Mitigated Negative Declaration
and Initial Study for the

Runyon Canyon Park –
Fuller Entrance Parking Area

W.O. E1904613



City of Los Angeles

Bureau of Engineering
Environmental Management Division
January 2008

CITY OF LOS ANGELES

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

CALIFORNIA ENVIRONMENTAL QUALITY ACT

MITIGATED NEGATIVE DECLARATION

(Article I, City CEQA Guidelines)

LEAD CITY AGENCY AND ADDRESS:	COUNCIL DISTRICT
Department of Public Works, Bureau of Engineering 1149 S. Broadway, Suite 600 Los Angeles, CA 90015	4
PROJECT TITLE: RUNYON CANYON PARK – FULLER ENTRANCE PARKING AREA (W.O. E1904613)	Council File No. 04-2440

PROJECT LOCATION:
2000 Fuller Avenue in the Hollywood Community Plan area of the City of Los Angeles, California.

DESCRIPTION:
The proposed project consists of the construction of a new gravel-based parking area consisting of 80 parking spaces in the area that is currently an open lawn area used for yoga classes. The existing open lawn area will be relocated to the north of the new parking area. The total area to be developed is approximately .6 acres. The proposed parking area will feature a low-impact and permeable surface. The proposed parking area will utilize a terraced design that nestles into the existing grade and allows the parking area to blend with the natural terrain and minimizes grading work. This design will minimize water runoff and control erosion. In addition, the parking area design has incorporated remnant building foundations from the former estate. A 4-foot high fence will be constructed to enclose the new grass area. All existing trees will remain. The area will be landscaped with native, drought-tolerant plants. An irrigation system will be installed in this area as well as in the parking area. The new open grass area will retain the same size and amenities as the existing one.

NAME AND ADDRESS OF APPLICANT IF OTHER THAN CITY AGENCY:

FINDING:
The **City Engineer** of the City of Los Angeles has determined that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in the Initial Study have been added to the project.
See attached Initial Study.

SEE THE ATTACHED PAGES FOR ANY MITIGATION MEASURES IMPOSED

Any written objections received during the public review period are attached, together with the responses of the lead City agency.

THE INITIAL STUDY PREPARED FOR THIS PROJECT IS ATTACHED

PERSON PREPARING THIS FORM	ADDRESS	TELEPHONE NUMBER
Irene Paul Environmental Supervisor I	1149 South Broadway, 6th Floor, MS 939 Los Angeles, CA 90015	(213) 485-5761
SIGNATURE (Official) Ara Kasparian, Ph.D., Manager Environmental Management Division		**DATE** 1/11/08

CITY OF LOS ANGELES
CALIFORNIA ENVIRONMENTAL QUALITY ACT

INITIAL STUDY

(Article I---City CEQA Guidelines)

Council District: 4 January 2008

Lead City Agency: Department of Public Works, Bureau of Engineering

Project Title: Runyon Canyon Park – Fuller Entrance Parking Area

1.0 INTRODUCTION

This Mitigated Negative Declaration (MND) evaluates the potential environmental impacts associated with the development of a .6 acre parking area and the associated relocation of an open lawn area in Runyon Canyon Park. This MND has been prepared in accordance with the California Environmental Quality Act (CEQA) (Ca. Pub. Res. Code sec. 21000 et seq.) and the State CEQA Guidelines (14 Cal. Code of Regs. Sec. 15000 et seq). The City of Los Angeles (City) is the CEQA Lead Agency for this MND.

A proposed MND, dated January 2006, was circulated for public review between February 24, 2006 and March 17, 2006. The City received numerous comments during this period. As a result, the City revised the MND by providing additional information about the project's impacts and mitigation measures. On September 20, 2006, the Board of Recreation and Park Commissioners (Board) certified the revised MND, dated July 2006, for the project. However, on September 28, 2006, an appeal to the City Council was submitted to the Office of the City Clerk relative to the Board's action in certifying the MND per CEQA Section 21151(c).

CEQA Section 21115(c) states:

> *If a nonelected decisionmaking body of a local lead agency certifies an environmental impact report, approves a negative declaration or mitigated negative declaration, or determines that a project is not subject to this division, that certification, approval, or determination may be appealed to the agency's elected decisionmaking body, if any.*

The appeal requested that an Environmental Impact Report (EIR) be prepared for the project and alleged that the project will result in the following unmitigated significant environmental effects: noise, including project noise and construction noise; aesthetics; historical resources; air quality; biological resources; wildlife impacts including impacts to wildlife from noise, night lighting, and odors; transportation including increased traffic on access roads and pedestrian safety within the park; water quality impacts from runoff; police services at night; and increased park use.

The Bureau of Engineering staff reviewed the appeal and concluded that with the exception of construction noise, none of the impacts alleged in the appeal will be significant, including those impacts already subject to mitigation in the MND.

The State CEQA Guidelines Section 15073.5 states that a lead agency is required to recirculate an MND when the document must be substantially revised after public notice of its availability but prior to its adoption. The Guidelines further state that a substantial revision of an MND means a new avoidable significant effect is identified and mitigation or project revisions must be added to reduce the effect to insignificance, or that the proposed mitigation or project revisions will not reduce potential effects to less than significance and new mitigation or revisions must be required.

Therefore, on December 18, 2007, the City Council granted the appeal of the MND as to construction noise only; and, directed the Bureau of Engineering to prepare and recirculate a revised MND and a revised Initial Study and Checklist for the project that analyzes and proposes mitigation for construction noise.

1.1 CEQA PROCESS

The CEQA process, established by state law, requires the review of proposed projects in order to identify and address potential environmental effects. A public agency must comply with CEQA when it undertakes an activity defined as a "project." In accordance with CEQA, a project is an activity undertaken by a public agency or a private activity which must receive some discretionary approval (whereby the agency has the authority to deny the requested permit or approval) from a government agency which may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment. Once a public project or a project requiring discretionary approval is identified, a determination must be made regarding whether the project is exempt from CEQA.

Projects which are not exempt from CEQA require a Negative Declaration or an Environmental Impact Report (EIR). When a project does not result in any significant environmental effects, or project modification and/or mitigation measures reduce these impacts to a less-than-significant level, a Negative Declaration is prepared. An EIR must be prepared if a project may have one or more potentially significant environmental effects that cannot be mitigated to a less-than-significant level. The appropriate level of environmental documentation required for a project can be determined through the use of an Initial Study checklist.

The Mitigated Negative Declaration and Initial Study contained herein have been prepared in accordance with CEQA (Public Resources Code §21000), the State CEQA Guidelines (Title 14, California Code of Regulations, §15000), and the City of Los Angeles CEQA Guidelines (1981, amended July 31, 2002). This document identifies, analyzes and evaluates potential project impacts on the environment, and ways in which the potential significant effects of the project are proposed to be avoided or mitigated.

In accordance with CEQA and the State CEQA Guidelines, this MND will be distributed to public agencies, and other interested parties and organizations. In reviewing the MND, public agencies and interested parties should focus on the sufficiency of the document in identifying and analyzing potential project impacts on the environment, and ways in which the potential significant effects of the project are proposed to be avoided or mitigated. Comments on the MND should be submitted in writing prior to the end of the public review period.

Prior to making a determination, the decision-making body of the lead agency must consider the MND together with any comments received during the public comment review process. The decision-making body will adopt the MND only if it finds on the basis of the whole record before it that there is no substantial evidence that the project will have a significant effect on the environment and that the MND reflects the lead agency's independent judgment and analysis. During the decision-making process, opportunities to address the decision-makers concerning the project will be provided through public hearings, which are announced at least 72 hours in advance. Notification of hearings can be obtained from the Council and Public Services Division of the Office of the City Clerk at City Hall, 200 North Spring Street, Suite 395, by telephoning (213) 978-1047, (213) 978-1048 or TDD/TTY (213) 978-1055, or online at http://www.lacity.org/CLK/index.htm.

The analysis in this document assumes that, unless otherwise stated, the project will be designed, constructed and operated following all applicable laws, regulations, ordinances and formally adopted City standards (e.g., *Los Angeles Municipal Code* and Bureau of Engineering *Standard Plans*). Construction will follow the uniform practices established by the Southern California Chapter of the American Public Works Association (e.g., *Standard Specifications for Public Works Construction* and the *Work Area Traffic Control Handbook*) as specifically adapted by the City of Los Angeles (e.g., The City of Los Angeles Department of Public Works *Additions and Amendments to the Standard Specifications For Public Works Construction* (AKA "The Brown Book," formerly Standard Plan S-610)).

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 its programs, services, and activities.

The subsequent sections of this document contain a discussion of the proposed project, its potential environmental impacts, and recommendations regarding necessary environmental documentation.

1.2 DOCUMENT FORMAT

This MND contains five sections plus technical appendices. Section 1, Introduction, provides an overview of the project and the CEQA environmental documentation process. Section 2, Project Description, provides a description of the project location, project background, and project components. Section 3, Initial Study Checklist, presents the City's Checklist for all impact areas and mandatory findings of significance. Section 4, Mitigation Measures, provides the mitigation measures that would be implemented to ensure that potential adverse impacts of the proposed project would be reduced to a less than significant level. These mitigation measures reference in the Initial Study Checklist in Section 3. Section 5, List of Preparers, provides a list of key personnel involved in the preparation of this report. Section 6, Determination – Recommended Environmental Documentation, provides the recommended environmental documentation for the proposed project; and, Section 7, References, provides a list of reference material s used during the preparation of this report. Extensive calculations or technical reports that were used to prepared sections of this report are included in the appendices.

The Initial Study Checklist form in Section 3 follows closely the form prepared by the governor's Office of Planning and Research and was used in conjunction with the City's CEQA Thresholds Guide and other sources to screen and focus upon potential environmental impacts resulting from this project. Impacts are separated into the following four categories:

1) No Impact. This category applies when a project would not create an impact in the specific environmental issue area. A "No Impact" finding does not require an explanation when the finding is adequately supported by the cited information sources (e.g., exposure to a tsunami is clearly not a risk for projects not near the coast). A finding of "No Impact" is explained where the finding 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) Less Than Significant Impact. This category is identified when the project would result in impacts below the threshold of significance, and would therefore be less than significant impacts.

3) Less Than Significant After Mitigation. This category applies where the incorporation of mitigation measures would reduce a "Potentially Significant Impact" to a "Less Than Significant Impact." The mitigation measures are described briefly along with a brief explanation of how they would reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be incorporated by reference.

4) Potentially Significant Impact. This category is applicable if there is substantial evidence that a significant adverse effect might occur, and no feasible mitigation measures could be identified to reduce impacts to a less

than significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an Environmental Impact Report (EIR) is required. There are no such impacts for the Runyon Canyon Park – Fuller Entrance Parking Area project.

Sources of information that adequately support findings of no impact are referenced in parentheses following each question. All sources so referenced are available for review at the location cited or at the offices of the Bureau of Engineering, 1149 South Broadway, Los Angeles, CA 90015. Answers to other questions (as well as answers of “no impact” that need further explanation) are discussed in Section 4 of this report.

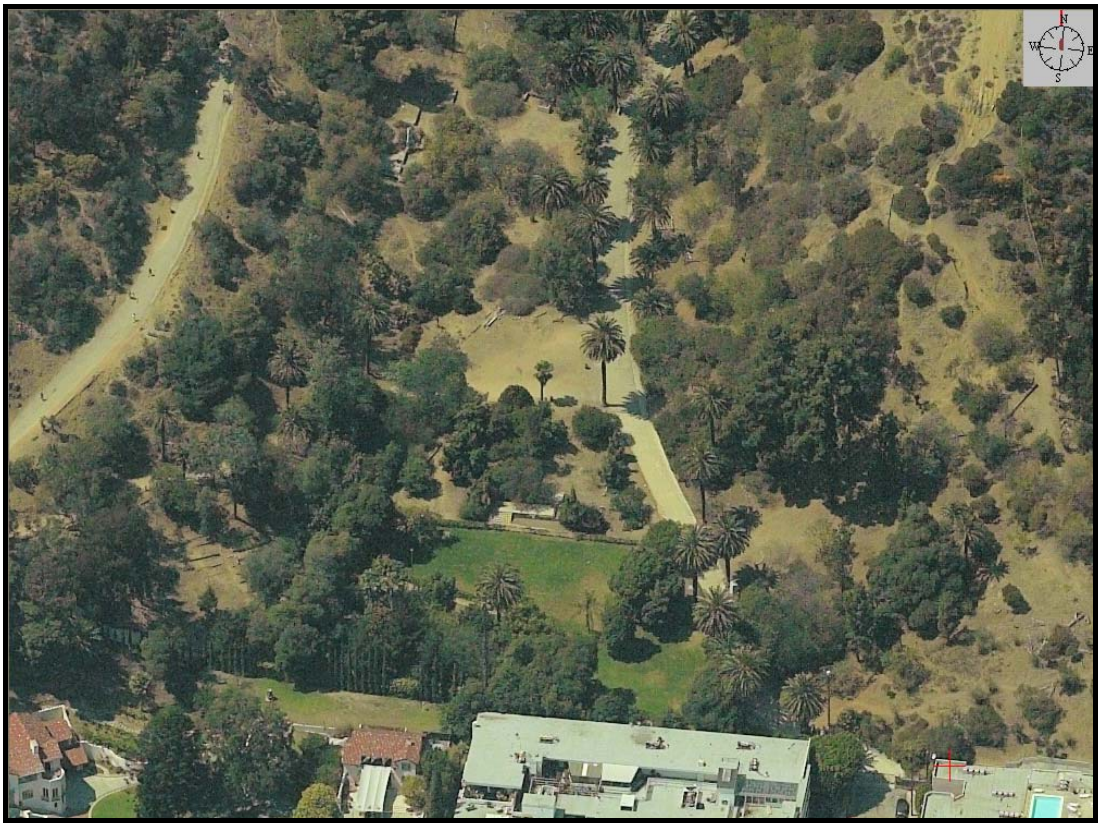


Figure 1: Project Location

2.0 PROJECT DESCRIPTION

2.1 Location

Runyon Canyon Park is a 134-acre park with two south entrances at Fuller and Vista Avenues accessed from Franklin Avenue just west of the 101 Hollywood Freeway off-ramps at Highland Avenue. A north entrance is located off Mulholland Drive. The park is located at 2000 N. Fuller Avenue in the Hollywood community planning area and within Council District No. 4.

The project site is surrounded by active and passive recreational uses associated with the Runyon Canyon Park to the north, east, and west; a single-family residential property further to the east (approximately 230 feet); a single-family residential property to the southwest; and a multifamily residential property to the south.

Open space is a limited resource in the City of Los Angeles. The Department of Recreation and Parks (Department) recognizes that recreational activities in Los Angeles' limited open space should be balanced to provide optimal use to the greatest number of users. The Department operates approximately 15,200 acres of parkland, of which 3,200 is devoted to neighborhood and community use and 12,000 to regional use. The City of Los Angeles' General Plan's Recreational Element recommends a parkland per person ratio of 4.0 acres per 1,000 persons for neighborhood and community parks. The City's ratio of neighborhood and community parkland per person is 0.91 acres per 1,000 persons.

The Department Facility Listing, dated January 5, 2000, which provides site specific information regarding Park Type, Park Acreage, and Park Features. Parks are divided into the following categories by acreage:

S –Small Parks – usually less than 1.00 acres
N – Neighborhood Parks – usually 1.00 to 5.00 acres
C – Community Parks – usually more than 5.00 acres or provide special facilities
R – Regional Parks – usually 50.00 + acres or open space land
H – Historical Sites – historically significant sites
T – Therapeutic – regional facility providing special need services

Runyon Canyon Park is a designated regional park.



Figure 2: Looking northward from the Fuller Entrance.

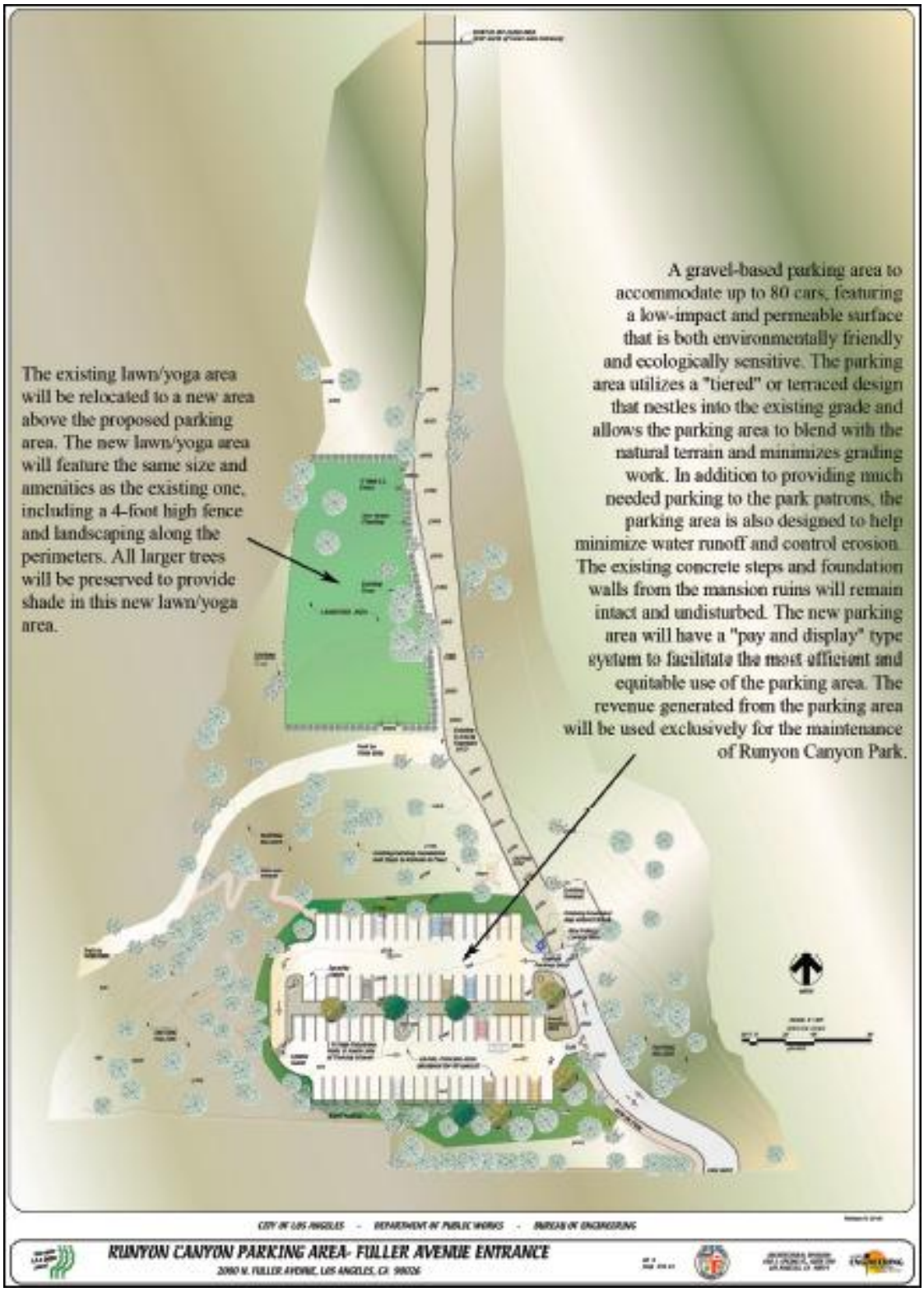


Figure 3: Proposed Site Plan

2.2 Runyon Canyon Master Plan and Design Guidelines

In 1983 the property was acquired by the City of Los Angeles with a grant from the Santa Monica Mountains Conservancy. Shortly after the purchase, the Department commissioned a Master Plan containing design guidelines for future development and planning in Runyon Canyon Park from Community Development Planning and Design of Berkeley, California. The Master Plan established the seven goals listed below:

Goal 1: Maintain a large part of the site as an urban wilderness.

Goal 2: Make Runyon Canyon safe for all users.

Goal 3: Protect the uniqueness of Runyon Canyon as a wilderness juxtaposed with the city past and present.

Goal 4: Teach people about the urban wilderness so they will enjoy, respect, and protect the unique quality of Runyon Canyon.

Goal 5: Limit the development of primary facilities to the old estate area to be consistent with past development and to protect the rest of the canyon.

Goal 6: Meet the special needs of the surrounding community and the needs of Los Angeles for open space.

Goal 7: Encourage community involvement in Runyon Canyon to insure that the plan meets the residents' needs and to develop a group who cares for the canyon.

The success of meeting these goals relies on dividing Runyon Canyon into land units, from most to least natural, and then reinforcing the zones with consistent decisionmaking throughout the design. These units have been designated by vegetation type, topography, geology, hydrology, wildlife habitat, the canyon's past development, and surrounding land uses. The three basic land units are 1) Urban Wilderness, 2) Trails, which includes Main Service Roads, Emergency Service Roads and Entrances near Mulholland Drive, and 3) Estate Area, which is the relatively flat area located in the lower part of the canyon. The Estate Area is described in the Master Plan as the logical site for new facilities. (Runyon Canyon Master Plan and Design Guidelines,1984.)

Runyon Canyon Park is a heavily used urban park with a variety of user groups. At the present time, the park's primary use is by owners with dogs who are permitted in certain designated areas without leashes. The urban wilderness portion of the Canyon consists of hiking and walking trails traveling through natural vegetation, principally wild chaparral interspersed with drought-resistant evergreen trees and shrubs.

A wide fire road leads entrance to vantage points eastward toward the Griffith Park Observatory, downtown Los Angeles, Wilshire Boulevard, Baldwin Hills and the Pacific

Ocean. The Park's main service roads are Runyon Canyon Road, the Estate Area Road leading from Fuller Avenue to Inspiration Point and the connecting driveway between the Estate Area and Runyon Canyon Road at Vista Place.

2.3 Project Need

On September 18, 2002, the Board approved the construction of a new parking lot with landscaping and a retaining wall; they also agreed to reconsider the remainder of the proposed project at Runyon Canyon Park, a Ranger Station/Visitor Center and caretaker's residence. Since the dedication of the off-leash dog park in 1999, patron usage had surged resulting in negative impacts on the neighborhood, including alleged excessive noise from barking dogs, a chronic stench from dog waste, destruction of private and park landscapes, safety problems caused by poorly controlled animals, and parking problems by a shortage of parking in the park.

The issues regarding the dog park and other illegal nuisance activities within Runyon Canyon Park were brought to the attention of Councilmember Tom LaBonge. On November 7, 2002, the staff from the Department and the Council Office met with members of the community. This ad hoc working group selected co-chairs to lead their group in exploring a number of issues including the possibility of providing more parking within the park. The community had required that the facility improvement plans, approved by the Board on September 18, 2002, be placed on hold until consensus could be reached on the parking lot. The proposed visitor parking lot off the Fuller Avenue entrance would add 23 spaces for cars and two spaces for buses. If additional parking spaces are desired, the plans will be re-designed and construction would be completed in six months.

Upon community consensus on the parking lot, the Department would move forward on the Board approved facility improvement plans, or revisions thereto, to meet the conditions for a parking lot, caretaker residence, and visitor center. The other conditions, fence no-dog green area, signage delineating on/off leash areas, and signs reminding owners to clean-up after their dogs, are all completed. The remaining condition regarding self-policing began with community support and momentum but became less enthusiastically followed.

Due to the availability of funding, the current proposal is to construct a parking area consisting of 80 parking in the area that is currently an open lawn area. The existing open lawn area will be relocated to the north of the new parking area. This proposal promotes the Department's Policy of addressing the negative spill-over effects of City operated dog parks; and, follows the Off-Leash Dog Exercise Area Guideline of specifically providing sufficient adjacent parking, preferably off-street, that does not require users to cross a street, curbside parking is less desirable.

In addition, due to the competition for on-street parking in the vicinity of the park by residents, visitors, and businesses, the following preferential parking districts were established:

Preferential Parking District 72 (Council File Nos. 98-0872 and 04-1732)

The residential portions of:

a. Both sides of Vista Street between Franklin Avenue and Hillside Avenue;
b. Both sides of Vista Street between and Hillside Avenue and Runyon Canyon Road;
c. Both sides of Runyon Canyon Road between Vista Street and the dead end east of Vista Street;
d. Both sides of Hillside Avenue between Vista Street and the Dead End west of Vista Street;
e. Both sides of Vista Street between Hollywood Boulevard and Franklin Avenue.

Preferential Parking District 44 (Council File No. 02-066)

The residential portions of Bennett Drive (3200 and 3300 blocks), Don Palos Drive (3200 block), and Barbara Court (3100 block).

Preferential Parking District 38 (Council File No. 02-1918)

The residential portions of:

a. West side of Desmond Estates Road between Mulholland Drive and Lisco Place;
b. Both sides of Lisco Place between Desmond Estates Road and Cervantes Place;
c. Both sides of Lisco Place between Cervantes Place and La Cuesta Drive;
d. Both sides of Cervantes Place between Lisco Place and the dead end west of Lisco Place.

Preferential Parking District 112 (Council File No. 05-1624)

The residential portions of:

a. North Sierra Bonita Avenue between Franklin Avenue and Hollywood Boulevard;
b. North Gardner Street between Franklin Avenue and Hollywood Boulevard.

2.4 Description

The proposed project consists of the construction of a new .6 acre gravel-based parking area consisting of 80 parking spaces in the area that is currently an open lawn area used for yoga classes. The existing open lawn area will be relocated to the north of the new parking area. The new open lawn area will be approximately .3 acres. The total area to be developed is approximately .9 acres.

The proposed parking area will feature a low-impact and permeable surface. The proposed parking area will utilize a terraced design that nestles into the existing grade and allows the parking area to blend with the natural terrain and minimizes grading work. This design will minimize water runoff and control erosion. In addition, the parking area design has incorporated remnant building foundations from the former estate. A 4-foot high fence will



Figure 4: Existing open lawn at the Fuller Entrance.

be constructed to enclose the new grass area. All existing trees will remain. The area will be landscaped with native, drought-tolerant plants. An irrigation system will be installed in this area as well as in the parking area.

Construction of the parking area is expected to last approximate 6 to 8 months. No construction would take place on Sundays or national holidays. Construction activities would not occur before 7:00 AM or after 9:00 PM on weekdays or before 8:00 AM or after 6:00 PM on Saturdays. These hours of construction are consistent with the City of Los Angeles Noise Ordinance §41.40, Noise Due to Construction, Excavation.

Two-way traffic would be maintained on all surrounding streets during construction. Access would be maintained to all homes and businesses and traffic disruptions would be minimal. During construction, erosion control measures and air pollution control measures would be implemented to reduce short-term erosion and emissions.

Runyon Canyon Park programs and park amenities will be maintained and operated by the City of Los Angeles Department of Recreation and Parks. The park is open to the public from dawn until dusk.

The analysis in this document assumes that, unless otherwise stated, the project will be designed, constructed and operated following all applicable laws, regulations, ordinances and formally adopted City standards (e.g., *Los Angeles Municipal Code* and Bureau of Engineering *Standard Plans*). Also, the analysis in this document assumes that construction will follow the uniform practices established by the Southern California Chapter of the American Public Works Association (e.g., *Standard Specifications for Public Works Construction* and the *Work Area Traffic Control Handbook*) as specifically adapted by the City of Los Angeles (e.g., The City of Los Angeles Department of Public Works *Additions and Amendments to the Standard Specifications for Public Works Construction* (AKA "The Brown Book," formerly Standard Plans S-610)).

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 its programs, services, and activities.

2.5 Runyon Canyon Park Off-Leash Dog Exercise Area

On July 16, 1997 the Board of Recreation and Park Commissioners (Board) adopted the Categorical Exemption and Approval of Permanent Off-Leash Dog Exercise Area at Runyon Canyon Park (Report of the General Manager No. 320-97). This designated a "No Dogs Allowed" area where patrons could recreate without being bothered by dogs. This area is located immediately north of the Fuller Street entrance. This turfed area is approximately .6 acres. The off-leash areas are located approximately 823 feet north of the Fuller Street entrance, 450 feet north of the Vista Street entrance and 1580 feet south of the Mulholland Drive entrance.

Members of the community who were dog owners and frequented the proposed off-leash Dog Exercise Area organized to self-govern the facility. They were to assist in the maintenance of the facility or organizing clean up crews to fill in the holes dug by dogs and removing dog litter. They also were to assist in educating new users of the Dog Exercise Area's rules and regulations. Their pro-active involvement was to assist in the facility's success and in providing a clean, safe, healthful environment for this recreational activity.

2.6 Off-Leash Dog Exercise Area Policy and Guidelines

On October 6, 1999 the Board approved the Off- Leash Dog Exercise Area Policy (Report of the General Manager No. 382-99). The Los Angeles Municipal Code (LAMC), Section 63.44B.2 prohibits dogs off-leash in City parks. The purpose of the Off-Leash Dog Exercise Area policy was to establish a mechanism by which dog owners have the opportunity to recreate with their dogs off-leash within designated park areas that are clean, safe and well-maintained. An amendment to the LAMC by the City Council would be required to authorize the establishment of each off-leash exercise area on an individual basis.

The Department's policy to meet the needs of dogs and owners is to:

1) Provide off-leash areas, as feasible, given limited open space resources and potential spill-over effects on surrounding land uses; to provide opportunities for off-leash exercise, training and socialization of dogs, and for social information among owners; and to balance this with other park uses to optimize park use by the greatest number of people.

2) Require responsible behavior of dog owners in their use of park facilities including adherence to posted rules and regulations and other Los Angeles Municipal Codes including the leash law.

3) Be sensitive to adjacent land users and the immediate community in selecting and operating all off-leash dog areas.

The Off-Leash Dog Exercise Area Policy is used in conjunction with the Department's Off-Leash Dog Exercise Area Guidelines. The policy and guidelines ensures that the recreational experience at the facilities with off-leash dog exercise areas is enjoyable for all.

The off-Leash Dog Exercise Area Guidelines establish the key factors to be considered in selecting an off-leash dog exercise area in Los Angeles parks. The key factors are distance from adjacent land uses, relationship to other recreational uses, size, availability of parking and accessibility. If a proposed site does not meet the standards established by these guidelines, it may still be considered provided that it successfully passes the environmental review process which establishes the appropriateness of the site and design criteria, and addresses any health and safety issues. Appropriate environmental clearances in compliance with CEQA are required.

Designated off-leash dog exercise areas should:

1) Be far enough away from a residential or commercial land use that the single-event sound of a dog bark would generally be perceived as a background sound or would be screened by traffic noise. To achieve this objective, the off-leash area should be:

    a) at least 150 feet from residences and separated by a street or non-residential structure, and

    b) at least 80 feet from commercial uses; if the wall of the commercial building that faces the off-leash area is windowless, a distance setback may not be required.

2) Be large enough to accommodate an area for big dogs (three acres or larger) and include an area for small or timid dogs (.75 acre or larger).

3) Be accessible to disabled users.

4) Be situated on property that is not currently developed for recreational use and/or in areas of parks that are not heavily used for other recreational activities so as to reduce the potential for conflict.

5) Not displace another organized recreational use or priority unstructured use in a park given the City's limited park resources and need for active recreation and passive open space areas.

6) Have sufficient adjacent parking, preferably off-street, that does not require users to cross a street, curbside parking is less desirable. A park in a multi-family residential neighborhood requires fewer spaces, whereas a park in a single-family residential neighborhood or non-residential neighborhood requires more spaces.

7) Be situated within a six-foot high minimum perimeter chain link fence with a concrete mow strip. Natural barriers such as steep hillsides, if feasible, may be utilized in lieu of fencing.

In addition to the above, a Citizens Advisory Committee (CAC) would be established by Regional staff to self-govern the off-leash dog area. The CAC would be comprised of dog owners, local residents, Region staff and Park Rangers. The CAC would meet to discuss conflict mitigation measures, signage requirements and sign locations, rules, regulations, fund raising, facility maintenance, and voluntary off-leash area monitoring.

An agreement should be developed between the CAC and the Department clearly outlining the responsibilities and duties of each. If the facility has a Park Advisory Board (PAB), the Committee should report to the PAB on off-leash area issues. The CAC and Regional staff should meet on a regular basis to discuss facility operations and maintenance.

2.7 Intended Uses of this Document

This MND is required for the following discretionary actions for the project:

1) Approval of the park plan by the City of Los Angeles Department of Recreation and Parks.

2) Approval of funding by the Los Angeles City Council and granting agencies for construction and operation under the Recreational and Cultural Facilities Program.

3) Advertisement and award of construction contracts by the City of Los Angeles Department of Public Works.

4) Other governmental implementing actions or approvals (grading permits, building permits, OHSA permits, utility connection permits, fire code compliance, etc.

3.0 INITIAL STUDY CHECKLIST

This section documents the screening process used to identify and focus upon environmental impacts that could result from this project. The following Initial Study Checklist form follows the recommendations of the governor's Office of Planning and Research and was used in conjunction with the city's CEQA Thresholds Guide and other sources to screen and focus upon potential environmental impacts resulting from this project. Answers to other questions (as well as answers of "no impact" that need further explanation) are discussed in Section 4 of this report.

Sources of information that adequately support findings of no impact are referenced in the parentheses following each question. All sources so referenced are available for review at the offices of the Bureau of Engineering, 1149 South Broadway, Suite 600, Los Angeles, California 90015. (Call Irene Paul at (213) 485-5761 for an appointment.)

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
1. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista? Reference: City of Los Angeles General Plan (Hollywood Community Plan); City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Sections A.1 and A.2); Runyon Canyon Master Plan and Design Guidelines Comment: The proposed project site does not contain any identified scenic vistas. The proposed parking area would be designed and landscaped in an attractive manner that is compatible with the existing environment. No further study of this issue is required.	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? Reference: See Reference 1 (a) above. Comment: The area is not located near a state scenic highway. No further study of this issue is required.	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings? Reference: See Reference 1 (a) above. Comment: Refer to Comment 1 (a) above.	☐	☐	☒	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section A.4) Comment: The proposed parking area would not introduce significant sources of artificial light that could adversely affect	☐	☒	☐	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
sensitive residential uses or nighttime views. The security light fixtures that would be installed would contain light within the parking area and avoid spillover impacts on the surrounding residential neighbors.				
2. AGRICULTURE RESOURCES – 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? Reference: California Department of Conservation Farmland Mapping and Monitoring Program; City of Los Angeles General Plan (Hollywood Community Plan) Comment: The California Department of Conservation Farmland Mapping and Monitoring Program identifies categories of agricultural resources that are significant and therefore require special consideration. The project site is not located in an area designated as Prime or Unique Farmland, or Farmland of Statewide Importance. The area is not considered nor zoned as farmland. No farmland or row crops currently exist on the project site. Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use. No further study of this issue is required.	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? Reference: See Reference 2 (a) above. Comment: Refer to Comment 2 (a) above.	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use? Reference: See Reference 2 (a) above. Comment: Refer to Comment 2 (a) above.	☐	☐	☐	☒
3. AIR QUALITY – Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan? Reference: South Coast Air Quality Management District (SCAQMD); City of Los Angeles General Plan (Air Quality Element); City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section B.1, B.2, and B.3); KAKU (2006); KAKU (2007); The Planning Center (2007). Comment: The South Coast Air Quality Management District (SCAQMD) has adopted an Air Quality Management Plan (AQMP) which sets forth strategies for attaining all national air quality standards by certain deadline dates and for meeting state standards at the earliest feasible date. The proposed project	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact

would be constructed and operated in the South Coast Air Basin, currently a non-attainment area for ozone, carbon monoxide, nitrogen dioxide, and fine particulate matter (PM10).

A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decisionmakers of the environmental efforts of the project under consideration at an early enough stage to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to clean air goals contained in the AQMP. Only new or amended General Plan elements, Specific Plans, and major projects need to undergo a consistency review. This is because the AQMP strategy is based on projections from the General Plans.

The proposed project does not fall under any of these major categories that would require a consistency review by the SCAQMD. Furthermore, the proposed project would not exceed the SCAQMD regional thresholds for either construction or operation. In addition, the project is located within the existing Runyon Canyon Park in the City of Los Angeles and would not require a General Plan amendment. Consequently, the project would be consistent with the AQMP and impacts would be less than significant. Construction activities would comply with applicable SCAQMD regulations, such as Rule 403, which is designed to minimize fugitive dust. As a standard practice, construction equipment would also be permitted, maintained, and operated to minimize emissions.

Global Warming Solutions Act: Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as Greenhouse Gases (GHG), to the atmosphere. The primary source of these GHGs is fossil-fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG - water vapor, CO_2, methane (CH_4), and O_3 – that are the likely cause of an increase in global average temperatures observed within the last century. Other GHG identified by the IPCC that contribute to global-warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.

Assembly Bill 32 (AB32), the Global Warming Solutions Act, was passed by the California state legislature on August 31, 2006. AB 32 requires the state's global warming emissions to be

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
reduced to 1990 levels by year 2020. Pursuant to the requirements of AB 32, the state's reduction in global warming emissions would be accomplished through an enforceable statewide cap on global warming emissions that will be phased in starting 2012. To effectively implement the cap, AB 32 directs CARB to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels by January 2008. CARB must prepare a plan demonstrating how the 2020 cap can be met by January 1, 2009, or earlier. Until such a plan has been adopted, direction for evaluation of, and potential mitigation for, incremental project impacts to global warming is not available. A traffic study prepared for the proposed project concluded that the project would result in less than significant impacts. In addition, five intersections and four street segments were analyzed and determined that none of the study intersections and street sections would be significantly impacted by the project related traffic. Therefore, based on these studies, it can be concluded that the project will not contribute to global climate change.				
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? Reference: See Reference 3 (a) above. Comment: Emissions generated from project-related construction activities would be anticipated to cause temporary increases in air pollutant emissions. The results of the URBEMIS2002 computer model runs show that construction emissions would not exceed the SCAQMD's mass daily construction emission thresholds. Because regional construction would not exceed the SCAQMD's construction emissions thresholds, the project would not significantly contribute to the South Coast Air Basin's ozone, CO (federal only), or particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designation. Additionally, construction activities would comply with applicable SCAQMD regulations, such as Rule 403, which is designed to minimize fugitive dust. Construction equipment would also be permitted, maintained, and operated to minimize emissions. Consequently, no significant impacts would occur and no mitigation measures are required. Vehicle and stationary source emissions modeled for the operational phase of the project were also compiled using the URBEMIS2002 emission inventory model. Operational emissions would not exceed the SCAQMD's thresholds, the project would not significantly contribute to the South Coast Air	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
Basin's zone, CO (federal only), or particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designation. Consequently, no significant impacts would occur and no mitigation measures are required. Two scenarios were developed to analyze the parking conditions at completion of the lot. The first scenario, or "best-case" scenario, includes 80 additional parking spaces added to the supply while demand is kept constant (i.e., no new additional trips as a result of the parking lot). Utilization rates do not exceed 80%, well within properly functioning levels, at any time in both study areas. The second scenario, or "worst-case" scenario, includes 80 additional parking spaces as well as 80 additional cars parking in the area. The peak in this situation occurs at 11:00 a.m. on Saturday in the immediate study area when the area is approximately 94% occupied (331 spaces). This represents a two percentage point increase from current conditions. More than likely, the worst-case scenario representing "induced demand" will only occur immediately after completion of the project, if at all.				
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative Thresholds for ozone precursors)? Reference: See Reference 3 (a) above. Comment: Refer to Comment 3 (b) above.	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations? Reference: See Reference 3 (a) above. Comment: The project has the potential to expose receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels or place the project in an area with elevated pollutant concentrations. Based on the types of the fuels consumed during project construction and operations, emissions of sulfates, hydrogen sulfide, vinyl chloride, and lead are expected to be negligible. In addition, these criteria pollutants are in a state of attainment with the Ambient Air Quality Standards. Therefore, these pollutants were not analyzed in this study.	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section B.2)	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact

Comment: SCAQMD Rule 402 (Nuisance Odors) prohibits 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 to be emitted within the South Coast Air Basin. The proposed project would not create objectionable odors affecting a substantial number of people. Emissions from construction equipment activities may generate objectionable odors; however, these odors would be temporary in nature and would not be expected to affect a substantial number of people. This impact would be less than significant, and no mitigation measures are required. No further study of this issue is required.

4. 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? ☐ ☒ ☐ ☐

Reference: California Natural Diversity Database; City of Los Angeles 2006 L.A.CEQA Thresholds Guide (Section C); City of Los Angeles Conservation Element; Jones (2005); Harris (2006); ATS Consulting (2007); The Planning Center ((2007)

Comment: The U. S. Department of Reclamation has established maximum allowable noise level limits for wildlife breeding habitat. During the breeding season, the maximum average hourly level at the breeding habitat (brushes, trees, lakes, and ponds) is 60 dBA. During the periods of maximum construction noise generation, the hourly average of 75 dBA would be attenuated to 60 dBA or less at 135 feet or more from the construction area. Although the construction noise is projected to exceed the hourly average of 60 dBA within 75 feet of the construction area, the 0noise from the ongoing operation of the parking lot would not exceed 60 dBA off the parking lot. Noise impacts to on-site wildlife within Runyon Canyon would be less than significant if no construction is allowed within 300 feet of an active nest.

There are no standards available to provide guidance on acceptable levels of vibration for wildlife. However, this assessment considers a vibration level of 72 VdB to be the threshold at which the vibration could have a significant effect on some wildlife. This is the same threshold that is used for impact

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact

to humans from vibration generated by rail transit trains.

Construction vibration will have no significant adverse effects on either wildlife or occupants of nearly buildings for the following reasons:

1) Total potential vibration-affected area is small and does not include any native habitat.

2) Any larger mammals that could be affected by the vibration would be unlikely to stay in the vicinity during construction activity because of the human activity. Smaller vertebrates would probably move out to areas that are at least 100 to 200 feet from the construction site, which is beyond the area where vibration would have any negative effects.

3) Although it is feasible that vibration from the procedures used to construct the parking area could cause some disturbance to vertebrate wildlife that use vibration for communication or foraging, the project area provides limited habitat value to local fauna, including birds, reptiles and mammals.

4) The southwestern willow flycatcher (endangered) and the coastal California gnatcatcher (threatened) have been reported to occur in the Hollywood and Burbank 7.5' USGS quads. The gnatcatcher may occupy territories on slopes adjacent to the park. However, nesting is not likely to occur at the margin of individual territories where breeding could be impeded by human activities. None of the area potentially affected by vibration provides natural habitat for the gnatcatcher, and the closest potential habitat is on slopes adjacent to the park that are outside the potential vibration-impacted area. Vibration is unlikely to have any adverse effects on threatened or endangered species.

5) Vibration levels at the closest residences are project to be below the impact thresholds that are used for permanent vibration sources such as rail transit station.

b) 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 Game or US Fish and Wildlife Service? ☐ ☒ ☐ ☐
Reference: See Reference 4 (a) above.
Comment: Refer to Comment 4 (a) above.

c) Have a substantial adverse effect on federally protected wetlands as ☐ ☐ ☐ ☒

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section G); USFWS Comment: The area is not a wetland.				
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? Reference: See Reference for 4 (a) above. Comment: Refer to Comment 4 (a) above.	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Reference: City of Los Angeles Municipal Code; City of Los Angeles General Plan (Hollywood Community Plan); City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section C); California Natural Diversity Database; City of Los Angeles, Department of Public Works NavigateLA; Proscewicz (2005) Comment: The City of Los Angeles Department of Recreation and Parks' Tree Preservation Policy regulates the protection of trees in four categories: 1) Trees protected by LA City Ordinance; 2) Heritage Trees; 3) Special Value Trees; and, 4) all other Common Park Trees. Heritage trees exist in the proposed project area. Because heritage trees are protected trees, recommendations from the Department of Recreation and Parks Arborists must be obtained before any alterations to the protected trees is made that may; cause the tree to become damaged, relocated, or removed. The General Manager of the Department of Recreation and Parks or his/her designee must approve the recommendation before action proceeds.	☐	☒	☐	☐
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? Reference: See Reference 4 (a) above. Comment: Refer to Comment 4 (a) above.	☐	☒	☐	☐
5. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section D.3); Jones & Stokes (2005) Comment: The Jones & Stokes report concluded that the proposed improvements would not have a significant effect on any historical resources or the remnants of buildings or structures	☐	☒	☐	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
once associated with John McCormack or Huntington Hartford. The remnants are not eligible for the California Register of Historical Resources because they do not meet the integrity criterion. However, the remnants ***may be eligible*** for Historic-Cultural Monument designation for *"… any site (including significant trees or other plant life located thereon), building, or structure of particular historical or cultural significance to the City of Los Angeles, such as historic structures or sites in which broad cultural… or social history of the …community is reflected or exemplified or which are identified with historic personages…"* The Jones & Stokes report recommends that the parking area be designed in a manner that avoids destruction of the remnants. If the remnants remain *in situ*, there would not be a significant effect on historical resources.				
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations Section 15064.5? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section D.2); Jones & Stokes (2005) Comment: The Jones & Stokes report indicated that no archaeological resources were observed.	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section D.1) Comment: Subsurface excavation beyond previously disturbed areas is not anticipated during project construction. If discovery of paleontological resources or unique geologic features are made during construction, standard construction practices would be employed such as the suspension of work until a qualified paleontologist can evaluate the find and make recommendations as necessary for the protection of the discovered paleontological resources.	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section D.2) Comment: The proposed project is not expected to disturb any human remains, including those interred outside of formal cemeteries.	☐	☐	☐	☒
6. GEOLOGY AND SOILS – Would the project: a) Expose people or structures to 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	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
State Geologist for the area or based on other substantial evidence of a known fault?				
References: California Department of Conservation, Division of Mines and Geology Pub 42; City of Los Angeles General Plan (Safety Element); City of Los Angeles, Department of Public Works, Bureau of Sanitation Emergency Response Plan; City Of Los Angeles, Department of Building and Safety Parcel Profile Report (2006), City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section E.1)				
Comment: The project site is located in the seismically active Southern California region, which is prone to shaking from local and distant faults. However, the project site is not located within an Alquist-Priolo special study zone or fault rupture study area. No impacts involving fault rupture are expected to occur as a result of the project.				
ii) Strong seismic ground shaking?	☐	☐	☒	☐
Reference: CDC Seismic Hazard Zones; City of Los Angeles, City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section E.1)				
Comment: As with all of Los Angeles County, the project area is susceptible to high-intensity ground shaking, which can affect all structures within the City. However, new structures would be constructed in accordance with seismic requirements of the Uniform Building Code (also known as the California Building Code) and would be required to meet the standards of the Division of the State Architect for seismic safety. In addition, improvements to the existing railroad building that would occur to provide the multi-use community center and the transportation museum would also meet these requirements. Compliance with established standards would reduce risks of structural collapse to less than significant. This impact would be less than significant, and no mitigation measures are required. No further study of this issue is required.				
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
Reference: California Department of Conservation Seismic Hazard Zones; City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section E.1); Department of Building and Safety Parcel Profile Report (2007)				
Comment: The proposed project site is located within an area susceptible to liquefaction. However, as part of the City of Los Angeles Uniform Building Code and BOE Standard Project Specifications, construction measures are prescribed that enable safe and efficient project implementation within				

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
the liquefaction zone area; the City has managed construction within liquefaction zones for many years. Therefore, the proposed project is not expected to result in impacts related to ground failure from liquefaction. The proposed project is not expected to make the soil any more susceptible to liquefaction, landslide, lateral spreading or subsidence and would not expose people to any additional adverse effects concerning these since its implementation would include soil-stabilizing elements, such as landscaping.				
iv) Landslides?	☐	☐	☒	☐
Reference: See references for Section 6 (a)(iii) above. Comment: The proposed project is located within a hillside area, subject to the City's Hillside Ordinance. The LAMC Sections 91.700 et. seq. and Specific Plan for the Management of Flood Hazards (Ordinance 172,081) regulate grading, excavations, landfill and other construction activities that might cause or be impacted by slope or ground instability, erosion or flooding.				
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section E.2) Comment: The proposed project would involve grading and compaction of soil, as well as landscaping. During construction, Best Management Practices would be employed to minimize soil erosion and runoff. This impact would be less than significant, with compliance with existing regulations and no mitigation measures are required.				
c) 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?	☐	☐	☒	☐
Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section E.1); City of Los Angeles, Department of Building and Safety Parcel Profile Report (2007) Comment: Prior to construction and as a standard practice, a geotechnical evaluation would be prepared which would prescribe methods, techniques, and specifications for: site preparation, treatment of undocumented fill and/or alluvial soils, fill placement on sloping ground, fill characteristics, fill placement and compactions, temporary excavations and shoring, permanent slopes, treatment of expansive soils, and treatment of corrosive soils. Design and construction of the proposed project would conform to recommendations in the geotechnical evaluation; therefore, impacts from potentially				

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
expansive soil would not be significant.				
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? Reference: Uniform Building Code, California Department of Conservation, Division of Mines and Geology Comment: Refer to 6 (c) above.	☐	☐	☒	☐
e) Are 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? Reference: City of Los Angeles, Department of Public Works NavigateLA, City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section E.3) Comment: The City of Los Angeles, Department of Public Works, Bureau of Sanitation provides sewer service to the proposed project sites. No further study of this issue is required. The project area is served by the City's sewer system.	☐	☐	☐	☒
7. 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? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Sections F.1, F.2) Comment: The project does not involve the use 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? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section F.1); City of Los Angeles Municipal Code (LAMC) Comment: The project does not involve the use of hazardous materials.	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section F.1) Comment: Refer to Comment 7 (b) above.	☐	☐	☐	☒
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 it create a significant hazard to the public or the environment?	☐	☐	☐	☒

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section F.2), California Regional Water Quality Control Board, Los Angeles Region; California State Water Resources Control Board; California Department of Toxic Substances Control (CalSites); California Department of Toxic Substances Control (Cortese List) Comment: An electronic database search of listings maintained by federal, state, and local agencies of sites with known or suspected hazardous material contamination, use of hazardous or toxic materials and regulated wastes, discharge or spillage incidents, discharge permits, landfills, and storage tanks was performed. The site is not included on any of the listings.				
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 for people residing or working in the project area? Reference: City of Los Angeles General Plan (Hollywood Community Plan) Comment: The proposed project would not be located within an air land use plan or within 2 miles of a public airport or public use airport. The nearest airport to the project site is the Burbank-Glendale-Pasadena Airport which is 7.5 miles north of the site. According, no impacts would occur.	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? Reference: City of Los Angeles General Plan (Hollywood Community Plan) Comment: The proposed project is not located within the vicinity of a private airstrip.	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section F.1) Comment: The project would be constructed entirely within the existing park. Two-way traffic would be maintained on all surrounding streets. Access would be maintained to all homes and businesses.	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? Reference: City of Los Angeles, Department of Public Works NavigateLA Comment. The project would be constructed in the highly urbanized area. Adjacent land uses are commercial and residential. There	☐	☐	☐	☒

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
are no wildlands adjacent to the project site, nor would the project result in additional accumulation of brush, grass, trees, or other fuel sources. The project will not expose surrounding people and/or residences to an increased risk of fire.				
8. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section G.2); City of Los Angeles Municipal Code; California Regional Water Quality Control Board, Los Angeles Region				
Comment: Ground disturbance activities would only take place temporarily during construction. Throughout construction, the proposed project would comply with applicable stormwater management requirements for pollution prevention. Construction practices would include erosion control, spill prevention and control, solid and hazardous waste management, and dust control to reduce the discharge of pollutants from construction areas to the stormwater system. All project landscaping will include native vegetation (drought-tolerant xeriscaping, if possible) requiring minimal irrigation and safe care (e.g., no harmful chemicals), designed to assist in filtering any runoff. Potential for impacts to water quality standards would be less than significant, with compliance with existing regulations and no mitigation measures are required.				
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section G.2 and G.3)				
Comment: Project will not draw groundwater.				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
Reference: See Reference 8 (a) above.				
Comment: No streams or rivers cross the proposed project route. The project would not substantially alter the existing drainage pattern of the site or area. As discussed in comment 8 (a), the project would result in temporary soil disturbance activities during construction during which time a stormwater pollution prevention plan for the control of soil erosion and sediment runoff would be implemented. The project would be constructed				

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
in accordance with applicable requirements of the municipal code, including grading requirements. A stormwater pollution prevention plan for the control of soil erosion and sediment runoff would be implemented and a set of mitigation measures would be implemented to ensure a less than significant impact during operation.				
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site? Reference: See Reference 8 (b) above. Comment: See Comments f8 (a) and 8 (c) above.	☐	☐	☒	☐
e) 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? Reference: See Reference 8 (a) above. Comment: See Comment f8 (a) above.	☐	☐	☒	☐
f) Otherwise substantially degrade water quality? Reference: See Reference 8 (a) above. Comment: See Comment 8 (a) above. The project, if implemented, would potentially result in an improvement in local water quality by intercepting and filtering runoff that currently flows across the site, parking areas, and paths untreated. Therefore, the proposed project is not expected to have significantly adverse impacts on water quality.	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section G.1 to G.4); City of Los Angeles, FEMA; Department of Building and Safety Parcel Profile Report (2007) Comment: The project does not propose the construction of houses.	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows? Reference: See Reference 8 (g) above. Comment: See Comment 8 (g) above.	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? Reference: See Reference 8 (g) above. Comment: Refer to Comment 8 (g) above.	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
(Section E.1 and G.3); City of Los Angeles General Plan (Safety Element) Comment: The project would not contribute to inundation by seiche, tsunami, or mudflow. The proposed project site is not located in a coastal area; therefore, tsunamis are not a significant hazard to the proposed project site. Additionally, the proposed project site is not located close to any large bodies of water that could adversely affect the proposed project site in the event of a seiche. The proposed project site is not within an area identified as having potential for slope instability. Therefore, mudflows are not considered a significant hazard to the proposed project site. No further study of this issue is required.				
9. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community? Reference: City of Los Angeles General Plan (Hollywood Community Plan); City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section H.2); City of Los Angeles, Department of Public Works NavigateLA; Runyon Canyon Master Plan and Design Guidelines Comment: Project is confined to a single parcel. No further study of this issue is required.	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? Reference: See Reference 9 (a) above. Comment: The project site is within the Hollywood Community Plan area. The project is consistent with the community plan's policy of providing adequate recreation facilities to correspond with population and service demands. The Hollywood Community Plan recognizes the need for the expansion and improvement of needed local parks. The plan states that these parks are to be improved as funds become available. In this situation, Prop A funds are to be used. Improving Runyon Canyon Park with a parking area would further satisfy the goal and intent of the plan. The land use designation is Open Space with the corresponding zone of OS. The proposed project further advances the goals of the Runyon Canyon Park Master Plan and Design Guidelines.	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
Reference: City of Los Angeles Municipal Code; City of Los Angeles General Plan (Hollywood Community Plan); City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section C); California Natural Diversity Database; City of Los Angeles, Department of Public Works NavigateLA; Proscewicz (2005) Comment: Refer to Comment 9 (b) above.				
10. 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? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section E.4); California Department of Conservation, Division of Mines and Geology (2004); City of Los Angeles Environmental and Public Facilities Map (1996) Comment: The proposed project is not in a designated area containing significant mineral deposits.	☐	☐	☐	☒
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? Reference: See Reference 10 (a) above. Comment: Refer to Comment 10 (a) above.	☐	☐	☐	☒
11. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? Reference: City of Los Angeles General Plan (Noise Element); City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section I.1 to I.4); City of Los Angeles Municipal Code; Behrens (2007); ATS Consulting (2007) Comment: Section 41.40 of the Municipal Code specifies hours allowed for construction activities (City of Los Angeles 2000) for the purposes of noise control in accordance with Chapter XI (Section 112.03). Construction delivery of construction materials are prohibited between the hours of 9:00 p.m. and 7:00 a.m. Chapter XI, Section 112.05, of the Los Angeles Municipal Code also specifies the maximum noise level for construction equipment. In accordance with the Section 112.05, construction equipment, including auger, 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 shall not produce a maximum noise level exceeding 75 dBA at a distance of 50 feet. The City allows construction noise exceeding these noise limits if compliance is technically	☐	☒	☐	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact

infeasible. However, the burden of proving that compliance is technically infeasible include showing that noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of the equipment.

The closest residences would be located south of the site, approximately 45 feet or more from the closest on-site parking lot construction area. At this distance, the maximum unmitigated noise level would be approximately 86 dBA or less. The average sound level for an eight-hour workday would be expected to be substantially less because of the intermittent nature of construction work. The hourly average noise level would not be expected to exceed 75 dBA at 50 feet. The majority of construction would be limited to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. Consequently, construction activities would comply with the City of Los Angeles Municipal Code, Section 112.05.

However, construction activities would increase the average ambient sound levels 20 to 24 dBA above existing ambient noise levels within 50 feet of the construction area. Installing a 10-foot-high temporary construction sound wall with sound barrier material with a Sound Transmission Class (STC)-27 rating or higher between the construction site and the nearest occupied structures could provide a 10 to 14 dBA sound level reduction at 50 feet. The resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise level impact of 65 dBA during the highest noise generation phases of the project, and impacts would be substantially reduced at the adjacent residential uses. With application of this additional mitigation measure, no significant construction noise impacts would occur.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? ☐ ☐ ☒ ☐

Reference: ATS Consulting (2007)

Comment: There are no standards available to provide guidance on acceptable levels of vibration for wildlife. However, this assessment considers a vibration level of 72 VdB to be the threshold at which the vibration could have a significant effect on some wildlife. This is the same threshold that is used for impact to humans from vibration generated by rail transit trains.

Construction vibration will have no significant adverse effects on either wildlife or occupants of nearly buildings for the following reasons:

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
1) Total potential vibration-affected area is small and does not include any native habitat. 2) Any larger mammals that could be affected by the vibration would be unlikely to stay in the vicinity during construction activity because of the human activity. Smaller vertebrates would probably move out to areas that are at least 100 to 200 feet from the construction site, which is beyond the area where vibration would have any negative effects. 3) Although it is feasible that vibration from the procedures used to construct the parking area could cause some disturbance to vertebrate wildlife that use vibration for communication or foraging, the project area provides limited habitat value to local fauna, including birds, reptiles and mammals. 4) The southwestern willow flycatcher (endangered) and the coastal California gnatcatcher (threatened) are in the Hollywood and Burbank 7.5' USGS quads and that the gnatcatcher may occupy territories on sloes adjacent to the park. However, nesting is not likely to occur at the margin of individual territories where breeding could be impeded by human activities. None of the area potentially affected by vibration provides natural habitat for the gnatcatcher, and the closest potential habitat is on slopes adjacent to the park that are outside the potential vibration-impacted area. Vibration is unlikely to have any adverse effects on threatened or endangered species. 5) Vibration levels at the closest residences are project to be below the impact thresholds that are used for permanent vibration sources such as rail transit station.				
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? Reference: See Reference 11 (a) above. Comment: Refer to Comment 11 (a) above.	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? Reference: See Reference 11 (a) above. Comment: Refer to Comments 11 (a) and 11 (b) above.	☐	☒	☐	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
Reference: City of Los Angeles General Plan (Noise Element) Comment: No public airport is located within the vicinity of the project area. Refer to Comment 7 (e) above.				
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? Reference: City of Los Angeles General Plan (Noise Element) Comment: No private airstrips are located within the vicinity of the project area. Refer to Comment 7 (e) above.	☐	☐	☐	☒
12. POPULATION AND HOUSING – Would the project:				
a) Induce substantial 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)? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section J.1) Comment: If implemented, the proposed project would not promote population growth, either directly or indirectly, because it is a recreation amenity that has been planned and anticipated, as evidenced in the applicable land use plans (1986 Runyon Canyon Plan Master Plan and Design Guidelines). The proposed project would not induce additional population growth in the area, but would instead address a need for the existing population regarding park development.	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section J.2) Comment: Will not displace housing.	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? Reference: See Reference 12 (b) above. Comment: Site does not currently provide jobs or housing.	☐	☐	☐	☒
13. PUBLIC SERVICES –				
a) 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:				
i) Fire protection? Reference: City of Los Angeles 2006 L.A. CEQA Thresholds Guide (Section K.2)	☐	☐	☐	☒

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
Comment: The Fire Department will review and approve plot plans.				
ii) Police protection?	☐	☐	☒	☐
Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section K.1) Comment: The Department of Recreation and Parks and the Department of General Services will respond to any disturbance at the park.				
iii) Schools?	☐	☐	☐	☒
Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section K.3) Comment: The proposed project would not promote population growth, either directly or indirectly, because it would serve as a recreational amenity to accommodate the planned regional growth forecasts and would not include new residential or educational development.				
iv) Parks?	☐	☐	☐	☒
Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section K.4) Comment: The proposed project is itself a recreational amenity designed to accommodate existing and future regional growth.				
v) Other public facilities?	☐	☐	☐	☒
Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section K.5); NavigateLA Comment: The proposed project would not promote population growth, either directly or indirectly, because it would serve as a recreational amenity to accommodate the planned regional growth forecasts and would not include new residential or educational development.				
14. 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? Reference: City of Los Angeles General Plan; City of Los Angeles 2006 CEQA Thresholds Guide (Section K.4); NavigateLA Comment: The proposed project would not adversely affect existing recreational opportunities or increase the demand for neighborhood or regional parks or other recreational facilities, because it is a recreational amenity designed to respond to a presently existing demand for on-site parking.	☐	☐	☐	☒
b) Does the project include recreational facilities or require the	☐	☐	☐	☒

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
construction or expansion of recreational facilities that might have an adverse physical effect on the environment? Reference: See Reference 14 (a) above. Comment: Refer to Comment 14 (a) above.				
15. TRANSPORTATION/TRAFFIC – Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? Reference: City of Los Angeles General Plan; City of Los Angeles 2006 CEQA Thresholds Guide (Sections L.1, L.2, L.3, L.4, and L.8); KAKU (2006); KAKU (2007); City of Los Angeles Dept. of Transportation Comment: A traffic study prepared for the proposed project developed two scenarios to analyze the traffic conditions in 2010. Scenario 1 (best-case scenario) took in account only ambient growth. In this scenario, the parking area does not create any induced demand; rather it increases the same rate as the background growth. Scenario 2 (worst-cast scenario) took into account the cumulative base plus the additional project trips generated from the project. The results for both scenarios concluded that the project would result in less than significant impacts.	☐	☐	☒	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? Reference: See Reference 15 (a) above. Comment: Weekday a.m. and p.m. peak period intersection turning movement counts were conducted at the study intersections on Tuesday, June 26, 2007. The selected intersections are: North Vista Street/Hollywood Boulevard, Fuller Avenue/Hollywood Boulevard, Franklin Avenue/Fuller Avenue, Franklin Avenue/La Brea Avenue, and Hillside Avenue/La Brea Avenue. Two of the five intersections are currently controlled by traffic signals. The Los Angeles Department of Transportation (LADOT) requires that the “Critical Movement Analysis” (CMA) method of intersection capacity analysis be used to determine the intersection volume-to-capacity (V/C) ratio and corresponding level of service (LOS). The two analyzed signalized intersections operate under the Adaptive Traffic Control System (ATCS). The City of Los Angeles grants a 10% credit toward increased capacity (i.e., 0.10 reduction in V/C ratio) at any intersection where ATCS is	☐	☒	☐	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact

implemented.

Three of the study intersections are currently unsignalized, including one with a stop-controlled minor street and the other two with four-way stop-control.

One of the intersections, North Vista Street/Hollywood Boulevard, operates at LOS C during the a.m. peak hour and at LOS E during the p.m. peak hour. The remaining intersections operate at excellent to very good levels of service (LOS A or B) during both the peak hours.

Two scenarios were developed to analyze the traffic conditions in 2010 after completion of the lot:
Scenario 1: “Best-case” scenario, is essentially the cumulative base scenario, which takes into account only ambient growth. In this scenario, the parking lot does not create any induced demand, rather it increases at the same rate as the background growth. Using a growth rate of 1% per year, the existing (year 2007) traffic volumes were adjusted upwards by 3% to reflect three years of background growth from 2007 to 2010.

The LOS conditions during the a.m. and p.m. peak hours, only one intersection, North Vista Street/Hollywood Boulevard operates at LOS D or F.

Scenario 2: “Worst-case”, is essentially the cumulative base plus the additional trips generated from the project. For this scenario, it is assume 80 additional project trips in each weekday peak hour will be generated as a result of better access due to the parking lot. This is likely the maximum number of trips that could occur as a result of increased demand, since it assumes average auto occupancy of 1.0 and not all 80 trips will occur during peak hours. North Vista Street/Holly Boulevard continues operating at LOS E or F during the a.m. and p.m. peak hours under cumulative plus project conditions. The proposed project traffic in the worst-case scenario would not result in V/C increased large enough to result in significant impacts at any of the study intersections.

The Los Angeles Department of Transportation (DOT) has reviewed the technical memorandum dated January 10, 2006 and January 12, 2006, prepared by the traffic consultant, KAKU Associates, for the proposed project. Per the DOT Traffic Study Policies and Procedures Revised March 2002, a significant impact is identified as an increase in Critical Movement Analysis

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact

(CMA) value, due to project related traffic, of 0.010 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 increase of 0.040 or more when the final LOS is LOS C. The January 12, 2006 memorandum analyzed five intersections and four street segments and determined that none of the study intersections and street sections would be significantly impacted by the project related traffic.

DOT has provided additional project requirements which will be included as the following mitigation measures:

- DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. 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.

- The developer should check with the Bureau of Engineering (BOE) Land Development Group to determine the highway dedication, street widening and sidewalk requirements for the project.

- Currently, only on-street parking is available in this area. A parking analysis was conducted and determined that approximately 233 of 260 on-street parking spaces were utilized in the immediate area of the park during the peak hour. The proposed 70-space parking lot along with the existing 260 on-street parking spaces in the immediate area are sufficient to meet the peak parking demand of Runyon Canyon Park and the surrounding neighborhood. DOT has been informed by BOE that the parking lot will be increased to an additional 10 spaces for a total of 80 parking spaces.

- The review of the study does not constitute approval of the driveway access and circulation scheme. Those require separate review and approval and should be coordinated as soon as possible with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 4th Floor, Station 3, 213-485-7024) to avoid delays in the building permit approval process. In order to minimize and prevent last minute building design changes, it is imperative that the applicant, prior to the commencement of building or parking layout design efforts, contact DOT for driveway width and internal circulation

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans to avoid any unnecessary time delays and potential costs associated with late design changes. All driveways should be Case 2 driveways and 30 feet. Any proposed gates should have 20' minimum reservoir space from the property line.				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Sections L.1, L.2, L.3, L.4, and L.8). Comment: The project does not involve any changes in air traffic patterns.	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? Reference: See Reference 15 (a) above. Comment: The project is compatible with the land use and would not include any design features that would result in a safety hazard to pedestrians, personnel, visitors, or nearby neighbors.	☐	☐	☐	☒
e) Result in inadequate emergency access? Reference: See Reference 15 (a) above. Comment: The Fire Department will review and approve plot plans.	☐	☐	☐	☒
f) Result in inadequate parking capacity? Reference: See Reference 15 (a) above. Comment: A parking analysis was conducted on Friday, June 23, 2007 and Saturday, June 30, 2007 from 8:00 a.m. to 5:00 p.m. The parking study area was defined by La Brea Avenue to the east, Hollywood Boulevard to the south, Sierra Bonita Avenue to the west and the park boundaries to the north. A smaller area within the study area, known as the immediate study area, is up to but not include of La Brea Avenue to the east, Franklin Avenue to the south, up to but no inclusive of Gardner Street to the west and the park to the north. This area was selected for analysis due to close proximity to the park entrance, and may better represent the park's impact on the surround neighborhood that the entire area. Runyon Canyon Park does not currently have any on-site parking at the Fuller entrance. There are approximately 619 on-street parking spaces during non-peak hours and on weekends, whereas, approximately 548 on-street parking spaces are available during peak hours (7:00-9:00 a.m. and 4:00-6:00 p.m.). The reduction in parking supply is due to the restriction on parking on Hollywood Boulevard during peak hours. Almost 274 on-street spaces are in the immediate study area. Along with the restriction of street cleaning on Mondays	☐	☐	☒	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact

and Tuesday, there is ho parking allowed on the following street segments in the study area:

1) North Vista Street north of Franklin Avenue (except for vehicles with District 72 permits)

2) La Brea Avenue between Hillside and Franklin Avenue (except for vehicles with District 79 permits)

3) Camino Palmero Avenue north of Franklin Avenue

There are approximately 40 unpaved parking spaces at the Mulholland entrance to the park, but those were not taken into account in this report.

Two scenarios were developed to analyze the parking conditions at completion of the lot. The first scenario, or "best-case" scenario, includes 80 additional parking spaces added to the supply while demand is kept constant (i.e., no new additional trips as a result of the parking lot). Utilization rates do not exceed 80%, well within properly functioning levels, at any time in both study areas.

The second scenario, or "worst-case" scenario, includes 80 additional parking spaces as well as 80 additional cars parking in the area. The peak in this situation occurs at 11:00 a.m. on Saturday in the immediate study area when the area is approximately 94% occupied (331 spaces). This represents a two percentage point increase from current conditions.

More than likely, the worst-case scenario representing "induced demand" will only occur immediately after completion of the project, if at all.

g) Conflict with adopted policies plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? ☐ ☐ ☐ ☒
Reference: See Reference 15 (a) above.
Comment: The proposed project would not conflict with adopted policies or existing facilities related to alternative transportation.

16. UTILITIES AND SERVICE SYSTEMS – Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? ☐ ☐ ☐ ☒
Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section M.2)
Comment: The proposed project is parking lot.

b) Require or result in the construction of new water or wastewater ☐ ☐ ☐ ☒

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section M.1 and M.2) Comment: The project is a parking lot and open lawn area.				
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section M.1) Comment: See Comment 16 (a) above.	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section M.1) Comment: See Comment 16 (a) above.	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider that 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? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section M.2) Comment: See Comment 16 (a) above.	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section M.3) Comment: See Comment 16 (a) above.	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste? Reference: City of Los Angeles 2006 CEQA Thresholds Guide (Section M.3) Comment: See Comment 16 (a) above.	☐	☐	☐	☒
17. MANDATORY FINDINGS OF SIGNIFICANCE -- a) Does the project have the potential to 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, 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? Reference: City of Los Angeles 2006 CEQA Thresholds Guide Comment: The proposed project has the potential to slightly degrade the immediate environment during construction due noise from construction activity. Also, the proposed project has the potential	☐	☒	☐	☐

Issues	Potentially Significant Impact	Less Than Significant With	Less Than Significant	No Impact
to eliminate important examples of the major periods of California history. However, with the implementation of mitigation measures, the proposed project would not 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)? Reference: City of Los Angeles 2006 CEQA Thresholds Guide Comment: The proposed project is located in a highly developed area. The proposed project would have minor localized impacts that could all be mitigated through the proposed mitigation measures	☐	☐	☒	☐
c) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals? Reference: City of Los Angeles 2006 CEQA Guide Comment: See Comment 17(a) above.	☐	☐	☐	☐
d) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? Reference: City of Los Angeles 2006 CEQA Thresholds Guide Comment: The proposed project has the potential to slightly degrade the immediate environment during construction due noise from construction activity. Also, the proposed project has the potential to eliminate important examples of the major periods of California history. However, with the implementation of mitigation measures, the proposed project would not eliminate important examples of the major periods of California history or prehistory.	☐	☐	☒	☐

4.0 MITIGATION MEASURES

The following mitigation measures would be implemented to ensure that potential adverse impacts of the proposed project would be reduced to a less than significant level. These mitigation measures reference the Initial Study Checklist above.

4.1 Aesthetics

The proposed project site does not contain any identified scenic vistas. The proposed parking area would be designed and landscaped in an attractive manner that is compatible with the existing environment. Some lighting is expected as a component part of the proposed project's security functions. However, impacts can be mitigated to a level of

insignificance by the following mitigation measures:

AES-1 Any nighttime security lighting will be designed and installed with shielding so that there will be no impact on adjacent residential properties and/or wildlife.

AES-2 The Department of Recreation and Parks' Tree Preservation Policy regulates the protection of trees in four categories: 1) Trees protected by LA City Ordinance; 2) Heritage Trees; 3) Special Value Trees; and, 4) all other Common Park Trees. Heritage trees exist in the proposed project area. Prior to the issuance of a grading permit, a plot plan prepared by a reputable tree expert, indicating the location, size, type, and condition of all existing heritage trees on the site shall be submitted for approval by the Department of Recreation and Parks and the Street Tree Division of the Bureau of Street Services. No heritage trees shall be removed.

AES-3 All project landscaping should include native vegetation, requiring minimal irrigation and safe care (e.g., nor harmful chemicals), designed to assist in filtering any runoff. In addition, all landscaping should be sensitive to (and compatible with) the adjacent residential properties. Native trees and plants present within the area would be primary constituents of the plant palette. Review of the landscaping plan for the project area would be performed by a qualified biologist to ensure that no invasive plants are included.

4.2 Biological Resources

4.2.1 Vegetation

The Department of Recreation and Parks' Tree Preservation Policy regulates the protection of trees in four categories: 1) Trees protected by LA City Ordinance; 2) Heritage Trees; 3) Special Value Trees; and, 4) all other Common Park Trees. Heritage trees exist in the proposed project area. Because heritage trees are protected trees, recommendations from the Department of Recreation and Parks Arborists must be obtained before any alterations to the protected trees is made that may; cause the tree to become damaged, relocated, or removed. The General Manager of the Department of Recreation and Parks or his/her designee must approve the recommendation before action proceeds.

There are ten species of Heritage trees existing in the proposed project site area. They are: 1) Avocado (*Persea americana*); 2) Brush Cherry (*Syzygium paniculatum*); 3) Canary Island Date Palm (*Phoenix canariensis*); 4) Cape Chestnut (*Calodendrum capense*); 5) Chinese Pistache (*Pistacia chinensis*)6) Guadelupe Palm (*Brahea edulis*);); 7) Macadamia Nut (*Macadamia integrifolia*); 8) Naked Coral Tree (*Erythrina coralloides*); 9) Victorian Box

(*Pittosporum undulatum*); and, 10) White Sapote (*Casimiroa edulis*);.

With the implementation of the below mitigation measure, the impact will be reduced to a level of insignificance.

BIO-1: The Department of Recreation and Parks' Tree Preservation Policy regulates the protection of trees in four categories: 1) Trees protected by LA City Ordinance; 2) Heritage Trees; 3) Special Value Trees; and, 4) all other Common Park Trees. Heritage trees exist in the proposed project area. Prior to the issuance of a grading permit, a plot plan prepared by a reputable tree expert, the location, size, type, and condition of all existing trees on the site shall be submitted for approval by Department of Recreation and Parks and the Street Tree Division of the Bureau of Street Services. No heritage trees shall be removed.

BIO-2 All project landscaping should include native vegetation, requiring minimal irrigation and safe care (e.g., no harmful chemicals), designed to assist in filtering any runoff. In addition, all landscaping should be sensitive to (and compatible with) the adjacent residential properties. Native trees and plans present within the area would be primary constituents of the plant palette. Review of the landscaping plan for the project area would be performed by a qualified biologist to ensure that no invasive plants are included.

BIO-3 Proposed project activities (including disturbances to native and non-native vegetation and man-made substrates) should take place outside of the breeding bird season which generally runs from March 1 – August 31 (as early as February for raptors) to assist in avoiding take (including disturbances which would cause abandonment of active nests containing eggs and/or young).

BIO-4 If the project activities cannot feasibly be avoided during the breeding bird season, the State of California Department of Fish and Game recommends that beginning thirty days prior to disturbance of suitable nesting habitat the project proponent should arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors). The surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys should continue on a weekly basis with the last survey being conducted no more than three days prior to the initiation of clearance/construction work. If a protected native bird is found, the project proponent should delay all clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until August 31 or continue the surveys in order to locate any nests. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is

vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the result of the recommended protection measures described above to document compliance with applicable State and federal laws pertaining to the protection of birds.

BIO-5 Any nighttime security lighting will be designed and installed with shielding so that there will be no impact on adjacent residential properties and/or wildlife.

4.2.2 Wildlife

The U. S. Department of Reclamation has established maximum allowable noise level limits for wildlife breeding habitat. During the breeding season, the maximum average hourly level at the breeding habitat (brushes, trees, lakes, and ponds) is 60 dBA. During the periods of maximum construction noise generation, the hourly average of 75 dBA would be attenuated to 60 dBA or less at 135 feet or more from the construction area. Although the construction noise is projected to exceed the hourly average of 60 dBA within 75 feet of the construction area, the noise from the ongoing operation of the parking lot would not exceed 60 dBA off the parking lot. Noise impacts to on-site wildlife within Runyon Canyon would be less than significant if no construction is allowed within 300 feet of an active nest.

There are no standards available to provide guidance on acceptable levels of vibration for wildlife. However, this assessment considers a vibration level of 72 VdB to be the threshold at which the vibration could have a significant effect on some wildlife. This is the same threshold that is used for impact to humans from vibration generated by rail transit trains.

Construction vibration will have no significant adverse effects on either wildlife or occupants of nearly buildings for the following reasons:

1) Total potential vibration-affected area is small and does not include any native habitat.

2) Any larger mammals that could be affected by the vibration would be unlikely to stay in the vicinity during construction activity because of the human activity. Smaller vertebrates would probably move out to areas that are at least 100 to 200 feet from the construction site, which is beyond the area where vibration would have any negative effects.

3) Although it is feasible that vibration from the procedures used to construct the parking area could cause some disturbance to vertebrate wildlife that use vibration for communication or foraging, the project area provides limited habitat value to local fauna, including birds, reptiles and mammals.

4) The southwestern willow flycatcher (endangered) and the coastal California

gnatcatcher (threatened) have been reported to occur in the Hollywood and Burbank 7.5' USGS quads. The gnatcatcher may occupy territories on sloes adjacent to the park. However, nesting is not likely to occur at the margin of individual territories where breeding could be impeded by human activities. None of the area potentially affected by vibration provides natural habitat for the gnatcatcher, and the closest potential habitat is on slopes adjacent to the park that are outside the potential vibration-impacted area. Vibration is unlikely to have any adverse effects on threatened or endangered species.

5) Vibration levels at the closest residences are project to be below the impact thresholds that are used for permanent vibration sources such as rail transit station.

4.3 Cultural Resources

The proposed improvements would not have a significant effect on any historical resources or the remnants of buildings or structures once associated with John McCormack or Huntington Hartford. The remnants are not eligible for the California Register of Historical Resources because they do not meet the integrity criterion. However, the remnants may be eligible for Historic-Cultural Monument designation for *"…any site (including significant trees or other plant life located thereon), building or structure of particular historical or*



Figure 4: Remnant Steps

cultural significance to the City of Los Angeles, such as historic structures of sites in which broad cultural… or social history of the … community is reflected or exemplified or which are identified with historic personages…"

With the implementation of the below mitigation measure, the impact will be reduced to a level of insignificance.

CUL-1: The proposed project will incorporate the remnant steps into the project design. The remnant steps will remain *in situ*.

4.4 Noise

4.4.1 Stationary Noise

The City of Los Angeles Municipal Code, Section 111.03, includes exterior noise standards for the generation of stationary-source noise on a property that prevent a nuisance to other land uses. Noise standards are correlated with City zoning classification to guide the measurement of intrusive noise that results in intermittent (periodic) or extended impacts on a site. The intent is to limit intrusive noise (e.g., air conditioning units, machinery, parties, amplified sound) that exceeds the ambient noise levels within the zones specified. Stationary noise sources are prohibited from causing the exterior of noise levels at residential locations to exceed an hourly noise level of 50 dBA at any time between the hours of 7 a.m. and 10 p.m.

4.4.2 Construction Noise

Section 41.40 of the Municipal Code specifies hours allowed for construction activities (City of Los Angeles 2000) for the purposes of noise control in accordance with Chapter XI (Section 112.03). Construction delivery of construction materials are prohibited between the hours of 9:00 p.m. and 7:00 a.m.

Chapter XI, Section 112.05, of the Los Angeles Municipal Code also specifies the maximum noise level for construction equipment. In accordance with the Section 112.05, construction equipment, including auger, 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 shall not produce a maximum noise level exceeding 75 dBA at a distance of 50 feet. The City allows construction noise exceeding these noise limits if compliance is technically infeasible. However, the burden of proving that compliance is technically infeasible include showing that noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of the equipment.

The closest residences would be located south of the site, approximately 45 feet or more from the closest on-site parking lot construction area. At this distance, the maximum unmitigated noise level would be approximately 86 dBA or less. The average sound level for an eight-hour workday would be expected to be substantially less because of the intermittent nature of construction work. The hourly average noise level would not be expected to exceed 75 dBA at 50 feet. The majority of construction would be milted to the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday. Consequently, construction

activities would comply with the City of Los Angeles Municipal Code, Section 112.05.

However, construction activities would increase the average ambient sound levels 20 to 24 dBA above existing ambient noise levels within 50 feet of the construction area. Installing a 10-foot-high temporary construction sound wall with sound barrier material with a Sound Transmission Class (STC)-27 rating or higher between the construction site and the nearest occupied structures could provide a 10 to 14 dBA sound level reduction at 50 feet. The resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise level impact of 65 dBA during the highest noise generation phases of the project, and impacts would be substantially reduced at the adjacent residential uses. With application of this additional mitigation measure, no significant construction noise impacts would occur.

NOI-1 Installing a 10-foot-high temporary construction sound wall with sound barrier material with a Sound Transmission Class (STC)-27 rating or higher between the construction site and the nearest occupied structures could provide a 10 to 14 dBA sound level reduction at 50 feet. The resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise level impact of 65 dBA during the highest noise generation phases of the project, and impacts would be substantially reduced at the adjacent residential uses. With application of this additional mitigation measure, no significant construction noise impacts would occur.

4.4.3 Vibration

There are no standards available to provide guidance on acceptable levels of vibration for wildlife. However, this assessment considers a vibration level of 72 VdB to be the threshold at which the vibration could have a significant effect on some wildlife. This is the same threshold that is used for impact to humans from vibration generated by rail transit trains.

Construction vibration will have no significant adverse effects on either wildlife or occupants of nearly buildings for the following reasons:

1) Total potential vibration-affected area is small and does not include any native habitat.

2) Any larger mammals that could be affected by the vibration would be unlikely to stay in the vicinity during construction activity because of the human activity. Smaller vertebrates would probably move out to areas that are at least 100 to 200 feet from the construction site, which is beyond the area where vibration would have any negative effects.

3) Although it is feasible that vibration from the procedures used to construct the parking area could cause some disturbance to vertebrate wildlife that use vibration for communication or foraging, the project area provides limited habitat value to local fauna, including birds, reptiles and mammals.

4) The southwestern willow flycatcher (endangered) and the coastal California gnatcatcher (threatened) are in the Hollywood and Burbank 7.5' USGS quads and that the gnatcatcher may occupy territories on sloes adjacent to the park. However, nesting is not likely to occur at the margin of individual territories where breeding could be impeded by human activities. None of the area potentially affected by vibration provides natural habitat for the gnatcatcher, and the closest potential habitat is on slopes adjacent to the park that are outside the potential vibration-impacted area. Vibration is unlikely to have any adverse effects on threatened or endangered species.

5) Vibration levels at the closest residences are project to be below the impact thresholds that are used for permanent vibration sources such as rail transit station. There are no standards available to provide guidance on acceptable levels of vibration for wildlife. This assessment considers a vibration level of 72 VdB to be the threshold at which the vibration could have a significant effect on some wildlife. This is the same threshold that is used for impact to humans from vibration generated by rail transit trains.

The equipment that will be used to construction the parking area is likely to include various types of earth movers and graders, compaction equipment, heavy trucks, and lighter-weight equipment such as bobcats, compressors and generators. Blasting and pile driving are the most common sources of problems with construction vibration. Neither blasting nor pile driving would be used for this project. Relatively high vibration levels also can be generated by vibratory rollers used to compact soil and by tracked equipment such as bulldozers.

Grading activities associated with the project could generate groundborne vibration from equipment. These effects would be temporary and short-term in nature and would comply with applicable noise standards.

The proposed project would likely result in temporary higher-than-average noise levels in the local community during construction. However, the Bureau of Engineering Standard Project Specifications for public works construction are designed to comply with the City's General Plan Noise Element and related Municipal Code Noise Ordinance and, given that the proposed project would be implemented in accordance with these, significant adverse impacts to noise levels are not expected.

4.5 Transportation/Traffic

A traffic study prepared for the proposed project developed two scenarios to analyze the traffic conditions in 2010. Scenario 1 (best-case scenario) took in account only ambient growth. In this scenario, the parking area does not create any induced demand; rather it increases the same rate Weekday a.m. and p.m. peak period intersection turning movement counts were conducted at the study intersections on Tuesday, June 26, 2007. The selected intersections are: North Vista Street/Hollywood Boulevard, Fuller Avenue/Hollywood Boulevard, Franklin Avenue/Fuller Avenue, Franklin Avenue/La Brea

Avenue, and Hillside Avenue/La Brea Avenue.

Two of the five intersections are currently controlled by traffic signals. The Los Angeles Department of Transportation (LADOT) requires that the "Critical Movement Analysis" (CMA) method of intersection capacity analysis be used to determine the intersection volume-to-capacity (V/C) ratio and corresponding level of service (LOS).

The two analyzed signalized intersections operate under the Adaptive Traffic Control System (ATCS). The City of Los Angeles grants a 10% credit toward increased capacity (i.e., 0.10 reduction in V/C ratio) at any intersection where ATCS is implemented.

Three of the study intersections are currently unsignalized, including one with a stop-controlled minor street and the other two with four-way stop-control.

One of the intersections, North Vista Street/Hollywood Boulevard, operates at LOS C during the a.m. peak hour and at LOS E during the p.m. peak hour. The remaining intersections operate at excellent to very good levels of service (LOS A or B) during both the peak hours.

Two scenarios were developed to analyze the traffic conditions in 2010 after completion of the lot:

Scenario 1: "Best-case" scenario, is essentially the cumulative base scenario, which takes into account only ambient growth. In this scenario, the parking lot does not create any induced demand, rather it increases at the same rate as the background growth. Using a growth rate of 1% per year, the existing (year 2007) traffic volumes were adjusted upwards by 3% to reflect three years of background growth from 2007 to 2010. The LOS conditions during the a.m. and p.m. peak hours, only one intersection, North Vista Street/Hollywood Boulevard operates at LSO D or F.

Scenario 2: "Worst-case", is essentially the cumulative base plus the additional trips generated from the project. For this scenario, it is assume 80 additional project trips in each weekday peak hour will be generated as a result of better access due to the parking lot. This is likely the maximum number of trips that could occur as a result of increased demand, since it assumes average auto occupancy of 1.0 and not all 80 trips will occur during peak hours. North Vista Street/Holly Boulevard continues operating at LOS E or F during the a.m. and p.m. peak hours under cumulative plus project conditions. The proposed project traffic in the worst-case scenario would not result in V/C increased large enough to result in significant impacts at any of the study intersections.

The Los Angeles Department of Transportation (DOT) has reviewed the technical memorandum dated January 10, 2006 and January 12, 2006, prepared by the traffic consultant, KAKU Associates, for the proposed project. Per the DOT Traffic Study Policies and Procedures Revised March 2002, a significant impact is identified as an increase in Critical Movement Analysis (CMA) value, due to project related traffic, of 0.010 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 increase of 0.040 or more when the final LOS is LOS C. The January 12, 2006 memorandum analyzed five intersections and four street segments and determined that none of the study intersections and street sections would be significantly impacted by the project related traffic.

DOT has provided additional project requirements which will be included as the following mitigation measures:

TRA-1: DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the tart of any construction work. 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.

TRA-2: The developer should check with the Bureau of Engineering (BOE) Land Development Group to determine the highway dedication, street widening and sidewalk requirements for the project.

TRA-3: Currently, only on-street parking is available in this area. A parking analysis was conducted and determined that approximately 233 of 260 on-street parking spaces were utilized in the immediate area of the park during the peak hour. The proposed 70-space parking lot along with the existing 260 on-street parking spaces in the immediate area are sufficient to meet the peak parking demand of Runyon Canyon Park and the surrounding neighborhood. DOT has been informed by BOE that the parking lot will be increased to an additional 10 spaces for a total of 80 parking spaces.

TRA-4: The review of the study does not constitute approval of the driveway access and circulation scheme. Those require separate review and approval and should be coordinated as soon as possible with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 4th Floor, Station 3, @213-485-7024) to avoid delays in the building permit approval process. In order to minimize and prevent last minute building design changes, it is imperative that the applicant, prior to the commencement of building or parking layout design efforts, 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 to avoid any unnecessary time delays and potential costs associated with late design changes. All driveways should be Case 2 driveways and 30 feet. Any proposed gates should have 20' minimum reservoir space from the property line as the background growth. Scenario 2 (worst-cast scenario) took into account the cumulative base plus the additional project trips generated from the project. The results for both scenarios concluded that the project would result in less than significant impacts.

5.0 PREPARATION AND COORDINATION/CONSULTATION

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6.0 DETERMINATION - RECOMMENDED ENVIRONMENTAL DOCUMENTATION

6.1 SUMMARY

The proposed project consists of the construction of a new gravel-based parking area consisting of 80 parking spaces in the area that is currently an open lawn area used for yoga classes. The existing open lawn area will be relocated to the north of the new parking area. The total area to be developed is approximately .6 acres. The proposed parking area will feature a low-impact and permeable surface. The proposed parking area will utilize a terraced design that nestles into the existing grade and allows the parking area to blend with the natural terrain and minimizes grading work. This design will minimize water runoff and control erosion. In addition, the parking area design has incorporated remnant building foundations from the former estate. A 4-foot high fence will be constructed to enclose the new grass area. All existing trees will remain. The area will be landscaped with native, drought-tolerant plants. An irrigation system will be installed in this area as well as in the parking area. The new open grass area will retain the same size and amenities as the existing one.

6.2 RECOMMENDED ENVIRONMENTAL DOCUMENTATION

On the basis of this initial evaluation, I find that the proposed project could not have a significant effect on the environment, and a **Mitigated Negative Declaration** should be adopted.

Prepared By: _____
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Reviewed By: _____
James E. Doty, Environmental Supervisor II

Approved By: GARY LEE MOORE, P.E.
City Engineer

By: _____
Ara J. Kasparian, Ph.D., Manager
Environmental Management Division

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RUNYON CANYON PARK
FULLER ENTRANCE PARKING AREA

APPENDICES

January 2008

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APPENDIX A

EFFECTS OF CONSTRUCTION VIBRATION

ATSConsulting
acoustics, transportation + strategy

MEMORANDUM

To: Louis Utsumi
EnviCraft LLC

From: Hugh Saurenman
ATS Consulting

Date: July 20, 2007

Subject: Effects of Construction Vibration, Runyon Canyon Park – Fuller Entrance Parking Project

INTRODUCTION

The proposed project would build a parking lot off the Fuller Avenue entrance to Runyon Canyon Park. This study presents an evaluation of the potential for vibrations associated with construction or operation of the parking area to have significant adverse effects on either wildlife living in the park area or nearby residents. This study was performed to support environmental documentation required under the California Environmental Quality Act (CEQA).

Runyon Canyon Park is a 124-acre park located at 2000 North Fuller Avenue within the City of Los Angeles in the Hollywood Community Planning Area. Runyon Canyon Park is a heavily used urban park with a variety of use groups, including hikers, bikers, and dog walkers. Vehicular entrance to Runyon Canyon Park may be obtained from the south, via the Vista Street and Fuller Avenue entrances, or from the north, off Mulholland Drive. Figure 1 shows the general location of Runyon Canyon Park and Figure 2 is an aerial photograph showing the park boundaries and the general sites of the proposed project.

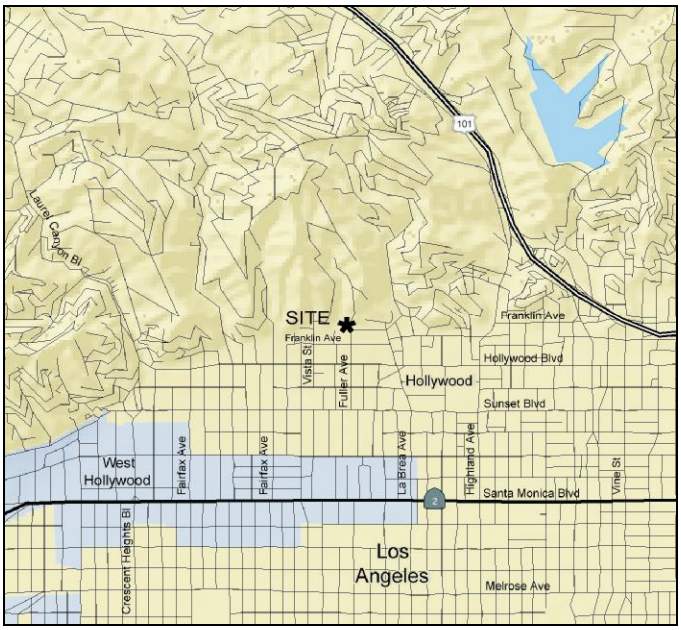


Figure 1. Location of Runyon Canyon Park

The project site is surrounded by active and passive recreational uses associated with the Runyon Canyon Park to the north, east, and west; a single-family residential property further to the east (approximately 230 feet); a single-family residential property to the southwest; and a multifamily residential property to the south.

The proposed project consists of:

1. Constructing a new 0.6-acre parking lot with 80 parking spaces. The new parking area would be developed with a low-impact, permeable surface. Construction of the new parking area is anticipated

to take six to eight months. Currently the 0.9-acre project site is occupied by a 0.6-acre open lawn area that is used for recreational classes, such as yoga, while the remainder is used as passive open space.

2. Relocating the existing open lawn area used for yoga classes to a 0.4-acre site north of the new parking area. A four-foot-high fence would be constructed around the new open lawn area. The new lawn/yoga area will feature the same size and amenities as the existing one, including a 4-foot high fence and landscaping along the perimeters. All large trees will be preserved to provide shade in this new lawn/yoga area.

Figure 3 is a conceptual site plan for the new parking area and the relocated lawn/yoga area. The parking area features a "tiered" or terraced design that nestles into the existing grade, which will minimize the grading work. The existing concrete steps and foundation walls from the mansion ruins will remain intact and undisturbed.



Figure 2. Aerial Photograph of Runyon Canyon Park Area

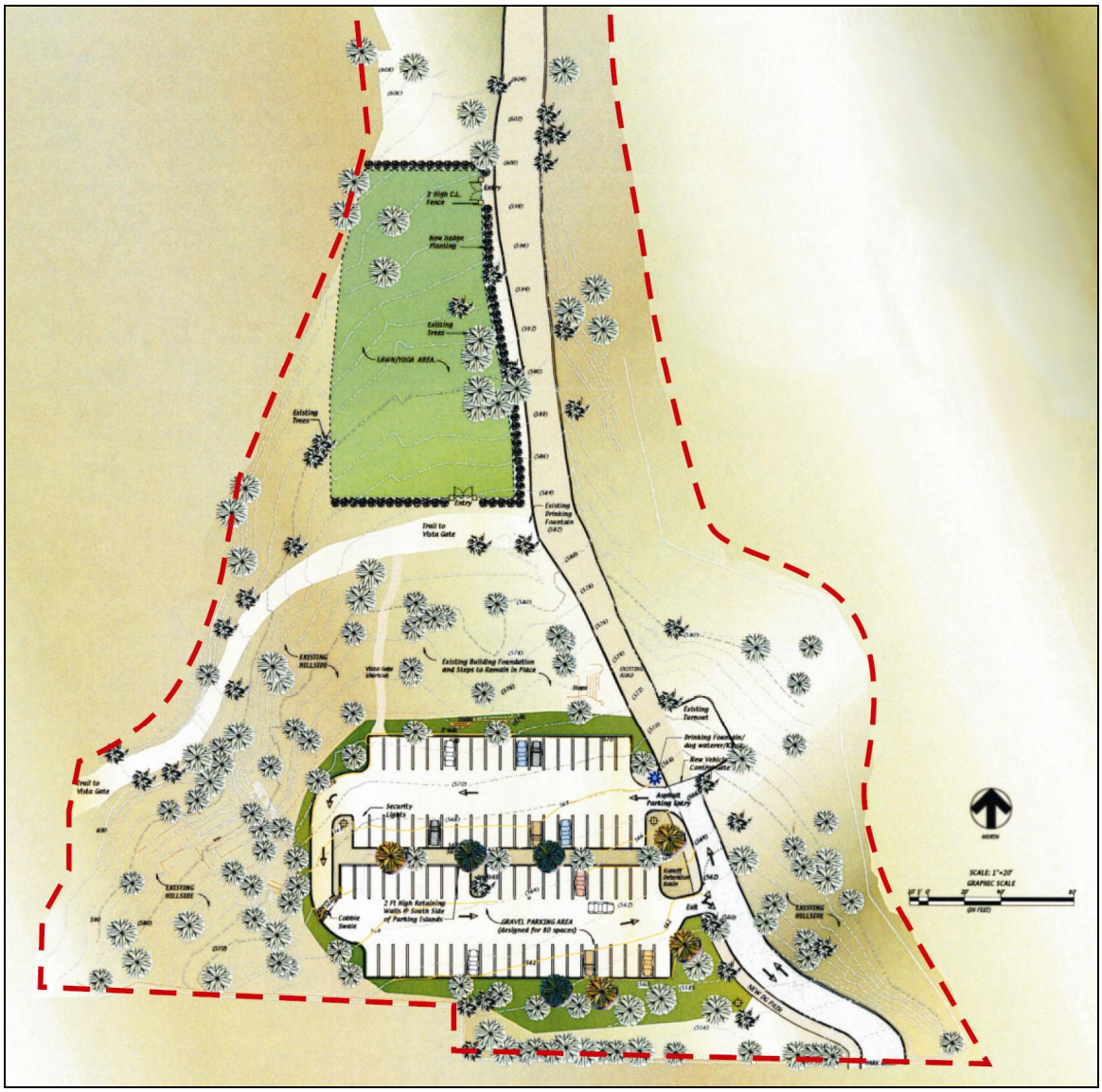


Figure 3. Conceptual Site Plan

BACKGROUND ON VIBRATION

This study addresses the potential for construction of the parking area to cause vibration that is intrusive to humans or that is sufficiently disturbing to wildlife that adverse changes in the wildlife behavior result. Examples of adverse behavioral changes include panic or escape behavior, disrupted foraging behavior, habitat avoidance and abandonment, and reduced reproductive potential. In addition, excessive stimulation of the nervous systems in some animals can lead to chronic stress, which can be harmful for the health, growth, and reproductive fitness. Although not an issue for this project, a particular concern for any human intrusion to wildlife areas is the possibility of habitat avoidance and abandonment by species whose high-quality habitat is already scarce.

Vibration is an oscillatory motion that can be described in terms of the displacement, velocity, or acceleration of the ground particles. Typical vibration in ground consists of a mixture of shear and compression waves. Fully characterizing ground vibration requires measurements in three orthogonal directions; when considering human and wildlife response to vibration, it is sufficient to consider only the component of vibration in the vertical direction.

The response of humans and wildlife to vibration is very complex. However, the general consensus is that for the vibration frequencies generated by construction equipment, human and wildlife response is best approximated by the vibration velocity. Therefore, vibration velocity has been used in this study to describe construction-generated vibration levels.

There are two widely used methods of characterizing vibration amplitudes. The first is the *peak particle velocity (PPV)*, which is the maximum instantaneous positive or negative peak of the vibration signal. PPV is often used in monitoring construction vibration since it is considered to be related to the peak stresses experienced by buildings and a good indicator of the potential for building damage. There is little or no possibility that the construction equipment used in Runyon Canyon Park will generate vibration sufficient to cause even minor cosmetic damage to any nearby buildings. As discussed later, even at distances of 25 ft, the vibration levels will be well below typical thresholds used to avoid damage to buildings.

When evaluating human and wildlife response, ground-borne vibration is usually expressed in terms of root mean square (RMS) vibration velocity. RMS is defined as the square root of the average of the squared amplitude of the vibration signal. It is commonly measured using an averaging time of 1 second when characterizing human response. The PPV is 3 to 6 times the RMS amplitude for typical environmental vibration.

In this report, RMS vibration velocity is always expressed in terms of decibels using a decibel reference of 10^{-6} in/sec. The relationship between the absolute RMS vibration amplitude and decibels is:

$$L_v = 20 \times \log\left(\frac{V_{RMS}}{V_{REF}}\right)$$

where

V_{RMS} = the RMS vibration velocity in in./sec, and

$V_{REF} = 10^{-6}$ inches/second

To avoid confusion with sound decibels, vibration velocity levels in decibels in this report are abbreviated as VdB. Following are typical responses to ground vibration:

- The threshold of perception for most people is around 65 VdB.
- Experience with rail transit systems is that indoor vibration levels in 70 to 75 VdB range are often noticeable but acceptable and that vibration in excess of 80 VdB may be considered unacceptable to building occupants.
- Research into building damage performed by the Bureau of Mines shows that most buildings can withstand a PPV of 2 in/sec (an RMS amplitude of approximately 114 VdB) without experiencing even minor cosmetic damage.

HUMAN AND WILDLIFE RESPONSE TO VIBRATION

A literature search was conducted to identify research that has been performed on wildlife response to environmental vibration. There has been limited research performed that is applicable to the Runyon Canyon Park fauna. Even the research on human response to environmental vibration is somewhat limited and tends to focus on vibration sufficient to interfere with human activities and cause physiological effects rather than vibration that is annoying. Following is a summary of some of the relevant standards and research:

- **Human response:** Most issues with environmental vibration relate to either construction projects or freight and passenger trains. The Federal Transit Administration threshold for environmental impact from vibration is an indoor vibration level of 72 VdB assuming that there are more than 70 trains per day (Ref. 1). Although this is a widely used standard that is based on national (Ref. 2) and international standards (Ref. 3), there is only a limited body of research to support the standard. The National Academies are currently supporting a research project to more accurately quantify human response to train vibration (Ref. 4).
- **Lab mice:** Reference 5 indicates that lab animals, including breeding mice, are not affected by vibration up to at least 73 VdB.
- **Burrowing rodents:** Reference 6 presents an evaluation of two case histories regarding the impact of blast- and construction-traffic-induced vibrations on the stability of burrows and concluded that impact extends to only 3 ft from the edge of the road. A 10 ft final mitigation area on either side of the construction road was imposed as a compromise with jurisdictional authority. These case histories indicate that ground vibration from construction is unlikely to affect burrowing animal habitats at distances greater than about 10 ft from construction equipment. Another study (Ref. 7) of sub-Saharan Desert Golden Moles suggested that they are sensitive to seismic disturbances caused by isolated hummocks of dune grass (prey location) generating low-frequency vibrations (~120 Hz), at a distance of a few meters. No vibration amplitudes were given, but this study is an indication that vibration from construction equipment could potentially interfere with the hunting or communication mechanisms of some burrowing animals.
- **Large mammals:** Studies of large mammals generally indicate similar response to vibration as humans. Studies of calves (Ref. 8) and pigs (Ref. 9) at relatively high vibration levels were focused on the vibration levels required to cause physiological problems in the animals (e.g., increased heart rate, increased body temperature).
- **Reptiles:** Reference 10 developed evidence of foraging by vibration detection in sand vipers and presents strong evidence that snakes can detect vibrational stimuli. External vibration produced by construction could interfere with a natural hunting mechanism in snakes though it is unclear what level of ground vibration would interfere with this mechanism.
- **Communication:** Several studies have looked at the use of vibration for communication between animals. Reference 11 looked at how drumming is used as a means of communication between a variety of mammals including deer, skunks, and other ground burrowing creatures. Mole rats and shrews use drumming as a method to warn others of nearby predators as well as to find mates. Sometimes animals will use drumming to communicate directly to predators (snakes in particular) to indicate that they are too aware to be ambushed. Reference 12 discusses recent studies in desert scorpions that provided evidence that scorpions use ground vibrations to capture their prey. Also, Reference 13 discusses how animals such as chameleons and frogs use ground vibrations as a means of finding a mate; how other mammals such as kangaroos can utilize ground vibration as a means of

identifying friends from foes; how mole rats use ground vibrations as a mean of communication; and that a plethora of insects such as spiders, ants, termites, and crickets also utilize ground vibrations in their daily lives as a form of communication.

Although it is clear that both humans and wildlife are sensitive to ground vibration and have various responses and uses for ground vibration, there is no clear indication of what represents unacceptable levels of ground vibration for different species. Our conclusions from the literature review are:

- Physiological changes in mammals, such as increased blood pressure or elevated heart rate, is unlikely because the mammals would move to areas less exposed to the construction activities before such effects caused any damage to the animal.
- Few animals are more sensitive to ground vibration than humans are.
- Snakes that use vibrational stimuli in foraging behavior could be affected by construction vibration.
- Animals that use ground vibration for communication could be affected by relatively low vibration levels.

CRITERIA FOR VIBRATION IMPACTS ON WILDLIFE

Based on the literature review discussed in the previous section, there is some potential for ground vibration caused by construction equipment to affect wildlife. The effects include habitat avoidance, interference with communication between some species of animals, and, possibly, interference with foraging by some species of reptiles. There are no standards available to provide guidance on acceptable levels of vibration for wildlife.

For this assessment we are considering a vibration level of 72 VdB to be the threshold at which the vibration could have a significant effect on some wildlife. This is the same threshold that is used for impact to humans from vibration generated by rail transit trains (Ref. 1). The primary effect of vibration exceeding 72 VdB would be for the wildlife to move outside the immediate environs of the construction site. If vibration at this level were to be permanent, there is a possibility of habitat avoidance and abandonment by some species of wildlife.

The available research suggests that vibration at level less than 72 VdB would affect foraging by some reptiles and communication between some species. However, this research is somewhat tentative and is not sufficient to define an impact threshold based on the continuation of given animal species in the vicinity of a construction site.

EXPECTED VIBRATION LEVELS DURING CONSTRUCTION

The equipment that will be used to construct the parking area is likely to include various types of earth movers and graders, compaction equipment, heavy trucks, and lighter-weight equipment such as bobcats, compressors and generators. Vibration levels of some of the types of equipment that might be used to construct the parking area are given in Table 1. Blasting and pile driving are the most common sources of problems with construction vibration. Neither blasting nor pile driving would be used for this project. Relatively high vibration levels also can be generated by vibratory rollers used to compact soil and by tracked equipment such as bulldozers.

The actual vibration levels will depend on the specific pieces of equipment, how the equipment is used, and the local geologic conditions. The local geology also has a strong effect on the attenuation rate of the vibration. Figure 4 shows vibration levels for different pieces of construction equipment assuming an

attenuation rate of 7.5 decibels every doubling of distance. This is a conservative attenuation rate and, in most soils, vibration attenuates at a faster rate.

Based on the data shown in Table 1 and Figure 4, vibration from most construction equipment that will be used to construct the parking lot will be below 72 VdB at distances greater than 100 ft from the construction site. The only exception is vibration from heavy duty vibratory compactors, which would be used on larger projects such as construction of a new freeway and are unlikely to be used on a small parking lot project such as this.

Figure 5 shows the approximate impact zone for vibration. The shaded area represents the maximum extent that vibration would affect animals that use ground vibration for communication or for foraging. Note that this is a very conservative impact zone since the effects of the construction of the parking area would last for only a few months, the high-vibration activities would be intermittent during the construction and would occur only during daytime hours. According to the vegetation and biological resource assessment (Ref. 15), all of the potential impact area shown in Figure 5 is disturbed with a limited number of native plants and represents limited habitat value to local fauna, including birds, reptiles, and mammals.

It should be emphasized that the impact zone shown in Figure 5 represents a worst case for vibration that could be disturbing to wildlife. The impact zone for potential damage to buildings would be much smaller. The most common threshold for avoiding damage to buildings from construction vibration is a PPV of 2 in./sec. Referring to Table 1, it is seen that even at distances of only 25 ft from the equipment the vibration levels are well below the 2 in./sec threshold.

Table 1. Vibration Generated by Typical Construction Equipment at 25 ft

Equipment	PPV, in/sec	RMS, VdB	Dist to 72 VdB,	Source
Vibratory roller (heavy duty)	0.413	100	340 ft	Ref 14
Vibratory roller (heavy duty)	0.210	94	190 ft	Ref. 1
Vibratory roller (typical)	0.079	86	90 ft	Ref 14
Hoe Ram	0.089	87	100 ft	Ref. 1
Large bulldozer	0.089	87	100 ft	Ref. 1
Small bulldozer (e.g., bobcat)	0.003	58	10 ft	Ref. 1
Loaded trucks	0.076	86	90 ft	Ref. 1

Note:
Both references give the amplitudes in terms of PPV. The RMS amplitude has been assumed to be PPV÷4.

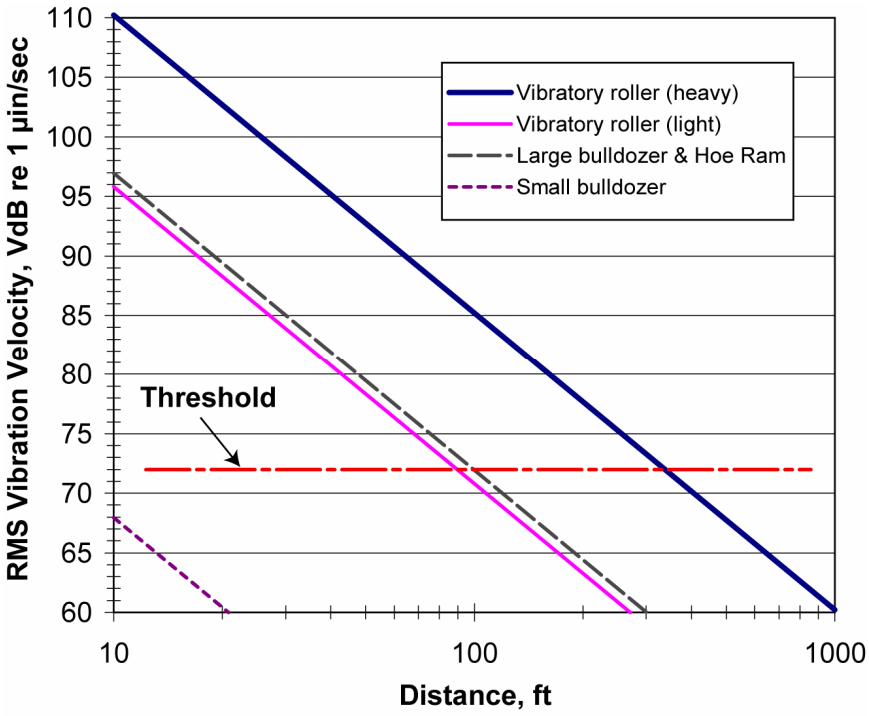


Figure 4. Construction Vibration vs. Distance



Figure 5. Worst-Case Vibration Impact Zone for Wildlife

CONCLUSIONS

The conclusion of this vibration analysis is that construction vibration will have no significant adverse effects on either wildlife or occupants of nearby buildings for the following reasons:

1. Total potential vibration-affected area is small and does not include any native habitat.
2. Any larger mammals that could be affected by the vibration would be unlikely to stay in the vicinity during the construction activity because of the human activity. Smaller vertebrates would probably move out to areas that are at least 100 to 200 ft from the construction site, which is beyond the area where vibration would have any negative effects.
3. Although it is feasible that vibration from the procedures used to construct the parking area could cause some disturbance to vertebrate wildlife that use vibration for communication or foraging, according to the Vegetation and Biological Resource Assessment (Ref. 15), the project area "… provides limited habitat value to local fauna, including birds, reptiles and mammals."

4. The vegetation and biological resource assessment (Ref. 15) found that the southwestern willow flycatcher (endangered) and the coastal California gnatcatcher (threatened) are in the Hollywood and Burbank 7.5' USGS quads and concluded that the gnatcatcher may occupy territories on slopes adjacent to the park. It further concluded that nesting is not likely to occur at the margin of individual territories where breeding could be impeded by human activities. None of the area potentially affected by vibration provides natural habitat for the gnatcatcher, and the closest potential habitat is on slopes adjacent to the park that are outside the potential vibration-impacted area. The conclusion is that construction vibration is unlikely to have any adverse effects on threatened or endangered species.
5. Vibration levels at the closest residences are projected to be below the impact thresholds that are used for permanent vibration sources such as rail transit trains.

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APPENDIX B

VEGETATION AND BIOLOGICAL RESOURCE ASSESSMENT

FORM GEN. 160 (Rev. 7-98)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

DATE: October 19, 2005.

TO: Amy Schulenberg, Environmental Specialist II
Environmental Management Group

FROM: William Jones, Environmental Specialist II
Environmental Management Group

SUBJECT: **RUNYON CANYON PARKING LOT- FULLER AVENUE ENTRANCE PROJECT (E1904613) VEGETATION AND BIOLOGICAL RESOURCE ASSESSMENT**

Biological Resources

Biological resources were surveyed within the project site, which included both the future parking lot and the replacement lawn area (Figure 1). The total area of disturbance is about 0.6 acres. The project site occupies a portion of an alluvial fan which exits at the mouth of Runyon Canyon. Runyon Canyon is a north-south trending, cismontane feature in the eastern Santa Monica Mountains.

Vegetation consists of mostly nonnative, cultivated plants, with few native-plant species present. The area of the future parking lot is occupied by a manicured lawn area, paved paths, groups of ornamental shrubs and trees, as well as a remnant building foundation. The replacement lawn area is upslope from the proposed parking lot; the area is disturbed and is a woodland dominated by non-native weeds and garden escapee, plant species. The canyon side slopes are predominantly vegetated by native plant species, typical of chaparral or coastal sage scrub communities. Since the site is disturbed, and is occupied by a limited proportion of native plants species, the area provides limited habitat value to local fauna, including birds, reptiles and mammals.

According to the National Park Service (2005), the Santa Monica Mountains support an abundant and diverse wildlife community. More than 450 vertebrate species occur within the Santa Monica Mountains Recreation Area alone, including 50 mammals, 384 birds, and 36 reptiles and amphibians. Benefiting from interconnection with wildlife corridors to the east and north, the natural low-elevation mountain habitat supports a diversity of fauna. The California Department of Fish and Game (CADFG) (1988) lists numerous mammals (mule deer, coyote, bobcat, raccoon, skunk, rabbit, squirrel and mouse), reptiles (western fence lizard, diamondback rattlesnake) and birds (red-tail hawk, falcon, owl) for chaparral and coastal sage scrub habitats.

Based upon a floristic survey prepared in conjunction with this project, forty-nine plant species were observed at the site; Less than one-fifth of the total were

native California plant species (Table I). Thirty-two plant species were recorded in the future parking lot area, while eighteen species were found in the replacement lawn area. The proportion of native species was about the same in each area. Only six plant species were found in both areas. Being a maintained public park, cultivated plants were dominant, about eighty percent of the species were non-native. Weedy annual and herb species were present in both disturbed and un-maintained areas.

The represented native plants are mostly trees or shrubs, commonly found in coastal sage scrub, chaparral, or riparian communities. Within the area of the future parking lot, native specimens were found upslope from the existing lawn area, in the vicinity of the remnant foundation and steps. Within the area of the replacement lawn, native plants were fairly scattered, but intermixed within a degraded woodland of predominantly non-native shrubs and trees. Nevertheless, being limited in population, their presence did not collectively form any cohesive habitat within the project area.

Provided by the CADFG, a search of the Natural Diversity Data Base (NDDB) revealed occurrences of seven species (five plant species and two avian species) within the Hollywood and Burbank 7.5' U.S.G.S. quads, species that have been listed by the state or federal government as rare, threatened or endangered (see attached report, Table II). Of the five plant species listed, two species - Braunton's milk-vetch (*Astragalus brauntonii* Parish) and Nevin's barberry (*Berberis nevinii* A. Gray) - are found in chaparral. The former prefers disturbed sites, while the later prefers sandy or gravelly soils. The two spineflower species - the slender-horned spineflower (*Dodecahema leptocerus*) and the San Fernandino Valley Spineflower (*Chorizanthe parryi var. fernandina*) – are found in coastal sage scrub. The spineflowers prefer arroyo habitats on alluvium, which has been heavily disturbed and modified within the project area. Neither species was found or has been previously reported at this site. Only suitable habitat for the Braunton's milk-vetch exists. However, none of the listed plant species was observed within the study area.

Few components of the coastal sage scrub, or chaparral, communities are represented onsite, but component species are more abundant on adjacent slopes. Coastal sage scrub covers a large portion of Southern California, but has become fragmented and diminished in areal extent due to urbanization and development pressures. Not directly protected as habitat, the community harbors many rare, threatened or endangered plant and animal species (O'Leary 1989). However, the community is indirectly protected under the state's *Natural Community Conservation Planning Act*. A southern California coastal sage scrub Natural Community Conservation Plan (NCCP) was established by the California of Fish and Game to conserve endangered and threatened plant and animal species that inhabit coastal sage scrub communities; however, the Santa Monica Mountains are not included within this planning area.

One of the listed avian species, the coastal California gnatcatcher (*Polioptila californica californica*), is associated with the coastal sage scrub community, although not all coastal sage-dominated vegetation cover harbors gnatcatcher populations (Atwood and Bolsinger 1992). Gnatcatchers may occupy territories on slopes adjacent to the park, where territories are defined by ridges, trails, or a change in community type (DFG 2005a), as from coastal sage scrub to chaparral, or to non-native woodland. According to Sockman (2000), nesting is not likely to occur at the margin of individual territories, where breeding may be impeded by human activities.

Since the replacement lawn area is depauperate in native species and of limited habitat value, a presence/absence survey is not recommended.

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Wj-m536 [RUN-VEG]

cc: Irene Paul

RUNYON CANYON PARKING LOT- FULLER AVENUE ENTRANCE PROJECT

(W.O. NO. E1904613)

TABLE I: Plant Species Recorded within Lower Runyon Canyon, a north-south trending feature in the Santa Monica Mountains. (Located E/O Wattles Canyon and N/O Fuller Avenue)) in the Community of Hollywood, Los Angeles, California. Land is owned by the City of Los Angeles
SAMPLING DATES: 8/25/2005 and 9/8/2005, walkthrough.

	GENUS	SPECIES	SSP./VAR.	HABIT	COMMON NAME	FAMILY	CA. NATIVE	COMMENTS	AUTHORITY	Future Pkg Lot	Repl Grass Area	Both
1	*Agave*	*parryi*		shrub	Agave	LILLIACEAE				x		
2	*Aloe*	*vera*		shrub	aloe vera	LILLIACEAE		*=[A. barbadensis]*		x		
3	*Bauhinia*	*variegata*		tree	orchid-tree	FABACEAE			L.	x		
4	*Bougainvillea*	*brasiliensis*		woody vine	bougainvilla	NYCTAGINACEAE		*=[B. glabra]*	Chois.	x		
5	*Brahea*	*edulis*		tree	Guadalupe Is. Palm	ARECACEAE		*=[Erythea edulis]*	H. Wendl. ex S. Wats.	x		
6	*Brassica*	*sp.*		an	mustard	BRASSICACEAE			L.	x	x	x
7	*Casimiroa*	*edulis*		Tree	white sapote	RUTACEAE			La Llave & Lex.		x	
8	*Ceanothus*	*spinosus*		sm tree	greenbark ceanothus	RHAMNACEAE	Y		Nutt.	x		
9	*Citrus*	*histrix*		tree	Kaffir lime	RUTACEAE			L.		x	
10	*Conyza*	*canadaensis*		annual	horseweed	ASTERACEAE			(L.) cronquist		x	
11	*Cotoneaster*	*tomentosa*		shrub	cotoneaster	ROSACEAE			(Atil.) Lindl.		x	
12	*Crassula*	*argentea*		shrub	jade plant	CRASSULACEAE		*=[C. portulacea Lam.]*	Thunb.			
13	*Datura*	*wrightii*		perennial	jimson weed	SOLANACEAE	Y		Regel.		x	
14	*Eugenia*	*uniflora*		tree	Surinam cherry	MYRTACEAE		=[Syzygium paniculatum]	L.	x	x	x
15	*Euphorbia*	*trigona*		shrub	*African milk tree*	EUPHORBIACEAE				x		
16	*Ficus*	*benjamina*		sm tree	weeping Chinese banyan	MORACEAE			L.		x	
17	*Fortunella*	*margarita*		tree	kumquat	RUTACEAE			Swingle	x	x	x
18	Grewia	*occidentalis*		tree	lavender starflower	TILIACEAE		RUN-3	L.	x		
19	*Jacaranda*	*mimosifolia*		tree	jacaranda	BIGNONIACEAE			D. Don.	x		
20	*Juglans*	*californica*		tree	So. Calif. black walnut	JUGLANDACEAE	Y		S. Watson	x		
21	*Lonicera*	*japonica*		shrub	honeysuckle	CAPRIFOLIACEAE		RUN-2	Thunb.		x	
22	*Macadamia*	*integrifolia*		tree	macadamia nut	PROTEACEAE			Maiden & E.Betche	x		
23	*Malacothamnus*	*fasciculatus*		shrub	bush mallow	MALVACEAE	Y		(Nutt.) Greene	x		
24	*Malosma*	*laurina*		shrub	laurel sumac	ANACARDIACEAE	Y	*=[Rhus l.]*	(Nutt.) Abrams	x		
25	*Malva*	*neglecta*		annual	common mallow	MALVACEAE			Wallr.			
26	*Marah*	*fabaceus*		vine	wild cucumber	CUCURBITIACEAE	Y		(Naudin) E. Greene ()		x	
27	*Marrubum*	*vulgare*		perennial	horehound	LAMIACEAE			L.		x	
28	*Myoporum*	*laetum*		tree	myoporum	MYOPORACEAE			Forst. F.	x		
29	*Nicotiana*	*glauca*		tree	tree tobacco	SOLANACEAE			Graham	x	x	x
30	*Opuntia*	*littoralis*		shrub	*coastal prickley pear*	CACTACEAE	Y		(Engelm) Cockerell	x		
31	*Persea*	*americana*		tree	avocado	LAURACEAE			Gaertn.	x		
32	*Phoenix*	*canariensis*		tree	Canary Is. Palm	ARECACEAE			Chaub.	x	x	x
33	*Pinus*	*canariensis*		tree	Canary Island pine	PINACEAE			C. Smith		x	
34	*Pinus*	*pinea*		tree	Italian stone pine	PINACEAE			L.		x	
35	*Pinus*	*sp.*		tree	unk 3-ndle pine	PINACEAE				x		
36	*Pittosporum*	*undulatum*		tree	pittosporum	PITTOSPORACEAE		RUN-1	Vent.	x		
37	*Plantago*	*major*		perennial	common plantain	PLANTAGINACEAE			L.	x		
38	*Platanus*	*racemosa*		tree	sycamore	PLATANACEAE	Y		Nutt.	x	x	x
39	*Plumbago*	*capensis*		shrub	leadwort	PLUMBAGINACEAE			L.		x	
40	*Poa*	*sp.*		grass	grass	POACEAE						
41	*Ricinus*	*communis*		shrub	castor bean	EUPHORBEACEAE			L.		x	
42	*Salsola*	*tragus*		ann.	Russian thistle	CHENAPODIACEAE					x	
43	Sansevieria	*trifasciata*		shrub	mother-in-law's tongue	LILLIACEAE			Prain	x		
44	*Solanum*	*umbellatum*		shrub	bluewitch nightshade	SOLANACEAE	Y		Eschsch.	x		
45	*Stenotaphrum*	*secundatum*		grass	St. Augustine grass	POACEAE			(Walt.) Kuntze	x		
46	*Tecomaria*	*capensis*		shrub	cape honeysuckle	BIGNONIACEA		red-orange flwrs	(Thumb.) Spach.	x		
47	*Teraxacum*	*officinale*		annual	dandelion	ASTERACEAE			Wigg.	x		
48	*Thunbergia*	grandiflora		woody vine	clock vine	ACANTHACEAE		RUN-4,5	(Roxb. ex Rottl.) Roxb	x		
49	*Ulmus*	*parvifolia*		tree	chinese elm	ULMACEAE			Jacq.	x		

Total No. of Species	*49*	***Total No. of Species per Section***	32	20	6
California Native	*9*	***California Native***	6	3	1
%	*18.4%*	California Proportion	18.8%	15.0%	16.7%

Substrate is granitic. The elevation ranges from 170.7 to 181.4 meters (560 to 595 feet) above M.S.L. and the average slope is approx. 5%.

TABLE II Fed + STATE LISTED.

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Scientific Name - Portrait
Hollywood Quad

	Scientific Name/Common Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS/R-E-D
1	***Astragalus brauntonii*** Braunton's milk-vetch	PDFAB0F1G0	Endangered		G2	S2.1	1B/3-3-3
2	***Astragalus tener var. titi*** coastal dunes milk-vetch	PDFAB0F8R2	Endangered	Endangered	G1T1	S1.1	1B/3-3-3
3	***Empidonax traillii extimus*** southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T1T2	S1	
4	***Polioptila californica californica*** coastal California gnatcatcher	ABPBJ08081	Threatened		G3T2	S2	SC

APPENDIX C

HISTORICAL/CULTURAL RESOURCE ANALYSIS

Historical/Cultural Resources Analysis Runyon Canyon Park-Fuller Entrance Parking Area (W.O.E1904613)

Prepared for:

City of Los Angeles
Department of Public Works
Bureau of Engineering
650 South Spring Street, Suite 574
Los Angeles, California 90014

Prepared by:

Jones & Stokes

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Management Summary

Jones & Stokes was retained by the City of Los Angeles (City) to conduct a historical resource evaluation in connection with proposed improvements to Runyon Canyon Park. Runyon Canyon Park was reputed to be a seasonal campground for the Cahuenga Indians, features remnants of the home of famous tenor John McCormack, and remnants of a pool pavilion designed by Lloyd Wright for art patron Huntington Hartford. The purpose of this report is to evaluate whether the proposed improvements would have a significant effect on the historical remnants. The following four projects are proposed:

- construction of a gravel parking lot consisting of approximately 70 spaces;
- landscaping of the proposed parking lot with drought-tolerant plants;
- installation of an automatic irrigation system; and
- relocation of an existing fenced lawn area prior to the start of the parking lot construction.

The construction area will retain several areas of remnant building foundations from the former San Patrizio estate. The project area extends along the south perimeter of the Park, beginning about 100 feet northwest of the Fuller Avenue gates (F-4 on Figure 3), one of the two south entrances to the Park. The south entrance, accessed from Franklin and Fuller Avenue, is adjacent to a residential urban environment consisting of low and high-rise apartment building infill and a few large, single-family pre-World War II residences.

The proposed undertaking is considered a "project" under the California Environmental Quality Act (CEQA), and the City of Los Angeles Department of Public Works' Bureau of Engineering is the lead agency. Therefore, this study was conducted in accordance with CEQA guidelines. This report presents the results of Jones & Stokes historic architectural/historical resource evaluation, landscape survey and archaeological investigation of extant building ruins and hardscape features.

The conclusion is that the proposed improvements would not have a significant effect on any historical resources or the remnants of buildings or structures once associated with John McCormack or Huntington Hartford. The remnants are not eligible for the California Register of Historical Resources because they do not meet the integrity criterion. However, the remnants ***may be eligible*** for Historic-Cultural Monument designation for "*... any site (including significant trees or other plant life located thereon), building, or structure of particular historical or cultural significance to the City of Los Angeles, such as historic structures or sites in which broad cultural... or social history of the...community is reflected or exemplified or which are identified with historic personages...*" It is recommended the parking lot be designed in a manner that avoids destruction of the remnants. If the remnants remain *in situ*, there would not be a significant effect on historical resources.

Introduction

Jones and Stokes was retained by the City of Los Angeles Bureau of Engineering to perform an historical/cultural resources analysis of the Runyon Canyon Park site and identify possible historical significance to the building remnants and landscaping in accordance with the city of Los Angeles Citywide CEQA Thresholds Manual. Runyon Canyon Park was reputed to be a seasonal campground for the Cahuenga Indians, features remnants of the home of famous tenor John McCormack, and remnants of a poll pavilion designed by Lloyd Wright for art patron Huntington Hartford. The purpose of this report is to evaluate whether the proposed improvements would have a significant effect on the historical remnants. The analysis includes an architectural description and condition review of the remnant foundations and walls, and a description of potentially historic landscaping, a history of the site and persons associated with it, and its cultural significance and importance in local history. Finally, the analysis has identified potential impacts to the building remnants and landscaping by the proposed project and mitigation measures have been suggested should the project require their removal or alteration. This report presents the results of the historical/cultural resource analysis and significance evaluation. The proposed undertaking is considered a "project" under the California Environmental Quality Act (CEQA), and the City of Los Angeles is the lead agency. Therefore, this study was conducted in accordance with Section 21084.1 of CEQA and Section 15064.5 of the CEQA guidelines. The remnants and landscaping were evaluated against the eligibility criteria for listing as a historic resource in the California Register of Historical Resources (CRHR) and the Los Angeles Historic-Cultural Monuments (LAHCM) register.

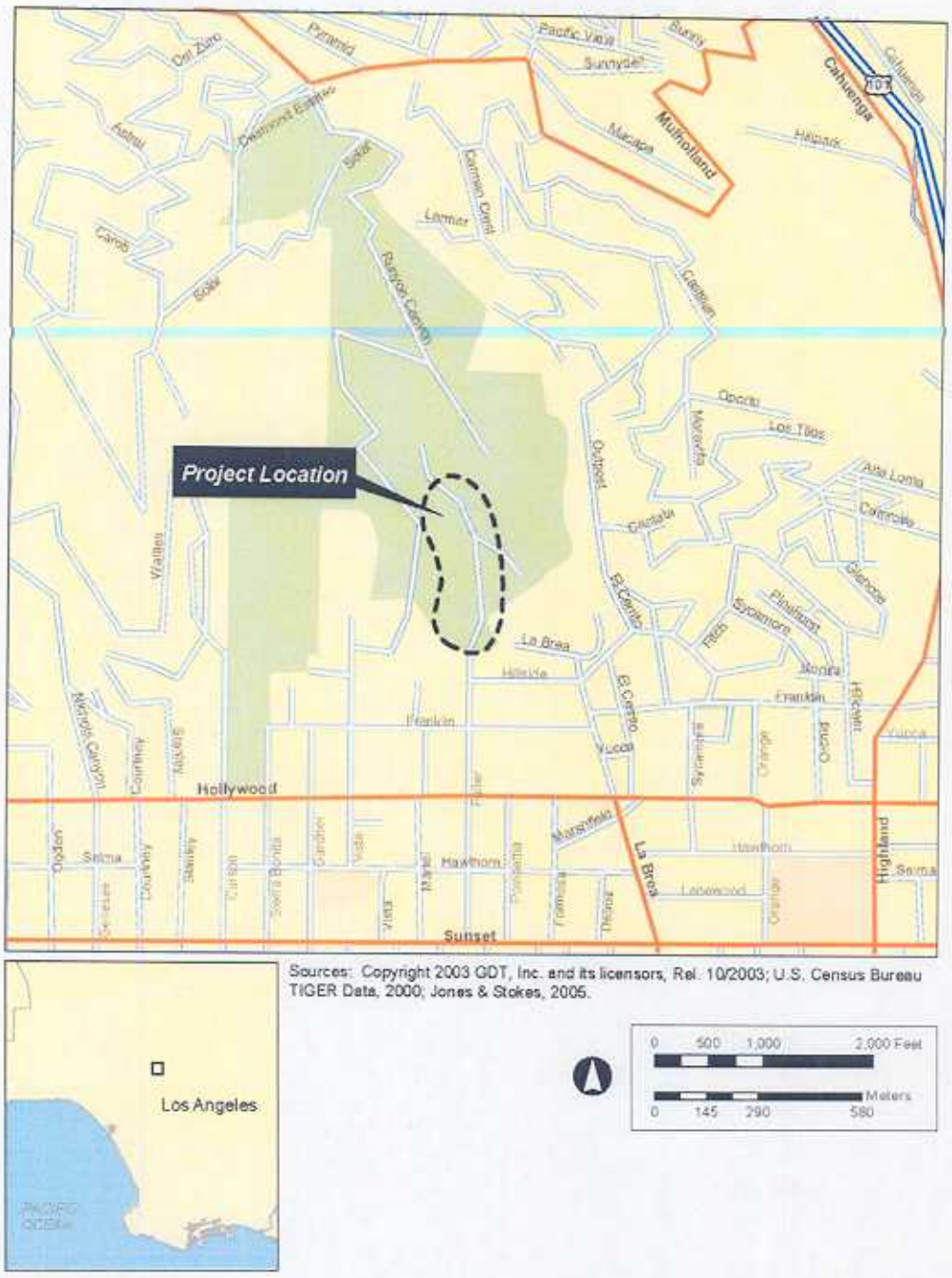
Physical Project Setting

Runyon Canyon Park is a 130-acre park with two south entrances at Fuller and Vista Avenues accessed from Franklin Avenue just west of the 101 Hollywood Freeway off-ramp at Highland Avenue. A north entrance is located off Mulholland Drive at the north boundary of the Park. In 1983 the property was acquired by the City of Los Angeles with a grant from the Santa Monica Mountains Conservancy. The City of Los Angeles Department of Parks and Recreation manages the Park as an Urban Wilderness. A wide fire road leads from the Vista Avenue entrance to vantage points eastward toward the Griffith Park Observatory, downtown Los Angeles, Wilshire Boulevard, Baldwin Hills and the Pacific Ocean. The Park's main service roads are Runyon Canyon Road, the Estate Area Road leading from Fuller Street to Inspiration Point and the connecting driveway between the Estate Area and Runyon Canyon Road at Vista Place.

Figure 1: Project Vicinity Map



Figure 2: Project Location Map



Historical Overview

The following historical overview was largely adapted from the *Historical Evaluation Report for the Sierra Bonita Air Treatment Facility Los Angeles*, California report, prepared by EDAW, Inc, July 2005.

Development of Hollywood

The Gabrielino Indians were the first residents of the area in Los Angeles that is known as Hollywood. The Gabrielino were living in the canyons of the Santa Monica Mountains that they called *Cahuengna* (Place of Little Hills). Spanish explorers changed the name to Cahuenga and divided the land into two areas (Torrence 1979: 11). Land to the west was known as *Rancho La Brea* and acreage to the east was known as *Rancho Los Feliz*. As the Gabrielino Indians were displaced, ranchers, vintners, and other settlers moved in and an agricultural community thrived in the warm climate. During the 1880s, the ranchos were subdivided and in 1886 Harvey and Daeida Wilcox purchased an area of *Rancho La Brea*. Wilcox bought a 120-acre tract that was roughly bounded by Whitley Avenue on the west, Gower on the east, Sunset Boulevard to the south, and Franklin Avenue to the north (Torrence 1979: 25).

Wilcox began plotting the town and subdivided it into tracts in 1887 (Pitt and Pitt 1997: 203). The area shown on a map filed with the county recorder on February 1, 1887, was named Hollywood (Torrence 1979: 25). The Wilcoxes were devout Methodists from Kansas and founded Hollywood as a dry town. They offered free land to anyone who would build churches there and this was an attractive offer. In 1876 the German Methodist Church was built and in 1888 the Hollywood Christian Church was founded. The First Methodist Episcopal Church was founded in 1889 and the first Catholic church, the Church of the Blessed Sacrament, formed in 1903 (Lord 2003: 16-17). Harvey died in 1891, but Daeida continued to donate land to anyone wishing to build a religious home. Daeida married Philo Judson Beveridge in 1894 and continued to work to attract people to Hollywood until her death in 1914 (Torrence 1979: 25, 29).

In 1903 Hollywood was incorporated and the population was about 700 (Pitt and Pitt 1997: 203). Based on the roots established by the Wilcoxes, the city outlawed gambling, drunkenness, and disorderly conduct. However, Hollywood was not able to maintain its independence as it did not have a large water supply. Los Angeles had established a water supply through the work of William Mulholland and the construction of the Owens Valley Aqueduct. Therefore, in 1910, the city of Hollywood was annexed to Los Angeles (Lord 2003: 7). The main street in town, Prospect Avenue, was renamed Hollywood Boulevard at this time. The population of Hollywood had reached 4,000 by 1910 (Pitt and Pitt 1997: 203).

With the increase in population, new residential areas were planned and new businesses opened. The motion picture business began in Hollywood in 1907 as independent film companies opened studios. The first studio to open in Hollywood was the Nestor Film

Company in 1911 at the corner of Sunset Boulevard and Gower Street. Twentieth Century Fox purchased a studio on Western Avenue and Sunset Boulevard in 1916 (Torrence 1979: 98). In 1919 Charles Chaplin, D.W. Griffith, Mary Pickford, and Douglas Fairbanks created United Artists Corporation (Torrence 1979: 90). The film companies capitalized upon the warm, sunny weather and variety of scenery available in the region. Many residents of Hollywood were displeased with the influx of movie companies and the amount of space the companies consumed. It was easier for film companies to use Hollywood as the backdrop for films rather than build a set. In addition, though early films were silent, many residents found the noise from western movies, including gunshots and horses, disturbing.

In 1917, with the advent of multi-reel pictures, Hollywood produced longer films as prominent players such as Louis B. Mayer, Sam Goldwyn, Jack Warner, Adolph Zukor, and David Selznick became involved in the entertainment industry. Public attitude towards the film studios began to change in the 1920s as the movie industry became an important industry throughout Hollywood and Los Angeles. In addition, hopeful actors and actresses migrated to the area in search of stardom. These shifts in attitude and population created changes to the Hollywood skyline as the remaining farms disappeared and offices, apartment buildings, and hotels began to appear. Many of these office buildings were constructed at Hollywood and Vine, including the Taft Building (1924), the B.H. Dyas Company (1928), and the Equitable Building (1930). Other buildings include the Guaranty Bank Building (1924) at Hollywood and Ivar, and the Security First National Bank Building (1928) at Hollywood and Highland. Apartment buildings include the Chateau Elysee (1929) on Hollywood Boulevard. Hotels include the Roosevelt (1927) on Hollywood Boulevard. In addition, stores, banks, restaurants, and clubs opened to accommodate the movie industry. The Musso and Frank Grill opened at 6669 Hollywood Boulevard in 1919 and has been in continuous operation (Torrence 1979: 151).

Throughout the 1920s and 1930s Hollywood prospered as Americans enjoyed watching their favorite stars in the movies. Sid Grauman opened the Chinese Theatre and Egyptian Theatre along Hollywood Boulevard. The Egyptian Theatre was built in 1922 and was planned to resemble a Spanish hacienda. It was under construction when archaeologists discovered King Tutankhamen's tomb in Egypt and Grauman decided to abandon the Spanish theme for an Egyptian motif (Pitt and Pitt 1997: 135). The Chinese Theatre was built in 1927 and is distinguished by the handprints and footprints of celebrities in the concrete slabs in the entry court.

During the 1930s, as the majority of the country suffered because of the Depression, the glamour of Hollywood continued to lift the spirits of America. In addition, civic projects including the construction of the Greek Theatre and the Griffith Observatory were completed in the 1930s. Crossroads of the World, a shopping center, opened in 1936 on Sunset Boulevard just east of Las Palmas Avenue. Designed by Robert V. Derrah, the shopping center had multiple access points along Sunset Boulevard, Selma Avenue, and Las Palmas Avenue (Torrence 1979: 178). The design incorporated buildings of Italian,

French, Spanish, Mexican, Moorish, and Turkish architecture. In the center stood a modern structure with a 60-foot tower on which a model of the world revolved. During the 1940s, with the onset of World War II, Hollywood became a military camp (Torrence 1979: 181). Movie studios contributed to the war effort as trucks and drivers transported army troops and equipment. Following the war's end, people began to move from Hollywood to the San Fernando Valley. The San Fernando Valley quickly developed and was subdivided into housing tracts. This development of the valley coincided with the rise in popularity of the automobile, which also made it convenient for people to live farther away from the center of town. In addition, the development of the Hollywood Freeway in 1947 made it easier for people to travel between the San Fernando Valley and Hollywood. The first phase of the Hollywood Freeway opened in 1951 and the second phase opened in 1953. The freeway was complete in 1954 (Torrence 1979: 217). In addition, the movie studios began to decline as television became more popular throughout the 1950s.

The Hollywood Chamber of Commerce created the Walk of Fame as a way to reinvigorate the area in the mid-1950s. The plan was to install a sidewalk made of charcoal terrazzo squares embedded with coral terrazzo stars outlined in brass. At the center of each star there was to be an artist's name in brass. In addition, new trees and streetlights were included in the plan. The first eight stars were dedicated in September 1958 and placed in the sidewalk at the northwest corner of Hollywood Boulevard and Highland Avenue (Torrence 1979: 240). Official groundbreaking ceremonies were held in 1960 and, since that time, the name of one star per month has been added to the Walk of Fame.

As the San Fernando Valley continued to grow in the 1960s, Hollywood declined. As the valley developed with regional shopping malls and movie theaters, residents no longer needed to drive to Hollywood for goods, services, or entertainment. The Hollywood Freeway made Hollywood a prime location for office buildings, and developers began to construct high-rises. Buildings including the RCA Building, the Crocker Bank Building, and the United California Bank opened (Torrence 1979: 245). Other buildings built during this time included the Cinerama Dome (1963) and the Capitol Records Building (1955), both designed by Welton Becket. Along with the new high-rises and commercial buildings, the residential areas became more urbanized as single-family homes were demolished to construct multiple-unit apartment buildings.

Though Hollywood went through a period of decline from the 1960s through the 1990s, it has recently undergone revitalization and it continues to reinvent itself. Various commercial and residential projects have been completed in the area. These projects include the rehabilitation of Mann's (Grauman's) Chinese Theatre and the opening of the Kodak Theatre in the Hollywood & Highland mall. The annual Academy Awards Ceremony now takes place in the Kodak Theatre in the heart of Hollywood. In addition, the new Arclight Cinemas incorporated the Cinerama Dome into a modern movie theatre. An upcoming project is expected to occur at the Sunset and Vine Tower designed by Honnold & Rex. Therefore, though changes have occurred and are expected to continue

to the physical fabric of Hollywood, several landmarks have been central to the area's revitalization.

Runyon Canyon Property Ownership History

George Caralambo

The site of Runyon Canyon Park, originally called "No Man's Canyon," spans a large gorge extending roughly from Franklin Canyon at Fuller Street north through the hills to Mulholland Drive. The site was reputed to be a seasonal camp ground for the Cahuenga Indian tribe who hunted and foraged the canyons and streambeds of the area. In 1867, "Greek George" Caralambo was given a federal patent to the160-acre parcel in appreciation for his service in the United States Army Camel Corps. In 1877, he sold the property to Alfredo Solano.

"Greek George" was a camel driver from Asia Minor who came to the United States in 1855 with the second load of camels purchased by the War Department as an experiment to open a wagon road to Fort Tejon from Fort Defiance, New Mexico. He led a pack of camels that hauled supplies to build the Butterfield Overland Stage Route from St. Louis, Missouri to Los Angeles. The route was completed by September 1858, but the Union Army decided to disband the Camel Corps in 1862 and Greek George was forced to liberate the camels that roamed the area for nearly thirty years afterward. Major Henry Hancock, who had met Greek George while he was serving in the United States Army, allowed Caralambo to build a farmhouse with stables to house the dromedaries in the northwest part of Rancho La Brea.

After the Civil War and well into the 1870s, "Greek George" remained at *Rancho La Brea* and took care of Major Hancock's cattle and horses. He became a naturalized United States citizen in 1867 and changed his name to George Allen. Later, he moved to Whittier and died near Mission Vieja San Gabriel on September 2, 1913. He is buried in Founders Memorial Park in Whittier; his gravesite is State Historical Monument No. 646. (Runyon Canyon Park n.d; Kielbasa 1997)

Alfred Solano

Alfredo Solano, a Los Angeles civil engineer, active in community affairs and a founder of the Los Angeles Athletic Club, bought No Man's Canyon from "Greek George" Carlambo in 1877 as a property investment. Both Solano and his partner George Hansen were prominent early surveyors of Los Angeles. The two men surveyed and platted Redondo Beach, Playa del Rey and lands south of present day Exposition Park. Solano's widow, Ella Brooks Solano, subdivided a ten-acre parcel on the west of the Canyon and sold the remainder to Carman Runyon.

Carman Runyon

Carman Randolph Runyon was an Easterner who came to California in his retirement. In 1919, Runyon and his wife, Ellen Hunt Runyon, bought the canyon property to use as a riding and hunting retreat, building a small bungalow at the Fuller Avenue entrance to the Canyon. With his ownership No Man's Canyon was renamed Runyon Canyon. Runyon Canyon Road and Carman Crest Drive also memorialize the Runyon family ownership.

John McCormack

John McCormack (1884-1945) began the Canyon's association with theatrical personalities and Hollywood stars. A famous Irish tenor, born in Dublin, Ireland in 1884, he made his debut in Italy in 1910, beginning a career than spanned over 30 years. He came to Hollywood in 1929 and starred in *Song of My Heart* for Fox-Movietone Pictures. His salary paid for the purchase of Runyon Canyon. The McCormacks' built an imposing Colonial Revival mansion called San Patrizio on the property and constructed a pool, pool house, and extensive landscaping and gardens. When McCormack toured, the mansion was often rented to Hollywood celebrities. McCormack made a farewell tour of America in 1937 and deeded the estate back to Carman Runyon.

Huntington Hartford II

Huntington Hartford II bought the Runyon Canyon Property from Carman Runyon in 1942, renaming the estate "The Pines." Hartford, the founder of the Huntington Hartford Foundation and Huntington Hartford Theater in Los Angeles, and a wealthy a patron of writers and artists, began planning an ambitious set of buildings on the estate. He commissioned architects Frank Lloyd Wright and his son Lloyd Wright to prepare plans for a "cottage" hotel in the lower canyon and a theater and country club complex on the ridge with dramatic views over the Los Angeles Basin. When these plans generated neighborhood opposition, Hartford built a pool pavilion designed by Lloyd Wright on the crest of the hill facing Hollywood. In 1957-1958, movie star Errol Flynn lived in the pool house, as a guest of Hartford's; this lead to the popular and erroneous characterization of the Runyon Canyon property as the Errol Flynn estate. A peripatetic philanthropist, Hartford managed to bring only a few of his proposed projects to completion between 1947 and 1963 and met opposition from neighbors and the City of Los Angeles building officials who slowed down or denied him permits. Finally, he offered the Runyon Canyon property to the City, but the offer was rejected and Hartford sold the estate to developer Jules Berman.

Jules Berman

Buildings on the Runyon Canyon property were destroyed during Jules Berman's ownership. After purchasing the Canyon in 1964, Berman, a developer who envisioned dividing and selling the property for luxury estates, razed the San Patrizio mansion and its guesthouses to avoid the payment of taxes on the deteriorating structures. However,

community activists opposed his development proposal and the project died in 1978. The Lloyd Wright pool house remained intact until 1972 when it was destroyed by a canyon fire that left only the stone foundation and pool pit that is now buried in earth.

City of Los Angeles Department of Recreation and Parks

The City of Los Angeles and the Santa Monica Mountains Conservancy purchased Runyon Canyon from its last private owners in 1984 with the aid of a grant of $4,000,00.00 from the Santa Monica Mountains Conservancy. The City's portion allocated $1,600,000.00 to purchase the property for management as a City park and urban wilderness.

Property Uses

Shortly after the purchase, The Los Angeles Department of Recreation and Parks commissioned a Master Plan containing design guidelines for future development and planning in Runyon Canyon Park from Community Development Planning and Design of Berkeley, California. The Master Plan noted that the maintenance of the valuable wilderness quality remaining in Runyon Canyon required a "synthetic balance between natural ecological systems, including soils, water, vegetation and wildlife; and cultural-ecological systems such as health, safety, efficiency and convenience." (Runyon Canyon Master Plan and Design Guidelines, 1984.)

The Master Plan defined three principal uses within Runyon Canyon Park: Urban Wilderness, which includes High Meadow, Intermittent Stream, Chaparral and Transition Chaparral; Trails and Roads, which includes Rugged Trails, Main Service Roads, Emergency Service Roads and Entrances near Mulholland Drive; and the Estate Area in the lower part of the canyon which is relatively flat. This area, which was altered by the McCormack residence and landscaping, is described in the Master Plan as the logical site, both historically and ecologically for new facilities. Ruins of the McCormack building site are visible in this area.

At the present time, the park's primary use is by owners with dogs who are permitted in certain designated areas without leashes. The urban wilderness portion of the Canyon consists of hiking and walking trails traveling through natural vegetation, principally wild chaparral interspersed with drought-resistant evergreen trees and shrubs. Three entrances access the Park: two at the south end and one at the north on Mulholland Drive. Beginning at the south entrances on Vista Avenue or the Fuller Street Gates, the hiker can walk clockwise, climbing gradually toward the back of the Canyon, moving around to the east ridge to Clouds Rest and coming down a steep slope and steps to Inspiration Point before taking the central fire road back down to the Fuller Avenue entrance. A second route goes counter-clockwise up the steps and steep slopes between Inspiration Point and Clouds Rest, then returning the easy slope down. Entering from Mulholland Drive, several short hikes lead up Indian Rock to the highest point in the Canyon with 360-degree views including the valley to the north. An alternative route follows the fire road

around the rock and splits off towards the Western highway or goes towards Cloud Rest and a choice of return routes.

A lesser-known route goes through the project area at the bottom of the Canyon, starting by the sharp bend in the lower fire road. From there the path extends past the San Patrizio ruins and over the foundation slab and then along the old riverbed to emerge at the bend in the back of the Canyon before the final rise to Clouds Rest.

Project Vicinity

A Sanborn Fire Insurance map covering the years 1919-1953 shows the area surrounding the project site. However, the map does not appear to extend into the Runyon Canyon area, mapping only the north side of Hillside Avenue. Fuller Avenue is mapped between Franklin Avenue and the north boundary of the Canyon. Between Hillside Avenue and Franklin Avenue there was a concentration of residential development to the south and east of the project site. Residential uses north of Franklin Avenue are primarily single-family residences. South of Franklin Avenue, zoning permitted large apartment and flat complexes with frontage along Franklin Avenue and Hollywood Boulevard. (Sanborn Map Company 1919-1953).

Area of Potential Effects

Project Area and Improvement Locations

The Area of Potential Effects (APE) of the Runyon Canyon Park Parking Lot Project is divided into a northern and southern portion by the Vista Trail ascending from the Fuller Avenue gates. The northern section is the replacement of the lawn area displaced by the proposed parking lot. The southern section is proposed as a new gravel parking lot with 74 spaces; four of these are reserved for handicapped parking.

The parking lot project is shaped as a rough quadrilateral; its eastern boundary is the existing concrete road (Palm Allee) that begins at "The Pines" (Fuller Avenue) Gates. The 74 space gravel parking lot will be located to the west side of the road, encompassing the present lawn area and dog paths. The parking lot entry, which will be asphalted, leads into the project area just beyond the gates, then travels westward approximately 160 feet, paralleling the existing chain link fence and stone walls that mark the southern boundary of the park between Fuller and Vista Avenues. The APE then continues northward to the road's intersection with the Vista Trail, an extension of approximately 1/10 of a mile. At this point, the narrow end of the parking lot quadrilateral, the APE intersects the Vista Trail. Improvements projected at this location are a drinking fountain/dog water/kiosk complex and a runoff detention basin. Across the Vista Trail, is the location of the proposed new lawn area, also a rough quadrilateral that narrows at its northern boundary. The grass area is projected to measure approximately 107' x 178', about 19,000 square

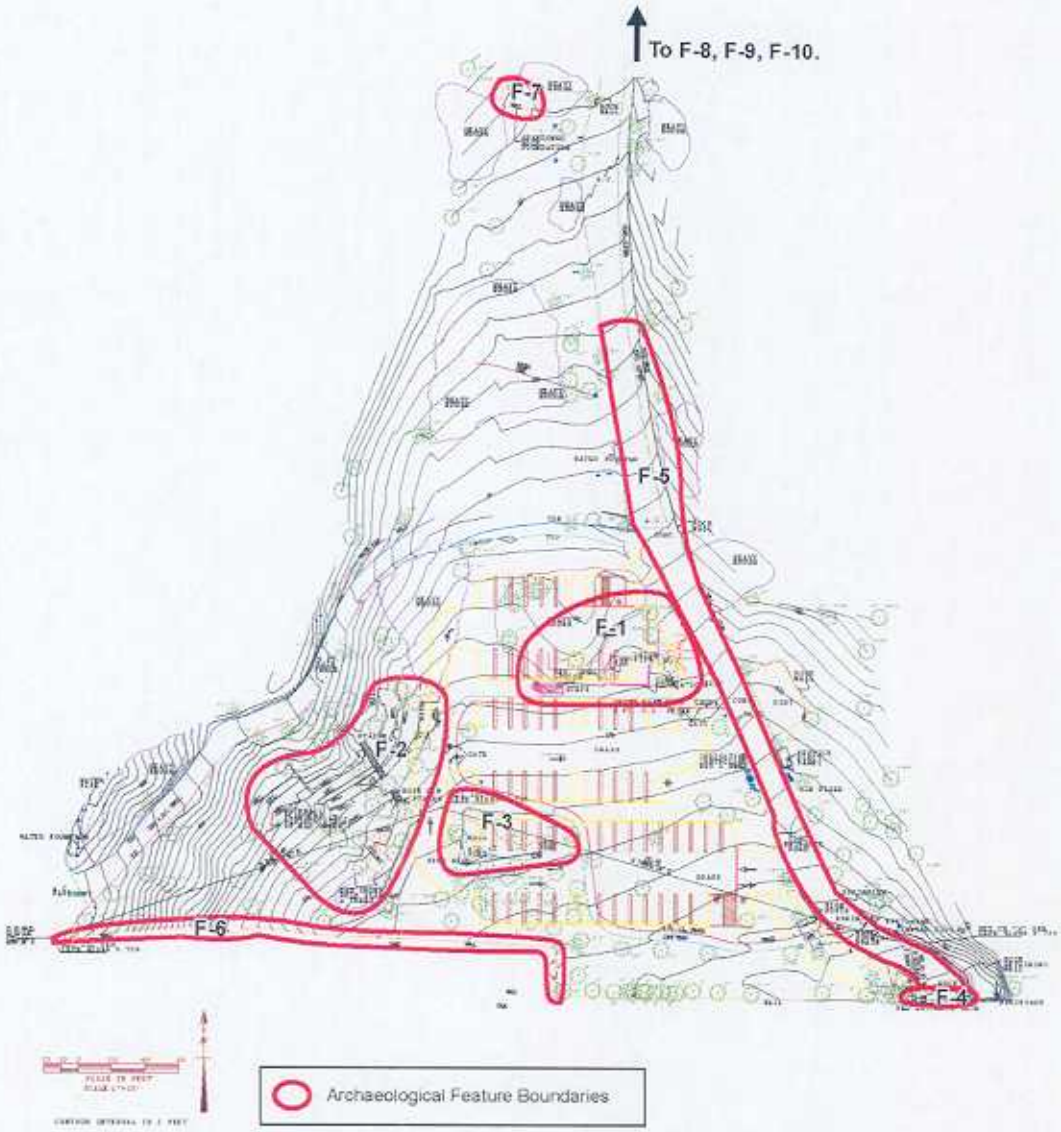
feet. The new lawn will cover about the same area as the lawn space displaced by the parking lot.

Methods and Results

Field Survey

Project Manager Carrie Chasteen, Historian Portia Lee, and Archaeologist Mark Robinson surveyed the project area on foot on October 14, 2005, along with Amy Schulenberg and Paul Tseng, representatives of the Bureau of Engineering, interested members of the public, and City Council Member Tom LaBonge. The survey consisted of an examination of the lower grounds of Runyon Canyon Park. Extant ruins of buildings demolished and destroyed by fire, landscape, walls and gates, and other existing features were surveyed and digitally photographed and recorded on Department of Parks and Recreation 523a (Primary Record) and 523c (Archaeological Site Record) forms. The forms were prepared according to *Instructions for Recording Historical Resources*, Department of Parks and Recreation, Office of Historic Preservation, State of California, 1995. Project Manager Carrie Chasteen and Landscape Architect Thomas Cherry surveyed the site on October 19, 2005 and Archaeologist Mark Robinson surveyed the site on October 21, 2005. Photographs were taken and field notes were made.

Figure 3: Existing Conditions Site Plan



Current Condition Assessment

Built environment

The historic "The Pines" gates of Runyon Canyon Park are approached from Fuller Avenue. The paved entryway accesses the main entrance road to the facility leading to the dog park runs and lawn within the project area which extend to the intersection of the trail from the Vista Street Gate, then continue northward along the entrance road which serves as the eastern boundary of the proposed lawn area. Some of the San Patrizio foundation ruins are within the project area; others, principally walls, stairs and planters are situated outside the project area slightly to the west between the project's western boundary and south of the Vista Trail. Single cobra-head street lights, constructed in 1996, are found throughout the proposed project area. These are expected to be within the project construction area.

The historic "The Pines" gates comprise a trio of tall, Arroyo stone pillars whose narrow concrete caps have a slight overhang. Two paired columns situated on the west side of the entrance are connected by a shallow gateway arch that supports one side of a modern hinged iron gate with open pickets. A similar pillar is sited on the east side of the entrance supporting the other side of the iron gate. The Arroyo stone of this single eastern pillar appears to be similar stone to that in the paired columns opposite. The single pillar was constructed in 1988 and anecdotal evidence indicates that the single pillar was constructed with stone taken from early gatehouse on the property when it was torn down; a logical inference since gatehouses early in the century frequently were faced with similar stone to that of the nearby portal gates. This single pillar supports a low cobblestone wall that continues past the entrance for a short distance, and the wall was also constructed in 1988. A lower wall of similar stone then continues with occasional gaps along the roadway's eastern boundary, and was constructed at an unknown date.

Within the project area itself, the existing lawn is protected with a chain link fence on the south, which appears to operate as a buffer zone between the neighboring residences, whose north lot boundary adjoins the Park's perimeter stone wall. Gates also open to the lawn on the north and east. With the exception of an abandoned pond (F-3 on Figure 3), no above-ground ruins were noted in this area. The pond is largely infilled with soil, and does not appear to retain integrity. A dirt path borders the lawn area on the north. As the terrain to the north grows steeper, heavy brush appears, often in dense clumps. Concrete ruins of a pad foundation, steps and porch remnants are present along with an above-ground water pipe. A similar brick fixture about 2 feet high remains at the trail edge that may be the bottom of an light standard with an open electrical box.

The project area north of the Vista Trail exhibits the typical vegetation pattern of the urban wilderness: chaparral, drought- resistant shrubs and evergreen trees. Heavy brush makes some areas inaccessible. Two hardscape features are a water fountain just north of the Vista Trail and a rock foundation wall segment on the northern end of the project

lawn area. The rock foundation wall is characterized by exposed rebar and remnants of metal hinges. The rock foundation wall is in poor condition.

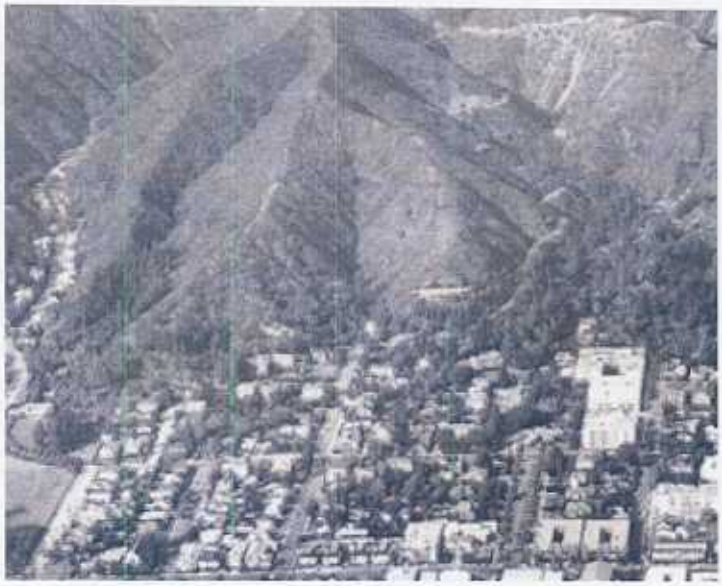
Immediately outside the project area east of the present lawn area are the concrete and brick remnants of the San Patrizio estate including stairs, terrace walls, foundation ruins, large garden planting urns and pool remnants (F-2 on Figure 3).

Landscape

Record Search

Research was conducted in the University of California, Los Angeles, Department of Geography, Spence and Fairchild Collections on October 19, 2005. The aerial photographs that showed the project area were taken from a great distance and were shot at an oblique angle. The earliest photographs of the site began in 1925 in which Runyon Canyon can be distinguished. The plant material types in Runyon Canyon, as well as the surrounding canyons, appear to have consisted of several large trees such as pine, and eucalyptus. Due to the size of the trees in the photographs, the trees appear to have been planted in the mid 1800's. A 1962 aerial clearly shows the project area, and the project site in the photograph is an approximately one-inch square area on an 8x10 photograph. The palm tree allee is noticeable in the aerial along with the lawn area and one of the San Patrizio buildings. The trees that were planted circa 1880 were removed to create the existing lawn area at an unknown date. Trees within the existing lawn area appear as they are today. The trees located on the southern boundary of the park look as dense today as they do in the 1962 aerial photo.

Figure 4: 1962 aerial photograph of Runyon Canyon



Survey

Thomas Cherry, Senior Landscape Architect, CA. RLA # 3660, conducted a site visit on October 19, 2005. Mr. Cherry reviewed the existing landscape material to determine the size and types of trees and shrubs that exist in the project area, and the relationship of the plant material to the driveway, foundations and other hardscape remnants. Aerial photographs located at the UCLA Geography Department were also reviewed to determine if a date could be made as to when the plant material was installed.

Existing Lawn Area:

The plant material consists of older well-established trees within the existing lawn area. The Driveway is lined with 30 feet + high *Phoenix canariensis* (Canary Island Palms) approximately 50 feet on center. Several of the palms are missing from the allee. The trees located in the existing lawn area consist of several *Pittosporum undulatum* (Victorian Box). Several of the Victorian Box's are being attacked by fungus in their crouches. An Avocado tree, which is seriously defoliated, and a *Koelruteria bipinnata* (Chinese Flame Tree) are located in the southeastern portion of the lawn. The lawn is fenced with chain link and *Lonicera japonica* (Honeysuckle) vines. These vines and fencing appear to have been added at the time the dirt trails were added around the lawn area to separate the lawn area and the trails.

F-1 Foundations:

The plantings around F1 on Figure 3 consist of overgrown and unkept foundation plantings consisting of *Syzygium paniculatum* (Brush Cherry), *Bougainvillea sp.* (Bougainvillea), and *Tecomaria capensis* (Cape Honeysuckle). At the front entry of F-1 on Figure 3, a cacti garden exists consisting of *agave, Opuntia sp.* and a *Malosma laurina* (Laural Sumac).

To the west and north of F-1 on Figure 3 is an area that appears to have been a fruit orchard. Several fruit trees remain, including citrus and *Casimiroa edulis* (white sapote or sapota blanca). Native trees such as *Juglans californica* (Black Walnut), *Malosma laurina*, and *Sambucus mexicanus* (Elderberry) have grown in with non-native understory species including Bromus and mustard.

Proposed Lawn Area:

North of F-1 on Figure 3 where the future lawn area would be located, a bramble of *Plumbago auriculata* (Cape Plumbago), and *Cotoneaster sp.* (Cotoneaster) exists.

Archaeological

Record Search & Map Review

A record search conducted for the Hollywood Community Redevelopment Agency (March 2002), as well as update reviews, indicated that no prehistoric archaeological sites have been recorded in Runyon Canyon. However, this is not unusual for Los Angeles, where early development took place without consideration for archaeological sites except for very notable villages.

A map review was also conducted, using historic maps. Topographic maps (Santa Monica 15" 1902, 1921; Hollywood 7.5 ' 1981) do not depict any springs or blue line stream flows in Runyon Canyon and the project area. These maps also do not depict any historic structures in the project area other than those known and discussed in the historic resources section. Plans for the estate were not available, and Sanborn maps did not cover this area of the City.

Survey

A pedestrian archaeological field survey was conducted on October 21, 2005. A Jones & Stokes archaeologist walked the proposed project area at 10 to 15-meter intervals. The ground surface and cut slopes were examined for prehistoric or historic artifacts or other evidence of past human activities. Visibility ranged from none due to landscaping over about two thirds of the Project area, to 30 to 70 percent in more open areas. The intense rains of the spring of 2005 resulted in erosion and deposition of sandy soils from the hillsides throughout much of the project area. No prehistoric or historic era artifacts were observed.

No notable spring seeps were observed in the lower canyon, however one greener area around the foundation of a possible spring house was observed; surface water, if any, appeared to be very sparse.

Conclusion and Recommendations

Significance Evaluation

The proposed Runyon Canyon Park-Fuller Entrance Parking Area project was assessed for significance under CEQA and evaluated for eligibility as Los Angeles Historic-Cultural Monument.

> *A cultural resource is considered "historically significant" under CEQA if the resource meets the criteria for listing on the California Register of Historical Resources (CRHR). The CRHR was designed to be used by state and local*

agencies, private groups, and citizens to identify existing historical resources within the state and to indicate which of those resources should be protected, to the extent prudent and feasible, from substantial adverse change. The following criteria have been established for the CRHR (Public Resources Code §§5024.1, Title 14 CCR, Section 4852). A resource is considered significant if it:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; or

B. Is associated with the lives of persons important in our past; or

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

D. Has yielded, or may be likely to yield, information important in prehistory or history.

Los Angeles Historic-Cultural Monument

The Los Angeles City Council adopted the Cultural Heritage Ordinance in 1962 and amended it in 1985 (Sections 22.120 et seq. of the Administrative Code). The Ordinance created a Cultural Heritage Commission and criteria for designating Historic-Cultural Monuments. The Commission is composed of five citizens, appointed by the Mayor, who have exhibited a knowledge of Los Angeles' history, culture, and architecture. Section 22.130 of the Ordinance states that a Historical or Cultural Monument:

...is any site (including significant trees or other plant life located thereon), building, or structure of particular historical or cultural significance to the City of Los Angeles, such as historic structures or sites in which broad cultural, political, economic, or social history of the nation, state, or community is reflected or exemplified or which are identified with historic personages or with important events in the main currents of national, state, or local history, or which embody the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period style or method of construction, or a notable work of a master builder, designer, or architect whose individual genius influenced his age.

CEQA Evaluation

California Register of Historical Resources Criteria

Building Ruins and Remnants

For a building, site, architectural elements or remains such as remnants or ruins to be historically significant under the California Environmental Quality Act (CEQA), they must meet the qualification requirements of the California Register of Historical Resources (CRHR) and possess substantial integrity. The entry gate pillars, the building remnants and ruins remaining within the project area and those that are located within the

construction area of the Parking Lot project are not significant under Criterion A or B since they have not been associated with *events* or *persons* that have made an important contribution to the broad patterns of California's history or cultural heritage. First owner George Caralambo's range of activities in Southern California was impressive but no physical evidence remains of the cabin he built, nor is there any knowledge of its location. John McCormack was a well-known tenor singer before taking up residence in Hollywood. John McCormack built early buildings on the site. However, research does not indicate any historically important events occurred at this site during the McCormacks' residence at the site. Furthermore, the physical evidence of that residential stay, like that of Huntington Hartford, is gone. The remnants are associated with ownership by persons of some note in theatrical and local history, but ownership alone does not convey significance unless the resource itself is also associated with the historical importance being claimed. California Register Criterion C, Design/Construction can not be successfully applied here, since the groupings of remnants and ruins are both scattered and sparse, yielding only conjectural information about the appearance of the complete building.

Ruins or isolated elements on a building site attest to a loss of integrity unless they can yield substantial information. Since the Runyon Canyon Park entryway pillars, remnants and ruins cannot be definitive evidence of a particular building, building configuration, ownership, or associative Criteria A and/or B, they do not appear to meet CRHR requirements and can not be deemed historically significant for the purpose of CEQA.

Los Angeles Historic-Cultural Monument Eligibility

Runyon Canyon Park site, including the entryway pillars, remnants and ruins may be significant through their association with persons important in local history, particularly the settlement and theatrical history of Hollywood and so may qualify under Los Angeles Cultural Heritage Monument criteria. The remnants appear to have local significance through the association with George Caralambo, whose range of activities in Southern California was impressive, John McCormack and Huntington Hartford.

Los Angeles Historic-Cultural Monument Evaluation

The ruins in the lower portion of Runyon Canyon Park in the Fuller Avenue entrance area may qualify as a Historic-Cultural Monument under LAHCM criteria as a site with broad cultural associations, representative of the social history of the community and associations with historic personages. The Parking Lot Project potentially alters the remnants, ruins and the entryway pillars. Therefore, should the City choose at a future time to apply for the Park's designation as a Historic-Cultural Monument, the present project would potentially impact Runyon Canyon Park's ability to convey its significance under LCHCM criteria.

Significant Impacts

Because the ruins and landscape are potential historic resources for the purposes of CEQA, it is recommended the parking lot be designed in a manner that avoids destruction of the remnants and landscaping. If the project is designed in such a way as to avoid the foundation remnants and landscaping, the proposed project would not create a significant effect on historical resources.

Recommendation

Although the ruins and landscaping are not historic resources for the purposes of CEQA, the following recommendations are proposed to maintain the character and feeling of the lower portion of Runyon Canyon.

- Incorporate the stairs into the design for the proposed alterations to the park.
- Relocate the single column on the Fuller Street entrance to allow for automobile ingress/egress. If this is not prudent and feasible, it is recommended to relocate the paired columns that flank the west side of the Fuller Street entrance as whole unit without dissembling the columns.
- Several Heritage Trees are located within the APE. The Department of Recreation and Parks' Tree Preservation Policy regulates the protection of trees in four categories: 1) Trees protected by LA City Ordinances; 2) Heritage Trees; 3) Special Value Trees, and 4) all other Common Park Trees. Heritage trees are individual trees of any size of species that are specifically designated as heritage because of their historical, commemorative, or horticultural significance. Because heritage trees are protected trees, recommendations from the Department of Recreation and Parks Arborists must be obtained before any alterations to the protected trees is made that may cause the tree to become damaged, relocated, or removed. The General Manager of the Department of Recreation and Parks or his/designee must approve the recommendation before action proceeds.
- Additionally, the palm trees that line the driveway should be retained or relocated if the tree will be in the construction zone. The healthy Victorian Boxes should be incorporated in the landscaping plan for the proposed parking lot. Any of the cacti should be relocated to other areas of the park such as the east side of the driveway or incorporated into the new design. Three of the Brush Cherries located west of the F-1 ruins are older specimens and are classified as Heritage Trees. These trees would need to be assessed by the Department of Recreation and Parks Arborists as to their health. Several of these trees have lost major limbs and decay has begun within the trunks and any attempts to save or transplant these trees would need to be assessed to determine the viability of the tree. Other shrubs, vines, or small trees within the project area have little or no historic landscape value, and therefore, incorporation into the planting plan is not historically warranted. Incorporation would be at the discretion of the Recreation and Parks Department.

- Monitor initial grading in project area, for undiscovered prehistoric or historic features.

List of Preparers

Carrie Chasteen, Architectural Historian – Project Manager, Historical Research and Site Evaluations. *Over three years of experience at Jones & Stokes in CEQA compliance and architectural/historic surveys.*

Thomas Cherry, Senior Landscape Architect RLA#3660 - Landscape Assessment. *Over 20 years with Mooney/ Jones & Stokes, practicing since 1983.*

Portia Lee, Ph.D, Registered Professional Historian #547 - Historical research and Site Evaluation. *Over 12 years experience at California Archives Los Angeles*

Mark C. Robinson , Senior Archaeologist - Archaeological Survey. *Over 20 years experience in CEQA compliance and archaeological surveys.*

References Cited

City of Los Angeles, Bureau of Engineering. "Runyon Canyon Park Building Improvements. W.O. EXX1170." Site plan. April, 1988

City of Los Angeles, Department of Recreation and Parks. "Change Order Drawing No. 1; Runyon Canyon-Park Development Phase I. Project No. 1136A." 1/26/1988

EDAW, Inc., Historical Evaluation Report for the Sierra Bonita Air Treatment Facility, Los Angeles, California. July 2005

Friends of Runyon Canyon Park. Runyon Canyon Park pamphlet. 1993

Kielbasa, John R. Historic Adobes in Los Angeles County. Dorrance Pub., Pittsburgh, Penn. 1997

Runyon Canyon Master Plan and Design Guidelines, 1984

Appendix A: DPR 523 Forms

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HR #
Trinomial
CHRC Status Code
Other Listings
Review Code Reviewer Date

Page 1 of 2

* Resource Name or #: Runyon Canyon Estate
P1. Other Identifier: San Patrizio/The Pines
* P2. Location: ☐ Not for Publication ☑ Unrestricted a. County Los Angeles
b. USGS 7.5' Quad Hollywood Date 1966 T 1S; R14W; ___ 1/4 of ___ 1/4 of Sec 4 ; SBBM B.M.
c. Address City Los Angeles Zip 90046
d. UTM: (Give more than one for large and/or linear feature) Zone ____, ____ mE/ ____ mN
e. Other Locational Data: (e.g. parcel #, legal description, directions to resource, elevation, additional UTMs, etc. as app
APN: 5572-025-091; LAND DESC IN DOC 0785187,840629 (8 PARS) POR OF SW 1/4 OF SE 1/4 OF SEC 4T1SR14W

* P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)
The historic "The Pines" gates of Runyon Canyon Park are approached from Fuller Avenue. The paved entryway accesses the main entrance road to the facility leading to the dog park runs and lawn within the project area which extend to the intersection of the trail from the Vista Street Gate, then continue northward along the entrance road which serves as the eastern boundary of the proposed lawn area. Some of the San Patrizio foundation ruins are within the project area; others, principally walls, stairs and planters are situated outside the project area slightly to the west between the project's western boundary and south of the Vista Trail. Single cobra-head street lights, constructed in 1996, are found throughout the proposed project area. These are expected to be within the project construction area.
The historic "The Pines" gates comprise a trio of tall, Arroyo stone pillars whose narrow concrete caps have a slight overhang. Two paired columns situated on the west side of the entrance are connected by a shallow gateway arch that supports one side of a modern hinged iron gate with open pickets. A similar pillar is sited on the east side of the entrance supporting the other side of the iron gate. (See Continuation Sheet)

* P3b. Resource Attributes: (List attributes and codes) AH2 Foundation/Struture Pad
* P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☑ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (View, date, etc.)
Facing west. 100_1817.jpg.

* P6. Date Constructed/Age and Sources:
☐ Prehistoric ☑ Historic ☐ Both
1930Building Demolished 1964

* P7. Owner and Address:
City of Los Angeles
Los Angeles, CA 90023-4206

* P8. Recorded by: (Name, affiliation, address)
Mark C. Robinson, Portia Lee
Jones & Stokes
811 West 7th Street, Suite 800
Los Angeles, CA 90017

* P9. Date Recorded: 10/24/2005

* P10. Survey Type: (Describe)
Intensive Survey
CEQA Compliance
P--Project Review

* P11. Report Citation: (Cite survey report/other sources or "none") Site Assessment, Runyon Canyon-Fuller Street Entrance Par
City of Los Angeles Department of Public Works, Bureau of Engineering

* Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record
☑ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record
☐ Photograph Record ☑ Other: (List) Map

DPR 523A (1/95) * Required Information

P3a. Description Continued: The Arroyo stone of this single eastern pillar appears to be similar stone to that in the paired columns opposite. The single pillar was constructed in 1988 and anecdotal evidence indicates that the single pillar was constructed with stone taken from early gatehouse on the property when it was torn down; a logical inference since gatehouses early in the century frequently were faced with similar stone to that of the nearby portal gates. This single pillar supports a low cobblestone wall that continues past the entrance for a short distance, and the wall was also constructed in 1988. A lower wall of similar stone then continues with occasional gaps along the roadway's eastern boundary, and was constructed at an unknown date.

Within the project area itself, the existing lawn is protected with a chain link fence on the south, which appears to operate as a buffer zone between the neighboring residences, whose north lot boundary adjoins the Park's perimeter stone wall. Gates also open to the lawn on the north and east. With the exception of an abandoned pond, no above-ground ruins were noted in this area. The pond is largely infilled with soil, and does not appear to retain integrity. A dirt path borders the lawn area on the north. As the terrain to the north grows steeper, heavy brush appears, often in dense clumps. Concrete ruins of a pad foundation, steps and porch remnants are present along with an above-ground water pipe. A similar brick fixture about 2 feet high remains at the trail edge that may be the bottom of an light standard with an open electrical box.

The project area north of the Vista Trail exhibits the typical vegetation pattern of the urban wilderness: chaparral, drought- resistant shrubs and evergreen trees. Heavy brush makes some areas inaccessible. Two hardscape features are a water fountain just north of the Vista Trail and a rock foundation wall segment on the northern end of the project lawn area. The rock foundation wall is characterized by exposed rebar and remnants of metal hinges. The rock foundation wall is in poor condition.
Immediately outside the project area east of the present lawn area are the concrete and brick remnants of the San Patrizio estate including stairs, terrace walls, foundation ruins, large garden planting urns and pool remnants.

Landscape

Existing Lawn Area:

The plant material consists of older well-established trees within the existing lawn area. The Driveway is lined with 30feet + high *Phoenix canariensis* (Canary Island Palms) approximately 50 feet on center. Several of the palms are missing from the allee. The trees located in the existing lawn area consist of several *Pittosporum undulatum* (Victorian Box). Several of the Victorian Box's are being attacked by fungus in their crouches. An Avocado tree, which is seriously defoliated, and a *Koelruteria bipinnata* (Chinese Flame Tree) are located in the northwestern portion of the lawn. The lawn is fenced with chain link and *Lonicera japonica* (Honeysuckle) vines. These vines and fencing appear to have been added at the time the dirt trails were added around the lawn area to separate the lawn area and the trails.

F-1 on Figure 3 Foundations:

The plantings around the F-1 on Figure 3 foundation consist of overgrown and unkept foundation plantings consisting of *Syszygium paniculatum* (Brush Cherry) *Bougainvillea sp.* (Bougainvillea), and *Tecomaria capensis* (Cape Honeysuckle). At the front entry of F-1 on Figure 3, a cacti garden exists consisting of *agave, Opuntia sp.* and a *Malosma laurina* (Laural Sumac).

To the west and north of F-1 on Figure 3 is an area that appears to have been a fruit orchard. Several fruit trees remain, including citrus and *Casimiroa edulis* (white sapote or sapota blanca). Native trees such as *Juglans californica* (Black Walnut), *Malosma laurina*, and *Sambucus mexicanus* (Elderberry) have grown in with non-native understory species including Bromus and mustard.

Proposed Lawn Area:

North of F-1 on Figure 3 where the future lawn area would be located, a bramble of Plumbago auriculata (Cape Plumbago), and Cotoneaster sp. (Cotoneaster) exists.

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHAEOLOGICAL SITE RECORD

Primary #
Trinomial

*Resource Name or #: Runyon Canyon Estate

*A1. Dimensions: a. Length: 620 m. (N-S) × b. Width: 220 m. (E-W)
Method of Measurement: ☐ Paced ☐ Taped ☐ Visual estimate ■ Other: Map
Method of Determination (Check any that apply.): ☐ Artifacts ■ Features ☐ Soil ☐ Vegetation ☐ Topography
☐ Cut bank ☐ Animal burrow ☐ Excavation ☐ Property boundary ☐ Other (Explain):

Reliability of Determination: ■ High ☐ Medium ☐ Low Explain:

Limitations (Check any that apply): ☐ Restricted access ☐ Paved/built over ☐ Site limits incompletely defined
☐ Disturbances ☐ Vegetation ☐ Other (Explain):

A2. Depth: ☐ None ■Unknown Method of Determination:
*A3. Human Remains: ☐ Present ■ Absent ☐ Possible ☐ Unknown (Explain):

*A4. Features (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.):

Features of the Runyon Canyon Estate consist of the foundations of demolished structures, outbuildings such as pump houses and garages, and landscape features such as concrete lined ponds and planters, and rock retaining walls. The palm-lined drive is also a feature of the estate, as are the gateposts at the entrance.

Feature 1: Foundation ruins

This foundation consists of a large front sun porch (Photo 1), an entry porch on the opposite side of the foundation adjacent to the driveway (Photo 2), and an internal concrete and brick foundation that appears to have been the base of a fire place (Photo 3). Some portions of the building were built on piers, and in general, the foundation remains do not suggest a strongly built structure.

Feature 2: Landscape walls and stairs, building remnant

Feature 2 is located on the steep hillside west of the F-1 ruins (Photo 4). The rock walls appear to be for landscaped terraces, the purpose of the building remnant is unknown.

Feature 3: Lawn planter and pond

The lawn area, located to the southwest of the F-1 ruins, encompasses a shallow concrete sided enclosure labeled as an abandoned pond on the survey map (Photo 5). A half-circular rock wall nearby appears to have been some form of large planter for a tree or shrubbery (Photo 6).

Feature 4: Pine Gates

The historic "The Pines" gates comprise a trio of tall, Arroyo stone pillars whose narrow concrete caps have a slight overhang. Two paired columns situated on the west side of the entrance are connected by a shallow gateway arch that supports one side of a modern hinged iron gate with open pickets. A similar pillar is sited on the east side of the entrance supporting the other side of the iron gate. The Arroyo stone of this single eastern pillar appears to be similar stone to that in the paired columns opposite. The single pillar was constructed in 1988 and anecdotal evidence indicates that the single pillar was constructed with stone taken from early gatehouse on the property when it was torn down; a logical inference since gatehouses early in the century frequently were faced with similar stone to that of the nearby portal gates. This single pillar supports a low cobblestone wall that continues past the entrance for a short distance, and the wall was also constructed in 1988. A lower wall of similar stone then continues with occasional gaps along the roadway's eastern boundary, and was constructed at an unknown date.

Feature 5: Estate Driveway and Rock Wall

A single-lane driveway (Photo 8) lined with palms (an allee) curves through "The Pines" gates, past the F-1 ruins, and up Runyon Canyon to the nearby ruins of the pump house and possible pool location. A rock wall line part of this driveway (Photo 9).

Feature 6: South Wall and Gates

South across the lawn from the ruins of San Patrizio House, the property boundary is delineated by a plastered wall with gated entrances (Photo 10). Of an age consistent with the estate's main period of occupation, the exact function and use of these two gates is unknown.

Feature 7: Spring or Pump House Foundation

Upslope from the F-1 ruins, a small stone foundation appears to be the remains of a springhouse or pump house (Photo 11). A very modest amount of green grass surrounding the ruins, and upslope from this structure, suggests that natural water may be at or near the surface in this area. This water may have been tapped with a well for household use.

Feature 8: Foundation of Guest House.

Upslope from the pump/spring house location, extensive foundations and a large chimney are present (Photo 12). This foundation has been variously interpreted as the San Patrizio House or as a guesthouse (Friends of Runyon Canyon). However, these foundations are outside of the proposed project area.

Feature 9: Reservoir ruins

Further upslope, north, along the estate road, beyond the mapped area, a pile of rock ruins is stacked at the side of the drive. These are the remains of a water reservoir (No photo), according to a brochure for Runyon Canyon Park (Friends of Runyon Canyon).

Feature 10: Tennis Court

On the side of the canyon to the east and above the F-1 ruins, again, beyond the mapped area of the city park, a single tennis court is situated partially cut into the side slope. (No photo).

***A5. Cultural Constituents** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.):

None. No artifacts were found on the site.

***A6. Were Specimens Collected?** ■ No ☐ Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
***A7. Site Condition:** ☐ Good ☐ Fair ■ Poor (Describe disturbances.): Houses have been razed, area has been subject to grading in places, as well as hillside erosion.

***A8. Nearest Water** (Type, distance, and direction.): Unknown

***A9. Elevation:** 560 to 700 feet AMSL

A10. Environmental Setting (Describe culturally relevant variables such as vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): Runyon Canyon is a deep, gently sloping arroyo situated on the south-facing slope of the Hollywood Hills. Native vegetation in the area was chamise chapparel.

A11. Historical Information:
Runyon Canyon Park is a 130-acre park with two south entrances at Fuller and Vista Avenues. A north entrance is off Mulholland Drive at the north boundary of the Park. In 1983 the property was acquired by the City of Los Angeles with a grant from the Santa Monica Mountains Conservancy. The City of Los Angeles Department of Parks and Recreation manages the Park as an Urban Wilderness. The site of Runyon Canyon Park, originally called "No Man's Canyon," spans a large gorge extending roughly from Franklin Canyon at Fuller Avenue north through the hills to Mulholland Drive. The site was reputed to be a seasonal camp ground for the Cahuenga Indian tribe who hunted and foraged the canyons and streambeds of the area.

In 1867 "Greek George" Caralambo was given a federal patent to the160-acre parcel in appreciation for his service in the United States Army Camel Corps. The property was purchased by Alfred Solano in 1877 and by Carmen Runyon in 1919, In 1919 Runyon and his wife, Ellen Hunt Runyon bought the canyon property to use as a riding and hunting retreat, building a small bungalow at the Fuller Avenue entrance to the Canyon. With his ownership No Man's Canyon was renamed Runyon Canyon. Runyon Canyon Road and Carman Crest Drive also memorialize the Runyon family ownership.

John McCormack began the Canyon's association with theatrical personalities and Hollywood stars. A famous Irish tenor born in Dublin, Ireland in 1884, he made his debut in Italy in 1910, beginning a career than spanned over 30 years. He came to Hollywood in 1929. His salary paid for the purchase of Runyon Canyon. The McCormacks' built an imposing Colonial Revival mansion called San Patrizio on the property and constructed a pool, pool house, extensive landscaping and gardens. When McCormack toured, the mansion was often rented to Hollywood celebrities. McCormack made a farewell tour of America in 1937 and deeded the estate back to Carman Runyon.

Huntington Hartford II bought the Runyon Canyon Property from Carman Runyon in 1942, renaming the estate "The Pines." Hartford, the founder of the Huntington Hartford Foundation and Huntington Hartford Theater in Los Angeles and a wealthy a patron of writers and artists, began planning an ambitious set of buildings on the estate. He commissioned architects Frank Lloyd Wright and his son Lloyd Wright to prepare plans for a "cottage" hotel in the lower canyon and a theater and country club complex on the ridge with dramatic views over the Los Angeles Basin. When these plans generated neighborhood opposition, Hartford built a pool pavilion designed by Lloyd Wright on the crest of the hill facing Hollywood. In 1957-1958, movie star Errol Flynn lived in the pool house, as a guest of Hartford's; this lead to the popular and erroneous characterization of the Runyon Canyon property as the Errol Flynn estate.

A peripatetic philanthropist, Hartford managed to bring only a few of his proposed projects to completion between 1947 and 1963 and met opposition from neighbors and the City of Los Angeles building officials who slowed down or denied him permits. Finally, he offered the Runyon Canyon property to the City, but the offer was rejected and Hartford sold the estate to developer Jules Berman. After purchasing the Canyon in 1964, Berman, who envisioned dividing and selling the property for luxury estates, razed the San Patrizio mansion and its guesthouses to avoid the payment of taxes on the deteriorating structures. However, community activists opposed his development proposal and the project died in 1978. The Lloyd Wright pool house remained intact until 1972 until destroyed by a canyon fire that left only the stone foundation and pool pit which was buried in earth.

*A12. **Age:** ☐ Prehistoric ☐ Protohistoric ☐ 1542-1769 ☐ 1769-1848 ☐ 1848-1880 ☐ 1880-1914 ■ 1914-1945 ☐ Post 1945 ☐ Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:**

A13. Interpretations (Discuss data potential, function[s], ethnic affiliation, and other interpretations):

A14. Remarks: None

A15. References (Documents, informants, maps, and other references):

A16. Photographs (List subjects, direction of view, and accession numbers or attach a Photograph Record.):

Original Media/Negatives Kept at: Jones & Stokes

*A17. **Form Prepared by:** Mark C. Robinson **Date:** 10/25/2005
Affiliation and Address: : Jones & Stokes, 811 W. 7th Street, Los Angeles, CA 90017

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHAEOLOGICAL SITE RECORD

Primary #
Trinomial

*Resource Name or #: Runyon Canyon Estate

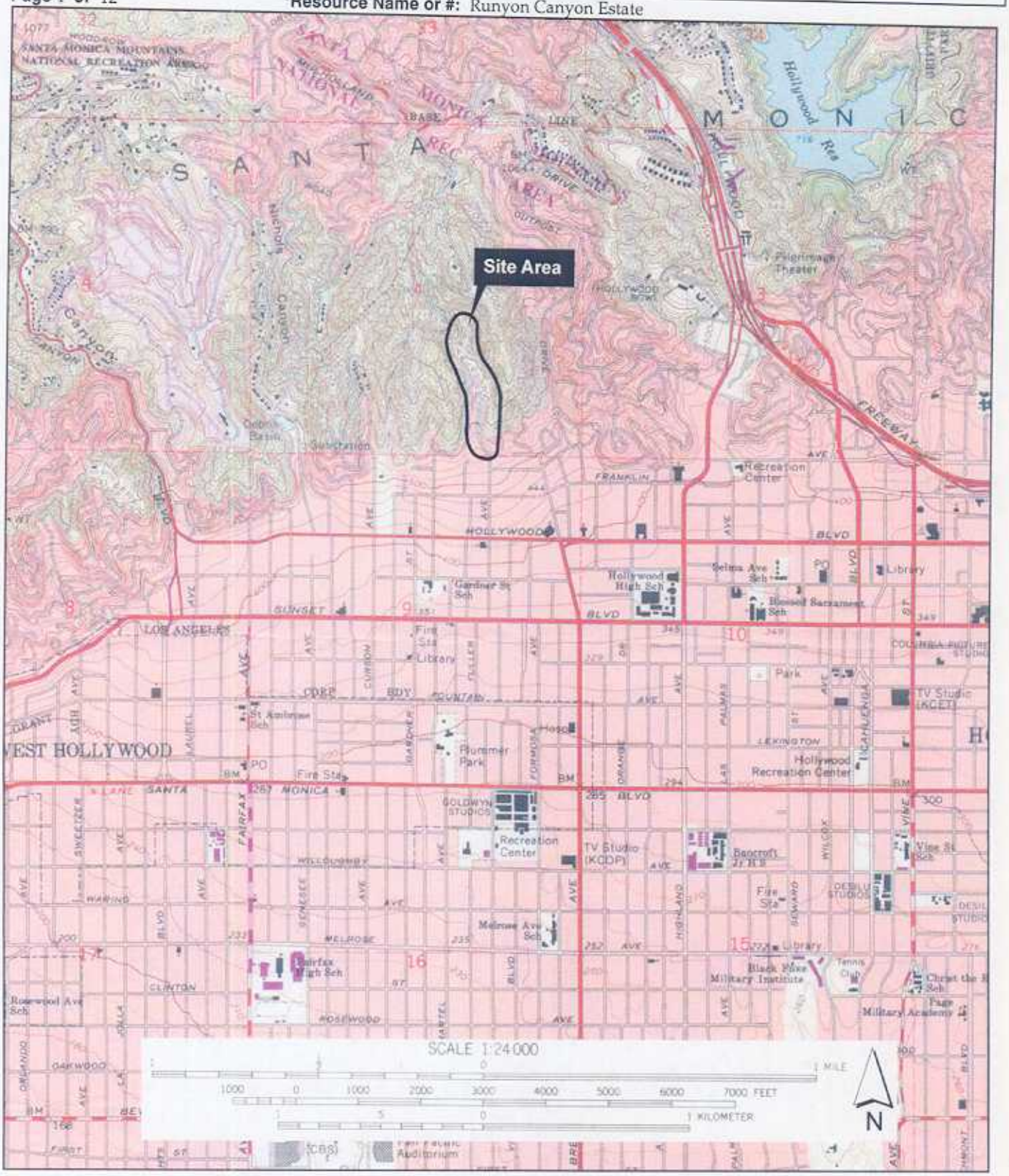




Photo 1: Stairs on the southern facade of the San Patrizio pool house, facing east. Note the spalling concrete.



Photo 2: View of the main entrance stairs, eastern facade, facing west. Note the colorful tile under the coping.



Photo 3: View of the central foundation ruins of the San Patrizio pool house. Note the pavers, exposed rebar and concrete form lines.

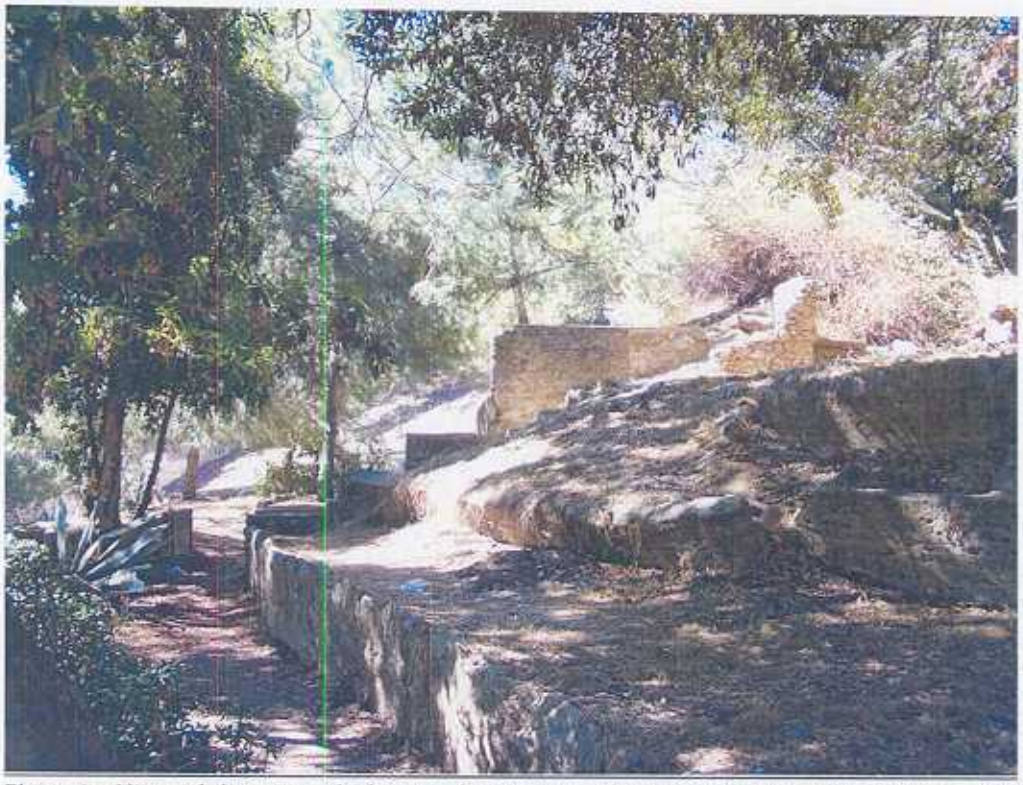


Photo 4: View of the terraced planters, facing west. Note the terraced walls are out of plumb and in danger of collapsing.



Photo 5: Pond constructed in the lower portion of the existing lawn area; facing west. The pond has largely been infilled with soil and does not appear to retain integrity.



Photo 6: Landscape terracing wall. Note the use of Arroyo stone.



Photo 7: View of typical street light. The lights were constructed in 1996 and do not meet the 50 year age criterion.



Photo 8: View of the existing paved road leading from the historic "The Pines" gates into the park. Note the chain link fencing and honeysuckle in the left of frame.



Photo 9: View of paved roadway leading from the historic "The Pines" gates into the park. Note the rubble stone retaining wall, which appears to be original, framing the roadway on the east side.



Photo 10: View of gate in the southern wall inbetween the Fuller and Vista Avenue entrances. The wall does not continuously span the southern border of the park. The gate appears to be original.



Photo 11: View of foundation wall in the proposed lawn area. The building was constructed for use as a spring or pump house. Note the use of local stones with large aggregate mortar. The mortar has eroded in several locations.



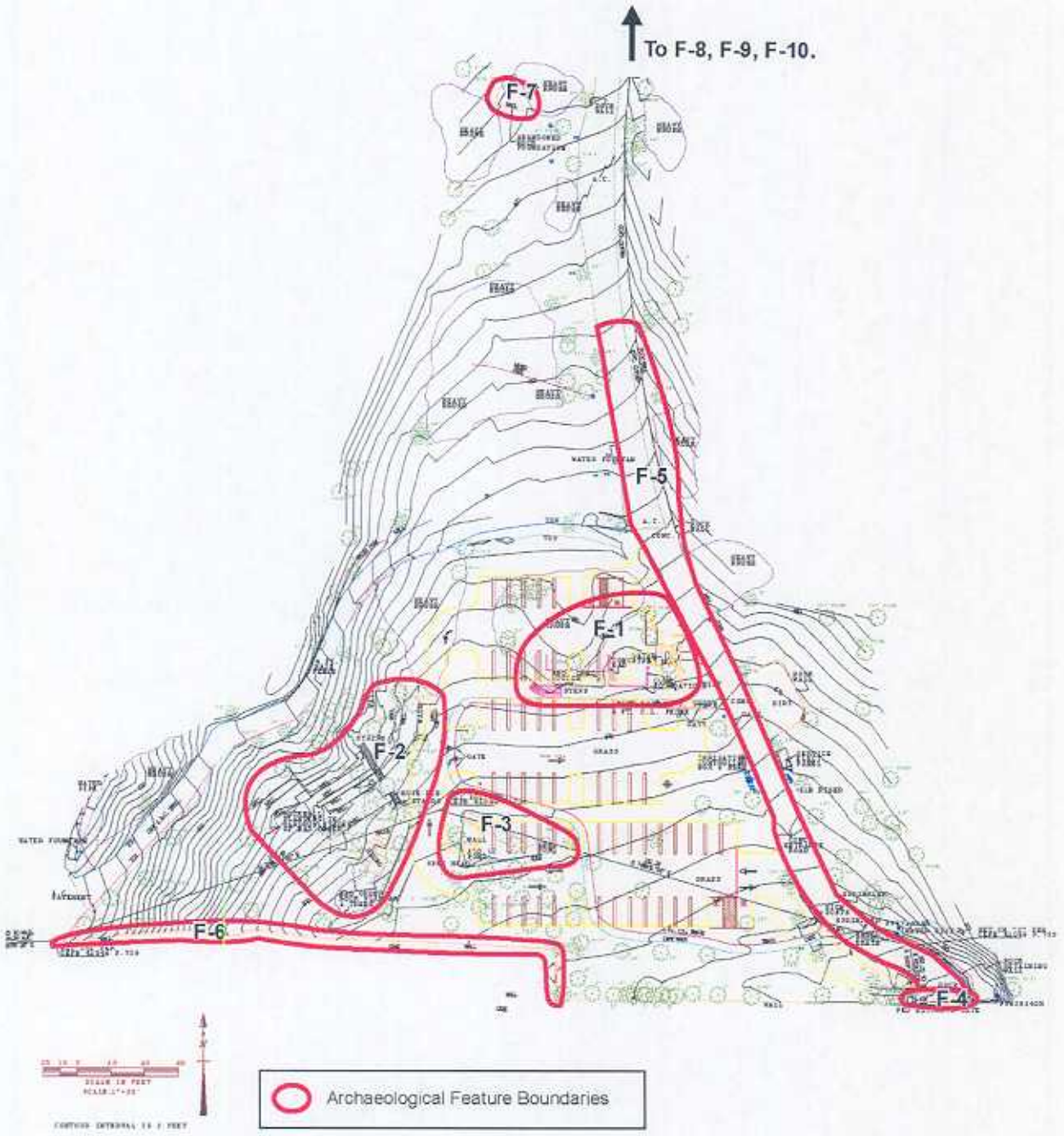
Photo 12: View of San Patrizio guesthouse foundation ruins (outside of the proposed project area).

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

ARCHAEOLOGICAL SITE RECORD

Primary #
Trinomial

*Resource Name or #: Runyon Canyon Estate



APPENDIX D

ASSESSMENT OF EXISTING PARKING CONDITIONS

KAKU ASSOCIATES
A Corporation

Transportation Planning

Traffic Engineering

Parking Studies

DRAFT
TECHNICAL MEMORANDUM

TO: Irene Paul
City of Los Angeles, Bureau of Engineering, Environmental Supervisor

FROM: John Stutsman and Megan Cummings

DATE: January 10, 2006

SUBJECT: Assessment of Existing Parking Conditions **Ref:** 1972

EXISTING CONDITIONS

The purpose of this technical memorandum is to describe the existing capacity and utilization of on-street parking serving the Runyon Canyon Park entrance on Fuller Avenue and to analyze the impact of adding a 70-space parking lot on the surrounding neighborhood.

The study area is defined by La Brea Avenue to the east, Hollywood Boulevard to the south, Sierra Bonita Avenue to the west and the park boundaries to the north, as seen in Figure 1. A smaller area within the study area, known as the immediate study area in this memo, was also examined in this analysis. This area was selected for analysis due to the close proximity to the park entrance, and may better represent the park's impact on the surrounding neighborhood than the entire area. The border of the immediate study area is up to but not inclusive of La Brea Avenue to the east, Franklin Avenue to the south, up to but not inclusive of Gardner Street to the west and the park to the north.

Parking utilization counts were conducted on Friday, December 9 and Saturday, December 10 from 8:00 a.m. to 5:00 p.m. Results from this count can be found in Attachment A.

Parking Supply

Runyon Canyon Park does not currently have any on-site parking at this entrance. Within the study area, there are approximately 582 on-street parking spaces in a residential neighborhood. Almost 260 on-street spaces are located in the immediate study area. With the exception of street cleaning on Mondays and Tuesdays, there are no restrictions placed on the street parking in the study area. There are approximately 40 unpaved parking spaces at the Mulholland entrance to the park, but those were not taken into account for this analysis.

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Utilization

Friday utilization rates for the entire study area ranged from 58% (339 spaces occupied) at 4:00 p.m. to 63% for 8:00 a.m. and 9:00 a.m. (366 and 368 spaces respectively). Saturday utilization rates were higher, ranging from 76% (440 spaces) at 3:00 p.m. to 84% (490 spaces) at 10:00 a.m.

Utilization rates for the immediate study area were higher than those for the entire study area for each respective day, as seen in Figure 2. Friday utilization rates for the immediate study area ranged from 72% at 1:00 p.m., 2:00 p.m., and 4:00 p.m. (186, 187 and 187 spaces respectively) to 81% at 9:00 a.m. (210 spaces). Saturday utilization rates ranged from 85% (219 spaces) at 3:00 p.m. to 90% (233 spaces) at 4:00 p.m.

FUTURE CONDITIONS

As indicated, the project will result in 70 new parking spaces at a site within the park that is currently used as a grassy play area and off-leash dog park. Currently, parking in this area is only provided on the street. Two scenarios were developed to analyze the parking conditions at completion of the lot.

The first scenario, or “best-case” scenario, includes 70 additional parking spaces added to the supply while demand is kept constant (i.e., no new additional trips as a result of the parking lot). The “best-case” scenario results are shown in Figure 3. Utilization rates do not exceed 75%, well within properly functioning levels, for any time in both study areas.

The second scenario, or “worst-case” scenario, includes 70 additional parking spaces as well as 70 additional cars parking in the area. The results of this analysis are shown in Figure 4. The peak in this situation occurs at 4:00 p.m. on Saturday in the immediate study area when the area is approximately 92% occupied (303 spaces). This represents a two percentage point increase from current conditions.

More than likely, the worst-case scenario representing “induced demand” will only occur immediately after completion of the project, if at all.

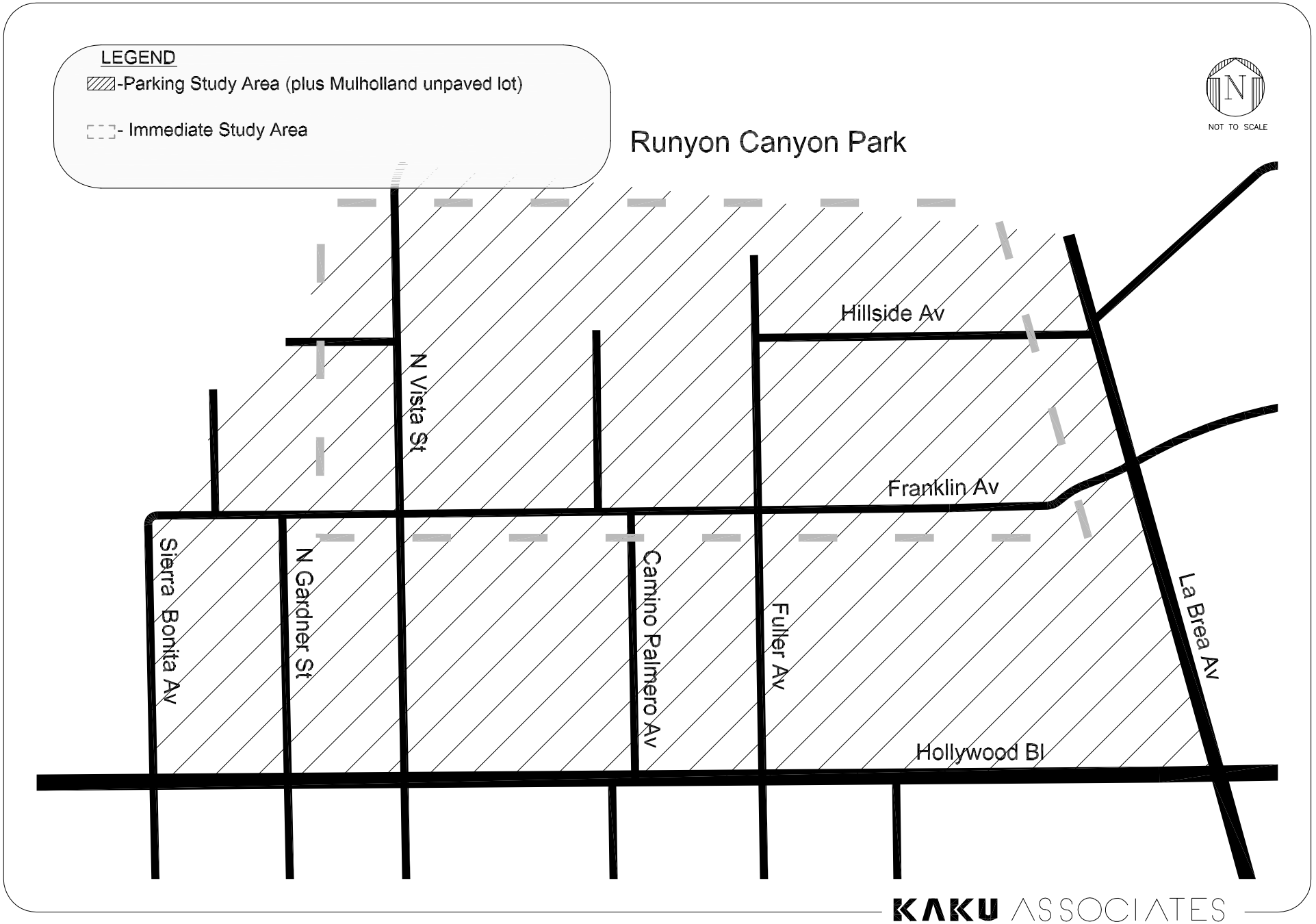


FIGURE 1
PARKING STUDY AREAS

FIGURE 2
CURRENT PARKING UTILIZATION RATES FOR RUNYON CANYON STUDY AREA

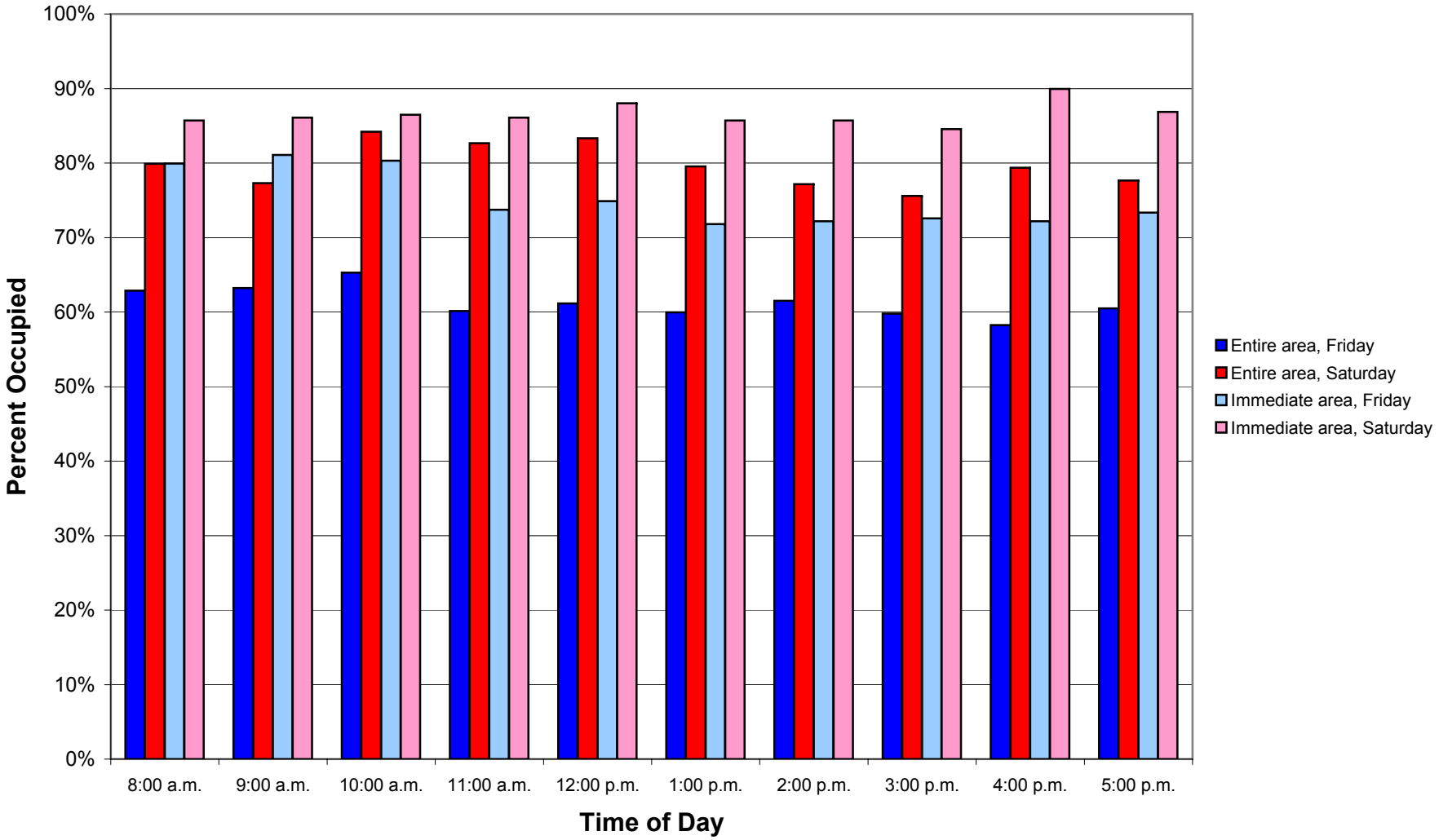


FIGURE 3
PERCENT OCCUPIED WITH 70 NEW SPACES, "BEST-CASE" SCENARIO

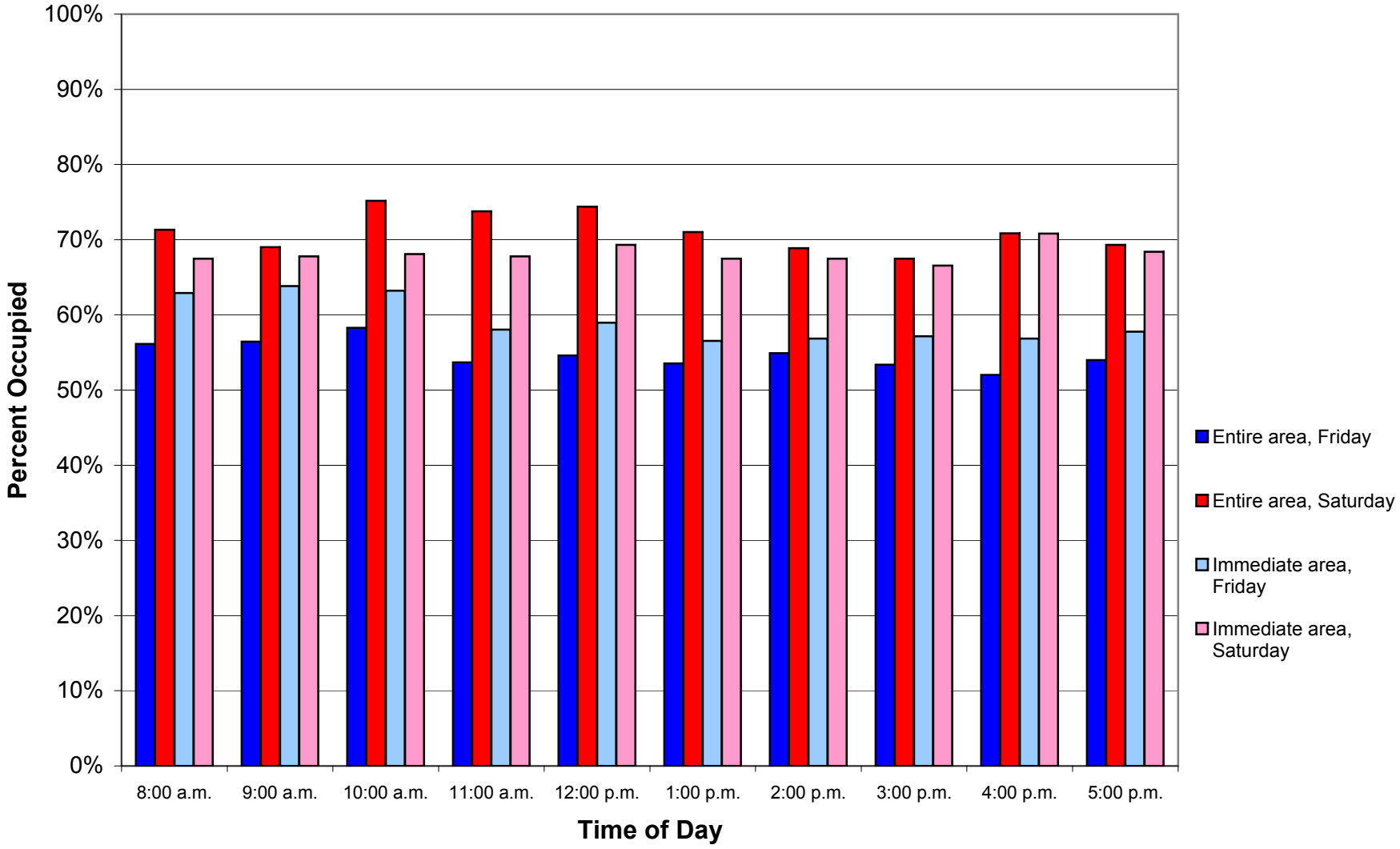
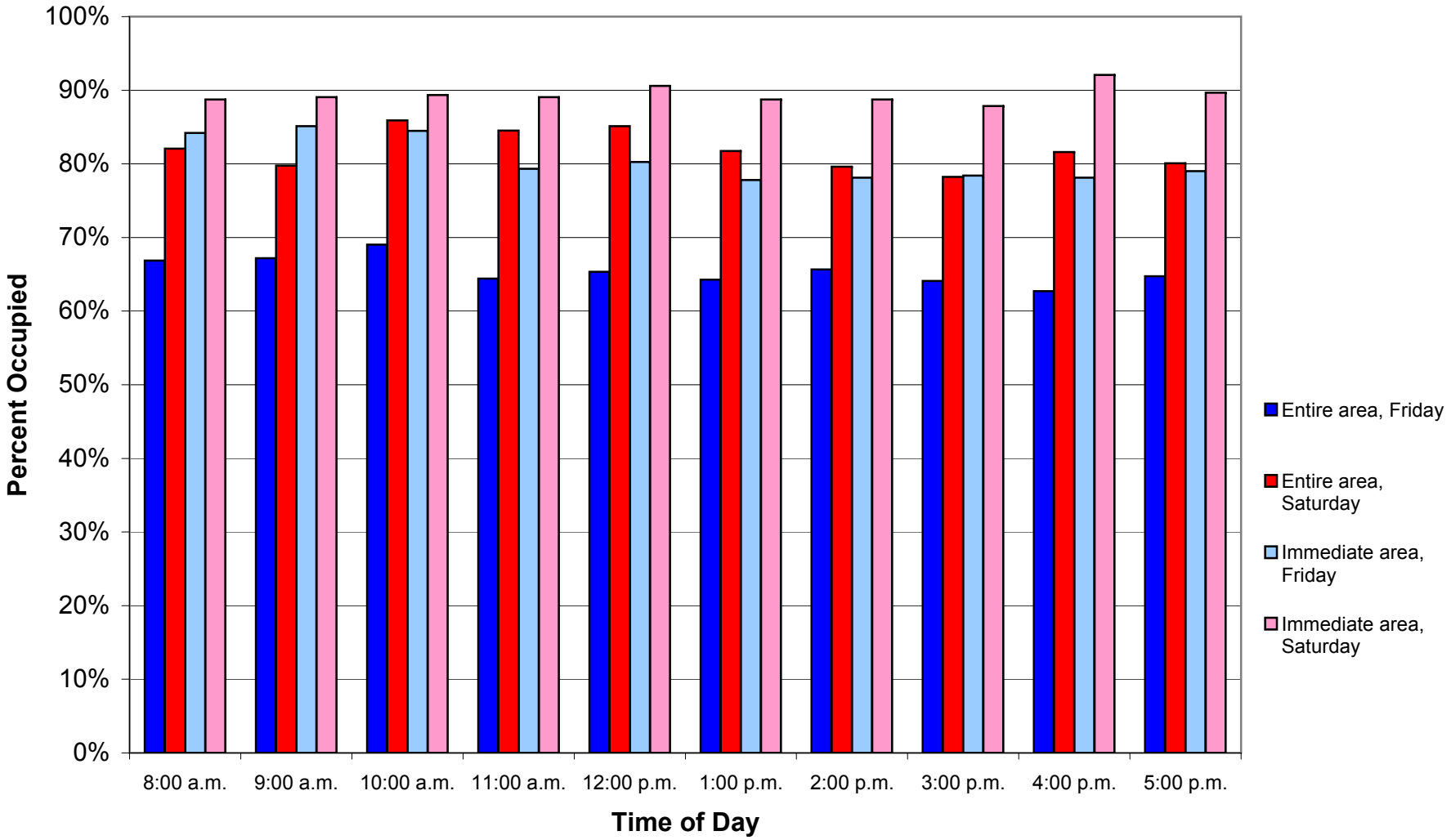


FIGURE 4
PERCENT OCCUPIED WITH 70 NEW SPACES, "WORST-CASE" SCENARIO



ATTACHMENT A

PARKING UTILIZATION COUNTS

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PARKING SURVEY RESULTS WORKSHEET

KAKU ASSOCIATES

RUNYON CANYON, HOLLYWOOD

Friday December 9, 2005

Street	From	To	Side	800-900	900-1000	1000-1100	1100-1200	1200-100	100-200	200-300	300-400	400-500	500-600
La Brea	North End	Hillside	East	6	5	4	3	3	3	2	3	3	4
La Brea	North End	Hillside	West	4	4	2	2	2	2	1	1	1	1
La Brea	Hillside	Franklin	East	6	5	4	5	9	7	8	6	7	8
La Brea	Hillside	Franklin	West	6	6	3	2	5	3	3	4	2	2
La Brea	Franklin	Hollywood	East	0	0	0	0	0	0	0	0	0	0
La Brea	Franklin	Hollywood	West	0	0	0	0	0	0	0	0	0	0
Hillside	La Brea	Fuller	North	32	32	31	30	29	30	29	29	32	29
Hillside	La Brea	Fuller	South	29	27	25	26	29	24	28	25	22	28
Fuller	North End	Hillside	East	7	8	5	5	6	6	6	7	7	6
Fuller	North End	Hillside	West	7	10	10	8	8	8	8	9	9	9
Fuller	Hillside	Franklin	East	12	13	13	12	11	9	10	13	12	12
Fuller	Hillside	Franklin	West	10	10	12	11	9	10	10	9	10	10
Franklin	La Brea	Fuller	North	17	17	17	15	15	18	16	14	9	13
Franklin	La Brea	Fuller	South	15	17	15	15	15	16	11	14	14	9
Fuller	Franklin	Hollywood	East	15	13	16	15	14	15	12	16	14	14
Fuller	Franklin	Hollywood	West	14	17	19	19	19	16	16	16	14	14
Franklin	Fuller	Camino Palermo	North	8	6	6	9	7	8	7	7	7	5
Franklin	Fuller	Camino Palermo	South	13	12	12	12	13	12	14	13	12	10
Camino Palermo	North End	Franklin	East	0	0	0	0	2	0	0	0	0	0
Camino Palermo	North End	Franklin	West	0	0	0	0	2	0	1	0	0	1
Camino Palermo	Franklin	Hollywood	East	19	17	16	16	18	20	18	14	21	21
Camino Palermo	Franklin	Hollywood	West	17	17	16	15	16	15	17	19	19	17
Franklin	Camino Palermo	Vista	North	9	8	8	4	6	1	4	4	4	5
Franklin	Camino Palermo	Vista	South	19	20	19	16	19	19	17	20	21	21
Vista	Hillside	Franklin	East	0	0	0	0	0	1	0	0	0	0
Vista	Hillside	Franklin	West	0	0	0	0	1	0	0	0	0	0
Vista	North End	Hillside	East	3	3	4	2	3	3	3	2	2	2
Vista	North End	Hillside	West	2	2	3	3	3	3	2	2	2	2
Hillside	West End	Vista	North	6	6	6	5	3	3	3	3	3	4
Hillside	West End	Vista	South	3	3	2	3	2	2	2	2	2	4
Vista	Franklin	Hollywood	East	10	9	14	12	12	13	10	12	12	13
Vista	Franklin	Hollywood	West	11	11	8	8	6	5	11	11	10	10
Franklin	Vista	Gardner	North	3	5	5	6	4	5	4	5	8	5
Franklin	Vista	Gardner	South	6	5	4	4	4	3	4	5	7	8
Gardner	Franklin	Hollywood	East	10	10	6	6	8	10	9	10	14	16
Gardner	Franklin	Hollywood	West	9	8	7	7	5	3	4	4	7	10
Franklin	Gardner	Sierra Bonita (N)	North	1	1	3	2	0	1	4	0	2	3
Franklin	Gardner	Sierra Bonita (N)	South	2	3	5	2	2	2	1	3	0	2
Sierra Bonita (N)	North End	Franklin	East	4	7	6	5	5	4	6	6	6	6
Sierra Bonita (N)	North End	Franklin	West	2	4	6	5	5	6	7	7	6	6
Franklin	Sierra Bonita (N)	Sierra Bonita (S)	North	3	2	1	0	0	0	1	0	2	0

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PARKING SURVEY RESULTS WORKSHEET

KAKU ASSOCIATES

RUNYON CANYON, HOLLYWOOD

Friday December 9, 2005

Street	From	To	Side	800-900	900-1000	1000-1100	1100-1200	1200-100	100-200	200-300	300-400	400-500	500-600
Franklin	Sierra Bonita (N)	Sierra Bonita (S)	South	0	0	2	1	1	2	2	2	0	2
Sierra Bonita (S)	Franklin	Hollywood	East	14	14	12	13	8	8	9	11	14	18
Sierra Bonita (S)	Franklin	Hollywood	West	7	4	4	3	3	3	4	4	2	2
Hollywood	Sierra Bonita (S)	Gardner	North	0	0	0	1	1	0	0	0	0	0
Hollywood	Sierra Bonita (S)	Gardner	South	0	0	0	1	1	0	0	0	0	0
Hollywood	Gardner	Vista	North	0	0	0	0	0	1	0	0	0	0
Hollywood	Gardner	Vista	South	0	0	0	0	0	0	0	1	0	0
Hollywood	Vista	Camino Palermo	North	0	0	1	0	1	2	1	2	0	0
Hollywood	Vista	Camino Palermo	South	0	1	6	6	6	9	10	1	0	0
Hollywood	Camino Palermo	Fuller	North	0	0	0	0	0	0	0	0	0	0
Hollywood	Camino Palermo	Fuller	South	0	0	0	0	0	0	1	1	0	0
Hollywood	Fuller	La Brea	North	5	6	17	11	11	13	11	1	0	0
Hollywood	Fuller	La Brea	South	0	0	5	4	4	5	11	10	0	0

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PARKING SURVEY RESULTS WORKSHEET

KAKU ASSOCIATES

RUNYON CANYON, HOLLYWOOD

Saturday December 10, 2005

Street	From	To	Side	800-900	900-1000	1000-1100	1100-1200	1200-100	100-200	200-300	300-400	400-500	500-600
La Brea	North End	Hillside	East	6	5	4	4	4	4	3	5	4	4
La Brea	North End	Hillside	West	3	3	5	3	4	4	4	4	4	3
La Brea	Hillside	Franklin	East	7	6	6	9	7	7	6	6	5	5
La Brea	Hillside	Franklin	West	6	6	7	6	6	6	6	3	5	4
La Brea	Franklin	Hollywood	East	0	0	0	0	0	0	0	0	0	0
La Brea	Franklin	Hollywood	West	0	0	0	0	0	0	0	0	0	0
Hillside	La Brea	Fuller	North	29	27	33	32	33	32	33	33	34	31
Hillside	La Brea	Fuller	South	32	31	30	30	33	29	32	31	35	32
Fuller	North End	Hillside	East	7	7	6	6	4	6	4	4	5	6
Fuller	North End	Hillside	West	10	10	11	10	9	9	12	12	10	10
Fuller	Hillside	Franklin	East	12	12	13	13	12	12	13	12	13	12
Fuller	Hillside	Franklin	West	11	11	10	11	12	12	10	11	11	11
Franklin	La Brea	Fuller	North	18	17	19	19	19	19	19	16	19	17
Franklin	La Brea	Fuller	South	15	15	15	14	17	17	16	15	15	16
Fuller	Franklin	Hollywood	East	19	19	15	18	18	18	17	17	17	18
Fuller	Franklin	Hollywood	West	17	17	17	17	16	17	18	17	14	15
Franklin	Fuller	Camino Palermo	North	8	8	7	7	9	7	7	6	8	8
Franklin	Fuller	Camino Palermo	South	12	12	11	13	13	13	13	12	13	14
Camino Palermo	North End	Franklin	East	0	0	0	0	2	0	1	1	1	0
Camino Palermo	North End	Franklin	West	0	1	0	0	1	3	0	2	0	0
Camino Palermo	Franklin	Hollywood	East	16	16	19	19	18	20	21	17	17	17
Camino Palermo	Franklin	Hollywood	West	19	19	18	19	16	19	18	18	19	18
Franklin	Camino Palermo	Vista	North	13	12	12	10	10	9	11	10	11	11
Franklin	Camino Palermo	Vista	South	19	21	21	21	20	21	20	17	21	21
Vista	Hillside	Franklin	East	0	0	0	0	1	1	0	2	2	1
Vista	Hillside	Franklin	West	0	2	1	1	1	1	1	0	0	0
Vista	North End	Hillside	East	1	1	1	1	2	0	1	2	2	2
Vista	North End	Hillside	West	3	3	3	3	2	2	2	2	1	3
Hillside	West End	Vista	North	3	2	2	2	2	3	3	4	4	4
Hillside	West End	Vista	South	4	4	4	4	4	4	3	3	3	4
Vista	Franklin	Hollywood	East	14	14	16	16	15	13	15	15	18	16
Vista	Franklin	Hollywood	West	12	12	17	16	12	9	17	15	16	17
Franklin	Vista	Gardner	North	8	10	9	9	8	7	7	8	8	7
Franklin	Vista	Gardner	South	6	7	6	7	4	5	5	5	5	4
Gardner	Franklin	Hollywood	East	11	11	19	18	15	17	13	13	16	17
Gardner	Franklin	Hollywood	West	13	10	16	15	16	12	8	9	13	13
Franklin	Gardner	Sierra Bonita (N)	North	4	3	4	4	4	5	4	5	4	4
Franklin	Gardner	Sierra Bonita (N)	South	4	4	4	4	3	3	3	3	5	5
Sierra Bonita (N)	North End	Franklin	East	6	6	5	6	5	7	2	4	4	3
Sierra Bonita (N)	North End	Franklin	West	5	5	6	6	3	2	2	0	3	3
Franklin	Sierra Bonita (N)	Sierra Bonita (S)	North	1	1	1	1	1	0	1	1	1	1

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PARKING SURVEY RESULTS WORKSHEET

KAKU ASSOCIATES

RUNYON CANYON, HOLLYWOOD

Saturday December 10, 2005

Street	From	To	Side	800-900	900-1000	1000-1100	1100-1200	1200-100	100-200	200-300	300-400	400-500	500-600
Franklin	Sierra Bonita (N)	Sierra Bonita (S)	South	2	2	1	1	2	2	1	2	2	1
Sierra Bonita (S)	Franklin	Hollywood	East	18	16	14	14	16	15	14	11	14	14
Sierra Bonita (S)	Franklin	Hollywood	West	4	4	12	8	11	12	6	5	6	6
Hollywood	Sierra Bonita (S)	Gardner	North	1	0	0	0	7	3	0	0	0	0
Hollywood	Sierra Bonita (S)	Gardner	South	2	2	2	2	5	4	2	4	2	3
Hollywood	Gardner	Vista	North	2	2	2	2	3	3	2	2	2	2
Hollywood	Gardner	Vista	South	6	6	5	4	6	4	5	6	5	5
Hollywood	Vista	Camino Palermo	North	6	6	14	11	9	6	8	8	7	7
Hollywood	Vista	Camino Palermo	South	12	10	12	12	10	7	7	9	9	8
Hollywood	Camino Palermo	Fuller	North	0	0	0	0	0	0	0	0	0	0
Hollywood	Camino Palermo	Fuller	South	5	4	6	4	5	5	4	5	3	4
Hollywood	Fuller	La Brea	North	14	12	15	15	13	10	15	14	14	14
Hollywood	Fuller	La Brea	South	19	16	14	14	17	17	14	14	12	11

APPENDIX E

ASSESSMENT OF EXISTING AND FUTURE TRAFFIC CONDITIONS

KAKU ASSOCIATES
A Corporation

Transportation Planning

Traffic Engineering

Parking Studies

DRAFT

TECHNICAL MEMORANDUM

TO: Irene Paul
City of Los Angeles, Bureau of Engineering Environmental Supervisor

FROM: John Stutsman and Megan Cummings

DATE: January 12, 2006

SUBJECT: Assessment of Existing and Future Traffic Conditions
Near Runyon Canyon **Ref:** 1972

EXISTING CONDITIONS

The purpose of this technical memorandum is to describe the existing capacity and utilization of the traffic system serving the Runyon Canyon Park entrance on Fuller Avenue and to analyze the traffic impacts of a 70-space parking lot on the surrounding neighborhood.

The study area is defined by La Brea Avenue to the east, Hollywood Boulevard to the south, Sierra Bonita Avenue to the west and the park boundaries to the north, as seen in Figure 1. Figure 1 also shows the five intersections and four street segments selected for analysis. The selected intersections are as follows: North Vista Street/Hollywood Boulevard, Fuller Avenue/Hollywood Boulevard, Franklin Avenue/Fuller Avenue, Franklin Avenue/La Brea Avenue, and Hillside Avenue/La Brea Avenue. Diagrams of the existing lane configurations are illustrated in Attachment A.

Existing Traffic Volumes and Levels of Service

Weekday a.m. and p.m. peak period intersection turning movement counts were conducted at the study intersection on Tuesday, November 29, 2005. Existing peak hour traffic volumes are displayed in Figure 2. The intersection traffic count sheets are presented in Attachment B.

Two of the five intersections are currently controlled by traffic signals. The City of Los Angeles Department of Transportation (LADOT) requires that the "Critical Movement Analysis" (CMA) method (Transportation Research Board, 1980) of intersection capacity analysis be used to determine the intersection volume to capacity (V/C) ratio and corresponding level of service (LOS). The CalcaDB software package developed by LADOT was used to implement the CMA methodology in this study.

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The two analyzed signalized intersections currently operate under the Adaptive Traffic Control System (ATCS). The City of Los Angeles grants a 10% credit toward increased capacity (i.e., 0.10 reduction in the volume-to-capacity ratio) at any intersection where ATCS is implemented.

Three of the study intersections are currently unsignalized, and levels of service at these intersections were evaluated using stop-controlled methodologies from the 2000 Highway Capacity Manual (HCM).

Tables 1 and 2 provide LOS definitions for signalized and stop-controlled intersections, respectively. Level of service calculation worksheets are included in Attachment C.

Table 3 summarizes the existing a.m. and p.m. peak hour V/C ratios and corresponding LOS at each of the study intersections. As can be seen, one of the intersections, North Vista Street/Hollywood Boulevard, operates at LOS E or F during one or both of the a.m. and p.m. peak hours. The remaining intersections operate at excellent to very good levels of service (LOS A or B) during both the peak hours.

Future Traffic Projections

As indicated, the project will result in 70 new parking spaces at a site within the park that would be accessed only on the north end of Fuller Avenue. Two scenarios were developed to analyze the traffic conditions in 2010 after completion of the lot:

Scenario 1. The first scenario, or "best-case" scenario, is essentially the cumulative base scenario, which takes into account only ambient growth. In this scenario, the parking lot does not create any induced demand; rather it increases the same rate as the background growth. Using a growth rate of 1% per year, the existing (year 2005) traffic volumes were adjusted upwards by 5% to reflect five years of background growth from 2005 to 2010. Traffic volumes for this scenario are shown in Figure 3.

The resulting traffic volumes, representing the "best-case" conditions with the project, are presented in Attachment C. The summarized LOS conditions are shown in Table 4. During the a.m. and p.m. peak hours only one intersection, North Vista Street/Hollywood Boulevard, continues operating at LOS E or F.

Scenario 2. The second scenario, or "worst-case" scenario, is essentially the cumulative base plus the additional trips generated from the project. For this scenario, it is assumed 70 additional project trips in each weekday peak hour will be generated as a result of better access due to the parking lot. This is likely the maximum number of trips that could occur as a result of increased demand, since it assumes an average auto occupancy of 1.0 and not all 70 trips will occur during peak hours.

The inbound and outbound trip distribution is shown in Figure 4. It was calculated that 30% of the trips would come from the west, 45% would come from the south, and 25% would come from the east.

Using the estimated trip generation and the distribution pattern developed above, the traffic generated by the proposed project was assigned to the street network. Figure 5 illustrates the proposed project-generated peak hour traffic volumes for both peak hours at each of the five study intersections.

The project-generated traffic volumes were added to the cumulative base traffic projections to yield the cumulative plus project traffic forecasts for 2010. Figure 6 illustrates the forecasted cumulative plus project a.m. and p.m. peak hour traffic volumes at each of the five study intersections in the worst-case scenario.

As shown in Table 5, only one intersection, North Vista Street/Hollywood Boulevard, continues operating at LOS E or F during the a.m. and p.m. peak hours in the cumulative plus project conditions. Application of the City of Los Angeles significance criteria described previously indicates that proposed project traffic in the worst-case scenario would not result in V/C increases large enough to result in significant impacts at any of the study intersections.

Neighborhood Street Impact Analysis

A 24-hour machine count was conducted on the four study street segments in November 2005. Future daily traffic volumes were projected in a manner similar to that previously described for the peak hour analysis of the study intersections. Existing average daily traffic volume counts are shown in Attachment D. A 5% ambient growth factor was added to the year 2005 existing daily volume to develop year 2010 cumulative base projections. Approximately 350 new daily project trips were assigned to the street network based on the project trip distribution pattern previously discussed and were added to the cumulative base projection to obtain cumulative plus project projections.

Daily traffic volumes for both the existing and projected future conditions are summarized in Table 6. The City of Los Angeles' criteria deems a project with 0 to 999 daily trips significant if the project-related increase in daily traffic is 16% or more of final average daily trips. As shown in Table 6, the proposed project would not have a significant impact on the analyzed neighborhood street segment.

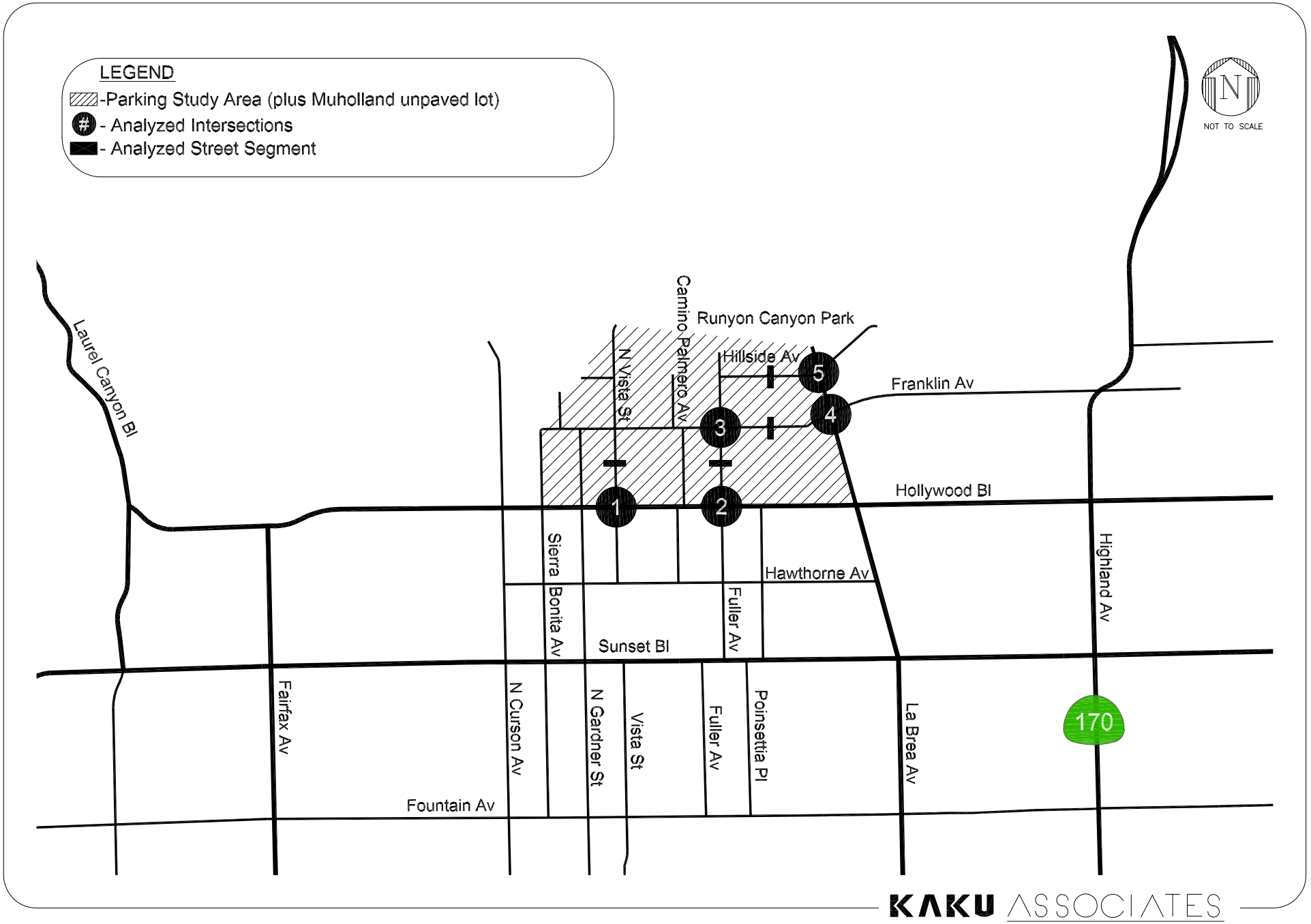
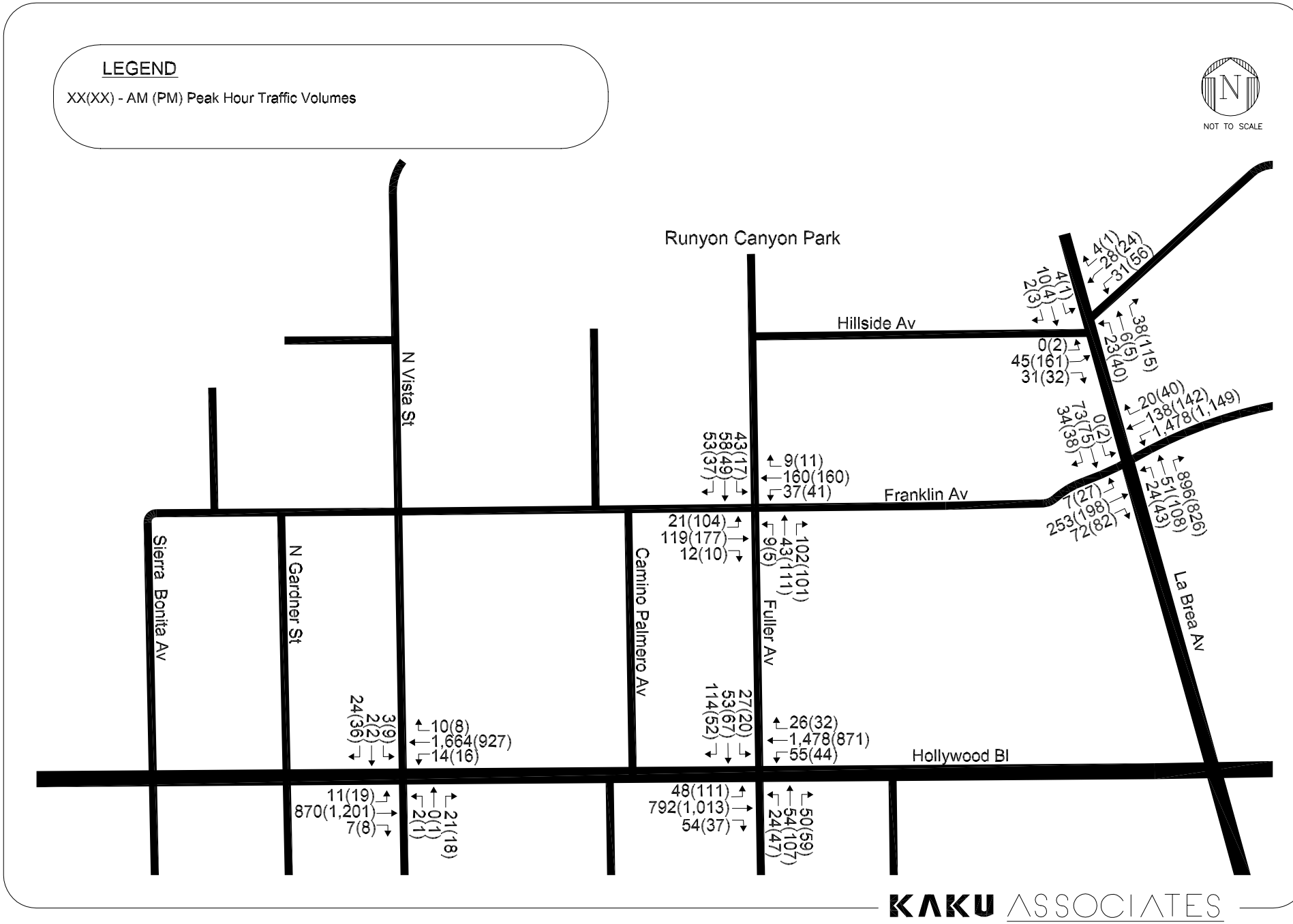
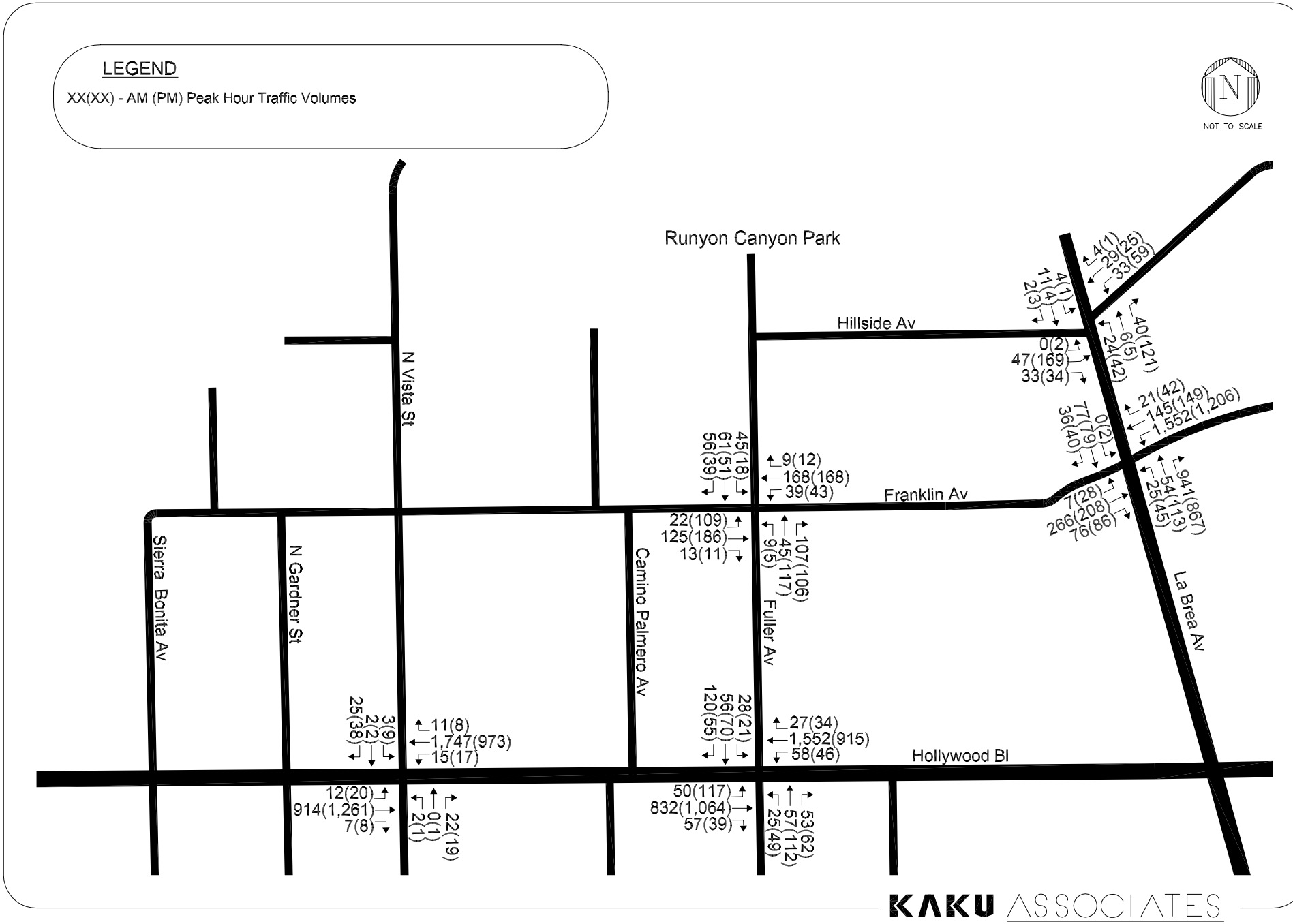


FIGURE 1
ANALYZED INTERSECTIONS AND STREET SEGMENTS



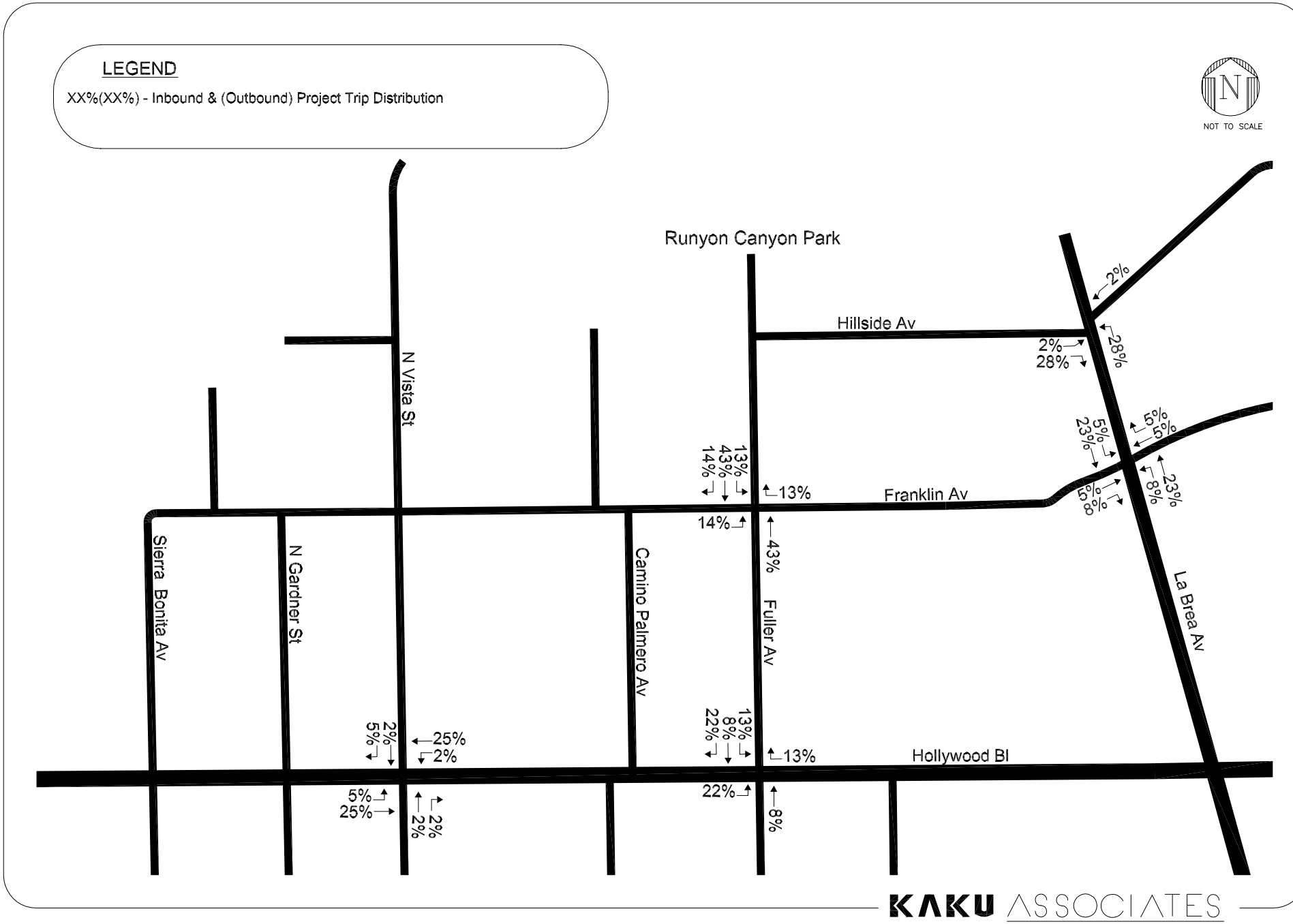
KAKU ASSOCIATES

FIGURE 2
EXISTING PEAK HOUR TRAFFIC VOLUMES



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FIGURE 3
BEST CASE PEAK HOUR TRAFFIC VOLUMES



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FIGURE 4
INBOUND AND OUTBOUND TRIP DISTRIBUTION

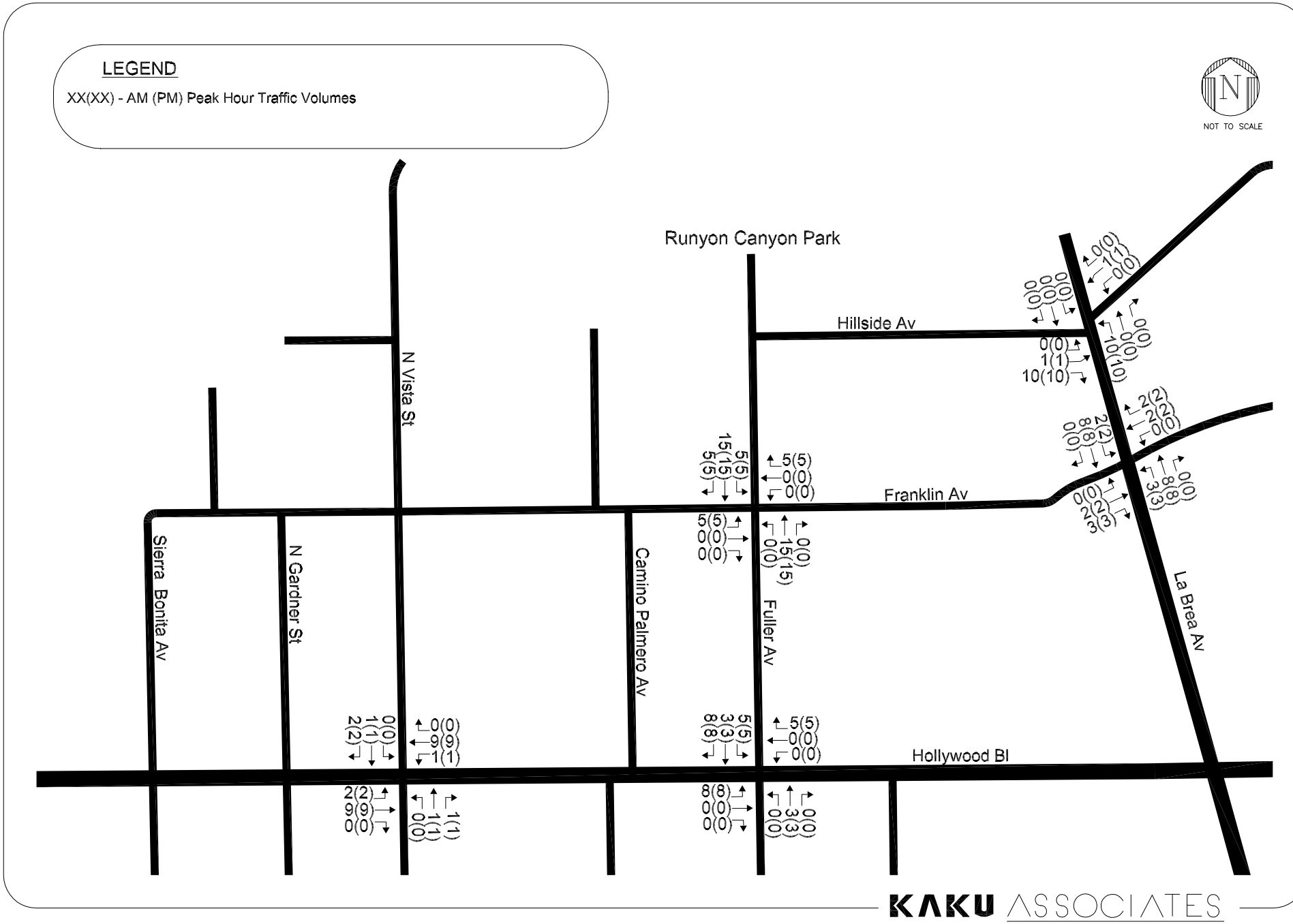
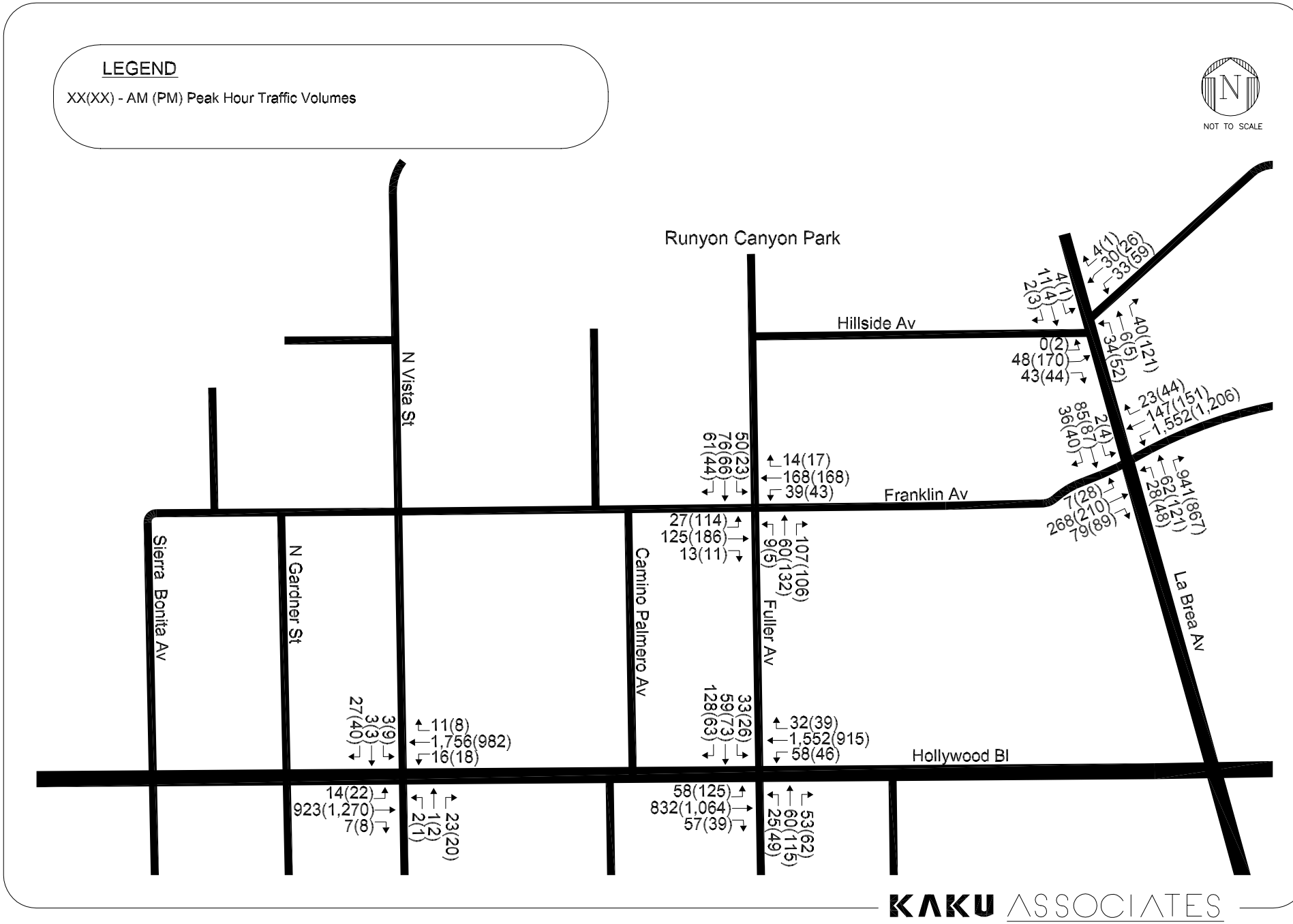


FIGURE 5
PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES



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FIGURE 6
WORST CASE PEAK HOUR TRAFFIC VOLUMES

TABLE 1
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Intersection Capacity Utilization	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.610-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.710-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.810-0.900	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	0.910-1.000	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 Board, *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* , 1980.

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR
TWO-WAY STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)
A	$\leq$ 10
B	> 10 and $\leq$ 15
C	> 15 and $\leq$ 25
D	> 25 and $\leq$ 35
E	> 35 and $\leq$ 50
F	> 50

Source: Transportation Research Board, *Highway Capacity Manual 2000.*

TABLE 3
INTERSECTION LEVEL OF SERVICE ANALYSIS SUMMARY
EXISTING CONDITIONS (YEAR 2005)

Intersection	Peak Hour	Existing (Year 2005) V/C or Delay	LOS
1 [a] N Vista St & Hollywood Bl	**A.M.**	51.8	F
	P.M.	30.5	D
2* Fuller Av & Hollywood Bl	**A.M.**	0.579	A
	P.M.	0.435	A
3 [b] Fuller Av & Franklin Av	**A.M.**	9.1	A
	P.M.	10.5	B
4* La Brea Av & Franklin Av	**A.M.**	0.652	B
	P.M.	0.524	A
5 [b] La Brea Av & Hillside Av	**A.M.**	7.3	A
	P.M.	8.3	A

Notes:

[a] Intersection is two-way stop-controlled. Average vehicular delay in seconds per vehicle is reported for the worst case approach rather than V/C ratio.

[b] Intersection is all-way stop-controlled. The level of service is based on average vehicular delay in seconds per vehicle.

* Intersection is currently operating under ATSAC system with ATCS.

TABLE 4
INTERSECTION LEVEL OF SERVICE ANALYSIS SUMMARY
"BEST-CASE" FUTURE CONDITIONS (YEAR 2010)

Intersection	PEAK HOUR	EXISTING (YEAR 2005) V/C	EXISTING (YEAR 2005) LOS	BEST CASE (YEAR 2010) V/C	BEST CASE (YEAR 2010) LOS	PROJECT INCREASE IN V/C	SIGNIFICANT PROJECT IMPACT
1 [a] N Vista St & Hollywood Bl	**A.M.**	51.8	F	62.7	F	10.900	
	P.M.	30.5	D	34.5	D	4.000	
	A.M.	0.586		0.615		0.029	NO
	P.M.	0.446		0.468		0.022	NO
2 Fuller Av & Hollywood Bl	**A.M.**	0.579	A	0.613	B	0.034	NO
	P.M.	0.435	A	0.461	A	0.026	NO
3 [b] Fuller Av & Franklin Av	**A.M.**	9.1	A	9.3	A	0.200	
	P.M.	10.5	B	10.9	B	0.376	
	A.M.	0.283		0.296		0.013	NO
	P.M.	0.377		0.397		0.020	NO
4 La Brea Av & Franklin Av	**A.M.**	0.652	B	0.689	B	0.037	NO
	P.M.	0.524	A	0.555	A	0.031	NO
5 [b] La Brea Av & Hillside Av	**A.M.**	7.3	A	7.4	A	0.100	
	P.M.	8.3	A	8.4	A	0.100	
	A.M.	0.119		0.125		0.006	NO
	P.M.	0.275		0.289		0.014	NO

Notes:

[a] Intersection is two-way stop-controlled. The top rows show analysis using Highway Capacity Manual stop-controlled methodology for the purpose of evaluating the operating condition of the intersection. Average intersection vehicular delay in seconds per vehicle is reported rather than V/C ratio. The bottom rows show analysis using the CMA methodology. For the purpose of application of City of Los Angeles, significance criteria V/C ratio is reported.

[b] Intersection is all-way stop-controlled. The level of service is based on average vehicular delay in seconds per vehicle.

TABLE 5
INTERSECTION LEVEL OF SERVICE ANALYSIS SUMMARY
"WORST-CASE" FUTURE CONDITIONS (YEAR 2010)

Intersection	PEAK HOUR	CUMULATIVE BASE (YEAR 2010) V/C	CUMULATIVE BASE (YEAR 2010) LOS	WORST CASE (YEAR 2010) V/C	WORST CASE (YEAR 2010) LOS	PROJECT INCREASE IN V/C	SIGNIFICANT PROJECT IMPACT
1 [a] N Vista St & Hollywood Bl	**A.M.**	62.7	F	76.9	F	14.200	
	P.M.	34.5	D	39.3	E	4.800	
	A.M.	0.615		0.622		0.007	NO
	P.M.	0.468		0.473		0.005	NO
2 Fuller Av & Hollywood Bl	**A.M.**	0.613	B	0.630	B	0.017	NO
	P.M.	0.461	A	0.469	A	0.008	NO
3 [b] Fuller Av & Franklin Av	**A.M.**	9.3	A	9.7	A	0.400	
	P.M.	10.9	B	11.4	B	0.500	
	A.M.	0.296		0.316		0.020	NO
	P.M.	0.397		0.413		0.016	NO
4 La Brea Av & Franklin Av	**A.M.**	0.689	B	0.699	B	0.010	NO
	P.M.	0.555	A	0.565	A	0.010	NO
5 [b] La Brea Av & Hillside Av	**A.M.**	7.4	A	7.4	A	0.000	
	P.M.	8.4	A	8.5	A	0.100	
	A.M.	0.125		0.139		0.014	NO
	P.M.	0.289		0.303		0.014	NO

Notes:

[a] Intersection is two-way stop-controlled. The top rows show analysis using Highway Capacity Manual stop-controlled methodology for the purpose of evaluating the operating condition of the intersection. Average intersection vehicular delay in seconds per vehicle is reported rather than V/C ratio. The bottom rows show analysis using the CMA methodology. For the purpose of application of City of Los Angeles, significance criteria V/C ratio is reported.

[b] Intersection is all-way stop-controlled. The level of service is based on average vehicular delay in seconds per vehicle.

TABLE 6
NEIGHBORHOOD STREET IMPACT ANALYSIS

Street Segment	Weekday Two-way Daily Volume				Impact Analysis		
	Existing	Cumulative Base	Project Only	Cumulative Plus Project	Project %	Impact Criteria	Significant Impact?
N Vista Street between Franklin Av and Hollywood Bl	756	794	25	819	3.05%	16%	NO
Fuller Avenue between Franklin Av and Hollywood Bl	5336	5603	151	5754	2.62%	16%	NO
Franklin Avenue between Fuller Av and La Brea Av	7346	7713	46	7759	0.59%	16%	NO
Hillside Avenue between Fuller Av and La Brea Av	2509	2634	105	2739	3.83%	16%	NO

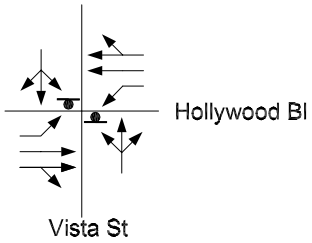
ATTACHMENT A

EXISTING LANE CONFIGURATIONS

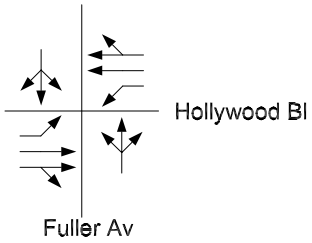
INTERSECTION LANE CONFIGURATIONS

EXISTING CONDITIONS

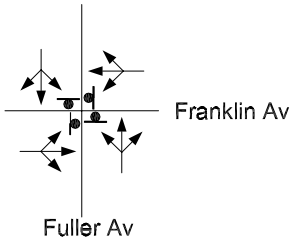
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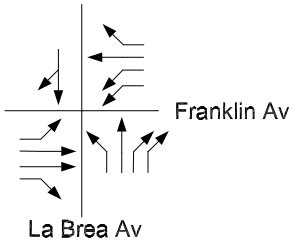
2. Fuller Av & Hollywood Bl



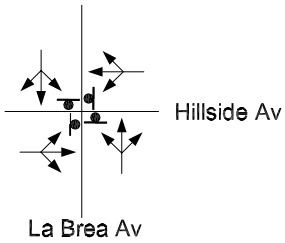
3. Fuller Av & Franklin Av



4. La Brea Av & Franklin Av



5. La Brea Av & Hillside Av



LEGEND

- Stop Controlled

ATTACHMENT B

INTERSECTION TRAFFIC COUNTS

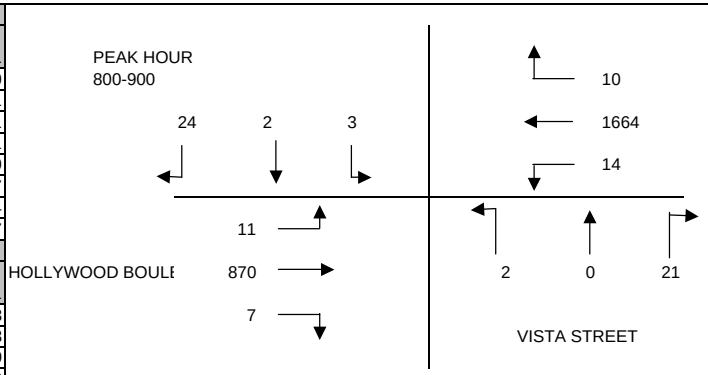
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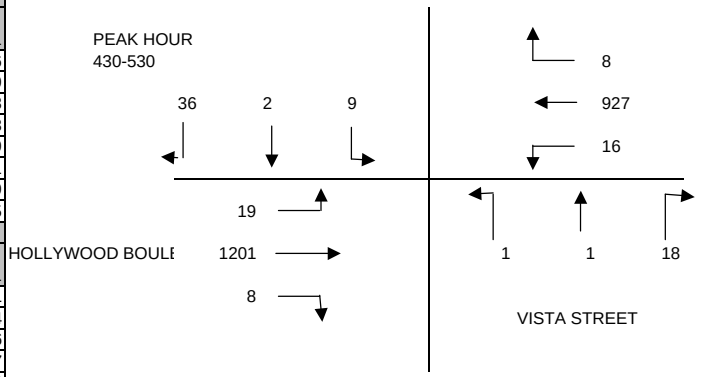
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KAKU ASSOCIATES
PROJECT: HOLLYWOOD/RUNYON CANYON
DATE: TUESDAY NOVEMBER 29, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S VISTA STREET
E/W HOLLYWOOD BOULEVARD

15 MIN COUNTS	7:00 AM TO 9:00 AM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	3	1	0	0	266	2	4	0	1	1	95	7	380
715-730	3	0	1	1	382	1	0	1	0	0	101	1	491
730-745	11	0	0	1	377	0	8	0	0	1	132	1	531
745-800	8	0	1	0	413	1	5	0	0	2	178	3	611
800-815	2	1	0	3	436	2	4	0	0	2	217	3	670
815-830	7	1	0	2	412	4	3	0	2	1	203	2	637
830-845	7	0	2	3	420	6	6	0	0	2	232	6	684
845-900	8	0	1	2	396	2	8	0	0	2	218	0	637
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	25	1	2	2	1438	4	17	1	1	4	506	12	2013
715-815	24	1	2	5	1608	4	17	1	0	5	628	8	2303
730-830	28	2	1	6	1638	7	20	0	2	6	730	9	2449
745-845	24	2	3	8	1681	13	18	0	2	7	830	14	2602
800-900	24	2	3	10	1664	14	21	0	2	7	870	11	2628



15 MIN COUNTS	4:00 PM TO 6:00 PM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	6	0	1	3	239	1	3	0	0	0	255	8	516
415-430	5	0	3	6	221	3	2	1	0	2	262	4	509
430-445	6	0	0	4	239	3	2	1	0	4	335	4	598
445-500	9	1	4	1	252	5	5	0	1	1	281	8	568
500-515	11	1	2	2	210	5	7	0	0	1	308	2	549
515-530	10	0	3	1	226	3	4	0	0	2	277	5	531
530-545	2	1	0	1	263	1	9	0	0	1	285	6	569
545-600	4	0	0	1	229	3	5	2	0	3	282	6	535
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	26	1	8	14	951	12	12	2	1	7	1133	24	2191
415-515	31	2	9	13	922	16	16	2	1	8	1186	18	2224
430-530	36	2	9	8	927	16	18	1	1	8	1201	19	2246
445-545	32	3	9	5	951	14	25	0	1	5	1151	21	2217
500-600	27	2	5	5	928	12	25	2	0	7	1152	19	2184



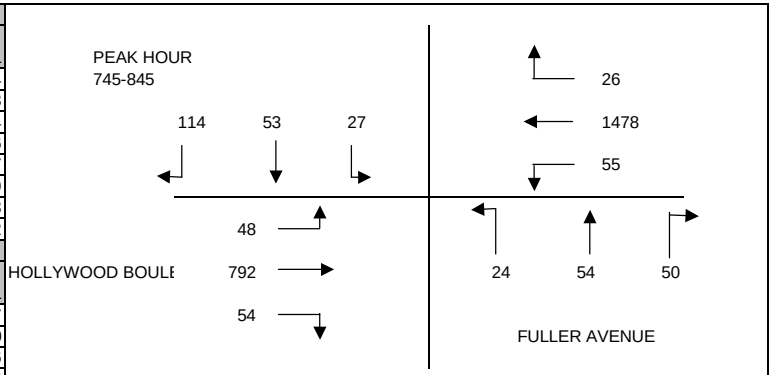
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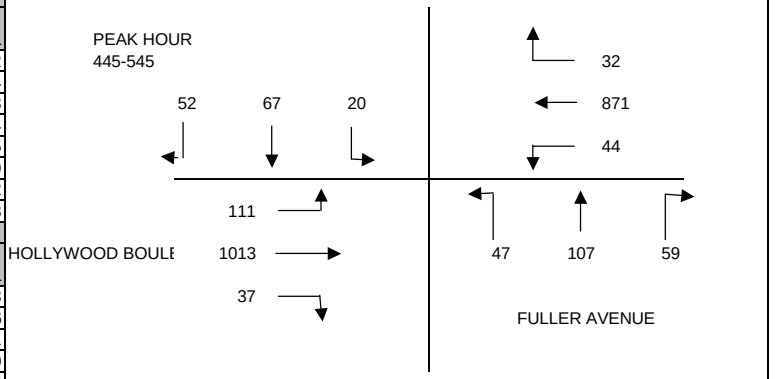
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KAKU ASSOCIATES
PROJECT: HOLLYWOOD/RUNYON CANYON
DATE: TUESDAY NOVEMBER 29, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S FULLER AVENUE
E/W HOLLYWOOD BOULEVARD

15 MIN COUNTS	7:00 AM TO 9:00 AM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	17	6	3	2	280	7	9	3	1	5	95	6	434
715-730	28	4	8	5	383	7	15	7	3	1	94	8	563
730-745	23	9	4	4	345	9	10	3	5	2	133	7	554
745-800	25	15	5	5	378	29	8	9	3	30	166	13	686
800-815	26	15	11	6	360	11	12	15	5	12	192	12	677
815-830	37	12	3	7	371	9	11	12	6	7	205	9	689
830-845	26	11	8	8	369	6	19	18	10	5	229	14	723
845-900	20	12	10	3	364	11	11	15	9	6	207	4	672
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	93	34	20	16	1386	52	42	22	12	38	488	34	2237
715-815	102	43	28	20	1466	56	45	34	16	45	585	40	2480
730-830	111	51	23	22	1454	58	41	39	19	51	696	41	2606
745-845	114	53	27	26	1478	55	50	54	24	54	792	48	2775
800-900	109	50	32	24	1464	37	53	60	30	30	833	39	2761



15 MIN COUNTS	4:00 PM TO 6:00 PM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	15	17	5	10	214	8	11	28	10	6	217	21	562
415-430	14	7	7	14	200	6	8	28	10	7	232	21	554
430-445	9	12	9	11	223	13	9	23	12	13	260	29	623
445-500	15	21	4	12	209	12	15	24	13	12	241	26	604
500-515	11	12	9	6	192	8	13	28	16	11	280	29	615
515-530	11	14	2	7	220	14	18	25	9	8	230	21	579
530-545	15	20	5	7	250	10	13	30	9	6	262	35	662
545-600	13	14	6	10	214	12	11	23	8	11	221	40	583
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	53	57	25	47	846	39	43	103	45	38	950	97	2343
415-515	49	52	29	43	824	39	45	103	51	43	1013	105	2396
430-530	46	59	24	36	844	47	55	100	50	44	1011	105	2421
445-545	52	67	20	32	871	44	59	107	47	37	1013	111	2460
500-600	50	60	22	30	876	44	55	106	42	36	993	125	2439



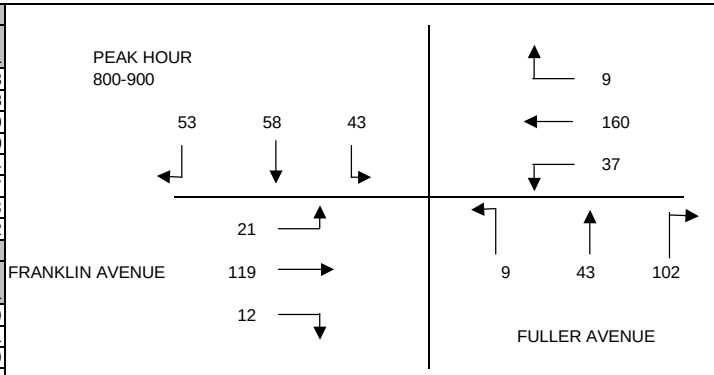
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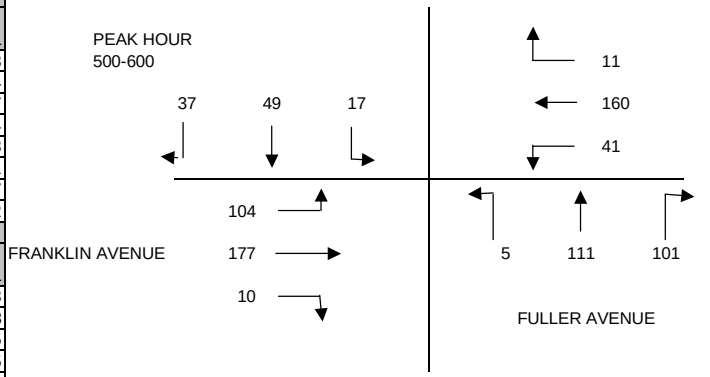
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

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PROJECT: HOLLYWOOD/RUNYON CANYON
DATE: TUESDAY NOVEMBER 29, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S FULLER AVENUE
E/W FRANKLIN AVENUE

15 MIN COUNTS	7:00 AM TO 9:00 AM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	6	16	5	5	21	3	13	4	0	2	16	2	93
715-730	8	13	9	1	18	13	10	4	5	3	12	2	98
730-745	24	13	14	1	29	5	13	5	1	1	21	2	129
745-800	17	17	16	3	31	11	17	7	1	5	21	4	150
800-815	14	14	10	1	34	8	24	14	1	4	18	2	144
815-830	15	20	13	4	48	12	26	10	3	3	25	8	187
830-845	12	14	12	1	45	8	32	11	2	1	30	5	173
845-900	12	10	8	3	33	9	20	8	3	4	46	6	162
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	55	59	44	10	99	32	53	20	7	11	70	10	470
715-815	63	57	49	6	112	37	64	30	8	13	72	10	521
730-830	70	64	53	9	142	36	80	36	6	13	85	16	610
745-845	58	65	51	9	158	39	99	42	7	13	94	19	654
800-900	53	58	43	9	160	37	102	43	9	12	119	21	666



15 MIN COUNTS	4:00 PM TO 6:00 PM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	12	8	11	2	30	11	19	23	5	6	42	19	188
415-430	10	9	6	2	41	4	26	26	3	4	32	31	194
430-445	6	11	6	4	36	8	27	16	8	5	49	21	197
445-500	11	14	4	3	25	12	30	27	3	4	40	21	194
500-515	4	12	2	1	39	13	26	26	0	6	40	34	203
515-530	10	7	2	3	40	10	22	23	1	2	40	21	181
530-545	8	16	8	4	46	9	31	30	2	1	58	24	237
545-600	15	14	5	3	35	9	22	32	2	1	39	25	202
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	39	42	27	11	132	35	102	92	19	19	163	92	773
415-515	31	46	18	10	141	37	109	95	14	19	161	107	788
430-530	31	44	14	11	140	43	105	92	12	17	169	97	775
445-545	33	49	16	11	150	44	109	106	6	13	178	100	815
500-600	37	49	17	11	160	41	101	111	5	10	177	104	823



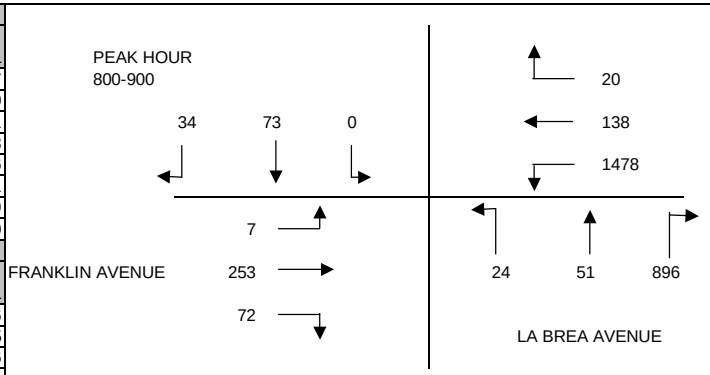
WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

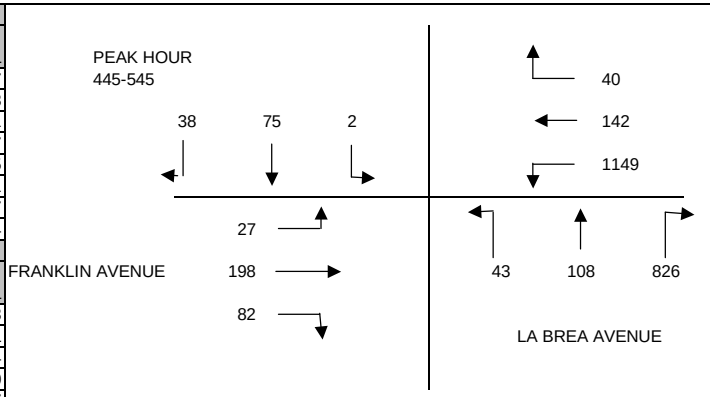
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KAKU ASSOCIATES
PROJECT: HOLLYWOOD/RUNYON CANYON
DATE: TUESDAY NOVEMBER 29, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S LA BREA AVENUE
E/W FRANKLIN AVENUE

15 MIN COUNTS	7:00 AM TO 9:00 AM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	2	13	0	9	18	365	175	7	5	17	26	0	637
715-730	5	17	0	5	21	397	169	6	5	13	32	0	670
730-745	5	15	0	2	24	389	210	10	8	17	50	1	731
745-800	4	10	0	7	32	372	187	9	7	11	49	0	688
800-815	10	20	0	9	35	394	240	10	6	18	54	0	796
815-830	16	18	0	3	39	410	225	13	6	16	62	3	811
830-845	5	11	0	3	31	301	237	14	4	19	73	1	699
845-900	3	24	0	5	33	373	194	14	8	19	64	3	740
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	16	55	0	23	95	1523	741	32	25	58	157	1	2726
715-815	24	62	0	23	112	1552	806	35	26	59	185	1	2885
730-830	35	63	0	21	130	1565	862	42	27	62	215	4	3026
745-845	35	59	0	22	137	1477	889	46	23	64	238	4	2994
800-900	34	73	0	20	138	1478	896	51	24	72	253	7	3046



15 MIN COUNTS	4:00 PM TO 6:00 PM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	8	14	1	6	27	233	202	23	10	20	57	6	607
415-430	6	13	0	11	32	258	218	26	9	17	34	4	628
430-445	10	18	0	14	34	291	206	20	9	20	53	6	681
445-500	5	22	0	13	32	260	209	23	11	22	58	2	657
500-515	9	14	0	8	37	266	191	28	9	20	39	4	625
515-530	14	23	1	11	41	337	202	34	12	17	42	7	741
530-545	10	16	1	8	32	286	224	23	11	23	59	14	707
545-600	6	13	0	13	31	271	205	26	21	19	42	7	654
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	29	67	1	44	125	1042	835	92	39	79	202	18	2573
415-515	30	67	0	46	135	1075	824	97	38	79	184	16	2591
430-530	38	77	1	46	144	1154	808	105	41	79	192	19	2704
445-545	38	75	2	40	142	1149	826	108	43	82	198	27	2730
500-600	39	66	2	40	141	1160	822	111	53	79	182	32	2727



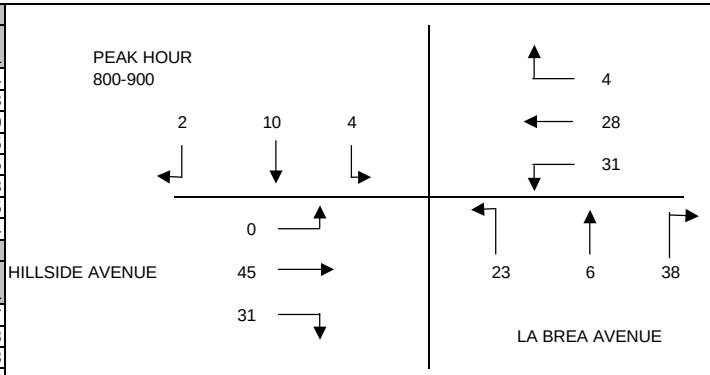
WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

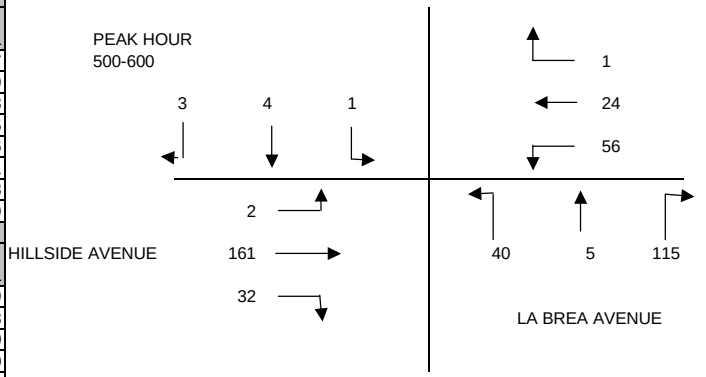
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KAKU ASSOCIATES
PROJECT: HOLLYWOOD/RUNYON CANYON
DATE: TUESDAY NOVEMBER 29, 2005
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S LA BREA AVENUE
E/W HILLSIDE AVENUE

15 MIN COUNTS	7:00 AM TO 9:00 AM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	0	1	1	0	1	2	5	4	3	5	2	0	24
715-730	2	2	1	0	1	4	5	1	4	3	5	0	28
730-745	2	2	1	0	11	5	3	0	8	6	2	0	40
745-800	0	2	1	0	7	5	7	0	7	6	10	0	45
800-815	2	3	0	0	8	10	9	3	4	8	8	0	55
815-830	0	1	0	2	5	7	11	0	4	15	13	0	58
830-845	0	0	2	0	6	7	9	0	7	5	9	0	45
845-900	0	6	2	2	9	7	9	3	8	3	15	0	64
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	4	7	4	0	20	16	20	5	22	20	19	0	137
715-815	6	9	3	0	27	24	24	4	23	23	25	0	168
730-830	4	8	2	2	31	27	30	3	23	35	33	0	198
745-845	2	6	3	2	26	29	36	3	22	34	40	0	203
800-900	2	10	4	4	28	31	38	6	23	31	45	0	222



15 MIN COUNTS	4:00 PM TO 6:00 PM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	0	1	0	1	11	7	12	3	15	12	24	1	87
415-430	0	0	1	0	3	12	17	1	15	9	30	1	89
430-445	0	3	0	0	3	13	17	2	15	11	24	0	88
445-500	1	3	2	0	6	9	18	2	7	11	25	1	85
500-515	1	1	1	0	6	11	25	2	10	10	48	1	116
515-530	1	2	0	0	4	19	30	1	12	13	39	0	121
530-545	0	1	0	1	7	15	31	0	8	5	39	1	108
545-600	1	0	0	0	7	11	29	2	10	4	35	0	99
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	1	7	3	1	23	41	64	8	52	43	103	3	349
415-515	2	7	4	0	18	45	77	7	47	41	127	3	378
430-530	3	9	3	0	19	52	90	7	44	45	136	2	410
445-545	3	7	3	1	23	54	104	5	37	39	151	3	430
500-600	3	4	1	1	24	56	115	5	40	32	161	2	444



ATTACHMENT C

BEST-CASE CONDITIONS TRAFFIC VOLUMES

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 #1 - Vista St & Hollywood Bl

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: F[51.8]

Street Name:	Vista St						Hollywood Bl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	2	0	21	3	2	24	11	870	7	14	1664	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	21	3	2	24	11	870	7	14	1664	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	0	21	3	2	24	11	870	7	14	1664	10
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	2	0	21	3	2	24	11	870	7	14	1664	10
Critical Gap Module:												
Critical Gp:	7.5	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1757	xxxx	439	2154	2596	837	1674	xxxx	xxxxx	877	xxxx	xxxxx
Potent Cap.:	55	xxxx	572	28	25	314	388	xxxx	xxxxx	779	xxxx	xxxxx
Move Cap.:	46	xxxx	572	26	24	314	388	xxxx	xxxxx	779	xxxx	xxxxx
Volume/Cap:	0.04	xxxx	0.04	0.12	0.08	0.08	0.03	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	14.5	xxxx	xxxxx	9.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	287	xxxxx	xxxx	105	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	18.6	xxxxx	xxxxx	51.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	F	*	*	*	*	*	*	*
ApproachDel:		18.6			51.8			xxxxxx			xxxxxx	
ApproachLOS:		C			F			*			*	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 #3 Fuller Av & Franklin Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.290
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	9.1
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Fuller Av						Franklin Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	9	43	102	43	58	53	21	119	12	37	160	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	43	102	43	58	53	21	119	12	37	160	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	43	102	43	58	53	21	119	12	37	160	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	43	102	43	58	53	21	119	12	37	160	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	43	102	43	58	53	21	119	12	37	160	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.28	0.66	0.28	0.38	0.34	0.14	0.78	0.08	0.18	0.78	0.04
Final Sat.:	43	205	486	196	265	242	96	547	55	127	551	31
Capacity Analysis Module:												
Vol/Sat:	0.21	0.21	0.21	0.22	0.22	0.22	0.22	0.22	0.22	0.29	0.29	0.29
Crit Moves:	****			****					****		****	
Delay/Veh:	8.7	8.7	8.7	9.0	9.0	9.0	9.1	9.1	9.1	9.6	9.6	9.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.7	8.7	8.7	9.0	9.0	9.0	9.1	9.1	9.1	9.6	9.6	9.6
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.7			9.0			9.1			9.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.7			9.0			9.1			9.6		
LOS by Appr:	A			A			A			A		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 #5 La Brea Av & Hillside Av

Cycle (sec): 100 Critical Vol./Cap. (X): 0.084
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 7.3
Optimal Cycle: 0 Level Of Service: A

Street Name:	La Brea Av						Hillside Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	23	6	38	4	10	2	0	45	31	31	28	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	23	6	38	4	10	2	0	45	31	31	28	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	23	6	38	4	10	2	0	45	31	31	28	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	23	6	38	4	10	2	0	45	31	31	28	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	23	6	38	4	10	2	0	45	31	31	28	4
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.34	0.09	0.57	0.25	0.62	0.13	0.00	0.59	0.41	0.50	0.44	0.06
Final Sat.:	305	80	504	206	516	103	0	537	370	414	374	53
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.02	0.02	0.02	xxxx	0.08	0.08	0.07	0.07	0.07
Crit Moves:			****		****			****			****	
Delay/Veh:	7.2	7.2	7.2	7.3	7.3	7.3	0.0	7.2	7.2	7.5	7.5	7.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.2	7.2	7.2	7.3	7.3	7.3	0.0	7.2	7.2	7.5	7.5	7.5
LOS by Move:	A	A	A	A	A	A	*	A	A	A	A	A
ApproachDel:		7.2			7.3			7.2			7.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.2			7.3			7.2			7.5	
LOS by Appr:		A			A			A			A	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 #1 - Vista St & Hollywood Bl

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: D[30.5]

Street Name:	Vista St						Hollywood Bl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0 0		0 0 1!	0 0		1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	1	1	18	9	2	36	19	1201	8	16	927	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1	18	9	2	36	19	1201	8	16	927	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	1	18	9	2	36	19	1201	8	16	927	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	1	1	18	9	2	36	19	1201	8	16	927	8
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1740	2210	605	1602	2210	468	935	xxxx	xxxxx	1209	xxxx	xxxxx
Potent Cap.:	57	45	446	72	45	547	741	xxxx	xxxxx	584	xxxx	xxxxx
Move Cap.:	49	42	446	65	42	547	741	xxxx	xxxxx	584	xxxx	xxxxx
Volume/Cap:	0.02	0.02	0.04	0.14	0.05	0.07	0.03	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx	11.3	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	237	xxxxx	xxxx	187	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	21.6	xxxxx	xxxxx	30.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	D	*	*	*	*	*	*	*
ApproachDel:		21.6			30.5			xxxxxx			xxxxxx	
ApproachLOS:		C			D			*			*	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 #3 Fuller Av & Franklin Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.427
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	10.5
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Fuller Av						Franklin Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	5	111	101	17	49	37	104	177	10	41	160	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	111	101	17	49	37	104	177	10	41	160	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	111	101	17	49	37	104	177	10	41	160	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	111	101	17	49	37	104	177	10	41	160	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	5	111	101	17	49	37	104	177	10	41	160	11
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.51	0.47	0.16	0.48	0.36	0.36	0.61	0.03	0.19	0.76	0.05
Final Sat.:	15	341	310	102	293	221	244	414	23	129	502	34
Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.17	0.17	0.17	0.43	0.43	0.43	0.32	0.32	0.32
Crit Moves:			****			****			****			
Delay/Veh:	10.2	10.2	10.2	9.2	9.2	9.2	11.5	11.5	11.5	10.3	10.3	10.3
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.2	10.2	10.2	9.2	9.2	9.2	11.5	11.5	11.5	10.3	10.3	10.3
LOS by Move:	B	B	B	A	A	A	B	B	B	B	B	B
ApproachDel:		10.2			9.2			11.5			10.3	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.2			9.2			11.5			10.3	
LOS by Appr:		B			A			B			B	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 #5 La Brea Av & Hillside Av

Cycle (sec): 100 Critical Vol./Cap. (X): 0.238
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 8.3
Optimal Cycle: 0 Level Of Service: A

Street Name:	La Brea Av						Hillside Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	40	5	115	1	4	3	2	161	32	56	24	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	40	5	115	1	4	3	2	161	32	56	24	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	5	115	1	4	3	2	161	32	56	24	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	5	115	1	4	3	2	161	32	56	24	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	40	5	115	1	4	3	2	161	32	56	24	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.03	0.72	0.12	0.50	0.38	0.01	0.83	0.16	0.69	0.30	0.01
Final Sat.:	207	26	596	94	377	282	8	678	135	522	224	9
Capacity Analysis Module:												
Vol/Sat:	0.19	0.19	0.19	0.01	0.01	0.01	0.24	0.24	0.24	0.11	0.11	0.11
Crit Moves:			****			****			****			****
Delay/Veh:	8.1	8.1	8.1	7.5	7.5	7.5	8.5	8.5	8.5	8.1	8.1	8.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.1	8.1	8.1	7.5	7.5	7.5	8.5	8.5	8.5	8.1	8.1	8.1
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.1			7.5			8.5			8.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.1			7.5			8.5			8.1	
LOS by Appr:		A			A			A			A	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 #1 - Vista St & Hollywood Bl

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: F[62.7]

Street Name:	Vista St						Hollywood Bl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	2	0	22	3	2	25	12	914	7	15	1747	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	22	3	2	25	12	914	7	15	1747	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	0	22	3	2	25	12	914	7	15	1747	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	2	0	22	3	2	25	12	914	7	15	1747	11
Critical Gap Module:												
Critical Gp:	7.5	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1846	xxxx	461	2264	2728	879	1758	xxxx	xxxxx	921	xxxx	xxxxx
Potent Cap.:	47	xxxx	553	23	21	295	361	xxxx	xxxxx	750	xxxx	xxxxx
Move Cap.:	38	xxxx	553	21	20	295	361	xxxx	xxxxx	750	xxxx	xxxxx
Volume/Cap:	0.05	xxxx	0.04	0.14	0.10	0.08	0.03	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	15.3	xxxx	xxxxx	9.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	C	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	261	xxxxx	xxxx	91	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	1.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	20.2	xxxxx	xxxxx	62.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	F	*	*	*	*	*	*	*
ApproachDel:		20.2			62.7			xxxxxx			xxxxxx	
ApproachLOS:		C			F			*			*	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 #3 Fuller Av & Franklin Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.309
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	9.3
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Fuller Av						Franklin Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	9	45	107	45	61	56	22	125	13	39	168	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	45	107	45	61	56	22	125	13	39	168	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	45	107	45	61	56	22	125	13	39	168	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	45	107	45	61	56	22	125	13	39	168	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	45	107	45	61	56	22	125	13	39	168	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.06	0.28	0.66	0.28	0.38	0.34	0.14	0.78	0.08	0.18	0.78	0.04
Final Sat.:	40	202	480	192	261	239	95	538	56	126	544	29
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.22	0.23	0.23	0.23	0.23	0.23	0.23	0.31	0.31	0.31
Crit Moves:		****				****	****			****		
Delay/Veh:	8.8	8.8	8.8	9.2	9.2	9.2	9.3	9.3	9.3	9.9	9.9	9.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.8	8.8	8.8	9.2	9.2	9.2	9.3	9.3	9.3	9.9	9.9	9.9
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.8			9.2			9.3			9.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.8			9.2			9.3			9.9	
LOS by Appr:		A			A			A			A	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 #5 La Brea Av & Hillside Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.088
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	7.4
Optimal Cycle:	0	Level Of Service:	A

Street Name:	La Brea Av						Hillside Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	24	6	40	4	11	2	0	47	33	33	29	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	6	40	4	11	2	0	47	33	33	29	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	6	40	4	11	2	0	47	33	33	29	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	6	40	4	11	2	0	47	33	33	29	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	24	6	40	4	11	2	0	47	33	33	29	4
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.34	0.09	0.57	0.23	0.65	0.12	0.00	0.59	0.41	0.50	0.44	0.06
Final Sat.:	303	76	505	193	531	96	0	532	373	418	367	51
Capacity Analysis Module:												
Vol/Sat:	0.08	0.08	0.08	0.02	0.02	0.02	xxxx	0.09	0.09	0.08	0.08	0.08
Crit Moves:	****				****				****		****	
Delay/Veh:	7.3	7.3	7.3	7.3	7.3	7.3	0.0	7.3	7.3	7.6	7.6	7.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.3	7.3	7.3	7.3	7.3	7.3	0.0	7.3	7.3	7.6	7.6	7.6
LOS by Move:	A	A	A	A	A	A	*	A	A	A	A	A
ApproachDel:	7.3			7.3			7.3			7.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	7.3			7.3			7.3			7.6		
LOS by Appr:	A			A			A			A		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 #1 - Vista St & Hollywood Bl

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: D[34.5]

Street Name:	Vista St						Hollywood Bl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	1	1	19	9	2	38	20	1261	8	17	973	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1	19	9	2	38	20	1261	8	17	973	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	1	19	9	2	38	20	1261	8	17	973	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	1	1	19	9	2	38	20	1261	8	17	973	8
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1827	2320	635	1682	2320	491	981	xxxx	xxxxx	1269	xxxx	xxxxx
Potent Cap.:	49	38	426	63	38	529	712	xxxx	xxxxx	554	xxxx	xxxxx
Move Cap.:	42	36	426	56	36	529	712	xxxx	xxxxx	554	xxxx	xxxxx
Volume/Cap:	0.02	0.03	0.04	0.16	0.06	0.07	0.03	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.2	xxxx	xxxxx	11.7	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	B	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	218	xxxxx	xxxx	170	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	1.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	23.3	xxxxx	xxxxx	34.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	C	*	*	D	*	*	*	*	*	*	*
ApproachDel:		23.3			34.5			xxxxxx			xxxxxx	
ApproachLOS:		C			D			*			*	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 #3 Fuller Av & Franklin Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.456
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	10.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Fuller Av						Franklin Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	5	117	106	18	51	39	109	186	11	43	168	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	117	106	18	51	39	109	186	11	43	168	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	117	106	18	51	39	109	186	11	43	168	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	117	106	18	51	39	109	186	11	43	168	12
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	5	117	106	18	51	39	109	186	11	43	168	12
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.52	0.46	0.17	0.47	0.36	0.36	0.61	0.03	0.19	0.76	0.05
Final Sat.:	14	335	304	100	283	217	239	408	24	126	492	35
Capacity Analysis Module:												
Vol/Sat:	0.35	0.35	0.35	0.18	0.18	0.18	0.46	0.46	0.46	0.34	0.34	0.34
Crit Moves:		****		****					****		****	
Delay/Veh:	10.5	10.5	10.5	9.4	9.4	9.4	12.0	12.0	12.0	10.6	10.6	10.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.5	10.5	10.5	9.4	9.4	9.4	12.0	12.0	12.0	10.6	10.6	10.6
LOS by Move:	B	B	B	A	A	A	B	B	B	B	B	B
ApproachDel:		10.5			9.4			12.0			10.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.5			9.4			12.0			10.6	
LOS by Appr:		B			A			B			B	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 #5 La Brea Av & Hillside Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.251
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	8.4
Optimal Cycle:	0	Level Of Service:	A

Street Name:	La Brea Av						Hillside Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	42	5	121	1	4	3	2	169	34	59	25	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	5	121	1	4	3	2	169	34	59	25	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	5	121	1	4	3	2	169	34	59	25	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	5	121	1	4	3	2	169	34	59	25	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	42	5	121	1	4	3	2	169	34	59	25	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.03	0.72	0.12	0.50	0.38	0.01	0.82	0.17	0.70	0.29	0.01
Final Sat.:	206	24	592	93	371	278	8	672	135	520	220	9
Capacity Analysis Module:												
Vol/Sat:	0.20	0.20	0.20	0.01	0.01	0.01	0.25	0.25	0.25	0.11	0.11	0.11
Crit Moves:	****			****			****			****		
Delay/Veh:	8.2	8.2	8.2	7.6	7.6	7.6	8.6	8.6	8.6	8.2	8.2	8.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	8.2	7.6	7.6	7.6	8.6	8.6	8.6	8.2	8.2	8.2
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			7.6			8.6			8.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			7.6			8.6			8.2		
LOS by Appr:	A			A			A			A		

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 #1 - Vista St & Hollywood Bl

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: F[76.9]

Street Name:	Vista St						Hollywood Bl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	2	1	23	3	3	27	14	923	7	16	1756	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	1	23	3	3	27	14	923	7	16	1756	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1	23	3	3	27	14	923	7	16	1756	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	2	1	23	3	3	27	14	923	7	16	1756	11
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1866	2753	465	2284	2752	884	1767	xxxx	xxxxx	930	xxxx	xxxxx
Potent Cap.:	46	20	550	22	20	293	358	xxxx	xxxxx	744	xxxx	xxxxx
Move Cap.:	35	19	550	19	19	293	358	xxxx	xxxxx	744	xxxx	xxxxx
Volume/Cap:	0.06	0.05	0.04	0.16	0.16	0.09	0.04	xxxx	xxxx	0.02	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	15.5	xxxx	xxxxx	9.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	C	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	171	xxxxx	xxxx	81	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	1.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	29.9	xxxxx	xxxxx	76.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	D	*	*	F	*	*	*	*	*	*	*
ApproachDel:		29.9			76.9			xxxxxx			xxxxxx	
ApproachLOS:		D			F			*			*	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 #3 Fuller Av & Franklin Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.325
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	9.7
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Fuller Av						Franklin Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	9	60	107	50	76	61	27	125	13	39	168	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	60	107	50	76	61	27	125	13	39	168	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	60	107	50	76	61	27	125	13	39	168	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	60	107	50	76	61	27	125	13	39	168	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	60	107	50	76	61	27	125	13	39	168	14
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.05	0.34	0.61	0.27	0.41	0.32	0.16	0.76	0.08	0.18	0.76	0.06
Final Sat.:	36	240	428	182	277	222	109	505	52	120	518	43
Capacity Analysis Module:												
Vol/Sat:	0.25	0.25	0.25	0.27	0.27	0.27	0.25	0.25	0.25	0.32	0.32	0.32
Crit Moves:	****			****			****			****		
Delay/Veh:	9.2	9.2	9.2	9.6	9.6	9.6	9.6	9.6	9.6	10.2	10.2	10.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.2	9.2	9.2	9.6	9.6	9.6	9.6	9.6	9.6	10.2	10.2	10.2
LOS by Move:	A	A	A	A	A	A	A	A	A	B	B	B
ApproachDel:	9.2			9.6			9.6			10.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.2			9.6			9.6			10.2		
LOS by Appr:	A			A			A			B		

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 #5 La Brea Av & Hillside Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.101
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	7.4
Optimal Cycle:	0	Level Of Service:	A

Street Name:	La Brea Av						Hillside Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	0 1	0	0 0	1! 0	0
Volume Module:												
Base Vol:	34	6	40	4	11	2	0	48	43	33	30	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	6	40	4	11	2	0	48	43	33	30	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	6	40	4	11	2	0	48	43	33	30	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	6	40	4	11	2	0	48	43	33	30	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	34	6	40	4	11	2	0	48	43	33	30	4
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.43	0.07	0.50	0.23	0.65	0.12	0.00	0.53	0.47	0.49	0.45	0.06
Final Sat.:	367	65	432	191	524	95	0	477	427	408	371	49
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.02	0.02	0.02	xxxx	0.10	0.10	0.08	0.08	0.08
Crit Moves:		****		****					****	****		
Delay/Veh:	7.4	7.4	7.4	7.4	7.4	7.4	0.0	7.3	7.3	7.6	7.6	7.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.4	7.4	7.4	7.4	7.4	7.4	0.0	7.3	7.3	7.6	7.6	7.6
LOS by Move:	A	A	A	A	A	A	*	A	A	A	A	A
ApproachDel:		7.4			7.4			7.3			7.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.4			7.4			7.3			7.6	
LOS by Appr:		A			A			A			A	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 #1 - Vista St & Hollywood Bl

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: E[39.3]

Street Name:	Vista St						Hollywood Bl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	1	2	20	9	3	40	22	1270	8	18	982	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	2	20	9	3	40	22	1270	8	18	982	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	2	20	9	3	40	22	1270	8	18	982	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	1	2	20	9	3	40	22	1270	8	18	982	8
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1847	2344	639	1702	2344	495	990	xxxx	xxxxx	1278	xxxx	xxxxx
Potent Cap.:	47	37	424	61	37	525	706	xxxx	xxxxx	550	xxxx	xxxxx
Move Cap.:	39	34	424	53	34	525	706	xxxx	xxxxx	550	xxxx	xxxxx
Volume/Cap:	0.03	0.06	0.05	0.17	0.09	0.08	0.03	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.3	xxxx	xxxxx	11.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	B	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	176	xxxxx	xxxx	156	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	1.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	28.6	xxxxx	xxxxx	39.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	D	*	*	E	*	*	*	*	*	*	*
ApproachDel:		28.6			39.3			xxxxxx			xxxxxx	
ApproachLOS:		D			E			*			*	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #2 #3 Fuller Av & Franklin Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.478
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	11.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Fuller Av						Franklin Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	5	132	106	23	66	44	114	186	11	43	168	17
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	132	106	23	66	44	114	186	11	43	168	17
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	132	106	23	66	44	114	186	11	43	168	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	132	106	23	66	44	114	186	11	43	168	17
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	5	132	106	23	66	44	114	186	11	43	168	17
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.54	0.44	0.17	0.50	0.33	0.37	0.60	0.03	0.19	0.74	0.07
Final Sat.:	13	346	278	102	292	195	238	389	23	119	466	47
Capacity Analysis Module:												
Vol/Sat:	0.38	0.38	0.38	0.23	0.23	0.23	0.48	0.48	0.48	0.36	0.36	0.36
Crit Moves:		****			****			****			****	
Delay/Veh:	11.1	11.1	11.1	9.9	9.9	9.9	12.6	12.6	12.6	11.0	11.0	11.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	11.1	11.1	11.1	9.9	9.9	9.9	12.6	12.6	12.6	11.0	11.0	11.0
LOS by Move:	B	B	B	A	A	A	B	B	B	B	B	B
ApproachDel:		11.1			9.9			12.6			11.0	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		11.1			9.9			12.6			11.0	
LOS by Appr:		B			A			B			B	

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 #5 La Brea Av & Hillside Av

Cycle (sec):	100	Critical Vol./Cap. (X):	0.266
Loss Time (sec):	0 (Y+R = 4 sec)	Average Delay (sec/veh):	8.5
Optimal Cycle:	0	Level Of Service:	A

Street Name:	La Brea Av						Hillside Av					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	52	5	121	1	4	3	2	170	44	59	26	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	52	5	121	1	4	3	2	170	44	59	26	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	52	5	121	1	4	3	2	170	44	59	26	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	5	121	1	4	3	2	170	44	59	26	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	52	5	121	1	4	3	2	170	44	59	26	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.29	0.03	0.68	0.12	0.50	0.38	0.01	0.79	0.20	0.69	0.30	0.01
Final Sat.:	237	23	550	92	367	275	8	640	166	509	224	9
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.22	0.01	0.01	0.01	0.27	0.27	0.27	0.12	0.12	0.12
Crit Moves:		****			****			****			****	
Delay/Veh:	8.3	8.3	8.3	7.6	7.6	7.6	8.7	8.7	8.7	8.2	8.2	8.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.3	8.3	8.3	7.6	7.6	7.6	8.7	8.7	8.7	8.2	8.2	8.2
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.3			7.6			8.7			8.2	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.3			7.6			8.7			8.2	
LOS by Appr:		A			A			A			A	

ATTACHMENT D

EXISTING AVERAGE DAILY TRAFFIC VOLUME COUNTS

WILTEC Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: KAKU ASSOCIATES
PROJECT: HOLLYWOOD / RUNYON CANYON
LOCATION: VISTA STREET BETWEEN HOLLYWOOD BOULEVARD AND FRANKLIN AVENUE
DATE: WEDNESDAY NOVEMBER 30, 2005

DIRECTION:	TOTAL				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	2	4	2	1	9
1:00	0	0	0	0	0
2:00	0	0	2	1	3
3:00	0	1	0	0	1
4:00	0	0	1	1	2
5:00	3	1	3	3	10
6:00	4	3	5	8	20
7:00	4	5	20	14	43
8:00	12	9	11	11	43
9:00	11	10	15	10	46
10:00	8	14	21	12	55
11:00	15	13	9	7	44
12:00	11	11	18	12	52
13:00	20	18	16	16	70
14:00	8	15	20	14	57
15:00	7	20	12	13	52
16:00	15	16	15	12	58
17:00	20	12	12	3	47
18:00	7	5	10	9	31
19:00	11	8	8	9	36
20:00	4	4	10	2	20
21:00	6	4	7	8	25
22:00	8	7	3	4	22
23:00	2	2	4	2	10
				TOTAL	756

AM PEAK HOUR	1015-1115
VOLUME	62
PM PEAK HOUR	1300-1400
VOLUME	70

DIRECTION:	O				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	0	0
1:00	0	0	0	0	0
2:00	0	0	0	0	0
3:00	0	0	0	0	0
4:00	0	0	0	0	0
5:00	0	0	0	0	0
6:00	0	0	0	0	0
7:00	0	0	0	0	0
8:00	0	0	0	0	0
9:00	0	0	0	0	0
10:00	0	0	0	0	0
11:00	0	0	0	0	0
12:00	0	0	0	0	0
13:00	0	0	0	0	0
14:00	0	0	0	0	0
15:00	0	0	0	0	0
16:00	0	0	0	0	0
17:00	0	0	0	0	0
18:00	0	0	0	0	0
19:00	0	0	0	0	0
20:00	0	0	0	0	0
21:00	0	0	0	0	0
22:00	0	0	0	0	0
23:00	0	0	0	0	0
				TOTAL	0

AM PEAK HOUR	0000-0100
VOLUME	0
PM PEAK HOUR	1200-1300
VOLUME	0

TOTAL BI-DIRECTIONAL VOLUME	756

WILTEC Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: KAKU ASSOCIATES
PROJECT: HOLLYWOOD / RUNYON CANYON
LOCATION: FRANKLIN AVENUE BETWEEN FULLER AND LA BREA AVENUE
DATE: WEDNESDAY NOVEMBER 30, 2005

DIRECTION:	EB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	18	17	18	16	69
1:00	15	8	4	5	32
2:00	9	9	9	2	29
3:00	2	1	1	4	8
4:00	4	7	4	2	17
5:00	6	5	9	11	31
6:00	18	18	22	41	99
7:00	32	40	60	62	194
8:00	47	72	86	78	283
9:00	68	73	71	72	284
10:00	38	61	58	58	215
11:00	55	43	54	60	212
12:00	44	4	50	61	159
13:00	52	59	66	64	241
14:00	56	54	70	78	258
15:00	110	64	52	53	279
16:00	66	54	70	72	262
17:00	73	62	82	58	275
18:00	83	76	58	62	279
19:00	45	58	65	60	228
20:00	48	49	31	42	170
21:00	40	30	32	28	130
22:00	24	50	35	33	142
23:00	32	21	12	16	81
				TOTAL	3977

AM PEAK HOUR	0830-0930
VOLUME	305
PM PEAK HOUR	1430-1530
VOLUME	322

DIRECTION:	WB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	20	19	12	8	59
1:00	12	6	2	4	24
2:00	11	5	7	0	23
3:00	7	3	1	3	14
4:00	6	8	4	6	24
5:00	4	3	10	5	22
6:00	6	12	10	24	52
7:00	34	44	40	42	160
8:00	44	54	38	48	184
9:00	52	34	58	44	188
10:00	44	53	50	47	194
11:00	42	42	60	47	191
12:00	48	52	52	48	200
13:00	59	52	46	54	211
14:00	54	48	52	48	202
15:00	44	43	56	50	193
16:00	50	48	42	50	190
17:00	34	52	49	56	191
18:00	63	58	48	57	226
19:00	58	56	60	66	240
20:00	51	44	52	40	187
21:00	50	34	37	36	157
22:00	47	22	29	34	132
23:00	30	26	24	25	105
				TOTAL	3369

AM PEAK HOUR	0930-1030
VOLUME	199
PM PEAK HOUR	1900-2000
VOLUME	240

TOTAL BI-DIRECTIONAL VOLUME	7346

WILTEC Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: KAKU ASSOCIATES
PROJECT: HOLLYWOOD / RUNYON CANYON
LOCATION: HILLSIDE BETWEEN FULLER AND LA BREA AVENUE
DATE: WEDNESDAY NOVEMBER 30, 2005

DIRECTION:	TOTAL				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	10	6	11	11	38
1:00	2	8	5	2	17
2:00	3	10	0	10	23
3:00	3	0	0	3	6
4:00	5	8	0	0	13
5:00	0	2	7	3	12
6:00	8	4	5	16	33
7:00	14	22	20	28	84
8:00	23	37	26	34	120
9:00	22	32	31	30	115
10:00	15	16	35	41	107
11:00	29	39	27	25	120
12:00	42	36	30	34	142
13:00	39	28	38	24	129
14:00	28	40	44	58	170
15:00	35	38	38	37	148
16:00	58	45	52	62	217
17:00	59	56	81	56	252
18:00	54	62	55	54	225
19:00	45	34	47	45	171
20:00	30	30	35	26	121
21:00	30	28	15	21	94
22:00	27	20	28	18	93
23:00	24	12	7	16	59
				TOTAL	2509

AM PEAK HOUR	1030-1130
VOLUME	144
PM PEAK HOUR	1645-1745
VOLUME	258

DIRECTION:	O				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	0	0
1:00	0	0	0	0	0
2:00	0	0	0	0	0
3:00	0	0	0	0	0
4:00	0	0	0	0	0
5:00	0	0	0	0	0
6:00	0	0	0	0	0
7:00	0	0	0	0	0
8:00	0	0	0	0	0
9:00	0	0	0	0	0
10:00	0	0	0	0	0
11:00	0	0	0	0	0
12:00	0	0	0	0	0
13:00	0	0	0	0	0
14:00	0	0	0	0	0
15:00	0	0	0	0	0
16:00	0	0	0	0	0
17:00	0	0	0	0	0
18:00	0	0	0	0	0
19:00	0	0	0	0	0
20:00	0	0	0	0	0
21:00	0	0	0	0	0
22:00	0	0	0	0	0
23:00	0	0	0	0	0
				TOTAL	0

AM PEAK HOUR	0000-0100
VOLUME	0
PM PEAK HOUR	1200-1300
VOLUME	0

TOTAL BI-DIRECTIONAL VOLUME	2509

WILTEC Phone: (626) 564-1944 Fax: (626) 564-0969

24-HOUR ADT COUNT SUMMARY

CLIENT: KAKU ASSOCIATES
PROJECT: HOLLYWOOD / RUNYON CANYON
LOCATION: FULLER BETWEEN HOLLYWOOD BOULEVARD AND FRANKLIN AVENUE
DATE: WEDNESDAY NOVEMBER 30, 2005

DIRECTION:	NB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	36	23	15	24	98
1:00	24	18	13	4	59
2:00	15	6	2	10	33
3:00	2	7	1	3	13
4:00	3	3	4	5	15
5:00	1	3	3	2	9
6:00	4	5	4	10	23
7:00	14	14	26	26	80
8:00	19	42	32	31	124
9:00	44	43	20	30	137
10:00	32	34	30	34	130
11:00	24	13	46	22	105
12:00	42	38	44	45	169
13:00	36	38	40	46	160
14:00	38	44	47	50	179
15:00	68	58	53	48	227
16:00	66	54	32	60	212
17:00	60	55	67	54	236
18:00	84	55	76	56	271
19:00	48	58	54	58	218
20:00	46	52	31	47	176
21:00	59	35	26	44	164
22:00	38	58	31	34	161
23:00	43	28	30	31	132
				TOTAL	3131

AM PEAK HOUR	0000-0100
VOLUME	150
PM PEAK HOUR	1800-1900
VOLUME	271

DIRECTION:	SB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	10	5	4	5	24
1:00	2	1	2	2	7
2:00	1	1	2	1	5
3:00	2	2	4	2	10
4:00	2	3	2	4	11
5:00	2	2	5	8	17
6:00	9	13	18	18	58
7:00	32	38	46	47	163
8:00	56	50	48	48	202
9:00	52	38	42	50	182
10:00	26	26	32	33	117
11:00	26	20	30	46	122
12:00	22	28	36	36	122
13:00	32	38	30	28	128
14:00	36	38	39	22	135
15:00	23	36	22	32	113
16:00	30	40	43	22	135
17:00	46	39	36	36	157
18:00	30	22	31	31	114
19:00	36	22	43	32	133
20:00	30	22	22	28	102
21:00	6	22	22	22	72
22:00	18	12	16	14	60
23:00	4	4	4	4	16
				TOTAL	2205

AM PEAK HOUR	0800-0900
VOLUME	202
PM PEAK HOUR	1700-1800
VOLUME	157

TOTAL BI-DIRECTIONAL VOLUME	5336

APPENDIX F

TRAFFIC AND PARKING IMPLICATIONS OF INCREASED PROPOSED PARKING FROM 70 TO 80 PARKING SPACES

KAKU ASSOCIATES
A Corporation

Transportation Planning

Traffic Engineering

Parking Studies

MEMORANDUM

TO: Irene Paul
City of Los Angeles Bureau of Engineering

FROM: John Stutsman and Megan Cummings

DATE: February 9, 2006

SUBJECT: Traffic and Parking Implications of Increasing Proposed Parking from 70 to 80 Spaces **Ref:** 1972

RECAP OF FINDINGS FOR 70-SPACE LOT

On January 10 and January 12, 2006, Kaku Associates, Inc. submitted technical memoranda documenting the assessment of parking and traffic conditions assuming the addition of a 70-space parking lot at Runyon Canyon Park near the Fuller Avenue entrance. Findings for these assessments are as follows:

Parking Utilization

With the addition of a 70-space lot, overall parking utilization in the immediate area would range from a best case of 75% (demand constant) to a worst case of 92% (induced demand).

Traffic Conditions

Currently, of the study intersections, only North Vista Street/Hollywood Boulevard operates at level of service (LOS) E or F during one or both of the a.m. and p.m. peak hours. With a 70-space parking lot in place, this intersection's LOS is not significantly impacted, under either a best case (demand constant) or worst case (induced demand) scenario.

IMPLICATIONS OF INCREASING LOT FROM 70 TO 80 SPACES

The addition of 10 spaces would be a benefit from a parking supply and utilization perspective. With regard to traffic, by virtue of the findings for a 70-space lot and the very conservative nature of that analysis, adding 10 spaces would have no material affect on traffic conditions in the vicinity of Runyon Canyon Park.

201 Santa Monica Blvd., Suite 500

Santa Monica, CA 90401

(310) 458-9916 Fax (310) 394-7663

APPENDIX G

UPDATED ASSESSMENT OF EXISTING PARKING CONDITIONS

FEHR & PEERS
KAKU ASSOCIATES

DRAFT

TECHNICAL MEMORANDUM

TO: Irene Paul, City of Los Angeles Bureau of Engineering

FROM: John Stutsman and Megan Cummings

DATE: July 31, 2007

SUBJECT: Updated Assessment of Existing Parking Conditions **Ref:** 2167
Runyon Canyon Park
Los Angeles, California

EXISTING CONDITIONS

The purpose of this technical memorandum is to describe the existing capacity and utilization of on-street parking serving the Runyon Canyon Park entrance on Fuller Avenue and to analyze the impact of adding an 80-space parking lot on the surrounding neighborhood. This assessment represents an update of a January 2006 study of a 70 space parking lot. At that time, residential permit parking was not in effect for Districts 72 and 79.

The study area is defined by La Brea Avenue to the east, Hollywood Boulevard to the south, Sierra Bonita Avenue to the west and the park boundaries to the north, as seen in Figure 1. A smaller area within the study area, known as the immediate study area in this memo, was also examined in this analysis. This area was selected for analysis due to close proximity to the park entrance, and may better represent the park's impact on the surrounding neighborhood than the entire area. The border of the immediate study area is up to but not inclusive of La Brea Avenue to the east, Franklin Avenue to the south, up to but not inclusive of Gardner Street to the west and the park to the north.

Parking utilization counts were conducted on Friday, June 29, 2007 and Saturday, June 30, 2007 from 8:00 a.m. to 5:00 p.m. Results from this count can be found in the attachment to this memorandum.

Parking Supply

Runyon Canyon Park does not currently have any on-site parking at this entrance. In the study area, there are approximately 619 on-street parking spaces during non-peak hours and on

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weekends, whereas approximately 548 on-street parking spaces are available during peak hours (7:00-9:00 a.m. and 4:00-6:00 p.m.). The reduction in parking supply is due to the restriction on parking on Hollywood Boulevard during peak hours. Almost 274 on-street spaces are in the immediate study area. Along with the restrictions of street cleaning on Mondays and Tuesdays, there is no parking allowed on the following street segments in the study area:

- North Vista Street north of Franklin Avenue (except for vehicles with District 72 permits)
- La Brea Avenue between Hillside and Franklin Avenue (except for vehicles with District 79 permits)
- Camino Palmero Avenue north of Franklin Avenue

There are approximately 40 unpaved parking spaces at the Mulholland entrance to the park, but those were not taken into account for this analysis.

Utilization

Friday utilization rates for the entire study area ranged from 52% (323 spaces occupied) at 3:00 p.m. to 81% at 8:00 a.m. (446 spaces occupied). Saturday utilization rates were higher, ranging from 71% (440 spaces) at 3:00 p.m. to 91% (562 spaces) at 9:00 a.m.

Utilization rates for the immediate study area were higher than those for the entire study area for each respective day, as seen in Figure 2. Friday utilization rates for the immediate study area ranged from 66% at 2:00 p.m. (182 spaces) to 88% at 10:00 a.m. and 11:00 a.m. (240 and 241 spaces respectively). Saturday utilization rates ranged from 81% (223 spaces) at 3:00 p.m. to 92% (251 spaces) at 11:00 a.m.

FUTURE CONDITIONS

As indicated, the project will result in 80 new parking spaces at a site within the park currently used as a grassy play area and off-leash dog park. Parking in this area is only provided on the street. Two scenarios were developed to analyze the parking conditions at completion of the lot.

The first scenario, or “best-case” scenario, includes 80 additional parking spaces added to the supply while demand is kept constant (i.e., no new additional trips as a result of the parking lot). The “best-case” scenario results are shown in Figure 3. Utilization rates do not exceed 80%, well within properly functioning levels, at any time in both study areas.

The second scenario, or “worst-case” scenario, includes 80 additional parking spaces as well as 80 additional cars parking in the area. The results of this analysis are shown in Figure 4. The

peak in this situation occurs at 11:00 a.m. on Saturday in the immediate study area when the area is approximately 94% occupied (331 spaces). This represents a two percentage point increase from current conditions.

More than likely, the worst-case scenario representing “induced demand” will only occur immediately after completion of the project, if at all.

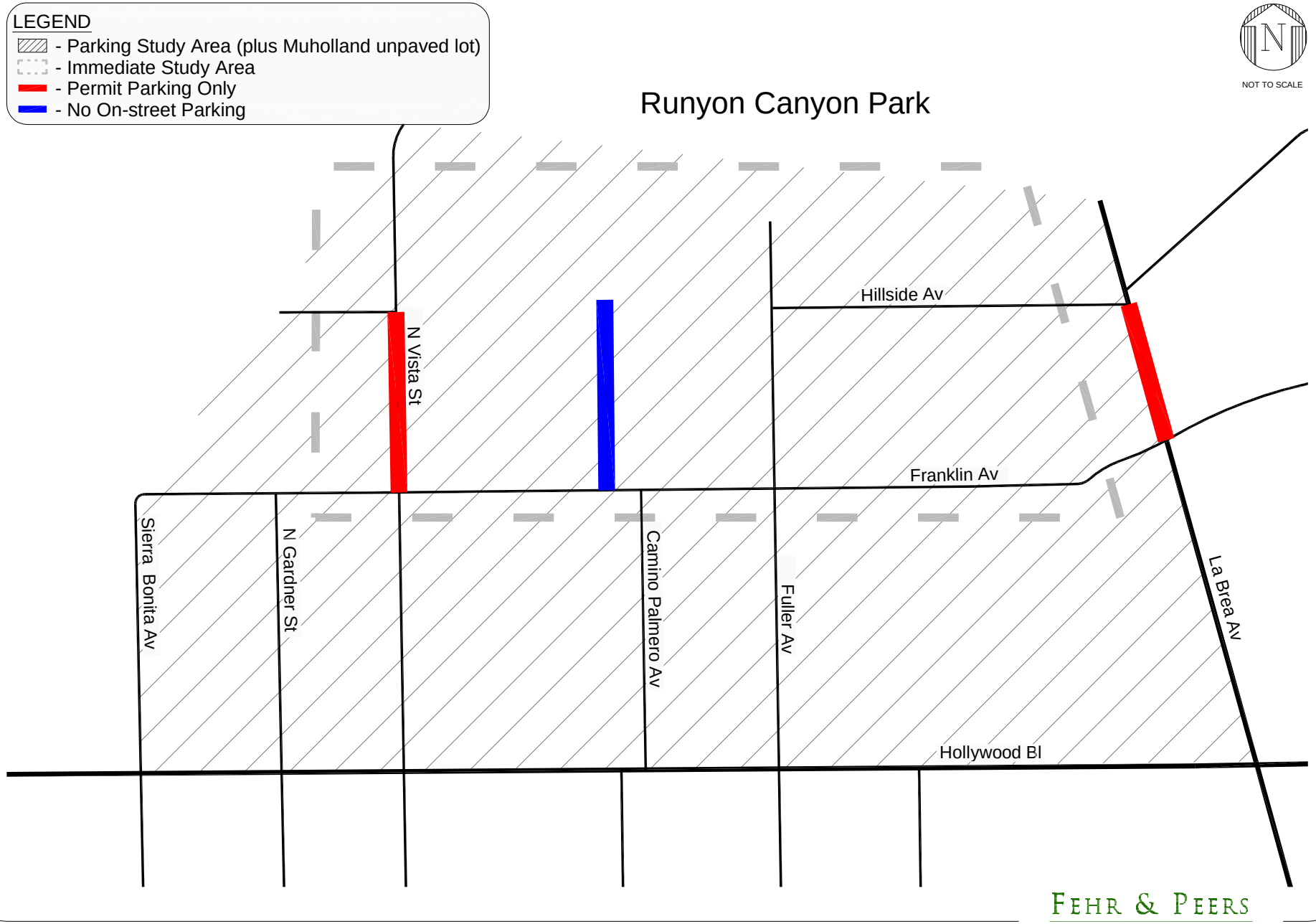


FIGURE 1
PARKING STUDY AREAS

FIGURE 2
CURRENT PARKING UTILIZATION RATES FOR RUNYON CANYON STUDY AREA

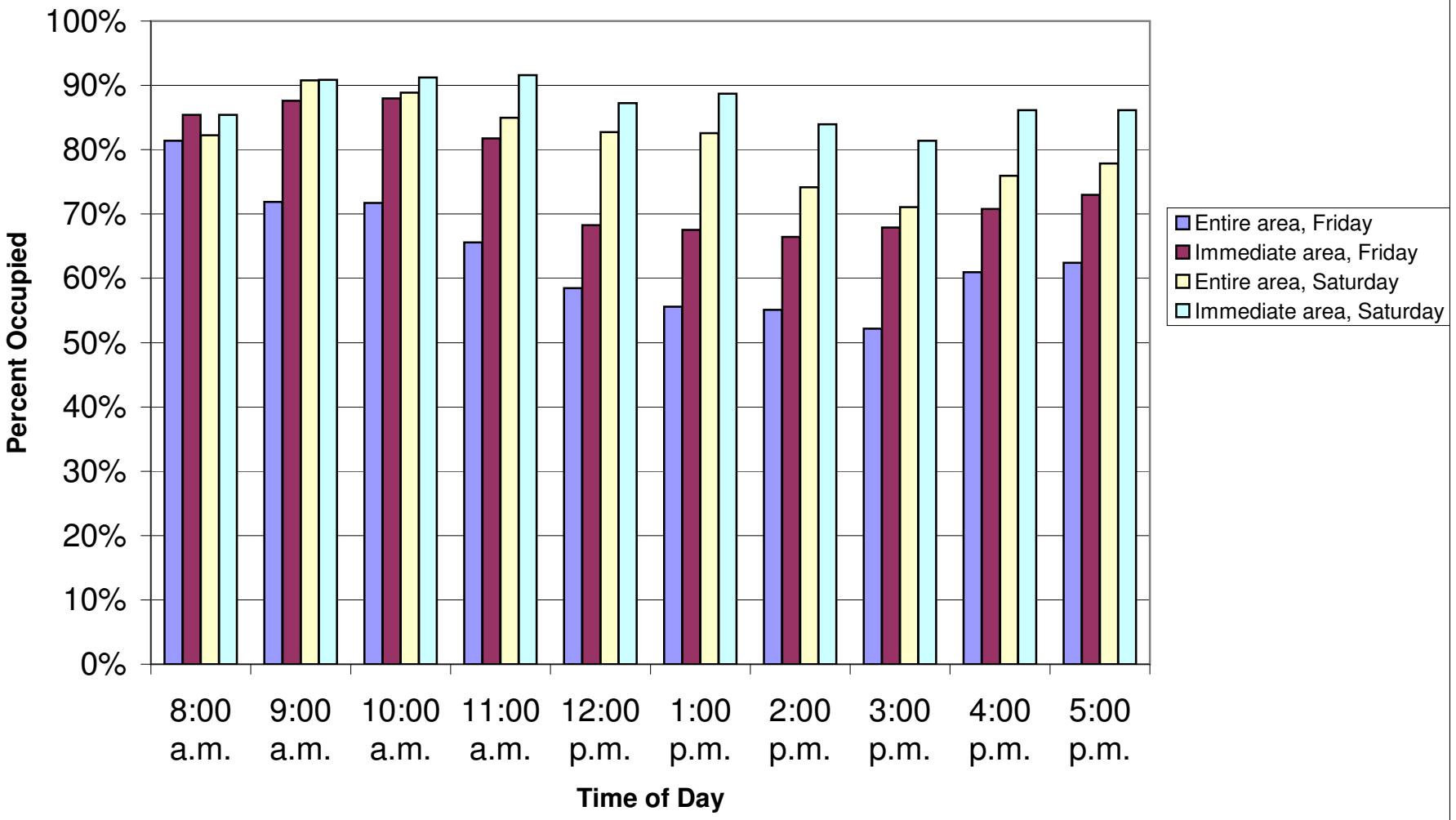


FIGURE 3
PERCENT OCCUPIED WITH 80 NEW SPACES, "BEST-CASE" SCENARIO

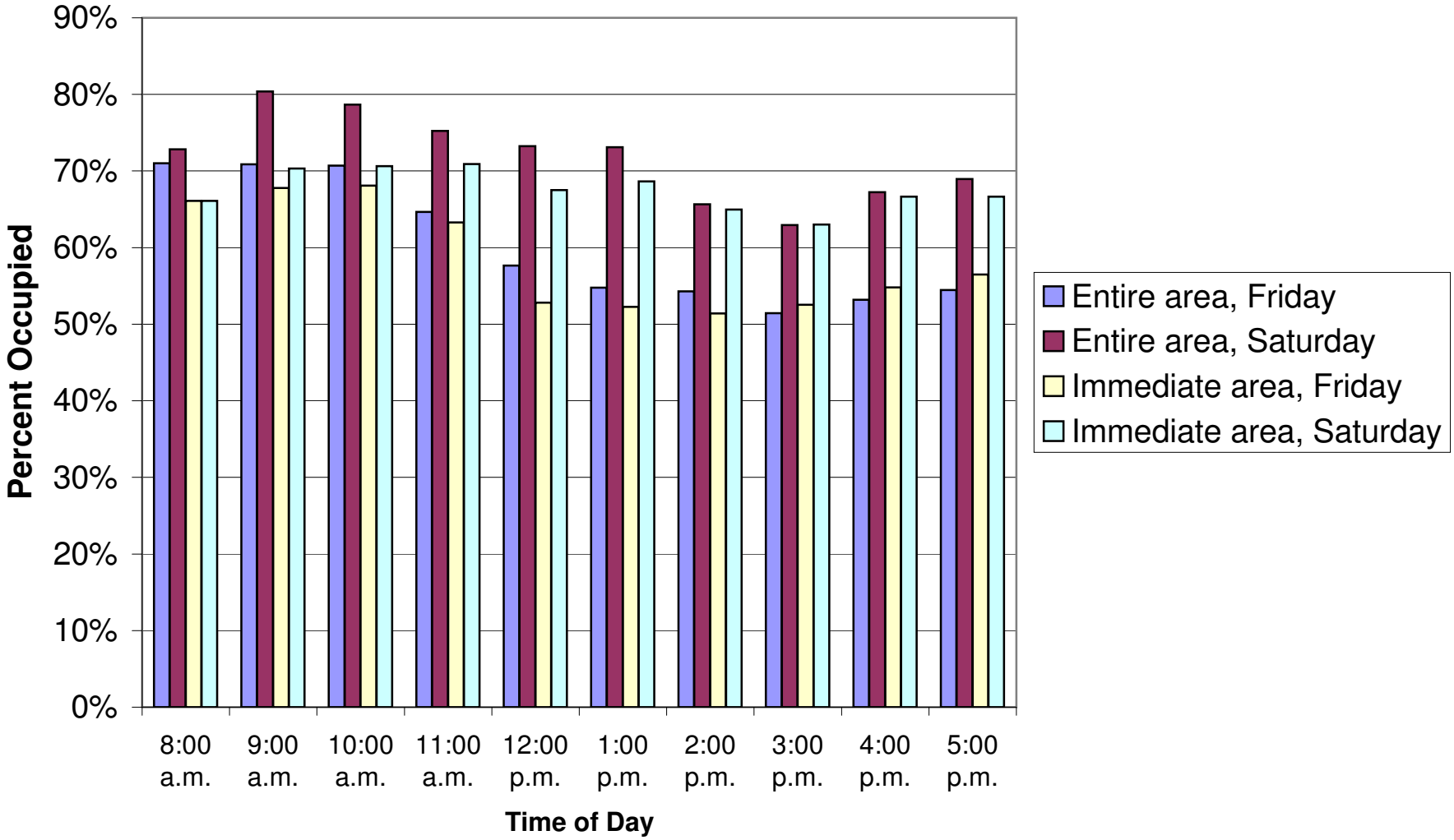
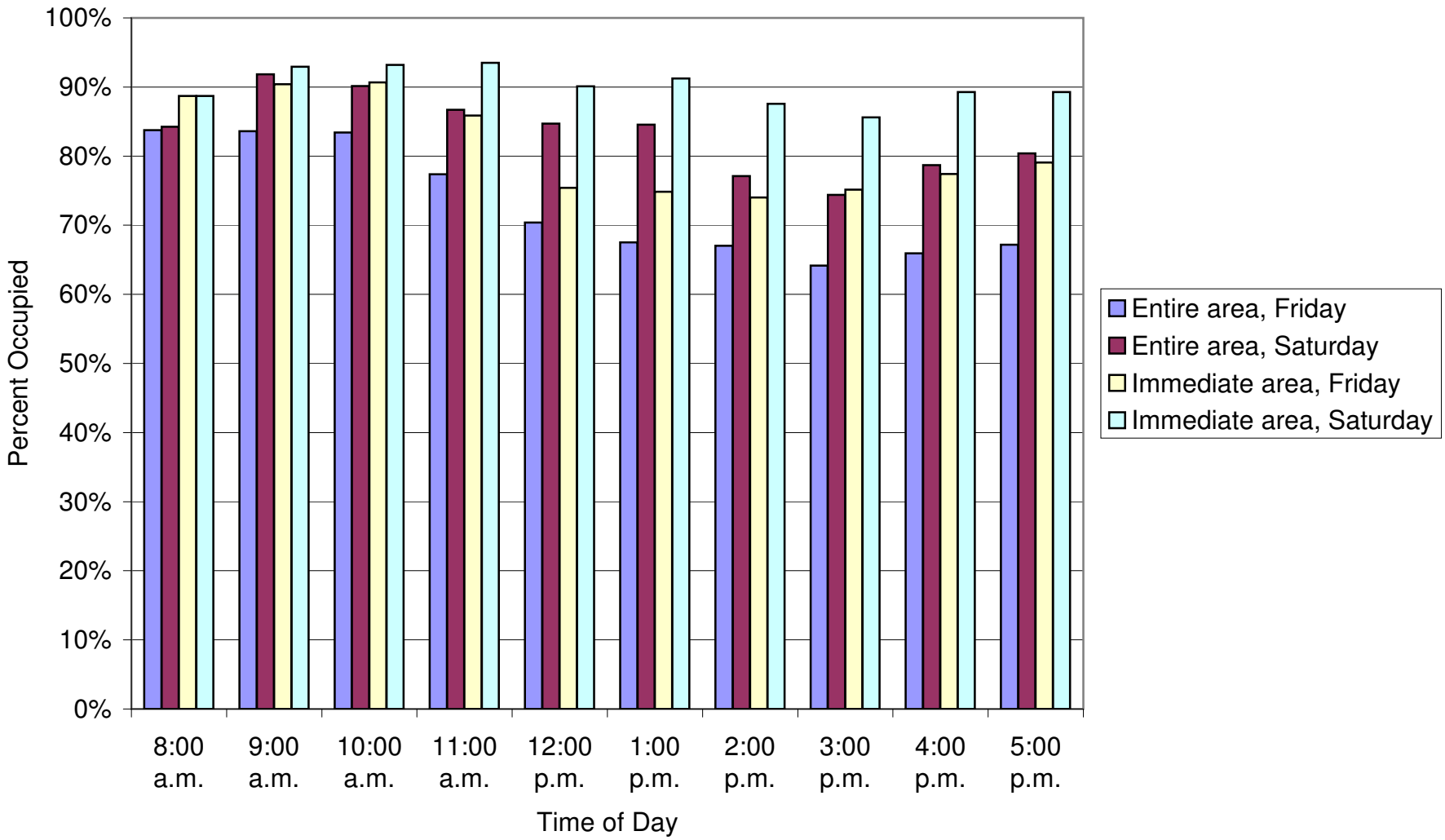


FIGURE 4
PERCENT OCCUPIED WITH 80 NEW SPACES, "WORST-CASE" SCENARIO



ATTACHMENT

PARKING UTILIZATION COUNTS

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969 E-mail: info@wiltecusa.com nfo@wiltecusa.com

RUNYON CANYON PARKING SURVEY

FEHR AND PEERS/KAKU ASSOCIATES
FRIDAY JUNE 29TH, 2007
8:00AM to 5:00PM

Street	From	To	Side	800-900	900-1000	1000-1100	1100-1200	1200-100	100-200	200-300	300-400	400-500	500-600
Vista	North End	Hillside	East	4	5	5	3	2	2	2	3	5	3
Vista	North End	Hillside	West	3	3	3	3	4	3	3	3	2	2
Hillside	West End	Vista	North	6	7	7	4	6	6	5	3	3	2
Hillside	West End	Vista	South	2	3	3	1	1	2	2	2	3	2
Vista	Franklin	Hollywood	East	12	16	13	10	7	9	10	10	8	10
Vista	Franklin	Hollywood	West	9	12	10	12	9	12	13	9	8	6
Franklin	Vista	Gardner	North	7	8	7	7	3	6	2	3	3	5
Franklin	Vista	Gardner	South	7	9	8	5	6	2	4	4	5	6
Gardner	Franklin	Hollywood	East	10	13	12	8	11	7	6	8	7	7
Gardner	Franklin	Hollywood	West	13	9	7	7	6	6	6	11	7	5
Franklin	Gardner	Sierra Bonita (N)	North	4	4	3	3	0	2	1	0	0	2
Franklin	Gardner	Sierra Bonita (N)	South	3	4	5	6	5	5	4	4	4	3
Sierra Bonita (N)	North End	Franklin	East	10	10	10	9	10	9	9	5	6	6
Sierra Bonita (N)	North End	Franklin	West	10	8	9	8	8	4	10	6	8	8
Franklin	Sierra Bonita (N)	Sierra Bonita (S)	North	2	2	2	1	1	1	1	0	0	0
Franklin	Sierra Bonita (N)	Sierra Bonita (S)	South	2	2	2	1	2	2	2	2	1	0
Sierra Bonita (S)	Franklin	Hollywood	East	18	13	14	11	8	4	4	6	6	5
Sierra Bonita (S)	Franklin	Hollywood	West	24	9	6	3	1	1	2	1	1	3
Hollywood	Sierra Bonita (S)	Gardner	North	0	0	0	0	0	0	1	0	0	0
Hollywood	Sierra Bonita (S)	Gardner	South	0	0	0	0	0	0	0	0	0	0
Hollywood	Gardner	Vista	North	0	0	0	0	1	0	0	0	0	0
Hollywood	Gardner	Vista	South	0	0	1	1	2	2	0	0	0	0
Hollywood	Vista	Camino Palermo	North	0	1	8	8	2	2	1	0	0	0
Hollywood	Vista	Camino Palermo	South	0	3	3	3	4	4	5	0	1	0
Hollywood	Camino Palermo	Fuller	North	0	0	0	0	0	0	0	0	0	0
Hollywood	Camino Palermo	Fuller	South	0	3	3	1	3	2	2	0	0	0
Hollywood	Fuller	La Brea	North	6	12	12	14	14	11	11	9	4	6
Hollywood	Fuller	La Brea	South	0	2	5	5	11	14	7	2	0	0
La Brea	North End	Hillside	East	5	5	4	3	3	3	3	4	3	4
La Brea	North End	Hillside	West	4	4	4	2	3	3	2	2	4	2
La Brea	Hillside	Franklin	East	6	5	5	4	3	3	3	4	4	5
La Brea	Hillside	Franklin	West	6	3	3	0	0	0	2	0	1	2
La Brea	Franklin	Hollywood	East	0	0	0	0	0	0	0	0	0	0
La Brea	Franklin	Hollywood	West	0	0	0	0	0	0	0	0	0	0
Hillside	La Brea	Fuller	North	34	31	30	33	27	26	25	30	33	33
Hillside	La Brea	Fuller	South	30	31	31	30	22	22	25	28	28	30
Fuller	North End	Hillside	East	6	5	4	5	3	3	4	3	6	5
Fuller	North End	Hillside	West	7	7	74	8	6	5	7	7	7	7
Fuller	Hillside	Franklin	East	14	13	14	14	14	14	12	11	10	11
Fuller	Hillside	Franklin	West	14	18	18	14	12	12	12	9	11	13
Franklin	La Brea	Fuller	North	21	19	21	17	17	17	17	19	18	14
Franklin	La Brea	Fuller	South	17	16	18	15	14	14	16	17	16	13
Fuller	Franklin	Hollywood	East	18	16	14	15	11	8	10	10	15	16

Fuller	Franklin	Hollywood	West	20	20	18	19	19	15	19	17	20	21
Franklin	Fuller	Camino Palermo	North	7	8	8	8	5	5	4	4	6	7
Franklin	Fuller	Camino Palermo	South	11	11	10	12	12	12	12	12	10	12
Camino Palermo	North End	Franklin	East	0	0	0	1	1	0	1	0	0	0
Camino Palermo	North End	Franklin	West	0	0	0	0	0	0	1	0	0	0
Camino Palermo	Franklin	Hollywood	East	21	22	23	21	20	21	17	17	21	19
Camino Palermo	Franklin	Hollywood	West	20	19	19	18	19	19	16	16	16	17
Franklin	Camino Palermo	Vista	North	13	12	13	12	10	11	6	8	9	13
Franklin	Camino Palermo	Vista	South	19	21	21	21	14	13	14	13	14	17
Vista	Hillside	Franklin	East	0	0	0	0	0	0	0	1	0	0
Vista	Hillside	Franklin	West	1	1	1	0	0	0	0	0	0	0

WILTEC

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RUNYON CANYON PARKING SURVEY

FEHR AND PEERS/KAKU ASSOCIATES
SATURDAY JUNE 30TH, 2007
8:00AM to 5:00PM

Street	From	To	Side	800-900	900-1000	1000-1100	1100-1200	1200-100	100-200	200-300	300-400	400-500	500-600
Vista	North End	Hillside	East	2	4	4	4	4	3	5	5	3	3
Vista	North End	Hillside	West	4	5	5	5	5	5	2	2	2	2
Hillside	West End	Vista	North	2	4	1	1	2	1	1	1	0	0
Hillside	West End	Vista	South	2	4	3	3	4	4	3	3	3	3
Vista	Franklin	Hollywood	East	17	19	15	17	14	12	13	11	12	13
Vista	Franklin	Hollywood	West	15	18	17	17	15	17	16	12	11	15
Franklin	Vista	Gardner	North	7	7	7	7	7	7	8	8	7	8
Franklin	Vista	Gardner	South	8	9	9	8	8	9	6	5	7	7
Gardner	Franklin	Hollywood	East	11	17	18	17	18	15	10	7	9	12
Gardner	Franklin	Hollywood	West	10	18	17	14	14	15	12	6	7	15
Franklin	Gardner	Sierra Bonita (N)	North	4	4	3	4	4	5	4	2	2	1
Franklin	Gardner	Sierra Bonita (N)	South	5	5	4	5	4	6	3	0	3	3
Sierra Bonita (N)	North End	Franklin	East	9	10	10	10	9	10	8	9	8	8
Sierra Bonita (N)	North End	Franklin	West	10	10	10	10	10	10	6	8	7	5
Franklin	Sierra Bonita (N)	Sierra Bonita (S)	North	2	2	3	1	1	2	1	0	1	2
Franklin	Sierra Bonita (N)	Sierra Bonita (S)	South	2	4	3	3	2	2	2	1	1	2
Sierra Bonita (S)	Franklin	Hollywood	East	14	17	19	11	11	13	5	4	4	6
Sierra Bonita (S)	Franklin	Hollywood	West	12	21	16	9	9	7	4	4	5	1
Hollywood	Sierra Bonita (S)	Gardner	North	2	2	2	5	8	7	3	0	0	2
Hollywood	Sierra Bonita (S)	Gardner	South	4	3	3	3	4	4	2	2	1	1
Hollywood	Gardner	Vista	North	2	3	3	3	3	2	4	3	2	3
Hollywood	Gardner	Vista	South	2	5	5	5	5	3	6	5	4	4
Hollywood	Vista	Camino Palermo	North	14	15	17	15	12	12	13	13	12	12
Hollywood	Vista	Camino Palermo	South	11	14	14	11	10	14	9	10	10	10
Hollywood	Camino Palermo	Fuller	North	0	0	0	0	0	0	0	0	0	0
Hollywood	Camino Palermo	Fuller	South	4	5	6	4	4	3	5	5	5	5
Hollywood	Fuller	La Brea	North	12	11	13	12	12	10	15	14	16	17
Hollywood	Fuller	La Brea	South	23	22	16	19	20	17	15	15	23	19
La Brea	North End	Hillside	East	4	5	3	3	4	4	3	4	5	4
La Brea	North End	Hillside	West	4	5	3	4	2	2	2	2	4	3
La Brea	Hillside	Franklin	East	7	7	7	7	5	4	3	3	5	6
La Brea	Hillside	Franklin	West	6	5	4	5	5	5	2	3	5	6
La Brea	Franklin	Hollywood	East	0	0	0	0	0	0	0	0	0	0
La Brea	Franklin	Hollywood	West	0	0	0	0	0	0	0	0	0	0
Hillside	La Brea	Fuller	North	33	32	34	34	34	33	29	29	34	33
Hillside	La Brea	Fuller	South	31	33	31	32	31	30	29	30	32	31
Fuller	North End	Hillside	East	6	6	6	6	6	6	6	6	6	6
Fuller	North End	Hillside	West	8	7	6	7	6	5	6	6	6	6
Fuller	Hillside	Franklin	East	14	14	14	14	14	14	13	13	13	13
Fuller	Hillside	Franklin	West	13	13	14	14	13	14	13	13	13	13
Franklin	La Brea	Fuller	North	20	23	23	23	20	20	22	22	18	19

Franklin	La Brea	Fuller	South	18	19	20	20	19	20	23	23	24	23
Fuller	Franklin	Hollywood	East	20	21	20	18	18	19	16	18	18	17
Fuller	Franklin	Hollywood	West	20	20	20	17	21	22	20	19	18	19
Franklin	Fuller	Camino Palermo	North	8	7	8	8	7	8	7	7	7	7
Franklin	Fuller	Camino Palermo	South	12	12	12	12	12	12	13	13	13	13
Camino Palermo	North End	Franklin	East	0	0	0	0	0	0	1	0	0	0
Camino Palermo	North End	Franklin	West	0	0	2	1	0	0	1	0	3	4
Camino Palermo	Franklin	Hollywood	East	23	21	22	21	23	23	17	21	23	23
Camino Palermo	Franklin	Hollywood	West	19	19	20	18	17	18	20	19	20	20
Franklin	Camino Palermo	Vista	North	11	13	13	13	13	13	10	11	14	14
Franklin	Camino Palermo	Vista	South	22	22	22	22	22	22	21	22	22	21
Vista	Hillside	Franklin	East	0	0	2	2	1	2	0	0	0	0
Vista	Hillside	Franklin	West	0	0	1	2	0	0	1	1	2	2

APPENDIX H

UPDATED ASSESSMENT OF EXISTING AND FUTURE TRAFFIC CONDITIONS

FEHR & PEERS
KAKU ASSOCIATES

DRAFT

TECHNICAL MEMORANDUM

TO: Irene Paul, City of Los Angeles Bureau of Engineering

FROM: John Stutsman and Megan Cummings

DATE: July 31, 2007

SUBJECT: Updated Assessment of Existing and Future Traffic Conditions Near Runyon Canyon Park Los Angeles, California **Ref:** 2167

EXISTING CONDITIONS

The purpose of this technical memorandum is to describe the existing capacity and utilization of the traffic system serving the Runyon Canyon Park entrance on Fuller Avenue and to analyze potential traffic impacts of an 80-space parking lot on the surrounding neighborhood using current City of Los Angeles traffic analysis guidelines. This study represents an update of a January 2006 study for a 70-space parking lot.

The study area is defined by La Brea Avenue to the east, Hollywood Boulevard to the south, Sierra Bonita Avenue to the west and the park boundaries to the north, as seen in Figure 1. The study examined five intersections and four street segments in the vicinity of the project area, which are also shown in Figure 1. The selected intersections are: North Vista Street/Hollywood Boulevard, Fuller Avenue/Hollywood Boulevard, Franklin Avenue/Fuller Avenue, Franklin Avenue/La Brea Avenue, and Hillside Avenue/La Brea Avenue. Diagrams of the existing lane configurations are illustrated in Attachment A.

Existing Traffic Volumes and Levels of Service

Weekday a.m. and p.m. peak period intersection turning movement counts were conducted at the study intersections on Tuesday, June 26, 2007. Existing peak hour traffic volumes are displayed in Figure 2. The intersection traffic count sheets are presented in Attachment B.

Two of the five intersections are currently controlled by traffic signals. The Los Angeles Department of Transportation (LADOT) requires that the "Critical Movement Analysis" (CMA) method (Transportation Research Board, 1980) of intersection capacity analysis be used to

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determine the intersection volume-to-capacity (V/C) ratio and corresponding level of service (LOS). The CalcaDB software package developed by LADOT was used to implement the CMA methodology in this study.

The two analyzed signalized intersections operate under the Adaptive Traffic Control System (ATCS). The City of Los Angeles grants a 10% credit toward increased capacity (i.e., 0.10 reduction in the V/C ratio) at any intersection where ATCS is implemented.

Three of the study intersections are currently unsignalized, including one with a stop-controlled minor street and the other two with four-way stop-control. The 2000 Highway Capacity Manual (HCM) (Transportation Research Board, 2000) stop-control method was used to determine operating characteristics for all-way stop-controlled intersections. These include the average stopped delay experienced per vehicle and the V/C ratio. At uncontrolled intersections where the side street is stop-controlled, the HCM method bases LOS on the average stopped delay per vehicle for the most constrained approach.

Tables 1 and 2 provide LOS definitions for signalized and stop-controlled intersections, respectively. Level of service calculation worksheets are included in Attachment C.

Table 3 summarizes the existing a.m. and p.m. peak hour V/C ratios, vehicular delay, and corresponding LOS at each of the study intersections. As can be seen, one of the intersections, North Vista Street/Hollywood Boulevard, operates at LOS C during the a.m. peak hour and at LOS E during the p.m. peak hour. The remaining intersections operate at excellent to very good levels of service (LOS A or B) during both the peak hours.

Future Traffic Projections

As indicated, the project will result in 80 new parking spaces at a site within the park that would be accessed only on the north end of Fuller Avenue. Two scenarios were developed to analyze the traffic conditions in 2010 after completion of the lot:

Scenario 1. The first scenario, or "best-case" scenario, is essentially the cumulative base scenario, which takes into account only ambient growth. In this scenario, the parking lot does not create any induced demand; rather it increases at the same rate as the background growth. Using a growth rate of 1% per year, the existing (year 2007) traffic volumes were adjusted upwards by 3% to reflect three years of background growth from 2007 to 2010. Traffic volumes for this scenario are shown in Figure 3.

The resulting traffic volumes, representing the "best-case" conditions with the project, are presented in Attachment C. The summarized LOS conditions are shown in Table 4. During the a.m. and p.m. peak hours, only one intersection, North Vista Street/Hollywood Boulevard, operates at LOS D or F.

Scenario 2. The second scenario, or "worst-case" scenario, is essentially the cumulative base plus the additional trips generated from the project. For this scenario, it is assumed 80 additional project trips in each weekday peak hour will be generated as a result of better access due to the parking lot. This is likely the maximum number of trips that could occur as a result of increased demand, since it assumes average auto occupancy of 1.0 and not all 80 trips will occur during peak hours.

The inbound and outbound trip distribution is shown in Figure 4. Fehr & Peers calculated that 30% of the trips would come from the west, 45% would come from the south, and 25% would come from the east.

Using the estimated trip generation and the distribution pattern developed above, the traffic generated by the proposed project was assigned to the street network. Figure 5 illustrates the proposed project-generated peak hour traffic volumes for both peak hours at each of the five study intersections.

The project-generated traffic volumes were added to the cumulative base traffic projections to yield the cumulative plus project traffic forecasts for 2010. Figure 6 illustrates the forecasted cumulative plus project a.m. and p.m. peak hour traffic volumes at each of the five study intersections in the worst-case scenario.

As shown in Table 4, only one intersection, North Vista Street/Hollywood Boulevard, continues operating at LOS E or F during the a.m. and p.m. peak hours under cumulative plus project conditions. Application of the City of Los Angeles significance criteria described previously indicates that proposed project traffic in the worst-case scenario would not result in V/C increases large enough to result in significant impacts at any of the study intersections.

Neighborhood Street Impact Analysis

A 24-hour machine count was conducted on the four study street segments in June 2007. Future daily traffic volumes were projected in a manner similar to that described for the peak hour analysis of the study intersections. Existing average daily traffic volume counts are shown in Attachment D. A 3% ambient growth factor was added to the year 2007 existing daily volume to develop year 2010 cumulative base projections. Approximately 400 new daily project trips were assigned to the street network based on the project trip distribution pattern previously discussed and were added to the cumulative base projection to obtain cumulative plus project projections.

Daily traffic volumes for both the existing and projected future conditions are summarized in Table 5. The City of Los Angeles' criteria deems a project with zero to 999 daily trips significant if the project-related increase in daily traffic is 16% or more of final average daily trips. As shown in Table 5, the proposed project would not have a significant impact on the analyzed neighborhood street segment.

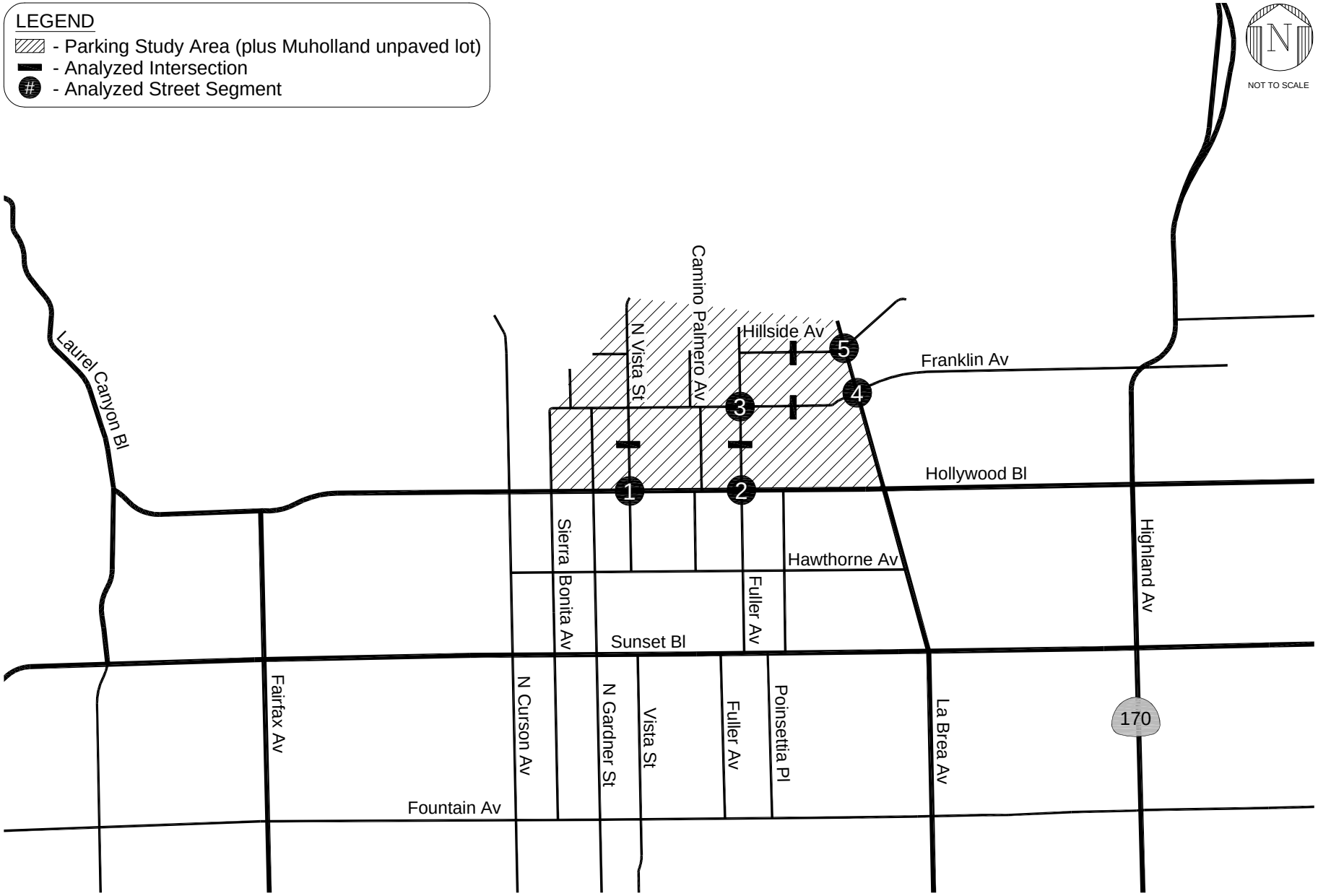
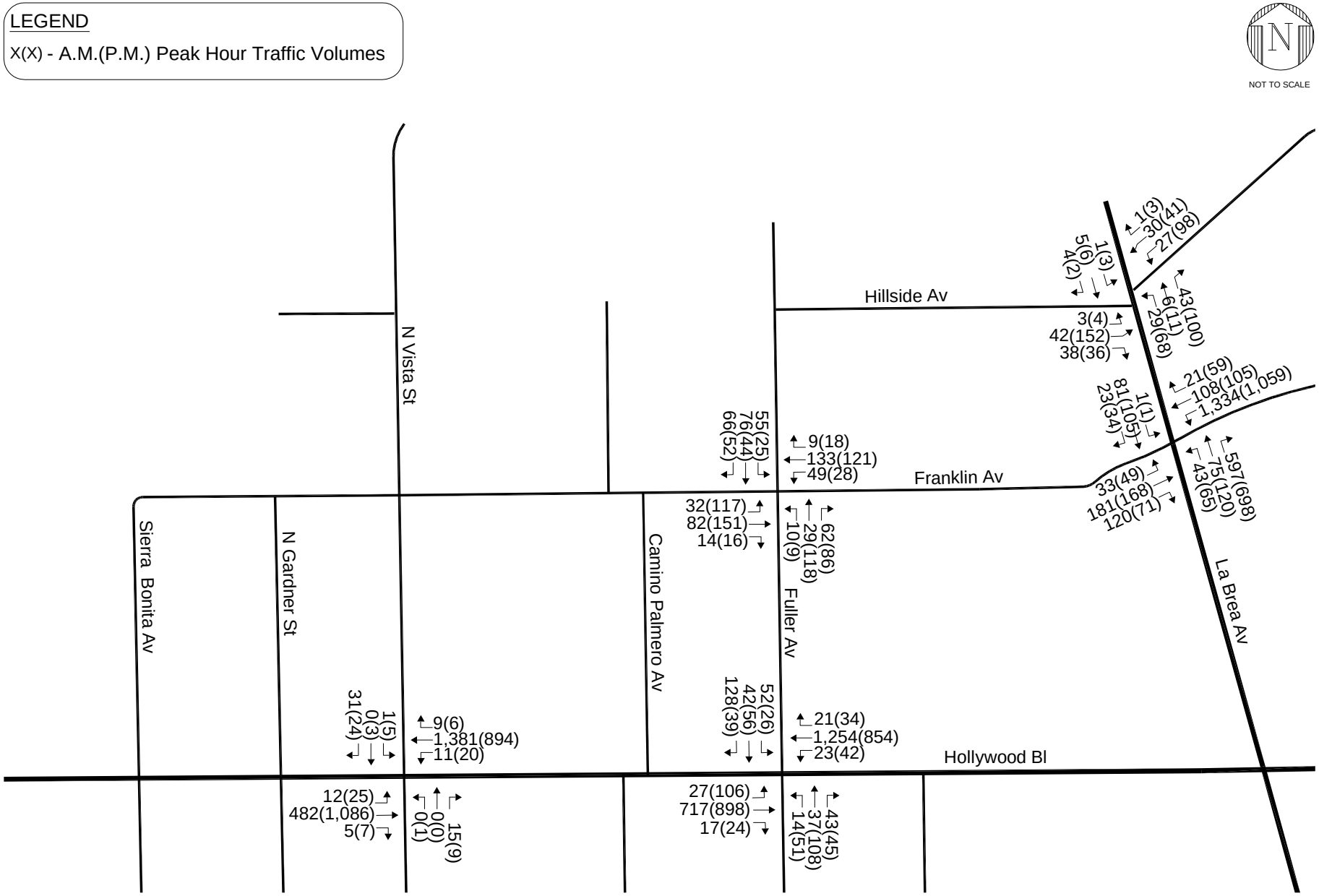


FIGURE 1
ANALYZED INTERSECTIONS AND STREET SEGMENTS



FEHR & PEERS
KAKU ASSOCIATES

FIGURE 2
EXISTING PEAK HOUR TRAFFIC VOLUMES

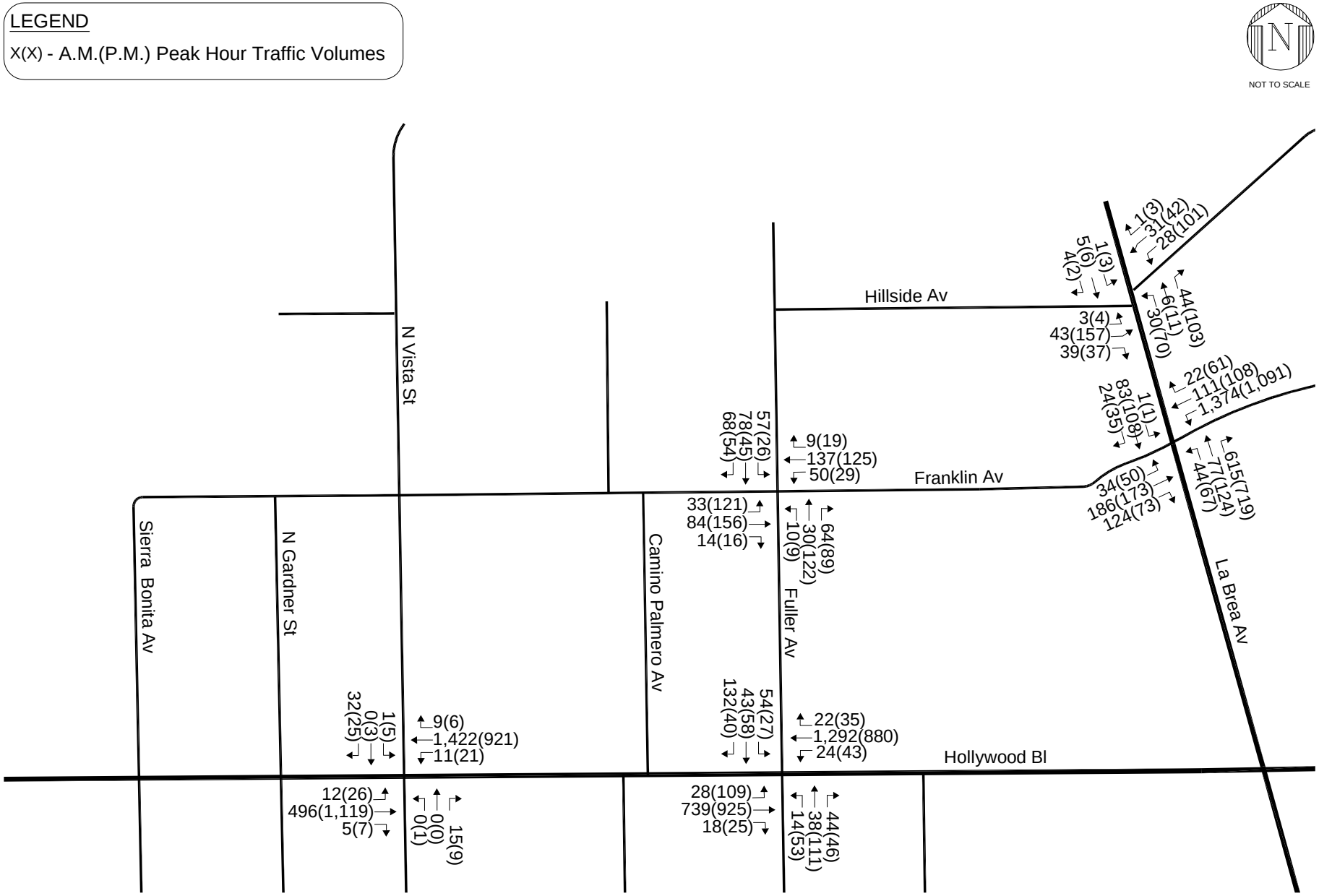
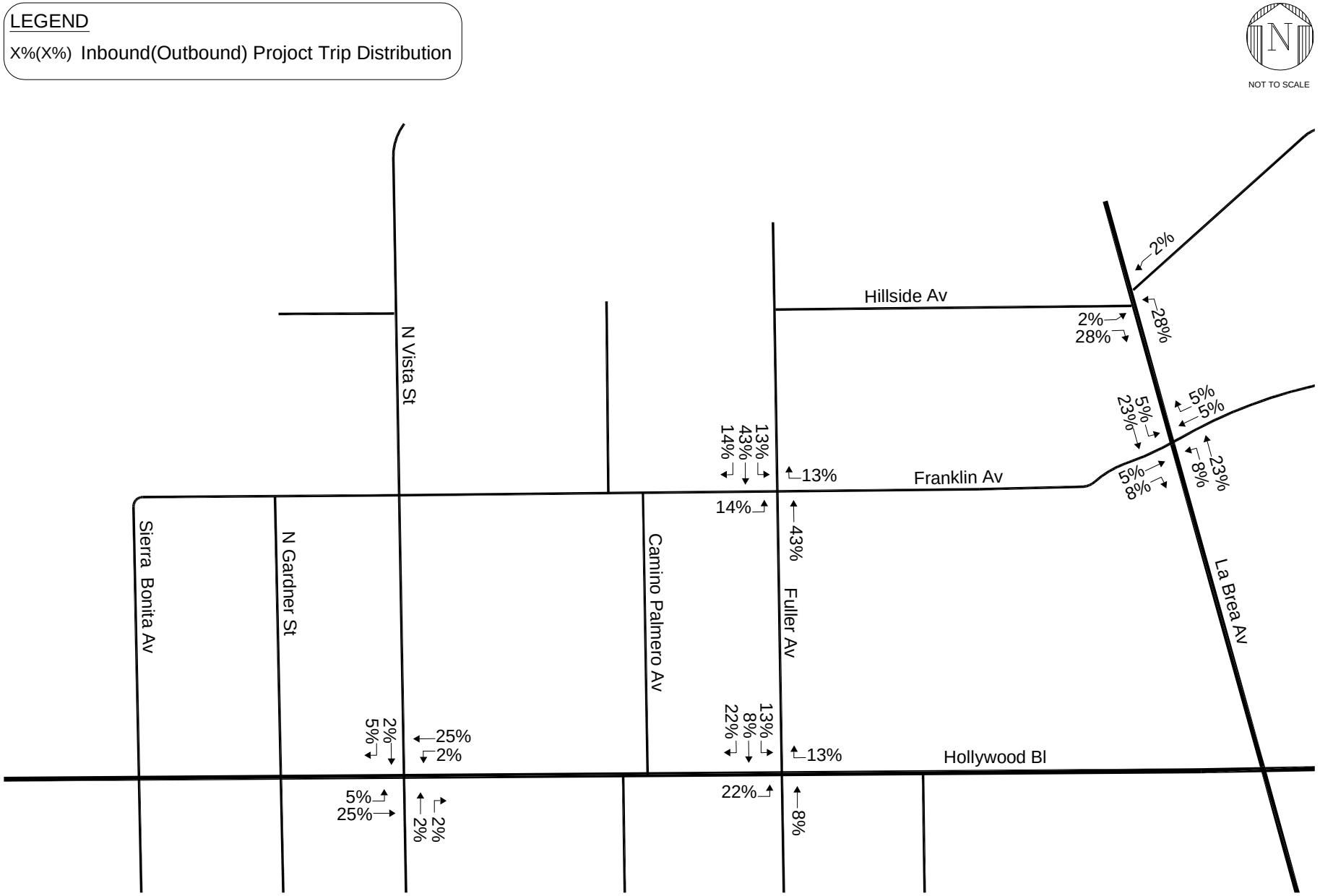
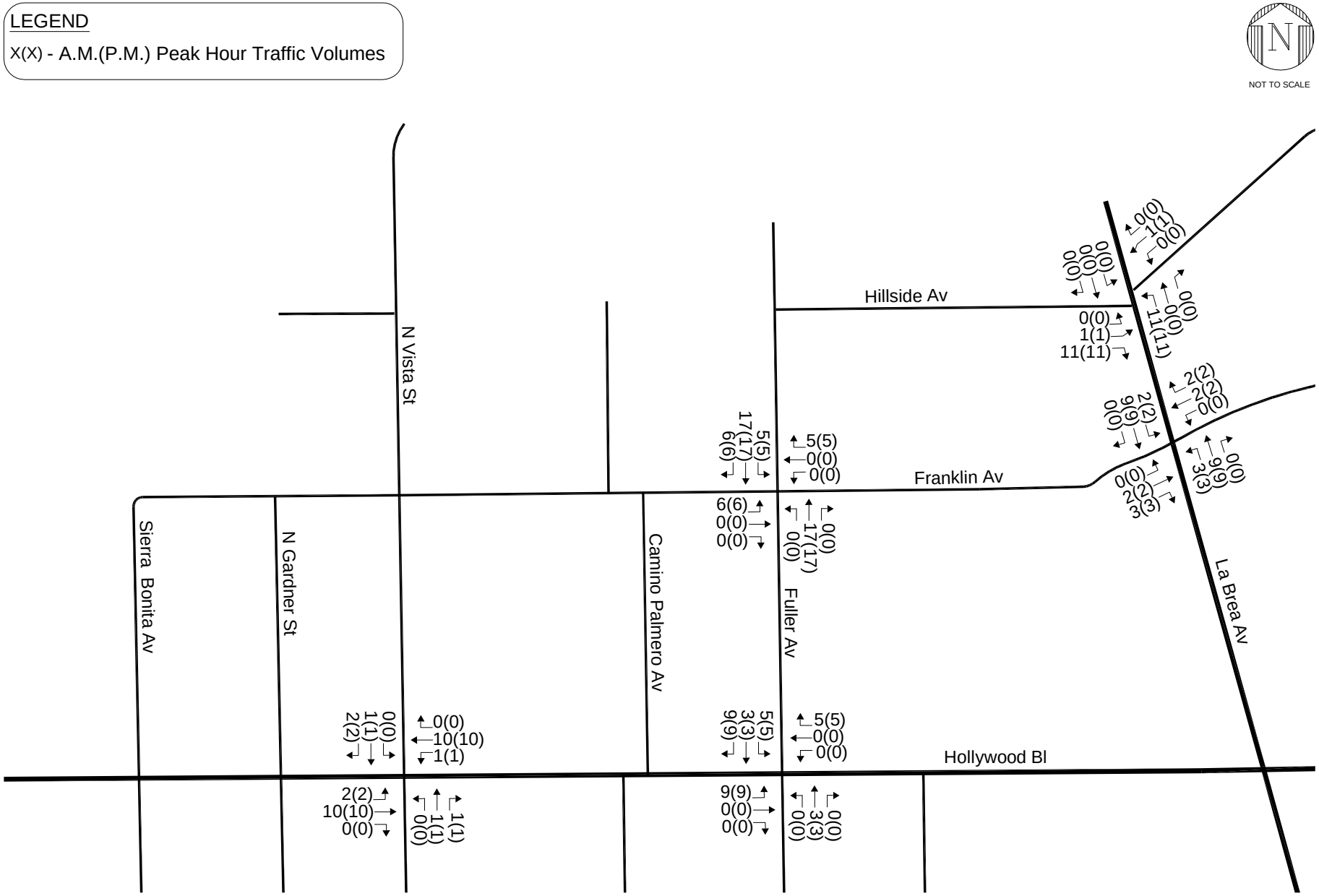


FIGURE 3
BEST CASE PEAK HOUR TRAFFIC VOLUMES



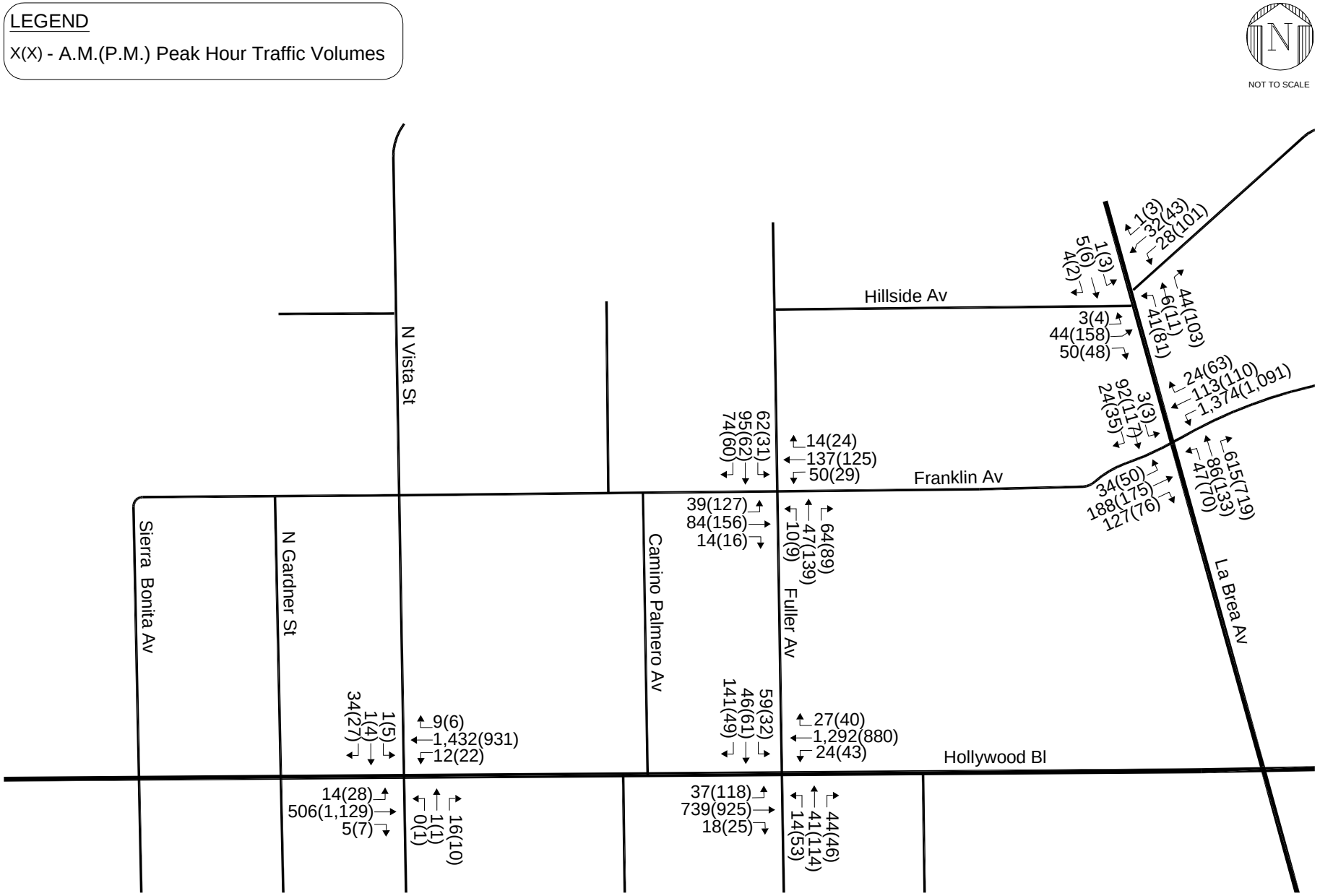
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FIGURE 4
INBOUND AND OUTBOUND TRIP DISTRIBUTION



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FIGURE 5
PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES



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FIGURE 6
WORST CASE PEAK HOUR TRAFFIC VOLUMES

TABLE 1
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Intersection Capacity Utilization	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.610-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.710-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.810-0.900	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	0.910-1.000	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 2
LEVEL OF SERVICE DEFINITIONS FOR
TWO-WAY STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)
A	$\leq$ 10
B	> 10 and $\leq$ 15
C	> 15 and $\leq$ 25
D	> 25 and $\leq$ 35
E	> 35 and $\leq$ 50
F	> 50

Source: *Highway Capacity Manual, Transportation Research Board,* 2000

TABLE 3
INTERSECTION LEVEL OF SERVICE ANALYSIS SUMMARY
EXISTING CONDITIONS (YEAR 2007)

Intersection	PEAK HOUR	EXISTING (YEAR 2007)	
		V/C	LOS
1 [a] N Vista St & Hollywood Bl	**A.M.**	16.9	C
	P.M.	45.7	E
	A.M.	0.500	
	P.M.	0.400	
2 Fuller Av & Hollywood Bl	**A.M.**	0.531	A
	P.M.	0.450	A
3 [b] Fuller Av & Franklin Av	**A.M.**	9.0	A
	P.M.	10.2	B
	A.M.	0.287	
	P.M.	0.367	
4 La Brea Av & Franklin Av	**A.M.**	0.632	B
	P.M.	0.541	A
5 [b] La Brea Av & Hillside Av	**A.M.**	7.3	A
	P.M.	8.7	A
	A.M.	0.126	
	P.M.	0.315	

Notes:

[a] Intersection is two-way stop-controlled. The top rows show analysis using Highway Capacity Manual stop-controlled methodology for the purpose of evaluating the operating condition of the intersection. Average intersection vehicular delay in seconds per vehicle is reported rather than V/C ratio. The bottom rows show analysis using the CMA methodology. For the purpose of application of City of Los Angeles, significance criteria V/C ratio is reported.

[b] Intersection is all-way stop-controlled. The level of service is based on average vehicular delay in seconds per vehicle.

TABLE 4
INTERSECTION LEVEL OF SERVICE ANALYSIS SUMMARY
"WORST-CASE" FUTURE CONDITIONS (YEAR 2010)

Intersection	PEAK HOUR	CUMULATIVE BASE (YEAR 2010)		WORST CASE (YEAR 2010)		PROJECT INCREASE IN V/C	SIGNIFICANT PROJECT IMPACT
		V/C	LOS	V/C	LOS		
1 [a] N Vista St & Hollywood Bl	**A.M.**	34.5	D	37.6	E	3.100	
	P.M.	50.1	F	55.3	F	5.200	
	A.M.	0.515		0.522		0.007	NO
	P.M.	0.412		0.418		0.006	NO
2 Fuller Av & Hollywood Bl	**A.M.**	0.549	A	0.568	A	0.019	NO
	P.M.	0.466	A	0.479	A	0.013	NO
3 [b] Fuller Av & Franklin Av	**A.M.**	9.1	A	9.4	A	0.300	
	P.M.	10.4	B	10.9	B	0.500	
	A.M.	0.295		0.321		0.026	NO
	P.M.	0.379		0.397		0.018	NO
4 La Brea Av & Franklin Av	**A.M.**	0.654	B	0.664	B	0.010	NO
	P.M.	0.559	A	0.569	A	0.010	NO
5 [b] La Brea Av & Hillside Av	**A.M.**	7.4	A	7.4	A	0.000	
	P.M.	8.7	A	8.9	A	0.200	
	A.M.	0.129		0.145		0.016	NO
	P.M.	0.324		0.339		0.015	NO

Notes:

[a] Intersection is two-way stop-controlled. The top rows show analysis using Highway Capacity Manual stop-controlled methodology for the purpose of evaluating the operating condition of the intersection. Average intersection vehicular delay in seconds per vehicle is reported rather than V/C ratio. The bottom rows show analysis using the CMA methodology. For the purpose of application of City of Los Angeles, significance criteria V/C ratio is reported.

[b] Intersection is all-way stop-controlled. The level of service is based on average vehicular delay in seconds per vehicle.

TABLE 5
NEIGHBORHOOD STREET IMPACT ANALYSIS

Street Segment	Weekday Two-way Daily Volume				Impact Analysis		
	Existing	Cumulative Base	Project Only	Cumulative plus Project	Project %	Impact Criteria	Significant Impact?
N Vista Street between Franklin Av and Hollywood Bl	899	926	31	957	3.24%	16%	NO
Fuller Avenue between Franklin Av and Hollywood Bl	4894	5041	172	5213	3.30%	16%	NO
Franklin Avenue between Fuller Av and La Brea Av	7172	7387	52	7439	0.70%	16%	NO
Hillside Avenue between Fuller Av and La Brea Av	2971	3060	120	3180	3.77%	16%	NO

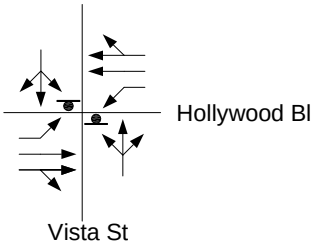
ATTACHMENT A

EXISTING LANE CONFIGURATIONS

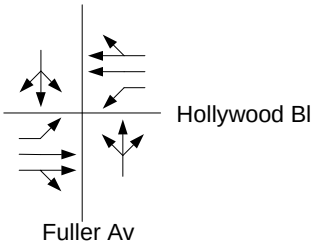
INTERSECTION LANE CONFIGURATIONS

EXISTING CONDITIONS

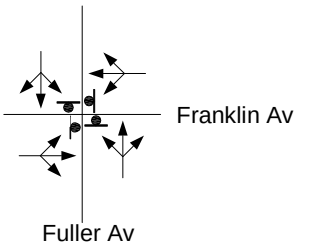
1. Vista St & Hollywood Bl



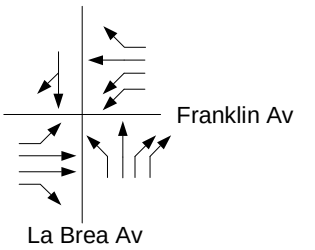
2. Fuller Av & Hollywood Bl



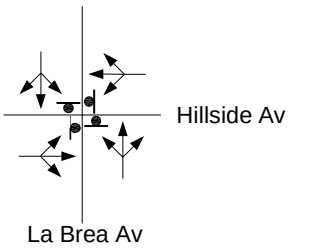
3. Fuller Av & Franklin Av



4. La Brea Av & Franklin Av



5. La Brea Av & Hillside Av



LEGEND

Stop Controlled

ATTACHMENT B

INTERSECTION TRAFFIC COUNTS

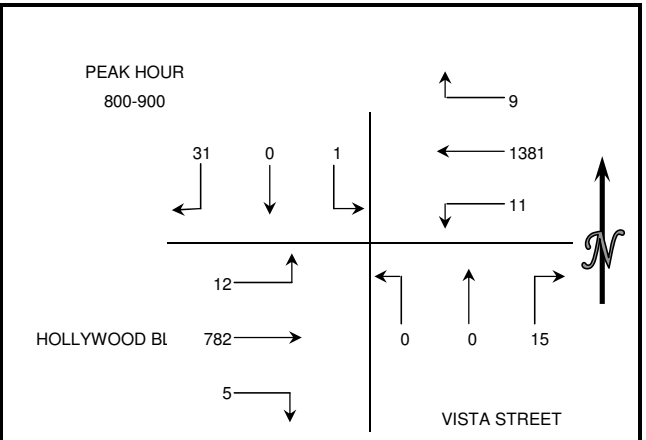
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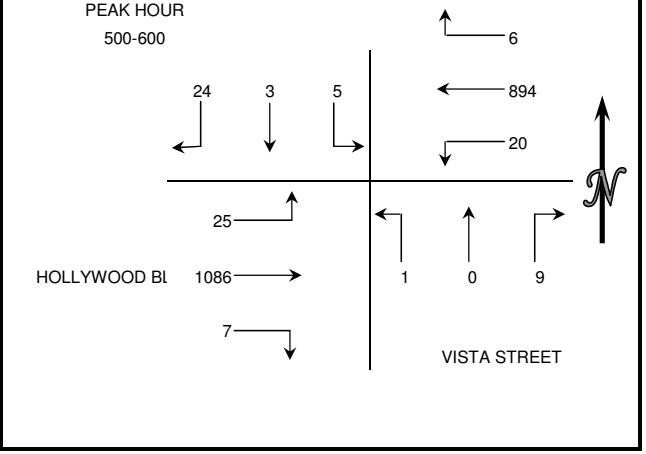
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS/KAKU ASSOCIATES
PROJECT: RUNYON CANYON TRAFFIC COUNTS
DATE: TUESDAY JUNE 26TH, 2007
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S VISTA STREET
E/W HOLLYWOOD BLVD
CITY: HOLLYWOOD

15 MIN COUNTS	7:00 AM TO 9:00 AM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-715	2	1	0	0	266	3	3	0	1	0	91	2	369
715-730	5	0	0	0	353	1	3	0	0	0	99	2	463
730-745	9	0	0	0	364	0	4	0	0	0	131	4	512
745-800	3	0	0	5	384	2	5	0	0	1	118	2	520
800-815	9	0	1	4	375	5	7	0	0	1	148	1	551
815-830	7	0	0	3	399	3	2	0	0	1	184	1	600
830-845	8	0	0	0	296	2	2	0	0	1	209	9	527
845-900	7	0	0	2	311	1	4	0	0	2	241	1	569
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
700-800	19	1	0	5	1367	6	15	0	1	1	439	10	1864
715-815	26	0	1	9	1476	8	19	0	0	2	496	9	2046
730-830	28	0	1	12	1522	10	18	0	0	3	581	8	2183
745-845	27	0	1	12	1454	12	16	0	0	4	659	13	2198
800-900	31	0	1	9	1381	11	15	0	0	5	782	12	2247



15 MIN COUNTS	4:00 PM TO 6:00 PM												
	1	2	3	4	5	6	7	8	9	10	11	12	
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-415	4	1	1	3	178	3	4	0	0	2	250	2	448
415-430	0	0	1	2	206	0	2	0	2	1	246	4	464
430-445	18	0	1	4	191	0	3	0	0	2	271	2	492
445-500	13	0	2	3	185	4	9	0	0	3	274	5	498
500-515	5	2	3	1	229	8	4	0	0	1	257	4	514
515-530	5	0	0	1	215	2	4	0	1	3	268	5	504
530-545	7	1	2	2	237	9	0	0	0	1	274	12	545
545-600	7	0	0	2	213	1	1	0	0	2	287	4	517
HOUR TOTALS													
	1	2	3	4	5	6	7	8	9	10	11	12	
TIME	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTAL
400-500	35	1	5	12	760	7	18	0	2	8	1041	13	1902
415-515	36	2	7	10	811	12	18	0	2	7	1048	15	1968
430-530	41	2	6	9	820	14	20	0	1	9	1070	16	2008
445-545	30	3	7	7	866	23	17	0	1	8	1073	26	2061
500-600	24	3	5	6	894	20	9	0	1	7	1086	25	2080



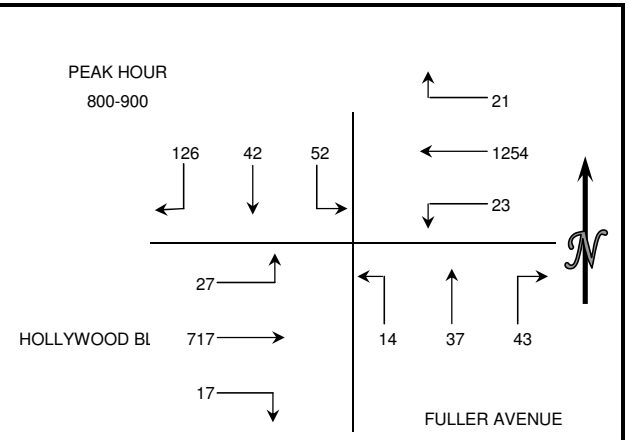
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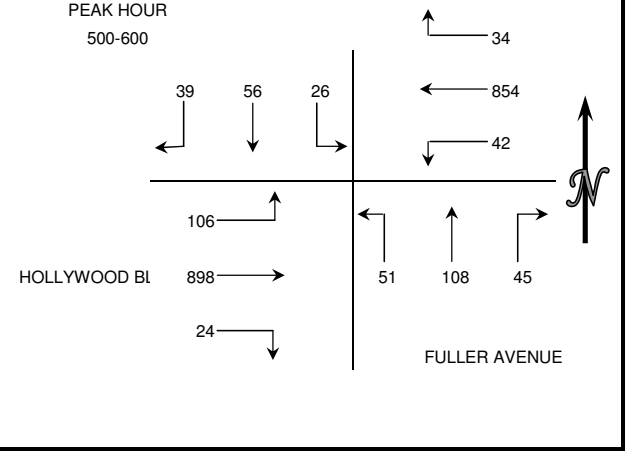
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS/KAKU ASSOCIATES
PROJECT: RUNYON CANYON TRAFFIC COUNTS
DATE: TUESDAY JUNE 26TH, 2007
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S FULLER AVENUE
E/W HOLLYWOOD BLVD
CITY: HOLLYWOOD

15 MIN COUNTS	7:00 AM TO 9:00 AM												
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	14	6	5	5	259	6	5	7	0	2	85	3	397
715-730	12	9	6	7	290	8	6	5	0	2	103	6	454
730-745	19	7	5	9	349	8	8	4	1	3	116	8	537
745-800	19	12	4	7	326	15	11	5	5	6	125	4	539
800-815	41	7	7	3	364	5	17	6	4	3	136	4	597
815-830	21	9	14	3	320	3	9	9	2	4	174	8	576
830-845	34	12	20	9	311	2	7	12	5	3	204	5	624
845-900	30	14	11	6	259	13	10	10	3	7	203	10	576
HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	64	34	20	28	1224	37	30	21	6	13	429	21	1927
715-815	91	35	22	26	1329	36	42	20	10	14	480	22	2127
730-830	100	35	30	22	1359	31	45	24	12	16	551	24	2249
745-845	115	40	45	22	1321	25	44	32	16	16	639	21	2336
800-900	126	42	52	21	1254	23	43	37	14	17	717	27	2373



15 MIN COUNTS	4:00 PM TO 6:00 PM												
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	6	10	7	11	186	14	15	23	12	5	217	29	535
415-430	13	15	3	10	184	8	5	13	7	5	203	20	486
430-445	11	9	7	11	189	18	12	24	12	5	237	19	554
445-500	14	13	5	14	170	6	9	22	10	4	212	22	501
500-515	13	16	5	6	224	12	12	20	19	4	226	24	581
515-530	9	12	13	11	201	15	11	34	14	6	236	22	584
530-545	10	14	5	9	238	6	10	26	5	7	228	34	592
545-600	7	14	3	8	191	9	12	28	13	7	208	26	526
HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	44	47	22	46	729	46	41	82	41	19	869	90	2076
415-515	51	53	20	41	767	44	38	79	48	18	878	85	2122
430-530	47	50	30	42	784	51	44	100	55	19	911	87	2220
445-545	46	55	28	40	833	39	42	102	48	21	902	102	2258
500-600	39	56	26	34	854	42	45	108	51	24	898	106	2283



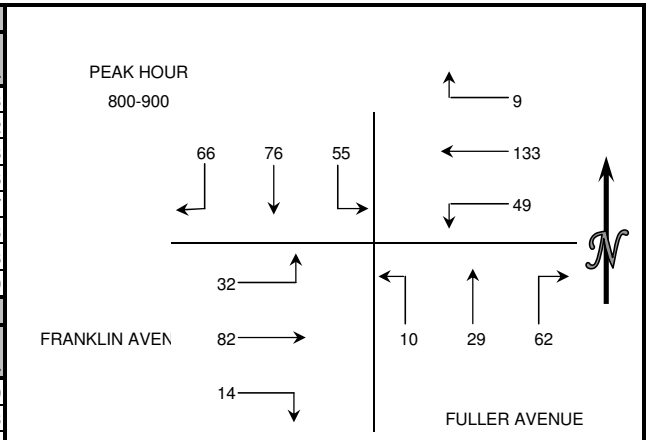
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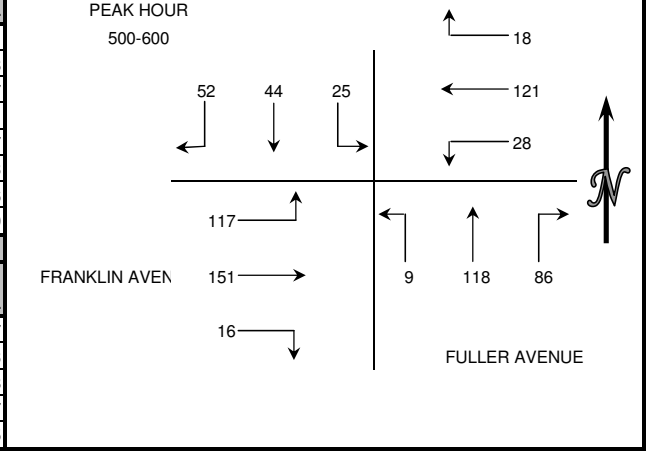
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS/KAKU ASSOCIATES
PROJECT: RUNYON CANYON TRAFFIC COUNTS
DATE: TUESDAY JUNE 26TH, 2007
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S FULLER AVENUE
E/W FRANKLIN AVENUE
CITY: HOLLYWOOD

15 MIN COUNTS	7:00 AM TO 9:00 AM												
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	4	10	9	1	16	6	8	3	4	1	8	3	73
715-730	9	7	13	1	21	5	11	5	2	3	15	0	92
730-745	13	10	6	1	27	5	13	9	2	2	17	3	108
745-800	16	8	6	1	25	12	13	7	2	2	21	3	116
800-815	18	17	8	2	29	13	13	6	4	2	20	5	137
815-830	19	18	13	2	34	11	10	7	3	4	12	10	143
830-845	15	20	13	2	41	11	23	8	1	4	29	11	178
845-900	14	21	21	3	29	14	16	8	2	4	21	6	159
HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	42	35	34	4	89	28	45	24	10	8	61	9	389
715-815	56	42	33	5	102	35	50	27	10	9	73	11	453
730-830	66	53	33	6	115	41	49	29	11	10	70	21	504
745-845	68	63	40	7	129	47	59	28	10	12	82	29	574
800-900	66	76	55	9	133	49	62	29	10	14	82	32	617



15 MIN COUNTS	4:00 PM TO 6:00 PM												
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	7	6	8	3	22	6	27	20	4	3	32	13	151
415-430	11	9	7	1	27	15	10	28	6	5	25	14	158
430-445	10	7	3	3	34	6	11	22	6	3	27	25	157
445-500	13	8	4	5	30	11	23	21	4	6	38	28	191
500-515	12	11	8	4	30	7	18	29	2	5	35	26	187
515-530	17	11	7	5	22	11	23	25	2	2	37	21	183
530-545	11	10	3	4	38	4	24	33	3	3	43	10	186
545-600	12	12	7	5	31	6	21	31	2	6	36	60	229
HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	41	30	22	12	113	38	71	91	20	17	122	80	657
415-515	46	35	22	13	121	39	62	100	18	19	125	93	693
430-530	52	37	22	17	116	35	75	97	14	16	137	100	718
445-545	53	40	22	18	120	33	88	108	11	16	153	85	747
500-600	52	44	25	18	121	28	86	118	9	16	151	117	785



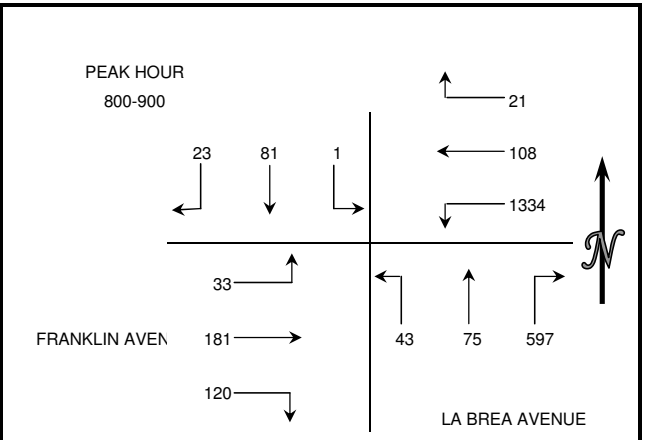
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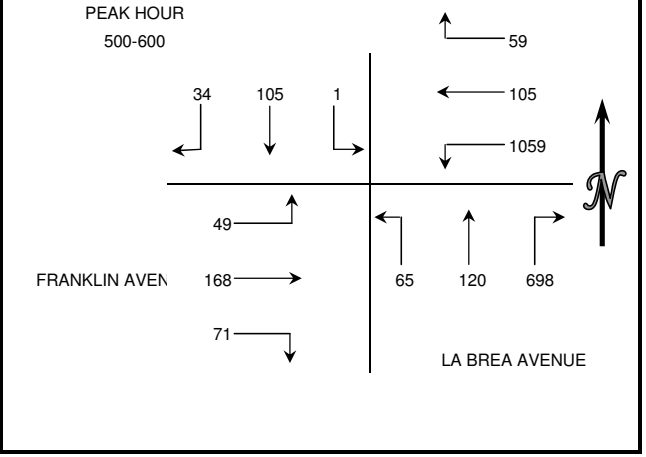
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS/KAKU ASSOCIATES
PROJECT: RUNYON CANYON TRAFFIC COUNTS
DATE: TUESDAY JUNE 26TH, 2007
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S LA BREA AVENUE
E/W FRANKLIN AVENUE
CITY: HOLLYWOOD

15 MIN COUNTS	7:00 AM TO 9:00 AM												
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	1	9	0	4	14	343	99	7	8	19	20	2	526
715-730	1	11	0	3	19	321	131	5	5	8	34	0	538
730-745	3	9	0	3	25	390	166	14	5	17	30	5	667
745-800	2	12	0	7	29	357	155	11	7	31	36	5	652
800-815	8	13	0	3	26	314	144	13	8	20	41	3	593
815-830	4	25	1	6	29	349	120	17	8	17	39	7	622
830-845	6	20	0	4	32	338	178	28	13	38	61	10	728
845-900	5	23	0	8	21	333	155	17	14	45	40	13	674
HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	7	41	0	17	87	1411	551	37	25	75	120	12	2383
715-815	14	45	0	16	99	1382	596	43	25	76	141	13	2450
730-830	17	59	1	19	109	1410	585	55	28	85	146	20	2534
745-845	20	70	1	20	116	1358	597	69	36	106	177	25	2595
800-900	23	81	1	21	108	1334	597	75	43	120	181	33	2617



15 MIN COUNTS	4:00 PM TO 6:00 PM												
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	2	13	1	7	22	222	172	23	15	19	42	7	545
415-430	6	20	0	10	31	256	178	27	12	18	28	5	591
430-445	12	26	0	7	28	259	222	28	14	13	45	5	659
445-500	12	24	0	9	31	261	177	19	14	20	34	9	610
500-515	5	19	0	10	22	248	170	29	22	22	39	16	602
515-530	7	29	0	19	26	248	164	29	8	14	36	8	588
530-545	7	31	1	13	30	267	187	25	18	16	57	14	666
545-600	15	26	0	17	27	296	177	37	17	19	36	11	678
HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	32	83	1	33	112	998	749	97	55	70	149	26	2405
415-515	35	89	0	36	112	1024	747	103	62	73	146	35	2462
430-530	36	98	0	45	107	1016	733	105	58	69	154	38	2459
445-545	31	103	1	51	109	1024	698	102	62	72	166	47	2466
500-600	34	105	1	59	105	1059	698	120	65	71	168	49	2534



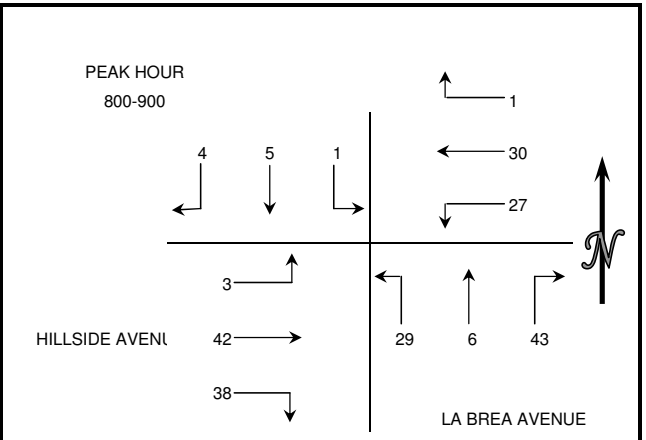
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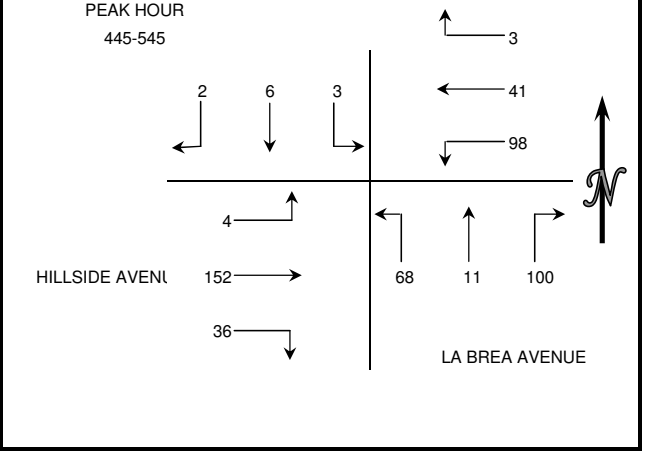
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS/KAKU ASSOCIATES
PROJECT: RUNYON CANYON TRAFFIC COUNTS
DATE: TUESDAY JUNE 26TH, 2007
PERIODS: 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM
INTERSECTION: N/S LA BREA AVENUE
E/W HILLSIDE AVENUE
CITY: HOLLYWOOD

15 MIN COUNTS	7:00 AM TO 9:00 AM												
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-715	0	0	0	2	1	1	3	2	4	4	2	0	19
715-730	0	0	0	0	4	3	4	1	5	4	3	0	24
730-745	0	0	0	0	10	4	6	2	3	4	3	0	32
745-800	2	2	0	0	3	3	4	4	8	5	12	0	43
800-815	0	3	0	1	12	4	5	2	8	7	7	1	50
815-830	2	1	1	0	8	11	8	0	8	8	10	2	59
830-845	2	1	0	0	5	4	19	3	5	10	14	0	63
845-900	0	0	0	0	5	8	11	1	8	13	11	0	57
HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
700-800	2	2	0	2	18	11	17	9	20	17	20	0	118
715-815	2	5	0	1	29	14	19	9	24	20	25	1	149
730-830	4	6	1	1	33	22	23	8	27	24	32	3	184
745-845	6	7	1	1	28	22	36	9	29	30	43	3	215
800-900	4	5	1	1	30	27	43	6	29	38	42	3	229



15 MIN COUNTS	4:00 PM TO 6:00 PM												
PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-415	0	0	3	0	4	9	19	3	13	3	14	1	69
415-430	2	4	0	0	8	17	19	7	11	9	26	1	104
430-445	0	3	0	0	3	11	12	3	13	5	27	1	78
445-500	0	0	1	0	16	30	14	4	14	12	31	1	123
500-515	2	4	1	1	7	16	35	2	15	6	39	3	131
515-530	0	1	0	0	12	26	23	1	26	10	34	0	133
530-545	0	1	1	2	6	26	28	4	13	8	48	0	137
545-600	1	1	0	0	10	19	27	4	17	6	35	2	122
HOUR TOTALS													
TIME	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTAL
400-500	2	7	4	0	31	67	64	17	51	29	98	4	374
415-515	4	11	2	1	34	74	80	16	53	32	123	6	436
430-530	2	8	2	1	38	83	84	10	68	33	131	5	465
445-545	2	6	3	3	41	98	100	11	68	36	152	4	524
500-600	3	7	2	3	35	87	113	11	71	30	156	5	523



ATTACHMENT C

LEVEL OF SERVICE CALCULATION WORKSHEETS

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Vista Street / Hollywood Boulevard

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[16.9]

Street Name:	Vista Street						Hollywood Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 1			0 0 1! 0 0			1 0 1 1 0			1 0 1 1 0		
Volume Module:												
Base Vol:	0	0	15	1	0	31	12	482	5	11	1381	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	15	1	0	31	12	482	5	11	1381	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	15	1	0	31	12	482	5	11	1381	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	15	1	0	31	12	482	5	11	1381	9
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.9	7.5	xxxx	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	3.5	xxxx	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	244	1673	xxxx	695	1390	xxxx	xxxxx	487	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	763	64	xxxx	389	499	xxxx	xxxxx	1086	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	763	61	xxxx	389	499	xxxx	xxxxx	1086	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.02	0.02	xxxx	0.08	0.02	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	0.1	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	9.8	xxxxx	xxxx	xxxxx	12.4	xxxx	xxxxx	8.3	xxxx	xxxxx
LOS by Move:	*	*	A	*	*	*	B	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	333	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	16.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	9.8			16.9			xxxxxx			xxxxxx		
ApproachLOS:	A			C			*			*		

EXAM

July 23, 2007 ,Monday 10:07:48 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VISTA ST W/E: HOLLYWOOD I/S No: 1

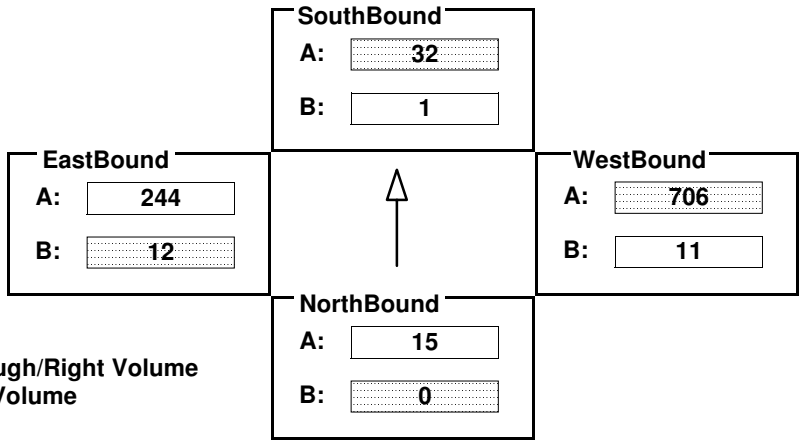
AM/PM: AM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	15	1	0	31	11	1381	9	12	482	5
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	15	1	0	31	11	1381	9	12	482	5
LANE												
	1			1			1	1		1	1	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 32 + 706 + 12}{1500} = 0.500$$

LOS = A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Vista Street / Hollywood Boulevard

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: E[45.7]

Street Name:	Vista Street						Hollywood Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	1	0	9	5	3	24	25	1086	7	20	894	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	9	5	3	24	25	1086	7	20	894	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	0	9	5	3	24	25	1086	7	20	894	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	1	0	9	5	3	24	25	1086	7	20	894	6
Critical Gap Module:												
Critical Gp:	7.1	xxxx	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2090	xxxx	1089	2081	2080	897	900	xxxx	xxxxx	1093	xxxx	xxxxx
Potent Cap.:	39	xxxx	264	40	54	341	763	xxxx	xxxxx	646	xxxx	xxxxx
Move Cap.:	33	xxxx	264	36	51	341	763	xxxx	xxxxx	646	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	0.03	0.14	0.06	0.07	0.03	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.9	xxxx	xxxxx	10.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	B	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	155	xxxxx	xxxx	120	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	1.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	29.8	xxxxx	xxxxx	45.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	D	*	*	E	*	*	*	*	*	*	*
ApproachDel:		29.8			45.7			xxxxxx			xxxxxx	
ApproachLOS:		D			E			*			*	

EXPM

July 23, 2007 ,Monday 10:09:14 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VISTA ST W/E: HOLLYWOOD I/S No: 1

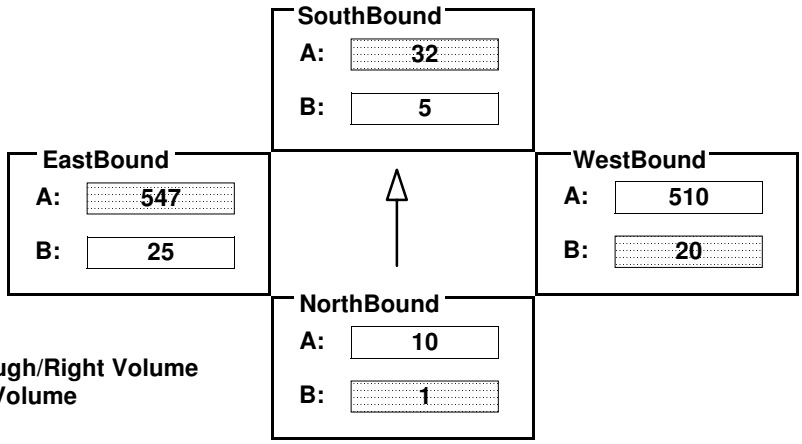
AM/PM: PM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	0	9	5	3	24	20	894	6	25	1086	7
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	0	9	5	3	24	20	894	6	25	1086	7
LANE				1				1		1		1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1 + 32 + 20 + 547}{1500} = 0.400$$

LOS = A

EXAM

CalcaDB

July 23, 2007 ,Monday 10:07:48 AM

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: HOLLYWOOD BL I/S No: 2

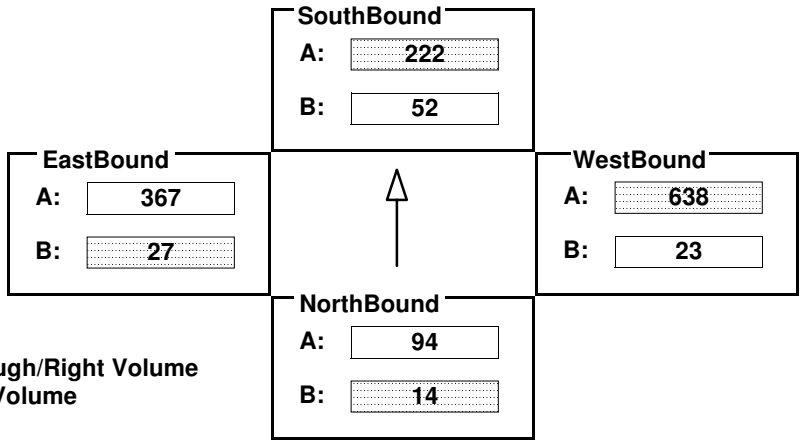
AM/PM: AM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	37	43	52	42	128	23	1254	21	27	717	17
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	37	43	52	42	128	23	1254	21	27	717	17
LANE												
	1			1			1	1	1	1	1	1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{14 + 222 + 638 + 27}{*1500} = 0.531$$

LOS = A

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: HOLLYWOOD BL I/S No: 2

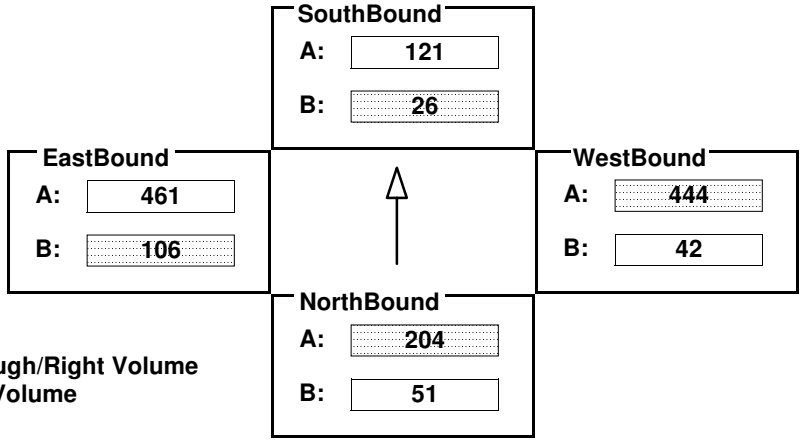
AM/PM: PM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	51	108	45	26	56	39	42	854	34	106	898	24
AMBIENT												
RELATED												
PROJECT												
TOTAL	51	108	45	26	56	39	42	854	34	106	898	24
LANE												
	1			1			1		1	1		1
									1			1
SIGNAL	Phasing: Perm	RTOR: Auto		Phasing: Perm	RTOR: Auto		Phasing: Perm	RTOR: Auto		Phasing: Perm	RTOR: Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{204 + 26 + 444 + 106}{*1500} = 0.450$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Fuller Avenue / Franklin Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.267
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	9.0
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Fuller Avenue						Franklin Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	10	29	62	55	76	66	32	82	14	49	133	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	29	62	55	76	66	32	82	14	49	133	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	29	62	55	76	66	32	82	14	49	133	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	29	62	55	76	66	32	82	14	49	133	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	10	29	62	55	76	66	32	82	14	49	133	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.29	0.61	0.28	0.39	0.33	0.25	0.64	0.11	0.26	0.69	0.05
Final Sat.:	73	212	452	206	284	247	177	452	77	184	500	34
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.27	0.27	0.27	0.18	0.18	0.18	0.27	0.27	0.27
Crit Moves:			****			****			****			****
Delay/Veh:	8.2	8.2	8.2	9.2	9.2	9.2	8.8	8.8	8.8	9.4	9.4	9.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	8.2	9.2	9.2	9.2	8.8	8.8	8.8	9.4	9.4	9.4
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.2			9.2			8.8			9.4	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.2			9.2			8.8			9.4	
LOS by Appr:		A			A			A			A	

EXAM

CalcaDB

July 23, 2007 ,Monday 10:07:48 AM

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: FRANKLIN AV I/S No: 3

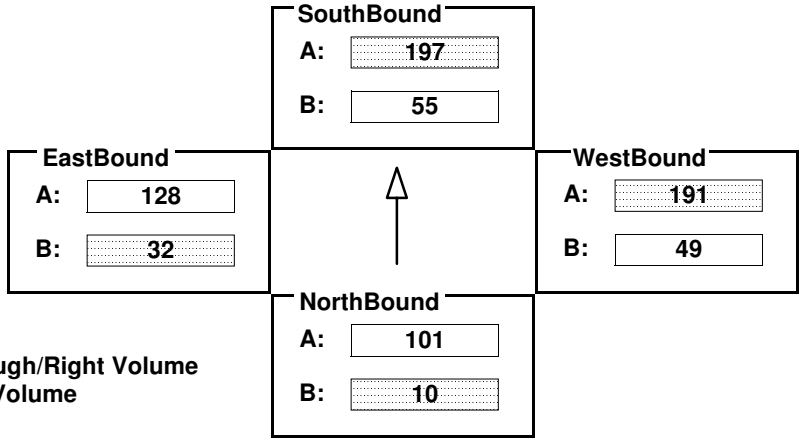
AM/PM: AM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	10	29	62	55	76	66	49	133	9	32	82	14
AMBIENT												
RELATED												
PROJECT												
TOTAL	10	29	62	55	76	66	49	133	9	32	82	14
LANE		1			1			1			1	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{10 + 197 + 191 + 32}{1500} = 0.287$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Fuller Avenue / Franklin Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.413
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	10.2
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Fuller Avenue						Franklin Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	9	118	86	25	44	52	117	151	16	28	121	18
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	118	86	25	44	52	117	151	16	28	121	18
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	118	86	25	44	52	117	151	16	28	121	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	118	86	25	44	52	117	151	16	28	121	18
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	118	86	25	44	52	117	151	16	28	121	18
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.56	0.40	0.21	0.36	0.43	0.41	0.53	0.06	0.17	0.72	0.11
Final Sat.:	29	376	274	133	235	277	283	366	39	111	481	72
Capacity Analysis Module:												
Vol/Sat:	0.31	0.31	0.31	0.19	0.19	0.19	0.41	0.41	0.41	0.25	0.25	0.25
Crit Moves:			****		****				****		****	
Delay/Veh:	10.0	10.0	10.0	9.1	9.1	9.1	11.2	11.2	11.2	9.6	9.6	9.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.0	10.0	10.0	9.1	9.1	9.1	11.2	11.2	11.2	9.6	9.6	9.6
LOS by Move:	A	A	A	A	A	A	B	B	B	A	A	A
ApproachDel:		10.0			9.1			11.2			9.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.0			9.1			11.2			9.6	
LOS by Appr:		A			A			B			A	

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: FRANKLIN AV I/S No: 3

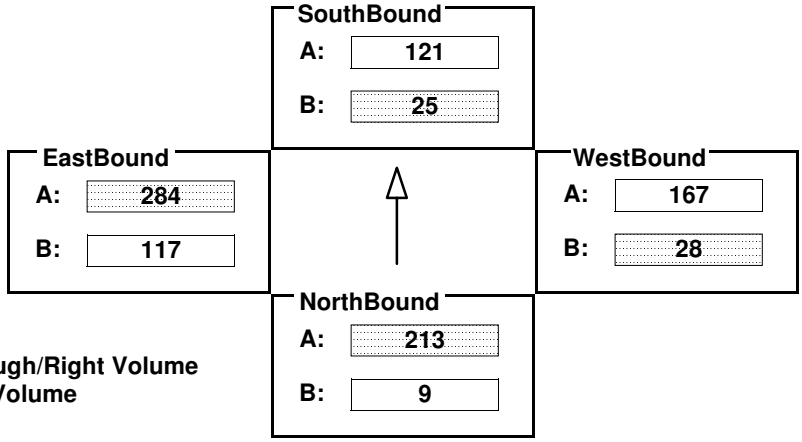
AM/PM: PM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	9	118	86	25	44	52	28	121	18	117	151	16
AMBIENT												
RELATED												
PROJECT												
TOTAL	9	118	86	25	44	52	28	121	18	117	151	16
LANE					1						1						1						1		
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{213 + 25 + 28 + 284}{1500} = 0.367$$

LOS = A

EXAM

CalcaDB

July 23, 2007 ,Monday 10:07:48 AM

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: FRANKLIN AV I/S No: 4

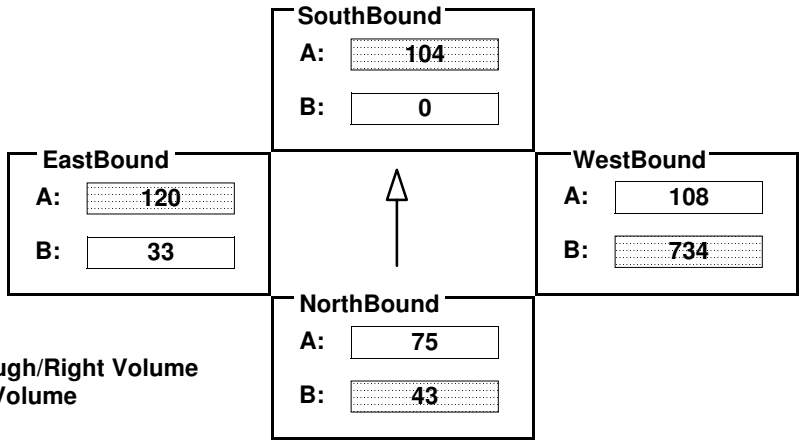
AM/PM: AM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	43	75	597	1	81	23	1334	108	21	33	181	120
AMBIENT												
RELATED												
PROJECT												
TOTAL	43	75	597	1	81	23	1334	108	21	33	181	120
LANE	1	1	2	1	2	1	2	1	1	1	2	1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	OLA		Perm	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{43 + 104 + 734 + 120}{*1425} = 0.632$$

LOS = B

Developed by Chun Wong, 12/94

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: FRANKLIN AV I/S No: 4

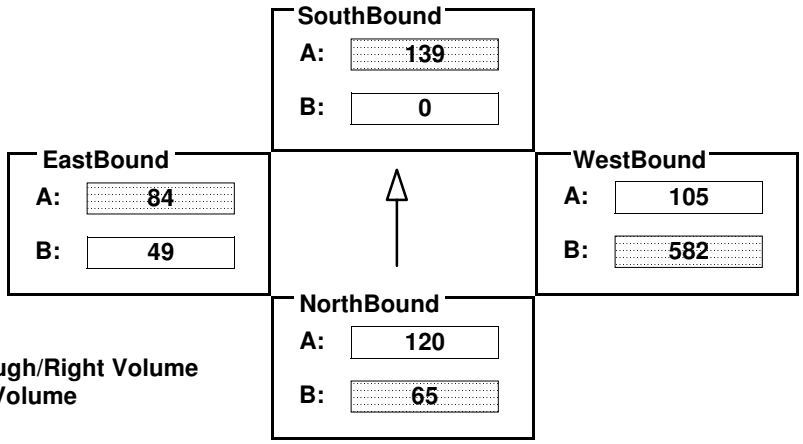
AM/PM: PM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	65	120	698	1	105	34	1059	105	59	49	168	71
AMBIENT												
RELATED												
PROJECT												
TOTAL	65	120	698	1	105	34	1059	105	59	49	168	71
LANE	1	1	2	1	1		2	1	1	1	2	1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	OLA		Perm	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{65 + 139 + 582 + 84}{*1425} = 0.541$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 La Brea Avenue / Hillside Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.091
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	7.3
Optimal Cycle:	0	Level Of Service:	A

Street Name:	La Brea Avenue						Hillside Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	29	6	43	1	5	4	3	42	38	27	30	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	6	43	1	5	4	3	42	38	27	30	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	6	43	1	5	4	3	42	38	27	30	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	6	43	1	5	4	3	42	38	27	30	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	29	6	43	1	5	4	3	42	38	27	30	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.37	0.08	0.55	0.10	0.50	0.40	0.04	0.50	0.46	0.46	0.52	0.02
Final Sat.:	329	68	488	86	429	343	33	461	417	387	430	14
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.01	0.01	0.01	0.09	0.09	0.09	0.07	0.07	0.07
Crit Moves:		****			****			****			****	
Delay/Veh:	7.3	7.3	7.3	7.1	7.1	7.1	7.2	7.2	7.2	7.5	7.5	7.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.3	7.3	7.3	7.1	7.1	7.1	7.2	7.2	7.2	7.5	7.5	7.5
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		7.3			7.1			7.2			7.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.3			7.1			7.2			7.5	
LOS by Appr:		A			A			A			A	

EXAM

July 23, 2007 ,Monday 10:07:48 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: HILLSIDE AV I/S No: 5

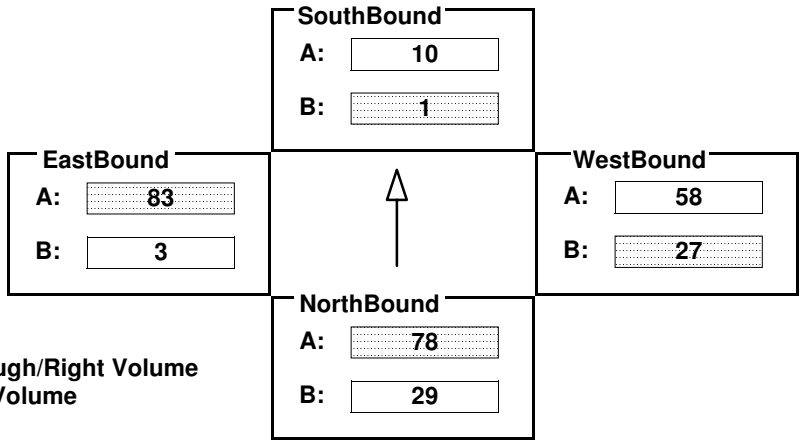
AM/PM: AM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	29	6	43	1	5	4	27	30	1	3	42	38
AMBIENT												
RELATED												
PROJECT												
TOTAL	29	6	43	1	5	4	27	30	1	3	42	38
LANE		1			1			1			1	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{78 + 1 + 27 + 83}{1500} = 0.126$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 La Brea Avenue / Hillside Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.242
Loss Time (sec): 0 (Y+R = 0 sec) Average Delay (sec/veh): 8.7
Optimal Cycle: 0 Level Of Service: A

Street Name:	La Brea Avenue						Hillside Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	68	11	100	3	6	2	4	152	36	98	41	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	68	11	100	3	6	2	4	152	36	98	41	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	68	11	100	3	6	2	4	152	36	98	41	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	11	100	3	6	2	4	152	36	98	41	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	68	11	100	3	6	2	4	152	36	98	41	3
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.38	0.06	0.56	0.27	0.55	0.18	0.02	0.79	0.19	0.69	0.29	0.02
Final Sat.:	295	48	433	189	378	126	17	627	149	513	215	16
Capacity Analysis Module:												
Vol/Sat:	0.23	0.23	0.23	0.02	0.02	0.02	0.24	0.24	0.24	0.19	0.19	0.19
Crit Moves:	****				****			****				****
Delay/Veh:	8.6	8.6	8.6	7.9	7.9	7.9	8.7	8.7	8.7	8.7	8.7	8.7
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.6	8.6	8.6	7.9	7.9	7.9	8.7	8.7	8.7	8.7	8.7	8.7
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.6			7.9			8.7			8.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.6			7.9			8.7			8.7		
LOS by Appr:	A			A			A			A		

EXPM

July 23, 2007 ,Monday 10:09:14 AM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: HILLSIDE AV I/S No: 5

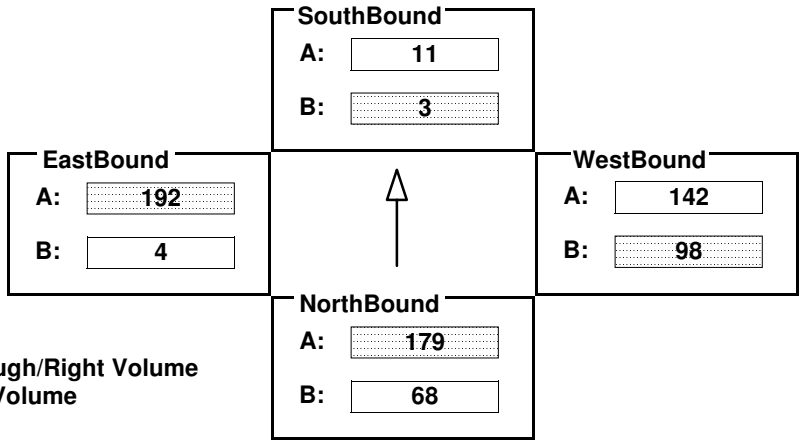
AM/PM: PM Comments: EXISTING CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	68	11	100	3	6	2	98	41	3	4	152	36
AMBIENT												
RELATED												
PROJECT												
TOTAL	68	11	100	3	6	2	98	41	3	4	152	36
LANE		1			1			1			1	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{179 + 3 + 98 + 192}{1500} = 0.315$$

LOS = A

Developed by Chun Wong, 12/94

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Vista Street / Hollywood Boulevard

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: D[34.5]

Street Name:	Vista Street						Hollywood Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 1			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	0	15	1	0	32	12	496	5	11	1422	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	15	1	0	32	12	496	5	11	1422	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	15	1	0	32	12	496	5	11	1422	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	15	1	0	32	12	496	5	11	1422	9
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	6.2	7.1	xxxx	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	3.5	xxxx	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	499	1979	xxxx	1427	1431	xxxx	xxxxx	501	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	576	47	xxxx	168	481	xxxx	xxxxx	1074	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	576	44	xxxx	168	481	xxxx	xxxxx	1074	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.03	0.02	xxxx	0.19	0.02	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	0.1	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	11.4	xxxxx	xxxx	xxxxx	12.7	xxxx	xxxxx	8.4	xxxx	xxxxx
LOS by Move:	*	*	B	*	*	*	B	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	155	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	xxxxx	34.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	*	*	*	*	*	*
ApproachDel:	11.4			34.5			xxxxxx			xxxxxx		
ApproachLOS:	B			D			*			*		

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VISTA ST W/E: HOLLYWOOD I/S No: 1

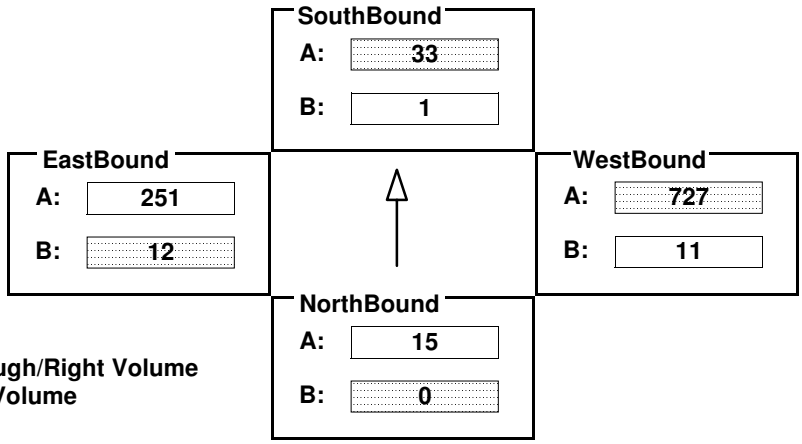
AM/PM: AM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	0	15	1	0	32	11	1422	9	12	496	5
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	0	15	1	0	32	11	1422	9	12	496	5
LANE				1				1		1		1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 33 + 727 + 12}{1500} = 0.515$$

LOS = A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Vista Street / Hollywood Boulevard

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: F[50.1]

Street Name:	Vista Street						Hollywood Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	1	0	9	5	3	25	26	1119	7	21	921	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	0	9	5	3	25	26	1119	7	21	921	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	0	9	5	3	25	26	1119	7	21	921	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	1	0	9	5	3	25	26	1119	7	21	921	6
Critical Gap Module:												
Critical Gp:	7.1	xxxx	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2155	xxxx	1123	2145	2144	924	927	xxxx	xxxxx	1126	xxxx	xxxxx
Potent Cap.:	35	xxxx	253	36	49	329	746	xxxx	xxxxx	628	xxxx	xxxxx
Move Cap.:	29	xxxx	253	33	46	329	746	xxxx	xxxxx	628	xxxx	xxxxx
Volume/Cap:	0.03	xxxx	0.04	0.15	0.07	0.08	0.03	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx	10.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	143	xxxxx	xxxx	112	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	1.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	32.0	xxxxx	xxxxx	50.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	D	*	*	F	*	*	*	*	*	*	*
ApproachDel:	32.0			50.1			xxxxxx			xxxxxx		
ApproachLOS:	D			F			*			*		

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VISTA ST W/E: HOLLYWOOD I/S No: 1

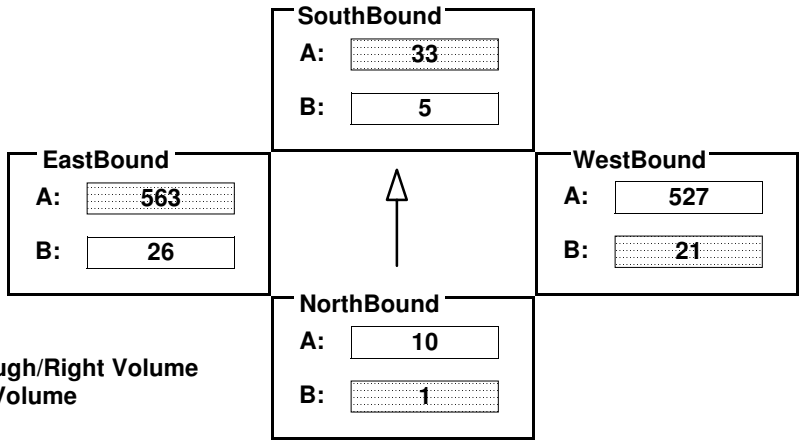
AM/PM: PM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	0	9	5	3	25	21	921	6	26	1119	7
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	0	9	5	3	25	21	921	6	26	1119	7
LANE				1				1		1		1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1 + 33 + 21 + 563}{1500} = 0.412$$

LOS = A

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: HOLLYWOOD BL I/S No: 2

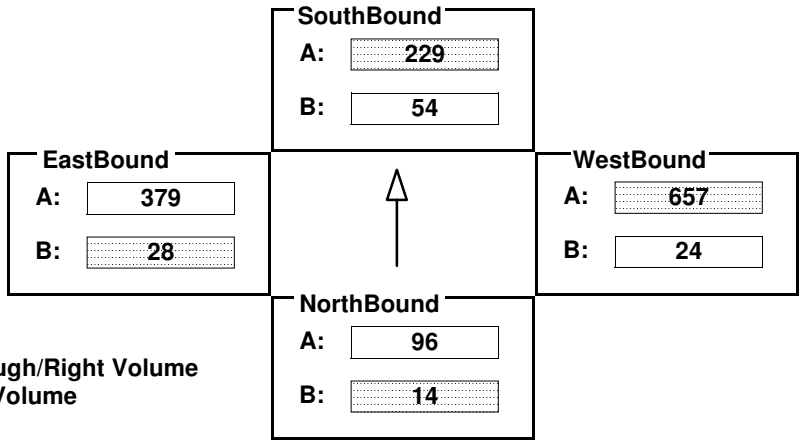
AM/PM: AM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	38	44	54	43	132	24	1292	22	28	739	18
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	38	44	54	43	132	24	1292	22	28	739	18
LANE												
			1				1		1			
					1							
									1			
										1		1
												1
SIGNAL	Phasing: Perm	RTOR: Auto		Phasing: Perm	RTOR: Auto		Phasing: Perm	RTOR: Auto		Phasing: Perm	RTOR: Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{14 + 229 + 657 + 28}{*1500} = 0.549$$

LOS = A

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: HOLLYWOOD BL I/S No: 2

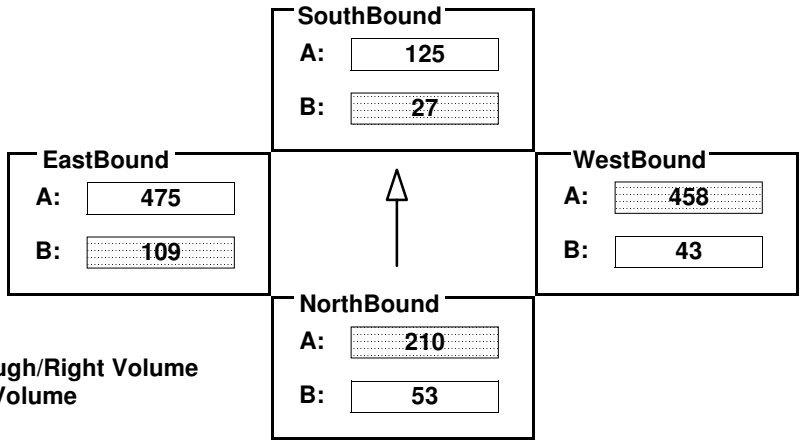
AM/PM: PM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	53	111	46	27	58	40	43	880	35	109	925	25
AMBIENT												
RELATED												
PROJECT												
TOTAL	53	111	46	27	58	40	43	880	35	109	925	25
LANE												
	1			1			1	1	1	1	1	1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{210 + 27 + 458 + 109}{*1500} = 0.466$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Fuller Avenue / Franklin Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.277
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	9.1
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Fuller Avenue						Franklin Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	30	64	57	78	68	33	84	14	50	137	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	30	64	57	78	68	33	84	14	50	137	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	30	64	57	78	68	33	84	14	50	137	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	30	64	57	78	68	33	84	14	50	137	9
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	10	30	64	57	78	68	33	84	14	50	137	9
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.29	0.61	0.28	0.39	0.33	0.25	0.64	0.11	0.25	0.70	0.05
Final Sat.:	70	211	450	205	281	245	176	449	75	182	498	33
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.28	0.28	0.28	0.19	0.19	0.19	0.27	0.27	0.27
Crit Moves:		****			****			****				****
Delay/Veh:	8.3	8.3	8.3	9.3	9.3	9.3	8.9	8.9	8.9	9.5	9.5	9.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.3	8.3	8.3	9.3	9.3	9.3	8.9	8.9	8.9	9.5	9.5	9.5
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.3			9.3			8.9			9.5	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.3			9.3			8.9			9.5	
LOS by Appr:		A			A			A			A	

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: FRANKLIN AV I/S No: 3

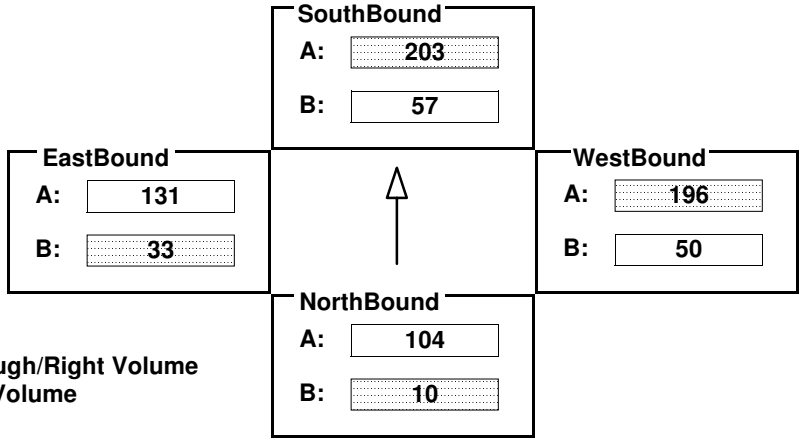
AM/PM: AM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	10	30	64	57	78	68	50	137	9	33	84	14
AMBIENT												
RELATED												
PROJECT												
TOTAL	10	30	64	57	78	68	50	137	9	33	84	14
LANE		1			1			1			1	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{10 + 203 + 196 + 33}{1500} = 0.295$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Fuller Avenue / Franklin Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.431
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	10.4
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Fuller Avenue						Franklin Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1!	0	0 0	1!	0	0 0	1!	0	0 0	1!	0
Volume Module:												
Base Vol:	9	122	89	26	45	54	121	156	16	29	125	19
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	122	89	26	45	54	121	156	16	29	125	19
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	122	89	26	45	54	121	156	16	29	125	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	122	89	26	45	54	121	156	16	29	125	19
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	122	89	26	45	54	121	156	16	29	125	19
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.56	0.40	0.21	0.36	0.43	0.41	0.54	0.05	0.17	0.72	0.11
Final Sat.:	27	372	271	132	229	275	281	362	37	110	474	72
Capacity Analysis Module:												
Vol/Sat:	0.33	0.33	0.33	0.20	0.20	0.20	0.43	0.43	0.43	0.26	0.26	0.26
Crit Moves:	****				****			****			****	
Delay/Veh:	10.2	10.2	10.2	9.3	9.3	9.3	11.5	11.5	11.5	9.8	9.8	9.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.2	10.2	10.2	9.3	9.3	9.3	11.5	11.5	11.5	9.8	9.8	9.8
LOS by Move:	B	B	B	A	A	A	B	B	B	A	A	A
ApproachDel:	10.2			9.3			11.5			9.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	10.2			9.3			11.5			9.8		
LOS by Appr:	B			A			B			A		

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: FRANKLIN AV I/S No: 3

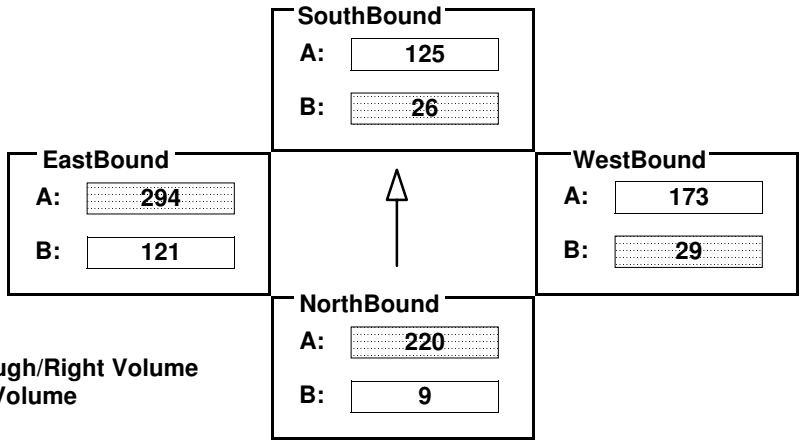
AM/PM: PM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	9	122	89	26	45	54	29	125	19	121	156	17
AMBIENT												
RELATED												
PROJECT												
TOTAL	9	122	89	26	45	54	29	125	19	121	156	17
LANE												
	1			1			1			1		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{220 + 26 + 29 + 294}{1500} = 0.379$$

LOS = A

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: FRANKLIN AV I/S No: 4

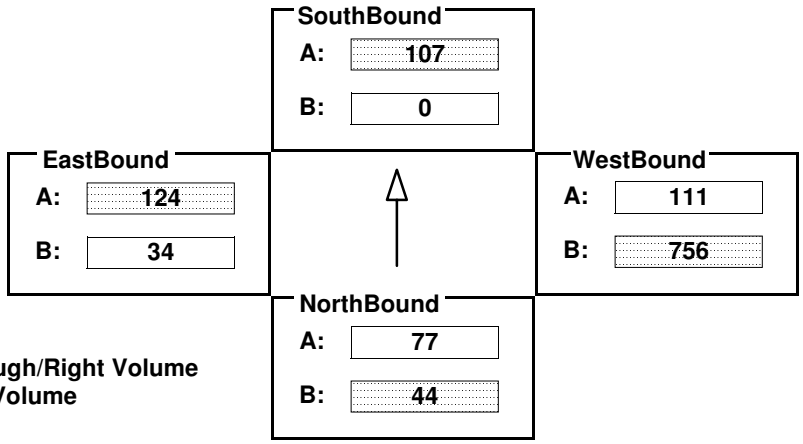
AM/PM: AM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	44	77	615	1	83	24	1374	111	22	34	186	124
AMBIENT												
RELATED												
PROJECT												
TOTAL	44	77	615	1	83	24	1374	111	22	34	186	124
LANE	1		1			2				1			2	1				1			1			2			1	
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	OLA	Perm	Auto	Split	Auto	Split	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{44 + 107 + 756 + 124}{*1425} = 0.654$$

LOS = B

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: FRANKLIN AV I/S No: 4

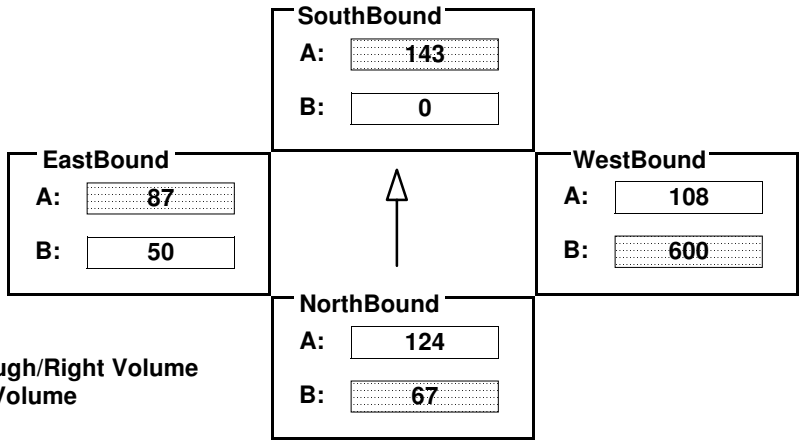
AM/PM: PM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	67	124	719	1	108	35	1091	108	61	50	173	73
AMBIENT												
RELATED												
PROJECT												
TOTAL	67	124	719	1	108	35	1091	108	61	50	173	73
LANE	1	1	2	1			2	1	1	1	2	1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	OLA		Perm	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{67 + 143 + 600 + 87}{*1425} = 0.559$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 La Brea Avenue / Hillside Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.094
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	7.4
Optimal Cycle:	0	Level Of Service:	A

Street Name:	La Brea Avenue						Hillside Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	30	6	44	1	5	4	3	43	39	28	31	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	6	44	1	5	4	3	43	39	28	31	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	30	6	44	1	5	4	3	43	39	28	31	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	6	44	1	5	4	3	43	39	28	31	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	30	6	44	1	5	4	3	43	39	28	31	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.38	0.07	0.55	0.10	0.50	0.40	0.03	0.51	0.46	0.46	0.52	0.02
Final Sat.:	331	66	485	86	428	343	32	459	417	388	429	14
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.09	0.01	0.01	0.01	0.09	0.09	0.09	0.07	0.07	0.07
Crit Moves:		****			****			****			****	
Delay/Veh:	7.3	7.3	7.3	7.1	7.1	7.1	7.3	7.3	7.3	7.6	7.6	7.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.3	7.3	7.3	7.1	7.1	7.1	7.3	7.3	7.3	7.6	7.6	7.6
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		7.3			7.1			7.3			7.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.3			7.1			7.3			7.6	
LOS by Appr:		A			A			A			A	

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: HILLSIDE AV I/S No: 5

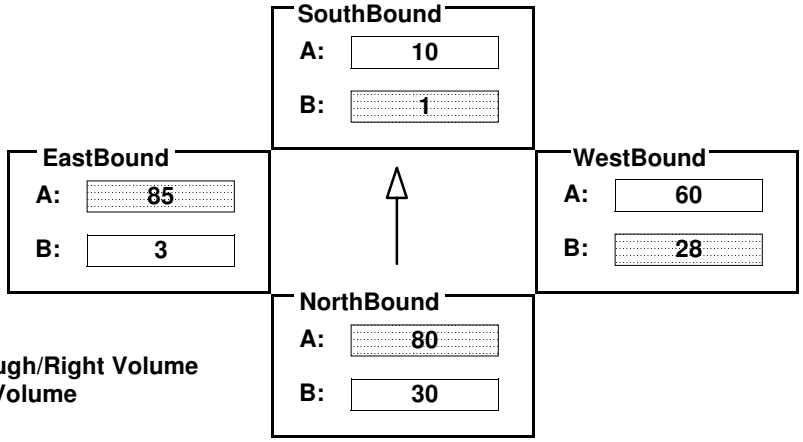
AM/PM: AM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	30	6	44	1	5	4	28	31	1	3	43	39
AMBIENT												
RELATED												
PROJECT												
TOTAL	30	6	44	1	5	4	28	31	1	3	43	39
LANE												
	1			1			1			1		
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{80 + 1 + 28 + 85}{1500} = 0.129$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 La Brea Avenue / Hillside Avenue

Cycle (sec): 100 Critical Vol./Cap. (X): 0.251
Loss Time (sec): 0 (Y+R = 0 sec) Average Delay (sec/veh): 8.7
Optimal Cycle: 0 Level Of Service: A

Street Name:	La Brea Avenue						Hillside Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	70	11	103	3	6	2	4	157	37	101	42	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	11	103	3	6	2	4	157	37	101	42	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	70	11	103	3	6	2	4	157	37	101	42	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	11	103	3	6	2	4	157	37	101	42	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	70	11	103	3	6	2	4	157	37	101	42	3
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.38	0.06	0.56	0.27	0.55	0.18	0.02	0.79	0.19	0.69	0.29	0.02
Final Sat.:	293	46	431	187	375	125	16	625	147	511	213	15
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.24	0.02	0.02	0.02	0.25	0.25	0.25	0.20	0.20	0.20
Crit Moves:	****			****			****			****		
Delay/Veh:	8.7	8.7	8.7	7.9	7.9	7.9	8.8	8.8	8.8	8.8	8.8	8.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.7	8.7	8.7	7.9	7.9	7.9	8.8	8.8	8.8	8.8	8.8	8.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.7			7.9			8.8			8.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.7			7.9			8.8			8.8		
LOS by Appr:	A			A			A			A		

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: HILLSIDE AV I/S No: 5

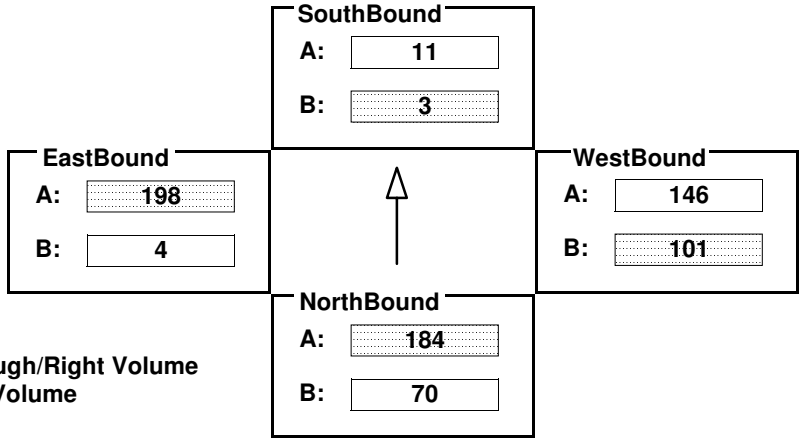
AM/PM: PM Comments: CUMULATIVE BASE CONDITIONS

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	70	11	103	3	6	2	101	42	3	4	157	37
AMBIENT												
RELATED												
PROJECT												
TOTAL	70	11	103	3	6	2	101	42	3	4	157	37
LANE		1			1			1			1	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{184 + 3 + 101 + 198}{1500} = 0.324$$

LOS = A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Vista Street / Hollywood Boulevard

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: E[37.6]

Street Name:	Vista Street						Hollywood Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	1	16	1	1	34	14	506	5	12	1432	9
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1	16	1	1	34	14	506	5	12	1432	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1	16	1	1	34	14	506	5	12	1432	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	1	16	1	1	34	14	506	5	12	1432	9
Critical Gap Module:												
Critical Gp:	xxxxx	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	2002	509	2006	2000	1437	1441	xxxx	xxxxx	511	xxxx	xxxxx
Potent Cap.:	xxxx	60	569	45	61	165	477	xxxx	xxxxx	1065	xxxx	xxxxx
Move Cap.:	xxxx	58	569	42	58	165	477	xxxx	xxxxx	1065	xxxx	xxxxx
Volume/Cap:	xxxx	0.02	0.03	0.02	0.02	0.21	0.03	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	12.8	xxxx	xxxxx	8.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	375	xxxx	146	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	0.1	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	xxxx	15.1	xxxxx	37.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	C	*	E	*	*	*	*	*	*	*
ApproachDel:		15.1			37.6			xxxxxx			xxxxxx	
ApproachLOS:		C			E			*			*	

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VISTA ST W/E: HOLLYWOOD I/S No: 1

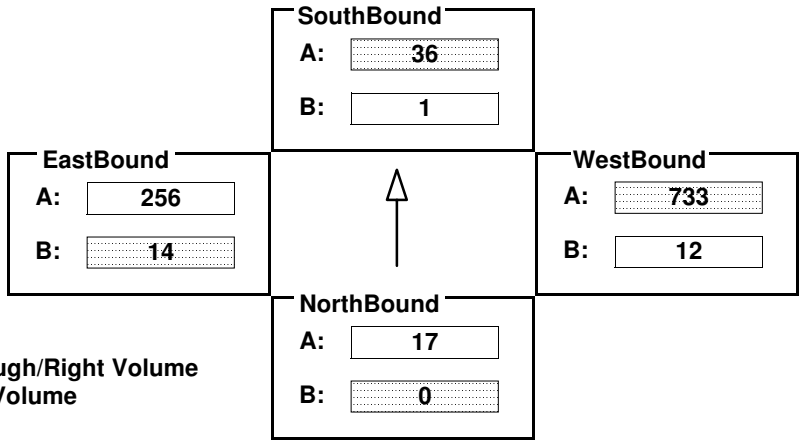
AM/PM: AM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	0	1	16	1	1	34	12	1432	9	14	506	5
AMBIENT												
RELATED												
PROJECT												
TOTAL	0	1	16	1	1	34	12	1432	9	14	506	5
LANE				1								
							1		1	1	1	1
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR				
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto				

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{0 + 36 + 733 + 14}{1500} = 0.522$$

LOS = A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Vista Street / Hollywood Boulevard

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: F[55.3]

Street Name:	Vista Street						Hollywood Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	1	1	10	5	4	27	28	1129	7	22	931	6
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	1	10	5	4	27	28	1129	7	22	931	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	1	10	5	4	27	28	1129	7	22	931	6
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	1	1	10	5	4	27	28	1129	7	22	931	6
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	2182	2170	1133	2172	2170	934	937	xxxx	xxxxx	1136	xxxx	xxxxx
Potent Cap.:	34	47	249	34	47	325	739	xxxx	xxxxx	622	xxxx	xxxxx
Move Cap.:	27	44	249	30	44	325	739	xxxx	xxxxx	622	xxxx	xxxxx
Volume/Cap:	0.04	0.02	0.04	0.16	0.09	0.08	0.04	xxxx	xxxx	0.04	xxxx	xxxx
Level Of Service Module:												
Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.1	xxxx	xxxxx	11.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	120	xxxxx	xxxx	106	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.3	xxxxx	xxxxx	1.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	38.2	xxxxx	xxxxx	55.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	F	*	*	*	*	*	*	*
ApproachDel:		38.2			55.3			xxxxxx			xxxxxx	
ApproachLOS:		E			F			*			*	

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: VISTA ST W/E: HOLLYWOOD I/S No: 1

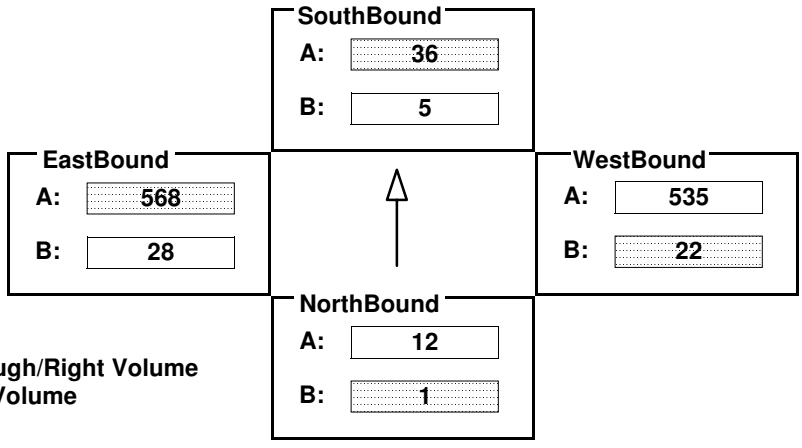
AM/PM: PM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	1	1	10	5	4	27	22	931	6	28	1129	7
AMBIENT												
RELATED												
PROJECT												
TOTAL	1	1	10	5	4	27	22	931	6	28	1129	7
LANE				1				1		1		1
	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR	Phasing		RTOR
SIGNAL	Perm		Auto	Perm		Auto	Perm		Auto	Perm		Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{1 + 36 + 22 + 568}{1500} = 0.418$$

LOS = A

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: HOLLYWOOD BL I/S No: 2

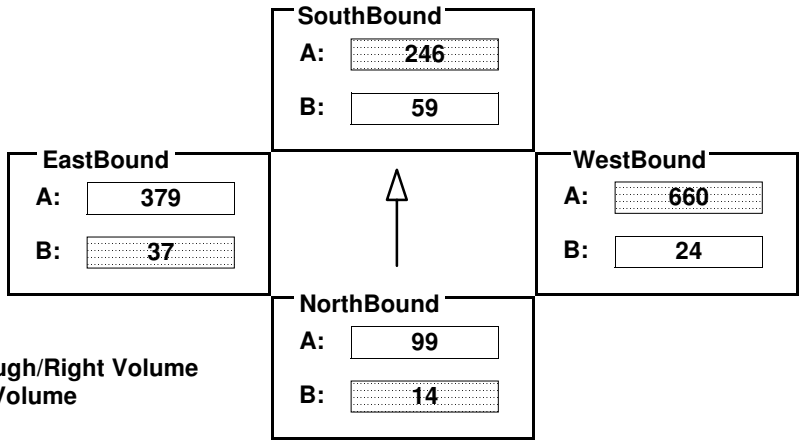
AM/PM: AM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	14	41	44	59	46	141	24	1292	27	37	739	18
AMBIENT												
RELATED												
PROJECT												
TOTAL	14	41	44	59	46	141	24	1292	27	37	739	18
LANE												
	1			1			1	1	1	1	1	1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{14 + 246 + 660 + 37}{*1500} = 0.568$$

LOS = A

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: HOLLYWOOD BL I/S No: 2

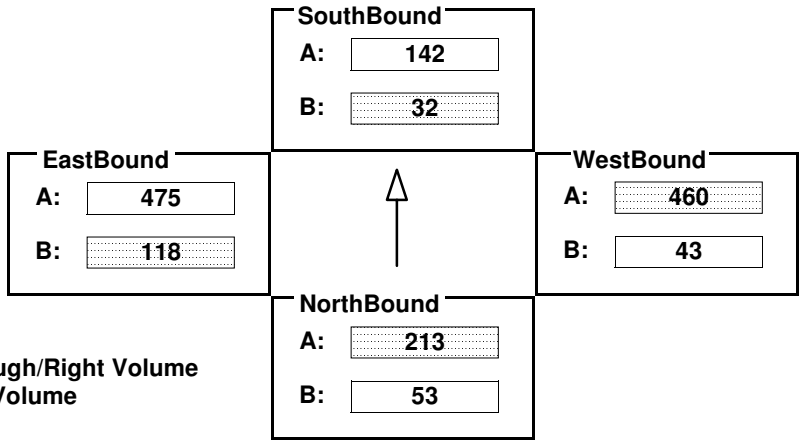
AM/PM: PM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	53	114	46	32	61	49	43	880	40	118	925	25
AMBIENT												
RELATED												
PROJECT												
TOTAL	53	114	46	32	61	49	43	880	40	118	925	25
LANE												
				1								
										1		
							1		1			
										1		1
					1							
									1			
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{213 + 32 + 460 + 118}{*1500} = 0.479$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Fuller Avenue / Franklin Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.320
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	9.4
Optimal Cycle:	0	Level Of Service:	A

Street Name:	Fuller Avenue						Franklin Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	10	47	64	62	95	74	39	84	14	50	137	14
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	47	64	62	95	74	39	84	14	50	137	14
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	47	64	62	95	74	39	84	14	50	137	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	47	64	62	95	74	39	84	14	50	137	14
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	10	47	64	62	95	74	39	84	14	50	137	14
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.08	0.39	0.53	0.27	0.41	0.32	0.28	0.62	0.10	0.25	0.68	0.07
Final Sat.:	59	275	375	193	296	231	192	414	69	172	472	48
Capacity Analysis Module:												
Vol/Sat:	0.17	0.17	0.17	0.32	0.32	0.32	0.20	0.20	0.20	0.29	0.29	0.29
Crit Moves:		****			****			****			****	
Delay/Veh:	8.6	8.6	8.6	9.8	9.8	9.8	9.1	9.1	9.1	9.8	9.8	9.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.6	8.6	8.6	9.8	9.8	9.8	9.1	9.1	9.1	9.8	9.8	9.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		8.6			9.8			9.1			9.8	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		8.6			9.8			9.1			9.8	
LOS by Appr:		A			A			A			A	

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: FRANKLIN AV I/S No: 3

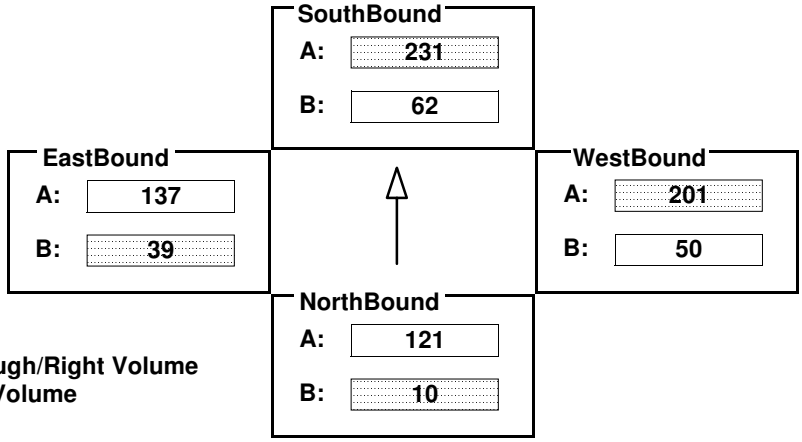
AM/PM: AM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	10	47	64	62	95	74	50	137	14	39	84	14
AMBIENT												
RELATED												
PROJECT												
TOTAL	10	47	64	62	95	74	50	137	14	39	84	14
LANE				1						1						1				1		
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = A(W/B) + B(E/B)

$$V/C = \frac{10 + 231 + 201 + 39}{1500} = 0.321$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #3 Fuller Avenue / Franklin Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.455
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	10.9
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Fuller Avenue						Franklin Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	9	139	89	31	62	60	127	156	16	29	125	24
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	139	89	31	62	60	127	156	16	29	125	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	139	89	31	62	60	127	156	16	29	125	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	139	89	31	62	60	127	156	16	29	125	24
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	9	139	89	31	62	60	127	156	16	29	125	24
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.04	0.59	0.37	0.20	0.41	0.39	0.42	0.53	0.05	0.16	0.71	0.13
Final Sat.:	25	383	245	126	252	244	279	343	35	103	444	85
Capacity Analysis Module:												
Vol/Sat:	0.36	0.36	0.36	0.25	0.25	0.25	0.45	0.45	0.45	0.28	0.28	0.28
Crit Moves:		****			****			****			****	
Delay/Veh:	10.7	10.7	10.7	9.8	9.8	9.8	12.1	12.1	12.1	10.1	10.1	10.1
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.7	10.7	10.7	9.8	9.8	9.8	12.1	12.1	12.1	10.1	10.1	10.1
LOS by Move:	B	B	B	A	A	A	B	B	B	B	B	B
ApproachDel:		10.7			9.8			12.1			10.1	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.7			9.8			12.1			10.1	
LOS by Appr:		B			A			B			B	

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: FULLER AV W/E: FRANKLIN AV I/S No: 3

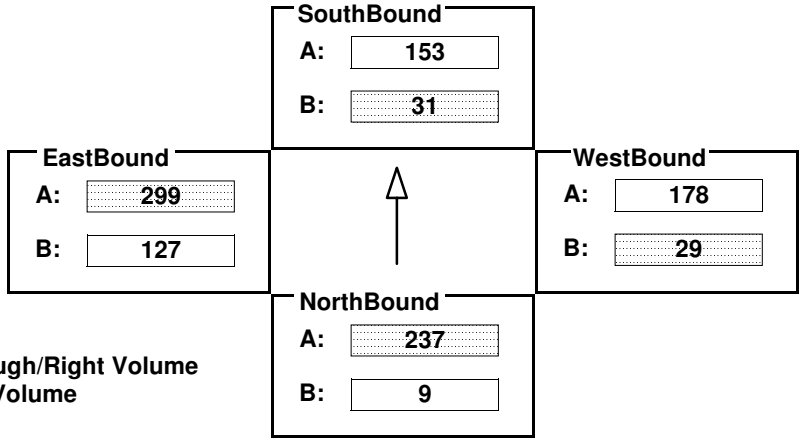
AM/PM: PM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	9	139	89	31	62	60	29	125	24	127	156	16
AMBIENT												
RELATED												
PROJECT												
TOTAL	9	139	89	31	62	60	29	125	24	127	156	16
LANE				1						1				1				1		
	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR	Phasing	RTOR
SIGNAL	Perm	Auto	Perm	Auto	Perm	Auto	Perm	Auto

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{237 + 31 + 29 + 299}{1500} = 0.397$$

LOS = A

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: FRANKLIN AV I/S No: 4

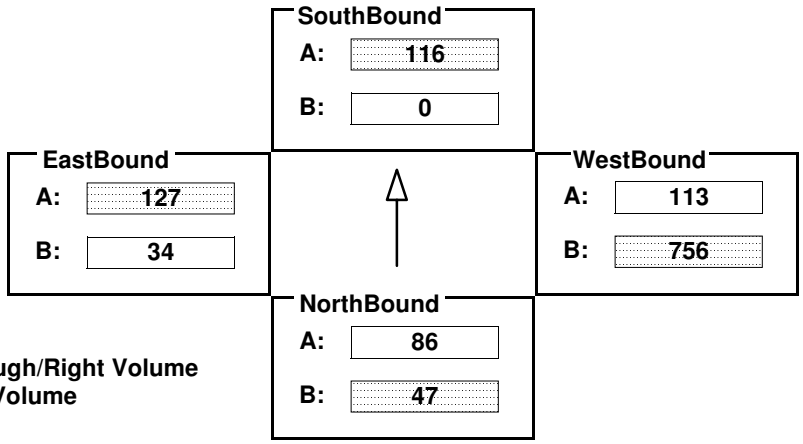
AM/PM: AM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	47	86	615	3	92	24	1374	113	24	34	188	127
AMBIENT												
RELATED												
PROJECT												
TOTAL	47	86	615	3	92	24	1374	113	24	34	188	127
LANE	1	1	2	1			2	1	1	1	2	1
SIGNAL	Perm	OLA		Perm	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{47 + 116 + 756 + 127}{*1425} = 0.664$$

LOS = B

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: FRANKLIN AV I/S No: 4

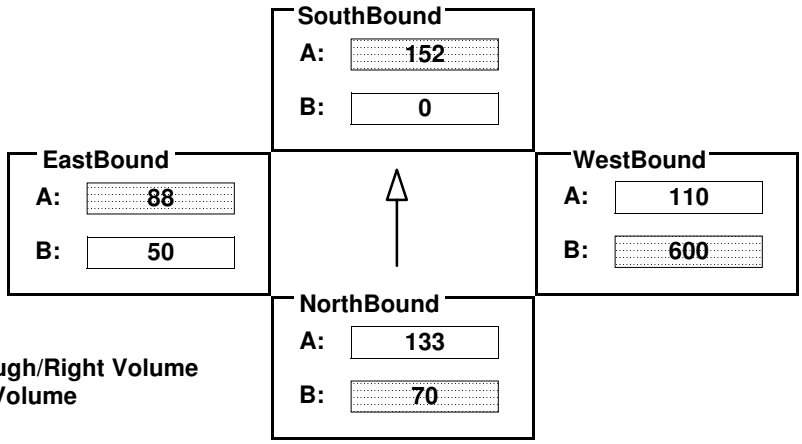
AM/PM: PM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	70	133	719	3	117	35	1091	110	63	50	175	76
AMBIENT												
RELATED												
PROJECT												
TOTAL	70	133	719	3	117	35	1091	110	63	50	175	76
LANE	1	1	2	1			2	1	1	1	2	1
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	OLA		Perm	Auto		Split	Auto		Split	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = B(N/B) + A(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{70 + 152 + 600 + 88}{*1425} = 0.569$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 La Brea Avenue / Hillside Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.107
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	7.4
Optimal Cycle:	0	Level Of Service:	A

Street Name:	La Brea Avenue						Hillside Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	41	6	44	1	5	4	3	44	50	28	32	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	6	44	1	5	4	3	44	50	28	32	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	6	44	1	5	4	3	44	50	28	32	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	6	44	1	5	4	3	44	50	28	32	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	41	6	44	1	5	4	3	44	50	28	32	1
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.45	0.07	0.48	0.10	0.50	0.40	0.03	0.45	0.52	0.46	0.52	0.02
Final Sat.:	389	57	417	84	422	338	28	412	468	377	430	13
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.11	0.01	0.01	0.01	0.11	0.11	0.11	0.07	0.07	0.07
Crit Moves:		****			****				****		****	
Delay/Veh:	7.5	7.5	7.5	7.1	7.1	7.1	7.3	7.3	7.3	7.6	7.6	7.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	7.5	7.5	7.5	7.1	7.1	7.1	7.3	7.3	7.3	7.6	7.6	7.6
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:		7.5			7.1			7.3			7.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		7.5			7.1			7.3			7.6	
LOS by Appr:		A			A			A			A	

CPAM

July 24, 2007 ,Tuesday 04:09:24 PM

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: HILLSIDE AV I/S No: 5

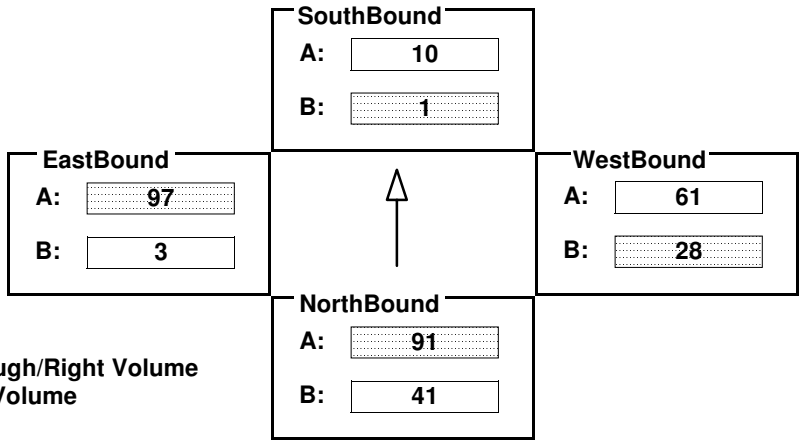
AM/PM: AM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	41	6	44	1	5	4	28	32	1	3	44	50
AMBIENT												
RELATED												
PROJECT												
TOTAL	41	6	44	1	5	4	28	32	1	3	44	50
LANE		1			1			1			1	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{91 + 1 + 28 + 97}{1500} = 0.145$$

LOS = A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 La Brea Avenue / Hillside Avenue

Cycle (sec):	100	Critical Vol./Cap. (X):	0.267
Loss Time (sec):	0 (Y+R = 0 sec)	Average Delay (sec/veh):	8.9
Optimal Cycle:	0	Level Of Service:	A

Street Name:	La Brea Avenue						Hillside Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0	0 0	1! 0	0
Volume Module:												
Base Vol:	81	11	103	3	6	2	4	158	48	101	43	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	81	11	103	3	6	2	4	158	48	101	43	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	81	11	103	3	6	2	4	158	48	101	43	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	11	103	3	6	2	4	158	48	101	43	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	81	11	103	3	6	2	4	158	48	101	43	3
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.06	0.53	0.27	0.55	0.18	0.02	0.75	0.23	0.69	0.29	0.02
Final Sat.:	316	43	402	185	370	123	15	591	180	502	214	15
Capacity Analysis Module:												
Vol/Sat:	0.26	0.26	0.26	0.02	0.02	0.02	0.27	0.27	0.27	0.20	0.20	0.20
Crit Moves:	****				****			****				****
Delay/Veh:	8.9	8.9	8.9	7.9	7.9	7.9	8.9	8.9	8.9	8.8	8.8	8.8
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.9	8.9	8.9	7.9	7.9	7.9	8.9	8.9	8.9	8.8	8.8	8.8
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.9			7.9			8.9			8.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.9			7.9			8.9			8.8		
LOS by Appr:	A			A			A			A		

CalcaDB

INTERSECTION DATA SUMMARY SHEET

N/S: LA BREA AV W/E: HILLSIDE AV I/S No: 5

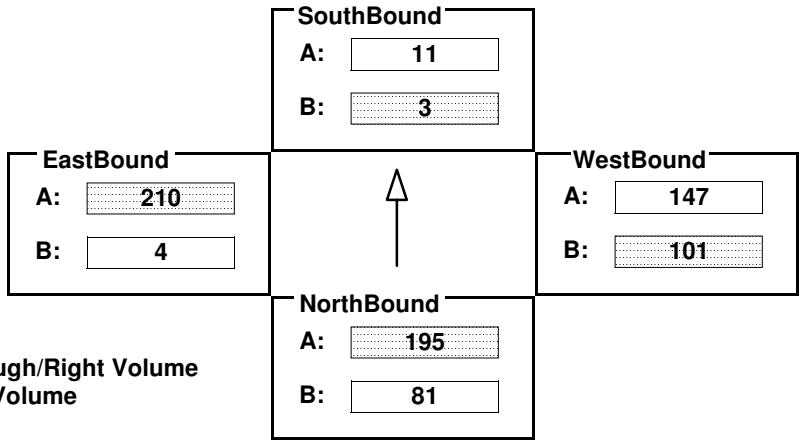
AM/PM: PM Comments: CUMULATIVE + PROJECT

COUNT DATE: STUDY DATE: GROWTH FACTOR:

Volume/Lane/Signal Configurations

	NORTHBOUND			SOUTHBOUND			WESTBOUND			EASTBOUND		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
EXISTING	81	11	103	3	6	2	101	43	3	4	158	48
AMBIENT												
RELATED												
PROJECT												
TOTAL	81	11	103	3	6	2	101	43	3	4	158	48
LANE		1			1			1			1	
	Phasing	RTOR		Phasing	RTOR		Phasing	RTOR		Phasing	RTOR	
SIGNAL	Perm	Auto		Perm	Auto		Perm	Auto		Perm	Auto	

Critical Movements Diagram



A = Adjusted Through/Right Volume
B = Adjusted Left Volume
* = ATSAC Benefit

V/C RATIO	LOS
0.00 - 0.60	A
0.61 - 0.70	B
0.71 - 0.80	C
0.81 - 0.90	D
0.91 - 1.00	E

Results

North/South Critical Movements = A(N/B) + B(S/B)

West/East Critical Movements = B(W/B) + A(E/B)

$$V/C = \frac{195 + 3 + 101 + 210}{1500} = 0.339$$

LOS = A

ATTACHMENT D

EXISTING AVERAGE DAILY TRAFFIC VOLUME COUNTS

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

24-HOUR ADT COUNT SUMMARY

CLIENT: FEHR & PEERS / KAKU ASSOCIATES
PROJECT: RUNYON CANYON
LOCATION: VISTA STREET BETWEEN HOLLYWOOD BOULEVARD AND FRANKLIN AVENUE
DATE: WEDNESDAY JUNE 27, 2007

DIRECTION:	NB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	1	0	0	0	1
1:00	0	0	0	0	0
2:00	4	0	0	0	4
3:00	0	0	0	0	0
4:00	0	0	0	0	0
5:00	0	0	2	0	2
6:00	1	0	1	3	5
7:00	0	0	4	3	7
8:00	6	9	2	3	20
9:00	4	6	8	1	19
10:00	9	2	6	3	20
11:00	3	4	3	6	16
12:00	6	2	10	3	21
13:00	5	3	1	6	15
14:00	4	6	0	8	18
15:00	2	1	5	3	11
16:00	2	3	5	7	17
17:00	4	3	5	9	21
18:00	9	2	8	8	27
19:00	22	6	4	2	34
20:00	3	6	3	2	14
21:00	0	0	1	0	1
22:00	1	0	3	0	4
23:00	2	0	1	1	4
				TOTAL	281

AM PEAK HOUR	0915-1015
VOLUME	24
PM PEAK HOUR	1830-1930
VOLUME	44

DIRECTION:	SB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	4	5	2	1	12
1:00	2	0	2	1	5
2:00	1	3	2	0	6
3:00	0	1	1	2	4
4:00	1	1	0	0	2
5:00	1	0	2	3	6
6:00	4	2	7	9	22
7:00	3	6	11	7	27
8:00	8	8	5	6	27
9:00	4	13	16	10	43
10:00	4	7	6	8	25
11:00	18	10	8	11	47
12:00	9	6	9	10	34
13:00	10	11	20	9	50
14:00	8	6	8	6	28
15:00	9	10	11	7	37
16:00	13	11	6	5	35
17:00	7	12	11	6	36
18:00	9	18	12	18	57
19:00	12	9	14	10	45
20:00	9	16	6	4	35
21:00	6	4	1	0	11
22:00	4	2	7	4	17
23:00	0	3	1	3	7
				TOTAL	618

AM PEAK HOUR	1100-1200
VOLUME	47
PM PEAK HOUR	1815-1915
VOLUME	60

TOTAL BI-DIRECTIONAL VOLUME	899

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

24-HOUR ADT COUNT SUMMARY

CLIENT: FEHR & PEERS / KAKU ASSOCIATES
PROJECT: RUNYON CANYON
LOCATION: FRANKLINAVENUE BETWEEN FULLER AVENUE AND LA BREA AVENUE
DATE: WEDNESDAY JUNE 27, 2007

DIRECTION:	EB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	22	20	14	14	70
1:00	8	12	10	11	41
2:00	12	16	11	8	47
3:00	9	4	2	5	20
4:00	2	2	3	6	13
5:00	3	7	10	6	26
6:00	14	15	29	22	80
7:00	24	34	38	56	152
8:00	50	52	62	73	237
9:00	42	64	53	48	207
10:00	44	46	56	60	206
11:00	49	53	52	38	192
12:00	50	48	42	38	178
13:00	52	48	45	40	185
14:00	46	50	58	59	213
15:00	56	56	82	58	252
16:00	56	52	60	80	248
17:00	52	53	74	68	247
18:00	66	66	54	70	256
19:00	68	78	60	72	278
20:00	54	54	50	30	188
21:00	39	36	36	33	144
22:00	35	26	26	28	115
23:00	30	28	16	27	101
				TOTAL	3696

AM PEAK HOUR	0830-0930
VOLUME	241
PM PEAK HOUR	1900-2000
VOLUME	278

DIRECTION:	WB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	32	30	20	11	93
1:00	14	6	14	6	40
2:00	13	21	10	5	49
3:00	4	8	8	3	23
4:00	1	3	0	3	7
5:00	9	1	7	10	27
6:00	7	6	24	38	75
7:00	31	30	39	38	138
8:00	42	50	54	43	189
9:00	43	54	48	52	197
10:00	41	50	61	58	210
11:00	54	41	49	71	215
12:00	38	48	54	54	194
13:00	43	58	58	46	205
14:00	40	64	41	40	185
15:00	42	40	48	41	171
16:00	48	36	43	49	176
17:00	54	57	46	57	214
18:00	68	72	62	64	266
19:00	69	48	64	62	243
20:00	58	43	45	40	186
21:00	48	44	30	39	161
22:00	44	26	26	26	122
23:00	22	22	28	18	90
				TOTAL	3476

AM PEAK HOUR	1015-1115
VOLUME	223
PM PEAK HOUR	1815-1915
VOLUME	267

TOTAL BI-DIRECTIONAL VOLUME	7172

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

24-HOUR ADT COUNT SUMMARY

CLIENT: FEHR & PEERS / KAKU ASSOCIATES
PROJECT: RUNYON CANYON
LOCATION: HILLSIDE AVENUE BETWEEN FULLER AVENUE AND LA BREA AVENUE
DATE: WEDNESDAY JUNE 27, 2007

DIRECTION:	EB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	9	9	6	10	34
1:00	5	3	7	8	23
2:00	5	10	6	6	27
3:00	4	1	6	2	13
4:00	1	3	0	2	6
5:00	3	1	2	1	7
6:00	3	5	14	8	30
7:00	5	10	13	13	41
8:00	12	15	18	30	75
9:00	20	20	23	21	84
10:00	12	26	26	19	83
11:00	12	4	2	17	35
12:00	14	22	16	20	72
13:00	18	14	19	17	68
14:00	18	19	26	25	88
15:00	24	27	26	28	105
16:00	30	23	42	51	146
17:00	56	46	50	66	218
18:00	51	51	44	52	198
19:00	58	36	46	46	186
20:00	18	21	18	20	77
21:00	19	18	12	13	62
22:00	16	22	13	14	65
23:00	24	4	8	6	42
				TOTAL	1785

AM PEAK HOUR	0845-0945
VOLUME	93
PM PEAK HOUR	1700-1800
VOLUME	218

DIRECTION:	WB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	10	4	7	4	25
1:00	4	4	4	6	18
2:00	5	6	6	2	19
3:00	2	1	3	2	8
4:00	0	0	1	0	1
5:00	0	1	3	2	6
6:00	2	3	13	16	34
7:00	4	3	4	14	25
8:00	14	14	14	15	57
9:00	20	11	12	14	57
10:00	18	18	22	7	65
11:00	20	26	43	16	105
12:00	18	14	6	16	54
13:00	13	13	9	16	51
14:00	9	6	22	14	51
15:00	4	6	10	14	34
16:00	16	15	14	22	67
17:00	22	20	26	31	99
18:00	36	40	24	54	154
19:00	40	38	22	18	118
20:00	12	15	13	11	51
21:00	4	13	8	11	36
22:00	6	2	4	4	16
23:00	8	8	14	5	35
				TOTAL	1186

AM PEAK HOUR	1100-1200
VOLUME	105
PM PEAK HOUR	1815-1915
VOLUME	158

TOTAL BI-DIRECTIONAL VOLUME	2971

WILTEC

Phone: (925) 706-9911 Fax: (925) 706-9914

24-HOUR ADT COUNT SUMMARY

CLIENT: FEHR & PEERS / KAKU ASSOCIATES
PROJECT: RUNYON CANYON
LOCATION: FULLER AVENUE BETWEEN HOLLYWOOD BOULEVARD AND FRANKLIN AVENUE
DATE: WEDNESDAY JUNE 27, 2007

DIRECTION:	NB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	20	22	18	10	70
1:00	10	10	14	12	46
2:00	13	26	10	7	56
3:00	8	3	8	7	26
4:00	3	3	4	4	14
5:00	3	4	6	3	16
6:00	6	12	26	20	64
7:00	22	20	24	42	108
8:00	39	22	36	36	133
9:00	28	26	22	30	106
10:00	31	38	40	32	141
11:00	30	35	32	30	127
12:00	36	32	44	50	162
13:00	38	39	46	28	151
14:00	40	30	42	46	158
15:00	40	62	36	54	192
16:00	60	84	87	60	291
17:00	60	74	72	71	277
18:00	78	62	70	60	270
19:00	60	64	50	42	216
20:00	42	43	34	25	144
21:00	42	40	38	36	156
22:00	34	31	40	30	135
23:00	34	20	20	11	85
				TOTAL	3144

AM PEAK HOUR	1000-1100
VOLUME	141
PM PEAK HOUR	1715-1815
VOLUME	295

DIRECTION:	SB				
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	22	9	6	5	42
1:00	2	5	4	2	13
2:00	4	8	3	1	16
3:00	2	1	6	3	12
4:00	0	1	2	1	4
5:00	2	0	8	6	16
6:00	2	10	12	12	36
7:00	13	16	26	28	83
8:00	26	31	30	30	117
9:00	30	23	40	27	120
10:00	23	20	28	26	97
11:00	20	19	36	26	101
12:00	31	26	8	13	78
13:00	24	30	14	21	89
14:00	18	21	22	24	85
15:00	14	22	22	28	86
16:00	18	14	30	32	94
17:00	26	26	23	29	104
18:00	38	26	36	33	133
19:00	43	50	28	32	153
20:00	20	36	15	20	91
21:00	28	24	14	20	86
22:00	16	12	8	10	46
23:00	14	11	8	15	48
				TOTAL	1750

AM PEAK HOUR	0845-0945
VOLUME	123
PM PEAK HOUR	1830-1930
VOLUME	162

TOTAL BI-DIRECTIONAL VOLUME	4894

APPENDIX I

TECHNICAL MEMORANDUM ANALYZING THE TRAFFIC IMPACTS OF A PROPOSED 70-SPACE PARKING LOT

FORM GET. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

Runyon Canyon Park
DOT Case No. CEN 06-2920

Date: February 8, 2006

To: Irene Paul, Environmental Supervisor I
Environmental Management Group, Bureau of Engineering
Department of Public Works

From: Mike Bagheri, Transportation Engineer
Department of Transportation

Subject: **TECHNICAL MEMORANDUM ANALYZING THE TRAFFIC IMPACTS OF A PROPOSED 70-SPACE PARKING LOT IN RUNYON CANYON PARK ON FULLER AVENUE**

The Department of Transportation (DOT) has reviewed the technical memorandum dated January 10, 2006 and January 12, 2006, prepared by traffic consultant, KAKU Associates, for a proposed 70-space parking lot in Runyon Canyon Park near the park's entrance on Fuller Avenue. The parking analysis contained in the January 10, 2006 memorandum, concludes that the proposed 70-space parking lot along with the existing 260 on-street parking spaces in the immediate area are sufficient to meet the peak parking demand of Runyon Canyon Park and the surrounding neighborhood. Per the DOT Traffic Study Policies and Procedures Revised March 2002, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.010 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. The January 12, 2006 memorandum analyzed five intersections and four street sections and determined that none of the study intersections and street sections would be significantly impacted by project related traffic (Attachment 1). Except as noted, the study adequately evaluated the project's traffic impacts on the surrounding community.

DISCUSSION AND FINDINGS

Project Description

The proposed 70-space parking lot will be located at a site within Runyon Canyon Park that is currently used as a grassy play area and off-leash dog park. The 70-space parking lot would be accessed only from the north end of Fuller Avenue. The build out year for the project is expected to be in 2010.

Trip Generation

The park itself is not increasing in size. However, It is assumed the parking lot may generate 70 additional peak hour trips.

PROJECT REQUIREMENTS

A. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. 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.

B. Highway Dedication And Street Widening Requirements

The developer should check with the Bureau of Engineering's (BOE) Land Development group to determine the highway dedication, street widening and sidewalk requirements for the project.

C. Parking Analysis

Currently, only on-street parking is available in this area. A parking analysis was conducted and determined that approximately 233 of 260 on-street parking spaces were utilized in the immediate area of the park during the peak hour. The proposed 70-space parking lot along with the existing 260 on-street parking spaces in the immediate area are sufficient to meet the peak parking demand of Runyon Canyon Park and the surrounding neighborhood. DOT has been informed by BOE that the parking lot will be increased an additional 10 spaces for a total of 80 parking spaces.

D. Driveway Access

The review of this study does not constitute approval of the driveway access and circulation scheme. Those require separate review and approval and should be coordinated as soon as possible with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 4th Floor, Station 3, @ 213-482-7024) to avoid delays in the building permit approval process. In order to minimize and prevent last minute building design changes, it is imperative that the applicant, prior to the commencement of building or parking layout design efforts, 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 to avoid any unnecessary time delays and potential costs associated with late design changes. All driveways should be Case 2 driveways and 30 feet. Any proposed gates should have 20' minimum reservoir space from the property line.

If you have any questions, please contact Eileen Hunt of my staff at (213) 972-8481.

Attachments

cc: Renee Weitzer, Council District No. 4
Bob Camou, Hollywood-Wilshire District, DOT
Taimour Tanavoli, Citywide Planning Coordination Section, DOT
Carl Mills, Central District, BOE
Hadar Plafkin, Department of City Planning
John Stutsman, KAKU Associates
Megan Cummings, KAKU Associates

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Runyon Canyon Park – Fuller Entrance Parking
URBEMIS2002 Version 8.7.0
Construction
Operational Emissions with Travel in the Gravel Parking Lot

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwgravel.urb
Project Name: Runyon Canyon Park with Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	8.54	60.23	66.62	0.00	8.53	2.52	6.01
TOTALS (lbs/day, mitigated)	8.54	60.23	66.62	0.00	4.45	2.52	1.93

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.11	0.00	0.72	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.25	7.27	75.91	0.05	7.11

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.36	7.27	76.63	0.05	7.12

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwgravel.urb
Project Name: Runyon Canyon Park with Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	8.54	60.23	66.62	0.00	8.53	2.52	6.01
TOTALS (lbs/day, mitigated)	8.54	60.23	66.62	0.00	4.45	2.52	1.93

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.99	10.51	73.60	0.04	7.11

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.99	10.51	73.60	0.04	7.11

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwgravel.urb
Project Name: Runyon Canyon Park with Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

Construction Start Month and Year: June, 2007
Construction Duration: 6
Total Land Use Area to be Developed: 0.9 acres
Maximum Acreage Disturbed Per Day: 0.6 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source *** 2007***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	6.00	-	6.00
Off-Road Diesel	5.20	37.69	39.93	-	1.62	1.62	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.06	0.09	1.72	0.00	0.01	0.00	0.01
Maximum lbs/day	5.26	37.78	41.65	0.00	7.63	1.62	6.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.37	25.72	24.94	-	1.15	1.15	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	5.13	34.49	41.25	-	1.37	1.37	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.04	0.02	0.43	0.00	0.01	0.00	0.01
Maximum lbs/day	8.54	60.23	66.62	0.00	2.53	2.52	0.01
Max lbs/day all phases	8.54	60.23	66.62	0.00	8.53	2.52	6.01

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 0.7 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Rubber Tired Dozers	352	0.590	6.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 5.3 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 5.3 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	4.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07
SubPhase Architectural Coatings Duration: 0.5 months
Start Month/Year for SubPhase Asphalt: Nov '07
SubPhase Asphalt Duration: 0.3 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0

1	Pavers	132	0.590	7.0
1	Paving Equipment	111	0.530	8.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source *** 2007***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.92	-	1.92
Off-Road Diesel	5.20	37.69	39.93	-	1.62	1.62	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.06	0.09	1.72	0.00	0.01	0.00	0.01
Maximum lbs/day	5.26	37.78	41.65	0.00	3.55	1.62	1.93
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.37	25.72	24.94	-	1.15	1.15	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	5.13	34.49	41.25	-	1.37	1.37	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.04	0.02	0.43	0.00	0.01	0.00	0.01
Maximum lbs/day	8.54	60.23	66.62	0.00	2.53	2.52	0.01
Max lbs/day all phases	8.54	60.23	66.62	0.00	4.45	2.52	1.93

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: SCAQMD Rule 403: Fugitive Dust Control
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 68.0%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 0.7 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Rubber Tired Dozers	352	0.590	6.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 5.3 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 5.3 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	4.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07
SubPhase Architectural Coatings Duration: 0.5 months
Start Month/Year for SubPhase Asphalt: Nov '07
SubPhase Asphalt Duration: 0.3 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Pavers	132	0.590	7.0
1	Paving Equipment	111	0.530	8.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	5.99	10.51	73.60	0.04	7.11
TOTAL EMISSIONS (lbs/day)	5.99	10.51	73.60	0.04	7.11

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
City park		888.88 trips/acres	0.90	799.99
		Sum of Total Trips		799.99
		Total Vehicle Miles Traveled		4,591.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.00602
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.00116
Phase 2 mitigation measure Soil Disturbance: SCAQMD Rule 403: Fugitive Dust Control has been changed from off to on.

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape length of the summer period (in days) changed from 180 to 360.
The landscape year changed from 2005 to 2007.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007.
The paved road percentage changed from 100 to 99.99.
The unpaved road percentage changed from 0 to 0.01.
The EPA unpaved road dust factor changed from 0 to -1.
The unpaved road silt percentage changed from 4.3 to 4.0.
The unpaved road average vehicle speed changed from 40 to 15.
The unpaved road surface moisture content % changed from 0.5 to 2.0.
The California based emission factor changed from -1 to 0.
The California based emission factor changed from -1 to 0.

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwgravel.urb
Project Name: Runyon Canyon Park with Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007
Construction Duration: 6
Total Land Use Area to be Developed: 0.9 acres
Maximum Acreage Disturbed Per Day: 0.6 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source *** 2007***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	6.00	-	6.00
Off-Road Diesel	5.20	37.69	39.93	-	1.62	1.62	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.06	0.09	1.72	0.00	0.01	0.00	0.01
Maximum lbs/day	5.26	37.78	41.65	0.00	7.63	1.62	6.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.37	25.72	24.94	-	1.15	1.15	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	5.13	34.49	41.25	-	1.37	1.37	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.04	0.02	0.43	0.00	0.01	0.00	0.01
Maximum lbs/day	8.54	60.23	66.62	0.00	2.53	2.52	0.01
Max lbs/day all phases	8.54	60.23	66.62	0.00	8.53	2.52	6.01

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 0.7 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Rubber Tired Dozers	352	0.590	6.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 5.3 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 5.3 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	4.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07
SubPhase Architectural Coatings Duration: 0.5 months
Start Month/Year for SubPhase Asphalt: Nov '07
SubPhase Asphalt Duration: 0.3 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0

1	Pavers	132	0.590	7.0
1	Paving Equipment	111	0.530	8.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.92	-	1.92
Off-Road Diesel	5.20	37.69	39.93	-	1.62	1.62	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.06	0.09	1.72	0.00	0.01	0.00	0.01
Maximum lbs/day	5.26	37.78	41.65	0.00	3.55	1.62	1.93

Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.37	25.72	24.94	-	1.15	1.15	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	5.13	34.49	41.25	-	1.37	1.37	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.04	0.02	0.43	0.00	0.01	0.00	0.01
Maximum lbs/day	8.54	60.23	66.62	0.00	2.53	2.52	0.01
Max lbs/day all phases	8.54	60.23	66.62	0.00	4.45	2.52	1.93

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: SCAQMD Rule 403: Fugitive Dust Control
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 68.0%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 0.7 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Rubber Tired Dozers	352	0.590	6.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 5.3 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 5.3 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	4.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07
SubPhase Architectural Coatings Duration: 0.5 months
Start Month/Year for SubPhase Asphalt: Nov '07
SubPhase Asphalt Duration: 0.3 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Pavers	132	0.590	7.0
1	Paving Equipment	111	0.530	8.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth - No summer emissions					
Landscaping	0.11	0.00	0.72	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.11	0.00	0.72	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	5.25	7.27	75.91	0.05	7.11

TOTAL EMISSIONS (lbs/day) 5.25 7.27 75.91 0.05 7.11

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
City park		888.88 trips/acres	0.90	799.99
		Sum of Total Trips		799.99
		Total Vehicle Miles Traveled		4,591.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.00602
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.00116
Phase 2 mitigation measure Soil Disturbance: SCAQMD Rule 403: Fugitive Dust Control
has been changed from off to on.

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape length of the summer period (in days) changed from 180 to 360.
The landscape year changed from 2005 to 2007.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007.
The paved road percentage changed from 100 to 99.99.
The unpaved road percentage changed from 0 to 0.01.
The EPA unpaved road dust factor changed from 0 to -1.

The unpaved road silt percentage changed from 4.3 to 4.0.
The unpaved road average vehicle speed changed from 40 to 15.
The unpaved road surface moisture content % changed from 0.5 to 2.0.
The California based emission factor changed from -1 to 0.
The California based emission factor changed from -1 to 0.

Runyon Canyon Park – Fuller Entrance Parking
URBEMIS2002 Version 8.7.0
Operational Emissions without Travel in the Gravel Parking Lot

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwogravel.urb
Project Name: Runyon Canyon Park Without Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.11	0.00	0.72	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.25	7.27	75.91	0.05	6.97

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.36	7.27	76.63	0.05	6.97

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwogravel.urb
Project Name: Runyon Canyon Park Without Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.99	10.51	73.60	0.04	6.97

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.99	10.51	73.60	0.04	6.97

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwogravel.urb
Project Name: Runyon Canyon Park Without Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	5.99	10.51	73.60	0.04	6.97
TOTAL EMISSIONS (lbs/day)	5.99	10.51	73.60	0.04	6.97

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
City park		888.88 trips/acres	0.90	799.99
		Sum of Total Trips		799.99
		Total Vehicle Miles Traveled		4,591.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

APPENDIX J

AIR QUALITY AND NOISE TECHNICAL STUDY

AIR QUALITY AND NOISE TECHNICAL STUDY FOR:

RUNYON CANYON PARK – FULLER ENTRANCE PARKING PROJECT

prepared for:

CITY OF LOS ANGELES DEPARTMENT OF RECREATION AND PARKS

Contact:
Paul J. Davis
Environmental Specialist

prepared by:

THE PLANNING CENTER

Contact:
Tin Cheung
Senior Environmental Scientist

APRIL 2007

AIR QUALITY AND NOISE TECHNICAL STUDY FOR:

RUNYON CANYON PARK – FULLER ENTRANCE PARKING PROJECT

prepared for:

CITY OF LOS ANGELES DEPARTMENT OF RECREATION AND PARKS

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CTY-04.1E

APRIL 2007

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1. Introduction and Summary

1.1 INTRODUCTION

This Air Quality and Noise Technical Study evaluates the potential air quality and noise impacts from the construction and operation of the proposed Runyon Canyon Park – Fuller Entrance Parking project. Air quality modeling was completed for the project using the Urban Emissions (URBEMIS2002) computer model recommended by the South Coast Air Quality Management District (SCAQMD). Air quality modeling datasheets for the project can be found in Appendix A. The Noise Technical Report for the project was prepared by Behrens and Associates, Inc., and is included as Appendix B. The results of the Noise Technical Report are summarized in the Noise Section of this comprehensive Air Quality and Noise Technical Study for the Runyon Canyon Park – Fuller Entrance Parking project.

Project Location

The Runyon Canyon Park is a 124-acre park located at 2000 North Fuller Avenue within the City of Los Angeles in the Hollywood Community Planning Area. The Runyon Canyon Park is a heavily used urban park with a variety of use groups, including hikers, bikers, and dog walkers. Vehicular entrance to the Runyon Canyon Park may be obtained from the south, via the Vista Avenue and Fuller Avenue entrance, or from the north, off Mulholland Drive. The project site encompasses a 0.9-acre portion of the Runyon Canyon Park near the Fuller Entrance. Figure 1, *Regional Location*, and Figure 2, *Local Vicinity*, show the location of the project site. Currently the 0.9-acre project site is occupied by a 0.6-acre open lawn area used for yoga classes, while the remainder is used as passive open space.

The project site is surrounded by active and passive recreational uses associated with the Runyon Canyon Park to the north, east, and west; a single-family residential property further to the east (approximately 230 feet); a single-family residential property to the southwest; and a multifamily residential property to the south. Figure 3, *Aerial Photograph*, shows the project site and surrounding land uses.

Project Description

The proposed project consists of construction of a new 26,000-square-foot gravel parking lot consisting of 80 parking spaces on a 0.6-acre portion of the project site currently used for yoga classes. The proposed project would relocate the existing open lawn area used for yoga classes on a 16,000-square-foot area farther to the north of the new parking area. Figure 4, *Conceptual Site Plan*, shows the layout of the proposed project. The new parking area would be developed with a low-impact, permeable surface. A four-foot-high fence would be constructed around the 16,000-square-foot open lawn area. Construction of the new parking area is anticipated to take six to eight months.

Background

In accordance with the California Environmental Quality Act (CEQA), an Initial Study and Mitigated Negative Declaration (IS/MND) was prepared for the proposed project and circulated for public review from February 24, 2006, through March 17, 2006, and subsequently adopted by the Board of Recreation and Parks Commission. However, the adoption of the project was appealed to the City of Los Angeles City Council for reconsideration based on community concerns about potential air quality and noise impacts from construction and operation of the improvements associated with the project. The following Air Quality and

Noise Technical Report is provided to the City of Los Angeles to supplement analysis provided within the original IS/MND.

1.2 SUMMARY OF IMPACTS

1.2.1 Air Quality

Construction

Construction activities produce combustion emissions from various sources such as, on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Grading activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from soil disturbing activities. Both exhaust and fugitive dust emissions from construction activities envisioned on-site would vary daily as construction activity levels change. Construction activities associated with the development would temporarily increase localized particulate matter (PM_{10} and $PM_{2.5}$), reactive organic gases (ROG), nitrous oxides (NO_X), sulfur oxides (SO_X), and carbon monoxide (CO) concentrations in the project vicinity and regional emissions within the South Coast Air Basin (SoCAB).

Regional Construction Emissions

An assessment of regional emissions from the construction of the proposed project was conducted. Based on that analysis, regional operational emissions would not exceed the South Coast Air Quality Management District's (SCAQMD) mass daily construction emissions thresholds. Consequently, the project would not significantly contribute to the SoCAB's ozone, CO (federal only) or particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designation and no significant impacts would occur.

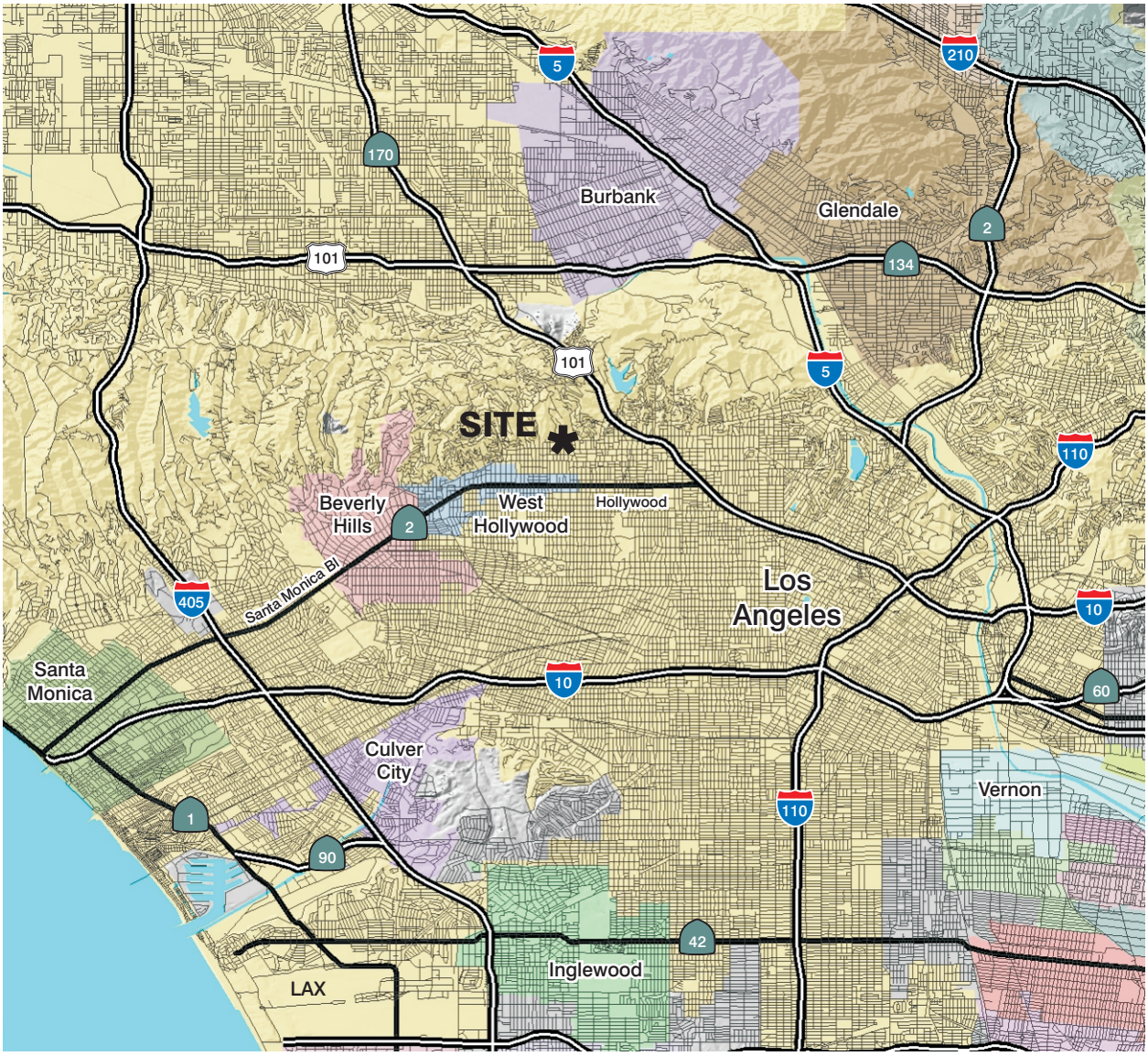
Localized Construction Emissions

An assessment of localized emissions from the construction of the proposed project was conducted in accordance with the SCAQMD's localized significance thresholds (LST) methodology. Because the project's construction emissions would not exceed the LST for a one-acre site, no air pollutant concentrations from project related construction activities would exceed the California or federal ambient air quality standards (AAQS) and no significant air quality impact would occur from exposure of persons to substantial air pollutant concentrations.

Operation

Air pollutant emissions associated with the operations phase of the project would be generated by both stationary sources (energy consumption, landscaping, and fugitive dust from travel within the gravel parking lot) and mobile sources (on-road vehicles) associated with the 0.9-acre project site. Mobile and stationary source emissions were modeled for the operational phase of the project. Mobile source emissions represent the majority of project-related operational air pollutant emissions.

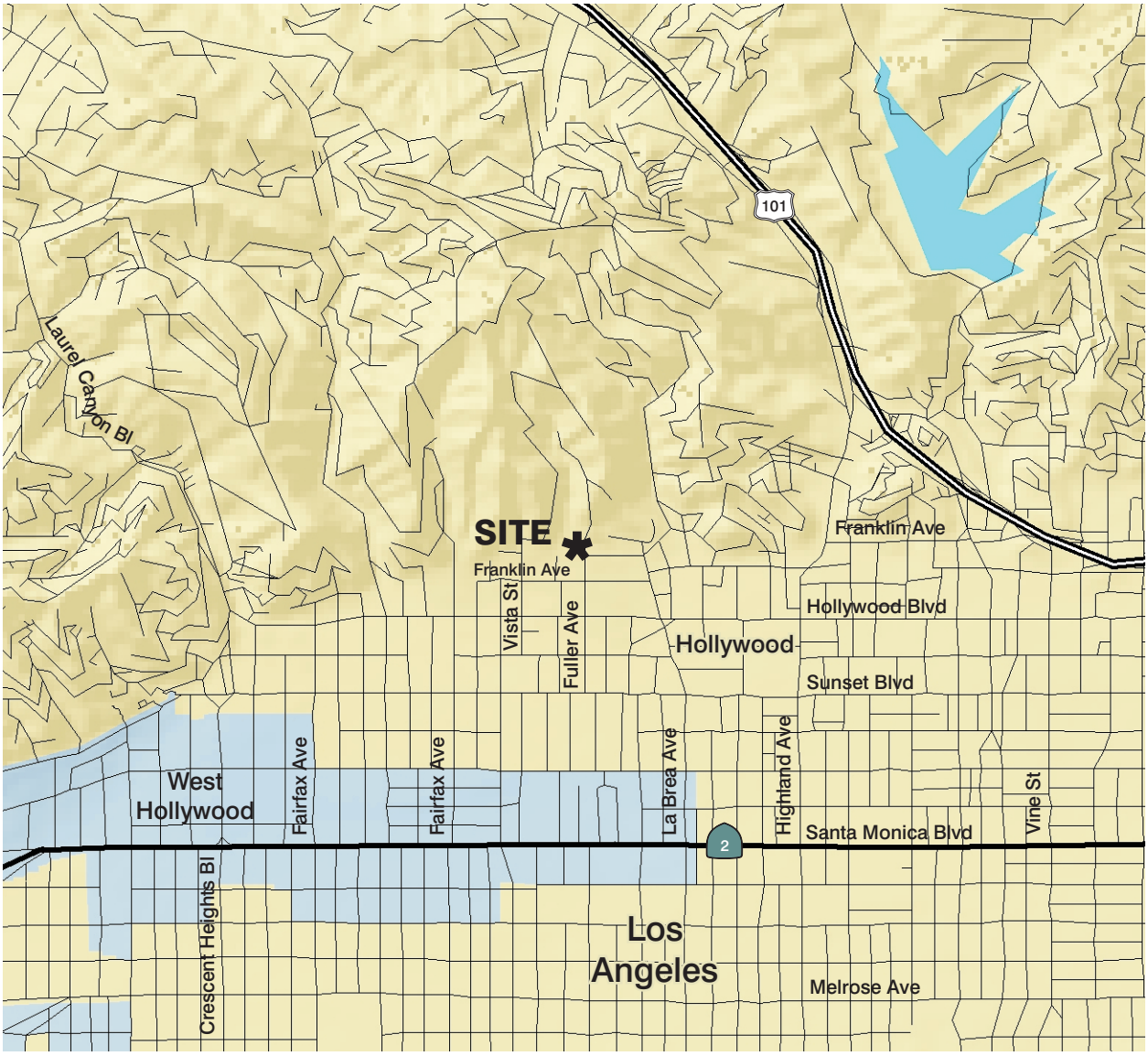
Regional Location



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Local Vicinity



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Aerial Photograph



Site Boundary

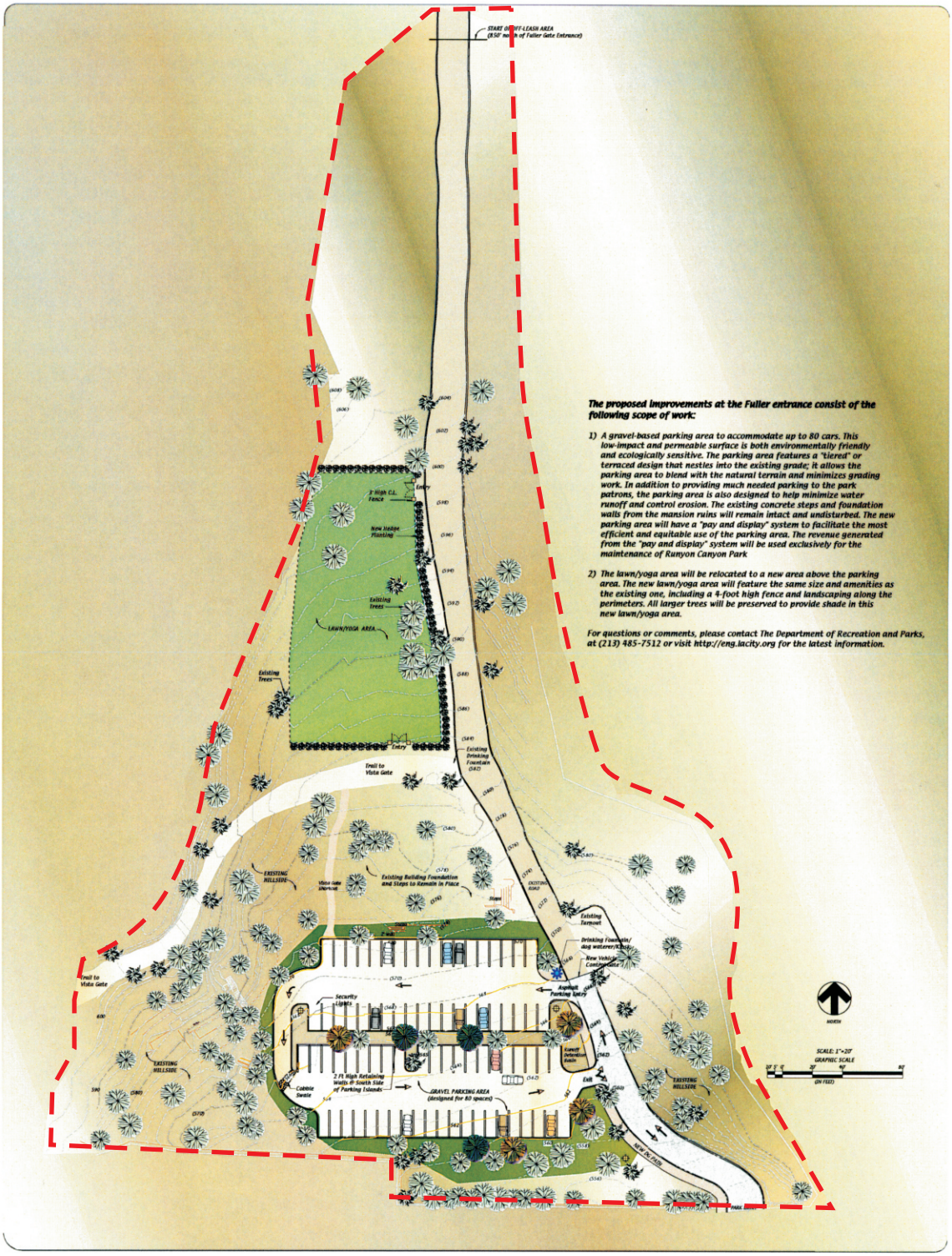
0 100 200

Scale (in Feet)

Source: Google Earth

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Conceptual Site Plan



Source: LA DPW Engineering

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Regional Operational Emissions

An assessment of regional emissions from the operation of the proposed project was conducted. Based on that analysis, regional operational emissions would not exceed the SCAQMD's mass daily operational emissions thresholds. Consequently, the project would not significantly contribute to the SoCAB's ozone, CO (federal only), or particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designation and no significant impacts would occur.

Localized Operational Emissions

CO Hotspot Analysis

The intersection of N. Vista Street and Hollywood Boulevard was modeled for the potential to form high concentrations of CO, because it would experience levels of traffic congestion that are most conducive to the formation of CO hot spots. Based on the CALINE4 analyses, project-related traffic is not anticipated to exceed any of the state one-hour or eight-hour CO ambient air quality standards (AAQS) at this study area intersection. Consequently, sensitive receptors in the area would not be significantly adversely affected by CO emissions generated by operation of the proposed project. Localized air quality impacts related to mobile source emissions would therefore be less than significant for the proposed project.

LST Analysis

An assessment of localized emissions from the construction of the proposed project was conducted in accordance with the SCAQMD's LST methodology. Because the project's operational emissions would not exceed the LST for a one-acre site, no air pollutant concentrations from project related operational activities would exceed the California or federal AAQS and no significant air quality impact would occur from exposure of persons to substantial air pollutant concentrations.

Consistency With the AQMP

A consistency determination with the SCAQMD's Air Quality Management Plan (AQMP) was conducted for the project. Because the proposed Runyon Canyon Park – Fuller Entrance Parking Project is not a major project that would require a consistency review by the SCAQMD and would not exceed the SCAQMD regional thresholds for either construction or operation the project would be consistent with the AQMP and impacts would be less than significant.

1.2.2 Noise

Construction Noise Impacts

The construction activities at the Runyon Canyon Fuller Entrance Parking Lot site would include earthwork, including soil grading and material hauling, backfill and compaction, paving, hardscape construction and landscaping. Noise generated by construction equipment would occur with varying intensities and durations during the various phases of construction. The closest residences would be located south of the site approximately 45 feet or more from the closest on-site parking lot construction area. At this distance, the maximum unmitigated noise level would be approximately 86 dBA or less. The average sound level for an eight-hour workday would be expected to the substantially less because of the intermittent nature of construction work. Assuming a duty cycle time of 10 percent, the hourly average noise level would not be expected to exceed 75 dB at 50 feet. Construction activities would comply with the City of Los Angeles Municipal Code Section 112.05.

However, construction activities would increase the average ambient sound levels 20 to 24 dBA above existing ambient noise levels within 50 feet of the construction area. Installing a 10-foot-high temporary construction sound wall with sound barrier material with an Sound Transmission Class (STC)-27 rating or higher between the construction site and the nearest occupied structures could provide a 10 to 14 dBA, sound level reduction at 50 feet. The resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise level impact of 65 dBA during the highest noise-generation phases of the project, and impacts would be substantially reduced at the adjacent residential uses. With application of this additional mitigation measure, no significant construction noise impacts would occur.

Operational Noise Impacts

Upon completion of the parking lot, new noise sources would be introduced into the park and surrounding environment. The new expected noise sources include vehicle traffic noise, tire noise screech, car horns, car stereos, car alarms, car doors opening and closing, and increased conversational noise from park patrons.

Off-Site Noise Impacts

Within the parking lot, the highest sustained noise level occurs from movement of cars into and through the lot. Noise generated by the action of tires rolling on travel surfaces is the dominant noise sources for all but the heaviest diesel-engine vehicles. Along the south side of the parking lot, the closest travel lane from the apartment building would be approximately 65 feet away running in the east/west direction parallel to the residential building.

Noise Levels of Moving Cars

The average anticipated speed for cars driving within the parking lot is 14 miles per hour. The maximum anticipated noise level from cars operating at 14 miles per hour is 56 dBA at 50 feet. The peak drive-by off-site sound level impact of autos traveling through the parking lot is projected to be 62 dBA on the west side of the parking lot, which is within five feet of the travel lane. Assuming one auto travels through the parking lot every minute, with a noise impact duration of five to seven seconds (as the auto passes at 14 mph), the average sound level would increase by less than 1 dB at five feet and would not increase the current average sound level of 53 dBA at 50 feet. No significant impact would occur from vehicle travel in the parking lots.

Ancillary Contributors of Noise

The short-term intermittent peak noise impacts of the ancillary sound sources would have a negligible contribution to the average off-site sound levels but may be considered intrusive to close-proximity residential areas, depending on the frequency of the occurrence, the time of day, and the duration of the noise impact. Examples are car alarms, door slams, and talking. The peak sound levels anticipated to be generated by the parking lot's ancillary noise sources are lower than the current ambient peak noise levels generated by typical urban noise impacts experienced at the site. Although the frequency of these short-term noise impacts would increase with the construction of the parking lot, the overall noise contribution to the current hourly average ambient sound levels would be negligible. Consequently, no significant impact would occur at nearby noise-sensitive uses from operation of the parking lot.

On-Site Noise Impacts

The US Department of Reclamation has established maximum allowable noise level limits for wildlife breeding habitat. During the breeding season, the maximum average hourly level at the breeding habitat (bushes, trees, lakes and ponds) is 60 dBA. During the periods of maximum construction noise generation, the hourly average of 75 dBA would be attenuated to 60 dBA or less at 135 feet or more from the construction area. With the specified temporary sound wall in place, 60 dBA can be achieved within 75 feet of the construction area. As Mitigation Measures BIO-3 and BIO-4, included in the original ISMND would require that no construction be conducted within 300 feet of an active nest, noise impacts to on-site wildlife within the Runyon Canyon Park would be less than significant.

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2. Air Quality

2.1 ENVIRONMENTAL SETTING

2.1.1 South Coast Air Basin

The project area lies in the South Coast Air Basin (SoCAB), which includes all of Orange County as well as the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. The air basin is located in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semipermanent high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds.

Temperature and Precipitation

The annual average temperature varies little throughout the 6,645-square-mile SoCAB, ranging from the low 60s to the high 80s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The Western Regional Climate Center maintains historical climate information for the western U.S. The closest meteorological monitoring station to the City of Los Angeles, monitored by the Western Regional Climate Center, is the North Hollywood Monitoring Station. The average low is reported at 40.1°F in January, and the average high is 98.7°F in August and September (Western Regional Climate Center 2007).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages approximately 12.83 inches per year in the project area (Western Regional Climate Center 2007).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB.

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and

fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the "mixing height." The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area.

2.1.2 Air Pollutants of Concern

Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as "criteria air pollutants" and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_X), sulfur dioxide (SO_2) most fine particulate matter (PM_{10}, $PM_{2.5}$), lead (Pb), and fugitive dust are primary air pollutants. Of these, CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. ROG and NO_X are criteria-pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants. Presented below is a description of each of the primary and secondary criteria air pollutants and their known health effects.

Other pollutants, such as carbon dioxide, a natural by-product of animal respiration that is also produced in the combustion process, have been linked to such phenomena as global warming. These emissions are unregulated and there are no thresholds for their release. These pollutants do not jeopardize the attainment status of the SoCAB and so are omitted from further discussion.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

Reactive Organic Gases (ROG) are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG, but rather by reactions of ROG to form secondary pollutants such as ozone.

Nitrogen Oxides (NO_X) serve as integral participants in the process of photochemical smog production. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas

formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_X acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Nitrogen Dioxide (NO_2) is a by-product of fuel combustion. The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10} (particulates having an aerodynamic diameter of 10 microns, or 0.0004 inch, or less in diameter) and ozone.

Sulfur Dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO_2. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. A primary source of SO_2 emissions is high sulfur content coal. Gasoline and natural gas have very low sulfur content and hence do not release significant quantities of SO_2.

Particulate Matter (PM) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized. Inhalable course particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 one-millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 one-millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

Fugitive dust primarily poses two public health and safety concerns. The first concern is that of respiratory problems attributable to the particulates suspended in the air. Diesel particulates are classified by the CARB as a carcinogen. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive material agent (much like sandblasting activities). Finally, fugitive dust can result in a nuisance factor due to the soiling of proximate structures and vehicles.

Ozone **(**O_3), or smog, is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds (ROC) and NO_X (both by-products of the internal combustion engine) react with sunlight. O_3 is present in relatively high concentrations in the SoCAB, and the damaging effects of photochemical smog are generally related to the concentrations of O_3. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Additionally, O_3 has been tied to crop damage, typically in the form of stunted growth and premature death. O_3 can also act as a corrosive, resulting in property damage such as the degradation of rubber products.

Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The Health and Safety Code defines a

TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to subsection (b) of Section 112 of the federal Clean Air Act (42 USC Sec. 7412[b]) is a TAC. Under state law, the California Environmental Protection Agency (EPA), acting through the CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology (T-BACT) to minimize emissions. CARB has, to date, established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health-risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

To date, CARB has designated nearly 200 compounds as TACs. Additionally, it has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, one of the most important in the southern California being particulate matter from diesel-fueled engines.

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in the diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

In 2000, the South Coast Air Quality Management District (SCAQMD) conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer caused by a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for 71 percent of the risk.

AB/32: Global Warming Solutions Act

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as Greenhouse Gases (GHG), to the atmosphere. The primary source of these GHGs is fossil-fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, CO_2, methane (CH_4), and O_3—that are the likely cause of an increase in global average temperatures observed within the last century. Other GHG identified by the IPCC that contribute to global-warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.

Assembly Bill 32 (AB 32), the Global Warming Solutions Act, was passed by the California state legislature on August 31, 2006. AB 32 requires the state's global warming emissions to be reduced to 1990 levels by

year 2020. Pursuant to the requirements of AB 32, the state's reduction in global warming emissions would be accomplished through an enforceable statewide cap on global warming emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels by January 2008. CARB must prepare a plan demonstrating how the 2020 cap can be met by January 1, 2009, or earlier. Until such a plan has been adopted, direction for evaluation of, and potential mitigation for, incremental project impacts to global warming is not available. It is therefore not addressed within this technical report.

Other Effects of Air Pollution

Air pollution creates numerous impacts to our economy, including lost workdays due to illness, a desire on the part of businesses to locate in areas with a healthy environment, and increased expenses from medical costs. Pollutants may also lower visibility and cause damage to property. Certain air pollutants are responsible for discoloring painted surfaces, eating away at stones used in buildings, dissolving the mortar that holds bricks together, and cracking tires and other items made from rubber. In conformance with the requirements of the Clean Air Act Amendments, the federal EPA has prepared a monetary cost/benefit analysis related to implementation requirements. By the year 2010, the EPA estimates that its emissions-reduction programs would cost approximately 27 billion dollars. The programs are estimated to result in a savings benefit of 110 billion dollars, for a net benefit of 83 billion dollars. While these values are for the nation as a whole, a net benefit ratio of about 4:1 is noted and a similar ratio could be expected for the City of Los Angeles and its residents.

Another direct cost/benefit issue relates to federal funding. Areas that do not meet the federal air quality standards may lose eligibility for federal funding for road improvements and other projects that require federal or California Department of Transportation approval.

Cleaner air also yields benefits to ecological systems. Just as humans are affected by air pollution, so are plants and animals. Animals must breathe the same air and are subject to the same types of negative health effects. Certain plants and trees may absorb air pollutants that can stunt their development or cause premature death. The benefits of Clean Air Act Amendments programs that can be quantified within the overall monetary benefits include increased agricultural and timber yields, reduced effects of acid rain on aquatic ecosystems, and reduced effects of nitrogen deposited to coastal estuaries. Many ecological benefits, however, remain difficult or impossible to quantify, or can only be quantified for a limited geographic area. The magnitude of quantified benefits and the wide range of unquantified benefits nonetheless suggest that as we learn more about ecological systems and can conduct more comprehensive ecological benefits assessments, estimates of these benefits could be substantially greater.

2.1.3 Regulatory Framework

The proposed project in the City of Los Angeles has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the AAQS promulgated at the local, state, and federal levels. The project site is located in the SoCAB and is subject to the rules and regulations imposed by the SCAQMD. However, the SCAQMD reports to CARB, and all criteria emissions are also governed by the California Ambient Air Quality Standards (CAAQS) as well as the National Ambient Air Quality Standards (NAAQS).

Ambient Air Quality Standards

The Federal Clean Air Act (FCAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 Clean Air Act Amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting NAAQS and the Prevention of Significant Deterioration (PSD) program. The 1990 Amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The FCAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS tend to be more restrictive than the NAAQS and are based on even greater health and welfare concerns.

These NAAQS and CAAQS standards are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both the state of California and the federal government have established health-based AAQS for seven criteria air pollutants, as shown in Table 1. These pollutants are O_3, CO, NO_2, SO_2, Pb, PM_{10}, and $PM_{2.5}$. In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace within a reasonable margin of safety.

The following describes recent amendments to the FCAA requirements under the new federal O_3, $PM_{2.5}$, and PM_{10} standards:

- The United States Environmental Protection Agency (USEPA) has phased out and replaced the one-hour ozone standard with a new eight-hour standard to protect against longer exposure periods. The new ozone standard is set at a concentration of 0.08 part per million (ppm). Under the standard adopted by the USEPA, areas are allowed to disregard their three highest measurements every year and average their fourth highest measurements over three years to determine if they meet the standard.

- For particulate matter, the USEPA established an annual and a 24-hour standard for $PM_{2.5}$ to complement the existing PM_{10} standards. The new annual $PM_{2.5}$ standard is set at 15 micrograms per cubic meter ($\mu g/m^3$), and the new 24-hour $PM_{2.5}$ standard is set at 65 $\mu g/m^3$. The annual component of the standard was set to provide protection against typical day-to-day exposures as well as longer-term exposures, while the daily component protects against more extreme short-term events. For the new 24-hour $PM_{2.5}$ standard, the form of the standard is based on the 98th percentile of 24-hour $PM_{2.5}$ concentrations measured in a year (averaged over three years) at the monitoring site with the highest measured values in an area. This form of the standard reduces the impact of a single high-exposure event that may be due to unusual meteorological conditions and thus provides a more stable basis for effective control programs.

- As of September 21, 2006, the USEPA has revoked the annual PM_{10} standard of 50 $\mu g/m^3$ and replaced it with a new 24-hour PM_{10} standard set at 150 $\mu g/m^3$. More specifically, USEPA revised the one-expected exceedance form of the current standard with a 99th percentile form, averaged over three years.

Table 1
Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.07 ppm	0.08 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.30 ppm*	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	*	
Sulfur Dioxide (SO_2)	Annual Average	*	0.03 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	*	
	24 hours	0.04 ppm	0.14 ppm	
Suspended Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 $\mu g/m^3$ (PM_{10})	150 $\mu g/m^3$ (PM_{10})	
Suspended Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 $\mu g/m^3$	
Lead (Pb)	Monthly	1.5 $\mu g/m^3$	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 $\mu g/m^3$	
Sulfates (SO_4)	24 hours	25 $\mu g/m^3$	*	Industrial processes.

ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
* = standard has not been established for this pollutant/duration by this entity.

Source: California Air Resources Board. Updated February 22, 2007

Air Quality Management Planning

The FCAA requires the creation of plans to provide for the implementation of all reasonably available control measures, including the adoption of reasonably available control technology, for reducing emissions from existing sources. The SCAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the AQMP for the SoCAB. Since 1979, a number of AQMPs have been prepared. The most recent comprehensive plan is the 2003 AQMP, which was adopted on August 1, 2003. This updates the attainment demonstration for the federal standards for O_3 and PM_{10}, replaces the 1997 attainment demonstration for the federal CO standard, provides the basis for a maintenance plan for CO for the future, and updates the maintenance plan for the federal NO_2 standard that the SoCAB has met since

1992. The AQMP provides local guidance for the State Implementation Plan (SIP), which provides the framework for air quality basins to achieve attainment of the CAAQS and NAAQS.

The SIPs that will incorporate attainment demonstrations with the new eight-hour and $PM_{2.5}$ standards are expected to be required within three years of the air quality designations, or by June 2007. The Draft SIP for ozone and $PM_{2.5}$ for the SoCAB was recently released in March 2007. Pursuant to the Draft SIP, the SoCAB is required to meet the federal $PM_{2.5}$ standards by 2015 and the eight-hour ozone standard by 2021. However, the CARB is considering reclassifying the SoCAB's severe nonattainment designation under the NAAQS as an extreme nonattainment area, which would extend this deadline to 2024.

Area Designations

The SoCAB fails to meet AAQS standards for CO (federal only), ozone, PM_{10} and $PM_{2.5}$ and, therefore, is considered a nonattainment area for these pollutants. Table 2 lists the criteria pollutants and their relative attainment status in the Basin. The following are descriptions of the attainment classifications:

- ***Unclassified:*** a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.

- ***Attainment:*** a pollutant is designated attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.

- ***Nonattainment:*** a pollutant is designated nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.

- ***Nonattainment/Transitional:*** is a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

Table 2
Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	*State*	*Federal*
Ozone – 1-hour	Extreme Nonattainment	Revoked
Ozone – eight-hour	Extreme Nonattainment	Severe Nonattainment[1]
PM_{10}	Nonattainment	Serious Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Nonattainment
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
All others	Attainment/Unclassified	Attainment/Unclassified

[1] CARB is considering reclassifying the SoCAB severe nonattainment designation for ozone to extreme nonattainment.

Source: California Air Resources Board.

The SoCAB is also designated as attainment of the CAAQS for SO_2, lead, and sulfates. Areas that are extreme nonattainment for the ozone standard must meet attainment by June 2021. Areas that are serious nonattainment for PM_{10} standards must reach attainment by December 31, 2006, or as expeditiously as possible.

SCAQMD Local Rules and Regulations

In addition to federal and state requirements new construction and operation in the SoCAB is governed by the rules and regulations of the SCAQMD.

SCAQMD Rule 201: Permit to Construct

The SCAMQD requires developers who build, erect, install, alter, or replace any equipment or agricultural permit unit, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, to obtain a permit to construct from the Executive Officer. A permit to construct shall remain in effect until the permit to operate the equipment or agricultural permit unit for which the application was filed is granted or denied, or the application is canceled.

SCAQMD Rule 402: Nuisance Odors

The SCAQMD prohibits 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 to be emitted within the SoCAB.

SCAQMD Rule 403: Fugitive Dust

According the SCAMQD, no person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that: a) the dust remains visible in the atmosphere beyond the property line of the emission source; or b) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

No person shall conduct active operations without utilizing the applicable best available control measures shown in Table 3 to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

Table 3
Fugitive Dust Best Available Control Measures
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
Backfilling	01-1 01-2 01-3	Stabilize backfill material when not actively handling; and Stabilize backfill material during handling; and Stabilize soil at completion of activity.	• Mix backfill soil with water prior to moving. • Dedicate water truck or high capacity hose to backfilling equipment. • Empty loader bucket slowly so that no dust plumes are generated. • Minimize drop height from loader bucket.
Clearing and grubbing	02-1 02-2 02-3	Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and Stabilize soil during clearing and grubbing activities; and Stabilize soil immediately after clearing and grubbing activities.	• Maintain live perennial vegetation where possible. • Apply water in sufficient quantity to prevent generation of dust plumes.
Clearing forms	03-1 03-2 03-3	Use water spray to clear forms; or Use sweeping and water spray to clear forms; or Use vacuum system to clear forms.	• Use of high-pressure air to clear forms may cause exceedance of Rule requirements.
Crushing	04-1 04-2	Stabilize surface soils prior to operation of support equipment; and Stabilize material after crushing.	• Follow permit conditions for crushing equipment. • Prewater material prior to loading into crusher. • Monitor crusher emissions opacity. • Apply water to crushed material to prevent dust plumes.
Cut and fill	05-1 05-2	Prewater soils prior to cut and fill activities; and Stabilize soil during and after cut and fill activities.	• For large sites, prewater with sprinklers or water trucks and allow time for penetration. • Use water trucks/pull to water soils to depth of cut prior to subsequent cuts.
Demolition – mechanical/ manual	06-1 06-2 06-3 06-4	Stabilize wind-erodible surfaces to reduce dust; and Stabilize surface soil where support equipment and vehicles will operate; and Stabilize loose soil and demolition debris; and Comply with AQMD Rule 1403.	• Apply water in sufficient quantities to prevent the generation of visible dust plumes.
Disturbed soil	07-1 07-2	Stabilize disturbed soil throughout the construction site; and Stabilize disturbed soil between structures.	• Limit vehicular traffic and disturbances on soils where possible. • If interior block walls are planned, install as early as possible. • Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Earthmoving activities	08-1 08-2	Preapply water to depth of proposed cuts; and Reapply water as necessary to maintain soils in a damp condition and to ensure that	• Grade each project phase separately, times to coincide with construction phase. • Upwind fencing can prevent material movement on site.

Table 3
Fugitive Dust Best Available Control Measures
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
		visible emissions do not exceed 100 feet in any direction; and	• Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
	08-3	Stabilize soils once earth-moving activities are complete	
Importing/ exporting of bulk materials	09-1	Stabilize material while loading to reduce fugitive dust emissions; and	• Use tarps or other suitable enclosures on haul trucks. • Check belly-dump truck seals regularly and remove and trapped rocks to prevent spillage. • Comply with track-out prevention/ mitigation requirements. • Provide water while loading and unloading to reduce visible dust plumes.
	09-2	Maintain at least six inches of freeboard on haul vehicles; and	
	09-3	Stabilize material while transporting to reduce fugitive dust emissions; and	
	09-4	Stabilize material while unloading to reduce fugitive dust emissions; and	
	09-5	Comply with Vehicle Code Section 23114.	
Landscaping	10-1	Stabilize soils, materials, slopes.	• Apply water to materials to stabilize. • Maintain materials in a crusted condition. • Maintain effective cover over materials. • Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes. • Hydroseed prior to rain season.
Road shoulder maintenance	11-1	Apply water to unpaved shoulders prior to clearing; and	• Installation of curbing and/or paving road shoulders can reduce recurring maintenance costs. • Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.
	11-2	Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	
Screening	12-1	Prewater material prior to screening; and	• Dedicate water truck or high capacity hose to screening operation. • Drop material through the screen slowly and minimize drop height. • Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point.
	12-2	Limit fugitive dust emissions to opacity and plume length standards; and	
	12-3	Stabilize material immediately after screening.	
Staging areas	13-1	Stabilize staging areas during use; and	• Limit size of staging area. • Limit vehicle speeds of 15 miles per hour • Limit number and size of staging area entrances/exits.
	13-2	Stabilize staging area soils at project completion.	
Stockpiles/ bulk material handling	14-1	Stabilize stockpiled materials.	• Add or remove material from the downwind portion of the storage pile. • Maintain storage piles to avoid steep sides or faces.
	14-2	Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete	

Table 3
Fugitive Dust Best Available Control Measures
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
		stockpile coverage.	
Traffic areas for construction sites	15-1 15-2 15-3	Stabilize all off-road traffic and parking areas; and Stabilize all haul routes; and Direct construction traffic over established haul routes.	• Apply gravel/paving to all haul routes as soon as possible to all future roadway areas. • Barriers can be used to ensure vehicles are only used on established parking areas/haul routes.
Trenching	16-1 16-2	Stabilize surface soils where trencher or excavator and support equipment will operate; and Stabilize soils at the completion of trenching activities.	• Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18inches, soak soils via the pre-trench and resume trenching. • Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment.
Truck loading	17-1 17-2	Prewater material prior to loading; and Ensure that freeboard exceeds six inches (CVC 23114).	• Empty loader bucket such that no visible dust plumes are created. • Ensure that the loader bucket is closer to the truck to minimize drop height while loading.
Turf overseeding	18-1 18-2	Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and Cover haul vehicles prior to exiting the site.	• Haul waste material immediately off-site.
Unpaved roads/ parking lots	19-1 19-2	Stabilize soils to meet the applicable performance standards; and Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	• Restricting vehicular access to established unpaved travel path and parking lots can reduce stabilization requirements.
Vacant land	20-1	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicles and/or off-road vehicle trespassing, parking and/or access by installing barriers curbs, fences, gates, posts, signs, shrubs, trees, or other effective control measures.	

2.1.4 Baseline Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site and the City of Los Angeles area are best documented by measurements made by the SCAQMD. The City of Los Angeles is located within the central portion of Source Receptor Area (SRA) 1 – Metropolitan (Central Los Angeles County). The SCAQMD air quality monitoring station in the SRA 1 that is closest to the proposed project site is the Los Angeles – North Main Street Monitoring Station, located at 1630 North Main Street in the City of Los Angeles. Data from this station is summarized in Table 4.

Table 4
Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels During Such Violations				
	2002	2003	2004	2005	2006
Ozone					
State 1-Hour ≥ 0.09 ppm	8	11	7	2	8
Federal 8-Hour > 0.08 ppm	0	2	1	1	0
Max. 1-Hour Conc. (ppm)	0.122	0.152	0.110	0.121	0.108
Max. 8-Hour Conc. (ppm)	0.079	0.088	0.091	0.098	0.079
Carbon Monoxide					
State 8-Hour > 9.0 ppm	0	0	0	0	0
Federal 8-Hour ≥ 9.5 ppm	0	0	0	0	0
Max. 8-Hour Conc. (ppm)	3.80	4.47	3.18	3.05	2.68
Nitrogen Dioxide					
State 1-Hour ≥ 0.25 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.143	0.163	0.157	0.126	0.111
Sulfur Dioxide (SO_2)					
State 24-Hour ≥ 0.04 ppm	0	0	0	0	0
Federal 24-Hour ≥ 0.14 ppm	0	0	0	0	0
Max 24-Hour Conc. (ppm)-	0.008	0.006	0.015	0.010	0.006
Coarse Particulates (PM_{10})					
State 24-Hour > 50 $\mu g/m^3$	7	6	5	3	NA
Federal 24-Hour > 150 $\mu g/m^3$	0	0	0	0	0
Max. 24-Hour Conc. ($\mu g/m^3$)	65.0	81.0	72.0	70.0	59.0
Fine Particulates ($PM_{2.5}$)					
Federal 24-Hour > 65 $\mu g/m^3$	1	4	2	2	0
Max. 24-Hour Conc. ($\mu g/m^3$)	66.3	83.7	75.0	73.7	56.2

ppm: parts per million; $\mu g/m^3$, or micrograms per cubic meter

[1] Data obtained from the Los Angeles – North Main Street Monitoring Station located at 1630 North Main Street, Los Angeles CA 90012.

Source: California Air Resources Board, Ambient Air Quality Monitoring Data, obtained March 2007.

The data show recurring violations of both the state and federal ozone standards. The data also indicate that the area occasionally exceeds the state PM_{10} standards and federal $PM_{2.5}$ standards. Additionally, the CO, SO_2, and NO_2 standard have note been violated in the last five years at this station.

2.2 ENVIRONMENTAL IMPACTS

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would result in:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

2.2.1 METHODOLOGY

South Coast Air Quality Management District Thresholds

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook (1993). CEQA allows for the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. The SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed though an analysis of localized CO impacts and Localized Significance Thresholds (LSTs).

Regional Significance Thresholds

The SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality within the South Coast Air Basin (SoCAB).

Table 5
SCAQMD Significance Thresholds

Air Pollutant	*Construction Phase*	*Operational Phase*
Reactive Organic Gases (ROG)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Coarse Inhalable Particulates (PM_{10})	150 lbs/day	150 lbs/day
Fine Inhalable Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

CO Hotspot Analysis

The localized CO impacts are based on the California one-hour and eight-hour CO standards, which are as follows:

- One-hour = 20 parts per million
- Eight-hour = 9 parts per million

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below state and federal CO standards. If ambient levels are below the standards, a project is considered to have significant impacts if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. The SCAQMD defines a measurable amount as 1.0 ppm or more for the one-hour CO concentration or 0.45 ppm or more for the eight-hour CO concentration.

Localized Significance Thresholds

In addition to the CO hot spot analysis, the SCAQMD developed LSTs for emissions of NO_2, CO, PM_{10} and $PM_{2.5}$ generated at the project site (off-site mobile source emissions are not included the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent NAAQS or CAAQS. LSTs are based on the ambient concentrations of that pollutant within the project SRA area and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects of five acres and less. Projects larger than five acres can determine the localized significance for construction by performing dispersion modeling. Table 6 shows the localized significance thresholds for construction and operation of the project.

Table 6
Localized Significance Thresholds for SRA 1 for a 0.9-Acre Site

Air Pollutant	Threshold (lbs/day)	
	Construction	Operation
Carbon Monoxide (CO)	443	443
Nitrogen Oxides (NO_2)	111	111
Coarse Particulates (PM_{10})	5	1
Fine Particulates ($PM_{2.5}$)	3	1

Source: SCAQMD, *Localized Significance Methodology*, June 2003, for a 0.9-acre site and Appendix B $PM_{2.5}$ Localized Significance Threshold Look-up Tables

2.2.2 Construction-Related Emissions

Construction activities produce combustion emissions from various sources, such as, on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Grading activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from soil-disturbing activities. Exhaust emissions from construction activities on-site would vary daily as construction activity levels change.

Construction activities associated with new development occurring in the project area would temporarily increase localized PM_{10}, $PM_{2.5}$ ROG, NO_X, SO_X, and CO concentrations in the project vicinity and regional emissions within the SoCAB. The primary source of construction-related CO, SO_X, ROG, and NO_X emissions is gasoline- and diesel-powered, heavy-duty mobile construction equipment. Primary sources of PM_{10} and $PM_{2.5}$ emissions would be clearing and demolition activities, excavation and grading operations, construction vehicle traffic on unpaved ground, and wind blowing over exposed earth surfaces.

Regional Emissions in Comparison with the SCAQMD Thresholds

Short-term emissions modeled for the construction phase of the project were compiled using the URBEMIS2002, Version 8.7.0, emission inventory model. The construction emissions were calculated based on the type and magnitude of development which would be constructed under the proposed project, the time line for project construction, and mix of construction equipment required to build the project. Emissions from construction activities were calculated for a daily basis and were compared to the SCAQMD daily construction-related emissions thresholds.

The estimates of regional construction emissions for the proposed project were based on the following assumptions:

1. The project would occur on 0.9 acre of the approximately 260-acre Runyon Canyon Park.

2. Construction would comply with all applicable local rules and regulations for the City of Los Angeles and the SCAQMD, which includes compliance with SCAQMD Rule 403, for fugitive dust control.

3. The equipment mix for site preparation and construction operations is detailed in Appendix A and is based on the SCAQMD construction equipment surveys for a one-acre site and modified for the project. Construction equipment anticipated to be used includes one rubber-tired dozer, two tractor/loader/backhoes, one grader during grading activities; two other equipment and two tractor/loader/backhoes during construction hardscape activities; and one grader, one paver, one paving equipment, and two tractor/loader/backhoes during paving activities.

Emissions generated from project-related construction activities would be anticipated to cause temporary increases in air pollutant emissions. The results of the URBEMIS2002 computer modeling are included in Table 7. The URBEMIS2002 model runs are included in Appendix A. As shown in this table, construction emissions would not exceed the SCAQMD's mass daily construction emissions thresholds. Because regional construction emissions would not exceed the SCAQMD's construction emissions thresholds, the project would not significantly contribute to the SoCAB's ozone, CO (federal only), or particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designation. Consequently, no significant impacts would occur and no mitigation measures are required.

Table 7
Project-Related Mass Daily Construction Phase Emissions
(in pounds per day)

	CO	*NO_X*	*ROG*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*[3]
Grading[1,2]	42	38	5	0	4	2
Building Construction[1]	67	60	9	0	3	2
SCAQMD Standard	550	100	75	150	150	55
Significant?	No	No	No	No	No	No

[1] Construction equipment mix based on the SCAQMD's survey of midsized construction sites for a one-acre site and modified for the analysis.
[2] Fugitive dust emissions assume 68 percent effectiveness for dust suppression under SCAQMD Rule 403, Fugitive Dust. Based on an average of PM_{10} reductions stated the SCAQMD http://www.aqmd.gov/ceqa/urbemis.html.
[3] Percent of PM_{10} which is $PM_{2.5}$: 21 percent for fugitive dust and 89 percent for off-road equipment combustion sources. Table 4 and 5 of Final – Methodology to Calculate Particulate Matter $PM_{2.5}$ and $PM_{2.5}$ Significance Thresholds, October 2006.

Source: The Planning Center, URBEMIS2002 March 2007.

Localized Emissions in Comparison with the SCAQMD Thresholds

The project has the potential to expose sensitive receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels or place the project in an area with elevated pollutant concentrations. Unlike the mass of emissions shown in Table 7 (described in pounds per day), localized concentrations refer to an amount of pollutant in a volume of air (ppm or $\mu g/m^3$) and can be correlated to potential health effects. Based on the types of the fuels consumed during project construction, emissions of sulfates, hydrogen sulfide, vinyl chloride, and lead are expected to be negligible. In addition, these criteria pollutants are in a state of attainment with the AAQS. Therefore, these pollutants were not analyzed in this study.

LSTs were developed by the SCAQMD to identify whether or not a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that would cause or contribute to an exceedance of the most stringent applicable federal or state AAQS and were developed based on the ambient concentrations of that pollutant for each SRA. LSTs are applicable only to the following pollutants: NO_2, CO, PM_{10}, and $PM_{2.5}$. Because pollutants emitted during construction greatly depend on the proximity of the source to the receptor, LSTs are based on the location of the emission source relative to the sensitive receptors as well as the quantity of emission.

Table 8 shows construction emission rates and LSTs for SRA 1 based on a distance of 25 meters from the nearest receptor in accordance with the SCAQMD methodology. The nearest sensitive receptors are the residential uses bordering the proposed parking lot. As shown in this table, project emissions would not exceed LSTs for CO, NO_2, PM_{10}, and $PM_{2.5}$ for a one-acre site. Because the project's construction emissions would not exceed the LST for a one-acre site, no air pollutant concentrations from project-related construction activities would exceed the California or federal AAQS and no significant air quality impact would occur from exposure of persons to substantial air pollutant concentrations.

Table 8
Maximum Daily Construction Emissions Compared with the LST

Source	Pollutants (lbs/day)			
	CO	NO_X	PM_{10}[2]	$PM_{2.5}$[2]
Site Grading[1]	42	38	4	2
Building Construction[1]	67	60	3	2
Exceeds SCAQMD LST Threshold for SRA 1	443	111	5	3.0
Exceeds Threshold	No	No	No	No

[1] Construction equipment mix based on the SCAQMD's survey of midsized construction sites for a one-acre site and modified for the analysis.
[2] Fugitive dust emissions assume 68 percent effectiveness for dust suppression under SCAQMD Rule 403, Fugitive Dust. Based on an average of PM_{10} reductions from SCAQMD, http://www.aqmd.gov/ceqa/urbemis.html.

Source: The Planning Center, using the URBEMIS2002 Version 8.7.0. and the SCAQMD's Localized Significance Threshold Methodology

2.2.3 Long-Term Operational Emissions

Regional Emissions in Comparison with the SCAQMD Thresholds

Vehicle and stationary source emissions modeled for the operational phase of the project were also compiled using the URBEMIS2002, Version 8.7.0, emission inventory model. This computer model projects emission rates for motor vehicles based on the desired year of analysis, a projected vehicle fleet mix, projected vehicle speeds, whether these emissions are projected to occur during the summer or the winter months, and other factors.

The volume of vehicle trips attributable to local roads during project operations was taken from the Technical Memorandum for the Assessment of Existing and Future Traffic Conditions Near Runyon Canyon conducted by Kaku Associates, Inc., January 12, 2006. The Technical Memorandum prepared for the project assessed two scenarios for project-induced traffic growth. The following air quality analysis is based on the on trip projections under Scenario 2, the worst-case scenario, which assumed that an average auto occupancy of one person per car would result in 80 project-related trips during the weekday peak hour generated as a result of better access due to the parking lot. It is assumed that the peak hour trip generation represents 10

percent of the average daily trip generation (ADT). Average trip distances are provided within the URBEMIS2002 emissions inventory model. The URBEMIS2002 model calculates emissions resulting from project-related on-road mobile source emissions. The air quality analysis assumes area source emissions as a result of fugitive dust from travel on the unpaved roads within the 0.6-acre parking lot. The results of the URBEMIS2002 computer modeling are included in Table 9. The URBEMIS2002 model runs are included in Appendix A. As shown in this table, operational emissions would not exceed the SCAQMD's thresholds. Because regional operational emissions would not exceed the SCAQMD's operational emissions thresholds, the project would not significantly contribute to the SoCAB's ozone, CO (federal only), or particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designation. Consequently, no significant impacts would occur and no mitigation measures are required.

Table 9
Project-Related Mass Daily Operational Phase Emissions
(in pounds per day)

	CO	*NO_X*	*ROG*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*[1]
Summer						
Stationary Sources	1	0	<1	0	0	0
Mobile Sources	76	7	5	<1	7	7
Fugitive Dust from Travel on Unpaved Roads[2]	—	—	—	—	<1	<1
Total	77	7	5	<1	7	7
SCAQMD Standard	55	55	550	150	150	55
Significant?	No	No	No	No	No	No
Winter						
Stationary Sources	0	0	0	0	0	0
Mobile Sources	74	11	6	<1	7	7
Fugitive Dust from Travel on Unpaved Roads[2]	—	—	—	—	<1	<1
Total	74	11	6	<1	7	7
SCAQMD Standard	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

[1] Percent of PM_{10} which is $PM_{2.5}$: 99percent for combustion sources. Table 3 of Final –Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, October 2006.
[2] Assumes average travel distance within the parking lot is 300 feet, and represents 0.01 percent of total vehicle miles traveled.

Source: The Planning Center using the URBEMIS2002 emissions inventory model. March 2007.

Localized Emissions in Comparison with the SCAQMD Thresholds

The project has the potential to expose sensitive receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels or place the project in an area with elevated pollutant concentrations. Unlike the mass of emissions shown in Table 9 (described in pounds per day), localized concentrations refer to an amount of pollutant in a volume of air (ppm or $\mu g/m^3$) and can be correlated to potential health effects. Based on the types of the fuels consumed during project construction and operations, emissions of sulfates, hydrogen sulfide, vinyl chloride, and lead are expected to be negligible. In addition, these criteria pollutants are in a state of attainment with the AAQS. Therefore, these pollutants were not analyzed in this study.

CO Hotspot Analysis

Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create pockets of CO called "hot spots." These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Note that the federal levels are based on one and eight-hour standards of 35 and 9 ppm, respectively. Thus, an exceedance condition would occur based on the state standards prior to exceedance of the federal standard.

Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersection locations. Typically, for an intersection to exhibit a significant CO concentration, it would operate at level of service (LOS) D or worse. The following intersection is projected to operate at LOS D or worse upon opening year:

- N. Vista Street and Hollywood Boulevard – LOS F: morning peak hour; LOS E evening peak hour

This intersection was modeled, as it would experience levels of traffic congestion that are most conducive to the formation of CO hot spots. Tables 10 and 11 list the one-hour and eight-hour, respectively, CO concentrations that would occur at this intersection, with and without the proposed project. Based on the CALINE4 analyses, project-related traffic is not anticipated to exceed any of the state one-hour or eight-hour CO AAQS at this intersection. Consequently, sensitive receptors in the area would not be significantly adversely affected by CO emissions generated by operation of the proposed project. Localized air quality impacts related to mobile source emissions would therefore be less than significant for the proposed project.

Table 10
One-Hour Carbon Monoxide Dispersion Analysis
(in parts per million)

Receptor	Intersection Concentration		SCAQMD Threshold	Exceeds Threshold?
	Without Project	With Project		
N. Vista Street and Hollywood Boulevard – Morning Peak Hour				
NE	5.7	5.7	20	No
SE	6.0	6.0	20	No
SW	6.0	6.0	20	No
NW	5.7	5.7	20	No
N. Vista Street and Hollywood Boulevard – Evening Peak Hour				
NE	5.8	5.8	20	No
SE	5.7	5.7	20	No
SW	5.7	5.7	20	No
NW	5.8	5.8	20	No

Source: The Planning Center, based on the Caltrans' traffic emission dispersion model CALINE4. March 2007.

Table 11
Eight-Hour Carbon Monoxide Dispersion Analysis
(in parts per million)

Receptor	Intersection Concentration		SCAQMD Threshold	Exceeds Threshold?
	Without Project	With Project		
N. Vista Street and Hollywood Boulevard – Morning Peak Hour				
NE	4.0	4.0	9	No
SE	4.2	4.2	9	No
SW	4.2	4.2	9	No
NW	4.0	4.0	9	No
N. Vista Street and Hollywood Boulevard – Evening Peak Hour				
NE	4.1	4.1	9	No
SE	4.0	4.0	9	No
SW	4.0	4.0	9	No
NW	4.1	4.1	9	No

Eight-hour CO concentrations were obtained by multiplying the one-hour CO concentrations by a persistence factor of 0.7, in accordance with SCAQMD methodology.

Source: The Planning Center, based on the Caltrans' traffic emission dispersion model CALINE4. March 2007.

Operational LSTs

LSTs were developed by the SCAQMD to identify whether or not a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that would cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS and were developed based on the ambient concentrations of that pollutant for each SRA. LSTs are applicable only to the following pollutants: NO_2, CO, PM_{10}, and $PM_{2.5}$. Because pollutants emitted during operation greatly depend on the proximity of the source to the receptor, LSTs are based on the location of the emission source relative to the sensitive receptors as well as the quantity of emission. Pursuant to the SCAQMD methodology, on-road mobile source emissions travel outside the localized area and therefore are not considered in the calculation for LSTs.

Table 12 shows operational emission rates and LSTs for SRA 1 based on a distance of 25 meters from the nearest receptor in accordance with the SCAQMD methodology. The nearest sensitive receptors are the residential uses bordering the proposed parking lot. As shown in this table, project emissions would not exceed LSTs for CO, NO_2, PM_{10}, and $PM_{2.5}$ for a one-acre site. Because the project's operational emissions would not exceed the LST for a one-acre site, no air pollutant concentrations from project-related operational activities would exceed the California or federal AAQS and no significant air quality impact would occur from exposure of persons to substantial air pollutant concentrations.

Table 12
Maximum Daily Operational Emissions Compared with the LST

Source	Pollutants (lbs/day)			
	CO	NO_X	PM_{10}[1]	$PM_{2.5}$[1]
Stationary Sources	1	0	0	0
Fugitive Dust from Travel on Unpaved Roads[2]	—	—	<1	<1
Total	1	0	<1	<1
SCAQMD LST Threshold for SRA 1	441	111	1	1
Exceeds Threshold	No	No	No	No

[1] Percent of PM_{10} which is $PM_{2.5}$: 99 percent for combustion sources. Table 3 of Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, October 2006.
[2] Assumes average travel distance within the parking lot is 300 feet, and represents 0.01 percent of total vehicle miles traveled.

Source: The Planning Center, using the URBEMIS2002 Version 8.7.0. and the SCAQMD's Localized Significance Threshold Methodology

2.2.4 Consistency with the Air Quality Management Plan

A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the Air Quality Management Plan (AQMP). It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration at an early enough stage to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to clean air goals contained in the AQMP. Only new or amended General Plan elements, Specific Plans, and major projects need to undergo a consistency review. This is because the AQMP strategy is based on projections from local General Plans.

The proposed Runyon Canyon Park – Fuller Entrance Parking Project does not fall under any of these major categories that would require a consistency review by the SCAQMD. Furthermore, the proposed project would not exceed the SCAQMD regional thresholds for either construction or operation. In addition, the project is located within the existing Runyon Canyon Park in the City of Los Angeles and would not require a General Plan amendment. Consequently, the project would be consistent with the AQMP and impacts would be less than significant.

2.3 MITIGATION MEASURES

Mitigation Measures Listed within the IS/MND

The following mitigation measures were incorporated within the Initial Study and Mitigated Negative Declaration (IS/MND) for the project:

AIR-1 All unpaved construction areas shall be wetted at least ~~twice~~ three times daily during construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD Rule 403.

AIR-2 The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by grading, and at all times provide reasonable control of dust caused by wind.

AIR-3 All loads shall be secured by trimming, watering, or other appropriate means to prevent spillage and dust.

AIR-4 All clearing, grading, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e. greater than 15 miles per hour) so as to prevent excessive amounts of dust.

AIR-5 General contractors shall minimize, maintain, and operate construction equipment so as to minimize exhaust emissions.

AIR-7 All equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.

AIR-8 ~~General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.~~ During construction, trucks and vehicles in loading and unloading queues shall be parked with their engines off when not in use. Construction activities shall be discontinued during second-stage smog alerts.

Additional Mitigation Measures

No additional mitigation measures are required, as either construction or operational emissions would exceed the SCAQMD's mass daily emissions thresholds or localized significance thresholds (LSTs).

3. Noise

3.1 ENVIRONMENTAL SETTING

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." The following noise analysis is based on the following technical report:

- *City of Los Angeles Runyon Canyon Fuller Entrance Parking Lot Noise Impact Study*, Behrens and Associates, Inc., March 30, 2007.

3.1.1 Terminology and Noise Descriptors

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.

- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

- **Equivalent Continuous Noise Level (L_{eq}).** The mean of the noise level averaged over the measurement period, regarded as an average level.

- **Day-Night Level (L_{dn}).** The energy average of the A-weighted sound levels occurring during a 24 hour period, with 10 dB added to the sound levels occurring during the period from 10 p.m. to 7 a.m.

- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the levels occurring during the period from 7 p.m. to 10 p.m. and 10 dB added to the sound levels occurring during the period from 10 p.m. to 7 a.m.

L_{dn} and CNEL values rarely differ by more than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

3.1.2 Characteristics of Sound

When an object vibrates, it radiates part of its energy as acoustical pressure in the form of a sound wave. Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). The human

hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate this human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The normal range of human hearing extends from approximately 0 dBA to 140 dBA.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. Because of the physical characteristics of noise transmission and noise perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 13, *Change in Sound Pressure Level, dB*, presents the subjective effect of changes in sound pressure levels.

Table 13
Change in Sound Pressure Level, dB

Change in Apparent Loudness	
± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen. Engineering Noise Control, 1988.

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss."

When sound is measured for distinct time intervals, the statistical distribution of the overall sound level during that period can be obtained. The energy-equivalent sound level (L_{eq}) is the most common parameter associated with such measurements. The L_{eq} metric is a single-number noise descriptor that represents the average sound level over a given period of time. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_{02}, L_{08} and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dB increment be added to quiet-time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}).

3.1.3 Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear, called the threshold of pain. A sound level of 160 to 165 dBA will result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and

generally more concentrated in urban areas than in outlying, less developed areas. Table 14 shows *Typical Noise Levels from Noise Sources*.

Table 14
Typical Noise Levels from Noise Sources

Common Outdoor Activities	*Noise Level (dBA)*	*Common Indoor Activities*
	110	Rock Band
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation, Traffic Noise Analysis Protocol, Table 9-2136.2, October 1998.

3.1.4 Regulatory Setting

The proposed project lies within the jurisdiction of the City of Los Angeles. The City of Los Angeles has established policies and regulations concerning the generation and control of noise that could adversely affect their citizens and noise-sensitive land uses under the City of Los Angeles Municipal Code, Chapter XI.

Stationary Noise

The City of Los Angeles Municipal Code, Section 111.03, includes exterior noise standards for the generation of stationary-source noise on a property that prevent a nuisance to other land uses. Noise standards are correlated with City zoning classification to guide the measurement of intrusive noise that results in intermittent (periodic) or extended impacts on a site. The intent is to limit intrusive noise (e.g., air conditioning units, machinery, parties, amplified sound) that exceeds the ambient noise levels within the zones specified. As shown in Table 15, stationary noise sources are prohibited from causing the exterior noise levels at residential locations to exceed an hourly noise level of 50 dBA at any time between the hours of 7 a.m. and 10 p.m.

Table 15
City of Los Angeles Stationary Noise Standards for Land Uses

Zoning Categories	*Time Period*	*Exterior Noise Limits (dBA L_{eq})*
Residential: A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	10:00 p.m. to 7:00 a.m.	40
	7:00 a.m. to 10:00 p.m.	50
Commercial: P, PB, CR, C1, C1.5, C2, C4, C5, and CM	10:00 p.m. to 7:00 a.m.	55
	7:00 a.m. to 10:00 p.m.	60
Industrial: M1, MR1, and MR2	10:00 p.m. to 7:00 a.m.	55
	7:00 a.m. to 10:00 p.m.	60
Industrial: M2 and M3	10:00 p.m. to 7:00 a.m.	65
	7:00 a.m. to 10:00 p.m.	65

Residential: A1 and A2: Agriculture; RA and RS: Suburban; RE Residential Estate; RD: Restricted Density Multiple Dwelling; RW1 and RW2: Residential Waterways; R1: One-family; R2: Two-family; R3, R4, and R5: Multiple Dwelling
Commercial P: Automobile Parking; PB Parking Building; CR, C1, and C1.5: Limited Commercial; C2, C4, and C5: Commercial Zone; CM: Commercial Manufacturing
Light Industrial: M1: Limited Industrial; MR1: Restricted Industrial; MR2: Restricted Light Industrial, M2: Light Industrial; M3: Heavy Industrial

Source: City of Los Angeles Municipal Code, Chapter XI, Noise Regulation, Section 111.03, Minimum Ambient Noise Levels.

Construction Noise

Section 41.40 of the Municipal Code specifies hours allowed for construction activities (City of Los Angeles 2000) for the purposes of noise control in accordance with Chapter XI (Section 112.03). Construction and delivery of construction materials are prohibited between the hours of 9 p.m. and 7 a.m.

Chapter XI, Section 112.05, of the Los Angeles Municipal Code also specifies the maximum noise level for construction equipment. In accordance with the Section 112.05, construction equipment, including auger, 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 shall not produce a maximum noise level exceeding 75 dBA at a distance of 50 feet. The City allows construction noise exceeding these noise limits if compliance is technically infeasible. However, the burden of proving that compliance is technically infeasible includes showing that noise limitations cannot

be complied with despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of the equipment.

3.1.5 Existing Noise Environment

An ambient sound level survey was performed by Behrens and Associates during a typical weekday on a warm spring day while the park was in full operation to measure and document the current, preconstruction, ambient sound levels at the site. The sound level survey began at approximately 11:15 a.m. and ran continuously through approximately 3:30 p.m. on March 23, 2007. The sound level measurements were recorded and documented at the south side of the proposed parking lot, approximately 45 feet from the Summit Arms apartment building and on the north side of the proposed parking lot. Locations of the noise measurements are shown in Figure 5. Both of the sound level survey locations were completed near the edges of the existing lawn/yoga area, at locations that represented the edges of the proposed parking lot.

Two Model 2900 Integrating/Logging Sound Level Meters manufactured by Quest Technologies of Oconomowoc, Wisconsin, were programmed to measure and calculate the five-minute average (L_{eq}) sound levels in dBA. Detector parameters were a doubling rate of 3 dB, an A filter, a fast response, and a 60 dBA reference range (40 to 100 dBA). Five variables (L_{eq}, L_{max}, L_{peak}, Ln_{10}, and Ln_{90}) were logged at five-minute integration intervals for a five-minute period at a fast response rate. Both meters were calibrated with a Metrosonics Model CL304 Acoustical Calibrator prior to the commencement of the surveys. The measured sound levels at both monitoring locations typically ranged from 45 to 55 dBA throughout the survey. The measured noise levels above this range observed during the survey were due to airplanes, helicopters, police/fire truck sirens, trash trucks, back-up-beepers on park and recreation trucks, dogs barking, and conversations among park patrons. The average sound levels over the entire survey period were 51.3 dBA and 54.5 dBA at locations one and two, respectively. In addition, peak sound levels and sources were documented and recorded during the survey, as shown in Table 16.

Table 16
Peak Sound Levels

Source	*Peak Sound Level (dBA)*
Aircraft Overflight	69.3
Helicopter Overflight	73.3
Fire Truck with Sirens	67.9
Back-up Alarms from Park and Recreation Trucks	67.7
Trash Trucks on Fuller Avenue	71.4
Yoga Class Voices	64.1

Source: City of Los Angeles Runyon Canyon Fuller Entrance Parking Lot Noise Impact Study, Behrens and Associates, Inc., March 30, 2007.

3.2 ENVIRONMENTAL IMPACTS

3.2.1 Construction Noise Impacts

The construction activities at the Runyon Canyon Fuller Entrance Parking Lot site would include earthwork, including soil grading and material hauling, backfill and compaction, paving, hardscape construction and landscaping. The construction equipment employed at any given time would depend on the phase of construction. Noise generated by construction equipment would occur with varying intensities and durations during the various phases of construction. The equipment would operate in alternating cycles of full power and low power, thus producing average noise levels less than the maximum level for the particular piece of equipment. The average sound level of the construction activity would also depend upon the amount of time that the equipment operates and the intensity of the construction during the time period. The anticipated number and types of construction equipment needed for the various construction phases are shown in Table 17.

Table 17
Construction Noise Levels

Equipment	Quantity[1]	Average Noise Level at 50 feet (dBA)	Construction Usage Factors[2]
Grading, Backfill, and Compaction Construction			
Backhoe	1	85	0.04
Dozer (50-HP)	1	80	0.16
Grader	1	85	0.02
Loader	1	79	0.16
Dump Truck	1	91	0.16
Water Truck	1	87	0.26
Worker Vehicles	10	70	0.16
	Average Noise Levels at 50 feet from Center of Activity[3]		**86 dBA**
Paving Construction			
Air Compressor	1	81	0.40
Backhoe	1	85	0.04
Grader	1	85	0.02
Loader	1	79	0.16
Paver	1	89	0.10
Dump Truck	1	91	0.16
Water Truck	1	87	0.26
Worker Vehicles	10	70	0.16
	Average Noise Levels at 50 feet from Center of Activity[3]		**84 dBA**
Hardscape Construction			
Air Compressor	1	81	0.40
Backhoe	1	85	0.04
Crane, Mobile	2	83	0.04
Loader	1	79	0.16
Dump Truck	1	91	0.16
Water Truck	1	87	0.26
Worker Vehicles	10	70	0.16
	Average Noise Levels at 50 feet from Center of Activity[3]		**82 dBA**

[1] Number of construction equipment that may be operating simultaneously.
[2] Fraction of time during the construction period that source is in use.
[3] An energy summation of all sources considering each source's reduced contribution as each source is not operating 100% of the time.

Source: City of Los Angeles Runyon Canyon Fuller Entrance Parking Lot Noise Impact Study, Behrens and Associates, Inc., March 30, 2007.

Noise Monitoring Locations



Source: Google Earth, Behrens and Associates, Inc.

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The closest residences would be located south of the site, approximately 45 feet or more from the closest on-site parking lot construction area. At this distance, the maximum unmitigated noise level would be approximately 86 dBA or less. The average sound level for an eight-hour workday would be expected to be substantially less because of the intermittent nature of construction work. Assuming a duty cycle time of 10 percent, the hourly average noise level would not be expected to exceed 75 dB at 50 feet. The majority of the construction activity would be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday. Consequently, construction activities would comply with the City of Los Angeles Municipal Code, Section 112.05.

However, construction activities would increase the average ambient sound levels 20 to 24 dBA above existing ambient noise levels within 50 feet of the construction area. Installing a 10-foot-high temporary construction sound wall with sound barrier material with an Sound Transmission Class (STC)-27 rating or higher between the construction site and the nearest occupied structures could provide a 10 to 14 dBA sound level reduction at 50 feet. The resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise level impact of 65 dBA during the highest noise generation phases of the project, and impacts would be substantially reduced at the adjacent residential uses. With application of this additional mitigation measure, no significant construction noise impacts would occur.

3.2.2 Operational Noise Impacts

Upon completion of the parking lot, new noise sources would be introduced into the park and surrounding environment. The new expected noise sources include vehicle traffic noise, tire noise screech, car horns, car stereos, car alarms, car doors opening and closing, and increased conversational noise from park patrons.

Off-Site Noise Impacts

The off-site noise impact evaluation is designed to present the worst case condition for noise generation. Within the parking lot, the highest sustained noise level occurs from movement of cars into and through the lot. Noise generated by the action of tires rolling on travel surfaces is the dominant noise source for all but the heaviest diesel-engine vehicles. Along the south side of the parking lot, the closest travel lane from the apartment building would be approximately 65, feet running in the east/west direction and parallel to the building. There are a number of other sources of noise in the parking lot, but these tend to be random and do not significantly add to cumulative noise levels.

Noise Levels of Moving Cars

The average anticipated speed for cars driving within the parking lot is 14 miles per hour. The maximum anticipated noise level from cars operating at 14 miles per hour is 56 dBA at 50 feet for an individual car passing. The peak drive-by off-site sound level impact of autos traveling through the parking lot is projected to be 62 dBA on the west side of the parking lot, which is within five-feet of the travel lane. Assuming one auto travels through the parking lot every minute, with a noise impact duration of five to seven seconds (as the auto passes at 14 mph), the average sound level would increase by less than 1 dB at five feet and would not increase the current average hourly sound level of 53 dBA L_{eq} at 50 feet . No significant impact would occur from vehicle travel in the parking lots.

Ancillary Contributors of Noise

Auto movement is not the only potential source of noise within the parking lot. There are potential sources that are classed as uncontrolled, in that there is no way to control the basic emissions or the time of occurrences. Examples are car alarms, door slams, and talking. A number of these are discussed in the following paragraphs:

- **Vehicle Alarms:** Two types of sound emissions occur with car alarms. The car alarm itself may be set off resulting in short periods of alarm activity. Modern alarm sounds consist of bells, whistles, warbling tones, human voices, animal voices, or any combination of these sounds. In addition to the actual alarm, most car alarms are equipped with an audible arming signal. The arming usually produces a short "chirp." Arming activity would occur just after arrival and just before departure.

- **Back-up Alarms:** This is a source only for commercial and large recreational vehicles, which are not anticipated to use the parking lot.

- **Horns:** In any assembly of vehicles, horns can be expected to be used for warning or signaling purposes.

- **Door Slams:** Every car would experience at least one door closure upon arrival and one upon departure.

- **People Talking:** People can be expected to converse on the way to and from their cars.

- **Radios:** It is likely that car radios would be playing upon arrival and be started up again upon departure. During the summer, some cars would have the windows open and the radios would be audible.

- **Sweepers:** Powered mechanical sweepers would be deployed to clean the parking lot.

- **Maintenance Equipment:** The lot and the perimeter would receive periodic landscape maintenance, surface sealing, and graffiti removal. This is usually a weekly occurrence and should not be considered an "ongoing" event.

- **Tire Squeals:** The sound-absorbing surface of the parking lot is anticipated to minimize squeal. The noise potential has been addressed in the parking lot surface design.

The reference noise levels of the parking lot ancillary noise are shown in Table 18.

Table 18
Parking Lot Ancillary Peak Sound Levels

Source	*Levels (dBA)*	*Distance*
Car Alarm Signal	67	50 Feet
Car Alarm Chirp	52	50 Feet
Car Horns	68	50 Feet
Door Slams	62	50 Feet
Talking	43	50 Feet
Radios	61	50 Feet

Source: City of Los Angeles Runyon Canyon Fuller Entrance Parking Lot Noise Impact Study, Behrens and Associates, Inc., March 30, 2007.

The short-term intermittent peak noise impacts of the ancillary sound sources would have a negligible contribution to the average off-site sound levels but may be considered intrusive to close proximity residential areas, depending on the frequency of the occurrence, the time of day and the duration of the noise impact. The peak sound levels anticipated to be generated by the parking lot's ancillary noise sources

are lower than the current ambient peak noise levels generated by typical urban noise impacts experienced at the site. Although the frequency of these short-term noise impacts would increase with the construction of the parking lot, the overall noise contribution to the current hourly average ambient sound levels would be negligible. Consequently, no significant impact would occur at nearby noise-sensitive uses from operation of the parking lot.

On-Site Noise Impacts

The U.S. Department of Reclamation has established maximum allowable noise level limits for wildlife breeding habitat. During the breeding season, the maximum average hourly level at the breeding habitat (bushes, trees, lakes, and ponds) is 60 dBA. During the periods of maximum construction noise generation, the hourly average of 75 dBA would be attenuated to 60 dBA or less at 135 feet or more from the construction area. With the specified temporary sound wall in place, 60 dBA can be achieved within 75 feet of the construction area. Although the construction noise is projected to exceed the hourly average of 60 dBA within 75 feet of the construction area, the noise from the ongoing operation of the parking lot would not exceed 60 dBA off the parking lot. As Mitigation Measures BIO-3 and BIO-4 included in the original ISMND would require no construction to be conducted within 300 feet of an active nest, noise impacts to on-site wildlife within the Runyon Canyon Park would be less than significant.

3.3 MITIGATION MEASURES

Mitigation Measures Listed within the IS/MND

The following mitigation measures were incorporated within the Initial Study and Mitigated Negative Declaration (IS/MND) for the project:

NOI-1 The City Department of Recreation and Parks ~~will~~ *shall* develop and enforce a noise control policy to avoid adverse impacts to wildlife, park patrons, and adjacent residential properties. The policy will include restrictions regarding human, vehicular, and electronic noises.

NOI-2 Construction activities shall be scheduled to avoid operating several pieces of equipment simultaneously, which causes high noise levels.

NOI-3 The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.

NOI-4 As directed by the City, the contractor shall implement appropriate additional noise-reducing measures including, but not limited to, changing the location of stationary construction equipment, shutting off idling equipment, rescheduling construction activity, notifying adjacent residents in advance of construction work, rerouting trucks, or installing acoustic barriers around construction noise sources.

BIO-3 Proposed project activities (including disturbances to native and nonnative vegetation and man-made substrates) should take place outside of the breeding bird season, which generally runs from March 1 to August 31 (as early as February for raptors) to assist in avoiding take (including disturbances which would cause abandonment of active nests containing eggs and/or young).

BIO-4 If the project activities cannot feasibly be avoided during the breeding bird season, *the project applicant shall comply with recommendations of* the State of California Department

of Fish and Game*,* ~~recommends~~ that beginning 30 days prior to disturbance of suitable nesting habitat the project proponent ~~should~~ *shall* arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors). The surveys ~~should~~ *shall* be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys ~~should~~ *shall* continue on a weekly basis, with the last survey being conducted no more than three days prior to the initiation of clearance/construction work. If a protected native bird is found, the project proponent ~~should~~ *shall* delay all clearance/construction activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until August 31 or continue the surveys in order to locate any nest. If an active nest is located, clearing and construction within 300 feet of the nest (within 400 feet for raptor nests) shall be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the field with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent ~~should~~ *shall* record the result of the recommended protection measures described above to document compliance with applicable state and federal laws pertaining to the protection of birds.

Additional Mitigation Measures

In addition to the mitigation measures incorporated in the original ISMND prepared for the project, the following mitigation measure has been incorporated to reduce noise levels during construction activities.

NOI-5 The contractor shall install temporary sound barrier material (fences typically comprised of polyvinyl-chloride-coated outer shells with adsorbent inner insulation) alongside the boundary of project site during construction activities that are located in the vicinity of noise-sensitive land uses affected by significant levels of construction noise, which includes off-site residential and on-site wildlife within the Runyon Canyon Park. The temporary sound blankets shall be to prevent direct line-of-sight from construction activities occurring directly adjacent to these areas.

4. References

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4. References

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Appendix A.
Air Quality Modeling Datasheets



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Runyon Canyon Park – Fuller Entrance Parking
URBEMIS2002 Version 8.7.0
Construction
Operational Emissions with Travel in the Gravel Parking Lot

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwgravel.urb
Project Name: Runyon Canyon Park with Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

CONSTRUCTION EMISSION ESTIMATES

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	8.54	60.23	66.62	0.00	8.53	2.52	6.01
TOTALS (lbs/day, mitigated)	8.54	60.23	66.62	0.00	4.45	2.52	1.93

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.11	0.00	0.72	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.25	7.27	75.91	0.05	7.11

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.36	7.27	76.63	0.05	7.12

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwgravel.urb
Project Name: Runyon Canyon Park with Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

CONSTRUCTION EMISSION ESTIMATES

*** 2007 ***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
TOTALS (lbs/day,unmitigated)	8.54	60.23	66.62	0.00	8.53	2.52	6.01
TOTALS (lbs/day, mitigated)	8.54	60.23	66.62	0.00	4.45	2.52	1.93

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.99	10.51	73.60	0.04	7.11

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.99	10.51	73.60	0.04	7.11

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwgravel.urb
Project Name: Runyon Canyon Park with Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

Construction Start Month and Year: June, 2007
Construction Duration: 6
Total Land Use Area to be Developed: 0.9 acres
Maximum Acreage Disturbed Per Day: 0.6 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source *** 2007***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	6.00	-	6.00
Off-Road Diesel	5.20	37.69	39.93	-	1.62	1.62	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.06	0.09	1.72	0.00	0.01	0.00	0.01
Maximum lbs/day	5.26	37.78	41.65	0.00	7.63	1.62	6.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.37	25.72	24.94	-	1.15	1.15	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	5.13	34.49	41.25	-	1.37	1.37	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.04	0.02	0.43	0.00	0.01	0.00	0.01
Maximum lbs/day	8.54	60.23	66.62	0.00	2.53	2.52	0.01
Max lbs/day all phases	8.54	60.23	66.62	0.00	8.53	2.52	6.01

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 0.7 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Rubber Tired Dozers	352	0.590	6.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 5.3 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 5.3 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	4.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07
SubPhase Architectural Coatings Duration: 0.5 months
Start Month/Year for SubPhase Asphalt: Nov '07
SubPhase Asphalt Duration: 0.3 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0

1	Pavers	132	0.590	7.0
1	Paving Equipment	111	0.530	8.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source *** 2007***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.92	-	1.92
Off-Road Diesel	5.20	37.69	39.93	-	1.62	1.62	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.06	0.09	1.72	0.00	0.01	0.00	0.01
Maximum lbs/day	5.26	37.78	41.65	0.00	3.55	1.62	1.93
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.37	25.72	24.94	-	1.15	1.15	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	5.13	34.49	41.25	-	1.37	1.37	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.04	0.02	0.43	0.00	0.01	0.00	0.01
Maximum lbs/day	8.54	60.23	66.62	0.00	2.53	2.52	0.01
Max lbs/day all phases	8.54	60.23	66.62	0.00	4.45	2.52	1.93

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: SCAQMD Rule 403: Fugitive Dust Control
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 68.0%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 0.7 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Rubber Tired Dozers	352	0.590	6.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 5.3 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 5.3 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	4.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07
SubPhase Architectural Coatings Duration: 0.5 months
Start Month/Year for SubPhase Asphalt: Nov '07
SubPhase Asphalt Duration: 0.3 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Pavers	132	0.590	7.0
1	Paving Equipment	111	0.530	8.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	5.99	10.51	73.60	0.04	7.11
TOTAL EMISSIONS (lbs/day)	5.99	10.51	73.60	0.04	7.11

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
City park		888.88 trips/acres	0.90	799.99
		Sum of Total Trips		799.99
		Total Vehicle Miles Traveled		4,591.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.00602
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.00116
Phase 2 mitigation measure Soil Disturbance: SCAQMD Rule 403: Fugitive Dust Control has been changed from off to on.

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape length of the summer period (in days) changed from 180 to 360.
The landscape year changed from 2005 to 2007.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007.
The paved road percentage changed from 100 to 99.99.
The unpaved road percentage changed from 0 to 0.01.
The EPA unpaved road dust factor changed from 0 to -1.
The unpaved road silt percentage changed from 4.3 to 4.0.
The unpaved road average vehicle speed changed from 40 to 15.
The unpaved road surface moisture content % changed from 0.5 to 2.0.
The California based emission factor changed from -1 to 0.
The California based emission factor changed from -1 to 0.

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwgravel.urb
Project Name: Runyon Canyon Park with Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

Construction Start Month and Year: June, 2007
Construction Duration: 6
Total Land Use Area to be Developed: 0.9 acres
Maximum Acreage Disturbed Per Day: 0.6 acres
Single Family Units: 0 Multi-Family Units: 0
Retail/Office/Institutional/Industrial Square Footage: 0

CONSTRUCTION EMISSION ESTIMATES UNMITIGATED (lbs/day)

Source *** 2007***	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	6.00	-	6.00
Off-Road Diesel	5.20	37.69	39.93	-	1.62	1.62	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.06	0.09	1.72	0.00	0.01	0.00	0.01
Maximum lbs/day	5.26	37.78	41.65	0.00	7.63	1.62	6.01
Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.37	25.72	24.94	-	1.15	1.15	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	5.13	34.49	41.25	-	1.37	1.37	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.04	0.02	0.43	0.00	0.01	0.00	0.01
Maximum lbs/day	8.54	60.23	66.62	0.00	2.53	2.52	0.01
Max lbs/day all phases	8.54	60.23	66.62	0.00	8.53	2.52	6.01

Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 0.7 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Rubber Tired Dozers	352	0.590	6.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 5.3 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 5.3 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	4.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07
SubPhase Architectural Coatings Duration: 0.5 months
Start Month/Year for SubPhase Asphalt: Nov '07
SubPhase Asphalt Duration: 0.3 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0

1	Pavers	132	0.590	7.0
1	Paving Equipment	111	0.530	8.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

CONSTRUCTION EMISSION ESTIMATES MITIGATED (lbs/day)

Source	ROG	NOx	CO	SO2	PM10 TOTAL	PM10 EXHAUST	PM10 DUST
*** 2007***							
Phase 1 - Demolition Emissions							
Fugitive Dust	-	-	-	-	0.00	-	0.00
Off-Road Diesel	0.00	0.00	0.00	-	0.00	0.00	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum lbs/day	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Phase 2 - Site Grading Emissions							
Fugitive Dust	-	-	-	-	1.92	-	1.92
Off-Road Diesel	5.20	37.69	39.93	-	1.62	1.62	0.00
On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.06	0.09	1.72	0.00	0.01	0.00	0.01
Maximum lbs/day	5.26	37.78	41.65	0.00	3.55	1.62	1.93

Phase 3 - Building Construction							
Bldg Const Off-Road Diesel	3.37	25.72	24.94	-	1.15	1.15	0.00
Bldg Const Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Arch Coatings Off-Gas	0.00	-	-	-	-	-	-
Arch Coatings Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Off-Gas	0.00	-	-	-	-	-	-
Asphalt Off-Road Diesel	5.13	34.49	41.25	-	1.37	1.37	0.00
Asphalt On-Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Asphalt Worker Trips	0.04	0.02	0.43	0.00	0.01	0.00	0.01
Maximum lbs/day	8.54	60.23	66.62	0.00	2.53	2.52	0.01
Max lbs/day all phases	8.54	60.23	66.62	0.00	4.45	2.52	1.93

Construction-Related Mitigation Measures

Phase 2: Soil Disturbance: SCAQMD Rule 403: Fugitive Dust Control
Percent Reduction(ROG 0.0% NOx 0.0% CO 0.0% SO2 0.0% PM10 68.0%)
Phase 1 - Demolition Assumptions: Phase Turned OFF

Phase 2 - Site Grading Assumptions
Start Month/Year for Phase 2: Jun '07
Phase 2 Duration: 0.7 months
On-Road Truck Travel (VMT): 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	6.0
1	Rubber Tired Dozers	352	0.590	6.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

Phase 3 - Building Construction Assumptions
Start Month/Year for Phase 3: Jun '07
Phase 3 Duration: 5.3 months
Start Month/Year for SubPhase Building: Jun '07
SubPhase Building Duration: 5.3 months
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
2	Other Equipment	190	0.620	4.0
2	Tractor/Loaders/Backhoes	79	0.465	8.0

Start Month/Year for SubPhase Architectural Coatings: Nov '07
SubPhase Architectural Coatings Duration: 0.5 months
Start Month/Year for SubPhase Asphalt: Nov '07
SubPhase Asphalt Duration: 0.3 months
Acres to be Paved: 0
Off-Road Equipment

No.	Type	Horsepower	Load Factor	Hours/Day
1	Graders	174	0.575	8.0
1	Pavers	132	0.590	7.0
1	Paving Equipment	111	0.530	8.0
2	Tractor/Loaders/Backhoes	79	0.465	7.0

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth - No summer emissions					
Landscaping	0.11	0.00	0.72	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.11	0.00	0.72	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	5.25	7.27	75.91	0.05	7.11

TOTAL EMISSIONS (lbs/day) 5.25 7.27 75.91 0.05 7.11

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
City park		888.88 trips/acres	0.90	799.99
		Sum of Total Trips		799.99
		Total Vehicle Miles Traveled		4,591.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Construction

Architectural Coatings: # ROG/ft2 (residential) changed from 0.0185 to 0.00602
Architectural Coatings: # ROG/ft2 (non-res) changed from 0.0185 to 0.00116
Phase 2 mitigation measure Soil Disturbance: SCAQMD Rule 403: Fugitive Dust Control
has been changed from off to on.

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape length of the summer period (in days) changed from 180 to 360.
The landscape year changed from 2005 to 2007.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007.
The paved road percentage changed from 100 to 99.99.
The unpaved road percentage changed from 0 to 0.01.
The EPA unpaved road dust factor changed from 0 to -1.

The unpaved road silt percentage changed from 4.3 to 4.0.
The unpaved road average vehicle speed changed from 40 to 15.
The unpaved road surface moisture content % changed from 0.5 to 2.0.
The California based emission factor changed from -1 to 0.
The California based emission factor changed from -1 to 0.

Runyon Canyon Park – Fuller Entrance Parking
URBEMIS2002 Version 8.7.0
Operational Emissions without Travel in the Gravel Parking Lot

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwogravel.urb
Project Name: Runyon Canyon Park Without Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.11	0.00	0.72	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.25	7.27	75.91	0.05	6.97

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.36	7.27	76.63	0.05	6.97

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwogravel.urb
Project Name: Runyon Canyon Park Without Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

SUMMARY REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.99	10.51	73.60	0.04	6.97

SUM OF AREA AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10
TOTALS (lbs/day,unmitigated)	5.99	10.51	73.60	0.04	6.97

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwogravel.urb
Project Name: Runyon Canyon Park Without Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Winter)

AREA SOURCE EMISSION ESTIMATES (Winter Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscaping - No winter emissions					
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.00	0.00	0.00	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	5.99	10.51	73.60	0.04	6.97
TOTAL EMISSIONS (lbs/day)	5.99	10.51	73.60	0.04	6.97

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 50 Season: Winter

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips
City park		888.88 trips/acres	0.90	799.99
		Sum of Total Trips		799.99
		Total Vehicle Miles Traveled		4,591.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			

% of Trips - Commercial (by land use)

City park 5.0 2.5 92.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape length of the summer period (in days) changed from 180 to 360.
The landscape year changed from 2005 to 2007.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007.
The EPA unpaved road dust factor changed from 0 to -1.
The unpaved road silt percentage changed from 4.3 to 4.0.
The unpaved road average vehicle speed changed from 40 to 15.
The unpaved road surface moisture content % changed from 0.5 to 2.0.
The California based emission factor changed from -1 to 0.
The California based emission factor changed from -1 to 0.

URBEMIS 2002 For Windows 8.7.0

File Name: P:\CTY-04.1E\Modeling\Runyon Canyontwogravel.urb
Project Name: Runyon Canyon Park Without Gravel Travel
Project Location: South Coast Air Basin (Los Angeles area)
On-Road Motor Vehicle Emissions Based on EMFAC2002 version 2.2

DETAIL REPORT
(Pounds/Day - Summer)

AREA SOURCE EMISSION ESTIMATES (Summer Pounds per Day, Unmitigated)

Source	ROG	NOx	CO	SO2	PM10
Natural Gas	0.00	0.00	0.00	0	0.00
Hearth - No summer emissions					
Landscaping	0.11	0.00	0.72	0.00	0.00
Consumer Prdcts	0.00	-	-	-	-
Architectural Coatings	0.00	-	-	-	-
TOTALS(lbs/day,unmitigated)	0.11	0.00	0.72	0.00	0.00

UNMITIGATED OPERATIONAL EMISSIONS

	ROG	NOx	CO	SO2	PM10
City park	5.25	7.27	75.91	0.05	6.97
TOTAL EMISSIONS (lbs/day)	5.25	7.27	75.91	0.05	6.97

Does not include correction for passby trips.
Does not include double counting adjustment for internal trips.

OPERATIONAL (Vehicle) EMISSION ESTIMATES

Analysis Year: 2007 Temperature (F): 90 Season: Summer

EMFAC Version: EMFAC2002 (9/2002)

Summary of Land Uses:

Unit Type	Acreage	Trip Rate	No. Units	Total Trips

City park	888.88 trips/acres	0.90	799.99

Sum of Total Trips	799.99
Total Vehicle Miles Traveled	4,591.95

Vehicle Assumptions:

Fleet Mix:

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	55.20	1.80	97.80	0.40
Light Truck < 3,750 lbs	15.10	3.30	94.00	2.70
Light Truck 3,751- 5,750	16.10	1.90	96.90	1.20
Med Truck 5,751- 8,500	7.10	1.40	95.80	2.80
Lite-Heavy 8,501-10,000	1.10	0.00	81.80	18.20
Lite-Heavy 10,001-14,000	0.40	0.00	50.00	50.00
Med-Heavy 14,001-33,000	1.00	0.00	20.00	80.00
Heavy-Heavy 33,001-60,000	0.90	0.00	11.10	88.90
Line Haul > 60,000 lbs	0.00	0.00	0.00	100.00
Urban Bus	0.10	0.00	0.00	100.00
Motorcycle	1.70	82.40	17.60	0.00
School Bus	0.10	0.00	0.00	100.00
Motor Home	1.20	8.30	83.30	8.40

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Rural Trip Length (miles)	11.5	4.9	6.0	10.3	5.5	5.5
Trip Speeds (mph)	35.0	40.0	40.0	40.0	40.0	40.0
% of Trips - Residential	20.0	37.0	43.0			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5

Changes made to the default values for Land Use Trip Percentages

Changes made to the default values for Area

The hearth option switch changed from on to off.
The landscape length of the summer period (in days) changed from 180 to 360.
The landscape year changed from 2005 to 2007.

Changes made to the default values for Operations

The operational emission year changed from 2005 to 2007.
The EPA unpaved road dust factor changed from 0 to -1.
The unpaved road silt percentage changed from 4.3 to 4.0.
The unpaved road average vehicle speed changed from 40 to 15.
The unpaved road surface moisture content % changed from 0.5 to 2.0.
The California based emission factor changed from -1 to 0.
The California based emission factor changed from -1 to 0.

Runyon Canyon Park – Fuller Entrance Parking
Caline4: CO Hotspot Analysis
N. Vista Street and Hollywood Boulevard (AM Peak Hour)
Without Project

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: N. Vista Street and Hollywood Boulevard
              RUN: Hour 1           (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

         U=   1.0 M/S            Z0= 175. CM            ALT=     0. (M)
       BRG= WORST CASE           VD=   .0 CM/S
      CLAS=     7 (G)            VS=   .0 CM/S
      MIXH= 1000. M              AMB=  5.1 PPM
     SIGTH=    5. DEGREES       TEMP= 15.0 DEGREE (C)


 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *    4  -450     4  -150 *  AG     30   3.1     .0  10.5
B. NA           *    4  -150     4     0 *  AG     27   7.4     .0   9.9
C. ND           *    4     0     4   150 *  AG     24   7.4     .0   9.9
D. NE           *    4   150     4   450 *  AG     24   3.1     .0  10.5
E. SF           *   -4   450    -4   150 *  AG     23   3.1     .0  10.5
F. SA           *   -4   150    -4     0 *  AG     21   7.4     .0   9.9
G. SD           *   -4     0    -4  -150 *  AG     23   7.4     .0   9.9
H. SE           *   -4  -150    -4  -450 *  AG     23   3.1     .0  10.5
I. WF           *  450     5   150     5 *  AG    933   3.1     .0  15.0
J. WA           *  150     7     0     7 *  AG    921   4.5     .0  13.5
K. WD           *    0     7  -150     7 *  AG    938   3.5     .0   9.9
L. WE           *  -150    5  -450     5 *  AG    938   3.1     .0  15.0
M. EF           *  -450   -5  -150    -5 *  AG   1783   3.1     .0  15.0
N. EA           *  -150   -7     0    -7 *  AG   1768   5.0     .0  13.5
O. ED           *    0    -7   150    -7 *  AG   1784   3.8     .0   9.9
P. EE           *  150    -5   450    -5 *  AG   1784   3.1     .0  15.0
Q. NL           *    0  -150     0     0 *  AG      3   7.4     .0   9.9
R. SL           *    0   150     0     0 *  AG      2   7.4     .0   9.9
S. WL           *  150     0     0     0 *  AG     12   4.5     .0   9.9
T. EL           *  -150    0     0     0 *  AG     15   4.5     .0   9.9
```

JOB: N. Vista Street and Hollywood Boulevard
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	8	16	1.8
2. SE	8	-16	1.8
3. SW	-8	-16	1.8
4. NW	-8	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	258.	5.7	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	276.	6.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	277.	6.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	96.	5.7	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0
4. NW	.0	.4	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0

Runyon Canyon Park – Fuller Entrance Parking
Caline4: CO Hotspot Analysis
N. Vista Street and Hollywood Boulevard (AM Peak Hour)
With Project

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: N. Vista Street and Hollywood Boulevard
              RUN: Hour 1           (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

         U=   1.0 M/S            Z0= 175. CM            ALT=     0. (M)
       BRG= WORST CASE           VD=   .0 CM/S
      CLAS=     7 (G)            VS=   .0 CM/S
      MIXH= 1000. M              AMB=  5.1 PPM
     SIGTH=    5. DEGREES       TEMP= 15.0 DEGREE (C)


 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *    4  -450     4  -150 *  AG     33   3.8     .0  10.5
B. NA           *    4  -150     4     0 *  AG     30   7.4     .0   9.9
C. ND           *    4     0     4   150 *  AG     26   7.4     .0   9.9
D. NE           *    4   150     4   450 *  AG     26   3.8     .0  10.5
E. SF           *   -4   450    -4   150 *  AG     26   3.8     .0  10.5
F. SA           *   -4   150    -4     0 *  AG     24   7.4     .0   9.9
G. SD           *   -4     0    -4  -150 *  AG     26   7.4     .0   9.9
H. SE           *   -4  -150    -4  -450 *  AG     26   3.8     .0  10.5
I. WF           *  450     5   150     5 *  AG    944   3.3     .0  15.0
J. WA           *  150     7     0     7 *  AG    930   4.5     .0  13.5
K. WD           *    0     7  -150     7 *  AG    949   3.5     .0   9.9
L. WE           * -150     5  -450     5 *  AG    949   3.3     .0  15.0
M. EF           * -450    -5  -150    -5 *  AG   1793   3.3     .0  15.0
N. EA           * -150    -7     0    -7 *  AG   1777   5.0     .0  13.5
O. ED           *    0    -7   150    -7 *  AG   1795   3.8     .0   9.9
P. EE           *  150    -5   450    -5 *  AG   1795   3.3     .0  15.0
Q. NL           *    0  -150     0     0 *  AG      3   7.4     .0   9.9
R. SL           *    0   150     0     0 *  AG      2   7.4     .0   9.9
S. WL           *  150     0     0     0 *  AG     14   4.5     .0   9.9
T. EL           * -150     0     0     0 *  AG     16   4.5     .0   9.9
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JOB: N. Vista Street and Hollywood Boulevard
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	8	16	1.8
2. SE	8	-16	1.8
3. SW	-8	-16	1.8
4. NW	-8	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	259.	5.7	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	276.	6.0	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	277.	6.0	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	96.	5.7	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.0
2. SE	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0
4. NW	.0	.4	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0

Runyon Canyon Park – Fuller Entrance Parking
Caline4: CO Hotspot Analysis
N. Vista Street and Hollywood Boulevard (PM Peak Hour)
Without Project

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: N. Vista Street and Hollywood Boulevard
              RUN: Hour 1           (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

         U=   1.0 M/S            Z0= 175. CM            ALT=     0. (M)
       BRG= WORST CASE           VD=   .0 CM/S
      CLAS=     7 (G)            VS=   .0 CM/S
      MIXH= 1000. M              AMB=  5.1 PPM
     SIGTH=    5. DEGREES       TEMP= 15.0 DEGREE (C)


 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *    4  -450     4  -150 *  AG     49   3.8     .0  10.5
B. NA           *    4  -150     4     0 *  AG     40   7.4     .0   9.9
C. ND           *    4     0     4   150 *  AG     27   7.4     .0   9.9
D. NE           *    4   150     4   450 *  AG     27   3.8     .0  10.5
E. SF           *   -4   450    -4   150 *  AG     21   3.8     .0  10.5
F. SA           *   -4   150    -4     0 *  AG     20   7.4     .0   9.9
G. SD           *   -4     0    -4  -150 *  AG     29   7.4     .0   9.9
H. SE           *   -4  -150    -4  -450 *  AG     29   3.8     .0  10.5
I. WF           *  450     5   150     5 *  AG   1289   3.3     .0  15.0
J. WA           *  150     7     0     7 *  AG   1269   4.6     .0  13.5
K. WD           *    0     7  -150     7 *  AG   1289   3.5     .0   9.9
L. WE           * -150     5  -450     5 *  AG   1289   3.3     .0  15.0
M. EF           * -450    -5  -150    -5 *  AG    998   3.3     .0  15.0
N. EA           * -150    -7     0    -7 *  AG    981   4.5     .0  13.5
O. ED           *    0    -7   150    -7 *  AG   1012   3.5     .0   9.9
P. EE           *  150    -5   450    -5 *  AG   1012   3.3     .0  15.0
Q. NL           *    0  -150     0     0 *  AG      9   7.4     .0   9.9
R. SL           *    0   150     0     0 *  AG      1   7.4     .0   9.9
S. WL           *  150     0     0     0 *  AG     20   4.5     .0   9.9
T. EL           * -150     0     0     0 *  AG     17   4.5     .0   9.9
```

JOB: N. Vista Street and Hollywood Boulevard
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	8	16	1.8
2. SE	8	-16	1.8
3. SW	-8	-16	1.8
4. NW	-8	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	96.	5.8	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	276.	5.7	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	276.	5.7	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	96.	5.8	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.5	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
2. SE	.0	.0	.0	.1	.0	.4	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.1	.0	.4	.0	.0	.0	.0	.0	.0
4. NW	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Runyon Canyon Park – Fuller Entrance Parking
Caline4: CO Hotspot Analysis
N. Vista Street and Hollywood Boulevard (PM Peak Hour)
With Project

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB: N. Vista Street and Hollywood Boulevard
              RUN: Hour 1           (WORST CASE ANGLE)
       POLLUTANT: Carbon Monoxide


  I.  SITE VARIABLES

         U=   1.0 M/S            Z0= 175. CM            ALT=     0. (M)
       BRG= WORST CASE           VD=   .0 CM/S
      CLAS=     7 (G)            VS=   .0 CM/S
      MIXH= 1000. M              AMB=  5.1 PPM
     SIGTH=    5. DEGREES       TEMP= 15.0 DEGREE (C)


 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *    4  -450     4  -150 *  AG     52   3.8     .0  10.5
B. NA           *    4  -150     4     0 *  AG     43   7.4     .0   9.9
C. ND           *    4     0     4   150 *  AG     29   7.4     .0   9.9
D. NE           *    4   150     4   450 *  AG     29   3.8     .0  10.5
E. SF           *   -4   450    -4   150 *  AG     23   3.8     .0  10.5
F. SA           *   -4   150    -4     0 *  AG     22   7.4     .0   9.9
G. SD           *   -4     0    -4  -150 *  AG     32   7.4     .0   9.9
H. SE           *   -4  -150    -4  -450 *  AG     32   3.8     .0  10.5
I. WF           *  450     5   150     5 *  AG   1300   3.3     .0  15.0
J. WA           *  150     7     0     7 *  AG   1278   4.6     .0  13.5
K. WD           *    0     7  -150     7 *  AG   1299   3.5     .0   9.9
L. WE           * -150     5  -450     5 *  AG   1299   3.3     .0  15.0
M. EF           * -450    -5  -150    -5 *  AG   1008   3.3     .0  15.0
N. EA           * -150    -7     0    -7 *  AG    990   4.5     .0  13.5
O. ED           *    0    -7   150    -7 *  AG   1023   3.5     .0   9.9
P. EE           *  150    -5   450    -5 *  AG   1023   3.3     .0  15.0
Q. NL           *    0  -150     0     0 *  AG      9   7.4     .0   9.9
R. SL           *    0   150     0     0 *  AG      1   7.4     .0   9.9
S. WL           *  150     0     0     0 *  AG     22   4.5     .0   9.9
T. EL           * -150     0     0     0 *  AG     18   4.5     .0   9.9
```

JOB: N. Vista Street and Hollywood Boulevard
RUN: Hour 1 (WORST CASE ANGLE)
POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M) X	Y	Z
1. NE	8	16	1.8
2. SE	8	-16	1.8
3. SW	-8	-16	1.8
4. NW	-8	16	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) A	B	C	D	E	F	G	H
1. NE	96.	5.8	.0	.0	.0	.0	.0	.0	.0	.0
2. SE	276.	5.7	.0	.0	.0	.0	.0	.0	.0	.0
3. SW	276.	5.7	.0	.0	.0	.0	.0	.0	.0	.0
4. NW	96.	5.8	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM) I	J	K	L	M	N	O	P	Q	R	S	T
1. NE	.0	.5	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
2. SE	.0	.0	.0	.1	.0	.4	.0	.0	.0	.0	.0	.0
3. SW	.0	.0	.0	.1	.0	.4	.0	.0	.0	.0	.0	.0
4. NW	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

Localized Significance Thresholds for Construction Emissions: Runyon Canyon Park - Fuller Entrance Parking

SRA No.	Acres	Source Receptor Distance (meters)
1	0.9	25

Source Receptor Area	**Central LA**				
Distance (meters)	25		PM10	PM2.5	
NOx	**111**	Grading			
CO	**443**	Exhaust			
PM10	**5**			1.8471	
PM2.5	**3**				

	NOx	CO	PM10	PM2.5
Grading				
Soil Disturbance			1.9	0.4
Exhaust	37.78	41.65	1.6	1.4
Building Construction				
Soil Disturbance			0.1	
Exhaust	60.23	66.62	2.52	2.2

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	111	112	124	159	250
	1	111	112	124	159	250
		111	112	124	159	250
CO	1	443	671	1019	1947	6449
	1	443	671	1019	1947	6449
		443	671	1019	1947	6449
PM10	1	5	14	101	188	274
	1	5	14	101	188	274
		5	14	101	188	274
PM2.5	1	3	5	10	24	102
	1	3	5	10	24	102
		3	5	10	24	102

	NOx	CO	PM10	PM2.5
Grading	38	42	4	2
Building Construction	60	67	3	2
LST Thresholds	111	443	5	3
Amount Exceeding Thresholds	0	0	0	0

Central LA

0.90 Acres

	25	**50**	**100**	**200**	**500**
NOx	111	112	124	159	250
CO	443	671	1019	1947	6449
PM10	5	14	101	188	274
PM2.5	3	5	10	24	102

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
1	1	1	1
Distance Increment Below			
25			
Distance Increment Above			
50			

Operation Localized Significance Thresholds - Runyon Canyon Fuller Entrance Parking Project

SRA No.	Acres	Source Receptor Distance (meters)
1	0.9	25

Source Receptor Area **Central LA**
Distance (meters) 25
NOx **111**
CO **443**
PM10 **1**
PM2.5 **1**

	Acres	25	50	100	200	500
NOx	1	111	112	124	159	250
	1	111	112	124	159	250
		111	112	124	159	250
CO	1	443	671	1019	1947	6449
	1	443	671	1019	1947	6449
		443	671	1019	1947	6449
PM10	1	1	3	24	45	66
	1	1	3	24	45	66
		1	3	24	45	66
PM2.5	1	1	3	24	45	66
	1	1	3	24	45	66
		1	3	24	45	66

Central LA
0.90 Acres

	25	50	100	200	500
NOx	111	112	124	159	250
CO	443	671	1019	1947	6449
PM10	1	3	24	45	66
PM2.5	1	3	24	45	66

Acre Below		**Acre Above**	
SRA No.	Acres	SRA No.	Acres
1	1	1	1
Distance Increment Below			
25			
Distance Increment Above			
50			

	CO	NOx	PM10	PM2.5
Hearth Fuel				0
Stationary Sources	0.72	0	0	0
Other (Travel in Gravel Parking lot)			0.24	0
				0
				0

	CO	NOx	PM10	PM2.5
Demolition	0.7	0.0	0.2	0.1
Grading	0	0	0	0
Building Construction	0	0	0	0
LST Thresholds	443	111	1	1
Amount Exceeding Thresholds	-442	-111	-1	-1
	1293			
	339			
	58			
	14			

From Urbemis to Calculate onsite operational emissions

	PM10	PM2.5
Mobile with gravel	7.11	1.4931
Mobile without gravel	6.97	1.4637
Onsite Fugitive Dust Emissions	0.14	0.0294

* additional particulate matter emissions generated from onsite travel within the parking lot and therefore included in operational emissions

Appendix B.
Noise Technical Study – Behrens and Associates, Inc.



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Behrens and Associates, Inc.
Acoustics, Noise and Vibration Consultants

March 30, 2007

The Planning Center
1580 Metro Drive
Costa Mesa, CA 92626

Attention: Dwayne Mears, Principal, Environmental Services

Subject: City of Los Angeles Runyon Canyon Fuller Entrance Parking Lot Noise Impact Study

Project No.: CTY.04.1E

Dear Mr. Mears:

Per your request, we have prepared the following Noise Impact Study of the construction and operational noise impact associated with the proposed Fuller Entrance Parking Lot within Runyon Canyon Park located in Los Angeles, California. This report addresses the temporary noise impact due to the construction of the parking lot as well as the ongoing noise impact due to the daily operation of the completed parking lot.

Site Description

Runyon Canyon Park is located in the Santa Monica Mountains between the San Fernando Valley and Hollywood, California. The proposed parking lot is to be constructed at the southern entrance of the park, off Fuller Avenue, at a location currently a grassy area utilized as a park and a yoga class area. The site is located at the bottom of a canyon and bordered by chaparral to the north, east, and west. Hiking trails extend through the park and along the proposed parking lot. The nearest residential noise receptor is the Summit Arms apartment building, located at 1865 Fuller Avenue. The apartment building is located approximately 45 feet south of the proposed parking lot. The only entrance/exit to the proposed lot is through a gated entrance located at 2000 Fuller Avenue.

Current Ambient Noise Levels

To provide the foundation for predicting construction and operational sound level impacts at the Fuller Entrance Parking Lot and surrounding environment, a two location ambient sound level survey was performed during a typical week day on a warm spring day while the park was in full operation to measure and document the current, pre-construction, ambient sound levels at the site.

The sound level surveys began at approximately 11:15 AM and ran continuously through approximately 3:30 PM on March 23, 2007. The sound level measurements were recorded and documented at the south side of the proposed parking lot, approximately 45 feet from the Summit Arms apartment building shown in Attachment A as Measurement Location 1. A second simultaneous sound level survey was completed on north side of the proposed parking lot shown in Attachment A as Measurement Location 2. Both of the sound level survey locations were completed near the edges of the existing lawn/yoga area at locations which would represent the edges of the proposed parking lot.

Two Model 2900 Integrating/Logging Sound Level Meters manufactured by Quest Technologies of Oconomowoc, Wisconsin were programmed to measure and calculate the 5-minute average (L_{eq}) sound levels in dBA. Detector parameters were a doubling rate of 3 dB, an A filter, a fast response and a 60 dBA reference range (40 to 100 dBA). Five variables (L_{eq}, L_{max}, L_{peak}, Ln_{10} and Ln_{90}) were logged at 5 minute integration intervals over a 5-minute period at a fast response rate. Both meters were calibrated with a Metrosonics Model CL304 Acoustical Calibrator prior to the commencement of the surveys.

The measured 5-minute average sound level interval for each location were downloaded, tabulated and graphed at the completion of the survey. The results of the two location sound level surveys are shown in the graph included as Attachment B. The measured sound levels at both monitoring locations typically ranged from 45 to 55 dBA throughout the survey. The measured noise levels above this range observed during the survey were due to airplanes, helicopters, police/fire truck sirens, trash trucks, back-up-beepers on park and recreation trucks, dogs barking, and conversations among park patrons. The average sound levels over the entire survey period were 51.3 dBA and 54.5 dBA at locations one and two, respectively as indicated in Attachment C.

In addition to the two location continuous sound measurement program, peak sound levels and sources were documented and recorded during the survey on March 23, 2007. The peak sound levels and sources were documented as follows:

PEAK SOUND LEVELS

Source	Peak Levels (dBA)
Aircraft Over Flight	69.3
Helicopter Over Flight	73.7
Fire trucks With Sirens	67.9
Back-Up Alarms from Parks and Rec Trucks	67.7
Trash Trucks on Fuller Avenue	71.4
Yoga Class Voices	64.1

Construction Noise Impact Evaluation

The construction activities at the Runyon Canyon Fuller Entrance Parking Lot site would include earthwork, including soil grading and material hauling, backfill and compaction, paving, hard-scape construction and landscaping. The construction equipment employed at any given time would depend on the phase of construction. Noise generated by construction equipment would occur with varying intensities and durations during the various phases of construction. The equipment would operate in alternating cycles of full power and low power, thus producing average noise levels less than the maximum level for the particular piece of equipment. The average sound level of the construction activity would also depend upon the amount of time that the equipment operates and the intensity of the construction during the time period. The anticipated number and types of construction equipment needed for the various construction phases are shown in *Figure 1*.

Behrens and Associates, Inc.

Acoustics, Noise and Vibration Consultants

Predicted Construction Noise Levels

Projected Grading, Backfill And Compaction Construction Equipment		Quantity	Average Noise Level @ 50', dBA	Construction Usage Factors
Backhoe		1	85	0.04
Dozer	50-HP	1	80	0.16
Grader		1	85	0.02
Loader		1	79	0.16
Dump Truck		1	91	0.16
Water Truck		1	87	0.26
Worker Vehicles		10	70	0.16
Worst Case Average Noise Level @ 50' from Center of Activity, dBA:				**86*** **

Projected Paving Construction Equipment	Quantity	Average Noise Level @ 50', dBA	Construction Usage Factors
Air Compressor	1	81	0.4
Backhoe	1	85	0.04
Grader	1	85	0.02
Loader	1	79	0.16
Paver	1	89	0.10
Dump Truck	1	91	0.16
Water Truck	1	87	0.26
Worker Vehicles	10	70	0.16
Worst Case Average Noise Level @ 50' from Center of Activity, dBA:			**84*** **

Projected Hard-scape Construction Equipment	Quantity	Average Noise Level @ 50', dBA	Construction Usage Factors
Air Compressor	1	81	0.4
Backhoe	1	85	0.04
Crane, Mobile	2	83	0.04
Loader	1	79	0.16
Dump Truck	1	91	0.16
Water Truck	1	87	0.26
Worker Vehicles	10	70	0.16
Worst Case Average Noise Level @ 50' from Center of Activity, dBA:			**82*** **

Note: (*) Indicated quantity of each type of equipment that may be in operating simultaneously.
(**) Fraction of the time during the construction period that source is in use.
(***) Obtained by an energy summation of all sources considering each source's reduced contribution since each source is not operating 100% of the time

Figure 1

The closest residences would be located south of the site approximately 45 feet or more from the closest on-site parking lot construction area. At this distance, the maximum un-mitigated noise level would be approximately 86 dBA or less. The average sound level for an eight-hour workday would be expected to the substantially less because of the intermittent nature of construction work. Assuming a duty cycle time of ten percent, the hourly average noise level would not be expected to exceed 75 dB at 50 feet. The majority of the construction activity would be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday.

Installing a 10 foot high temporary construction sound wall with a sound barrier material with an STC-27 rating or higher between the construction site and the nearest occupied structures could provide a 10 to 14 dBA sound level reduction at 50 feet. The resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise level impact of 65 dBA during the highest noise generation phases of the project.

Parking Lot Operation Noise Impact Evaluation

Upon completion of the parking lot, new noise sources will be introduced into the park and surrounding environment. The new expected noise sources include vehicle traffic noise, tire noise screech, car horns, car stereos, car alarms, car doors opening and closing, and increased conversational noise from park patrons.

The off-site noise impact evaluation is designed to present the worst case condition for noise generation. Within the parking lot, the highest sustained noise level occurs from movement of cars into and through the lot. Noise generated by the action of tires rolling on travel surfaces is the dominant noise sources for all but the heaviest diesel-engine vehicles. Along the south side of the parking lot, the closest travel lane from the apartment building will be approximately 65’ running in the east/west direction parallel to the building. There are a number of other sources of noise in the parking lot, but these tend to be random and not additive to the levels of the moving traffic on a regular basis in any instant of time.

Noise Levels of Moving Cars

The average anticipated speed for cars driving within the parking lot is 14 miles per hour. The maximum anticipated noise level from cars operating at 14 miles per hour is 56 dBA at 50 feet. The peak drive-by off-site sound level impact of autos traveling through the parking lot is projected to be 62 dBA on the west side of the parking lot, which is within 5 feet of the travel lane. Assuming one auto travels through the parking lot every minute, with a noise impact duration of 5 to 7 seconds (as the auto passes at 14 mph), the average sound level will increase by less than 1 dB at 5 feet and will not increase the current average sound level of 53 dBA at 50 feet.

Ancillary Contributors of Noise

Auto movement is not the only potential source of noise within the parking lot. There are other sources associated with the parking lot that may generate additional noise. There are potential sources that are classed as uncontrolled, in that there is no way to control the basic emissions or the time of occurrences. Examples are car alarms, door slams, and talking. A number of these are discussed in the following paragraphs:

A. Vehicle Alarms: Two types of sound emissions occur with car alarms. The car alarm itself may be set off resulting in short periods of alarm activity. Modern alarm sounds consist of bells, whistles, warbling tones, human voices, animal voices, or any combination of these sounds. In addition to the actual alarm, most car alarms are equipped with an audible arming signal. The arming usually produces a short "chirp." Arming activity will occur just after arrival and just before departure.

B. Back-up alarms: This is a source only for commercial and large recreational vehicles which are not anticipated to be using the parking lot.

C. Horns: In any assembly of vehicles, horns can be expected to be used for warning or signaling purposes.

D. Door Slams: Every car will experience at least one door closures upon arrival and one upon departure.

E. People talking: People can be expected to converse to and from their cars.

F. Radios: It is likely that car radios will be playing upon arrival and be started up again upon departure. During the summer, some cars will have the windows open and the radios will be audible.

G. Sweepers: Powered mechanical sweepers will be deployed to clean the parking lot.

H. Maintenance Equipment: The lot and the perimeter will receive periodic landscape maintenance, surface sealing, and graffiti removal. This is usually a weekly occurrence and should not be considered an "ongoing" event.

I. Tire Squeals: The sound absorptive surface of the parking lot is anticipated to minimize squeal. The noise potential has been addressed in the parking lot surface design.

The reference noise levels of the parking lot ancillary noise levels are as follows:

PARKING LOT
ANCILLARY PEAK SOUND LEVELS

Source	Levels (dBA)	Distance
Car Alarm Signal	67	50’
Car Alarm Chirp	52	50’
Car Horns	68	50’
Door Slams	62	50’
Talking	43	50’
Radios	61	50’

The short term intermittent peak noise impacts of the ancillary sound sources will have a negligible contribution to the average off-site sound levels but may be considered intrusive to close proximity residential areas, depending on the frequency of the occurrence, the time of day and the duration of the noise impact. The peak sound levels anticipated to be generated by the parking lot’s ancillary noise sources are lower than the current ambient peak noise levels generated by typical urban noise impacts experienced at the site.

Summary and Conclusions

Construction Noise Impacts

The average noise level during the grading, excavation and compaction construction activities with no mitigation is estimated to be 75 dBA at 50 feet. The construction will increase the average ambient sound levels 20 to 24 dBA within 50 feet of the construction area. Installing a 10 foot high temporary construction sound wall with a sound barrier material with an STC-27 rating or higher can provide a 10 to 14 dBA sound level reduction at 50 feet. The resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise impact of 65 dBA during the highest noise generation phases of the project.

Operational Noise Impacts

Based on the average anticipated speed level of 14 miles per hour for cars driving within the parking lot, assuming one auto travels through the parking lot every minute with a noise impact duration of 5 to 7 seconds, the parking area’s average daytime sound level will not increase the current 53 dBA average sound levels at 50 feet from the parking lot. The increase in noise impacts of the ancillary sound sources will have a negligible contribution to the average off-site sound levels, based on measured peak levels currently occurring at the parking lot site, but may be considered intrusive to close proximity residential areas, depending on the frequency of the occurrence, the time of day and the duration of the noise impact.

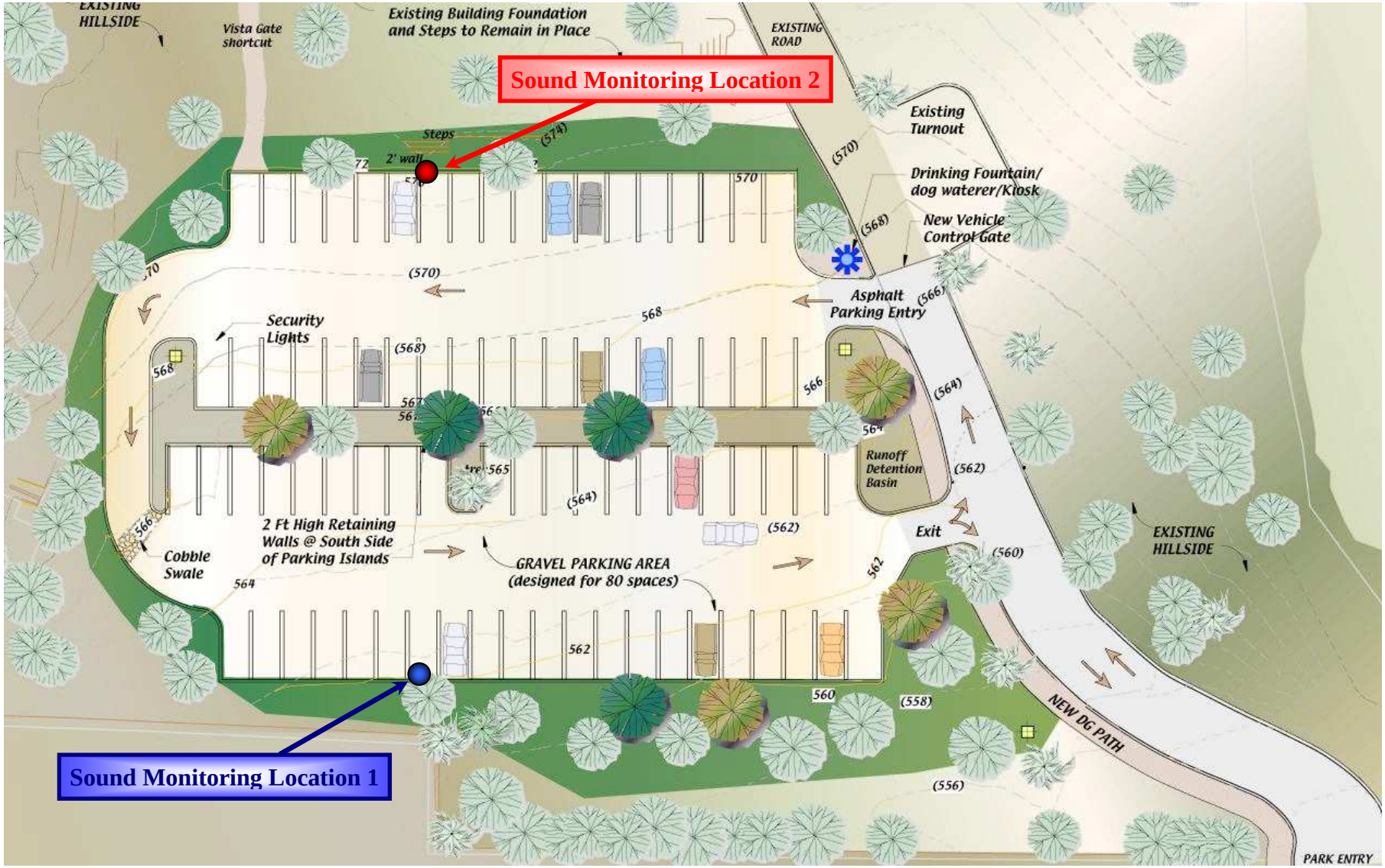
The peak sound levels generated by passing airplanes, helicopters, fire trucks, Parks and Recreation and trash hauling trucks anticipated to be generated by the parking lot's ancillary noise sources are lower than the current ambient peak noise levels generated by typical urban noise impacts currently experienced at the site. Although the frequency of these short term noise impacts will increase with the construction of the parking lot, the overall noise contribution to the current hourly average ambient sound levels will be negligible.

The US Department of Reclamation has established maximum allowable noise level limits for wildlife breeding habitat. During the breeding season, the maximum average hourly level at the breeding habitat (bushes, trees, lakes and ponds) is 60 dBA. During the periods of maximum construction noise generation, the hourly average of 75 dBA will be attenuated to 60 dBA or less at 135 feet or more from the construction area. With the specified temporary sound wall in place, 60 dBA can be achieved within 75 feet of the construction area. Although the construction noise is projected to exceed the hourly average of 60 dBA, the noise from the ongoing operation of the parking lot will not exceed 60 dBA off the parking lot.

Very truly yours,

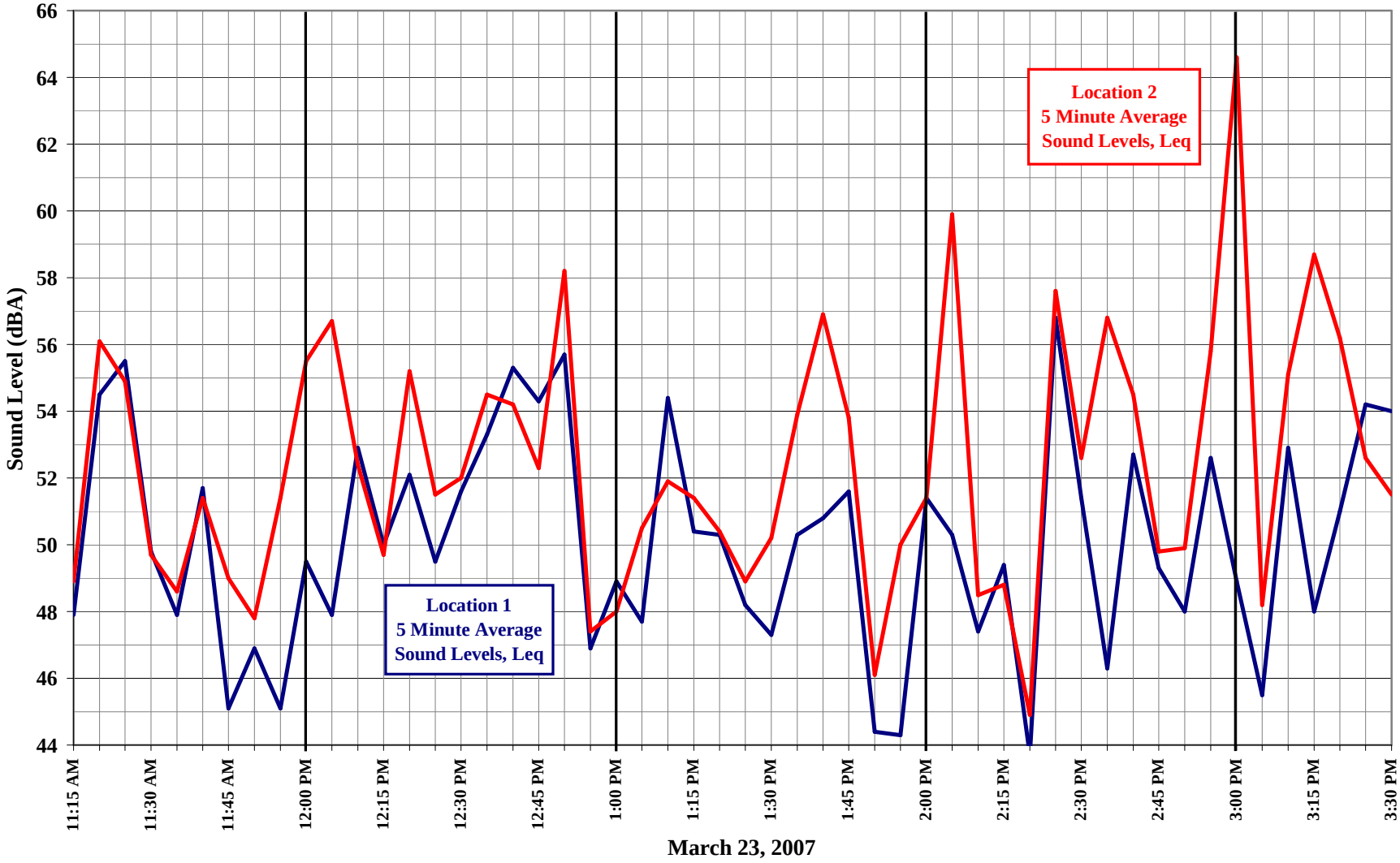
Don Behrens
President 95-4460624

Attachments



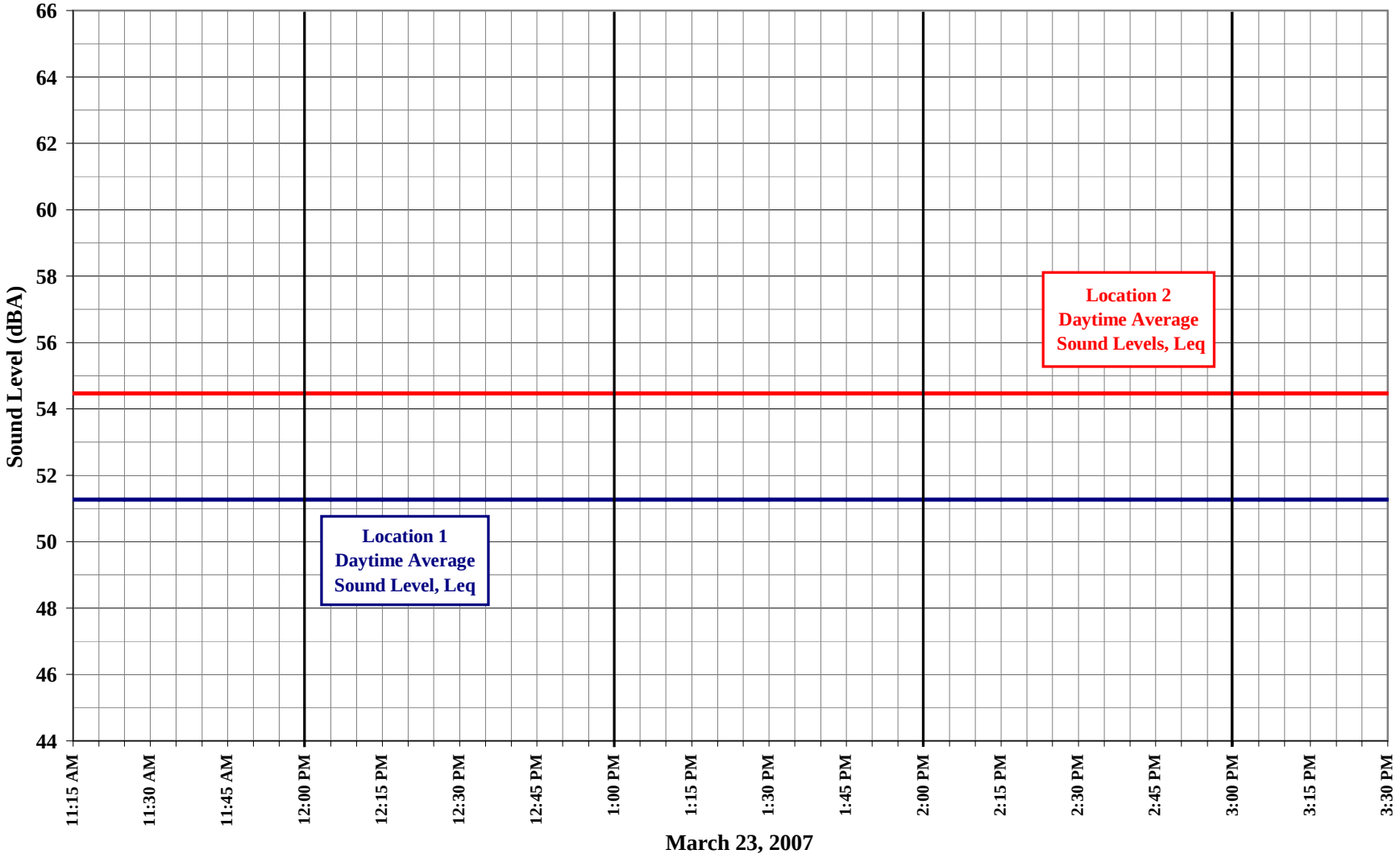
Runyon Canyon Ambient Sound Monitoring Location
Attachment A

Runyon Canyon Park
2000 North Fuller Avenue, Los Angeles, CA 90026
Sound Level Survey - 5 Minute Average Chart



Attachment B

Runyon Canyon Park
2000 North Fuller Avenue, Los Angeles, CA 90026
Average Daytime Sound Level Chart



Attachment C

APPENDIX K

MITIGATION MONITORING PROGRAM

MITIGATION MONITORING PROGRAM
FOR

RUNYON CANYON PARK – FULLER ENTRANCE PARKING AREA

W.O. E1904613

Prepared By

CITY OF LOS ANGELES
BUREAU OF ENGINEERING

JANUARY 2008

INTRODUCTION

The California Environmental Quality Act (CEQA) requires public agencies to adopt a reporting or monitoring program for the changes to the project that have been adopted to mitigate or avoid significant effects on the environment (Public Resources Code Section 21081.6). The program must be adopted by the public agency at the time findings are made regarding the project. The State CEQA Guidelines allow public agencies to choose whether its program will monitor mitigation, report on mitigation, or both (14 CCR Section 15097(c)). This mitigation monitoring program contains the elements required by CEQA for the Runyon Canyon Park – Fuller Entrance Parking Area project.

PROJECT DESCRIPTION

The Runyon Canyon Park – Fuller Entrance Parking Area project for which this mitigation monitoring program has been developed consists of the following:

- The construction of a new gravel-based parking area consisting of 80 parking spaces in the area that is currently an open space lawn area used for yoga classes. The existing open lawn area will be relocated to the north of the new parking area. The total area to be developed is approximately .6 acres. The proposed parking area will feature a low-impact and permeable surface. The proposed parking area will utilize a terraced design that nestles into the existing grade and allows the parking area to blend with the natural terrain and minimizes grading work. This design will minimize water runoff and control erosion. In addition, the parking area design has incorporated remnant building foundations from the former estate.

- A 4-foot high fence will be constructed to enclose the new grass area. All existing trees will remain. The area will be landscaped with native, drought-tolerant plants. An irrigation system will be installed in this area as well as in the parking area. The new open grass area will retain the same size and amenities as the existing one.

Unless otherwise stated, the project will be designed, constructed and operated following all applicable laws, regulations, ordinances and formally adopted City standards (e.g., *Los Angeles Municipal Code* and Bureau of Engineering *Standard Plans* including the uniform practices established by the Southern California Chapter of the American Public Works Association (e.g., *Standard Specifications for Public Works Construction* and the *Work Area Traffic Control Handbook*) as specifically adapted by the City of Los Angeles (e.g., The City of Los Angeles Department of Public Works *Additions and*

Amendments to the Standard Specifications For Public Works Construction (AKA "The Brown Book," formerly Standard Plan S-610)).

MITIGATION MEASURES

The mitigation measures described in the following pages are taken from the Initial Study and Mitigated Negative Declaration for this project. The measures are listed according to the phases of the project during which action must occur to implement the mitigation measure: design, construction and operation.

Within each project phase, the following are identified for each mitigation measure:

(1) A brief description of the impact that is being mitigated (i.e., the objective of the mitigation),
(2) A description of the mitigation measure,
(3) The party who is responsible for the necessary implementing actions,
(4) The necessary implementing action,
(5) The party who is responsible for verifying that the necessary implementing action is taken, and
(6) The primary record documenting the necessary implementing action.

The mechanisms for verifying that mitigation measures have been implemented include design drawings, construction documents intended for use by construction contractors and construction managers, field inspections, field reports, and other periodic or special reports. All records pertaining to this mitigation program will be maintained and made available for inspection by the public in accordance with the City's records management systems.

DESIGN PHASE

Impact	Mitigation Measure	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
AESTHETICS					
Light and/or glare nuisance	**AES-1:** Any nighttime securing lighting will be designed and installed with shielding so that there will be no impact on adjacent residential properties and/or wildlife.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
	AES-2: Prior to the issuance of a grading permit, a plot plan prepared by a reputable tree expert, indicating the location, size, type, and condition of all existing trees on the site shall be submitted for approval by the Department of Recreation and Parks and the Street Tree Division of the Bureau of Street Services. No heritage trees shall be removed.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
	AES-3: All project landscaping should include native vegetation, requiring minimal irrigation and safe care (e.g., no harmful chemicals), designed to assist in filtering any runoff. In addition, all landscaping should be sensitive to (and compatible with) the adjacent residential properties. Native trees and plants present within the area would be primary constituents of the plant palette. Review of the landscaping plan for the project area would be performed by a qualified biologist to ensure that no invasive plants are included.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
BIOLOGICAL RESOURCES					
Avoidable loss of heritage trees	**BIO-1:** Prior to the issuance of a grading permit, a plot plan prepared by a reputable tree expert, indicating the location, size, type, and condition of all existing trees on the site shall be submitted for approval by the Department of Recreation and Parks and the Street Tree Division of the Bureau of Street Services. No heritage trees shall be removed.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications

DESIGN PHASE					
Impact	**Mitigation Measure**	**Implementation Responsibility**	**Implementation Vehicle**	**Enforcement Responsibility**	**Record of Implementation**
Disturbance of existing biological resources and/or habitat conditions	**BIO-2:** All project landscaping should include native vegetation, requiring minimal irrigation and safe care (e.g., no harmful chemicals), designed to assist in filtering any runoff. In addition, all landscaping should be sensitive to (and compatible with) the adjacent residential properties. Native trees and plants present within the area would be primary constituents of the plant palette. Review of the landscaping plan for the project area would be performed by a qualified biologist to ensure that no invasive plants are included.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
	BIO-3: Proposed project activities (including disturbances to native and non-native vegetation and man-made substrates) should take place outside of the breeding bird season which generally runs from March 1 – August 31 (as early as February for raptors) to assist in avoiding take (including disturbances which would cause abandonment of active nests containing eggs and/or young.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
	BIO-4: If the project activities cannot feasibly be avoided during the breeding bird season, the State of California Department of Fish and Game recommends that beginning thirty days prior to disturbance of suitable nesting habitat the project proponent should arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors). The surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys should continue on a weekly basis with the last survey being conducted no more than three days prior to the initiation of clearance/construction	Project Engineer	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report

DESIGN PHASE

Impact	Mitigation Measure	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
	work. If a protected native bird is found, the project proponent should delay all clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until August 31 or continue surveys in order to locate any nests. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the filed with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the result of the recommended protection measures described above to document compliance with applicable State and federal laws pertaining to the protection of birds.				
	BIO-5: Any nighttime securing lighting will be designed and installed with shielding so that there will be no impact on adjacent residential properties and/or wildlife.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
CULTURAL RESOURCES					
Avoidable loss of historical resources such as remnants of building structures	**CUL-1:** The proposed project will incorporate the remnant steps into the project design. The remnant steps will remain *in situ*.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
NOISE					
Noises generated during construction	**NOI-1:** Install a 10-foot high temporary construction sound wall with sound barrier material with a Sound Transmission Class (STC)-27 rating or higher between the construction site and the nearest occupied structures could provide a 10 to 14 dBA sound level reduction at 50 feet. The	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications

DESIGN PHASE

Impact	Mitigation Measure	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
	resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise level impact of 65 dBA during the highest noise generation phases of the project, and impacts would be substantially reduced at the adjacent residential uses. With application of this additional mitigation measure, no significant construction noise impacts would occur.				
TRANSPORTATION/TRAFFIC					
Additional project requirements provided by Dept. of Transportation (DOT)	**TRA-1:** DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. 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.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
	TRA-2: The developer should check with the Bureau of Engineering (BOE) Land Development Group to determine the highway dedication, street widening and sidewalk requirements for the project.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications
	TRA-3: Currently, only on-street parking is available in this area. A parking analysis was conducted and determined that approximately 233 of 260 on-street parking spaces were utilized in the immediate area of the park during the peak hour. The proposed 70-space parking lot along with the existing 260 on-street parking spaces in the immediate area are sufficient to meet the peak parking demand of Runyon Canyon Park and the surrounding neighborhood. DOT has been informed by BOE that the parking lot will be increased to an additional 10 spaces for a total of	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications

DESIGN PHASE					
Impact	**Mitigation Measure**	**Implementation Responsibility**	**Implementation Vehicle**	**Enforcement Responsibility**	**Record of Implementation**
	808 parking spaces.				
	TRA-4: The review of the study does not constitute approval of the driveway access and circulation scheme. Those require separate review and approval and should be coordinated as soon as possible with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 4th Floor, Station 3, @213-485-7024) to avoid delays in the building permit approval process. In order to minimize and prevent last minute building design changes, it is imperative that the applicant, prior to the commencement of building or parking layout design efforts, 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 to avoid any unnecessary time delays and potential costs associated with design changes. All driveways should be Case 2 driveways and 30 feet. Any proposed gates should have 20' minimum reservoir space from the property line.	Project Engineer	Project Plans & Specifications	Project Manager	Project Plans & Specifications

CONSTRUCTION PHASE

Impact	Mitigation Measure	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
BIOLOGICAL RESOURCES					
Disturbance of existing biological resources and/or habitat conditions	**BIO-3:** Proposed project activities (including disturbances to native and non-native vegetation and man-made substrates) should take place outside of the breeding bird season which generally runs from March 1 – August 31 (as early as February for raptors) to assist in avoiding take (including disturbances which would cause abandonment of active nests containing eggs and/or young.	Project Engineer and Construction Contractor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report
	BIO-4: If the project activities cannot feasibly be avoided during the breeding bird season, the State of California Department of Fish and Game recommends that beginning thirty days prior to disturbance of suitable nesting habitat the project proponent should arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within 300 feet of the construction work area (within 500 feet for raptors). The surveys should be conducted by a qualified biologist with experience in conducting breeding bird surveys. The surveys should continue on a weekly basis with the last survey being conducted no more than three days prior to the initiation of clearance/construction work. If a protected native bird is found, the project proponent should delay all clearance/construction disturbance activities in suitable nesting habitat or within 300 feet of nesting habitat (within 500 feet for raptor nesting habitat) until August 31 or continue surveys in order to locate any nests. If an active nest is located, clearing and construction within 300 feet of the nest (within 500 feet for raptor nests) shall be postponed until the nest is vacated and juveniles have fledged and when	Project Engineer and Construction Contractor	Project Plans & Specifications	Project Manager	Project Acceptance or Closeout Report

CONSTRUCTION PHASE

Impact	Mitigation Measure	Implementation Responsibility	Implementation Vehicle	Enforcement Responsibility	Record of Implementation
	there is no evidence of a second attempt at nesting. Limits of construction to avoid a nest should be established in the filed with flagging and stakes or construction fencing. Construction personnel should be instructed on the sensitivity of the area. The project proponent should record the result of the recommended protection measures described above to document compliance with applicable State and federal laws pertaining to the protection of birds.				
NOISE					
Noises generated during construction	**NOI-1:** Install a 10-foot high temporary construction sound wall with sound barrier material with a Sound Transmission Class (STC)-27 rating or higher between the construction site and the nearest occupied structures could provide a 10 to 14 dBA sound level reduction at 50 feet. The resulting maximum off-site noise impact would be 76 dBA with an average anticipated off-site noise level impact of 65 dBA during the highest noise generation phases of the project, and impacts would be substantially reduced at the adjacent residential uses. With application of this additional mitigation measure, no significant construction noise impacts would occur.	Project Engineer and Construction Contractor	Project Plans & Specifications	Project Manager	Project Plans & Specifications