5300e-003	0.0126	2.0000e-005		3.7000e-004	3.7000e-004		3.6000e-004	3.6000e-004	0.0000	1.8423	1.8423	2.6000e-004	0.0000	1.8488
Total	**1.2100e-003**	**9.5300e-003**	**0.0126**	**2.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.6000e-004**	**3.6000e-004**	**0.0000**	**1.8423**	**1.8423**	**2.6000e-004**	**0.0000**	**1.8488**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	6.7900e-003	2.0600e-003	2.0000e-005	6.2000e-004	1.0000e-005	6.3000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	2.2856	2.2856	1.2000e-004	0.0000	2.2886
Worker	1.2900e-003	8.3000e-004	0.0102	4.0000e-005	4.3200e-003	3.0000e-005	4.3500e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.2564	3.2564	7.0000e-005	0.0000	3.2582
Total	**1.4900e-003**	**7.6200e-003**	**0.0123**	**6.0000e-005**	**4.9400e-003**	**4.0000e-005**	**4.9800e-003**	**1.3300e-003**	**4.0000e-005**	**1.3700e-003**	**0.0000**	**5.5420**	**5.5420**	**1.9000e-004**	**0.0000**	**5.5468**

3.7 Tower 2 Construction - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2100e-003	9.5300e-003	0.0126	2.0000e-005		3.7000e-004	3.7000e-004		3.6000e-004	3.6000e-004	0.0000	1.8423	1.8423	2.6000e-004	0.0000	1.8488
Total	**1.2100e-003**	**9.5300e-003**	**0.0126**	**2.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.6000e-004**	**3.6000e-004**	**0.0000**	**1.8423**	**1.8423**	**2.6000e-004**	**0.0000**	**1.8488**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-004	6.7900e-003	2.0600e-003	2.0000e-005	6.2000e-004	1.0000e-005	6.3000e-004	1.8000e-004	1.0000e-005	1.9000e-004	0.0000	2.2856	2.2856	1.2000e-004	0.0000	2.2886
Worker	1.2900e-003	8.3000e-004	0.0102	4.0000e-005	4.3200e-003	3.0000e-005	4.3500e-003	1.1500e-003	3.0000e-005	1.1800e-003	0.0000	3.2564	3.2564	7.0000e-005	0.0000	3.2582
Total	**1.4900e-003**	**7.6200e-003**	**0.0123**	**6.0000e-005**	**4.9400e-003**	**4.0000e-005**	**4.9800e-003**	**1.3300e-003**	**4.0000e-005**	**1.3700e-003**	**0.0000**	**5.5420**	**5.5420**	**1.9000e-004**	**0.0000**	**5.5468**

3.8 Tower 2 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0186	0.1249	0.1972	3.2000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003	0.0000	27.8305	27.8305	1.5200e-003	0.0000	27.8684
Total	**2.3545**	**0.1249**	**0.1972**	**3.2000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**27.8305**	**27.8305**	**1.5200e-003**	**0.0000**	**27.8684**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0294	0.0197	0.2385	8.2000e-004	0.0944	7.1000e-004	0.0951	0.0251	6.5000e-004	0.0257	0.0000	73.7315	73.7315	1.7000e-003	0.0000	73.7740
Total	**0.0294**	**0.0197**	**0.2385**	**8.2000e-004**	**0.0944**	**7.1000e-004**	**0.0951**	**0.0251**	**6.5000e-004**	**0.0257**	**0.0000**	**73.7315**	**73.7315**	**1.7000e-003**	**0.0000**	**73.7740**

3.8 Tower 2 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3358					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0186	0.1249	0.1972	3.2000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003	0.0000	27.8304	27.8304	1.5200e-003	0.0000	27.8684
Total	**2.3545**	**0.1249**	**0.1972**	**3.2000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**	**0.0000**	**27.8304**	**27.8304**	**1.5200e-003**	**0.0000**	**27.8684**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0294	0.0197	0.2385	8.2000e-004	0.0944	7.1000e-004	0.0951	0.0251	6.5000e-004	0.0257	0.0000	73.7315	73.7315	1.7000e-003	0.0000	73.7740
Total	**0.0294**	**0.0197**	**0.2385**	**8.2000e-004**	**0.0944**	**7.1000e-004**	**0.0951**	**0.0251**	**6.5000e-004**	**0.0257**	**0.0000**	**73.7315**	**73.7315**	**1.7000e-003**	**0.0000**	**73.7740**

3.8 Tower 2 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-004	1.1500e-003	1.8100e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.2553	0.2553	1.0000e-005	0.0000	0.2557
Total	**0.0216**	**1.1500e-003**	**1.8100e-003**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**1.0000e-005**	**0.0000**	**0.2557**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	2.0400e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.6529	0.6529	1.0000e-005	0.0000	0.6533
Total	**2.6000e-004**	**1.7000e-004**	**2.0400e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.6529**	**0.6529**	**1.0000e-005**	**0.0000**	**0.6533**

3.8 Tower 2 Architectural Coating - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7000e-004	1.1500e-003	1.8100e-003	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	0.2553	0.2553	1.0000e-005	0.0000	0.2557
Total	**0.0216**	**1.1500e-003**	**1.8100e-003**	**0.0000**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**1.0000e-005**	**0.0000**	**0.2557**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	2.0400e-003	1.0000e-005	8.7000e-004	1.0000e-005	8.7000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.6529	0.6529	1.0000e-005	0.0000	0.6533
Total	**2.6000e-004**	**1.7000e-004**	**2.0400e-003**	**1.0000e-005**	**8.7000e-004**	**1.0000e-005**	**8.7000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.6529**	**0.6529**	**1.0000e-005**	**0.0000**	**0.6533**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.7146	3.4842	10.0734	0.0428	3.9838	0.0320	4.0159	1.0676	0.0297	1.0973	0.0000	3,964.4885	3,964.4885	0.1779	0.0000	3,968.9366
Unmitigated	0.7146	3.4842	10.0734	0.0428	3.9838	0.0320	4.0159	1.0676	0.0297	1.0973	0.0000	3,964.4885	3,964.4885	0.1779	0.0000	3,968.9366

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	2,425.60	2,425.60	2425.60	9,330,682	9,330,682
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	139.90	139.90	139.90	419,509	419,509
High Turnover (Sit Down Restaurant)	183.86	183.86	183.86	589,750	589,750
Strip Mall	46.26	46.26	46.26	159,563	159,563
Total	2,795.62	2,795.62	2,795.62	10,499,503	10,499,503

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.00	19.00	41.00	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Fast Food Restaurant w/o Drive Thru	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,123.3880	4,123.3880	0.0974	0.0202	4,131.8269
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,123.3880	4,123.3880	0.0974	0.0202	4,131.8269
NaturalGas Mitigated	0.0401	0.3469	0.1788	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	396.5433	396.5433	7.6000e-003	7.2700e-003	398.8997
NaturalGas Unmitigated	0.0401	0.3469	0.1788	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	396.5433	396.5433	7.6000e-003	7.2700e-003	398.8997

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	5.89884e+006	0.0318	0.2718	0.1157	1.7300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	314.7847	314.7847	6.0300e-003	5.7700e-003	316.6553
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	461520	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6285	24.6285	4.7000e-004	4.5000e-004	24.7748
High Turnover (Sit Down Restaurant)	1.0615e+006	5.7200e-003	0.0520	0.0437	3.1000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003	0.0000	56.6455	56.6455	1.0900e-003	1.0400e-003	56.9821
Strip Mall	9082.32	5.0000e-005	4.5000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4847	0.4847	1.0000e-005	1.0000e-005	0.4876
Total		**0.0401**	**0.3469**	**0.1787**	**2.1800e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**396.5433**	**396.5433**	**7.6000e-003**	**7.2700e-003**	**398.8997**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	5.89884e+006	0.0318	0.2718	0.1157	1.7300e-003		0.0220	0.0220		0.0220	0.0220	0.0000	314.7847	314.7847	6.0300e-003	5.7700e-003	316.6553
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	461520	2.4900e-003	0.0226	0.0190	1.4000e-004		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	24.6285	24.6285	4.7000e-004	4.5000e-004	24.7748
High Turnover (Sit Down Restaurant)	1.0615e+006	5.7200e-003	0.0520	0.0437	3.1000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003	0.0000	56.6455	56.6455	1.0900e-003	1.0400e-003	56.9821
Strip Mall	9082.32	5.0000e-005	4.5000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4847	0.4847	1.0000e-005	1.0000e-005	0.4876
Total		**0.0401**	**0.3469**	**0.1787**	**2.1800e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**396.5433**	**396.5433**	**7.6000e-003**	**7.2700e-003**	**398.8997**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	2.53445e+006	1,411.5918	0.0333	6.9000e-003	1,414.4808
Enclosed Parking with Elevator	4.50282e+006	2,507.8998	0.0592	0.0123	2,513.0324
Fast Food Restaurant w/o Drive Thru	88280	49.1686	1.1600e-003	2.4000e-004	49.2692
High Turnover (Sit Down Restaurant)	203044	113.0877	2.6700e-003	5.5000e-004	113.3191
Strip Mall	74763	41.6401	9.8000e-004	2.0000e-004	41.7253
Total		**4,123.3880**	**0.0974**	**0.0201**	**4,131.8269**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	2.53445e+006	1,411.5918	0.0333	6.9000e-003	1,414.4808
Enclosed Parking with Elevator	4.50282e+006	2,507.8998	0.0592	0.0123	2,513.0324
Fast Food Restaurant w/o Drive Thru	88280	49.1686	1.1600e-003	2.4000e-004	49.2692
High Turnover (Sit Down Restaurant)	203044	113.0877	2.6700e-003	5.5000e-004	113.3191
Strip Mall	74763	41.6401	9.8000e-004	2.0000e-004	41.7253
Total		**4,123.3880**	**0.0974**	**0.0201**	**4,131.8269**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0637	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Unmitigated	3.0637	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2357					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2002	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Total	**3.0637**	**0.0762**	**6.6185**	**3.5000e-004**		**0.0367**	**0.0367**		**0.0367**	**0.0367**	**0.0000**	**10.8291**	**10.8291**	**0.0105**	**0.0000**	**11.0904**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2357					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6277					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2002	0.0762	6.6185	3.5000e-004		0.0367	0.0367		0.0367	0.0367	0.0000	10.8291	10.8291	0.0105	0.0000	11.0904
Total	**3.0637**	**0.0762**	**6.6185**	**3.5000e-004**		**0.0367**	**0.0367**		**0.0367**	**0.0367**	**0.0000**	**10.8291**	**10.8291**	**0.0105**	**0.0000**	**11.0904**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	498.9206	1.4489	0.0363	545.9621
Unmitigated	498.9206	1.4489	0.0363	545.9621

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	41.6986 / 26.2882	478.3027	1.3697	0.0344	522.7840
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	4.8349	0.0199	4.9000e-004	5.4782
High Turnover (Sit Down Restaurant)	1.39626 / 0.0891227	11.1204	0.0458	1.1300e-003	12.5998
Strip Mall	0.410362 / 0.251512	4.6625	0.0135	3.4000e-004	5.1002
Total		**498.9206**	**1.4489**	**0.0363**	**545.9621**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	41.6986 / 26.2882	478.3027	1.3697	0.0344	522.7840
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	0.607067 / 0.038749	4.8349	0.0199	4.9000e-004	5.4782
High Turnover (Sit Down Restaurant)	1.39626 / 0.0891227	11.1204	0.0458	1.1300e-003	12.5998
Strip Mall	0.410362 / 0.251512	4.6625	0.0135	3.4000e-004	5.1002
Total		**498.9206**	**1.4489**	**0.0363**	**545.9621**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	76.7306	4.5347	0.0000	190.0968
Unmitigated	76.7306	4.5347	0.0000	190.0968

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	294.4	59.7605	3.5318	0.0000	148.0542
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
High Turnover (Sit Down Restaurant)	54.74	11.1117	0.6567	0.0000	27.5288
Strip Mall	5.82	1.1814	0.0698	0.0000	2.9269
Total		**76.7306**	**4.5347**	**0.0000**	**190.0968**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	294.4	59.7605	3.5318	0.0000	148.0542
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	23.04	4.6769	0.2764	0.0000	11.5869
High Turnover (Sit Down Restaurant)	54.74	11.1117	0.6567	0.0000	27.5288
Strip Mall	5.82	1.1814	0.0698	0.0000	2.9269
Total		**76.7306**	**4.5347**	**0.0000**	**190.0968**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3440 Wilshire Boulevard Future

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,921.00	Space	1.00	768,400.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.05	2,000.00	0
High Turnover (Sit Down Restaurant)	4.60	1000sqft	0.09	4,600.00	0
Apartments High Rise	640.00	Dwelling Unit	1.10	701,315.00	1830
Strip Mall	5.54	1000sqft	0.09	5,538.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - Consistent with IS/MND's model.

Construction Phase - See SWAPE comment about construction schedule.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Same as Tower 1 Construction.

Off-road Equipment - Same as Tower 1 Construction.

Trips and VMT - See SWAPE comment about hauling, vendor, and worker trips.

Demolition - Consistent with IS/MND's model.

Grading - See SWAPE comment about acres of grading. Material export consistent with IS/MND's model.

Vehicle Trips - See SWAPE comment about trip rates.

Woodstoves - Consistent with IS/MND's model.

Construction Off-road Equipment Mitigation - See SWAPE comment about construction-related mitigation measures.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	110.00
tblConstructionPhase	NumDays	10.00	110.00
tblConstructionPhase	NumDays	220.00	414.00
tblConstructionPhase	NumDays	220.00	414.00
tblConstructionPhase	NumDays	20.00	24.00
tblConstructionPhase	NumDays	6.00	65.00
tblConstructionPhase	NumDays	3.00	21.00
tblFireplaces	NumberGas	544.00	0.00
tblFireplaces	NumberNoFireplace	64.00	641.00

tblFireplaces	NumberWood	32.00	0.00
tblGrading	MaterialExported	0.00	137,000.00
tblLandUse	LandUseSquareFeet	640,000.00	701,315.00
tblLandUse	LandUseSquareFeet	5,540.00	5,538.00
tblLandUse	LotAcreage	17.29	1.00
tblLandUse	LotAcreage	0.11	0.09
tblLandUse	LotAcreage	10.32	1.10
tblLandUse	LotAcreage	0.13	0.09
tblOffRoadEquipment	LoadFactor	0.36	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00

tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.98	3.79
tblVehicleTrips	ST_TR	696.00	69.95
tblVehicleTrips	ST_TR	158.37	39.97
tblVehicleTrips	ST_TR	42.04	8.35
tblVehicleTrips	SU_TR	3.65	3.79
tblVehicleTrips	SU_TR	500.00	69.95
tblVehicleTrips	SU_TR	131.84	39.97
tblVehicleTrips	SU_TR	20.43	8.35
tblVehicleTrips	WD_TR	4.20	3.79
tblVehicleTrips	WD_TR	716.00	69.95
tblVehicleTrips	WD_TR	127.15	39.97
tblVehicleTrips	WD_TR	44.32	8.35
tblWoodstoves	NumberCatalytic	32.00	0.00
tblWoodstoves	NumberNoncatalytic	32.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.7628	93.6478	59.7670	0.2550	20.3294	1.4063	21.7356	4.7494	1.3251	6.0609	0.0000	27,041.7077	27,041.7077	2.8987	0.0000	27,114.1744
2023	50.0590	42.4708	65.8272	0.2019	11.8293	1.3251	13.1543	3.1657	1.2786	4.4443	0.0000	20,162.5064	20,162.5064	1.3193	0.0000	20,195.4895
2024	49.6639	40.5437	63.3303	0.1985	11.8538	1.1760	13.0298	3.1717	1.1334	4.3051	0.0000	19,831.3033	19,831.3033	1.2835	0.0000	19,863.3907
2025	49.2129	36.8055	60.8556	0.1912	11.8290	0.9431	12.7721	3.1656	0.9150	4.0806	0.0000	19,074.5380	19,074.5380	1.0877	0.0000	19,101.7296
2026	49.0576	36.5300	58.9559	0.1876	11.8290	0.9402	12.7692	3.1656	0.9123	4.0779	0.0000	18,723.2250	18,723.2250	1.0660	0.0000	18,749.8745
Maximum	**50.0590**	**93.6478**	**65.8272**	**0.2550**	**20.3294**	**1.4063**	**21.7356**	**4.7494**	**1.3251**	**6.0609**	**0.0000**	**27,041.7077**	**27,041.7077**	**2.8987**	**0.0000**	**27,114.1744**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	6.7628	93.6478	59.7670	0.2550	20.3294	1.4063	21.7356	4.7494	1.3251	6.0609	0.0000	27,041.7077	27,041.7077	2.8987	0.0000	27,114.1744
2023	50.0590	42.4708	65.8272	0.2019	11.8293	1.3251	13.1543	3.1657	1.2786	4.4443	0.0000	20,162.5064	20,162.5064	1.3193	0.0000	20,195.4895
2024	49.6639	40.5437	63.3303	0.1985	11.8538	1.1760	13.0298	3.1717	1.1334	4.3051	0.0000	19,831.3033	19,831.3033	1.2835	0.0000	19,863.3907
2025	49.2129	36.8055	60.8556	0.1912	11.8290	0.9431	12.7721	3.1656	0.9150	4.0806	0.0000	19,074.5380	19,074.5380	1.0877	0.0000	19,101.7296
2026	49.0576	36.5300	58.9559	0.1876	11.8290	0.9402	12.7692	3.1656	0.9123	4.0779	0.0000	18,723.2250	18,723.2250	1.0660	0.0000	18,749.8745
Maximum	**50.0590**	**93.6478**	**65.8272**	**0.2550**	**20.3294**	**1.4063**	**21.7356**	**4.7494**	**1.3251**	**6.0609**	**0.0000**	**27,041.7077**	**27,041.7077**	**2.8987**	**0.0000**	**27,114.1744**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Energy	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
Mobile	4.1399	18.3998	57.7714	0.2434	22.3201	0.1760	22.4961	5.9715	0.1634	6.1349		24,849.0860	24,849.0860	1.0848		24,876.2051
Total	**21.6515**	**20.9101**	**111.6984**	**0.2582**	**22.3201**	**0.6211**	**22.9412**	**5.9715**	**0.6085**	**6.5800**	**0.0000**	**27,339.7283**	**27,339.7283**	**1.2228**	**0.0439**	**27,383.3842**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Energy	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
Mobile	4.1399	18.3998	57.7714	0.2434	22.3201	0.1760	22.4961	5.9715	0.1634	6.1349		24,849.0860	24,849.0860	1.0848		24,876.2051
Total	**21.6515**	**20.9101**	**111.6984**	**0.2582**	**22.3201**	**0.6211**	**22.9412**	**5.9715**	**0.6085**	**6.5800**	**0.0000**	**27,339.7283**	**27,339.7283**	**1.2228**	**0.0439**	**27,383.3842**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	2/3/2022	5	24	
2	Site Preparation	Site Preparation	2/4/2022	3/4/2022	5	21	
3	Grading	Grading	3/5/2022	6/3/2022	5	65	
4	Tower 1 Construction	Building Construction	6/4/2022	1/4/2024	5	414	
5	Tower 1 Architectural Coating	Architectural Coating	8/1/2023	1/1/2024	5	110	
6	Tower 2 Construction	Building Construction	6/1/2024	1/1/2026	5	414	
7	Tower 2 Architectural Coating	Architectural Coating	8/1/2025	1/1/2026	5	110	

Acres of Grading (Site Preparation Phase): 31.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 1

Residential Indoor: 1,420,163; Residential Outdoor: 473,388; Non-Residential Indoor: 18,207; Non-Residential Outdoor: 6,069; Striped Parking Area: 46,104 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Dumpers/Tenders	3	8.00	16	0.38
Demolition	Dumpers/Tenders	0		16	0.38

Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	6.00	221	0.50
Site Preparation	Bore/Drill Rigs	0		221	0.50
Site Preparation	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Cement and Mortar Mixers	0		9	0.56
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Bore/Drill Rigs	1	6.00	221	0.50
Grading	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Welders	1	6.00	46	0.45
Tower 1 Construction	Aerial Lifts	2	6.00	63	0.31
Tower 1 Construction	Aerial Lifts	0		63	0.31
Tower 1 Construction	Air Compressors	2	6.00	78	0.48
Tower 1 Construction	Air Compressors	0		78	0.48
Tower 1 Construction	Cement and Mortar Mixers	2	6.00	9	0.56

Tower 1 Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Tower 1 Construction	Cranes	2	8.00	231	0.29
Tower 1 Construction	Forklifts	2	7.00	89	0.20
Tower 1 Construction	Generator Sets	1	8.00	84	0.74
Tower 1 Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tower 1 Construction	Welders	2	8.00	46	0.45
Tower 1 Architectural Coating	Air Compressors	2	6.00	78	0.48
Tower 2 Construction	Aerial Lifts	2	6.00	63	0.31
Tower 2 Construction	Aerial Lifts	0		63	0.31
Tower 2 Construction	Air Compressors	2	6.00	78	0.48
Tower 2 Construction	Air Compressors	0		78	0.48
Tower 2 Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Tower 2 Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Tower 2 Construction	Cranes	1	8.00	231	0.29
Tower 2 Construction	Forklifts	2	7.00	89	0.20
Tower 2 Construction	Generator Sets	1	8.00	84	0.74
Tower 2 Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tower 2 Construction	Welders	3	8.00	46	0.45
Tower 2 Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	1,978.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	28.00	0.00	17,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Tower 1 Construction	16	788.00	196.00	1.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Tower 1 Architectural Coating	2	158.00	0.00	1.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Tower 2 Construction	16	788.00	196.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Tower 2 Architectural Coating	2	158.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					17.8332	0.0000	17.8332	2.7001	0.0000	2.7001			0.0000			0.0000
Off-Road	2.9713	27.4795	26.4616	0.0494		1.3163	1.3163		1.2392	1.2392		4,721.4213	4,721.4213	1.1688		4,750.6412
Total	**2.9713**	**27.4795**	**26.4616**	**0.0494**	**17.8332**	**1.3163**	**19.1495**	**2.7001**	**1.2392**	**3.9393**		**4,721.4213**	**4,721.4213**	**1.1688**		**4,750.6412**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9195	27.0866	7.2382	0.0909	2.1609	0.0872	2.2481	0.5923	0.0835	0.6757		9,873.1495	9,873.1495	0.6390		9,889.1234
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1205	0.0798	1.1148	3.3100e-003	0.3353	2.6200e-003	0.3380	0.0889	2.4200e-003	0.0914		329.6137	329.6137	9.1000e-003		329.8411
Total	**1.0400**	**27.1665**	**8.3530**	**0.0942**	**2.4962**	**0.0899**	**2.5860**	**0.6812**	**0.0859**	**0.7671**		**10,202.7632**	**10,202.7632**	**0.6481**		**10,218.9645**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					17.8332	0.0000	17.8332	2.7001	0.0000	2.7001			0.0000			0.0000
Off-Road	2.9713	27.4795	26.4616	0.0494		1.3163	1.3163		1.2392	1.2392	0.0000	4,721.4213	4,721.4213	1.1688		4,750.6412
Total	**2.9713**	**27.4795**	**26.4616**	**0.0494**	**17.8332**	**1.3163**	**19.1495**	**2.7001**	**1.2392**	**3.9393**	**0.0000**	**4,721.4213**	**4,721.4213**	**1.1688**		**4,750.6412**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9195	27.0866	7.2382	0.0909	2.1609	0.0872	2.2481	0.5923	0.0835	0.6757		9,873.1495	9,873.1495	0.6390		9,889.1234
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1205	0.0798	1.1148	3.3100e-003	0.3353	2.6200e-003	0.3380	0.0889	2.4200e-003	0.0914		329.6137	329.6137	9.1000e-003		329.8411
Total	**1.0400**	**27.1665**	**8.3530**	**0.0942**	**2.4962**	**0.0899**	**2.5860**	**0.6812**	**0.0859**	**0.7671**		**10,202.7632**	**10,202.7632**	**0.6481**		**10,218.9645**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.7929	19.4202	15.0731	0.0373		0.7464	0.7464		0.6875	0.6875		3,598.2301	3,598.2301	1.1554		3,627.1156
Total	**1.7929**	**19.4202**	**15.0731**	**0.0373**	**1.5908**	**0.7464**	**2.3372**	**0.1718**	**0.6875**	**0.8593**		**3,598.2301**	**3,598.2301**	**1.1554**		**3,627.1156**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.7929	19.4202	15.0731	0.0373		0.7464	0.7464		0.6875	0.6875	0.0000	3,598.2301	3,598.2301	1.1554		3,627.1156
Total	**1.7929**	**19.4202**	**15.0731**	**0.0373**	**1.5908**	**0.7464**	**2.3372**	**0.1718**	**0.6875**	**0.8593**	**0.0000**	**3,598.2301**	**3,598.2301**	**1.1554**		**3,627.1156**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7907	0.0000	6.7907	3.4036	0.0000	3.4036			0.0000			0.0000
Off-Road	2.8360	27.9222	21.6076	0.0490		1.2154	1.2154		1.1289	1.1289		4,697.2240	4,697.2240	1.3995		4,732.2109
Total	**2.8360**	**27.9222**	**21.6076**	**0.0490**	**6.7907**	**1.2154**	**8.0061**	**3.4036**	**1.1289**	**4.5324**		**4,697.2240**	**4,697.2240**	**1.3995**		**4,732.2109**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0905	65.6511	16.4021	0.2029	4.6069	0.1885	4.7954	1.2629	0.1803	1.4432		22,036.8442	22,036.8442	1.4907		22,074.1118
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1124	0.0745	1.0405	3.0900e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		307.6395	307.6395	8.4900e-003		307.8517
Total	**2.2030**	**65.7256**	**17.4426**	**0.2060**	**4.9199**	**0.1909**	**5.1108**	**1.3459**	**0.1826**	**1.5284**		**22,344.4837**	**22,344.4837**	**1.4992**		**22,381.9635**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7907	0.0000	6.7907	3.4036	0.0000	3.4036			0.0000			0.0000
Off-Road	2.8360	27.9222	21.6076	0.0490		1.2154	1.2154		1.1289	1.1289	0.0000	4,697.2240	4,697.2240	1.3995		4,732.2109
Total	**2.8360**	**27.9222**	**21.6076**	**0.0490**	**6.7907**	**1.2154**	**8.0061**	**3.4036**	**1.1289**	**4.5324**	**0.0000**	**4,697.2240**	**4,697.2240**	**1.3995**		**4,732.2109**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0905	65.6511	16.4021	0.2029	4.6069	0.1885	4.7954	1.2629	0.1803	1.4432		22,036.8442	22,036.8442	1.4907		22,074.1118
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1124	0.0745	1.0405	3.0900e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		307.6395	307.6395	8.4900e-003		307.8517
Total	**2.2030**	**65.7256**	**17.4426**	**0.2060**	**4.9199**	**0.1909**	**5.1108**	**1.3459**	**0.1826**	**1.5284**		**22,344.4837**	**22,344.4837**	**1.4992**		**22,381.9635**

3.5 Tower 1 Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0396	25.7368	25.7776	0.0472		1.2378	1.2378		1.1936	1.1936		4,412.2312	4,412.2312	0.7695		4,431.4682
Total	**3.0396**	**25.7368**	**25.7776**	**0.0472**		**1.2378**	**1.2378**		**1.1936**	**1.1936**		**4,412.2312**	**4,412.2312**	**0.7695**		**4,431.4682**

3.5 Tower 1 Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.0000e-005	7.9000e-004	2.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005		0.2894	0.2894	2.0000e-005		0.2898
Vendor	0.5591	18.0967	4.7069	0.0499	1.2549	0.0340	1.2889	0.3613	0.0325	0.3938		5,340.7234	5,340.7234	0.3065		5,348.3855
Worker	3.1640	2.0972	29.2823	0.0869	8.8080	0.0690	8.8769	2.3359	0.0635	2.3994		8,657.8531	8,657.8531	0.2390		8,663.8271
Total	**3.7232**	**20.1947**	**33.9894**	**0.1368**	**10.0630**	**0.1030**	**10.1660**	**2.6973**	**0.0960**	**2.7933**		**13,998.8658**	**13,998.8658**	**0.5455**		**14,012.5024**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0396	25.7368	25.7776	0.0472		1.2378	1.2378		1.1936	1.1936	0.0000	4,412.2312	4,412.2312	0.7695		4,431.4682
Total	**3.0396**	**25.7368**	**25.7776**	**0.0472**		**1.2378**	**1.2378**		**1.1936**	**1.1936**	**0.0000**	**4,412.2312**	**4,412.2312**	**0.7695**		**4,431.4682**

3.5 Tower 1 Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.0000e-005	7.9000e-004	2.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005		0.2894	0.2894	2.0000e-005		0.2898
Vendor	0.5591	18.0967	4.7069	0.0499	1.2549	0.0340	1.2889	0.3613	0.0325	0.3938		5,340.7234	5,340.7234	0.3065		5,348.3855
Worker	3.1640	2.0972	29.2823	0.0869	8.8080	0.0690	8.8769	2.3359	0.0635	2.3994		8,657.8531	8,657.8531	0.2390		8,663.8271
Total	**3.7232**	**20.1947**	**33.9894**	**0.1368**	**10.0630**	**0.1030**	**10.1660**	**2.6973**	**0.0960**	**2.7933**		**13,998.8658**	**13,998.8658**	**0.5455**		**14,012.5024**

3.5 Tower 1 Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8346	23.8534	25.5798	0.0472		1.0872	1.0872		1.0477	1.0477		4,412.4637	4,412.4637	0.7553		4,431.3466
Total	**2.8346**	**23.8534**	**25.5798**	**0.0472**		**1.0872**	**1.0872**		**1.0477**	**1.0477**		**4,412.4637**	**4,412.4637**	**0.7553**		**4,431.3466**

3.5 Tower 1 Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0000e-005	5.0000e-004	1.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005		0.2774	0.2774	2.0000e-005		0.2778
Vendor	0.4148	13.7311	4.2509	0.0483	1.2549	0.0159	1.2707	0.3613	0.0152	0.3765		5,172.5856	5,172.5856	0.2716		5,179.3754
Worker	2.9712	1.8974	26.9664	0.0837	8.8080	0.0670	8.8750	2.3359	0.0617	2.3976		8,340.8381	8,340.8381	0.2155		8,346.2244
Total	**3.3861**	**15.6291**	**31.2175**	**0.1320**	**10.0630**	**0.0828**	**10.1458**	**2.6973**	**0.0768**	**2.7741**		**13,513.7011**	**13,513.7011**	**0.4871**		**13,525.8777**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8346	23.8534	25.5798	0.0472		1.0872	1.0872		1.0477	1.0477	0.0000	4,412.4637	4,412.4637	0.7553		4,431.3466
Total	**2.8346**	**23.8534**	**25.5798**	**0.0472**		**1.0872**	**1.0872**		**1.0477**	**1.0477**	**0.0000**	**4,412.4637**	**4,412.4637**	**0.7553**		**4,431.3466**

3.5 Tower 1 Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0000e-005	5.0000e-004	1.9000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005		0.2774	0.2774	2.0000e-005		0.2778
Vendor	0.4148	13.7311	4.2509	0.0483	1.2549	0.0159	1.2707	0.3613	0.0152	0.3765		5,172.5856	5,172.5856	0.2716		5,179.3754
Worker	2.9712	1.8974	26.9664	0.0837	8.8080	0.0670	8.8750	2.3359	0.0617	2.3976		8,340.8381	8,340.8381	0.2155		8,346.2244
Total	**3.3861**	**15.6291**	**31.2175**	**0.1320**	**10.0630**	**0.0828**	**10.1458**	**2.6973**	**0.0768**	**2.7741**		**13,513.7011**	**13,513.7011**	**0.4871**		**13,525.8777**

3.5 Tower 1 Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6639	22.3477	25.4083	0.0472		0.9592	0.9592		0.9237	0.9237		4,412.5810	4,412.5810	0.7467		4,431.2484
Total	**2.6639**	**22.3477**	**25.4083**	**0.0472**		**0.9592**	**0.9592**		**0.9237**	**0.9237**		**4,412.5810**	**4,412.5810**	**0.7467**		**4,431.2484**

3.5 Tower 1 Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0000e-005	5.0000e-004	2.0000e-004	0.0000	4.9700e-003	0.0000	4.9700e-003	1.2200e-003	0.0000	1.2200e-003		0.2762	0.2762	2.0000e-005		0.2766
Vendor	0.4049	13.6787	4.1214	0.0481	1.2549	0.0157	1.2706	0.3613	0.0150	0.3763		5,151.5940	5,151.5940	0.2677		5,158.2872
Worker	2.8107	1.7304	25.1389	0.0811	8.8080	0.0660	8.8740	2.3359	0.0608	2.3967		8,082.3447	8,082.3447	0.1977		8,087.2863
Total	**3.2156**	**15.4096**	**29.2605**	**0.1291**	**10.0679**	**0.0817**	**10.1495**	**2.6985**	**0.0758**	**2.7742**		**13,234.2150**	**13,234.2150**	**0.4654**		**13,245.8501**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6639	22.3477	25.4083	0.0472		0.9592	0.9592		0.9237	0.9237	0.0000	4,412.5810	4,412.5810	0.7467		4,431.2484
Total	**2.6639**	**22.3477**	**25.4083**	**0.0472**		**0.9592**	**0.9592**		**0.9237**	**0.9237**	**0.0000**	**4,412.5810**	**4,412.5810**	**0.7467**		**4,431.2484**

3.5 Tower 1 Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0000e-005	5.0000e-004	2.0000e-004	0.0000	4.9700e-003	0.0000	4.9700e-003	1.2200e-003	0.0000	1.2200e-003		0.2762	0.2762	2.0000e-005		0.2766
Vendor	0.4049	13.6787	4.1214	0.0481	1.2549	0.0157	1.2706	0.3613	0.0150	0.3763		5,151.5940	5,151.5940	0.2677		5,158.2872
Worker	2.8107	1.7304	25.1389	0.0811	8.8080	0.0660	8.8740	2.3359	0.0608	2.3967		8,082.3447	8,082.3447	0.1977		8,087.2863
Total	**3.2156**	**15.4096**	**29.2605**	**0.1291**	**10.0679**	**0.0817**	**10.1495**	**2.6985**	**0.0758**	**2.7742**		**13,234.2150**	**13,234.2150**	**0.4654**		**13,245.8501**

3.6 Tower 1 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416		562.8961	562.8961	0.0337		563.7380
Total	**43.2426**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**		**562.8961**	**562.8961**	**0.0337**		**563.7380**

3.6 Tower 1 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.0000e-005	1.9000e-003	7.3000e-004	1.0000e-005	2.4000e-004	0.0000	2.4000e-004	7.0000e-005	0.0000	7.0000e-005		1.0440	1.0440	7.0000e-005		1.0456
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5958	0.3805	5.4070	0.0168	1.7661	0.0134	1.7795	0.4684	0.0124	0.4807		1,672.4016	1,672.4016	0.0432		1,673.4816
Total	**0.5958**	**0.3824**	**5.4077**	**0.0168**	**1.7663**	**0.0134**	**1.7797**	**0.4684**	**0.0124**	**0.4808**		**1,673.4455**	**1,673.4455**	**0.0433**		**1,674.5272**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416	0.0000	562.8961	562.8961	0.0337		563.7380
Total	**43.2426**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**	**0.0000**	**562.8961**	**562.8961**	**0.0337**		**563.7380**

3.6 Tower 1 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.0000e-005	1.9000e-003	7.3000e-004	1.0000e-005	2.4000e-004	0.0000	2.4000e-004	7.0000e-005	0.0000	7.0000e-005		1.0440	1.0440	7.0000e-005		1.0456
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5958	0.3805	5.4070	0.0168	1.7661	0.0134	1.7795	0.4684	0.0124	0.4807		1,672.4016	1,672.4016	0.0432		1,673.4816
Total	**0.5958**	**0.3824**	**5.4077**	**0.0168**	**1.7663**	**0.0134**	**1.7797**	**0.4684**	**0.0124**	**0.4808**		**1,673.4455**	**1,673.4455**	**0.0433**		**1,674.5272**

3.6 Tower 1 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3615	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218		562.8961	562.8961	0.0317		563.6885
Total	**43.2208**	**2.4376**	**3.6203**	**5.9400e-003**		**0.1218**	**0.1218**		**0.1218**	**0.1218**		**562.8961**	**562.8961**	**0.0317**		**563.6885**

3.6 Tower 1 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.0000e-005	1.8800e-003	7.4000e-004	1.0000e-005	0.0199	0.0000	0.0199	4.8900e-003	0.0000	4.8900e-003		1.0395	1.0395	7.0000e-005		1.0412
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5636	0.3470	5.0405	0.0163	1.7661	0.0132	1.7793	0.4684	0.0122	0.4806		1,620.5717	1,620.5717	0.0396		1,621.5625
Total	**0.5636**	**0.3488**	**5.0413**	**0.0163**	**1.7860**	**0.0132**	**1.7992**	**0.4733**	**0.0122**	**0.4855**		**1,621.6112**	**1,621.6112**	**0.0397**		**1,622.6037**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3615	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218	0.0000	562.8961	562.8961	0.0317		563.6885
Total	**43.2208**	**2.4376**	**3.6203**	**5.9400e-003**		**0.1218**	**0.1218**		**0.1218**	**0.1218**	**0.0000**	**562.8961**	**562.8961**	**0.0317**		**563.6885**

3.6 Tower 1 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.0000e-005	1.8800e-003	7.4000e-004	1.0000e-005	0.0199	0.0000	0.0199	4.8900e-003	0.0000	4.8900e-003		1.0395	1.0395	7.0000e-005		1.0412
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5636	0.3470	5.0405	0.0163	1.7661	0.0132	1.7793	0.4684	0.0122	0.4806		1,620.5717	1,620.5717	0.0396		1,621.5625
Total	**0.5636**	**0.3488**	**5.0413**	**0.0163**	**1.7860**	**0.0132**	**1.7992**	**0.4733**	**0.0122**	**0.4855**		**1,621.6112**	**1,621.6112**	**0.0397**		**1,622.6037**

3.7 Tower 2 Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5680	20.2241	25.2972	0.0440		0.8609	0.8609		0.8370	0.8370		4,061.2514	4,061.2514	0.5871		4,075.9300
Total	**2.5680**	**20.2241**	**25.2972**	**0.0440**		**0.8609**	**0.8609**		**0.8370**	**0.8370**		**4,061.2514**	**4,061.2514**	**0.5871**		**4,075.9300**

3.7 Tower 2 Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4049	13.6787	4.1214	0.0481	1.2549	0.0157	1.2706	0.3613	0.0150	0.3763		5,151.5940	5,151.5940	0.2677		5,158.2872
Worker	2.8107	1.7304	25.1389	0.0811	8.8080	0.0660	8.8740	2.3359	0.0608	2.3967		8,082.3447	8,082.3447	0.1977		8,087.2863
Total	**3.2156**	**15.4091**	**29.2603**	**0.1291**	**10.0629**	**0.0817**	**10.1446**	**2.6972**	**0.0758**	**2.7730**		**13,233.9388**	**13,233.9388**	**0.4654**		**13,245.5734**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5680	20.2241	25.2972	0.0440		0.8609	0.8609		0.8370	0.8370	0.0000	4,061.2514	4,061.2514	0.5871		4,075.9300
Total	**2.5680**	**20.2241**	**25.2972**	**0.0440**		**0.8609**	**0.8609**		**0.8370**	**0.8370**	**0.0000**	**4,061.2514**	**4,061.2514**	**0.5871**		**4,075.9300**

3.7 Tower 2 Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4049	13.6787	4.1214	0.0481	1.2549	0.0157	1.2706	0.3613	0.0150	0.3763		5,151.5940	5,151.5940	0.2677		5,158.2872
Worker	2.8107	1.7304	25.1389	0.0811	8.8080	0.0660	8.8740	2.3359	0.0608	2.3967		8,082.3447	8,082.3447	0.1977		8,087.2863
Total	**3.2156**	**15.4091**	**29.2603**	**0.1291**	**10.0629**	**0.0817**	**10.1446**	**2.6972**	**0.0758**	**2.7730**		**13,233.9388**	**13,233.9388**	**0.4654**		**13,245.5734**

3.7 Tower 2 Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4133	19.0511	25.1918	0.0440		0.7470	0.7470		0.7258	0.7258		4,061.4887	4,061.4887	0.5765		4,075.9018
Total	**2.4133**	**19.0511**	**25.1918**	**0.0440**		**0.7470**	**0.7470**		**0.7258**	**0.7258**		**4,061.4887**	**4,061.4887**	**0.5765**		**4,075.9018**

3.7 Tower 2 Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3946	13.5626	4.0156	0.0478	1.2549	0.0154	1.2704	0.3613	0.0147	0.3761		5,123.2084	5,123.2084	0.2640		5,129.8076
Worker	2.6689	1.5832	23.3484	0.0779	8.8080	0.0647	8.8726	2.3359	0.0595	2.3954		7,769.1676	7,769.1676	0.1803		7,773.6753
Total	**3.0635**	**15.1459**	**27.3639**	**0.1257**	**10.0629**	**0.0801**	**10.1430**	**2.6973**	**0.0743**	**2.7715**		**12,892.3760**	**12,892.3760**	**0.4443**		**12,903.4829**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4133	19.0511	25.1918	0.0440		0.7470	0.7470		0.7258	0.7258	0.0000	4,061.4887	4,061.4887	0.5765		4,075.9018
Total	**2.4133**	**19.0511**	**25.1918**	**0.0440**		**0.7470**	**0.7470**		**0.7258**	**0.7258**	**0.0000**	**4,061.4887**	**4,061.4887**	**0.5765**		**4,075.9018**

3.7 Tower 2 Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3946	13.5626	4.0156	0.0478	1.2549	0.0154	1.2704	0.3613	0.0147	0.3761		5,123.2084	5,123.2084	0.2640		5,129.8076
Worker	2.6689	1.5832	23.3484	0.0779	8.8080	0.0647	8.8726	2.3359	0.0595	2.3954		7,769.1676	7,769.1676	0.1803		7,773.6753
Total	**3.0635**	**15.1459**	**27.3639**	**0.1257**	**10.0629**	**0.0801**	**10.1430**	**2.6973**	**0.0743**	**2.7715**		**12,892.3760**	**12,892.3760**	**0.4443**		**12,903.4829**

3.7 Tower 2 Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4133	19.0511	25.1918	0.0440		0.7470	0.7470		0.7258	0.7258		4,061.4887	4,061.4887	0.5765		4,075.9018
Total	**2.4133**	**19.0511**	**25.1918**	**0.0440**		**0.7470**	**0.7470**		**0.7258**	**0.7258**		**4,061.4887**	**4,061.4887**	**0.5765**		**4,075.9018**

3.7 Tower 2 Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3857	13.4367	3.9346	0.0475	1.2550	0.0151	1.2701	0.3613	0.0145	0.3758		5,095.9508	5,095.9508	0.2602		5,102.4565
Worker	2.5470	1.4586	21.8334	0.0752	8.8080	0.0625	8.8705	2.3359	0.0575	2.3934		7,499.2355	7,499.2355	0.1654		7,503.3697
Total	**2.9327**	**14.8954**	**25.7680**	**0.1227**	**10.0630**	**0.0776**	**10.1405**	**2.6973**	**0.0720**	**2.7692**		**12,595.1863**	**12,595.1863**	**0.4256**		**12,605.8262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4133	19.0511	25.1918	0.0440		0.7470	0.7470		0.7258	0.7258	0.0000	4,061.4887	4,061.4887	0.5765		4,075.9018
Total	**2.4133**	**19.0511**	**25.1918**	**0.0440**		**0.7470**	**0.7470**		**0.7258**	**0.7258**	**0.0000**	**4,061.4887**	**4,061.4887**	**0.5765**		**4,075.9018**

3.7 Tower 2 Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3857	13.4367	3.9346	0.0475	1.2550	0.0151	1.2701	0.3613	0.0145	0.3758		5,095.9508	5,095.9508	0.2602		5,102.4565
Worker	2.5470	1.4586	21.8334	0.0752	8.8080	0.0625	8.8705	2.3359	0.0575	2.3934		7,499.2355	7,499.2355	0.1654		7,503.3697
Total	**2.9327**	**14.8954**	**25.7680**	**0.1227**	**10.0630**	**0.0776**	**10.1405**	**2.6973**	**0.0720**	**2.7692**		**12,595.1863**	**12,595.1863**	**0.4256**		**12,605.8262**

3.8 Tower 2 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**43.2010**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

3.8 Tower 2 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5351	0.3175	4.6815	0.0156	1.7661	0.0130	1.7790	0.4684	0.0119	0.4803		1,557.7773	1,557.7773	0.0362		1,558.6811
Total	**0.5351**	**0.3175**	**4.6815**	**0.0156**	**1.7661**	**0.0130**	**1.7790**	**0.4684**	**0.0119**	**0.4803**		**1,557.7773**	**1,557.7773**	**0.0362**		**1,558.6811**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**43.2010**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

3.8 Tower 2 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5351	0.3175	4.6815	0.0156	1.7661	0.0130	1.7790	0.4684	0.0119	0.4803		1,557.7773	1,557.7773	0.0362		1,558.6811
Total	**0.5351**	**0.3175**	**4.6815**	**0.0156**	**1.7661**	**0.0130**	**1.7790**	**0.4684**	**0.0119**	**0.4803**		**1,557.7773**	**1,557.7773**	**0.0362**		**1,558.6811**

3.8 Tower 2 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**43.2010**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

3.8 Tower 2 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5107	0.2925	4.3778	0.0151	1.7661	0.0125	1.7786	0.4684	0.0115	0.4799		1,503.6538	1,503.6538	0.0332		1,504.4828
Total	**0.5107**	**0.2925**	**4.3778**	**0.0151**	**1.7661**	**0.0125**	**1.7786**	**0.4684**	**0.0115**	**0.4799**		**1,503.6538**	**1,503.6538**	**0.0332**		**1,504.4828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**43.2010**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

3.8 Tower 2 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5107	0.2925	4.3778	0.0151	1.7661	0.0125	1.7786	0.4684	0.0115	0.4799		1,503.6538	1,503.6538	0.0332		1,504.4828
Total	**0.5107**	**0.2925**	**4.3778**	**0.0151**	**1.7661**	**0.0125**	**1.7786**	**0.4684**	**0.0115**	**0.4799**		**1,503.6538**	**1,503.6538**	**0.0332**		**1,504.4828**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.1399	18.3998	57.7714	0.2434	22.3201	0.1760	22.4961	5.9715	0.1634	6.1349		24,849.0860	24,849.0860	1.0848		24,876.2051
Unmitigated	4.1399	18.3998	57.7714	0.2434	22.3201	0.1760	22.4961	5.9715	0.1634	6.1349		24,849.0860	24,849.0860	1.0848		24,876.2051

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	183.86	183.86	183.86	589,750	589,750
Strip Mall	46.26	46.26	46.26	159,563	159,563
Apartments High Rise	2,425.60	2,425.60	2425.60	9,330,682	9,330,682
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	139.90	139.90	139.90	419,509	419,509
Total	2,795.62	2,795.62	2,795.62	10,499,503	10,499,503

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.00	19.00	41.00	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Fast Food Restaurant w/o Drive Thru	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
NaturalGas Unmitigated	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16161.2	0.1743	1.4894	0.6338	9.5100e-003		0.1204	0.1204		0.1204	0.1204		1,901.3188	1,901.3188	0.0364	0.0349	1,912.6174
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1264.44	0.0136	0.1240	0.1041	7.4000e-004		9.4200e-003	9.4200e-003		9.4200e-003	9.4200e-003		148.7575	148.7575	2.8500e-003	2.7300e-003	149.6414
High Turnover (Sit Down Restaurant)	2908.21	0.0314	0.2851	0.2395	1.7100e-003		0.0217	0.0217		0.0217	0.0217		342.1421	342.1421	6.5600e-003	6.2700e-003	344.1753
Strip Mall	24.8831	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9274	2.9274	6.0000e-005	5.0000e-005	2.9448
Total		**0.2196**	**1.9009**	**0.9795**	**0.0120**		**0.1517**	**0.1517**		**0.1517**	**0.1517**		**2,395.1458**	**2,395.1458**	**0.0459**	**0.0439**	**2,409.3790**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16.1612	0.1743	1.4894	0.6338	9.5100e-003		0.1204	0.1204		0.1204	0.1204		1,901.3188	1,901.3188	0.0364	0.0349	1,912.6174
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.26444	0.0136	0.1240	0.1041	7.4000e-004		9.4200e-003	9.4200e-003		9.4200e-003	9.4200e-003		148.7575	148.7575	2.8500e-003	2.7300e-003	149.6414
High Turnover (Sit Down Restaurant)	2.90821	0.0314	0.2851	0.2395	1.7100e-003		0.0217	0.0217		0.0217	0.0217		342.1421	342.1421	6.5600e-003	6.2700e-003	344.1753
Strip Mall	0.0248831	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9274	2.9274	6.0000e-005	5.0000e-005	2.9448
Total		**0.2196**	**1.9009**	**0.9795**	**0.0120**		**0.1517**	**0.1517**		**0.1517**	**0.1517**		**2,395.1458**	**2,395.1458**	**0.0459**	**0.0439**	**2,409.3790**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Unmitigated	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6020	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934		95.4965	95.4965	0.0921		97.8002
Total	**17.2921**	**0.6094**	**52.9476**	**2.8000e-003**		**0.2934**	**0.2934**		**0.2934**	**0.2934**	**0.0000**	**95.4965**	**95.4965**	**0.0921**	**0.0000**	**97.8002**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6020	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934		95.4965	95.4965	0.0921		97.8002
Total	**17.2921**	**0.6094**	**52.9476**	**2.8000e-003**		**0.2934**	**0.2934**		**0.2934**	**0.2934**	**0.0000**	**95.4965**	**95.4965**	**0.0921**	**0.0000**	**97.8002**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3440 Wilshire Boulevard Future

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	1,921.00	Space	1.00	768,400.00	0
Fast Food Restaurant w/o Drive Thru	2.00	1000sqft	0.05	2,000.00	0
High Turnover (Sit Down Restaurant)	4.60	1000sqft	0.09	4,600.00	0
Apartments High Rise	640.00	Dwelling Unit	1.10	701,315.00	1830
Strip Mall	5.54	1000sqft	0.09	5,538.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2026
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Consistent with IS/MND's model.

Construction Phase - See SWAPE comment about construction schedule.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Consistent with IS/MND's model.

Off-road Equipment - Same as Tower 1 Construction.

Off-road Equipment - Same as Tower 1 Construction.

Trips and VMT - See SWAPE comment about hauling, vendor, and worker trips.

Demolition - Consistent with IS/MND's model.

Grading - See SWAPE comment about acres of grading. Material export consistent with IS/MND's model.

Vehicle Trips - See SWAPE comment about trip rates.

Woodstoves - Consistent with IS/MND's model.

Construction Off-road Equipment Mitigation - See SWAPE comment about construction-related mitigation measures.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	110.00
tblConstructionPhase	NumDays	10.00	110.00
tblConstructionPhase	NumDays	220.00	414.00
tblConstructionPhase	NumDays	220.00	414.00
tblConstructionPhase	NumDays	20.00	24.00
tblConstructionPhase	NumDays	6.00	65.00
tblConstructionPhase	NumDays	3.00	21.00
tblFireplaces	NumberGas	544.00	0.00
tblFireplaces	NumberNoFireplace	64.00	641.00

3440 Wilshire Boulevard Future - Los Angeles-South Coast County, Winter

tblFireplaces	NumberWood	32.00	0.00
tblGrading	MaterialExported	0.00	137,000.00
tblLandUse	LandUseSquareFeet	640,000.00	701,315.00
tblLandUse	LandUseSquareFeet	5,540.00	5,538.00
tblLandUse	LotAcreage	17.29	1.00
tblLandUse	LotAcreage	0.11	0.09
tblLandUse	LotAcreage	10.32	1.10
tblLandUse	LotAcreage	0.13	0.09
tblOffRoadEquipment	LoadFactor	0.36	0.37
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripLength	20.00	30.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	37.00	0.00
tblVehicleTrips	DV_TP	20.00	0.00
tblVehicleTrips	DV_TP	40.00	0.00
tblVehicleTrips	HO_TTP	40.60	41.00
tblVehicleTrips	HS_TTP	19.20	19.00
tblVehicleTrips	HW_TTP	40.20	40.00

tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	43.00	0.00
tblVehicleTrips	PB_TP	15.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	51.00	100.00
tblVehicleTrips	PR_TP	37.00	100.00
tblVehicleTrips	PR_TP	45.00	100.00
tblVehicleTrips	ST_TR	4.98	3.79
tblVehicleTrips	ST_TR	696.00	69.95
tblVehicleTrips	ST_TR	158.37	39.97
tblVehicleTrips	ST_TR	42.04	8.35
tblVehicleTrips	SU_TR	3.65	3.79
tblVehicleTrips	SU_TR	500.00	69.95
tblVehicleTrips	SU_TR	131.84	39.97
tblVehicleTrips	SU_TR	20.43	8.35
tblVehicleTrips	WD_TR	4.20	3.79
tblVehicleTrips	WD_TR	716.00	69.95
tblVehicleTrips	WD_TR	127.15	39.97
tblVehicleTrips	WD_TR	44.32	8.35
tblWoodstoves	NumberCatalytic	32.00	0.00
tblWoodstoves	NumberNoncatalytic	32.00	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	7.1558	94.4056	57.7140	0.2512	20.3294	1.4093	21.7365	4.7494	1.3260	6.0637	0.0000	26,638.6136	26,638.6136	2.9490	0.0000	26,712.3387
2023	50.5047	42.6507	63.3249	0.1947	11.8293	1.3259	13.1552	3.1657	1.2794	4.4451	0.0000	19,437.7714	19,437.7714	1.3191	0.0000	19,470.7481
2024	50.0977	40.7050	60.9748	0.1915	11.8538	1.1767	13.0305	3.1717	1.1341	4.3058	0.0000	19,125.8939	19,125.8939	1.2838	0.0000	19,157.9888
2025	49.6366	36.9483	58.6605	0.1845	11.8290	0.9437	12.7727	3.1656	0.9156	4.0812	0.0000	18,392.9434	18,392.9434	1.0886	0.0000	18,420.1586
2026	49.4736	36.6571	56.8963	0.1811	11.8290	0.9407	12.7698	3.1656	0.9128	4.0785	0.0000	18,062.1309	18,062.1309	1.0675	0.0000	18,088.8175
Maximum	**50.5047**	**94.4056**	**63.3249**	**0.2512**	**20.3294**	**1.4093**	**21.7365**	**4.7494**	**1.3260**	**6.0637**	**0.0000**	**26,638.6136**	**26,638.6136**	**2.9490**	**0.0000**	**26,712.3387**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	7.1558	94.4056	57.7140	0.2512	20.3294	1.4093	21.7365	4.7494	1.3260	6.0637	0.0000	26,638.6136	26,638.6136	2.9490	0.0000	26,712.3387
2023	50.5047	42.6507	63.3249	0.1947	11.8293	1.3259	13.1552	3.1657	1.2794	4.4451	0.0000	19,437.7714	19,437.7714	1.3191	0.0000	19,470.7480
2024	50.0977	40.7050	60.9748	0.1915	11.8538	1.1767	13.0305	3.1717	1.1341	4.3058	0.0000	19,125.8939	19,125.8939	1.2838	0.0000	19,157.9888
2025	49.6366	36.9483	58.6605	0.1845	11.8290	0.9437	12.7727	3.1656	0.9156	4.0812	0.0000	18,392.9434	18,392.9434	1.0886	0.0000	18,420.1586
2026	49.4736	36.6571	56.8963	0.1811	11.8290	0.9407	12.7698	3.1656	0.9128	4.0785	0.0000	18,062.1309	18,062.1309	1.0675	0.0000	18,088.8175
Maximum	**50.5047**	**94.4056**	**63.3249**	**0.2512**	**20.3294**	**1.4093**	**21.7365**	**4.7494**	**1.3260**	**6.0637**	**0.0000**	**26,638.6136**	**26,638.6136**	**2.9490**	**0.0000**	**26,712.3387**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Energy	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
Mobile	4.0125	18.8225	54.4791	0.2319	22.3201	0.1765	22.4966	5.9715	0.1639	6.1354		23,689.8647	23,689.8647	1.0815		23,716.9025
Total	**21.5242**	**21.3328**	**108.4062**	**0.2467**	**22.3201**	**0.6216**	**22.9417**	**5.9715**	**0.6090**	**6.5805**	**0.0000**	**26,180.5071**	**26,180.5071**	**1.2196**	**0.0439**	**26,224.0817**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Energy	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
Mobile	4.0125	18.8225	54.4791	0.2319	22.3201	0.1765	22.4966	5.9715	0.1639	6.1354		23,689.8647	23,689.8647	1.0815		23,716.9025
Total	**21.5242**	**21.3328**	**108.4062**	**0.2467**	**22.3201**	**0.6216**	**22.9417**	**5.9715**	**0.6090**	**6.5805**	**0.0000**	**26,180.5071**	**26,180.5071**	**1.2196**	**0.0439**	**26,224.0817**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/3/2022	2/3/2022	5	24	
2	Site Preparation	Site Preparation	2/4/2022	3/4/2022	5	21	
3	Grading	Grading	3/5/2022	6/3/2022	5	65	
4	Tower 1 Construction	Building Construction	6/4/2022	1/4/2024	5	414	
5	Tower 1 Architectural Coating	Architectural Coating	8/1/2023	1/1/2024	5	110	
6	Tower 2 Construction	Building Construction	6/1/2024	1/1/2026	5	414	
7	Tower 2 Architectural Coating	Architectural Coating	8/1/2025	1/1/2026	5	110	

Acres of Grading (Site Preparation Phase): 31.5

Acres of Grading (Grading Phase): 32.5

Acres of Paving: 1

Residential Indoor: 1,420,163; Residential Outdoor: 473,388; Non-Residential Indoor: 18,207; Non-Residential Outdoor: 6,069; Striped Parking Area: 46,104 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	2	8.00	81	0.73
Demolition	Dumpers/Tenders	3	8.00	16	0.38
Demolition	Dumpers/Tenders	0		16	0.38

Demolition	Excavators	2	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Rubber Tired Loaders	1	8.00	203	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	6.00	221	0.50
Site Preparation	Bore/Drill Rigs	0		221	0.50
Site Preparation	Cement and Mortar Mixers	1	6.00	9	0.56
Site Preparation	Cement and Mortar Mixers	0		9	0.56
Site Preparation	Excavators	1	8.00	158	0.38
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Scrapers	1	8.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Bore/Drill Rigs	1	6.00	221	0.50
Grading	Cement and Mortar Mixers	1	6.00	9	0.56
Grading	Concrete/Industrial Saws	1	4.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Loaders	1	8.00	203	0.36
Grading	Sweepers/Scrubbers	1	6.00	64	0.46
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Grading	Welders	1	6.00	46	0.45
Tower 1 Construction	Aerial Lifts	2	6.00	63	0.31
Tower 1 Construction	Aerial Lifts	0		63	0.31
Tower 1 Construction	Air Compressors	2	6.00	78	0.48
Tower 1 Construction	Air Compressors	0		78	0.48
Tower 1 Construction	Cement and Mortar Mixers	2	6.00	9	0.56

Tower 1 Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Tower 1 Construction	Cranes	2	8.00	231	0.29
Tower 1 Construction	Forklifts	2	7.00	89	0.20
Tower 1 Construction	Generator Sets	1	8.00	84	0.74
Tower 1 Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tower 1 Construction	Welders	2	8.00	46	0.45
Tower 1 Architectural Coating	Air Compressors	2	6.00	78	0.48
Tower 2 Construction	Aerial Lifts	2	6.00	63	0.31
Tower 2 Construction	Aerial Lifts	0		63	0.31
Tower 2 Construction	Air Compressors	2	6.00	78	0.48
Tower 2 Construction	Air Compressors	0		78	0.48
Tower 2 Construction	Cement and Mortar Mixers	2	6.00	9	0.56
Tower 2 Construction	Concrete/Industrial Saws	2	6.00	81	0.73
Tower 2 Construction	Cranes	1	8.00	231	0.29
Tower 2 Construction	Forklifts	2	7.00	89	0.20
Tower 2 Construction	Generator Sets	1	8.00	84	0.74
Tower 2 Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Tower 2 Construction	Welders	3	8.00	46	0.45
Tower 2 Architectural Coating	Air Compressors	2	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	12	30.00	0.00	1,978.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	11	28.00	0.00	17,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Tower 1 Construction	16	788.00	196.00	1.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Tower 1 Architectural Coating	2	158.00	0.00	1.00	14.70	6.90	30.00	LD_Mix	HDT_Mix	HHDT
Tower 2 Construction	16	788.00	196.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Tower 2 Architectural Coating	2	158.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					17.8332	0.0000	17.8332	2.7001	0.0000	2.7001			0.0000			0.0000
Off-Road	2.9713	27.4795	26.4616	0.0494		1.3163	1.3163		1.2392	1.2392		4,721.4213	4,721.4213	1.1688		4,750.6412
Total	**2.9713**	**27.4795**	**26.4616**	**0.0494**	**17.8332**	**1.3163**	**19.1495**	**2.7001**	**1.2392**	**3.9393**		**4,721.4213**	**4,721.4213**	**1.1688**		**4,750.6412**

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9352	27.5777	7.5219	0.0898	2.1609	0.0882	2.2490	0.5923	0.0843	0.6766		9,752.6709	9,752.6709	0.6548		9,769.0405
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1344	0.0884	1.0175	3.1100e-003	0.3353	2.6200e-003	0.3380	0.0889	2.4200e-003	0.0914		310.3708	310.3708	8.5500e-003		310.5845
Total	**1.0696**	**27.6660**	**8.5394**	**0.0929**	**2.4962**	**0.0908**	**2.5870**	**0.6812**	**0.0868**	**0.7680**		**10,063.0417**	**10,063.0417**	**0.6633**		**10,079.6250**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					17.8332	0.0000	17.8332	2.7001	0.0000	2.7001			0.0000			0.0000
Off-Road	2.9713	27.4795	26.4616	0.0494		1.3163	1.3163		1.2392	1.2392	0.0000	4,721.4213	4,721.4213	1.1688		4,750.6412
Total	**2.9713**	**27.4795**	**26.4616**	**0.0494**	**17.8332**	**1.3163**	**19.1495**	**2.7001**	**1.2392**	**3.9393**	**0.0000**	**4,721.4213**	**4,721.4213**	**1.1688**		**4,750.6412**

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9352	27.5777	7.5219	0.0898	2.1609	0.0882	2.2490	0.5923	0.0843	0.6766		9,752.6709	9,752.6709	0.6548		9,769.0405
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1344	0.0884	1.0175	3.1100e-003	0.3353	2.6200e-003	0.3380	0.0889	2.4200e-003	0.0914		310.3708	310.3708	8.5500e-003		310.5845
Total	**1.0696**	**27.6660**	**8.5394**	**0.0929**	**2.4962**	**0.0908**	**2.5870**	**0.6812**	**0.0868**	**0.7680**		**10,063.0417**	**10,063.0417**	**0.6633**		**10,079.6250**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.7929	19.4202	15.0731	0.0373		0.7464	0.7464		0.6875	0.6875		3,598.2301	3,598.2301	1.1554		3,627.1156
Total	**1.7929**	**19.4202**	**15.0731**	**0.0373**	**1.5908**	**0.7464**	**2.3372**	**0.1718**	**0.6875**	**0.8593**		**3,598.2301**	**3,598.2301**	**1.1554**		**3,627.1156**

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0672**	**0.0442**	**0.5088**	**1.5600e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**155.1854**	**155.1854**	**4.2700e-003**		**155.2922**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	1.7929	19.4202	15.0731	0.0373		0.7464	0.7464		0.6875	0.6875	0.0000	3,598.2301	3,598.2301	1.1554		3,627.1156
Total	**1.7929**	**19.4202**	**15.0731**	**0.0373**	**1.5908**	**0.7464**	**2.3372**	**0.1718**	**0.6875**	**0.8593**	**0.0000**	**3,598.2301**	**3,598.2301**	**1.1554**		**3,627.1156**

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0672	0.0442	0.5088	1.5600e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		155.1854	155.1854	4.2700e-003		155.2922
Total	**0.0672**	**0.0442**	**0.5088**	**1.5600e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**155.1854**	**155.1854**	**4.2700e-003**		**155.2922**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7907	0.0000	6.7907	3.4036	0.0000	3.4036			0.0000			0.0000
Off-Road	2.8360	27.9222	21.6076	0.0490		1.2154	1.2154		1.1289	1.1289		4,697.2240	4,697.2240	1.3995		4,732.2109
Total	**2.8360**	**27.9222**	**21.6076**	**0.0490**	**6.7907**	**1.2154**	**8.0061**	**3.4036**	**1.1289**	**4.5324**		**4,697.2240**	**4,697.2240**	**1.3995**		**4,732.2109**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1410	66.4009	17.3562	0.1993	4.6069	0.1914	4.7984	1.2629	0.1831	1.4460		21,651.7102	21,651.7102	1.5416		21,690.2490
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1254	0.0825	0.9497	2.9100e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		289.6795	289.6795	7.9800e-003		289.8789
Total	**2.2664**	**66.4833**	**18.3059**	**0.2022**	**4.9199**	**0.1939**	**5.1138**	**1.3459**	**0.1854**	**1.5313**		**21,941.3896**	**21,941.3896**	**1.5495**		**21,980.1278**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.7907	0.0000	6.7907	3.4036	0.0000	3.4036			0.0000			0.0000
Off-Road	2.8360	27.9222	21.6076	0.0490		1.2154	1.2154		1.1289	1.1289	0.0000	4,697.2240	4,697.2240	1.3995		4,732.2109
Total	**2.8360**	**27.9222**	**21.6076**	**0.0490**	**6.7907**	**1.2154**	**8.0061**	**3.4036**	**1.1289**	**4.5324**	**0.0000**	**4,697.2240**	**4,697.2240**	**1.3995**		**4,732.2109**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1410	66.4009	17.3562	0.1993	4.6069	0.1914	4.7984	1.2629	0.1831	1.4460		21,651.7102	21,651.7102	1.5416		21,690.2490
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1254	0.0825	0.9497	2.9100e-003	0.3130	2.4500e-003	0.3154	0.0830	2.2600e-003	0.0853		289.6795	289.6795	7.9800e-003		289.8789
Total	**2.2664**	**66.4833**	**18.3059**	**0.2022**	**4.9199**	**0.1939**	**5.1138**	**1.3459**	**0.1854**	**1.5313**		**21,941.3896**	**21,941.3896**	**1.5495**		**21,980.1278**

3.5 Tower 1 Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0396	25.7368	25.7776	0.0472		1.2378	1.2378		1.1936	1.1936		4,412.2312	4,412.2312	0.7695		4,431.4682
Total	**3.0396**	**25.7368**	**25.7776**	**0.0472**		**1.2378**	**1.2378**		**1.1936**	**1.1936**		**4,412.2312**	**4,412.2312**	**0.7695**		**4,431.4682**

3.5 Tower 1 Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.0000e-005	8.1000e-004	2.2000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005		0.2858	0.2858	2.0000e-005		0.2863
Vendor	0.5871	18.0475	5.2091	0.0486	1.2549	0.0351	1.2900	0.3613	0.0336	0.3949		5,193.4175	5,193.4175	0.3264		5,201.5773
Worker	3.5290	2.3210	26.7271	0.0818	8.8080	0.0690	8.8769	2.3359	0.0635	2.3994		8,152.4073	8,152.4073	0.2245		8,158.0192
Total	**4.1162**	**20.3693**	**31.9364**	**0.1304**	**10.0630**	**0.1041**	**10.1671**	**2.6973**	**0.0971**	**2.7944**		**13,346.1106**	**13,346.1106**	**0.5509**		**13,359.8828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.0396	25.7368	25.7776	0.0472		1.2378	1.2378		1.1936	1.1936	0.0000	4,412.2312	4,412.2312	0.7695		4,431.4682
Total	**3.0396**	**25.7368**	**25.7776**	**0.0472**		**1.2378**	**1.2378**		**1.1936**	**1.1936**	**0.0000**	**4,412.2312**	**4,412.2312**	**0.7695**		**4,431.4682**

3.5 Tower 1 Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.0000e-005	8.1000e-004	2.2000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005		0.2858	0.2858	2.0000e-005		0.2863
Vendor	0.5871	18.0475	5.2091	0.0486	1.2549	0.0351	1.2900	0.3613	0.0336	0.3949		5,193.4175	5,193.4175	0.3264		5,201.5773
Worker	3.5290	2.3210	26.7271	0.0818	8.8080	0.0690	8.8769	2.3359	0.0635	2.3994		8,152.4073	8,152.4073	0.2245		8,158.0192
Total	**4.1162**	**20.3693**	**31.9364**	**0.1304**	**10.0630**	**0.1041**	**10.1671**	**2.6973**	**0.0971**	**2.7944**		**13,346.1106**	**13,346.1106**	**0.5509**		**13,359.8828**

3.5 Tower 1 Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8346	23.8534	25.5798	0.0472		1.0872	1.0872		1.0477	1.0477		4,412.4637	4,412.4637	0.7553		4,431.3466
Total	**2.8346**	**23.8534**	**25.5798**	**0.0472**		**1.0872**	**1.0872**		**1.0477**	**1.0477**		**4,412.4637**	**4,412.4637**	**0.7553**		**4,431.3466**

3.5 Tower 1 Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0000e-005	5.1000e-004	2.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005		0.2740	0.2740	2.0000e-005		0.2745
Vendor	0.4362	13.6688	4.6288	0.0470	1.2549	0.0167	1.2716	0.3613	0.0159	0.3773		5,032.1297	5,032.1297	0.2873		5,039.3130
Worker	3.3247	2.0992	24.5672	0.0788	8.8080	0.0670	8.8750	2.3359	0.0617	2.3976		7,854.1581	7,854.1581	0.2021		7,859.2112
Total	**3.7609**	**15.7685**	**29.1962**	**0.1258**	**10.0630**	**0.0837**	**10.1466**	**2.6973**	**0.0776**	**2.7749**		**12,886.5618**	**12,886.5618**	**0.4895**		**12,898.7987**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.8346	23.8534	25.5798	0.0472		1.0872	1.0872		1.0477	1.0477	0.0000	4,412.4637	4,412.4637	0.7553		4,431.3466
Total	**2.8346**	**23.8534**	**25.5798**	**0.0472**		**1.0872**	**1.0872**		**1.0477**	**1.0477**	**0.0000**	**4,412.4637**	**4,412.4637**	**0.7553**		**4,431.3466**

3.5 Tower 1 Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0000e-005	5.1000e-004	2.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	3.0000e-005		0.2740	0.2740	2.0000e-005		0.2745
Vendor	0.4362	13.6688	4.6288	0.0470	1.2549	0.0167	1.2716	0.3613	0.0159	0.3773		5,032.1297	5,032.1297	0.2873		5,039.3130
Worker	3.3247	2.0992	24.5672	0.0788	8.8080	0.0670	8.8750	2.3359	0.0617	2.3976		7,854.1581	7,854.1581	0.2021		7,859.2112
Total	**3.7609**	**15.7685**	**29.1962**	**0.1258**	**10.0630**	**0.0837**	**10.1466**	**2.6973**	**0.0776**	**2.7749**		**12,886.5618**	**12,886.5618**	**0.4895**		**12,898.7987**

3.5 Tower 1 Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6639	22.3477	25.4083	0.0472		0.9592	0.9592		0.9237	0.9237		4,412.5810	4,412.5810	0.7467		4,431.2484
Total	**2.6639**	**22.3477**	**25.4083**	**0.0472**		**0.9592**	**0.9592**		**0.9237**	**0.9237**		**4,412.5810**	**4,412.5810**	**0.7467**		**4,431.2484**

3.5 Tower 1 Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0000e-005	5.1000e-004	2.0000e-004	0.0000	4.9700e-003	0.0000	4.9700e-003	1.2200e-003	0.0000	1.2200e-003		0.2729	0.2729	2.0000e-005		0.2733
Vendor	0.4255	13.6197	4.4884	0.0468	1.2549	0.0164	1.2713	0.3613	0.0157	0.3770		5,012.6132	5,012.6132	0.2830		5,019.6877
Worker	3.1549	1.9139	22.8711	0.0763	8.8080	0.0660	8.8740	2.3359	0.0608	2.3967		7,610.5338	7,610.5338	0.1852		7,615.1638
Total	**3.5804**	**15.5341**	**27.3597**	**0.1231**	**10.0679**	**0.0824**	**10.1503**	**2.6985**	**0.0765**	**2.7749**		**12,623.4198**	**12,623.4198**	**0.4682**		**12,635.1248**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6639	22.3477	25.4083	0.0472		0.9592	0.9592		0.9237	0.9237	0.0000	4,412.5810	4,412.5810	0.7467		4,431.2484
Total	**2.6639**	**22.3477**	**25.4083**	**0.0472**		**0.9592**	**0.9592**		**0.9237**	**0.9237**	**0.0000**	**4,412.5810**	**4,412.5810**	**0.7467**		**4,431.2484**

3.5 Tower 1 Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0000e-005	5.1000e-004	2.0000e-004	0.0000	4.9700e-003	0.0000	4.9700e-003	1.2200e-003	0.0000	1.2200e-003		0.2729	0.2729	2.0000e-005		0.2733
Vendor	0.4255	13.6197	4.4884	0.0468	1.2549	0.0164	1.2713	0.3613	0.0157	0.3770		5,012.6132	5,012.6132	0.2830		5,019.6877
Worker	3.1549	1.9139	22.8711	0.0763	8.8080	0.0660	8.8740	2.3359	0.0608	2.3967		7,610.5338	7,610.5338	0.1852		7,615.1638
Total	**3.5804**	**15.5341**	**27.3597**	**0.1231**	**10.0679**	**0.0824**	**10.1503**	**2.6985**	**0.0765**	**2.7749**		**12,623.4198**	**12,623.4198**	**0.4682**		**12,635.1248**

3.6 Tower 1 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416		562.8961	562.8961	0.0337		563.7380
Total	**43.2426**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**		**562.8961**	**562.8961**	**0.0337**		**563.7380**

3.6 Tower 1 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.0000e-005	1.9200e-003	7.5000e-004	1.0000e-005	2.4000e-004	0.0000	2.4000e-004	7.0000e-005	0.0000	7.0000e-005		1.0313	1.0313	7.0000e-005		1.0330
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6666	0.4209	4.9259	0.0158	1.7661	0.0134	1.7795	0.4684	0.0124	0.4807		1,574.8185	1,574.8185	0.0405		1,575.8317
Total	**0.6667**	**0.4228**	**4.9267**	**0.0158**	**1.7663**	**0.0134**	**1.7797**	**0.4684**	**0.0124**	**0.4808**		**1,575.8498**	**1,575.8498**	**0.0406**		**1,576.8647**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3833	2.6060	3.6222	5.9400e-003		0.1416	0.1416		0.1416	0.1416	0.0000	562.8961	562.8961	0.0337		563.7380
Total	**43.2426**	**2.6060**	**3.6222**	**5.9400e-003**		**0.1416**	**0.1416**		**0.1416**	**0.1416**	**0.0000**	**562.8961**	**562.8961**	**0.0337**		**563.7380**

3.6 Tower 1 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.0000e-005	1.9200e-003	7.5000e-004	1.0000e-005	2.4000e-004	0.0000	2.4000e-004	7.0000e-005	0.0000	7.0000e-005		1.0313	1.0313	7.0000e-005		1.0330
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6666	0.4209	4.9259	0.0158	1.7661	0.0134	1.7795	0.4684	0.0124	0.4807		1,574.8185	1,574.8185	0.0405		1,575.8317
Total	**0.6667**	**0.4228**	**4.9267**	**0.0158**	**1.7663**	**0.0134**	**1.7797**	**0.4684**	**0.0124**	**0.4808**		**1,575.8498**	**1,575.8498**	**0.0406**		**1,576.8647**

3.6 Tower 1 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3615	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218		562.8961	562.8961	0.0317		563.6885
Total	**43.2208**	**2.4376**	**3.6203**	**5.9400e-003**		**0.1218**	**0.1218**		**0.1218**	**0.1218**		**562.8961**	**562.8961**	**0.0317**		**563.6885**

3.6 Tower 1 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.0000e-005	1.9100e-003	7.6000e-004	1.0000e-005	0.0199	0.0000	0.0199	4.8900e-003	0.0000	4.8900e-003		1.0270	1.0270	7.0000e-005		1.0287
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6326	0.3838	4.5858	0.0153	1.7661	0.0132	1.7793	0.4684	0.0122	0.4806		1,525.9700	1,525.9700	0.0371		1,526.8983
Total	**0.6327**	**0.3857**	**4.5866**	**0.0153**	**1.7860**	**0.0132**	**1.7992**	**0.4733**	**0.0122**	**0.4855**		**1,526.9970**	**1,526.9970**	**0.0372**		**1,527.9270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3615	2.4376	3.6203	5.9400e-003		0.1218	0.1218		0.1218	0.1218	0.0000	562.8961	562.8961	0.0317		563.6885
Total	**43.2208**	**2.4376**	**3.6203**	**5.9400e-003**		**0.1218**	**0.1218**		**0.1218**	**0.1218**	**0.0000**	**562.8961**	**562.8961**	**0.0317**		**563.6885**

3.6 Tower 1 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.0000e-005	1.9100e-003	7.6000e-004	1.0000e-005	0.0199	0.0000	0.0199	4.8900e-003	0.0000	4.8900e-003		1.0270	1.0270	7.0000e-005		1.0287
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6326	0.3838	4.5858	0.0153	1.7661	0.0132	1.7793	0.4684	0.0122	0.4806		1,525.9700	1,525.9700	0.0371		1,526.8983
Total	**0.6327**	**0.3857**	**4.5866**	**0.0153**	**1.7860**	**0.0132**	**1.7992**	**0.4733**	**0.0122**	**0.4855**		**1,526.9970**	**1,526.9970**	**0.0372**		**1,527.9270**

3.7 Tower 2 Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5680	20.2241	25.2972	0.0440		0.8609	0.8609		0.8370	0.8370		4,061.2514	4,061.2514	0.5871		4,075.9300
Total	**2.5680**	**20.2241**	**25.2972**	**0.0440**		**0.8609**	**0.8609**		**0.8370**	**0.8370**		**4,061.2514**	**4,061.2514**	**0.5871**		**4,075.9300**

3.7 Tower 2 Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4255	13.6197	4.4884	0.0468	1.2549	0.0164	1.2713	0.3613	0.0157	0.3770		5,012.6132	5,012.6132	0.2830		5,019.6877
Worker	3.1549	1.9139	22.8711	0.0763	8.8080	0.0660	8.8740	2.3359	0.0608	2.3967		7,610.5338	7,610.5338	0.1852		7,615.1638
Total	**3.5803**	**15.5336**	**27.3595**	**0.1231**	**10.0629**	**0.0824**	**10.1453**	**2.6972**	**0.0765**	**2.7737**		**12,623.1470**	**12,623.1470**	**0.4682**		**12,634.8515**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5680	20.2241	25.2972	0.0440		0.8609	0.8609		0.8370	0.8370	0.0000	4,061.2514	4,061.2514	0.5871		4,075.9300
Total	**2.5680**	**20.2241**	**25.2972**	**0.0440**		**0.8609**	**0.8609**		**0.8370**	**0.8370**	**0.0000**	**4,061.2514**	**4,061.2514**	**0.5871**		**4,075.9300**

3.7 Tower 2 Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4255	13.6197	4.4884	0.0468	1.2549	0.0164	1.2713	0.3613	0.0157	0.3770		5,012.6132	5,012.6132	0.2830		5,019.6877
Worker	3.1549	1.9139	22.8711	0.0763	8.8080	0.0660	8.8740	2.3359	0.0608	2.3967		7,610.5338	7,610.5338	0.1852		7,615.1638
Total	**3.5803**	**15.5336**	**27.3595**	**0.1231**	**10.0629**	**0.0824**	**10.1453**	**2.6972**	**0.0765**	**2.7737**		**12,623.1470**	**12,623.1470**	**0.4682**		**12,634.8515**

3.7 Tower 2 Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4133	19.0511	25.1918	0.0440		0.7470	0.7470		0.7258	0.7258		4,061.4887	4,061.4887	0.5765		4,075.9018
Total	**2.4133**	**19.0511**	**25.1918**	**0.0440**		**0.7470**	**0.7470**		**0.7258**	**0.7258**		**4,061.4887**	**4,061.4887**	**0.5765**		**4,075.9018**

3.7 Tower 2 Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4146	13.5044	4.3738	0.0465	1.2549	0.0161	1.2710	0.3613	0.0154	0.3767		4,985.7353	4,985.7353	0.2787		4,992.7034
Worker	3.0052	1.7507	21.2215	0.0734	8.8080	0.0647	8.8726	2.3359	0.0595	2.3954		7,315.9247	7,315.9247	0.1688		7,320.1448
Total	**3.4198**	**15.2552**	**25.5953**	**0.1199**	**10.0629**	**0.0807**	**10.1437**	**2.6973**	**0.0749**	**2.7721**		**12,301.6600**	**12,301.6600**	**0.4475**		**12,312.8482**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4133	19.0511	25.1918	0.0440		0.7470	0.7470		0.7258	0.7258	0.0000	4,061.4887	4,061.4887	0.5765		4,075.9018
Total	**2.4133**	**19.0511**	**25.1918**	**0.0440**		**0.7470**	**0.7470**		**0.7258**	**0.7258**	**0.0000**	**4,061.4887**	**4,061.4887**	**0.5765**		**4,075.9018**

3.7 Tower 2 Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4146	13.5044	4.3738	0.0465	1.2549	0.0161	1.2710	0.3613	0.0154	0.3767		4,985.7353	4,985.7353	0.2787		4,992.7034
Worker	3.0052	1.7507	21.2215	0.0734	8.8080	0.0647	8.8726	2.3359	0.0595	2.3954		7,315.9247	7,315.9247	0.1688		7,320.1448
Total	**3.4198**	**15.2552**	**25.5953**	**0.1199**	**10.0629**	**0.0807**	**10.1437**	**2.6973**	**0.0749**	**2.7721**		**12,301.6600**	**12,301.6600**	**0.4475**		**12,312.8482**

3.7 Tower 2 Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4133	19.0511	25.1918	0.0440		0.7470	0.7470		0.7258	0.7258		4,061.4887	4,061.4887	0.5765		4,075.9018
Total	**2.4133**	**19.0511**	**25.1918**	**0.0440**		**0.7470**	**0.7470**		**0.7258**	**0.7258**		**4,061.4887**	**4,061.4887**	**0.5765**		**4,075.9018**

3.7 Tower 2 Construction - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4051	13.3789	4.2854	0.0462	1.2550	0.0157	1.2707	0.3613	0.0150	0.3764		4,959.9493	4,959.9493	0.2745		4,966.8121
Worker	2.8773	1.6127	19.8256	0.0708	8.8080	0.0625	8.8705	2.3359	0.0575	2.3934		7,061.8434	7,061.8434	0.1547		7,065.7110
Total	**3.2824**	**14.9916**	**24.1110**	**0.1170**	**10.0630**	**0.0782**	**10.1411**	**2.6973**	**0.0725**	**2.7698**		**12,021.7927**	**12,021.7927**	**0.4292**		**12,032.5231**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4133	19.0511	25.1918	0.0440		0.7470	0.7470		0.7258	0.7258	0.0000	4,061.4887	4,061.4887	0.5765		4,075.9018
Total	**2.4133**	**19.0511**	**25.1918**	**0.0440**		**0.7470**	**0.7470**		**0.7258**	**0.7258**	**0.0000**	**4,061.4887**	**4,061.4887**	**0.5765**		**4,075.9018**

3.7 Tower 2 Construction - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4051	13.3789	4.2854	0.0462	1.2550	0.0157	1.2707	0.3613	0.0150	0.3764		4,959.9493	4,959.9493	0.2745		4,966.8121
Worker	2.8773	1.6127	19.8256	0.0708	8.8080	0.0625	8.8705	2.3359	0.0575	2.3934		7,061.8434	7,061.8434	0.1547		7,065.7110
Total	**3.2824**	**14.9916**	**24.1110**	**0.1170**	**10.0630**	**0.0782**	**10.1411**	**2.6973**	**0.0725**	**2.7698**		**12,021.7927**	**12,021.7927**	**0.4292**		**12,032.5231**

3.8 Tower 2 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**43.2010**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

3.8 Tower 2 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6026	0.3510	4.2551	0.0147	1.7661	0.0130	1.7790	0.4684	0.0119	0.4803		1,466.8986	1,466.8986	0.0339		1,467.7448
Total	**0.6026**	**0.3510**	**4.2551**	**0.0147**	**1.7661**	**0.0130**	**1.7790**	**0.4684**	**0.0119**	**0.4803**		**1,466.8986**	**1,466.8986**	**0.0339**		**1,467.7448**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**43.2010**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

3.8 Tower 2 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6026	0.3510	4.2551	0.0147	1.7661	0.0130	1.7790	0.4684	0.0119	0.4803		1,466.8986	1,466.8986	0.0339		1,467.7448
Total	**0.6026**	**0.3510**	**4.2551**	**0.0147**	**1.7661**	**0.0130**	**1.7790**	**0.4684**	**0.0119**	**0.4803**		**1,466.8986**	**1,466.8986**	**0.0339**		**1,467.7448**

3.8 Tower 2 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030		562.8961	562.8961	0.0307		563.6637
Total	**43.2010**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**		**562.8961**	**562.8961**	**0.0307**		**563.6637**

3.8 Tower 2 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5769	0.3234	3.9752	0.0142	1.7661	0.0125	1.7786	0.4684	0.0115	0.4799		1,415.9534	1,415.9534	0.0310		1,416.7289
Total	**0.5769**	**0.3234**	**3.9752**	**0.0142**	**1.7661**	**0.0125**	**1.7786**	**0.4684**	**0.0115**	**0.4799**		**1,415.9534**	**1,415.9534**	**0.0310**		**1,416.7289**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	42.8592					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3417	2.2910	3.6183	5.9400e-003		0.1030	0.1030		0.1030	0.1030	0.0000	562.8961	562.8961	0.0307		563.6637
Total	**43.2010**	**2.2910**	**3.6183**	**5.9400e-003**		**0.1030**	**0.1030**		**0.1030**	**0.1030**	**0.0000**	**562.8961**	**562.8961**	**0.0307**		**563.6637**

3.8 Tower 2 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5769	0.3234	3.9752	0.0142	1.7661	0.0125	1.7786	0.4684	0.0115	0.4799		1,415.9534	1,415.9534	0.0310		1,416.7289
Total	**0.5769**	**0.3234**	**3.9752**	**0.0142**	**1.7661**	**0.0125**	**1.7786**	**0.4684**	**0.0115**	**0.4799**		**1,415.9534**	**1,415.9534**	**0.0310**		**1,416.7289**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.0125	18.8225	54.4791	0.2319	22.3201	0.1765	22.4966	5.9715	0.1639	6.1354		23,689.8647	23,689.8647	1.0815		23,716.9025
Unmitigated	4.0125	18.8225	54.4791	0.2319	22.3201	0.1765	22.4966	5.9715	0.1639	6.1354		23,689.8647	23,689.8647	1.0815		23,716.9025

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	2,425.60	2,425.60	2425.60	9,330,682	9,330,682
Enclosed Parking with Elevator	0.00	0.00	0.00		
Fast Food Restaurant w/o Drive Thru	139.90	139.90	139.90	419,509	419,509
High Turnover (Sit Down Restaurant)	183.86	183.86	183.86	589,750	589,750
Strip Mall	46.26	46.26	46.26	159,563	159,563
Total	2,795.62	2,795.62	2,795.62	10,499,503	10,499,503

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	14.70	5.90	8.70	40.00	19.00	41.00	100	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	100	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	100	0	0
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Enclosed Parking with Elevator	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Fast Food Restaurant w/o Drive Thru	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
High Turnover (Sit Down Restaurant)	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834
Strip Mall	0.544210	0.044379	0.208611	0.117175	0.014456	0.006301	0.020907	0.032661	0.002589	0.001903	0.005267	0.000705	0.000834

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790
NaturalGas Unmitigated	0.2196	1.9009	0.9795	0.0120		0.1517	0.1517		0.1517	0.1517		2,395.1458	2,395.1458	0.0459	0.0439	2,409.3790

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16161.2	0.1743	1.4894	0.6338	9.5100e-003		0.1204	0.1204		0.1204	0.1204		1,901.3188	1,901.3188	0.0364	0.0349	1,912.6174
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1264.44	0.0136	0.1240	0.1041	7.4000e-004		9.4200e-003	9.4200e-003		9.4200e-003	9.4200e-003		148.7575	148.7575	2.8500e-003	2.7300e-003	149.6414
High Turnover (Sit Down Restaurant)	2908.21	0.0314	0.2851	0.2395	1.7100e-003		0.0217	0.0217		0.0217	0.0217		342.1421	342.1421	6.5600e-003	6.2700e-003	344.1753
Strip Mall	24.8831	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9274	2.9274	6.0000e-005	5.0000e-005	2.9448
Total		**0.2196**	**1.9009**	**0.9795**	**0.0120**		**0.1517**	**0.1517**		**0.1517**	**0.1517**		**2,395.1458**	**2,395.1458**	**0.0459**	**0.0439**	**2,409.3790**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	16.1612	0.1743	1.4894	0.6338	9.5100e-003		0.1204	0.1204		0.1204	0.1204		1,901.3188	1,901.3188	0.0364	0.0349	1,912.6174
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Fast Food Restaurant w/o Drive Thru	1.26444	0.0136	0.1240	0.1041	7.4000e-004		9.4200e-003	9.4200e-003		9.4200e-003	9.4200e-003		148.7575	148.7575	2.8500e-003	2.7300e-003	149.6414
High Turnover (Sit Down Restaurant)	2.90821	0.0314	0.2851	0.2395	1.7100e-003		0.0217	0.0217		0.0217	0.0217		342.1421	342.1421	6.5600e-003	6.2700e-003	344.1753
Strip Mall	0.0248831	2.7000e-004	2.4400e-003	2.0500e-003	1.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004		2.9274	2.9274	6.0000e-005	5.0000e-005	2.9448
Total		**0.2196**	**1.9009**	**0.9795**	**0.0120**		**0.1517**	**0.1517**		**0.1517**	**0.1517**		**2,395.1458**	**2,395.1458**	**0.0459**	**0.0439**	**2,409.3790**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002
Unmitigated	17.2921	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934	0.0000	95.4965	95.4965	0.0921	0.0000	97.8002

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6020	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934		95.4965	95.4965	0.0921		97.8002
Total	**17.2921**	**0.6094**	**52.9476**	**2.8000e-003**		**0.2934**	**0.2934**		**0.2934**	**0.2934**	**0.0000**	**95.4965**	**95.4965**	**0.0921**	**0.0000**	**97.8002**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.2917					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	14.3985					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.6020	0.6094	52.9476	2.8000e-003		0.2934	0.2934		0.2934	0.2934		95.4965	95.4965	0.0921		97.8002
Total	**17.2921**	**0.6094**	**52.9476**	**2.8000e-003**		**0.2934**	**0.2934**		**0.2934**	**0.2934**	**0.0000**	**95.4965**	**95.4965**	**0.0921**	**0.0000**	**97.8002**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education:

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on VOC filtration.
M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.
B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience:

Dr. Rosenfeld is the Co-Founder and Principal Environmental Chemist at Soil Water Air Protection Enterprise (SWAPE). His focus is the fate and transport of environmental contaminants, risk assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling, oil spills, boilers, incinerators and other industrial and agricultural sources relating to nuisance and personal injury. His project experience ranges from monitoring and modeling of pollution sources as they relate to human and ecological health. Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing petroleum, chlorinated solvents, pesticides, radioactive waste, PCBs, PAHs, dioxins, furans, volatile organics, semi-volatile organics, perchlorate, heavy metals, asbestos, PFOA, unusual polymers, MtBE, fuel oxygenates and odor. Dr. Rosenfeld has evaluated greenhouse gas emissions using various modeling programs recommended by California Air Quality Management Districts.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist
Bureau of Land Management, Kremmling Colorado 1990; Scientist

Publications:

Chen, J. A., Zapata, A R., Sutherland, A. J., Molmen, D. R,. Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing,

Rosenfeld P.E., and Suffet, I.H. (Mel) (2007). Anatomy of an Odor Wheel. *Water Science and Technology*.

Rosenfeld, P.E., Clark, J.J.J., Hensley A.R., Suffet, I.H. (Mel) (2007). The use of an odor wheel classification for evaluation of human health risk criteria for compost facilities. *Water Science And Technology*.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant*. The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993.

Deposition and/or Trial Testimony:

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September, 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio

John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the Court of Common Pleas for the Second Judicial Circuit, State of South Carolina, County of Aiken
David Anderson, et al., *Plaintiffs*, vs. Norfolk Southern Corporation, et al., *Defendants*.
Case Number: 2007-CP-02-1584

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., *Plaintiffs*, vs. Drummond Company Inc., et al., *Defendants*
Civil Action No. CV 2008-2076
Rosenfeld Deposition: September 2010

In the Ninth Judicial District Court, Parish of Rapides, State of Louisiana
Roger Price, et al., *Plaintiffs*, vs. Roy O. Martin, L.P., et al., *Defendants*.
Civil Suit Number 224,041 Division G
Rosenfeld Deposition: September 2008

In the United States District Court, Western District Lafayette Division
Ackle et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 2:07CV1052
Rosenfeld Deposition: July 2009

In the United States District Court for the Southern District of Ohio
Carolyn Baker, et al., *Plaintiffs*, vs. Chevron Oil Company, et al., *Defendants*.
Case Number 1:05 CV 227
Rosenfeld Deposition: July 2008

In the Fourth Judicial District Court, Parish of Calcasieu, State of Louisiana
Craig Steven Arabie, et al., *Plaintiffs*, vs. Citgo Petroleum Corporation, et al., *Defendants*.
Case Number 07-2738 G

In the Fourteenth Judicial District Court, Parish of Calcasieu, State of Louisiana
Leon B. Brydels, *Plaintiffs*, vs. Conoco, Inc., et al*., Defendants.*
Case Number 2004-6941 Division A

In the District Court of Tarrant County, Texas, 153rd Judicial District
Linda Faust, *Plaintiff*, vs. Burlington Northern Santa Fe Rail Way Company, Witco Chemical Corporation A/K/A Witco Corporation, Solvents and Chemicals, Inc. and Koppers Industries, Inc., *Defendants*.
Case Number 153-212928-05
Rosenfeld Deposition: December 2006, October 2007
Rosenfeld Trial: January 2008

In the Superior Court of the State of California in and for the County of San Bernardino
Leroy Allen, et al., *Plaintiffs*, vs. Nutro Products, Inc., a California Corporation and DOES 1 to 100, inclusive, *Defendants*.
John Loney, Plaintiff, vs. James H. Didion, Sr.; Nutro Products, Inc.; DOES 1 through 20, inclusive, *Defendants*.
Case Number VCVVS044671
Rosenfeld Deposition: December 2009
Rosenfeld Trial: March 2010

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., *Plaintiffs*, vs. International Paper Company, *Defendant*.
Civil Action Number 2:09-cv-232-WHA-TFM
Rosenfeld Deposition: July 2010, June 2011

In the Superior Court of the State of California in and for the County of Los Angeles
Leslie Hensley and Rick Hensley, *Plaintiffs*, vs. Peter T. Hoss, as trustee on behalf of the Cone Fee Trust; Plains Exploration & Production Company, a Delaware corporation; Rayne Water Conditioning, Inc., a California Corporation; and DOES 1 through 100, *Defendants.*
Case Number SC094173
Rosenfeld Deposition: September 2008, October 2008

In the Superior Court of the State of California in and for the County of Santa Barbara, Santa Maria Branch
Clifford and Shirley Adelhelm, et al., all individually, *Plaintiffs*, vs. Unocal Corporation, a Delaware Corporation; Union Oil Company of California, a California corporation; Chevron Corporation, a California corporation; ConocoPhillips, a Texas corporation; Kerr-McGee Corporation, an Oklahoma corporation; and DOES 1 though 100, *Defendants.*
Case Number 1229251 (Consolidated with case number 1231299)
Rosenfeld Deposition: January 2008

In the United States District Court for Eastern District of Arkansas, Eastern District of Arkansas
Harry Stephens Farms, Inc, and Harry Stephens, individual and as managing partner of Stephens Partnership, *Plaintiffs*, vs. Helena Chemical Company, and Exxon Mobil Corp., successor to Mobil Chemical Co., *Defendants.*
Case Number 2:06-CV-00166 JMM (Consolidated with case number 4:07CV00278 JMM)
Rosenfeld Deposition: July 2010

In the United States District Court for the Western District of Arkansas, Texarkana Division
Rhonda Brasel, et al., *Plaintiffs*, vs. Weyerhaeuser Company and DOES 1 through 100, *Defendants.*
Civil Action Number 07-4037
Rosenfeld Deposition: March 2010
Rosenfeld Trial: October 2010

In the District Court of Texas 21st Judicial District of Burleson County
Dennis Davis, *Plaintiff*, vs. Burlington Northern Santa Fe Rail Way Company, *Defendant.*
Case Number 25,151
Rosenfeld Trial: May 2009

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013