Comprehensive Strategies Report

Runyon Canyon Park

March 2019

Dixon Resources Unlimited

Commissioned by:
Los Angeles Council District 4

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Introduction

Background

Beginning in the Summer of 2015, Dixon Resources Unlimited (DIXON) worked with the Los Angeles Department of Recreation and Parks (RAP) to develop the Griffith Park Transportation and Parking Action Plan. The project focused on circulation improvements to reduce congestion and improve access in and around Griffith Park, while protecting the natural environment. In addition to community stakeholders, the project team worked extensively with Los Angeles Department of Transportation (LADOT) Transit Services DASH and Metro to expand a shuttle service into the Park. Due to popularity and demand, the schedule was expanded to provide daily service carrying visitors from the Red Line to the Greek Theatre and the Griffith Observatory. The change in traffic patterns has improved traffic flow and access, allowing DASH to provide reliable service. Paid parking was also implemented near the Griffith Observatory in the Spring, and it is anticipated that the generated revenue could fund RAP's goal to implement a parkwide circulator.

In March of 2017, the Los Angeles City Council approved Councilmember David Ryu's request for a comprehensive study for improving access, safety, and mobility in and around Griffith Park and around the Hollywood Sign. Based on DIXON's existing project with RAP in Griffith Park, Councilmember Ryu's office reached out to DIXON to inquire of services for the comprehensive access and mobility study. As such, DIXON was retained and completed an initial site visit to the neighborhoods within District 4 and Griffith Park on July 3, 2017. Extensive data collection and stakeholder outreach led to the development of a Comprehensive Strategies Report.

The study, created with input from various community stakeholders, offered a total of 29 strategies to improve access to Griffith Park and Trailheads, improve emergency vehicle access, expand transit options, enhance pedestrian safety, improve traffic flow and reduce congestion, increase parking efficiency and compliance rates, and proactively manage visitors to the Park and Hollywood Sign. Data was collected through average daily traffic counts of both pedestrians and motor vehicles, occupancy of various trails, streets, and park areas, and by surveying visitors to the Park and Sign. Councilmember Ryu later motioned to have various City departments study the feasibility of the strategies proposed in the study, and a number of recommendations have already been implemented or studied.

On May 4, 2018, in continuation of its work, Los Angeles Council District 4 retained Dixon Resources Unlimited (DIXON) to study access and mobility in and around Runyon Canyon Park (Park). The goal of the study is to develop tailored strategies to improve Park access, mitigate congestion, and improve safety.

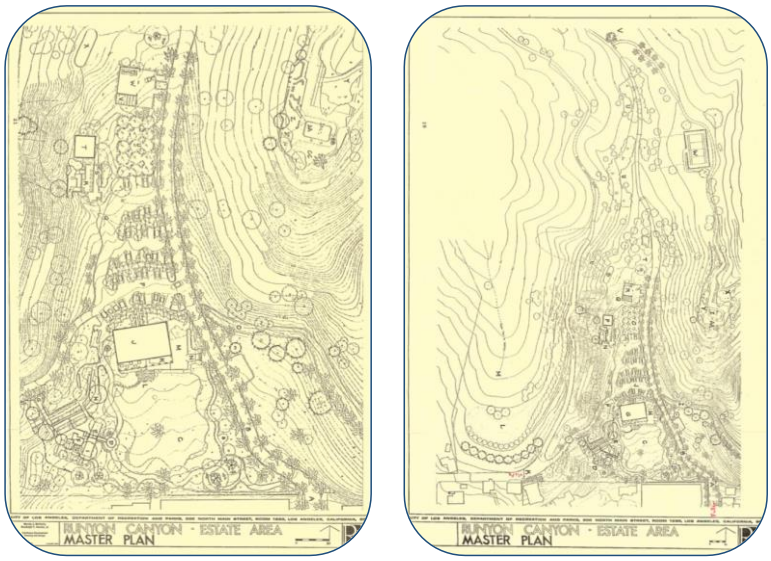
1986 Runyon Canyon Master Plan

Beginning in May 1985, The City of Los Angeles commissioned Community Development Planning and Design to prepare a Master Plan for Runyon Canyon, which was published on March 25, 1986. The Master Plan describes the unique juxtaposition of Runyon Canyon existing in the middle of Hollywood. The firm collaborated with citizens, public agencies, and community and regional organizations to develop the plan. The plan established a list of seven primary goals:

1. Maintain a large part of the site as an urban wilderness.
2. Make Runyon Canyon safe for all users.
3. Protect the uniqueness of Runyon Canyon as a wilderness juxtaposed with the city past and present.
4. Teach people about the urban wilderness so they will enjoy, respect, and protect the unique quality of Runyon Canyon.
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.
6. Meet the special needs of the surrounding community and the needs of Los Angeles for open space.
7. Encourage community involvement in Runyon Canyon to ensure that the plan meets the residents' needs and to develop a group who cares for the canyon.

Many of these same themes and ideas have been incorporated into the strategies throughout this report.

Figure 1. Drawings from the 1986 Runyon Canyon Master Plan



Data Analysis Report

Overview

In conjunction with this Comprehensive Strategies Report (CSR), DIXON completed a separate Data Analysis Report. The Data Analysis Report discusses the data collection methodologies and includes the data analysis results from two rounds of data collection. Some of the data analysis results are referenced in this CSR to support the recommended strategies. An overview of the data collection efforts is outlined below.

An initial online survey was conducted by the Council Office in May to collect feedback from the community about the Park. The survey responses were considered in the development of the study scope. A total of 250 people participated in the online survey. Next, a data collection effort with parking occupancy counts and visitor surveys was conducted in June, followed by an initial stakeholder meeting with the Hollywood Hills West Neighborhood Council and Parks and Open Space Committee on September 26, 2018. Based upon stakeholder feedback, additional data collection types and locations were included in a second round of data collection in October. Round Two of data collection also included daily traffic volume measurements and pedestrian counts.

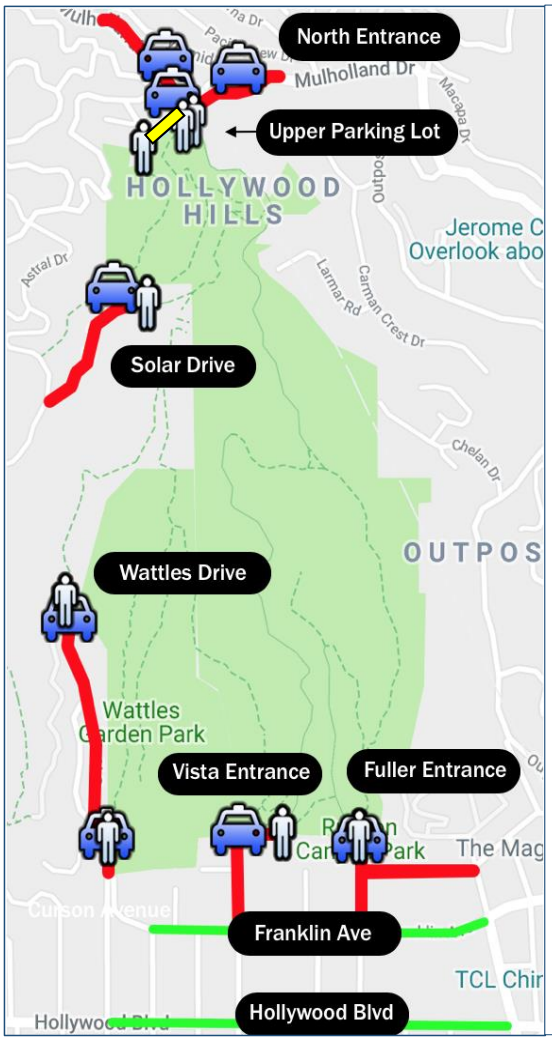
DIXON procured the services of National Data & Surveying Services (NDS) to collect data on the below dates (Table 1). These dates were selected in an attempt to understand trends in the summer versus the fall and on a weekday versus a weekend day. Additionally, DIXON and Council District 4 chose to select dates that would not interfere with major holidays as to not skew normal conditions. Collecting data during "normal" or average conditions is ideal for planning purposes to allow the City to develop policies and programs that will address the majority of the year. Extreme peak periods should instead be managed by exception.

Table 1. Data Collection Dates

Data Collection Round	Weekday	Weekend Day
Round One	Thursday, June 28, 2018	Saturday, June 30, 2018
Round Two	Thursday, October 18, 2018	Saturday, October 20, 2018

The following data collection types were included in the study. Each section describes the data collection methodology and purpose. A study area map is included in Figure 2.

Figure 2. Data Collection Study Area Map



Key:

- **Red Lines:** The red lines indicate where on-street parking occupancy counts were conducted during both Round One and Round Two of data collection.
- **Green Lines:** The green lines indicate where on-street parking occupancy counts were conducted during Round Two of data collection only.
- **Yellow Rectangle:** The yellow rectangle near the North Entrance indicates the location of the Upper Parking Lot, where parking occupancy counts were conducted during both rounds.
- **Vehicles:** The vehicle symbols indicate where Daily Traffic Volume counts were conducted during Round Two of data collection.
- **Person Icons:** The person icons indicate where Intercept Surveys were conducted during both Rounds One and Two of data collection. Pedestrian counts were also collected in these locations during Round Two.

Parking Occupancy Counts

It is an industry standard that parking occupancy should remain around 85%[1]. By maintaining at least a 15% vacancy rate, congestion will be minimized from drivers looking for parking, but the City will not be providing underutilized supply. This will improve traffic flow, improve the visitor experience, while efficiently utilizing the City's parking supply.

Parking occupancy data was collected by first measuring parking and curb space to estimate the parking space inventory. Parking regulations and restrictions were also recorded during data collection. After completing the inventory, a team of surveyors counted the number of vehicles that were parked in each location at 9 AM, 12 PM, 3 PM, and 6 PM on each of the data collection days in June and October. Occupancy was calculated by dividing the vehicle count by the parking space supply on each block or in each parking lot. The objective of the occupancy counts was to determine the parking space occupancy of the streets and parking lot surrounding the Runyon Canyon Park entrances. Parking occupancy counts were collected in the following locations during Round One and Round Two of data collection:

Table 2. Parking Occupancy Data Collection Locations: Round One & Round Two

Location	Description
Upper Parking Lot	Gravel lot used for parking outside of the North Entrance of the park.
Mulholland Drive	On-street parking along Mulholland Drive from approximately 820 feet west of Pyramid Place to approximately 7270 Mulholland Drive.
Solar Drive	On-street parking along Solar Drive from Astral Drive to the dead end.
Curson Avenue	On-street parking along Curson Avenue from the dead end above Wattles Drive down to approximately 1841 Curson Avenue.
Vista Street	On-street parking along North Vista Street from Franklin Avenue up to Runyon Canyon Road, and along Runyon Canyon Road up to the Park gate.
Fuller Avenue	On-street parking along North Fuller Avenue from Franklin Avenue up to the Park entrance, and along Hillside Avenue from Franklin Avenue to North La Brea Avenue.

[1] Shoup, Donald C. *The High Cost of Free Parking.* Routledge, 2017.

Parking occupancy counts were collected in the following locations during Round Two of data collection only:

Table 3. Parking Occupancy Data Collection Locations: Round Two Only

Location	Description
Franklin Avenue	On-street parking along Franklin Avenue from North Sierra Bonita Avenue to North La Brea Avenue.
Hollywood Boulevard	On-street parking along Hollywood Boulevard from North Curson Avenue to North La Brea Avenue.

Daily Traffic Volumes

Daily traffic volume counts were conducted on certain streets around the Park to determine the volume of vehicles passing each point throughout the day. Daily traffic data shows the varying level of traffic congestion by hour and day. This allows for a better understanding of how traffic congestion impacts the areas around Runyon Canyon Park. Applying the City's traffic standards based on road classifications is problematic for determining ideal roadway capacities. This is because there are a number of factors that impact true capacity. Many of the roads are narrow and steep, with blind turns. Roadway classifications also vary between databases and are not always up-to-date or accurate. Therefore, capacity standards and roadway classifications will not be used as the standard when evaluating this data or making the recommendations in the upcoming Comprehensive Strategies Report (CSR). Instead, data should be evaluated on a relative basis compared between the data collection locations to understand how traffic patterns vary by location and time of day.

Daily traffic volume counts were conducted in the following locations during Round Two of data collection only. Daily Traffic Volume data was collected using tube counters that detect bi-directional traffic flow. Data were recorded in 15-minute intervals for a period of 24 hours on each day.

Table 4. Daily Traffic Volume Data Collection Locations: Round Two Only

Location	Description
Mulholland Drive (East)	Traffic volumes along Mulholland Drive to the east of the Mulholland Drive and Pyramid Place intersection near the Runyon Canyon North Entrance.
Mulholland Drive (West)	Traffic volumes along Mulholland Drive to the west of the Mulholland Drive and Desmond Estates Road intersection near the Runyon Canyon North Entrance.
Desmond Estates Road	Traffic volumes along Desmond Estates Road to the south of the Mulholland Drive and Desmond Estates Road intersection near the Runyon Canyon North Entrance.

Solar Drive	Traffic volumes along Solar Drive to the north of the Solar Drive and Astral Drive intersection near the entrance to the West Ridge Hiking Trail.
Curson Avenue (North)	Traffic volumes along N Curson Avenue to the south of the N Curson Avenue and Wattles Drive intersection near the Runyon Canyon Wattles Drive Entrance.
Curson Avenue (South)	Traffic volumes along N Curson Avenue South to the north of the N Curson Avenue and Franklin Avenue intersection near the Runyon Canyon entrance accessible via N Curson Avenue.
Vista Street	Traffic volumes along Vista Street to the north of the Vista Street and Franklin Avenue intersection near the Runyon Canyon Vista Entrance.
Fuller Avenue	Traffic volumes along N Fuller Avenue to the north of the N Fuller Avenue and Hillside Avenue intersection near the entrance to the Inspiration Point Hiking Trail.

Pedestrian Counts

Data collection for pedestrian counts took place over two days in October 2018. Weekday data for all monitored locations were collected between 7 AM and 7 PM on Thursday, October 18, 2018. Weekend data for all monitored locations were collected between 7 AM and 7 PM on Saturday, October 20, 2018. Data collected were grouped for the following three-hour time periods: AM (7 AM - 11 AM), Midday (11 AM - 3 PM), and PM (3 PM - 7 PM). The collection days were selected to allow for a comparison between weekday and weekend pedestrian traffic into and out of the park.

The objective of the pedestrian counts was to determine the volume of hikers that utilize the trails. The data is meant to reveal utilization trends throughout each day and on a daily basis.

Pedestrian counts were conducted at seven Park entrances during Round Two of data collection:

Table 5. Pedestrian Count Data Collection Locations: Round Two Only

Location	Description
North Entrance	Runyon Canyon Road south of Mulholland Drive
Desmond Estates Road Entrance	Runyon Canyon/Desmond Estates Road west of Lisco Place
Solar Drive Entrance	Solar Drive east of Astral Drive
Wattles Drive Entrance	Wattles Drive north of Curson Avenue
Curson Avenue Entrance	Curson Avenue east of Curson Terrace
Vista Street Entrance	Runyon Canyon Road east of Vista Street
Fuller Avenue Entrance	North Fuller Avenue north of Hillside Avenue

Intercept Surveys

The purpose of the Park user intercept survey was to determine the main modes of transportation, motivations for visiting, sources of information used, and how long Park users intended to stay at the park. The results are meant to reveal Park user trends throughout each day to better understand Park user needs and desires.

Intercept surveys were conducted for hour-long periods at four points each day: 9 AM – 10 AM, 12 PM – 1 PM, 3 PM – 4 PM, and 6 PM – 7 PM. Park user intercept surveys were conducted at the various Park entrances in the following locations:

Table 6. Intercept Survey Data Collection Locations: Round One and Round Two

Location	Description
North Entrance Gate (Outside)	The surveyor stood on the outside of the gate located at the northern entrance to the Park.
North Entrance Gate (Inside)	The surveyor stood on the inside of the gate along the trail that leads from the north entrance to the Park.
Desmond Estates Road Gate	The surveyor stood at the entrance to the Park located along Desmond Estates Road.
Solar Drive Gate	The surveyor stood at the entrance to the Park located at the end of Solar Drive.
Wattles Drive Gate	The surveyor stood at the Park entrance along Wattles Drive.
Curson Avenue Gate	The surveyor stood the at the Park entrance along North Curson Avenue, south of Curson Terrace intersection.
Vista Street Gate	The surveyor stood at the Park entrance located along Runyon Canyon Road, down the road from North Vista Street.
Fuller Avenue Gate	The surveyor stood at the Park entrance along North Fuller Avenue.

Findings

Some noteworthy findings from each data collection type include:

Online Survey:

- The first question in the online survey inquired about the areas or issues that respondents would like to see included in a traffic and mobility study near Runyon Canyon Park. A wide range of answers were received. Topics related to parking were the most frequent response, with 25% of responses including topics such as building more supply, paid parking, and permit parking.

- The second question in the online survey inquired about aspects related to access and mobility near Runyon Canyon Park that could be changed. 21% of respondents either did not have a suggestion or said they would change nothing. Responses were most frequently related to the topic of parking, with 34% of responses either about building additional parking supply, closing the upper parking lot, adding or removing preferential parking restrictions, or implementing paid parking.
- The third question in the online survey asked about big, out-of-the box, or unconventional ideas for long-term solutions to manage Park users. Responses included a large variety of ideas. 25% or responses were related to alternative modes of transportation, including suggestions for shuttle buses, designated rideshare loading zones, valet parking, additional DASH bus stops and hours of operation, and bike lanes.

Parking Occupancy:

- The average occupancy of public parking spaces at highly impacted locations (North Entrance, Upper Parking Lot, and the Fuller Entrance) was consistently at or near capacity throughout the data collection periods, reaching as high as 96% at noon during the Saturday data collection in June.
- The occupancy rate across all preferential permit parking spaces averaged 5.5% across both days in June and 5% in October.
- Public on-street parking at Solar Drive, Curson Avenue, and Vista Street was less impacted than the primarily entrances, with occupancies typically lower than 45%.
- On-street parking along Franklin Avenue reached 97% occupancy at noon on the Thursday data collection day in October and had a daily average occupancy of 88%.
- There was minimal difference in the overall occupancy averages between Round One and Round Two of data collection, displaying consistent parking impacts.

Daily Traffic Volumes:

- Mulholland Drive exhibited the highest traffic volume near the North Entrance followed by Fuller Avenue near the South Entrance.
- Solar Drive provided the least utilized vehicle access point.
- At all locations, weekday vehicle counts either exceeded or were comparable with weekend vehicle counts.

Pedestrian Counts:

- Total Park visitation (ingress) through the monitored entrances on Thursday, October 18, 2018 (weekday) was 3,552 pedestrians.
- Total Park visitation (ingress) through the monitored entrances on Saturday, October 20, 2018 (weekend) was 5,243 pedestrians.
- The entrances that experienced the most pedestrian traffic included Fuller Avenue north of Hillside Avenue, Runyon Canyon Road east of Vista Street, and Runyon Canyon Road south of Mulholland Drive.

- Weekday peak hour pedestrian traffic in the AM was highest with 262 pedestrians entering through the Fuller Avenue entrance and lowest with one pedestrian entering through the Wattles Drive entrance.
- Weekend peak hour pedestrian traffic in the AM was highest with 400 pedestrians entering through the Fuller Avenue entrance and lowest with two pedestrians entering through the Wattles Drive entrance.

Intercept Surveys:

- Driving was the most frequent mode for accessing the Park during each of the data collection days.
- In both June and October, the percentage of Park users that drove to the Park increased over the weekend. On the weekend in October, there was a 13% increase in the percentage of Park users that drove to Runyon Canyon as compared with the weekday.
- Hiking was the most common reason for visiting Runyon Canyon.
- The majority of participants learned about Runyon Canyon by word of mouth.
- The majority of Park users said that they planned to stay at the Park for between one and two hours.
- The majority of those surveyed, including the majority of nearby residents, said that they do think the Park needs public restrooms.

Stakeholder Meetings

May 14, 2018

After an initial tour of the areas surrounding Runyon Canyon Park, DIXON attended the May 14, 2018 Hollywood Hills West Neighborhood Council Transportation Committee meeting. This meeting was a chance to introduce the project to stakeholders and solicit initial ideas and suggestions for consideration. Participants suggested the following solutions:

- Increase the level of enforcement and/or station a Park Ranger within the Park;
- Remove all on-street parking along Mulholland Drive near the Park;
- Educate Park users about the risk of fires;
- Reduce the amount of dog feces and litter throughout the Park;
- Further restrict parking around the Park while encouraging public transit;
- Identify a rideshare loading space that will discourage drivers from entering dead-end streets;
- Improve wayfinding signage around the Park; and
- Consider installing public restrooms, while being careful to mitigate potential negative impacts.

September 26, 2018

During the September 26, 2018 stakeholder meeting, DIXON presented a PowerPoint overview of data analysis results from the June data collection effort. The purpose of the meeting was to collect initial feedback and reactions. The meeting also gave participants the opportunity to suggest potential adjustments or additions to the data collection plan for the second round of data collection in October. Below is a summary of public comments and suggestions from the September 26, 2018 stakeholder meeting. Stakeholders suggested that the study should consider:

- Impacts on residents that live around the park;
- Environmental impacts of Park users on the Park and sustainability;
- The overall purpose of the Park and how this impacts planning;
- The number of Park users that can safely visit the Park at any given time/the maximum capacity;
- The difference between intercept survey responses provided by nearby residents and those visiting from the greater Los Angeles area;
- Other parks in the City of Los Angeles that could be promoted as alternatives to Runyon Canyon;
- The potential impacts of public restrooms; and,
- Nearby shared parking opportunities to increase access.

February 11, 2019

During the February 11, 2019 stakeholder meeting, DIXON presented a PowerPoint overview of data analysis results from both rounds of data collection (June and October 2018). The purpose of the meeting was to collect feedback and reactions from stakeholders regarding the study results. The meeting also gave stakeholders the opportunity to suggest potential adjustments to the data collection results as well as discuss potential study recommendations. Below is a summary of public comments and suggestions from the stakeholder meeting. Stakeholder suggest the study should consider:

- Paving the upper lot;
- Looking at converting Hillside to one-way direction with additional parking;
- Counting weekday (M-F) and weekend total Park counts;
- Breaking down the data to numbers instead of percentages;
- Removing Desmond Estates Entrance as an entrance to the park;
- Improving signage at North Entrance;
- Implementing ADA parking at North Entrance;
- Reaching out to all residents near the park;
- Having Park Rangers hike the trails regularly;
- Installing additional "No Smoking" signage;
- Installing public restrooms at both the North and Fuller entrances;
- Installing portable bathrooms instead of permanent bathroom structures;
- Conducting an Environmental Impact Report as part of the study;
- Closing the North Entrance permanently;
- Paving the North Entrance parking lot, converting it to paid parking, or converting it to rideshare only;
- Eliminating parking along Mulholland Drive; and,
- Designating rideshare drop-off locations.

Online Feedback Survey

After presenting an overview of draft recommendations on May 20, staff released an online survey to collect feedback for incorporation into the final CSR. There were a total of 82 responses with a range of answers and topics. Based upon the most frequently discussed topics, participants were generally supportive of:

- Offering shuttles and public transit options;
- Pursuing shared parking agreements;
- Adding public restrooms;

- Repairing and maintaining paths and steps;
- Constructing a Park Ranger Station;
- Adding more passenger loading zones;
- Adding or adjusting permit parking regulations around the Park;
- Improving cellular service within the Park;
- Implementing paid parking; and
- Increasing parking enforcement.

Report Overview

Goals

The CSR is organized based on four primary goals:

1. Improve Park access and reduce congestion by multiple modes of transportation
2. Enhance safety within and around the Park
3. Actively manage and provide optimized Park user opportunities
4. Reduce the impact of Park visitation on surrounding residential areas

These goals are not ranked in any particular order. The goals have been identified by the project team, and together they are meant to improve access, mobility, and safety in and around Runyon Canyon. Each of these goals hold similarities to the original seven goals within the 1986 Runyon Canyon Master Plan. The below table outlines the relationship between the goals in both reports:

Table 7. CSR and Master Plan Goal Comparison

CSR Goals	1986 Master Plan Goals	Relationship
#1. Increase Park access and reduce congestion by multiple modes of transportation	#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	These goals each focus on providing and increasing visitor access to the park
	#6. Meet the special needs of the surrounding community and the needs of Los Angeles for open space	
#2. Improve safety within and around the Park	#2. Make Runyon Canyon safe for all users	Both goals address Park user safety
#3. Actively manage and provide optimized Park user opportunities	#1. Maintain a large part of the site as an urban wilderness	These goals address managing and educating Park users to minimize the impact on the Park
	#4. Teach people about the urban wilderness so they will enjoy, respect, and protect the unique quality of Runyon Canyon	
#4. Reduce the impact of Park visitation on surrounding residential areas	#3. Protect the uniqueness of Runyon Canyon as a wilderness juxtaposed with the city past and present	These goals address the context of the Park within a residential area, and consider the impact on residents
	#7. Encourage community involvement in Runyon Canyon to ensure that the plan meets the residents' needs and to develop a group who cares for the canyon	

Strategies

For each CSR goal, there are several potential strategies for consideration. These strategies each include a suggested implementation timeline, organized into short-, mid- and long-term steps. The implementation steps are meant to be realistic and actionable. It is important for the City to take a comprehensive approach to implementing recommendations; In many cases, the strategies will complement one another for improved effectiveness. There are also steps that the City can take in the short-term to adequately prepare for some of the longer-term solutions.

The strategies are each assigned either low, medium, or high priority. The relative cost is also identified for each strategy from $ to $$$$. These dollar symbols do not correspond to specific dollar amounts, but instead are a ranking system to compare estimated costs relative to the other strategies within this report. There are many factors that will influence cost and there may be different levels of ongoing expenditures. The relative cost attempts to compare the strategies to each other and does not identify a particular dollar amount or range. Their prioritization is based upon the estimated costs versus the potential benefits. This has been gauged through a mix of extensive stakeholder outreach, data analysis, industry best practices, and prior experience. The prioritization in this report is not a definitive guide for the City. Public and City Council review, environmental analyses, engineering evaluations, implementation timelines, and cost appraisals, among other factors, will ultimately influence whether a strategy is viable. This report's discussion of possible environmental or CEQA requirements is for idea generation and is not a definitive statement of required environmental compliance.

Goal #1. Improve Park Access and Reduce Congestion by Multiple Modes of Transportation

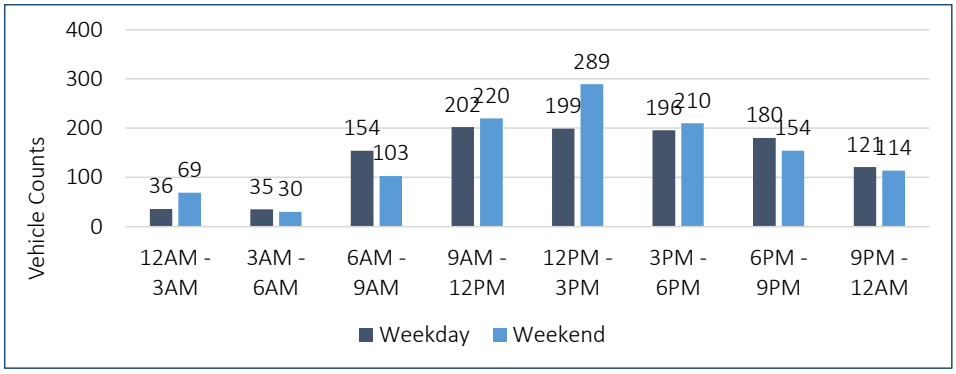
Strategy #1: Determine Feasibility of Developing a Turnaround Space at the Fuller Entrance

Priority:	High
Cost:	$$$$
Benefits:	Traffic flow; accessibility; reduces congestion; shuttle route feasibility
Considerations:	Construction cost; may increase vehicles along Fuller

Overview

The Fuller Entrance experiences pedestrian and vehicular traffic congestion, and the current roadway configuration does not present adequate turnaround space for vehicles at the end of the street. During the October 2018 traffic volume count data were collected along Fuller Ave north of Hillside Avenue. This means that any vehicle observed in this location would have had to turn around at the end of the dead-end street. During the data collection effort, a total of 1,123 vehicles were observed during the weekday and 1,189 vehicles were observed during the weekend along Fuller Avenue. The breakdown of vehicle counts by time period is provided in the figure below:

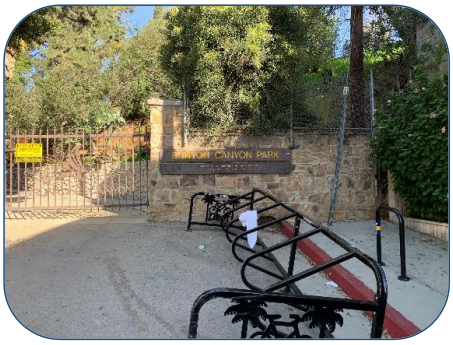
Figure 3. Fuller Avenue Daily Traffic Volume Counts: October 2018 Data Collection



Fuller Avenue dead ends at the Fuller Entrance gate. While there is a small no parking zone on the west side of Fuller Avenue near the gate (see Figure 4), the bike rack on the east side leaves little room for a car to turn around (see Figure 5). With even just two or three vehicles approaching the gate at the same time, vehicle egress from the gate area may be constrained. This can lead to cars blocking ingress and egress to the adjacent apartment buildings' driveways and prevent emergency vehicles from accessing the Park and nearby residences.

Additionally, as the popularity of rideshare increases[2], the number of vehicles approaching the gate to load and unload passengers will likely increase as well. Currently, when a rideshare vehicle is routed to Runyon Canyon, it will typically direct the driver to the Fuller Entrance. More information on proposed rideshare loading zones is discussed within Strategy #4.

Figure 4. The West Side of the Fuller Entrance Gate: Bike Rack



The lack of turnaround space is unsuitable for even the smallest transit vehicle. The nearest bus stop is on Hollywood Boulevard and Fuller Avenue, three long blocks away. The nearest rail stop is the Hollywood/Hyland Red line station just under one mile from the Fuller Avenue entrance. While a transit connection to the Park is recommended (See Strategy #2) under the current configuration, a stop near the Fuller Entrance gate is not feasible.

Figure 5. The East Side of the Fuller Entrance Gate: No Parking Zone

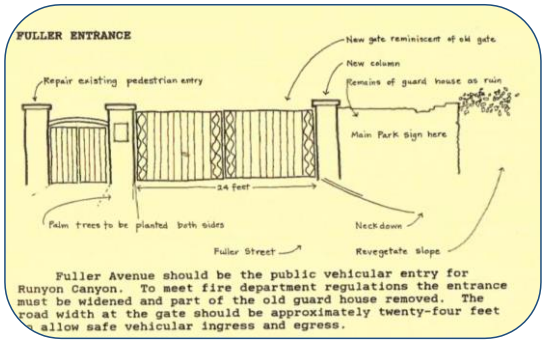
One element within the 1986 Runyon Canyon Master Plan was the consideration for constructing a parking lot near the Fuller Entrance. The proposed parking lot included parking for "thirty-five visitors, five staff members, and two school buses" which were recommended to be located "in the relatively flat area north of the [proposed] Ranger Station.".

Rather than building a parking lot, the City should consider adapting this approach into an active curb space for passenger loading. With the increasing trend toward more rideshare and transit use, a turnaround loading zone space for pick-ups and drop-offs would be ideal in this location. Additionally, as also noted in the Master Plan, the paved area would "allow mobility-impaired users easy access" to the park.

As first envisioned in the Master Plan, the turnaround should be landscaped to minimize the visual impact of the new facility and would also be an ideal location for a new Park Ranger station and home base for the proposed Ambassador program (see Strategies #12 and #13).

[2] http://usa.streetsblog.org/wp-content/uploads/sites/5/2017/10/2017_UCD-ITS-RR-17-07.pdf

Figure 6. Excerpt from 1986 Master Plan Describing the Fuller Entrance as the Public Vehicular Entry



The City should investigate the feasibility of extending Fuller Avenue a limited distance into the Park and adding a vehicle turnaround and a passenger loading area. The new turnaround would necessitate the relocation of the existing pedestrian gate at the current end of Fuller Avenue. New pedestrian access control and a new pedestrian entrance gate would be constructed north of the turnaround. The proposed turnaround should be designed to accommodate, and limited to, transit, rideshare, and personal vehicles engaged in active loading and unloading of passengers only.

There are numerous benefits to the proposed turnaround space. The turnaround would provide a feasible location for a DASH or shuttle stop to service the Park. Given the popularity of the Park, creating an opportunity for transit access brings a twofold benefit to the community. First, it would provide access to the transit-dependent population of Los Angeles. About 12%[3] of Los Angeles residents lack access to an automobile. With transit access to the Park, that sizeable population would gain convenient, affordable access to the Park. The second benefit would be that some patrons who previously drove to the Park will now have the option to take transit instead. Transit will also provide a more convenient drop-off location than those afforded by nearby parking options.

While rideshare and personal vehicles can access the south side of the Fuller Entrance today, the turnaround would ease the vehicular ingress and egress to the Park and minimize congestion. The prosed turnaround should be limited to the active loading and unloading of passengers only. No rideshare or personal vehicle should be permitted to Park or queue in the turnaround space. During peak times, the City should consider adding traffic enforcement officers in the turnaround to ensure no vehicle stops in the area beyond the time it takes to load or unload passengers.

While the extension of Fuller Avenue and the new turnaround would result in the loss of some parkland, the ability to have a direct transit connection and improved rideshare access to the Park would be a gain for Park patrons needing or wanting to arrive via alternative modes of transportation. Residents on Fuller Avenue would also benefit from the improved flow of traffic and the relocation of the pedestrian gate into the Park. The new turnaround would reduce congestion on Fuller Ave and allow for convenient, easy, and safe passenger loading and unloading.

[3] https://www.governing.com/gov-data/car-ownership-numbers-of-vehicles-by-city-map.html

Implementation Checklist

Short-Term:	
	Assess the feasibility of constructing a turnaround space at the Fuller Entrance
	Draft the design of the turnaround space as to minimize the visual impact on the Park
Mid-Term:	
	Assess potential transit route opportunities in conjunction with turnaround space
	Ongoing design, review, and study of the turnaround space
Long-Term:	
	Construct the turnaround space and plant landscaping
	Install adequate signage and curb markings to designate the zone for active loading only
	Allocate necessary staffing to enforce the active loading restriction
	Expand shuttle route or DASH route service to the park
	Ongoing promotion of the turnaround space as the primary access point to the Park for rideshare users and passenger loading

Strategy #2: Consider Offering Shuttle Route Access to the Park

Priority:	High
Cost:	$$$$
Benefits:	Encourages use of public transit; accessibility from off-site parking; potential connection between parks
Considerations:	Traffic flow; staffing; route impacts; off-site parking capacity; upfront capital and ongoing operating costs; wait times; ability to bring dogs on shuttles

Overview

There are seven entry points into the park: Fuller Avenue Gate (1), Vista Street Gate (2), Curson Avenue Gate (3), Wattles Drive Gate (4), Solar Drive Gate (5), Desmond Estates Road Gate (6), and the North Entrance Gate near Mulholland Drive (7) (Figure 7). Access to these four entry points is challenging for visitors choosing to drive a personal vehicle and Park close to the park. Many visitors circulate the adjacent neighborhoods searching for on-street parking, causing traffic congestion and safety concerns, often parking illegally along Mulholland Drive. To address the Park accessibility challenges, the City should promote the use of alternative modes of transportation such as bus transit provided by the Los Angeles County Metropolitan Transportation Authority (Metro). While LA Metro does not provide service in close proximity to the North and Desmond Estates entrances, service is provided within walking distance to the Vista and Fuller entrances on the southern boundary of the park. Available LA Metro routes within walking distance to the Park are provided below:

Figure 7. Park Entrances

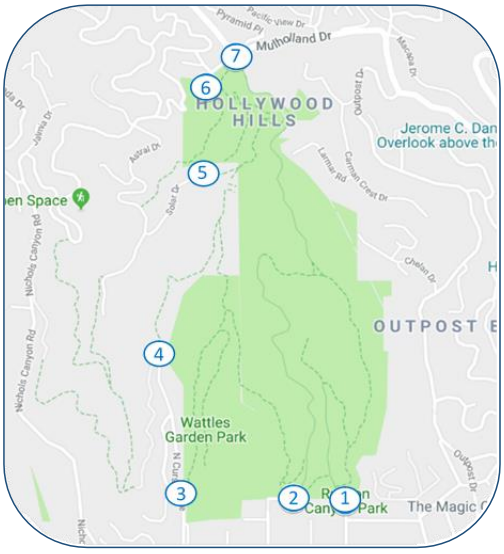


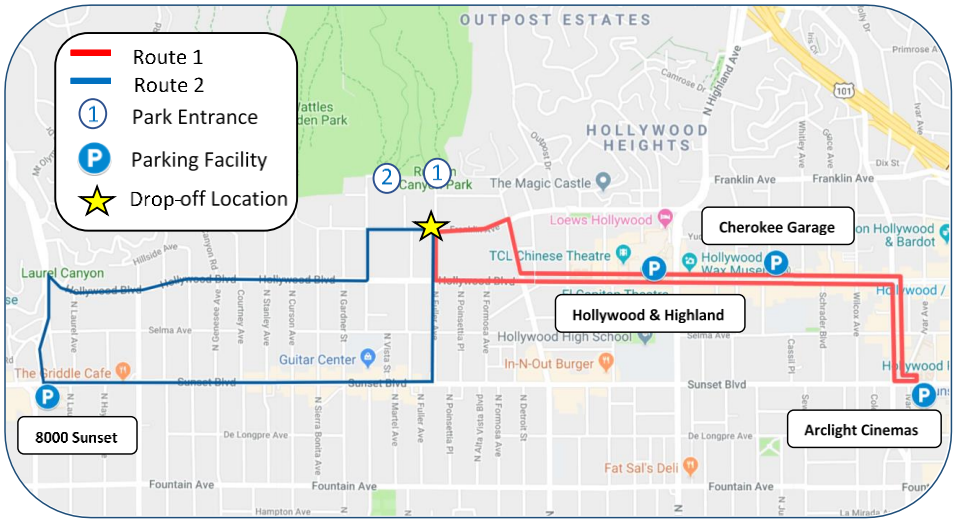
Table 8. LA Metro Routes Near Runyon Canyon Park

Route Name	Route Numbers	Bus Frequency During Park Hours
Hollywood Boulevard	217 and 780	Every 12 - 56 minutes
Sunset Boulevard	2 and 302	Every 14 – 20 minutes
La Brea	212 and 312	Every 25 minutes

LA Metro also operates the Red Line, a mass transit service connecting downtown Los Angeles to North Hollywood, with trip frequency to the Hollywood and Highland station of 8 - 12 minutes.

The City should also consider the feasibility of a shuttle service that transports Park users to the Fuller Avenue entrance. The shuttle service could originate at area parking facilities such as Hollywood and Highland, Cherokee Parking Garage, Arclight Cinemas, or 8000 Sunset Boulevard. All four locations may be able to accommodate additional parking demand to offset the parking demand around the Park. Figure 8 presents the location of these origin points with potential shuttle routes for consideration. Due to the limited space for passenger loading around the park, and to keep operating costs and route times to a minimum, it is recommended the City focus on providing shuttle service to the Fuller entrance on the south side of the Park.

Figure 8. Potential Shuttle Routes 1 & 2

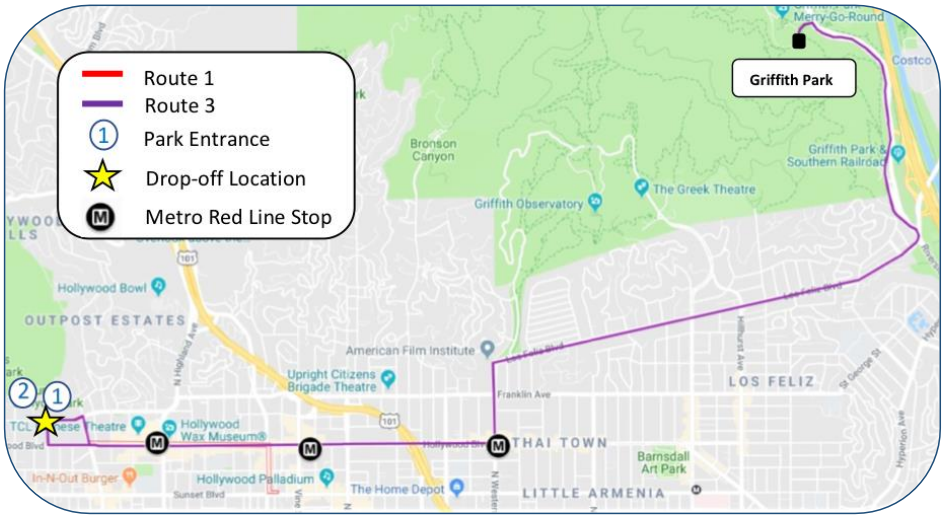


- **Route 1:** Service would originate at the Arclight Cinemas garage and traverse Cahuenga Boulevard, Hollywood Boulevard, and Fuller Avenue, terminating at a shuttle stop on the southeast corner of Fuller Avenue and Franklin Avenue. The shuttle would stop at the Cherokee and Hollywood and Highland garages along the route (Figure 8). The LA Metro Red line station at Hollywood and Highland would also provide a transfer point for Park users wishing to utilize mass transit to access the Park.

- **Route 2:** The shuttle route would originate at 8000 Sunset, a shopping center with a private parking structure, and travel along Crescent Heights Boulevard, Hollywood Boulevard, and Franklin Avenue, terminating at a shuttle stop on the southwest corner of Fuller Avenue

and Franklin Avenue. The shuttle would then travel south along Fuller Avenue to Sunset Boulevard, and back to 8000 Sunset, located at the southeast corner of Sunset Boulevard

Figure 9. Potential Shuttle Route 3



and Crescent Heights Boulevard (Figure 8).

- Route 3: The shuttle would connect Griffith Park to Runyon Canyon via Crystal Springs Drive, Los Feliz Boulevard, and Hollywood Boulevard, terminating at a shuttle stop at the northeast corner of Fuller Avenue and Franklin Avenue (Figure 9). The service would allow visitors to enjoy both parks without the need to park at either location. While most people likely prefer to visit only one park in a day, the shuttle service could be an opportunity to provide access to both parks in one route to reduce costs, rather than developing two separate shuttle routes.

- The City should also consider working with other neighboring municipalities to leverage their transportation options.

Routes 1 and 2 could operate on 30-60 minute headways, depending on traffic volumes, but could operate with fewer vehicles on greater headways to reduce operating costs. Route 3 could run every 60-90 minutes. Additional stops could be added in the future if more off-site parking facilities are identified. Initially, it is recommended that the City utilize small electric vehicles, similar to the Griffith Park circulator service, to keep costs low. However, capital costs would be required to procure any vehicles not provided by LADOT as well as for signage installation. Annual operating costs will also be required for staffing, fuel, maintenance, and other unforeseen expenses.

A similar example is Seattle's Transit-to-Trail Program, called Trailhead Direct, which was launched as a pilot program in August 2017 to expand access to hiking trails while reducing trailhead congestion by parked cars. The service operates a total of 19 vans, each with 27 seats. Each van also has capacity for two bicycles. Passengers pay a $2.75 flat fare and can pay with a pre-paid ORCA card, mobile payment ticket, or cash.

This program was successful, providing more than 10,000 round trips during its first full season of service, which lasted from April through October. Seattle also conducted a survey with over 1,000 responses. Main findings from the survey were that more than 60% of passengers took Trailhead Direct more than once and a staggering 90% of respondents said that it had reduced overcrowding at trailhead parking lots.

A program similar to Trailhead Direct could be effective in the City of Los Angeles for improving access to the parks system, including Runyon Canyon Park, and decreasing neighborhood traffic and congestion around its entrances. Such a program could also increase Park user satisfaction as AllTrails, a popular hiking website, advises visitors to account for "time looking for parking" and many reviewers also complain of the limited availability of parking around the park.

Implementation Checklist

Short-Term:	
	Determine shuttle routes, stops, frequency, and cost
	Seek Council approval for program funding and staffing requirements
Mid-Term:	
	Begin outreach process for upcoming shuttle program(s) and use of transit services
	Purchase shuttle vehicle(s) based upon estimated ridership
	Identify and allocate necessary staffing for the operation of the shuttle program
	Design and order necessary signage to support the operation
Long-Term:	
	Implement shuttle program along with posted signage
	Ongoing assessment of ridership levels

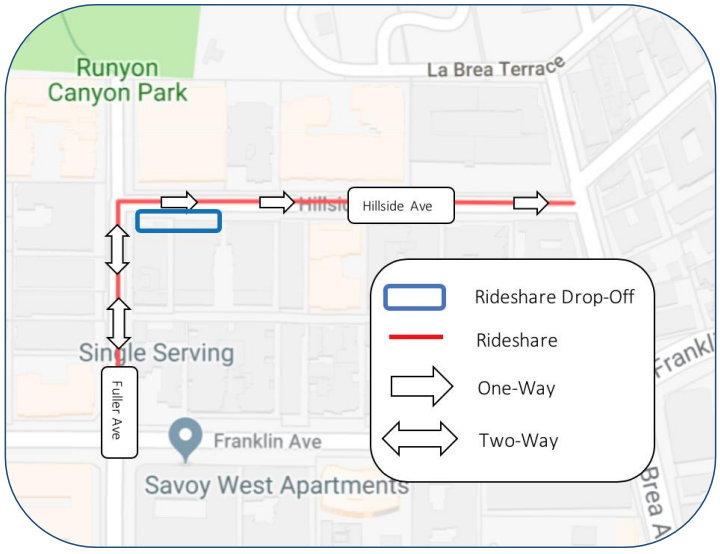
Strategy #3: Convert Hillside Avenue to One-Way Traffic

Priority:	Medium
Cost:	$$
Benefits:	Traffic flow; eases congestion
Considerations:	Signage; traffic study; enforcement

Overview

The Fuller Entrance is overwhelmed both with pedestrian and vehicular traffic. Several stakeholders described the congestion on Fuller Avenue and at the Hillside Avenue and Fuller Avenue intersection. The City should consider converting Hillside Avenue into a one-way street with travel flow limited to eastbound only. Because there would no longer be any westbound traffic on Hillside Avenue, there would be no left turns from Hillside Avenue onto southbound Fuller Avenue and no right turns from Hillside Avenue onto northbound Fuller Avenue. This could make the Hillside Avenue/Fuller Avenue intersection easier to navigate. As part of this approach, the City could create a passenger loading zone on the southside of Hillside Avenue immediately to the east of Fuller Avenue, as described with Strategy #4. Making Hillside Avenue one-way and adding a passenger loading zone, would be a low-cost, interim solution while the Fuller Avenue extension and turnaround is being evaluated (see Strategy #1). Figure 10 displays the proposed traffic flow for this scenario.

Figure 10. Proposed Traffic Flow Pattern with Hillside Avenue Limited to One-way Eastbound



The traffic pattern for rideshare vehicles would thus be, first, north on Fuller Avenue, second, east on Hillside Avenue to the new passenger loading zone, third, the driver loads or unloads their passengers, then continues east on Hillside Avenue to La Brea Avenue. The new traffic pattern would reduce the congestion that occurs at the dead end of Fuller Avenue north of Hillside Avenue and bring order to the current haphazard and chaotic passenger loading and unloading experienced today. The passenger loading zone may also provide a feasible transit stop for a small transit vehicle such as a shuttle.

By making Hillside Avenue one way, the traffic lane could shrink, and the City may have space to convert the existing parallel parking to angled parking on the north side of Fuller Avenue. This could replace the spaces lost by the creation of the new passenger loading zone. The City should negotiate with Uber and Lyft to geofence Fuller Avenue north of Hillside Avenue to force rideshare drivers and users to take advantage of the proposed passenger loading zone on Hillside Avenue.

To facilitate the added pedestrian flows on Fuller Avenue north of Hillside Avenue, the City could consider widening the sidewalk on the east side of Fuller Avenue. However, this would cause the loss of approximately six parking spaces.

Implementation Checklist

Short-Term:	
	Assess the feasibility of converting Hillside Avenue to a one-way street
	Community outreach about upcoming changes
	Coordinate one-way conversion with recommended rideshare passenger loading zone(s)
	Design, order, and install signage as required
Mid-Term:	
	Ongoing enforcement and monitoring of the one-way street
Long-Term:	
	Ongoing enforcement and monitoring of the one-way street

Strategy #4: Establish Transportation Network Company Loading Zones

Priority:	High
Cost:	$
Benefits:	Improves traffic flow; reduces congestion; improves safety
Considerations:	Zone placement; enforcement; signage

Overview

Transportation Network Company (TNC) ridesharing applications provide Runyon Canyon Park users with a convenient alternative to driving and may supplement nearby public transit routes. Promoting rideshare services can reduce demand for the already limited parking supply and improve accessibility to the Park. Unfortunately, ridesharing vehicles sometimes stop in the middle of the road or in prohibited parking zones, and drivers have also been observed queuing up, waiting for passengers. While parking demand can be eased by the promotion of ridesharing vehicles, they can also have a negative impact on roadway congestion and traffic if not managed effectively.

The City should take a proactive approach to managing the impact of ridesharing services around Runyon Canyon by designating drop-off and pick-up zones for ridesharing companies, including taxis. Unfortunately, it can be challenging to enforce parking regulations such as red curb violations for ridesharing vehicles, because they only remain at their drop-off or pick-up location for a short period of time. Drivers and passengers may not be incentivized to utilize ridesharing zones if it will extend the length of their session, due to the cost of the service. Most ridesharing applications also rely on a rating system for reviewing their drivers, so drivers will often favor efficiency and convenience for their passengers, over utilizing a designated ridesharing zone. That is why it is important for any ridesharing zones to be conveniently located in order to encourage their use. The main goal of having ridesharing zones should be to ensure that there is adequate space available for safe drop-offs and pick-ups. Without ridesharing zones, high parking occupancy rates may lead drivers to drop off or pick up their passengers in the travel lane, which can cause issues with traffic congestion.

Figure 11. LAX Rideshare Signage

Ridesharing companies have a track record of working closely with cities to address their ridesharing concerns and issues. For example, Lyft recently worked with the City of Las Vegas to develop a parking solution for the Life is Beautiful Festival. The festival was located in the heart of Downtown Las Vegas, with approximately 150,000 attendees. Lyft worked with the City to establish drop-off/pick-up zones to service the festival, as well as appropriate queuing areas. Service features like in-app geo-fencing, signage, and marketing channels can sometimes be used to improve event planning and management. Drivers can also be incentivized to service certain areas of a city.

The City should work with popular ridesharing service providers such as Lyft and Uber to geo-fence the loading zones within the applications. Currently, when users input Runyon Canyon Park as their destination within the applications, the map will direct them to the Fuller Entrance. Instead, if specific location(s) are geo-fenced within the applications, the users will be directed to the designated location(s) to be dropped off or meet their driver. This is the same application feature that is already implemented at many airports, including LAX. When the ridesharing applications are opened at the airport, the application recognizes the user's location using GPS, and will automatically instruct the user to meet at a designated rideshare pick-up area. In-app instructions can also be included as necessary.

As an alternative and/or interim solution to Strategy #1, the City should consider designating a rideshare loading zone on the south side of Hillside Avenue just prior to the intersection of Fuller Avenue and Hillside Avenue. This placement, along with the potential conversion of Hillside Avenue to a one-way street (see Strategy #3), would allow rideshare vehicles and taxis to exit through Hillside Avenue without needing to turnaround at the top of Fuller Avenue. The goal would be to prevent rideshare vehicles from continuing up Fuller Avenue to the Park entrance, where there is currently no designated turnaround space. This will help reduce congestion from rideshare and taxi loading.

The City could also consider implementing a rideshare loading zone close to the North Entrance to the Park. A number of stakeholders shared that rideshare drop-offs often take place within the Upper Lot or along Mulholland Drive, sometimes blocking traffic. A designated loading zone may help mitigate the impact by providing sufficient space to pull over and turn around.

The City could consider carrying over the design of the LAX ride service signage into any ridesharing zones implemented throughout the City. Many visitors utilizing ridesharing applications to get around the City may have first used it upon their arrival at the airport. By carrying the signage design throughout the City, the zones may become more recognizable and understandable for visitors. The City could also work with nearby hotels to encourage the establishment of hotel drop-off and pick-up zones for ridesharing. This will allow visitors to more easily utilize ridesharing services throughout their stay.

Implementation Checklist

Short-Term:	
	Identify regional point of contacts for Uber and Lyft
	Pinpoint specific passenger loading zones based upon accessibility and safety
	Collaborate with Uber and Lyft to geo-fence the loading zones within the applications
	Design, order, and install rideshare zone signage as required
Mid-Term:	
	Consider updating the municipal code to prohibit rideshare loading in certain locations immediately outside of, or within a certain distance from, Park entrances

	Ongoing enforcement and monitoring of rideshare loading zones
Long-Term:	
	Ongoing enforcement and monitoring of rideshare loading zones to determine program adjustments

Strategy #5: Collaborate with Transportation Network Companies to Provide Incentives

Priority:	Low
Cost:	$$
Benefits:	Reduces parking demand; serves as a promotional tool
Considerations:	Vehicle trips; congestion

Overview

The City may have the opportunity to collaborate with TNC ridesharing companies to establish incentive programs. Companies like Lyft and Uber have a history of partnering with municipalities to promote their services through subsidies. For example, the City could offer a reduced rate on rides to Runyon Canyon that originate within Hollywood. To promote the program, the City could post information about the incentive program online and through social media platforms. This is an opportunity to reduce demand for the limited parking supply surrounding the Park while still providing an affordable and convenient option for access. Combined with the suggested implementation of paid parking, a reduced rate for ridesharing could result in an overall cost savings for rideshare users, therefore further incentivizing the service.

The City should consider requiring the ridesharing companies to share data about ridership rates for instances where a discount code or incentive program is utilized. This data may be helpful for the City to understand the impact of the subsidized rides and make decisions for how to possibly adjust or refine the program over time.

While additional rideshare trips could reduce the overall demand for nearby parking, it's important to consider the potential increase in vehicular congestion and traffic around the Park due to ridesharing vehicles aiming to drop-off and pick-up passengers nearby Park entrances. Refer to Strategies #1, #3, and #4 for more information on mitigating congestion around the Park entrances and managing the impact of rideshare vehicles.

Implementation Checklist

Short-Term:	
	Identify regional point of contacts for Uber and Lyft
	Collaborate with Uber and Lyft to establish an incentive program
	Establish a data sharing agreement
	Identify the budget required to subsidize rides through the program
	Seek Council approval for ongoing program or pilot program
Mid-Term:	
	Promote the incentive program through the City's website and social media platforms
	Ongoing monitoring of utilization data to determine program adjustments
Long-Term:	
	Ongoing monitoring of utilization data to determine program adjustments

Strategy #6: Install Signage for Pedestrians at Nearby Locations to Encourage Walking

Priority:	Low
Cost:	$
Benefits:	Promotes walking; encourages remote parking; reduces congestion
Considerations:	Visibility and placement; pedestrian safety; walk times; signage design

Overview

A certain amount of congestion immediately around the Park can be attributed to drivers searching for nearby parking. While there is limited parking supply directly by the entrances, there is additional public on-street parking available within a walking distance such as along Franklin Avenue, Hollywood Boulevard, and nearby side streets. However, it can be challenging to encourage Park users to park further away. Walkability signage can be placed in strategic locations along major arterial roads, such as those leading up to the Fuller Entrance, within a 5-10-minute walking distance to the Park to notify drivers of estimated walk times. For example, signage could state "10-minute walk to Runyon Canyon Park from here." When drivers are searching for parking, seeing these signs along their route may help condition them to park further away to spend their time walking, rather than spending additional time searching for parking. Based upon the Intercept Survey conducted in June and October, an average of 72% of Runyon Canyon Park users indicated that they were at the Park for the purpose of hiking, which means that a significant number of Park users may not mind walking the extra distance.

Implementation Checklist

Short-Term:	
	Survey locations with public parking and estimate walk times from various points
	Design and order walkability signage based upon estimated walk times
	Ensure routes are safe for pedestrians with sidewalks, marked crosswalks, etc.
Mid-Term:	
	Install walkability signage
	Promote walking on the City's website and social media
Long-Term:	
	Promote walking as a healthy alternative, rather than spending time searching for parking

Strategy #7: Consider Potential Shared Parking Agreements

Priority:	Low
Cost:	$
Benefits:	Increases parking supply; efficient use of space; potential revenue stream
Considerations:	Proximity and availability; hours of operation; enforcement; signage

Overview

Public parking demand around Runyon Canyon is typically high because the Park has limited public parking supply within walking distance of each entrance. A shared parking agreement with a nearby private lot owner could supplement to the existing public parking supply during certain periods of the day or week. This would require coordination with local businesses and land owners to share parking spaces at off-site locations, therefore maximizing existing parking resources. Shared parking locations could also be utilized for valet parking.

Offering a monetized shared parking option would allow revenue generated from parking fees to be shared by both the City and the private parking facility owner. This would be a mutually beneficial and sustainable agreement. A portion of the revenue from shared parking could go to funding improvements to the Park, ongoing maintenance and upkeep, as well as parking enforcement and Park Ranger staffing needs.

Any shared parking location available to the public should be clearly communicated using the City's public parking brand and signage. Signage decals can be swapped out, or digital signage can include updated messaging during private parking versus public parking hours.

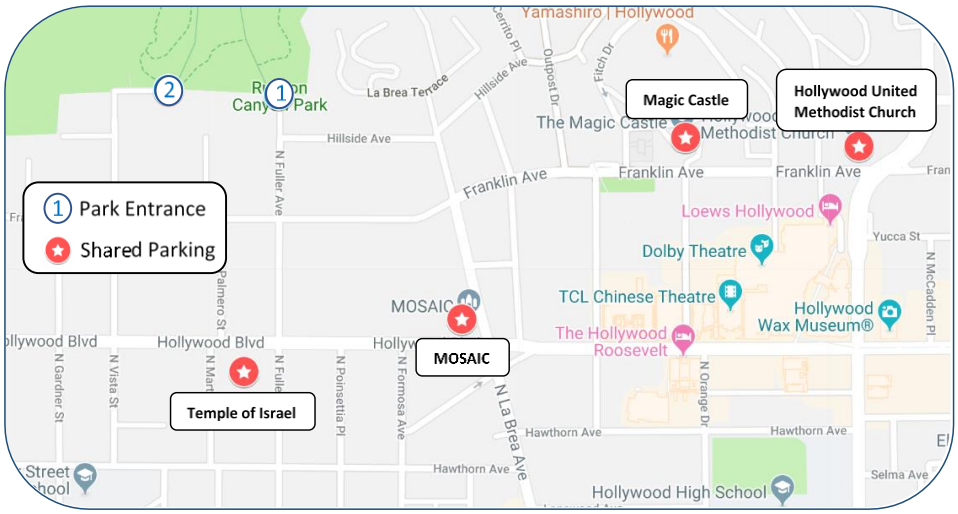
Below is a list of best practice considerations for a negotiation process for off-street shared/public parking agreements in areas with high parking demand. This process typically occurs between owners of privately-operated off-street parking facilities, property owners and applicants for new developments.

- **Term and Extension**: Evaluate return on investment and ensure terms that allow for potential redevelopment.
- **Use of Facilities**: Establish available hours, number of spaces, time limitations and ensure that base users will retain use at the end of the sharing period.
- **Maintenance:** Evaluate the added cost of maintenance and operation.
- **Operations:** Consider revenue collection operations (when applicable) and needed signage.
- **Utilities and Taxes:** Determine responsible parties and any cost sharing agreements.
- **Signage:** Consistency with City signage can improve the public experience.
- **Enforcement/Security:** Determine who handles enforcement and towing.
- **Insurance and Indemnification:** Consider litigation with any cost sharing.

- **Termination:** Establish a termination clause.

The below map presents four potential shared parking locations within one mile of the Fuller Avenue entrance. Suggested by stakeholders, these locations include MOSAIC, Temple of Israel, Hollywood United Methodist Church, and the Magic Castle. Each location would require a seven to 15-minute walk to the Fuller entrance. The feasibility of these locations would need to be vetted.

Figure 12. Potential Shared Parking Locations



Shared parking locations could be implemented in conjunction with Strategy #2, the implementation of a shuttle service. This would reduce the walking distance to the Park for visitors but would require capital and annual operating costs to implement. Other first and last mile transportation options could supplement the locations, including bike and scooter-share programs as well as rideshare.

Implementation Checklist

Short-Term:	
	Establish a framework for a negotiation process
	Explore the feasibility of potential shared parking locations around Runyon Canyon
	Begin the negotiation process with parking lot owners
Mid-Term:	
	Incorporate City's parking brand and wayfinding program into shared locations
	Expand paid parking infrastructure and signage to shared lots as needed
	Work with property owners to determine feasible operating hours and policies

	Determine appropriate revenue share to sustain the program and enforcement
	Allocate necessary parking enforcement resources to manage participating location(s)
Long-Term:	
	Evaluate new opportunities between the City and private business/land owners
	Ongoing monitoring of occupancy and utilization data

Strategy #8: Implement Paid Parking Surrounding the Park

Priority:	High
Cost:	$
Benefits:	Cost sustainable; promotes turnover; encourages alternative modes of transportation; adaptable rate model
Considerations:	Equipment cost; installation; maintenance; collections; vandalism

Overview

Paid parking can be an effective management tool to encourage parking space turnover in impacted areas around the Park. Additionally, paid parking may encourage some Park users to utilize alternative modes of transportation such as ridesharing or public transit. The industry standard for the target occupancy rate is 85%. At this level, there are typically enough vacant parking spaces to minimize congestion from drivers searching for a space. At the same time, the 85% rate ensures that a location is not providing too much parking supply, which can be considered an inefficient and costly use of valuable land. Occupancy rates have effectively been managed using paid parking programs because price can impact behavior and mode choice. Paid parking revenue can also be an opportunity for the City to invest monies directly within the impacted community and provide program enhancements. For District 4, paid parking revenue could be dedicated for neighborhood mitigations, and it could help support projects or programs that improve access, mobility, and safety in and around Runyon Canyon Park.

Locations

The City should consider implementing paid parking at the Upper Lot, and at any on-street public parking locations within a one to three block radius of the Park. Ideally, the City should rely primarily upon pay stations to minimize the amount of infrastructure required. Based upon the Intercept Survey data, very few (less than 3% on average) of Park users planned to stay at the Park for less than 15 minutes. The majority of Park visits were at least one-hour long. This longer average length of stay is ideal for pay stations. While pay stations are less convenient than single-space meters, when someone is planning to visit the Park for a longer amount of time, the extra amount of time required to walk and pay at a pay station is minimal in comparison to the total trip time. Pay stations will also minimize the amount of maintenance and collections time required.

In addition to implementing paid parking in the Upper Lot, the City could consider paving and/or marking the spaces within the lot. Currently the gravel lot does not have marked spaces, meaning that vehicles are free to park however they see fit. This can result in an inefficient use of space, especially if one vehicle parks poorly early on in the day. To maximize the efficiency of the lot, the City could mark the spaces on top of the gravel or choose to pave and formalize the lot. However, the City should also be aware of the Americans with Disabilities Act (ADA) parking space implications to ensure compliance.

While this is not a formalized lot today, the 1986 Master Plan does refer to the location as a potential future parking lot. The Master Plan states that "if it is needed in the future, parking could be developed for twenty cars, with planting generously interspersed."

Single-Space vs. Multi-Space Meters

The convenience and ease of use of single-space meters is what makes them effective for dense, high-turnover areas. Smart single-space meters accept credit card (and therefore debit card) payments and are enabled with back office tools and real-time access to information and data. This would allow the City to monitor the meters and be notified of any maintenance issues. The selected equipment must meet the Payment Card Industry (PCI) security standards for credit card transactions to make sure that only the last four digits of each card number is stored. Additionally, all payment information can be tracked and audited to ensure proper revenue reconciliation during collections. Most single-space meter vendors offer meter management systems to edit the display screen, manage rate structures, and run reports. Smart single-space meters range in price from around $400 to $600 per meter mechanism plus approximately $250 to $400 for the meter housing and pole (not including shipping). There is an ongoing $6 to $8 per meter per month for data management in addition to transaction fees.

Multi-space pay stations, depending on configurations, are approximately $8,500 per unit with monthly data management fees of approximately $70.00 per pay station per month. This pay station rate estimate does not include installation and freight. The typical pay station vendor also provides a meter management system that provides real-time access to pay station information and maintenance support requirements. Additionally, following year one, the City should budget approximately $30.00 per month for each pay station warranty. While not required, the warranties are recommended to safeguard the program and ensure equipment performance and system uptime. Pay stations typically support 7 to 12 on-street parking spaces, depending upon geographic conditions. A typical off-street surface lot requires 1 to 4 pay stations, depending upon the configuration and number of access points.

There are three main operational configurations for multi-space pay stations: pay and display, pay by space, and pay by plate:

- Pay and Display: The driver parks, purchases parking session time at the pay station, and then returns to their vehicle to display the receipt on their dashboard.
- Pay by Space: The driver parks in a numbered space, and then pays at the pay station using the parking space number. The driver is not required to return to their vehicle because their payment is electronically tied to their space number. Parking enforcement is able to use a web application to verify payment status by parking space number.
- Pay by Plate: Similar to pay by space, but the driver enters their license plate number at the pay station to record their payment. This method does not require drivers to return to their car as well and, similarly, parking enforcement verifies payment status by license plate using a web application.

It is recommended that the City utilize the Pay by Plate configuration. This will allow the City to efficiently enforce the paid parking areas with the use of License Plate Recognition (LPR) cameras. Additionally, when users choose to pay for parking using a mobile payment application, enforcement officers will not be required to check payment status separately. This is because the mobile payment applications are also based on the license plate number as the payment identifier. An integration between the City's LPR equipment, mobile payment vendor, and citation management system will streamline enforcement.

If in the interim the City does not have the enforcement technology and equipment required for a fully automated Pay by Plate scenario, the City may begin with the Pay and Display configuration. If at a later point the City invests in the enforcement technology and the integrations have been completed, the City may easily replace the Pay and Display pay station keyboards with the full alphanumeric keyboard to support Pay by Plate. The rest of the configuration set up can be easily pushed as a software update. Pay by Space is not recommended because of the cost of marking all paid parking stalls, and the ongoing upkeep that would be required to maintain the markings over time.

Rate Models

There are several rate structures available to the City for consideration. Each structure has positive and negative effects associated with the way that rates are applied. An overview of rate models is included below in Table 9.

Table 9. Paid Parking Rate Structures

Rate Model	Description	Considerations
Flat Hourly	A flat hourly rate means that the same rate is charged for each hour of the parking session, regardless of location, time of day, day of week, or any other factor.	With a flat hourly rate model, it is recommended that on-street time limits be included to ensure turnover. The benefit of a flat hourly rate is that it is simple to communicate and understand. However, without any tiered pricing structure or variations in price, it does very little to change behavior.
Zone-Based/ Tiered	In a zone-based model, rates are adjusted by zone, and zones are typically created based on parking demand. Higher demand locations are priced at a higher rate.	For this type of rate model to be effective, tiered rates must be clearly communicated and easily understood. By offering lower rates in the more fringe or remote locations, this rate model encourages longer-term parkers to utilize parking locations that are traditionally less desirable. Conversely, by setting higher rates in prime parking locations, this model encourages higher turnover and shorter visits.

Time of Day/ Day of Week	Rates can differ based upon the time of day or day of week. This rate model is common in scenarios where there are extreme occupancies peaks, such as during the lunch or evening rushes.	The City may consider charging an escalated rate during peak periods to encourage drivers to visit the Park during non-peak periods. However, this can be challenging to communicate to drivers and may not influence driver behavior significantly.
Escalating/ Pay-to-Stay	An escalating or pay-to-stay rate model gives drivers the ability to park for as long as they desire, but at an escalated rate. For example, the rate charged during hours 1 and 2 could escalate to a higher hourly rate during additional hours.	When utilized strategically, this type of rate model can encourage longer-term parkers to store their cars in more affordable locations, such as off-street lots or remote locations. However, it still gives Park users the option to park on-street for a longer term if they are willing to pay a premium for it. Without using time limits, this provides more flexibility to Park users, but it does not ensure turnover. Relying on rates alone to encourage turnover may be risky, so it's important to monitor occupancy rates in this case. This rate structure has the potential to create an inequitable parking experience where high-income Park users tend to occupy the convenient spaces for as long as they please, and it may not effectively influence driver behavior. An escalating rate model is most effective when combined with sensors. Parking meter sensors or in-ground sensors can aid in enforcement. It's important that a driver cannot "feed" the meter for a lower rate when the initial payment expires.

It is recommended that the City consider either a flat hourly rate with a daily maximum rate option. This rate model will be the simplest to communicate to Park users and tourists, and it will still provide the flexibility for both short-term and long-term parking sessions. This is the rate model currently offered at the pay stations within Griffith Park, so a similar user experience could be carried over to address Runyon Canyon Park. Ideally, the rate model should incentivize alternative modes of transportation, especially for the longer-term sessions. The daily parking rate should therefore cost more than a roundtrip transit pass. The City can also tie in incentive programs with

the introduction of paid parking that would give locals a certain amount of free parking per year using validation codes at the pay stations or via a mobile payment platform.

Implementation Checklist

Short-Term:	
	Evaluate paid parking technology options or consider expanding existing contract
	Determine locations for the implementation of paid parking
	Order required quantity of paid parking equipment
	Determine hours of operation and rate model
	Community outreach about upcoming implementation of paid parking
	Install paid parking equipment, signage, and begin enforcement
Mid-Term:	
	Ongoing maintenance, collections, and enforcement for paid parking areas
	Monitor occupancy and turnover to make program adjustments as necessary
Long-Term:	
	Monitor occupancy and turnover to make program adjustments as necessary

Strategy #9: Address Upper Lot One-Way Traffic Flow

Priority:	High
Cost:	$ - $$
Benefits:	Safety; improves traffic flow
Considerations:	Potential congestion on residential street; signage; enforcement; equipment

Overview

The Upper Lot is currently configured to allow one-way traffic with the entrance along Mulholland Drive. As a result, traffic congestion will often spillover into Mulholland Drive. For traffic flow purposes, the City should consider converting the direction of one-way traffic within the Upper Lot, requiring vehicles to enter at the Desmond Estates Road entry point and exit via Mulholland Drive. By doing so, cars would have space to queue along Desmond Estates Road, rather than along Mulholland Drive, in the case of a minor backup. Regardless of the direction of traffic, the parking lot should be clearly marked with adequate signage.

While this may have an impact on the nearby residential homes, it is anticipated that the recommended occupancy counting technology and wayfinding signage in Strategy #10 will minimize the amount of congestion at this location. Ideally, digital signage with real-time occupancy and availability information should be displayed along Mulholland Drive approaching the turn onto Desmond Estates Road. Drivers should be given adequate time to decide whether to turn onto Desmond Estates Road to access the lot, based upon whether the lot has parking availability. If the lot is full, the signage should direct drivers to park by the Fuller Avenue Entrance.

In order to manage the one-way conversion, the City could choose to add gate arms that only open when a car is approaching from the correct direction. However, gate arms will need to be maintained, and the City should be aware of potential vandalism.

Another consideration is adding tire spikes, which would prohibit drivers from entering the lot from the wrong direction. It is not recommended that tire spikes be implemented unless the lot is paved and formalized. Without formalizing the design of the lot, this may lead to confusion and will make tire spikes less apparent to drivers.

Implementation Checklist

Short-Term:	
	Assess the feasibility of converting the Upper Lot to one-way
	Determine appropriate direction for traffic, with consideration for safety and congestion
	Consider formalizing the lot by paving it, adding tire spikes, signage, and/or gate arms
	Digital wayfinding signage should direct drivers elsewhere upon the lot reaching capacity
	Ensure consistent enforcement of the Upper Lot area

Mid-Term:	
	Ongoing upkeep and monitoring of the Upper Lot
Long-Term:	
	Ongoing upkeep and monitoring of the Upper Lot

Goal #2. Enhance Safety Within and Around the Park

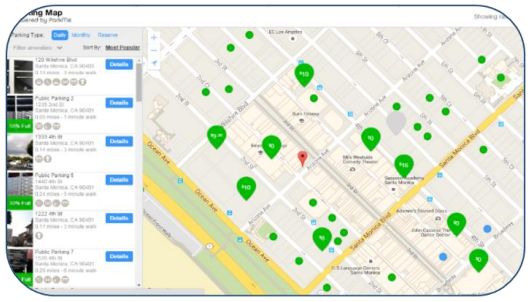
Strategy #10: Install Cameras at the Upper Parking Lot

Priority:	Medium
Cost:	$$
Benefits:	Safety; real-time occupancy information
Considerations:	Equipment; installation location; occupancy signage placement

Overview

Parking demand at the Upper Lot is very high on a daily basis. During the peak summer season the Upper Lot averages 74% occupancy during the week and 80% occupancy on the weekend. During the non-peak season, the lot averages 81% occupancy during the week and 66% occupancy on the weekend. Because the Upper Lot is the only publicly available lot adjacent to the park, drivers often gravitate to this location in search of convenient parking. However, the consistently high level of occupancy impacts traffic conditions along Mulholland Drive, Desmond Estates Road, and Pyramid Place as drivers continually block traffic while waiting at the entrance to the lot for parking spaces to become available. To address this challenge, the City could install camera-based sensor technology at the Upper Lot to collect real-time occupancy data. Once collected, the real-time occupancy data can be transmitted to digital wayfinding signage. Additionally, a basic integrated independent mobile application can be developed or an existing application can be leveraged. The goal of real-time occupancy information would be to inform drivers ahead of time whether the Upper Lot is full, therefore minimizing the number of people who drive to the location to search for parking.

Figure 13. Real-Time Parking Data Application



The overall cost of mobile application development varies depending on the type of information needing to be displayed, any specific branding or graphics requirements, and additional features such as find my car, directions, traffic information, parking reservations, or third-party integrations. If the City was to invest in an interactive City-developed website or application, the cost could be significant based upon the overall web design and features. However, there are several existing, free parking availability and guidance applications, such as Inrix (formerly ParkMe) and Parkopedia, that leverage available public parking information using an interactive parking application. The City could leverage these opportunities and promote the information to Park users who may be planning their trips. The City should coordinate with companies like Inrix to determine the process for data sharing. Real-time occupancy data can be integrated with applications in real-time through the use of an application

programming interface (API). The City can also push parking availability information to the City or Park website. For example, the City of San Jose has an interactive parking map on their website along with real-time parking availability data (Figure 14).

Figure 14. San Jose Parking Data

Parking Garage Data
Open spaces in the city owned parking garages in downtown San ...

Garage_Name	Garage_Status	Available_Visitor_Spaces	Total_Visitor_Spaces
Fourth Street Garage	Open	84	150
City Hall Garage	Open	103	302
Third Street Garage	Open	107	134
Market San Pedro Square Garage	Open	305	445
Convention Center Garage	Open	443	510
Second San Carlos Garage	Open	120	220

Presenting occupancy data through these outlets will allow drivers to check parking availability prior to traveling to Runyon Canyon, informing their decisions about how to access the park, whether it is by personal vehicle to park onsite or at an alternative offsite parking facility, or use alternative modes of transportation such as LA Metro bus or Red Line public transit services (see Strategy #2).

A camera-based sensor solution could also address safety and security concerns at the Upper Lot. Some stakeholders voiced their concerns about potential illegal activity occurring at the lot, impacting the parking and visitor experience, as well as impacting the surrounding neighborhood. The City has the opportunity to utilize the same cameras for both occupancy data collection and security monitoring.

Figure 15. Vehicle Detection and Occupancy Digital Signage

Implementation Checklist

Short-Term:	
	Evaluate camera-based sensor technology solutions
	Issue a solicitation or purchase cameras and digital wayfinding signage
	Install cameras and signage
Mid-Term:	
	Utilize cameras for ongoing real-time occupancy data collection and security monitoring
	Push occupancy information to signage and web applications
Long-Term:	

	Ongoing monitoring and promotion of data

Strategy #11: Address Street Parking Along Mulholland Drive

Priority:	Medium
Cost:	$ - $$$$
Benefits:	Safety; traffic flow
Considerations:	Impact on parking supply; construction; signage; enforcement; cost

Overview

Public parking supply is minimal immediately surrounding Runyon Canyon, with only one adjacent gravel lot located at the North entrance (Upper Lot) used for parking. Parking demand at the Upper Lot is very high on a daily basis. During the June 2018 data collection, the Upper Lot averaged 74% occupied during the week and 80% on the weekend. During the October data collection, the lot averaged 81% occupied during the week and 66% on the weekend. Due to the high parking demand, vehicles circulate and queue along Mulholland Drive, Desmond Estates Road, and Pyramid Place until parking spaces become available, negatively impacting traffic flow. Park users have identified an informal alternative area to park along the north side of Mulholland Drive, east of Pyramid Place (Figure 16). In some cases, cars are parked illegally along the roadside. This unpaved area can park between 10 and 15 vehicles at one time, creating a makeshift parking location to access Runyon Canyon. This location does not have sidewalks, crosswalks, or traffic signals to allow pedestrians to safely walk and cross Mulholland Drive to access the park. Many stakeholders have voiced their concerns regarding the number of Park users illegally crossing the street from this unpaved area, creating a dangerous situation for both pedestrians and drivers.

Figure 16. Unpaved Parking Along Mulholland Drive

The 1986 Runyon Canyon Master Plan states that “no parking off Mulholland Drive should be developed.” However, “when the park has opened, the impact of this policy will be assessed to determine if parking is needed.” Based upon the ongoing parking demand and impacts, the City will need to determine how to proceed with (or without) parking along Mulholland Drive.

The City should consider commissioning a detailed traffic study that assesses the feasibility of a formalized parking plan for this makeshift parking area that would address pedestrian and traffic safety concerns. The study could consider paving the area and painting pavement markings to create formalized parking spaces to control the number of vehicles parked; building a retaining wall along the north side of the parking area to reduce the risk of falling debris and mudslides; and installing crosswalks, sidewalks, and traffic signals along Mulholland Drive to slow the flow of traffic

and reduce the number of illegal pedestrian crossings. Formalizing the parking area would also allow improve the City's ability to enforce parking regulations, reducing illegal parking.

Implementing these strategies would require capital costs to install the required infrastructure and could potentially increase the number of pedestrians crossing Mulholland Drive, both legally and illegally. A feasibility study would provide the necessary details to make informed decisions.

An alternative to implementing a formalized parking plan for the makeshift parking area would be to eliminate all parking along Mulholland Drive. This strategy would reduce or eliminate Park users walking along Mulholland Drive, creating dangerous driving conditions for oncoming traffic. This solution would also potentially improve traffic conditions along Mulholland Drive as drivers wouldn't have the opportunity to slow down and look for parking or stop and wait in traffic while a vehicle departs a parking space. However, eliminating parking along Mulholland Drive would reduce the total amount of parking space for Park users, which could increase the already high parking demand at the Upper Lot.

Implementation Checklist

Short-Term:	
	Consider commissioning a traffic and engineering study
Mid-Term:	
	Determine whether parking should be formalized or eliminated
	Proceed with construction as required based upon the results of the study
Long-Term:	
	Ongoing enforcement

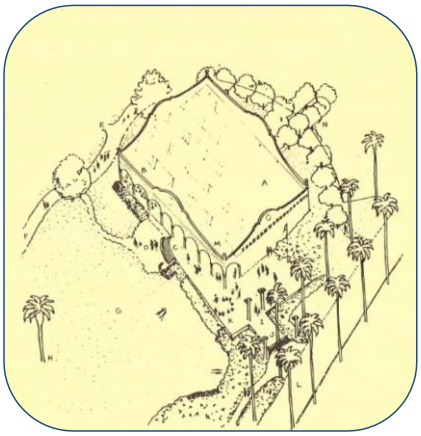
Strategy #12: Develop a Park Ranger Station and Designate Park Ranger Staff

Priority:	High
Cost:	$$
Benefits:	Improved safety; compliance; education; information
Considerations:	Cost; staffing; training; equipment; enforcement hours; Ranger Station

Overview

Many stakeholders expressed frustration about the absence of Park Rangers to enforce the prohibitions on smoking, littering (including un-bagged, abandoned dog waste), and other infractions. The 1986 Master Plan previously suggested that a Ranger be "staffed and on-site full time when the Park is open in order to become known to users." The Master Plan also suggests that the Ranger would "coordinate interpretive walks and develop canyon activities, patrol the trail and enforce Park rules."

Figure 17. Drawing of Ranger Station from the 1986 Master Plan



As described in Strategy #1, the City should consider developing a Park Ranger Station on site, in conjunction with the proposed turnaround space. Similar to the vision in the 1986 Master Plan, the Ranger Station could also provide an educational exhibit space (see Strategy #18). An alternative proposed by some stakeholders is a small structure or hut that would minimize the amount of development and visual impact within the Park.

Ideally, Park Rangers would be trained to provide excellent customer service. The City should take a three-step approach to ensure compliance with the Park's rules and regulations: 1) educate, 2) inform, and 3) enforce.

First, **educate** Park users about ~~the~~ Park~~'s~~ regulations. Patrons should be clearly and repeatedly notified of all the rules that govern the Park, especially the prohibition on smoking and littering. Given the fire-prone nature of the Park, the prohibition on smoking is especially important. Patrons should have the opportunity to dispose of cigarettes at the entrances to the Park and abundant options throughout the Park to dispose of litter (see Strategy #19). The rules should be posted on the new website (see Strategy #23) and on signage throughout the Park.

Second, **inform** Park users found to be violating the regulations of the Park. Let violators know that they are not following the rules, for example littering, via verbal or even written warning. Pointing out a violation reminds the patron about the regulations and encourages them to stop the violation. Additional Rangers could complement the Park Ambassador program discussed in

Strategy #13. Both the Rangers and the Park Ambassadors would help inform patrons about the rules.

Finally, Rangers should **enforce** the regulations. Not all violators will read and follow the regulations and after being warned and will continue to violate the rules. In these cases, violators should be cited.

Additional Park Rangers would help increase safety and increase enforcement of the Park's regulations. With fewer patrons smoking and littering, for example, the experience of visiting the Park will be improved for all Park users.

Implementation Checklist

Short-Term:	
	Budget for Park Ranger staff to support the Park during open hours
Mid-Term:	
	Develop staffing plan for Park Rangers based upon budget and resources
Long-Term:	
	Begin construction of the Park Ranger station in coordination with the turnaround space, public restrooms, and/or education exhibits
	Upon completion of the Park Ranger station, employ Park Rangers
	Ongoing monitoring and enforcement of the Park

Strategy #13: Establish a Park Ambassador Volunteer Program

Priority:	High
Cost:	$
Benefits:	Park user experience; safety; customer service; education
Considerations:	Recruitment; uniforms; training; supplies

Overview

The City should consider establishing a Parking Ambassador Volunteer Program for Runyon Canyon. Importantly, volunteers would improve safety by providing additional "eyes and ears" within the park, and they could provide important safety information and trail advice to hikers. Other services that volunteer Park Ambassadors could provide include:

- Directing Park users to water fountains and restrooms;
- Handing out bags to pick up dog feces;
- Monitoring for litter, aggressive dogs, smoking, and vagrancy issues;
- Observing trail conditions;
- Educating Park users about the Park; and,
- Providing other customer service duties as needed.

Ambassadors could be equipped with a brightly colored vest to identify themselves, trail maps, small bags for dog feces, and any other additional supplies and information as necessary.

The City of Mountain View, CA and Torrey Pines Trail Ambassador programs are both examples of successful volunteer programs. The City of Mountain View accepts a small number of volunteers so serve as Trail Ambassadors. Volunteers each receive training, and are tasked with observing trail conditions, monitoring visitor behavior, and educating visitors about the history and ecology of the area. Mountain View lists guidelines on their website about trail etiquette[4]:

All Users:

- Remember to remain on designated pathways.
- Be sure to stay alert for other users and trail hazards. Always have at least one ear open.
- Communicate with other trail users. Announce yourself before passing by clearly stating, "On your left."
- When in doubt, keep right and pass on the left.
- When resting or chatting, move off of the trail to let other users pass.
- Don't block the trail. When in a group, never walk more than two abreast.

[4] https://www.mountainview.gov/depts/cs/parks/trails/default.asp

For Bicyclists:

- Check your speed. You should always obey the 15 mph speed limit but be sure to slow down further if conditions call for it.
- To avoid accidents, reduce your speed when passing other users or approaching curves.
- Bicyclists should yield to all other trail users.

Users with Dogs:

- Yield to other walkers or runners. To avoid conflict, have your dog sit or heel as other users pass.
- Dogs are users, too; they should be kept on a short leash and remain on the right side of the trail to avoid oncoming traffic.
- Maintain a pleasant atmosphere for all by picking up after your dog.
- Respect our wildlife. Please do not walk your dog in restricted areas.

The Torrey Pines State Natural Reserve (Reserve) offers a similar volunteer program[5]. There are two main Reserve programs: one option is the docent program, which requires more comprehensive science training, and the other is the volunteer program with brief training about Reserve rules and regulations.

The docents are primarily responsible for:

- Leading public nature walks.
- Serving in the children's education program.
- Staffing the Lodge Visitor Center/Museum and the Trailhead Interpretive Kiosk (TIK).
- Special projects such as working on publications, stocking the Museum Shop, organizing special events, etc.

And the volunteers are responsible for:

- Trail and surface maintenance, fence and general repair with a group called Seabees.
- Removal of non-native, invasive plants with a group called Whacky Weeders.
- Peñasquitos Lagoon weeding and restoration.
- Beach cleanup and Reserve cleanup.

The City of Los Angeles could initially implement a Runyon Canyon Trail Ambassador (RCTA) Volunteer Program on Thursday or Friday through Sunday to address the peak visitation days. However, the City could consider expanding the RCTA program if the impact and feedback is positive.

Upon establishing the RCTA Volunteer Program, the City should also consider adopting an official "Code of Conduct" for Runyon Canyon Park that could be posted online and on signage within the park. The code could facilitate interactions between the Ambassadors and Park patrons.

[5] https://torreypine.org/volunteering/

The City could consider soliciting community input and feedback regarding the proposed Code of Conduct to ensure that the rules address the priorities and needs of the surrounding community. Regardless, the Code of Conduct should focus on safety and respect as an overall theme.

Implementation Checklist

Short-Term:	
	Develop a Code of Conduct for the Park
	Create a Trail Ambassador volunteer program
	Develop training and compile supplies for volunteers
Mid-Term:	
	Accept applications for volunteers and begin training process
	Equip Trail Ambassadors with necessary equipment and supplies
	Create Trail Ambassador volunteer schedule
Long-Term:	
	Ongoing management and oversight of Trail Ambassador volunteer program

Strategy #14: Install Public Restrooms Within the Park

Priority:	Medium
Cost:	$$$$
Benefits:	Safety, sanitation, and public health; access for Park Rangers and staff; Park user experience
Considerations:	Location; design; ongoing upkeep; potential vagrancy issues

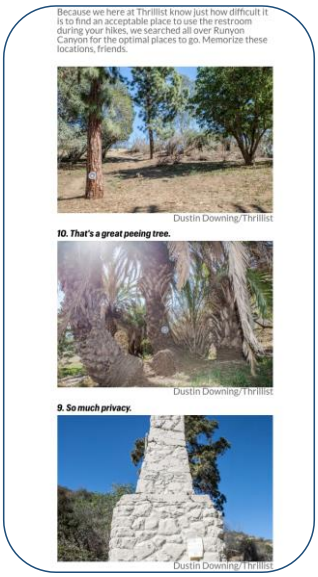
Overview

Runyon Canyon Park does not currently have public restroom facilities, and while this information is available online, some first-time visitors and tourists may find themselves unprepared for a day trip or hike in the Park without access to nearby facilities. Additionally, this means that City and Park staff do not have access to restrooms if they were to be stationed or staffed on site at the Park. If the City were to consider expanding enforcement, introducing a Park Ranger station, or developing a volunteer Park Ambassador program, restroom facilities would be an important consideration for suitable working conditions.

Figure 18. Thrillist Article Excerpt

Some stakeholders are concerned about the potential negative impacts of public restrooms on the Park. Concerns include consideration for drug use, vagrancy, maintenance and upkeep, and an increase in Park visitation. While these are valid concerns, they can be mitigated with proper management. Ultimately, the City should not ignore the public health and sanitation issues that are apparent without restrooms. There have been instances of public urination and defecation within the Park and even outside or on nearby private properties.

Figure 19. Thrillist Article Photos



During the initial stakeholder meeting, it was suggested that this report incorporate measurable findings from any existing studies regarding the impact of public restrooms on public spaces or park visitation rates. Relevant data could not be located, and it is challenging to measure and track the exact impacts of public restrooms on park visitation.

In 2015, an article was released on Thrillist titled "The 10 Best Places to Pee Around Runyon Canyon, Ranked." The article pokes fun at the absence of public restrooms,

instead listing trees and structures around the Park as places to pee. This article, while meant to be humorous, highlights the gravity of the situation.

Question 7 on the Park User Intercept Survey asked if participants think Runyon Canyon should have public restrooms. On average, 69% of those surveyed were in favor of installing public restrooms within the Park. In June, 69% of the nearby residents that were surveyed were in support of public restrooms, and in October 50% were in favor (Table 10).

Table 10. Intercept Survey Question: Public Restrooms

Public Restrooms?	June		October	
	Thursday and Saturday Combined		Thursday and Saturday Combined	
	Total	Nearby Residents	Total	Nearby Residents
Yes	75%	69%	65%	50%
No	25%	31%	37%	50%

The City should consider constructing a public restroom facility in conjunction with the proposed Park Ranger station (Strategy #12) and visitor exhibit area (Strategy #18). A location next to the Ranger station could help minimize vagrancy impacts, and a location near the entrance would be accessible for both Park users and staff.

As an interim solution, the City could consider employing the use of porta-potties at Park entrances to accommodate urgent/emergency restroom use. However, the City should consider an eco-friendly design for a permanent structure. To reduce the impact, the restroom facilities could be designed to use solar power and LED lights. Sustainable restrooms would allow the City to conserve water and energy. Ideally, the system should be low flow, and use a limit amount of water per flush.

With any restrooms, the City must commit to ongoing maintenance and upkeep. The City should also make sure to secure the restroom facilities at night when the Parks are closed. A staffing and maintenance plan should be finalized prior to the installation of restrooms, and sufficient budget should be allocated to the long-term upkeep. If properly maintained, the public restrooms will help address the public sanitation and health concerns in and around the Park.

Implementation Checklist

Short-Term:	
	Identify location(s) that can accommodate the utilities and sewage requirements
	Begin the facility design process
Mid-Term:	
	Finalize restroom facility designs
	Identify necessary resources for cleaning and maintaining the restroom facilities
	Construct the restroom facilities
Long-Term:	

	Ongoing upkeep of the restroom facilities

Strategy #15: Improve Trail Steps

Priority:	Medium
Cost:	$$
Benefits:	Safety; real-time occupancy information
Considerations:	Equipment; installation location; occupancy signage placement

Overview

It was observed that at least two sets of stairs in the Park were in disrepair. Several stakeholders expressed similar assessments. In Round One of the intercept survey, 5% of respondents specifically requested trail improvements. In Round Two, 15% sought improved Park maintenance which could include trail improvements. The western staircase was reported to be especially dangerous by one stakeholder. As shown in Figures 20 and 21, the stairs on the Inspiration Point Trail on the southeast side of the Park are narrow, eroded, and congested.

Figure 20. Erosion on Inspiration Point Trail Stairs

It is recommended that the City investigate improving trail maintenance throughout the park, but especially at the two identified staircases. The City should also consider installing railings and clear path markings to ensure that patrons stay on the trail. These trail improvements could decrease pedestrian congestion and improve hiker safety.

Figure 21. Inspiration Point Trail Stairs

Implementation Checklist

Short-Term:	
	Identify stair and trail locations in need of repair
	Budget for and schedule repairs
Mid-Term:	
	Begin construction to repair identified locations
	Ongoing maintenance and upkeep of trails
Long-Term:	
	Ongoing maintenance and upkeep of trails

Strategy #16: Increase Citation Amounts in High-Impact Tourist Locations

Priority:	Low
Cost:	$
Benefits:	Increase compliance; improved safety
Considerations:	Enforcement; signage; outreach

Overview

By increasing citation fine amounts, the City may be able to achieve higher compliance rates with parking, driving, and smoking regulations. Instead of raising fine amounts for the whole City, there may be an opportunity to update the ordinances to apply a higher amount only to certain high-impact locations, like moving violations in freeway construction zones. This should be considered based on the level of safety impacts that may result. Additionally, because certain areas are impacted more heavily by tourism, the citation revenue differential could be allocated to fund additional enforcement resources. Even if the risk of being caught is low, some drivers and pedestrians may be less likely to take risks if the fine is higher, especially if the fine amount is included on posted signage as a deterrent. The City should consider raising the citation amount of violations such as red curb violations, no u-turning, and no smoking regulations.

Implementation Checklist

Short-Term:	
	Work with the City Attorney to determine viability of a high-impact zone designation
	Determine appropriate fine amounts that will encourage higher compliance rates
	Identify and establish high-impact zones based on factors like tourism and public safety
Mid-Term:	
	To encourage compliance, posted signage should indicate fine amounts
Long-Term:	
	Ongoing monitoring and enforcement

Strategy #17: Improve Cellular Communications within the Park

Priority:	Medium
Cost:	$$$
Benefits:	Park user safety; Park Ranger connectivity
Considerations:	Cost; infrastructure; visual blight

Overview

Cellular communication is an ongoing challenge for Park users and staff. Improving cell coverage throughout the Park would improve safety by providing Park users and staff with the ability to call for help or navigate the Park from a wireless device. Many wireless service providers offer network area coverage through installation of wireless telecommunications facility towers in national areas located in California including, Cabrillo National Monument, Lassen Volcanic National Park, and Santa Monica Mountains National Recreation Area.

The City of Glendale, CA currently has eight cell-tower sites at local parks including AT&T equipment at the Glendale Sports Complex, and a T-Mobile tower at Scholl Canyon Ballfield, to improve wireless communications. Figure 22 presents what a typical cell tower could look like when blended into the natural environment.

Figure 22. Monopole Cell-tower at Glendale, CA Sports

The City should work with network providers to determine the feasibility of expanding cellular service coverage to Runyon Canyon.

Another option the City may consider is to install call boxes on poles or "towers" along Runyon Canyon hiking trails. Call boxes are typically battery-powered, solar-charged cellular phones, equipped with full two-way communication by voice and by typewritten message to assist with speech and hearing-impaired persons. The call boxes connect you to a private call center that is available 24-hours per day. Call boxes are typically found on college campuses (Figure 23) and along major roadways (Figure 24) More than 4,000 call boxes have been installed along major roadways in Los Angeles County,

Figure 23. University of South Florida Call Box

Figure 24. California Highway Call Box

and are funded by through a $1.00 annual fee assessed on vehicle registrations within the county. A feasibility study could be considered to assess the impact of this strategy and its associated costs.

The City would need to consider the potential visual blight if cellular towers or call boxes were to be installed. Also, improving cellular communications within the Park may encourage Park users to use their cellular devices more often, reducing the wilderness experience that comes from being in nature. However, these tradeoffs should be assessed with the understanding that improved cellular communications within the Park will improve the overall safety.

Implementation Checklist

Short-Term:	
	Assess the feasibility of expanding cellular communications throughout the park
Mid-Term:	
	Implement cell towers, small cells, or call boxes based upon the feasibility study results
Long-Term:	
	Ongoing monitoring and upkeep of equipment

Goal #3. Actively Manage and Provide Optimized Park User Opportunities

Strategy #18: Encourage Respect for the Environment and Wilderness

Priority:	High
Cost:	$$$$
Benefits:	Environmental respect; education and awareness
Considerations:	History; native plants; landscaping; construction; exhibits; design

Overview

As the 1986 Master Plan describes, Runyon Canyon Park is a unique juxtaposition of wildlife, existing in the middle of densely-populated Hollywood. The appreciation for wilderness is apparent amongst stakeholders whom appreciate the Park land as an opportunity to enjoy the outdoors within the City. Before being designated for park land, the local community fought against potential development projects in order to preserve the outdoor space. Today, the Park is still home to a variety of native plants and animals. While many of the recommendations in this CSR are meant to improve the Park user experience, environmental sustainability should be highly prioritized and considered as an overarching consideration for any strategy to ensure the long-lasting sustainability of the natural landscape.

One way of encouraging environmental respect and appreciation is through education. By increasing respect for the environment, Park users may be less likely to walk off the marked paths, litter, leave behind dog feces, and partake in other activities that may harm native plants and animals. The 1986 Master Plan includes a number of creative strategies that could be considered or adapted. One idea is in relation in the proposed Park Ranger Station near the Fuller Avenue entrance. The Master Plan suggests building a "reception and exhibit room" inside the station "where the natural and cultural history of the site would be on display." The Master Plan also proposes an outdoor classroom in the nearby terraced hillside, which could be used for "either Rangers or teachers to orient the group or class before going on a walk."

The City should evaluate the opportunity to construct an educational exhibit space along with the proposed Ranger Station. This could be in the form of an indoor exhibit, or the City could develop an open-air exhibit or structure that tastefully blends into the natural landscape. The Washington Park Arboretum in Seattle, WA has great examples of educational signage and structures throughout the park. Figure 25 includes a compilation of images from a structure within the Arboretum. Decorative placards within the structure describe topics including local culture, sustainability, climate, and geography.

A similar approach could be incorporated into Runyon Canyon. As the Master Plan describes, "Runyon Canyon should introduce people to the ecology, wild-life, fire danger and history of the Santa Monica Mountains". There is substantial history and information to share about the local chaparral landscape, the Chumash Indians, wildlife, and the estate.

Figure 25. Washington Park Arboretum Educational Structure

The City could also consider labeling native plants in areas near the Park entrances and along the trails. Small individual signs could be posted at the base of plants with their common and scientific names. This is a low-cost option that would not only serve an educational purpose, but they could also help remind Park users to consider the environment. Figures 26 and 27 are examples of similar signage found in the Washington Park Arboretum.

Figure 26. Educational Sign at the Washington Park Arboretum

Figure 27. Plant Label at the Washington Park Arboretum

Implementation Checklist

Short-Term:	
	Design educational and exhibit materials and content
Mid-Term:	
	Post small placards identifying native plants, or with information about the Park history
Long-Term:	
	If an exhibit is constructed in conjunction with the Ranger station, design and construct educational information about ecology, history, climate, and sustainability

Strategy #19: Install Additional Garbage Cans and Dog Waste Disposal Stations

Priority:	Low
Cost:	$
Benefits:	Sanitation; cleanliness
Considerations:	Maintenance; trash pick-up; placement

Overview

Several stakeholders expressed a desire to see more garbage cans in the Park. During the intercept surveys, 3% of respondents in Round One of data collection and 4% in Round Two asked for additional garbage cans. The addition of garbage cans would provide patrons with additional locations to dispose of their trash and pet waste. By giving patrons more opportunities to properly dispose of their waste, there may be less litter in the Park. The cans could also provide a space for messaging. For example, the City could post messaging encouraging patrons to follow the Code of Conduct or reminding them to pick up after their pets.

Figure 28. Existing Garbage Can

In Round One of the intercept survey, 4% of respondents asked for less dog poop in the park. Many stakeholders reported problems with un-bagged, abandoned dog waste. Either as an alternative to installing sewer-connected pet relief areas (should they prove infeasible) or in addition to that recommendation, the City could add additional pet waste stations. Typically, these stations are stocked with small, plastic pet waste plastic bags and a garbage can. By providing Park patrons with more opportunities to properly dispose of their pet waste, there may less of it left behind in the Park.

Implementation Checklist

Short-Term:	
	Purchase and install additional trash cans throughout the Park
	Consider posting messaging on the side of cans such as the Code of Conduct
Mid-Term:	
	Ongoing trash pick-up services
	Consider installing additional pet waste stations
Long-Term:	
	Ongoing trash pick-up services

Strategy #20: Install Dedicated Pet Relief Areas

Priority:	Low
Cost:	$$$
Benefits:	Reduces impact of pet waste
Considerations:	Feasibility of construction; upkeep; promotion to dog owners

Overview

With its status as an off-leash dog park, the Park is very popular with dog owners. All those pets generate a lot of waste. Several stakeholders expressed concern about the volume of pet waste present in the park. It was observed that un-bagged, abandoned dog waste was present in the park. While dog feces are certainly a challenge, several stakeholders also expressed a concern about the sheer volume of pet urine. While it is challenging to understand the Park's exact ability to naturally absorb the pet waste, the negative impact to nearby stakeholders should be recognized.

Figure 29. Un-bagged, abandoned, Dog

Dedicated pet relief areas are a common sight in airports and in other indoor locations. Nearby Hollywood-Burbank airport has one in Terminal A, and Los Angeles International Airport (LAX) has eight in various terminals. The City could assess the feasibility of installing dedicated pet relief areas that connect to the sewer throughout the park. This is an untested solution within a park or wilderness setting. However, the City has an opportunity to pioneer a solution to this vexing problem.

Of course, not all pet owners will direct pets to use the pet relief areas. However, even diverting some portion pet waste into the sewer system would be a benefit to nearby residents and the environment.

Implementation Checklist

Short-Term:	
	Evaluate the feasibility of installing pet relief areas within the park
Mid-Term:	
	Consider construction cost and impact of construction on environment
	Identify specific locations that would best encourage their use
Long-Term:	
	Construct dedicated pet relief areas
	Ongoing maintenance and upkeep

Strategy #21: Install Additional Benches

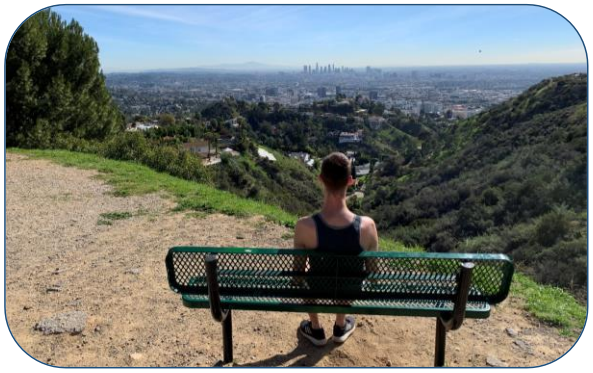
Priority:	Low
Cost:	$
Benefits:	Improves Park user experience
Considerations:	Cost; placement; upkeep

Overview

It was observed and reported by stakeholders that the existing benches in the Park are heavily used. Hiking the trails in the Park can be strenuous even for the fittest of Park patrons. The availably of a bench to take rest is important for all Park users. The Park also offers some of the best views of the Los Angeles skyline. Visitors and locals alike ought to have the ability to take it all in. The City should consider installing additional benches especially near the view/vista points, central locations, and any public restrooms (see Strategy #14).

Figure 30. Bench Drawing in 1986 Master Plan

Figure 31. A Park User Enjoying the View from a Bench



Implementation Checklist

Short-Term:	
	Evaluate potential locations for additional benches throughout the Park
	Budget for new benches
Mid-Term:	
	Order and install new benches
	Ongoing maintenance and upkeep of benches
Long-Term:	
	Ongoing maintenance and upkeep of benches

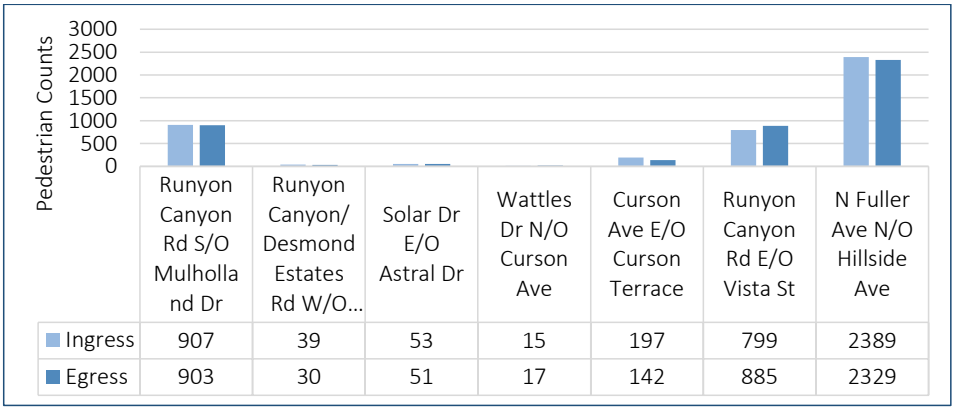
Strategy #22: Develop a Formalized Strategy for Collecting Visitation Data

Priority:	High
Cost:	$$
Benefits:	Ongoing data analysis; management of peak periods; predictive analytics
Considerations:	Analyst resources; cost; infrastructure or technology

Overview

During Round Two of data collection in October 2018, pedestrian ingress and egress counts were conducted at the various Park entrances. Average counts for the weekday and weekend day for each entrance are provided below in Figure 32. Based upon the ingress values, an average total of 4,399 Park users were observed entering into the Park per day.

Figure 32. Round Two Weekday and Weekend Day Average Daily Pedestrian Counts



	Runyon Canyon Rd S/O Mulholland Dr	Runyon Canyon/ Desmond Estates Rd W/O…	Solar Dr E/O Astral Dr	Wattles Dr N/O Curson Ave	Curson Ave E/O Curson Terrace	Runyon Canyon Rd E/O Vista St	N Fuller Ave N/O Hillside Ave
Ingress	907	39	53	15	197	799	2389
Egress	903	30	51	17	142	885	2329

Some stakeholders are concerned about the amount of Park users each day, but a safe total capacity is unknown. There are a number of factors that impact the potential total capacity of the park, including visitor and environmental safety. While this number is challenging to quantify, the City should consider efforts to encourage visitation during non-peak periods to disperse the demand more evenly throughout the day, week, or year. This may help minimize the overall impact during peak periods.

In order to gain a better understanding of visitation patterns, the City should consider developing a formalized ongoing data collection strategy. This would allow the City to do trend analyses over time to predict peak visitation periods to allocate additional Park Ranger, Parking Enforcement, and volunteer staff as necessary to manage the impact.

There are a number of data collection methodologies that could be considered. Likely the most cost-effective approach would be to hire a data collection firm to manually count (either in-person or through camera footage) a sampling of data at the Park entrances. Data could be collected on an annual or bi-annual schedule at certain points throughout the day to understand visitation trends and patterns over time.

There are also other automated data collection technologies that could be considered, however this would require the installation of equipment at the Park entrances. Equipment could include turnstiles at the entrances that automatically count Park user ingress and egress. Or, there may be other sensor-based technology to consider. The City should evaluate potential data collection tools and technology. The benefit of installing technology for data collection is that the City would have access to daily data findings.

Implementation Checklist

Short-Term:	
	Evaluate potential data collection methodologies
Mid-Term:	
	Hire a data collection firm or purchase and install data collection technology
	Ongoing data collection and trend analysis
Long-Term:	
	Ongoing data collection and trend analysis

Strategy #23: Support a Dedicated Runyon Canyon Park Website

Priority:	Medium
Cost:	$
Benefits:	Education and outreach; trip planning
Considerations:	Content creation; promotion of information

Overview

For information on how to access Runyon Canyon, visitors solicit a variety of websites, which have a mix of information. Sometimes this information is inaccurate or it can direct visitors through residential streets, further intensifying the safety and congestion issues that the City is aiming to combat. When visitors search for how to visit Runyon Canyon, the top result on the common search engines should ideally be a website that provides accurate, up to date, and reliable information. This could be a City-managed website, or an existing website, which could be improved and promoted. The City should work with travel sites to provide a link to the website.

Implementation Checklist

Short-Term:	
	Evaluate existing websites and information about Runyon Canyon Park
	Determine the appropriate City department or external group to manage a website
	Work with stakeholders to determine priorities and develop website content
Mid-Term:	
	Ongoing development and promotion of content
	Consider posting a Code of Conduct
Long-Term:	
	Content should continually be reviewed and refreshed to ensure that information is up-to-date and consistent with the City's safety and mobility goals.

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Goal #4. Reduce the Impact of Park Visitation on Surrounding Residential Areas

Strategy #24: Install a Barrier Between the Upper Lot and Residential Homes

Priority:	Medium
Cost:	$$
Benefits:	Noise reduction; reduced visual impact of parking
Considerations:	Installation; plants; upkeep

Overview

Several nearby stakeholders expressed frustration about the noise impact from the Upper Lot. The 1986 Master Plan anticipated the potential impact on residents if this lot were to be used for parking. The Master Plan described that "a ten foot vegetation strip should be planted along Desmond Estates Road" to provide a "visual buffer that will mature to eye level." As shown in Figure 33, the northern edge of the lot does have three tall trees and some rocks separating the lot from the nearby residential street. However, by creating a more substantial sound wall, fence, or hedge to separate the lot from the residential street, the noise and visual impacts to the nearby residents may be further reduced.

Figure 33. The Upper Lot

Implementation Checklist

Short-Term:	
	Evaluate the opportunity for constructing a sound wall or planting a hedge
Mid-Term:	
	Begin construction and/or planting
Long-Term:	
	Ongoing upkeep and maintenance

Strategy #25: Add Holiday Parking Restriction Provision to Posted Signage

Priority:	High
Cost:	$
Benefits:	Improved compliance; reduces impact on surrounding residents
Considerations:	Enforcement; signage design

Overview

Several stakeholders described the extraordinary parking impacts on major holidays in the Preferential Parking Districts (PPDs). Park patrons take advantage of the insufficient signage and have carved out a holiday loophole to park on streets where they would otherwise be prohibited. Without specifically prohibiting parking in the PPD zones on holidays, parking enforcement officers cannot cite the parked vehicles.

While updating the signage is an important first step, the City would need to couple the improved signs with clear communication of the restrictions to Park patrons and add parking enforcement on holidays.

Implementation Checklist

Short-Term:	
	Inventory signage and order necessary decals or signage replacements
	Install updated signage and/or decals to indicate holiday restrictions
	Allocate parking enforcement resources during holidays to encourage compliance
Mid-Term:	
	Ongoing enforcement of holiday restrictions
Long-Term:	
	Ongoing enforcement of holiday restrictions

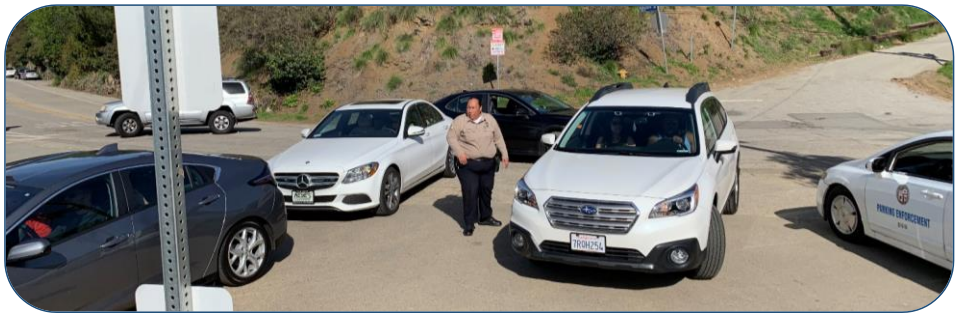
Strategy #26: Increase Parking Enforcement in Impacted Areas

Priority:	Medium
Cost:	$
Benefits:	Improved compliance; turnover; supports paid parking if implemented
Considerations:	Staffing and hiring; training; equipment; hours of operation; routes

Overview

On our Saturday, January 26, 2019 visit, DIXON observed a parking enforcement officer directing traffic at the upper lot. When the upper lot reached capacity, the officer directed cars that approached the lot to move along and try parking on the southside of the park.

Figure 34. Parking Enforcement Officer Directing Traffic at the Upper Lot



There are a number of PPDs surrounding the park, which are restricted to residential parking only. During data collection, the streets with PPDs had very low occupancy. The average occupancy of the PPD spaces around Runyon Canyon never reached above 9% during either round of data collection at any time of the day. This finding indicates the effectiveness of the PPD restrictions, and it is likely that ongoing enforcement has supported these locations.

With the potential implementation of paid parking (see Strategy #8), the City should evaluate whether additional enforcement resources are necessary to support the new paid parking locations. The City should not implement paid parking without the necessary enforcement resources to ensure compliance.

Based on data collected in June and October 2018, parking occupancy rates at public parking locations around the Park experience only a minor increase over the weekend in comparison to the weekdays. Based upon data and stakeholder feedback from the nearby residents, it is understood parking demand is high around the Park on most days, and even higher during holidays. With this level of demand, the City should ensure that sufficient parking enforcement resources are allocated.

The City could consider increasing parking enforcement staff resources or assigning existing staff directly to impacted areas around Runyon Canyon during peak times. Part-time staff could be utilized primarily during weekends and holidays to provide additional resources. An added benefit of additional enforcement coverage is additional eyes and ears on the street that can identify instances of excessive noise, safety concerns, and other impacts on surrounding residencies.

Implementation Checklist

Short-Term:	
	Evaluate existing enforcement routes and schedule to determine potential adjustments
	Consider additional resources as necessary to support paid parking implementation
Mid-Term:	
	Evaluate citation data to analyze ongoing trends
	Ensure sufficient enforcement during peak demand periods
Long-Term:	
	Ongoing evaluate of data and resources to determine necessary adjustments

Conclusion

The four goals and twenty-six strategies presented in this CSR are intended to improve access, mobility, and safety in and around Runyon Canyon Park. The outlined strategies were developed based upon a series of site visits, extensive stakeholder feedback, data analysis results, and industry best practices.

The feasibility and prioritization of the strategies will ultimately be dependent on the City's ongoing review, public feedback, environmental impacts, engineering viability, and estimated costs.

In the coming weeks and months, Councilmember Ryu and DIXON will be meeting with City officials and departments to discuss the viability of the various strategies presented in the CSR, as well as next steps. In addition, the City will continue to seek input and feedback from the community.