Appendix K
Transportation Assessment

From: Wes Pringle <wes.pringle@lacity.org>
Sent: Tuesday, December 7, 2021 4:43 PM
To: Nuri Cho <nuri.cho@lacity.org>
Cc: John Muggridge <J.Muggridge@fehrandpeers.com>
Subject: Re: Revised Project Analysis - 1111 S. Hill St Mixed-Use

Hi Nuri,

The letter is attached.

Wes

On Tue, Dec 7, 2021 at 4:32 PM Nuri Cho <nuri.cho@lacity.org> wrote:
Hi Wes,

Thank you for this email. Could you please send me the DOT's 12/29/2020 letter? Thank you.

On Tue, Dec 7, 2021 at 4:23 PM Wes Pringle <wes.pringle@lacity.org> wrote:
Hi Nuri,

On December 29, 2020 the Department of Transportation (DOT) issued an assessment for the mixed use project located at 1111 South Hill Street. The letter was in response to a study prepared by Fehr and Peers for the project that was dated August 2020. The original project consisted of 319 residential units, 160 hotel rooms, 7,071 square-feet space ancillary to the hotel and 3,381 square-feet of restaurant space. The hotel space has since been revised to be an "extended stay" hotel. Fehr and Peers has submitted an update to the study, dated July 7, 2021, to account for the change in description of the hotel use. The analysis indicates that the change in use from regular hotel to extended stay hotel will not change the Household VMT and will slightly reduce the Work VMT from the original project. Resulting in no significant VMT impacts.

DOT concurs with the analysis that the changes in the project description do not alter the conclusions of the original study. All of the conditions of DOT's December 29, 2020 letter shall remain in effect.

--

Wes Pringle, P.E.
Transportation EngineerMetro Development Review100 S. Main St, 9th FloorLos Angeles, CA 90012

Los Angeles Department of Transportation

213.972.8482

--

LOS ANGELES CITY PLANNING

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E-NEWS

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

1111 South Hill Street
DOT Case No. CEN20-47816

Date: December 29, 2020

To: Milena Zasadzien, Senior City Planner
Department of City Planning

From: Wes Pringle, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION ANALYSIS FOR THE PROPOSED MIXED-USE PROJECT LOCATED AT 1111 SOUTH HILL STREET (ENV-2019-4121-ND/CPC-2018-6005-CA)**

The Department of Transportation (DOT) has reviewed the transportation impact study, dated August 2020, prepared by Fehr & Peers for the proposed mixed-use development, located at 1111 South Hill Street. In compliance with Senate Bill 743 and the California Environmental Quality Act (CEQA), a vehicle miles traveled (VMT) analysis is required to identify the project's ability to promote the reduction of green-house gas emissions, access to diverse land-uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in DOT's Transportation Assessment Guidelines (TAG), as described below.

DISCUSSION AND FINDINGS

A. Project Description

The proposed project primarily consists of residential and hotel uses, consisting of 319 residential units and 160 hotel rooms. There is an additional 7,071 square feet of ancillary hotel meeting rooms and 3,381 square feet of ground-floor restaurant space. The project will also provide 390 vehicle parking spaces, 236 bicycle parking spaces (53 short-term and 183 long-term). The vehicle and bicycle parking will be spread across 8 levels of parking (2 subterranean levels and 6 above-grade levels). The project will be replacing an existing vacant warehouse. The project site is generally bounded by 11th Street to the north, Hill Street to the west, existing commercial development to the south, and an existing surface parking lot to the east. The project is expected to be completed by year 2024.

B. CEQA Screening Threshold

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) Strategies, a trip generation analysis was conducted to determine if the project would exceed the net 250 daily vehicle trips screening threshold. Using the City of Los Angeles VMT Calculator tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers' (ITE's) Trip Generation, 9th Edition manual as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the project's surroundings, it was determined that the project **does** exceed the net 250 daily vehicle trips threshold. A copy of the VMT calculator screening page, with the corresponding net daily trips estimate, is provided in **Attachment A** to this report.

Additionally, the analysis included further discussion of the transportation impact thresholds:

T-1 Conflicting with plans, programs, ordinances, or policies
T-2.1 Causing substantial vehicle miles traveled
T-3 Substantially increasing hazards due to a geometric design feature or incompatible use.

A Project's impacts per Thresholds T-2.1 is determined by using the VMT calculator and is discussed above. The assessment determined that the project would **not** have a significant transportation impact under any of the above thresholds. A copy of the VMT Calculator summary reports is provided in **Attachment A** to this report.

C. Transportation Impacts

On July 30, 2019, pursuant to SB 743 and the recent changes to Section 15064.3 of the State's CEQA Guidelines, the City of Los Angeles adopted VMT as a criteria in determining transportation impacts under CEQA. The new DOT TAG provide instructions on preparing transportation assessments for land use proposals and defines the significant impact thresholds.

The DOT VMT Calculator tool measures project impact in terms of Household VMT per Capita and Work VMT per Employee. DOT identified distinct thresholds for significant VMT impacts for each of the seven Area Planning Commission (APC) areas in the City. For the Central Los Angeles APC, in which the project is located, the following thresholds have been established:

- Household VMT per Capita: 6.0
- Work VMT per Employee: 7.6

The project included Bike Parking per LAMC as a TDM strategy input for the proposed project, which is reflected in the results of the VMT Calculator Report in **Attachment A**.

As cited in the transportation assessment report, the proposed project is projected to have a Household VMT per capita of 3.7 and a Work VMT per capita of 7.3. The project restaurant space of 3,381 square feet is considered local serving since it is less than 50,000 square feet. Therefore, it is concluded that implementation of the Project would have a less than significant Household and Work VMT impact.

D. Safety, Access and Circulation

During the preparation of the new CEQA guidelines, the State's Office of Planning and Research stressed that lead agencies can continue to apply traditional operational analysis requirements to inform land use decisions provided that such analyses were outside of the CEQA process. The authority for requiring non-CEQA transportation analysis and requiring improvements to address potential circulation deficiencies, lies in the City of Los Angeles' Site Plan Review authority as established in Section 16.05 of the Los Angeles Municipal Code (LAMC), Section 16.05. Therefore, DOT continues to require and review a project's site access, circulation, and operational plan to determine if any safety and access enhancements, transit amenities, intersection improvements, traffic signal upgrades, neighborhood traffic calming, or other

improvements are needed. In accordance with this authority, the project has completed a circulation analysis using a summary of vehicle delays, including the future delay levels with and without the project. DOT has reviewed this analysis and determined that it adequately discloses operational concerns. A copy of the circulation analysis table that summarizes these potential deficiencies is provided as **Attachment B** to this report.

PROJECT REQUIREMENTS

A. Highway Dedication and Street Widening Requirements

Per the Mobility Element 2035 of the General Plan, **Hill Street** has been designated as a Modified Avenue II which would require a 28-foot half-width roadway within a 46-foot half-width right-of-way. **11th Street** has been designated a Modified Collector which would require a 20-foot half-width roadway within a 32-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

B. Parking Requirements

The project would provide 390 vehicle parking spaces, 236 bicycle parking spaces (53 short-term and 183 long-term). The vehicle and bicycle parking will be located on 8 levels of parking (2 subterranean levels and 6 above-grade levels). The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

C. Project Access and Circulation

The conceptual site plan (see **Attachment C**) is acceptable to DOT. Vehicular access to the site will be provided via one driveway located on South Hill Street and one driveway located on the adjacent alley to the project site. Pedestrian access to the hotel portion of the site will be located on 11th Street, pedestrian access to the residential portion of the site will be located on Hill Street, and pedestrian access to the restaurant spaces will be located on both Hill Street and 11th Street. However, the review of this study does not constitute approval of the dimensions for any new proposed driveway. This requires separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Room 550, at 213-482-7024). In order to minimize and prevent last minute building design changes, the applicant should contact DOT for driveway width and internal circulation requirements prior to the commencement of building or parking layout design.

D. TDM Ordinance Requirements

The TDM Ordinance (LAMC 12.26 J) is currently being updated. The updated ordinance, which is currently progressing through the City's approval process, will:

- Expand the reach and application of TDM strategies to more land uses and neighborhoods,
- Rely on a broader range of strategies that can be updated to keep pace with technology, and
- Provide flexibility for developments and communities to choose strategies that work best for their neighborhood context.

Although not yet adopted, DOT recommends that the applicant be subject to the terms of the proposed TDM Ordinance update expected in 2020. The updated ordinance is expected to be completed prior to the anticipated construction of this project, if approved.

E. Worksite Traffic Control Plan

DOT recommends that a construction worksite traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section or Permit Plan Review Section for review and approval prior to the start of any construction work. Refer to http://ladot.lacity.org/what-we-do/plan-review to determine which section to coordinate review of the work site traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related truck traffic be restricted to off-peak hours.

E. Development Review Fees

Section 19.15 of the Los Angeles Municipal Code identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Pete Eyre of my staff at (213) 972-4913.

Attachments

L:\letters\2020\CEN20-47816_1111 S Hill mu_vmt ltr

c: Planning Director for Councilmember Kevin de Leon, Council District 14
Edward Yu, Central District, DOT
Taimour Tanavoli, Case Management, DOT
Matthew Masuda, Central District, BOE
John Muggridge, Fehr & Peers

FEHR PEERS

Memorandum

Date: July 7, 2021

To: Patrick Caruso, Jessie Barkley & David Waite

From: John Muggridge and Johnny Schmidt

Subject: 1111 S Hill Street Revised Project Analysis

LA20-2951.04

This memorandum documents the effects of the revisions made to the project description on the results of the transportation study, *1111 S Hill Street Transportation Assessment*, conducted by Fehr & Peers to evaluate the potential transportation impacts of the proposed project located at 1111 South Hill Street in the City of Los Angeles (Project).

Revised Project Description

The original Project description consisted of 319 residential units, 160 hotel rooms, 7,071 square feet (SF) of ancillary hotel meeting rooms, and 3,381 SF of ground-floor restaurant space. The revised Project specifies that the 160 hotel rooms will be extended stay hotel rooms. This memorandum discusses the potential impact of the hotel rooms being converted to extended-stay.

VMT Analysis

The City's VMT calculator does not have a vehicle trip rate for an extended stay hotel land use. Given this, one way to estimate the effect of extended stay hotel rooms was to add 160 multi-family housing units to the VMT calculator, to account for the more residential-type trip behavior that may be expected from guests of an extended-stay hotel. The results of this test are shown in **Table 1**, with a screenshot of the VMT calculator output shown in **Attachment A**. Based on this test, we found that adding residential units to the VMT calculator will not affect the Household VMT per capita metric, since increasing the number of people staying at the Project would increase the VMT proportionally and results in the same per capita outcome.

Additionally, the extra 160 "household units" results in a decrease of Work VMT per Employee from 7.3 to 7.1, potentially because it is assumed that some of the residents of the additional 160 "units" may work at the hotel and restaurant and result in fewer employee vehicle trips to the Project. Because these additional household units are intended to represent extended-stay hotel rooms,

and are unlikely to result in new residents who work on the property, the new Work VMT per Employee result would be an underestimate, so it was determined that original VMT per Employee results be more representative of the new project description.

Table 1: VMT Analysis Comparison

Scenario	Household VMT per Capita	Work VMT per Employee
Original Project Description[1]	3.7	7.3
Revised Project Description – 160 Residential units added	3.7	7.1

Conclusion

The revised Project description with the extended stay hotel would not result in a significant VMT impact. Therefore, changing the project description, would not result in a different conclusion to the original Transportation Assessment submitted to LADOT in August 2020.

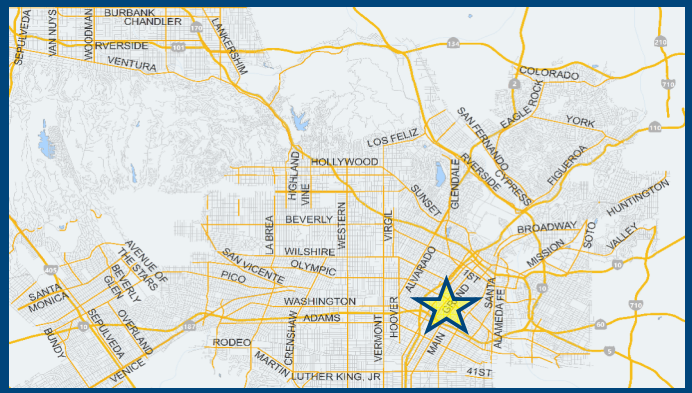
[1] *1111 S Hill Street Transportation Assessment*, August 2020

Attachment A - VMT Calculator Test with Additional Housing Units

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: 1111 S Hill Street
Scenario: Project
Address: 1111 S HILL ST, 90015



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	319	DU
Housing | Hotel	160	Rooms
Retail | High-Turnover Sit-Down Restaurant	3.381	ksf
Housing | Multi-Family	160	DU

TDM Strategies

Select each section to show individual strategies
Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No

A Parking

Reduce Parking Supply	100	city code parking provision for the project site
☐ Proposed Prj ☐ Mitigation	74	actual parking provision for the project site
Unbundle Parking	175	monthly parking cost (dollar) for the project site
☐ Proposed Prj ☐ Mitigation		
Parking Cash-Out	50	percent of employees eligible
☐ Proposed Prj ☐ Mitigation		
Price Workplace Parking	6.00	daily parking charge (dollar)
☐ Proposed Prj ☐ Mitigation	50	percent of employees subject to priced parking
Residential Area Parking Permits	200	cost (dollar) of annual permit
☐ Proposed Prj ☐ Mitigation		

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With
2,555 Daily Vehicle Trips	2,555 Daily Vehicle Trips
14,802 Daily VMT	14,802 Daily VMT
3.7 Household VMT per Capita	3.7 Household VMT
7.1 Work VMT per Employee	7.1 Work VMT per Employee

Significant VMT Impact?

Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	**Work: No** Threshold = 7.6 15% Below APC

Measuring the Miles

6/29/2021

1111 S Hill Street

Transportation Assessment

Draft

Prepared for:
ICF

August 2020

LA20-2951.04

FEHR PEERS

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1. Introduction

This report documents the assumptions, methodologies, and findings of a study conducted by Fehr & Peers to evaluate the potential transportation impacts of the proposed project located at 1111 South Hill Street, southwest of the Hill Street & 11th Street intersection in the South Park neighborhood of the City of Los Angeles (Project). The Project is within the Central City Community Plan area in City Council District 14, on Lots A and B of Tract 1394. This study was conducted as part of a Sustainable Communities Environmental Assessment (SCEA) being prepared for the proposed Project.

1.1 Project Description

The proposed Project is on Hill Street between 11th Street and 12th Street, with an alley directly west of the Project site. The adjacent land uses include a restaurant to the north, apartments to the east, a bank to the south, and a parking lot to the west. **Figure 1** illustrates the location of the proposed Project in relation to the surrounding street system. Regional access to the Project site is provided by the Interstate 10 (I-10) about 0.5 miles to the south, and Interstate 110 (I-110) about 0.6 miles to the west. The Project is also about 0.5 miles from the Metro Rail A Line (Blue) and E Line (Expo) Pico Station.

The existing land use on the Project site is a vacant warehouse, and the proposed Project primarily consists of residential and hotel uses. The Project would consist of 319 residential units, 160 hotel rooms, 7,071 square feet (SF) of ancillary hotel meeting rooms, and 3,381 SF of ground-floor restaurant space. Additionally, the project will provide 390 vehicle parking spaces, 53 short term bicycle parking spaces, and 183 long-term bicycle parking spaces. The vehicle and long-term bicycle parking would be spread across 2 subterranean parking levels and 6 above grade levels.

Vehicle access will be provided via a driveway on the alley to the west of the Project, which connects to 11th Street, and at a driveway along Hill Street. Pedestrian access will be primarily provided on the north and east faces, along 11th Street and Hill Street, respectively. A loading area will be provided on the west edge of the site adjacent to the alley, and a pick-up/drop-off area will be provided on the north edge of the site along 11th Street, replacing the existing metered parking spots. A site plan of the Project is presented in **Figure 2**.

1.2 Study Scope

The scope of work for this study was determined in consultation with the Los Angeles Department of Transportation (LADOT) and is in accordance with the City's CEQA transportation thresholds of significance and LADOT's *Transportation Assessment Guidelines* (TAG) adopted in July 2019[1]. The base assumptions and technical methodologies were agreed to in a memorandum of understanding (MOU) with LADOT dated

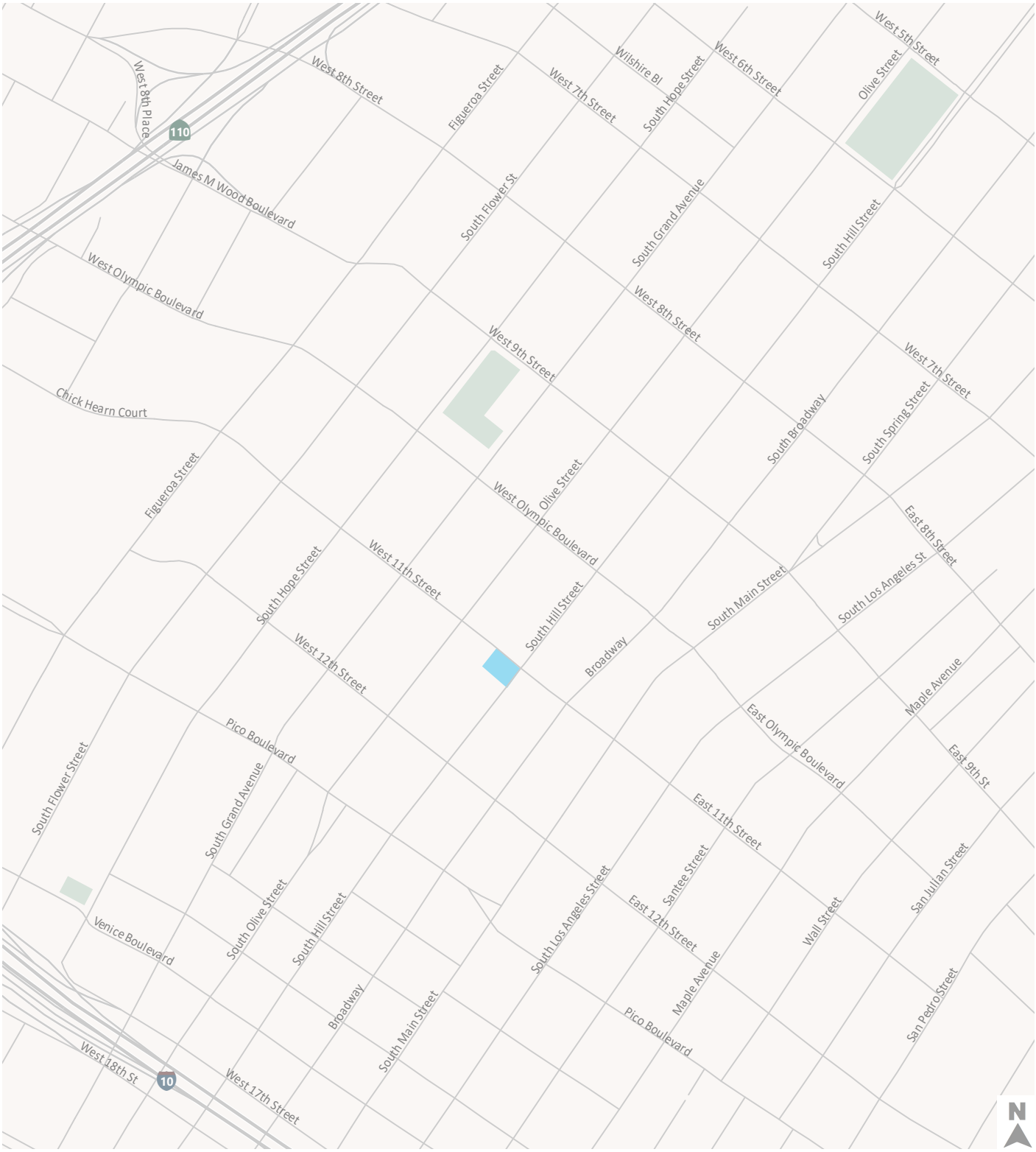
1 On July 30, 2019, the Los Angeles City Council adopted a resolution formally implementing the City's updated transportation thresholds of significance for CEQA analyses. The TAG is the document providing the guidance for conducting both CEQA and non-CEQA transportation analyses.

May 2020. The MOU is included as **Appendix A** to this document. Also included in Appendix A is correspondence with LADOT regarding this study's use of the July 2019 TAG that was active at the time of the MOU approval, as opposed to the most recent TAG released in July 2020.

The TAG establishes an updated set of guidelines, methods, and impact criteria for CEQA considerations that focus on vehicle miles traveled (VMT), geometric hazards, and policy conflicts. The TAG also established a framework for various non-CEQA analyses including a pedestrian, bicycle, and transit access assessment, a project access, safety, and circulation assessment, and project construction analysis. Each area of analysis is described in the TAG with a discussion of screening criteria, the methodology for analysis, impact criteria, and potential mitigation options. Based on the screening criteria set forth in the TAG, the following issue areas in **Table 1** are evaluated in this report (the screening analysis is available in **Appendix B**):

Table 1: TAG Screening Criteria Issue Areas

TAG Issue Area	***Analysis Required?***
CEQA Analyses:	
Conflicts with Plans, Programs, Ordinances, and Policies	Yes
Causing Substantial Additional Vehicle Miles Traveled	Yes
Substantially Inducing Additional Automobile Travel	No
Geometric Design Features	Yes
Non-CEQA Analyses:	
Pedestrian, Bicycle, and Transit Access	Yes
Project Access, Safety, and Circulation	Yes
Project Construction	Yes
Residential Street Cut-Through	No



Project Site

Figure 1

Project Location and Study Area
1111 S Hill Street

Figure 2

Site Plan: Residential Option
1111 S. Hill Street

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

1.3 Organization of Report

This report is divided into five chapters, including this introduction. Chapter 2 describes the existing transportation conditions, including an inventory of the streets, highways, bicycle & pedestrian networks, and transit service. The required CEQA analyses are summarized in Chapter 3, which includes a review of the City's plans, programs, ordinances, and polices; a VMT analysis; and a geometric design hazards evaluation. Chapter 4 includes the required non-CEQA transportation analyses and contains a pedestrian, bicycle, and transit access assessment, a Project, access, safety and circulation evaluation, and Project construction analysis. Chapter 5 contains the study summary and conclusions.

Appendices to this report include details of the technical analysis, as follows:

- Appendix A includes a copy of the Memorandum of Understanding approved by LADOT that describes study parameters and assumptions.
- Appendix B includes responses to the TAG Project screening criteria.
- Appendix C provides a detailed review of the Project's consistency with relevant plans, programs, ordinances, and policies, and a geometric hazards review.
- Appendix D contains the detailed information pertaining to the VMT analysis, including transportation demand strategies, trip estimates, and trip length information.
- Appendix E contains the volumes at the study intersections and Project driveways in the analyzed scenarios.
- Appendix F contains the Level of Service (LOS) worksheets documenting the calculation of LOS at the study intersections and Project driveways in the analyzed scenarios.
- Appendix G contains the vehicle counts sheets collected at the study intersections.

2. Environmental Setting

The study area selected for analysis generally extends east to Los Angeles Street, north to just south of 9th Street, west to Hope Street, and south to Pico Boulevard. The study area bounds, ¼ mile radius from the Project site, were selected for analysis based on guidance in the TAG. The streets in the study area are under the jurisdiction of the City of Los Angeles. The study area is a dense urban setting located near transit, and is considered infill development, as it proposes to build on a previously developed parcel currently occupied by a warehouse.

2.1 Existing Street System

Regional access to the Project is provided by Interstate 10 (I-10) about 0.5 miles to the south, and State Route 110 (SR-110) about 0.6 miles to the west. Local access to the Project is provided by several streets as described below. Per the City's Mobility Element, the designation of the streets bordering the Project's block are the following:

- 11th Street (between Olive & Hill) – Modified Collector
- Hill Street (between 11th & 12th) – Modified Avenue II
- 12th Street (between Olive & Hill) – Modified Collector
- Olive Street (between 11th & 12th) – Modified Avenue II

Additionally, there is an alley running through the block directly west of the Project that intersects with 11th Street and Olive Street. Other major streets serving the study area include Olympic Boulevard and Pico Boulevard in the east-west direction and Broadway, Grand Avenue, Hope Street, and Main Street in the north-south direction. The characteristics of analyzed streets serving the study area are listed below. The street descriptions include the designation of the roadway under the *Mobility Plan 2035* (Los Angeles Department of Planning, General Mobility Element) approved by the Los Angeles City Council in August 2015 and amended in September 2016. The roadways in the study area are defined as follows in the *Mobility Plan 2035*:

- Freeways – High-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Arterial Streets – Major streets that serve through traffic and provide access to major commercial activity centers. Arterials are divided into two categories:
    - Boulevards represent the widest streets that typically provide regional access to major destinations and include two categories:
        - Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph.
        - Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph.

  - Avenues pass through both residential and commercial areas and include three categories:
    - Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph.
    - Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph.
    - Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph.

- Collector Streets – Generally located in residential neighborhoods and provide access to and from arterial streets for local traffic and are not intended for cut-through traffic. Collector Streets provide one travel lane in each direction with a target operating speed of 25 mph.

- Local Streets – Intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. Local Streets provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Local Streets can be:

  - Continuous local streets that connect to other streets at both ends
  - Non-Continuous local streets that lead to a dead-end

In addition, the *Mobility Plan 2035* identifies corridors proposed to prioritize bicycle, pedestrian, transit, and vehicle infrastructure improvements. Each of the networks are defined as the following:

- The Neighborhood-Enhanced Network (NEN) is a selection of streets that provide comfortable and safe routes for localized travel of slower-moving modes such as walking, bicycling, or other slow speed motorized means of travel.

- The Transit-Enhanced Network (TEN) is the network of arterial streets prioritized to improve existing and future bus service for transit riders.

- The Bicycle-Enhanced Network (BEN) is a network of streets to receive treatments that prioritize bicyclists. Tier 1 Protected Bicycle Lanes are bicycle facilities that are separated from vehicular traffic. Tier 2 and Tier 3 Bicycle Lanes are facilities on roadways with striped separation. Tier 2 Bicycle Lanes are those more likely to be built by *2035*. Separate from the tiers are the classifications of facilities, as described below:

  - Per Caltrans, a Class I bike facility is a bike path, which has exclusive right of way for bicyclists and pedestrians away from the roadway with crossflows by motor traffic minimized. A Class II bike facility is a bike lane established along the street and is defined by pavement striping and signage to delineate a portion of the roadway dedicated for bicycle travel. The bike lane can also be buffered to provide a greater separation from adjacent traffic. A Class III bicycle facility is a bike route which designates a preferred route for bicyclists on streets shared with motor traffic and is not designated as a separate facility. A Class IV bike facility is a separated bikeway, often referred to as a protected bike lane that is physically separated from motor traffic with a vertical feature.

- The Vehicle-Enhanced Network (VEN) identifies streets that prioritize vehicular movement and offer safe, consistent travel speeds and reliable travel times.
- The Pedestrian-Enhanced Districts (PEDs) identify where pedestrian improvements on arterial streets could be prioritized to provide better walking connections to and from the major destinations within communities.

Listed below are the primary freeway and roadways that provide regional and local access to the study area.

Freeways

- **I-10** runs in an east/west direction and extends from the Pacific Ocean eastward through Los Angeles County and beyond. In the vicinity of the study area, the freeway provides four lanes in each direction plus auxiliary lanes. Off-ramps are provided at L.A. Live Way & Bond Street, Grand Avenue & 18th Street, Los Angeles Street & 17th Street, and Maple Avenue & 18th Street. On-ramps are provided at Flower Street & 18th Street, Grand Avenue & Hope Street, Los Angeles Street, and Maple Avenue.
- **I-110/SR-110** runs in a north/south direction and extends from Pasadena to San Pedro. South of the I-10 interchange, it is known as I-110 and north of the interchange it is known as SR-110. In the vicinity of the study area, the freeway provides five southbound lanes and four northbound lanes. Off-ramps are provided at L.A. Live & Bond Street, Blaine Street, James Wood Boulevard & Francisco Street, Garland Avenue & 8th Place, and 6th Street & Figueroa Street. On-ramps are provided at, Chick Hearn Court & L.A. Live Way, 11th Street & Blaine Street, James Wood Boulevard & Georgia Street, 8th Street & Bixel Street, 8th Street & Francisco Street, and 5th Street & Figueroa Street.

East-West Streets

- **West 9th Street** is designated an Avenue III between Olive Street and Main Street and Avenue II west of Olive Street and east of Main Street. 9th Street is just north of one quarter mile from the Project but is included in this list as it borders much of the study area. It runs one way in the eastbound direction north of the Project Site. West of Figueroa Street, 9th Street becomes James M. Wood Boulevard. 9th Street has three eastbound travel lanes with parking permitted on both sides of the street. Near the study area, 9th Street is part of the Pedestrian Enhanced District per the *Mobility Plan 2035*.
- **East Olympic Boulevard** runs north of the Project Site with two travel lanes in each direction. Olympic Boulevard is designated as a Boulevard II east of Broadway and between Hope Street and Figueroa Street. Between Broadway and Hope Street, Olympic Boulevard is designated as an Avenue I. Parking is permitted on the south side of the street in non-peak periods. Left-turn pockets are present at major intersections. In the study area, Olympic Boulevard is a part of the Pedestrian Enhanced District per the *Mobility Plan 2035*.

- **West 11th Street** runs north of the Project Site with one westbound travel lane, left turn pockets, and a buffered bicycle lane. It is a recently reconfigured street as a part of the MyFigueroa Corridor Streetscape Project. Parking is permitted on the south side of the street west of Main Street, and on both sides east of Main Street. In the study area, 11th Street is part of the Neighborhood Enhanced Network and the Tier 1 Bicycle Enhanced Network per the *Mobility Plan 2035*.

- **West 12th Street** runs south of the Project Site with two travel lanes in the eastbound direction. The street is designated as a Modified Collector street. Parking is permitted on both sides of the street.

- **Pico Boulevard** runs south of the Project Site with two travel lanes in each direction. East of Broadway, the number of travel lanes drops to one lane in each direction. Pico Boulevard is designated as an Avenue III between Broadway and Main Street. Between Broadway and Flower Street, Pico Boulevard is designated as an Avenue I. Parking is permitted on both sides of the street. In the study area, Pico Boulevard is part of the Neighborhood Enhanced District and Pedestrian Enhanced Network per the *Mobility Plan 2035.*

North-South Streets

- **South Hope Street** is designated as a Modified Avenue II north of Olympic and an Avenue II south of Olympic that runs west of the Project Site with two lanes northbound and one lane southbound. North of the intersection of Hope Street & Olympic Boulevard, the one southbound lane increases to two southbound lanes. Parking is permitted on both sides of the street. In the study area, Hope Street is part of the Neighborhood Enhances Network and Pedestrian Enhanced District per the *Mobility Plan 2035*.

- **South Grand Avenue** is designated as a Modified Avenue II that runs west of the Project Site with three travel lanes in the southbound direction. At the intersection of Hill Street & Grand Avenue, three southbound lanes drops to two lanes. Parking is permitted on both sides of the street. In the study area, Grand Avenue is part of the Pedestrian Enhanced District and the Tier 1 Bicycle Enhanced Network per the *Mobility Plan 2035*.

- **South Olive Street** is designated as a Modified Avenue II that runs west of the Project Site with three northbound travel lanes. Parking is permitted on both sides of the street. In the study area, Olive Street is part of the Pedestrian Enhanced District and the Tier 1 Bicycle Enhanced Network per the *Mobility Plan 2035*.

- An **Alley** runs directly west of the Project, beginning at an intersection with 11th Street and primarily running south until it turns west to intersect with Olive Street before it reaches 12th Street.

- **South Hill Street** is designated as a Modified Avenue II that runs east of the Project Site with one to two travel lanes in each direction, a median turn lane, and left turn pockets. In the immediate vicinity of the Project, parking is prohibited along the west side of the street during the AM and PM peak periods Monday through Friday and is permitted from 8:00 AM to 8:00 PM on Saturdays.

During these times, one northbound travel lane is provided. Parking is permitted on the east side of the street. In the study area, Hill Street is part of the Neighborhood Enhanced Network and Pedestrian Enhanced District per the *Mobility Plan 2035*.

- **South Broadway** is designated as a Modified Avenue II that runs east of the Project Site with two northbound travel lanes and one southbound travel lane. Parking is prohibited along the east side of the street during the AM peak period and is prohibited along the west side of the street during the PM peak period. Left-turn pockets are present at major intersections. In the study area, Broadway is part of the Transit Enhanced Network and Pedestrian Enhanced District per the *Mobility Plan 2035*.

- **South Main Street** is designated as a Modified Avenue I that runs east of the Project Site with two northbound and southbound travel lanes and a bike lane in each direction. South of the intersection of Main Street & Olympic Boulevard, it drops to two northbound lanes and one southbound lane, with the occasional two-way left turn pocket in the center and both bike lanes retained. Parking is allowed on both sides of the street for most of the study area, except north of Olympic where it is prohibited on the west side of the street. In the study area, Main Street is part of the Bicycle Enhanced Network and Pedestrian Enhanced District per the *Mobility Plan 2035*.

- **South Los Angeles Street** is designated as an Avenue II that runs east of the Project Site with two northbound and southbound travel lanes. Parking is provided on both sides of the street for most of the study area. In the study area, Los Angeles Street is part of the Pedestrian Enhanced District per the *Mobility Plan 2035*.

2.2 Existing Transit Lines

Figure 3 shows the existing transit lines, which are listed in **Table 2**. The figure shows some transit service that lies outside of the ¼ mile study area, which are not all listed in the table. The nearby rail and busway lines were included, as they provide regional transit connectivity to the area. The closest rail transit station is the Metro Pico Station on Flower Street, about 0.3 miles from the Project. This station provides frequent service for the A Line (Blue), which connects to Long Beach, and the E Line (Expo), which connects to USC, Culver City, and Santa Monica. When the Metro Regional Connector Project opens, currently projected for 2022, the lines at Pico Station will also provide connections to East LA, Union Station, Pasadena, and Azusa. Both lines provide connection to the B Line (Red) and D Line (Purple) subway lines one station north at 7th Street/Metro Center, which provide connections to North Hollywood, Hollywood, Union Station, and Koreatown. Direct access to the B Line (Red) and D Line (Purple) subway lines at 7th Street/Metro Center is just under 0.6 miles from the Project.

2.3 Existing Bicycle and Pedestrian Facilities

Bicycle Facilities

Figure 4 shows citywide existing and planned designated bicycle facilities in the Project area. As shown in the figure, Grand Avenue, Olive Street, Main Street, and 11th Street have Class II bicycle lanes in the study area. Broadway north of 11th Street has a Class III bicycle route in the study area. The figure shows some routes outside of the study area for context, but these are not included in the analysis, as they lie outside the ¼ mile radius. The different tiers and classes of bike facilities are described earlier in Section 2.

- Planned Tier 2 facilities include Hill Street and Pico Boulevard east of Hope Street.

The Neighborhood Enhanced Network is the network of locally-serving streets planned to contain traffic calming measures that close the gaps between streets with bicycle facilities. Several streets in the study area are included within the planned Neighborhood Enhanced Network, including Hope Street, Hill Street, Pico Boulevard, and 11th Street.

Pedestrian Facilities

The study area generally has a mature network of pedestrian facilities including sidewalks, crosswalks and pedestrian safety features. Approximately 8- to 18-foot sidewalks are provided throughout the study area including the area next to the Project Site.

High-Injury Network

The City of Los Angeles' High Injury Network (HIN) spotlights streets with a high concentration of traffic collisions that result in severe injuries and deaths, with an emphasis on those involving people walking and bicycling. The Project study area has several streets that have been identified by the City as part of the HIN. These include:

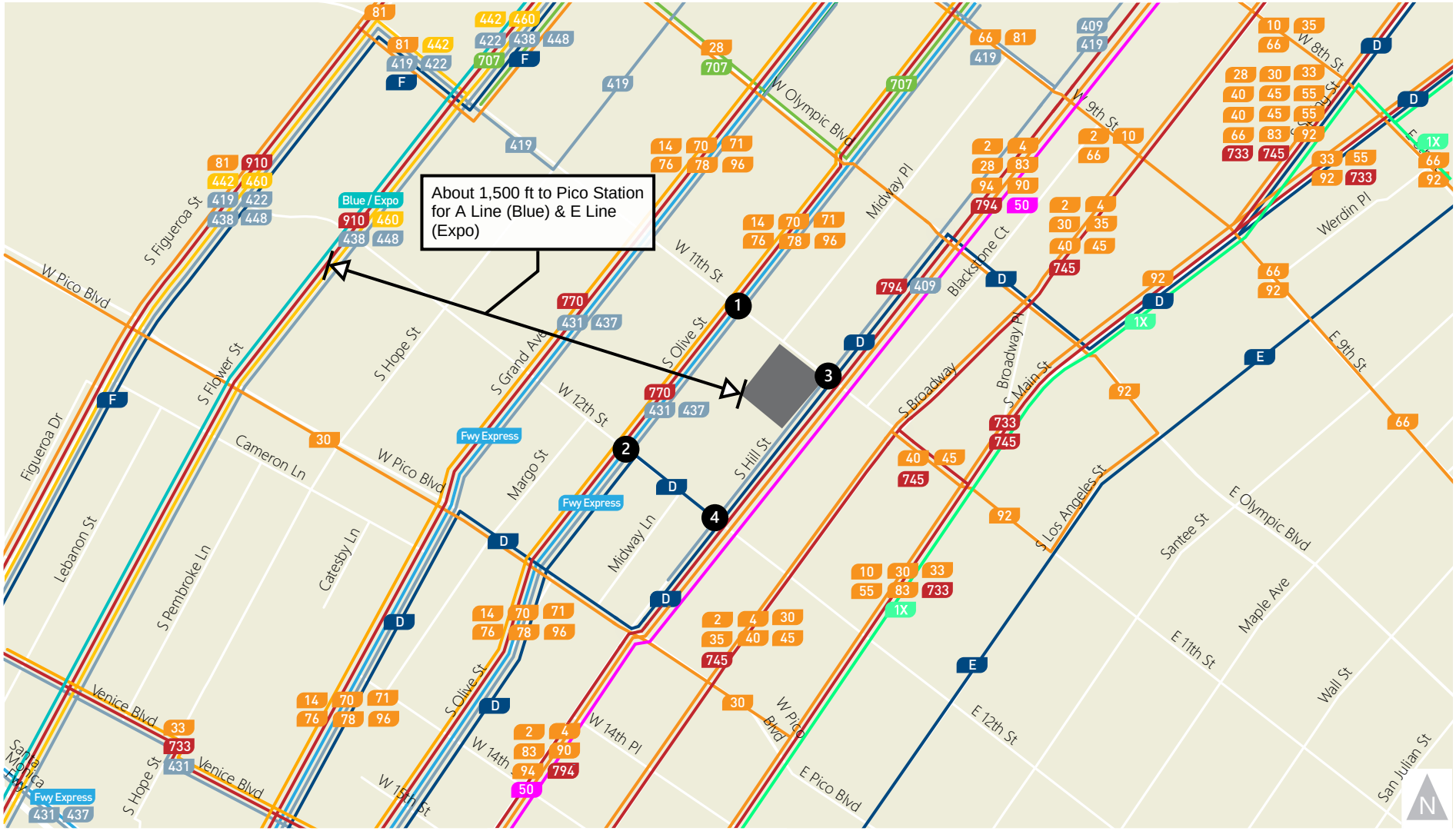
- Pico Boulevard between Grand Avenue and Broadway
- Olive Street between Pico Boulevard and 12th Street
- Olympic Boulevard west of Main Street
- 9th Street east of Figueroa Street

Table 2
1111 S Hill Street Project
Existing Transit Service

Transit Route	Operator	Service Type	Service From	Via (within study area)	Weekday Headways AM	Weekday Headways PM
R10	Big Blue Bus	Rapid	Downtown LA to Downtown Santa Mon	Olive St	20-25 mins	20-30 mins.
Silver Streak	Foothill Transit	Express	Downtown LA to Montclair	Olive St	10-20 mins	10 mins.
1x	Gardena Transit	Local/Limited	Gardena to Downtown LA	Main St	30 mins.	30 mins.
Downtown D	LADOT DASH	Shuttle	Union Station to South Park	Hill St	5 mins.	5-15 mins.
Downtown E	LADOT DASH	Shuttle	City West to Fashion District	Pico Blvd	5 mins.	5 mins.
409	LADOT Commuter Express	Local/Limited	Downtown LA to East Glendale	Hill St	15-20 mins	15-20 mins.
419	LADOT Commuter Express	Local/Limited	Chatsworth to Downtown LA	Hill St	10-20 mins	15-20 mins.
431	LADOT Commuter Express	Local/Limited	Westwood to Downtown LA	Olive NB, Grand SB	25-35 mins	25-35 mins.
437	LADOT Commuter Express	Local/Limited	Venice to Downtown LA	Olive NB, Grand SB	15-25 mins	15-55 mins.
439	LADOT Commuter Express	Local/Limited	Downtown LA to El Segundo	Olympic Blvd	30+ mins	30+ mins
2/302	Metro	Local/Limited	Westwood to Downtown LA	Hill St	10-20 mins	15-25 mins.
4	Metro	Local	Downtown LA to Santa Monica	Hill St	10-15 mins	10-20 mins.
10/48	Metro	Local	West Hollywood to Downtown LA	Main St	5-20 mins.	10-15 mins.
14	Metro	Local	Beverly Hills to Downtown LA	Olive NB, Grand SB	5-10 mins.	5-10 mins.
28/728	Metro	Local/Rapid	Century City to Eagle Rock	Olympic Blvd	10-15 mins	10-20 mins.
30/330	Metro	Local/Limited	West Hollywood to East Los Angeles	Broadway NB, Main SB	5-10 mins.	5-10 mins.
33/733	Metro	Local/Rapid	Santa Monica to Downtown LA	Main St	5-20 mins.	10 mins.
35	Metro	Local	Fairfax Transit Hub to Downtown LA	Broadway	N/A	10-15 mins. after 7pm
40	Metro	Local	South Bay Galleria to Downtown LA	Broadway NB, Main SB	10-15 mins	15-20 mins.
45/745	Metro	Local/Rapid	Harbor Freeway Station to Downtown LA	Broadway NB, Main SB	5-10 mins.	10-15 mins.
55/202/355	Metro	Local/Limited	Downtown LA to Willowbrook	Main St	10-20 mins	10-20 mins.
70/770	Metro	Local/Rapid	El Monte to Downtown LA	Olive NB, Grand SB	10-15 mins	15-20 mins.
71	Metro	Local	Cal State LA to Downtown LA	Olive NB, Grand SB	20 mins.	20-40 mins.
76	Metro	Local	El Monte to Downtown LA	Olive NB, Grand SB	15 mins.	15-20 mins.
78/79/378	Metro	Local/Limited	Arcadia to Downtown LA	Olive NB, Grand SB	10 mins.	10 mins.
83	Metro	Local	Downtown LA to Eagle Rock	Hill St NB, Main SB	20-30 mins	20-30 mins.
90/91	Metro	Local	Downtown LA to Sylmar	Hill St	15-20 mins	15-20 mins.
92	Metro	Local	Downtown LA to Burbank	Olympic Blvd	15-20 mins	15-20 mins.
94/794	Metro	Local/Rapid	Downtown LA to Sylmar	Hill St	10-20 mins	20-30 mins.
96	Metro	Local	Downtown LA to Burbank Station	Olive NB, Grand SB	30 mins.	30 mins.
50	Montebello Bus Lines	Local	Downtown LA to La Mirada	Hill St	30 mins.	30 mins.
J Line (Silver) [a]	Metro	Rapid	San Pedro to El Monte	Flower St	5-10 mins.	5-10 mins.
A Line (Blue) [a]	Metro	Light Rail	Downtown LA to Long Beach	Flower St	5-10 mins.	5-10 mins.
E Line (Expo) [a]	Metro	Light Rail	Downtown LA to Santa Monica	Flower St	5-10 mins.	10-15 mins
B Line (Red) [a]	Metro	Heavy Rail	Downtown LA to Hollywood	7th Street	5-10 mins.	5-10 mins.
D Line (Purple) [a]	Metro	Heavy Rail	Downtown LA to Koreatown	7th Street	5-10 mins.	5-10 mins.

Notes:

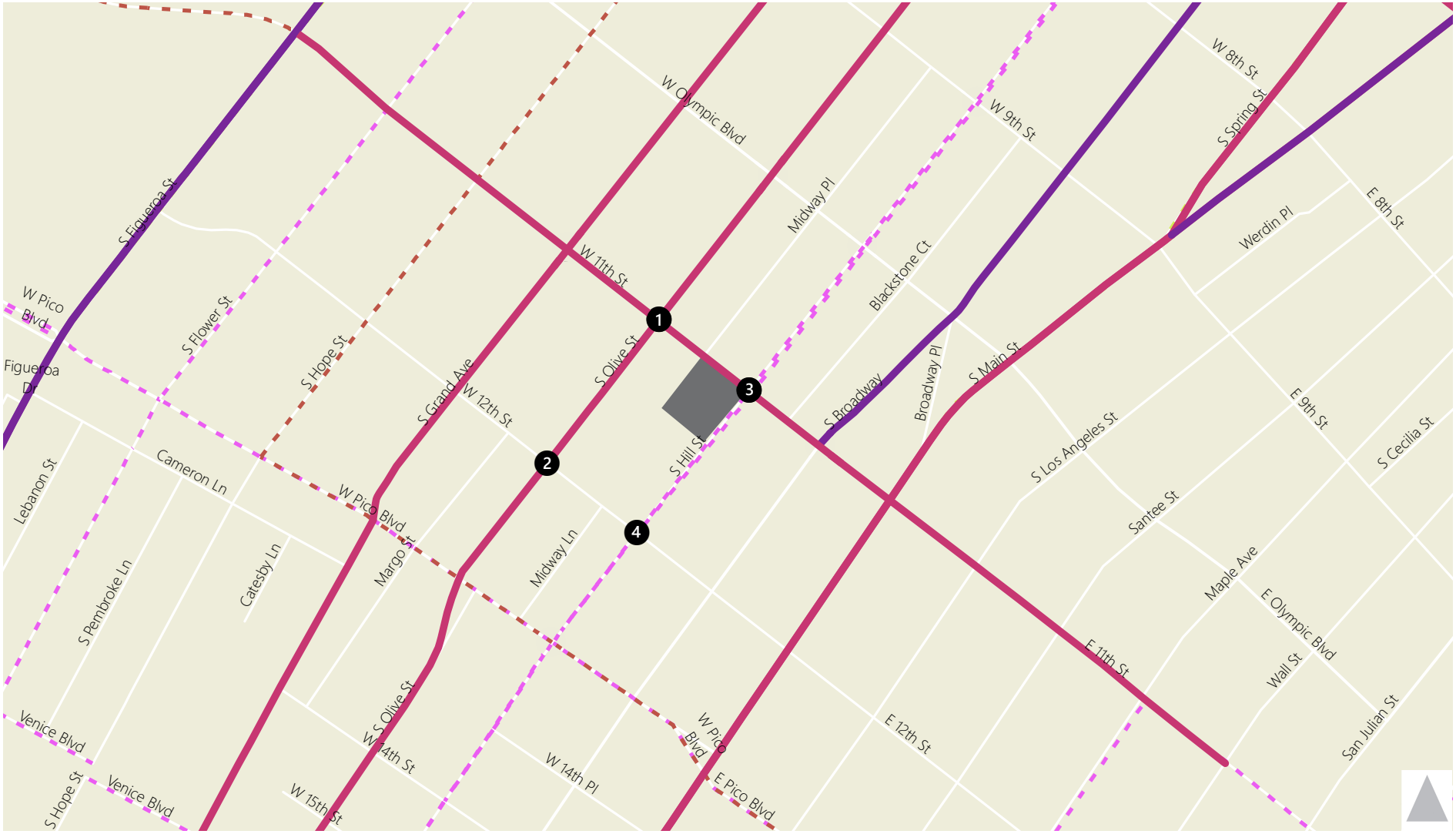
[a] Metro Rail and Busway lines were included on map due to their regional connectivity. J Line (Silver), A Line (Blue) and E Line (Expo) have stops within about 1,600 feet of the Project, and B Line (Red) and D Line (Purple) have stops just over a half mile away from the Project.



- Study Intersections
- Project Site
- Metro Rail
- Metro BRT
- Metro Local Bus
- Metro Express Bus
- Montebello Bus
- Big Blue Bus
- Foothill Transit
- LADOT Downtown
- LADOT Commuter Express
- Gardena Transit

Figure 3

Existing Transit



Study Intersections

Project Site

Existing Bike Facility Class

- I
- II
- III
- IV

Proposed Bike Facility Class

- I
- II
- III
- IV

Figure 4

Existing and Proposed Bicycle Facilities

2.4 Cumulative Conditions

In the Project study area, there are a variety of planned infrastructure improvements.

Transit Service Improvements

- **LA Metro NextGen Bus Plan** proposes to redesign the bus network of the largest transit provider in LA County, which has many routes that run in the Project area and stop in front of the Project on Hill Street. This redesign seeks to increase the frequency of bus lines to allow for easier transfers and faster travel times. Although the draft report was released in February 2020, the finalized plan has not been announced at the time of this study.

- **Los Angeles Streetcar** project's proposed route will be along Broadway and 11th Street near the Project site. The full one-way route would travel southbound on Broadway from 1st Street to 11th Street, west to Figueroa Street, north to 7th Street, east to Hill Street, north to 1st Street, and east one block to close the loop at 1st Street & Broadway. The Streetcar would include a station at 11th Street and Olive Street, and the single westbound lane on 11th Street would become a shared lane for passenger vehicles and the streetcar, per the Environmental Impact Report (EIR) released for the project in 2016. The Streetcar EIR expressed that the bike lane on 11th Street will not be eliminated to the extent that is possible. As the project is not currently funded for construction, volume changes as a result of this project were not included in this analysis.

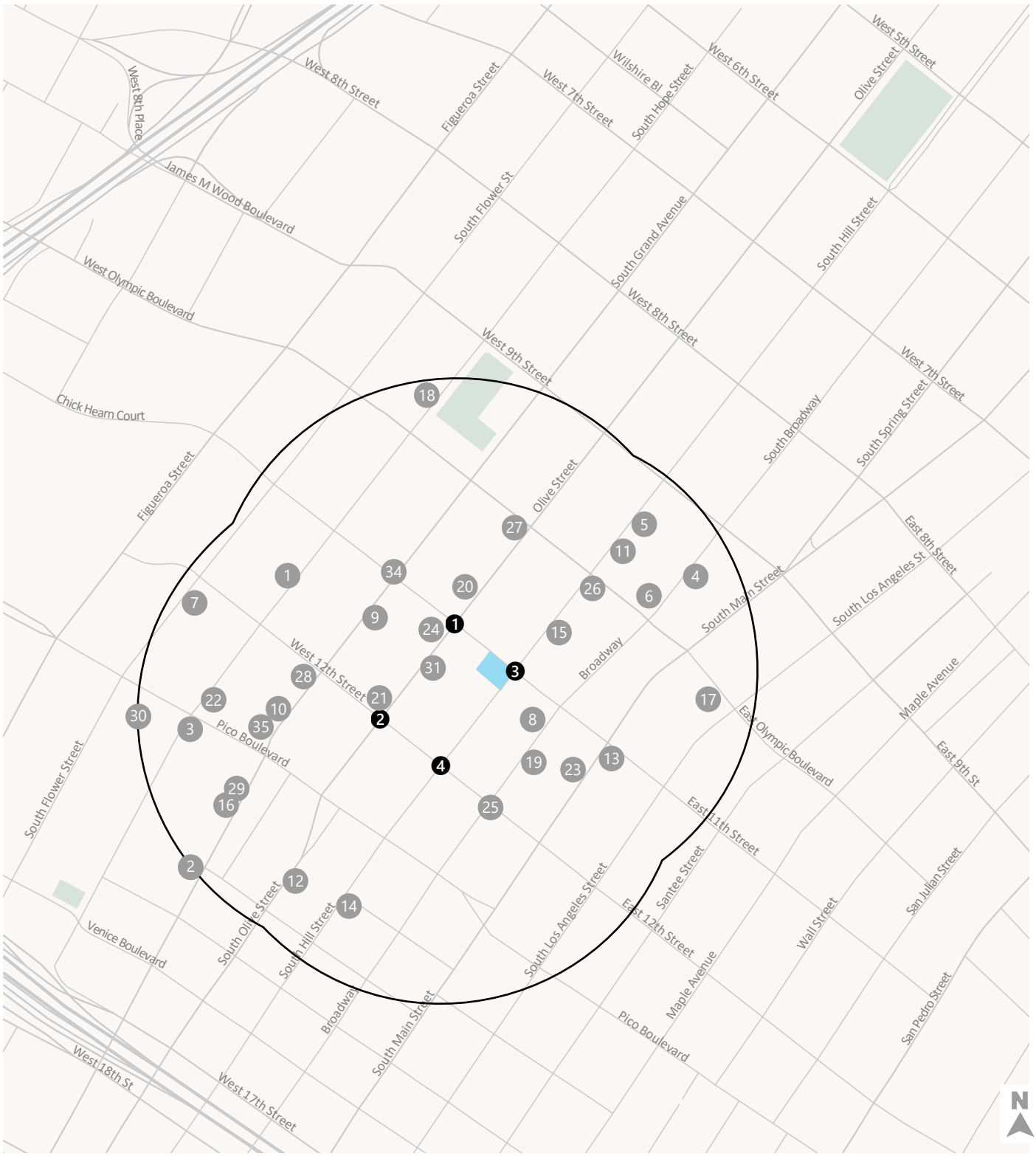
Planned Bicycled Facilities

As mentioned in section 2.3, the following bike facility is proposed:

- Planned Tier 2 facilities include Hill Street and Pico Boulevard east of Hope Street.

Related Projects

Figure 5 is an area map showing the location of the proposed Project and related land use development projects under the cumulative conditions. **Table 3** shows the list of related projects and their corresponding land uses.



Study Intersections
Related Projects
Project Site
Quarter Mile Radius Around Study Intersections

Figure 5

Related Projects
1111 S Hill Street

Table 3
1111 S Hill Street Project
Trip Generation Estimates for Related Projects

ID	PROJECT ADDRESS	LAND USE	SIZE		TRIP GENERATION ESTIMATES[a]						
					DAILY	AM PEAK HOUR			PM PEAK HOUR		
						IN	OUT	TOTAL	IN	OUT	TOTAL
1	1133 S Hope St	Apartments	208	du	1,543	20	74	94	91	50	141
		Retail	5.029	ksf							
2	1401 S Grand Ave [b]	Hospital	148.465	ksf	1,859	94	59	153	32	43	75
		Retail	6	ksf							
3	1306 S Hope St	Apartments	419	du	4,280	88	105	193	136	102	238
		Retail	42.2	ksf							
4	928 S Broadway	Apartments	667	du	4,715	21	229	250	272	109	381
		Retail	58.7	ksf							
5	920 S Hill St	Apartments	239	du	1,476	23	84	107	87	50	137
		Retail	5.4	ksf							
6	955 S Broadway	Apartments	201	du	1,275	21	72	93	74	43	117
		Retail	6	ksf							
7	1212 W Flower St	Condominiums	730	du	3,956	78	233	311	229	121	43
		Retail	10.5	ksf							
		Office	70.465	ksf							
8	1111 S Broadway	Apartments	391	du	5,198	144	176	320	258	274	532
		Office	41.14	ksf							
		Retail	40	ksf							
9	1120 S Grand Ave	Apartments	666	du	2,730	42	127	169	136	93	229
		Retail	20.69	ksf							
10	1229 S Grand Ave	Condominiums	161	du	1,116	23	62	85	62	33	95
		Restaurant	3	ksf							
11	940 S Hill St	Apartments	232	du	1881	20	80	100	115	53	168
		Restaurant	14	ksf							
12	1340 S Olive St	Apartments	156	du	1700	51	82	133	89	57	146
		Retail	5	ksf							
		Restaurant	10	ksf							
13	1100 S Main St	Apartments	379	du	385	9	103	112	78	14	92
		Retail	25.81	ksf							
14	1340 S Hill St	Apartments	235	du	1755	11	103	114	108	30	138
		Retail	5.25	ksf							
		Restaurant	4	ksf							
15	1030 S Hill St	Apartments	700	du	3392	49	193	242	181	104	285
		Retail	7	ksf							
		Restaurant	8	ksf							
16	1323 S Grand Av	Apartments	284	du	2158	33	118	151	125	74	199
		Retail	5.2	ksf							
		Restaurant	1.1	ksf							
17	124 E Olympic Bl	Hotel	149	rooms	1334	53	45	98	58	33	91
		Restaurant	6.7	ksf							
18	949 S Hope St	Apartments	236	du	791	8	45	53	43	7	50
		Restaurant	5.06	ksf							
		Retail	1	ksf							
19	1138 S Broadway	Hotel	138	rooms	644	20	25	45	22	25	47
20	1045 S Olive St	Apartments	794	du	2227	39	157	196	138	62	200
		Commercial	15	ksf							
21	1155 S Olive St	Hotel	258	Rooms	2008	77	56	133	77	72	149
		Retail	1.896	ksf							
		Restaurant	2.722	ksf							
22	1246 S Hope St	Apartments	135	du	5433	141	128	269	269	199	468
		Hotel	450	rooms							
		Retail	15.891	ksf							
23	1123 S Main St	Apartments	363	du	463	5	64	69	34	6	40
		Retail	12.5	ksf							
24	1105 S Olive St [b]	Apartments	536	du	5241	122	278	400	258	160	418
		Commercial	6.153	ksf							
25	1200 S Broadway [b]	Apartments	177	du	366	4	33	37	24	10	34
26	1000 S. Hill St [b]	Apartments	498	du	3683	56	206	262	216	125	341
		Commercial	8.707	ksf							
27	1001 S Olive St [c]	Apartments	225	du	1581	22	79	101	94	51	145
		Restaurant	5	ksf							
28	1201 S Grand Ave [b]	Apartments	312	du	2,185	56	86	142	100	63	163
		Retail	7.1	ksf							
29	1317 S Grand Ave [b]	Apartments	151	du	821	14	40	54	40	26	66
30	1320 S Flower St [b]	Hotel	43	rooms	370	12	9	21	14	13	27
		Apartments	2	du							
31	1120 S Olive St [b]	Apartments	713	du	4,438	101	175	276	199	125	324
		Commercial	11.277	ksf							

Table 3
1111 S Hill Street Project
Trip Generation Estimates for Related Projects

ID	PROJECT ADDRESS	LAND USE	SIZE		TRIP GENERATION ESTIMATES[a]						
					DAILY	AM PEAK HOUR			PM PEAK HOUR		
						IN	OUT	TOTAL	IN	OUT	TOTAL
32	Los Angeles Street Car [d]	Infrastructure Project	-	-	-	-	-	-	-	-	-
33	Regional Connector Transit Project [e]	Infrastructure Project	-	-	-	-	-	-	-	-	-
34	1099 S Grand Ave	Hotel	160	rooms	2,908	121	93	214	134	99	233
		Restaurant [f]	14	ksf							
35	1247 S Grand Ave	Apartments	115	du	763	10	41	51	42	25	67
		Retail	4.61	ksf							

Notes:

du = dwelling units

ksf = one thousand square feet

[a] Related projects list is based on information provided by LADOT on March 24, 2020

[b] Projects were not included in information provided by LADOT. Projects and land use from third party research. Trip generation estimates based on ITE rates.

[c] Projects were not included on information provided by LADOT, but were included from list provided on December 10, 2018 due to close proximity to project.

[d] The Los Angeles Street Car is a 3.8-mile route connecting riders with places like South Park, the Financial District and Historic Broadway, Grand Park and the Civic Center, the Fashion District and the Convention Center, Staples Center, and LA Live.

[e] The Regional Connector Transit Project is a 1.9-mile alignment that will serve Little Tokyo, the Arts District, Civic Center, The Historic Core, Broadway, Grand Avenue, Bunker Hill, Flower Street, and the Financial District.

[f] Publicly available project information for 1099 S Grand Ave did not include square footage for the restaurant, so 14 ksf was used to match the largest restaurant on this list.

3. CEQA Transportation Analyses

3.1 Plans, Programs, Ordinances, and Policies Review

The purpose of this section is to determine whether the Project conflicts with a transportation-related City plan, program, ordinance, or policy that was adopted to protect the environment. A project would not be shown to result in an impact merely based on whether a project would not implement an adopted plan, program, ordinance or policy. Rather, it is the intention of this threshold test to ensure that proposed development does not conflict with nor preclude the City from implementing adopted plans, programs, ordinances or policies. This evaluation was conducted by reviewing City documents such as the Los Angeles *Mobility Plan 2035*, Central City Community Plan, land use element, Vision Zero Los Angeles and municipal code sections.

- **City of Los Angeles Mobility Plan 2035**[2] is the City's document to guide the operations and design of streets and other public rights of way. It lays out a vision for designing safer, more vibrant streets, that are accessible to people – no matter how they travel. The Project's proposed land use and operations design features were reviewed and compared to existing and future conditions resulting from the Project, including site access, high injury network identification, pedestrian, bicycle and transit accessibility and loading. The Project is in substantial conformance with the *Mobility Plan 2035* except for Policy PL.1, which encourages vehicular access from non-arterial streets or alleys where feasible. One of the project driveways is along the alley to the west, but the other driveway is along Hill Street, which is classified as an arterial street. However, this proposed driveway is adjacent to and will replace a driveway at the existing site, so it is not introducing a new conflict. **Appendix C**, adapted from Table 2.1-2 of the TAG, contains a detailed review of consistency with relevant policies in *Mobility Plan 2035*.
- **Central City Community Plan**[3] is one of 35 Community Plans in the City of Los Angeles that establishes the policies and programs that inform the framework for local land use, circulation, and service systems within the selected community plan area. The Central City Community Plan (CCCP) highlights its objective toward further development of the community, particularly as the residential population of the neighborhood grows. The Project's proposed use coincides with an effort to expand the hotel options surrounding the Convention Center and Staples Center area, which are approximately 0.5 miles away to the west. It also supports the stated community plan goal of enhancing sidewalks, since the project will repave the sidewalks surrounding the property.

[2] *City of Los Angeles, Mobility Plan 2035, An Element of the General Plan, adopted September 7, 2016.*
[3] *The Central City Community Plan was adopted in 2003. An updated community plan is currently under development that will combine the Central City plan with the Central City North Community Plan for a combined Downtown Community Plan, but this plan has not yet been approved and taken effect.*

Appendix C contains a detailed review of consistency with relevant policies in the CCCP. Per this review, no significant conflicts with the CCCP were found.

- **Vision Zero Los Angeles**[4] is a plan that strives to eliminate traffic-related deaths in Los Angeles by 2025 through multiple strategies, such as modifying streets to better serve vulnerable road users. The Project meets the goals and objectives set forth in Vision Zero by providing a driveway along the existing alley, although the driveway on Hill Street does retain an existing potential conflict. The pedestrian points of entry will be provided along Hill Street and 11th Street, and bicycle parking will be provided on site. The Project is not located in a Safe Routes to School program area. The Project is not located on any streets identified in the High Injury Network, and the Project will not conflict with the implementation of future Vision Zero projects in the public right-of-way. Please see **Appendix C** for further determination support.

The Project features, location, and design generally support multimodal transportation options and would be consistent with policies, plans, and programs that support alternative transportation, including the *Mobility Plan 2035* (except for Policy PL.1 as discussed above) and the *Central City Community Plan*. The Project features are intended to minimize impacts to the public right-of-way and enhance the user experience by integrating multimodal transportation options. The Project would encourage bicycle use to and from the Project Site by providing long-term and short-term bicycle parking in accordance with the LAMC requirements and in proximity to existing bicycle facilities along 11th Street, Olive Street, Grand Avenue, and Main Street, as well as future planned bicycle facilities within the vicinity of the Project along Hill Street at part of the Bicycle Enhanced Network (BEN). The Project would encourage pedestrian activity because it concentrates mixed-use development near public transit, which provides visitors, and employees access to the site that can be conveniently accessed by walking, biking, or taking transit. The Project would also accommodate pedestrian activity with its access locations, which would be designed to City standards to provide adequate sight distance and pedestrian movement controls that would meet the City's requirements to protect pedestrian safety.

3.2 Vehicle Miles Traveled Analysis

As part of new CEQA guidelines, proposed land use projects need to assess whether they cause a substantial vehicle miles traveled impact. The following section summarizes an assessment of VMT generated by the proposed Project.

LADOT developed a VMT Calculator tool to be used to assess the VMT impacts of proposed development projects within the City. The VMT Calculator also assesses the effectiveness of selected TDM measures proposed for a project based on available research. Analysis was conducted for the Project using the City's VMT analysis procedures and VMT Calculator. This analysis considered the Project's proposed land uses.

[4] *Vision Zero Los Angeles 2015-2025 Action Plan, Effective January 2017.*

Impact Criteria

The City's VMT impact criteria for development projects is specified in the TAG. Per the criteria, a development project would have a potential significant impact if the project meets one or more of the following:

- For residential projects, a development project may have a potential significant impact if it generates household VMT per capita exceeding 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which the project is located (see **Table 4** below). This criterion was used for the multifamily residential component of the Project
- For office projects, a development project may have a potential significant impact if it generates work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC in which the project is located (see **Table 4** below).
- Local-serving retail development tends to shorten trips and reduce VMT whereas regional-serving retail development can lead to substitution of longer trips for shorter ones and could increase VMT. Local-serving is defined as retail uses less than 50,000 square feet. The restaurant components of the Project are considered to be local serving due to the size of less than 4,000 SF and those portions of the Project are considered to not have a significant VMT impact.
- For other land use types, the VMT impacts are measured based on the office threshold. This was used for the hotel portions of the Project.

Please see **Table 4** below for the City's VMT impact criteria. The Project Site is located in the Central APC, which has a daily household VMT per capita threshold of 6.0 and a daily work VMT per employee threshold of 7.6.

Table 4: City of Los Angeles VMT Impact Criteria (15% Below APC Average)

Area Planning Commission (APC)	Daily Household VMT per Capita	Daily Work VMT per Employee
Central	**6.0**	**7.6**
East Los Angeles	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South Los Angeles	6.0	11.6
South Valley	9.4	11.6
West Los Angeles	7.4	11.1

Source: LADOT TAG, 2019.

Per the TAG, a project could have a significant cumulative impact on VMT if the project has both a significant project-level impact as determined above and is not consistent with the Southern California Association of Governments' Regional Transportation Plan/Sustainable Communities Strategy (SCAG RTP/SCS) in terms of development location, density, and intensity.

Impact Analysis

Per the City's procedures, work VMT per employee was estimated using the City's VMT Calculator tool for the proposed Project land use. The VMT Calculator starts with Institute of Transportation Engineers (ITE, 9th Edition) trip generation rates[5], implements the MXD (mixed-use) methodology from the U.S. EPA, and utilizes socioeconomic, transit, and trip length data from the Los Angeles citywide travel demand model (calibrated to Los Angeles conditions) to adjust the trips for internalization, transit, and walkability. The VMT Calculator was calibrated based on local count data collected in the City of Los Angeles. The VMT Calculator allows for the selection of a wide variety of potential land uses including the multi-family housing, hotel, and restaurant uses proposed as part of the Project.

Daily vehicles trips, daily VMT, and daily work VMT per employee for the Project was estimated using the City's VMT Calculator tool. For mixed-use projects, according to the TAG, the Project VMT impact should be considered significant if any one (or all) of the Project land uses exceed the impact criteria for that particular land use, taking credit for internal capture. In such cases, mitigation options that reduce the VMT generated by an or all of the land uses could be considered.

Residential VMT

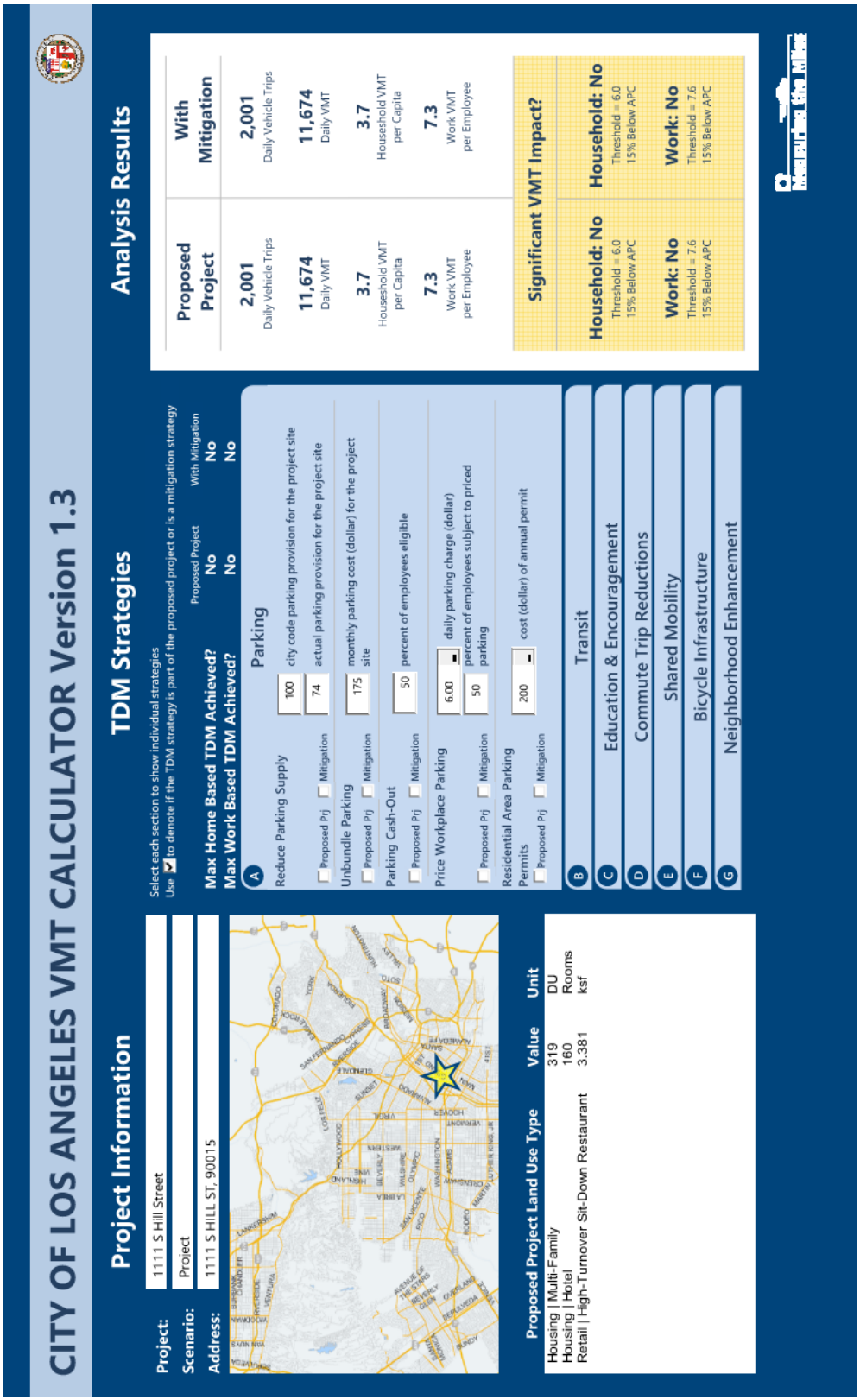
Figure 6 presents the City's VMT Calculator dashboard as analyzed for the Project. The Project is estimated by the Calculator to produce a total of 2,001 daily vehicle trips and a total daily VMT of 11,674. As indicated in **Figure 6**, the daily household VMT per capita is estimated at 3.7, below the threshold of 6.0 for the Central APC. Thus, the Project is not projected to have a significant impact on household VMT per capita as estimated by the VMT Calculator.

Work VMT

As indicated in **Figure 6**, the daily work VMT per employee is estimated at 7.3, below the threshold of 7.6 for the Central APC. Thus, the Project is not projected to have a significant impact on work VMT per employee as estimated by the VMT Calculator.

[5] *The LA VMT Calculator was under development prior to release of the 10th Edition of ITE's trip generation manual in late 2017. The VMT Calculator was validated to LA conditions based on the empirical counts conducted at market rate residential, affordable housing, office, and mixed-use sites in the City, regardless of the source of the rates used as a starting point.*

Figure 6: VMT Calculator Results



Retail VMT

Since the restaurant component of the Project is less than 50,000 square feet, it is considered to be local-serving and would not generate a significant VMT impact.

Cumulative VMT

As noted above, the Project is not projected to have a significant impact on office or retail VMT. Furthermore, given its location in the dense South Park area of the City of Los Angeles served by public transit, the mixed-use nature of the Project, and its provision of features to encourage walking and bicycling, the Project would be consistent with the applicable goals and objectives of the SCAG 2016-2040 RTP/SCS (SCAG, April 2016) to locate jobs and housing in infill locations served by public transportation and facilitating active transportation and TDM. Therefore, the Project's cumulative impact on VMT would not be significant.

Transportation Demand Management Plan

A TDM program consists of strategies that are aimed at discouraging single-occupancy vehicle trips and encouraging alternative modes of transportation, such as carpooling, taking transit, walking, and biking. Strategies included in a typical TDM program address a wide range of transportation factors, including parking, transit, commute trips, shared mobility, bicycle infrastructure, site design, education and encouragement, and management. Given that the Project is not projected to have a significant impact on VMT, the Project does not propose a TDM plan as a mitigation measure. However, the Project's location and provision of short-term and long-term on-site bicycle parking contribute to encouraging alternative modes of transportation.

Summary

The analysis conducted demonstrates that under the current City VMT methodology, the proposed Project would result in less than significant impacts on VMT. See **Appendix D** for additional information about the inputs and supporting documentation for the VMT analysis.

3.3 Geometric Design Feature Review

This section discusses impacts regarding the potential increase of hazards due to a geometric design feature that generally relates to the design of access points to and from the Project Site and may include safety, operational, or capacity impacts.

Pedestrian access to the Project Site would be provided via sidewalks around the perimeter of the Project Site. Visitors, patrons, and employees arriving to the Project Site by bicycle would have the same access opportunities as pedestrians and would be able to utilize on-site bicycle parking facilities. The Project's access locations would be designed to the City standards and would provide adequate sight distance, sidewalks, crosswalks, and pedestrian movement controls that meet the City's requirements to protect pedestrian safety. All roadways and driveways will intersect at right angles. Street trees and other potential

impediments to adequate driver and pedestrian visibility would be minimal. Pedestrian entrances separated from vehicular driveways would provide access from the adjacent streets, parking facilities, and transit stops.

There are two driveways proposed as part of the Project, one of which would be placed on the adjacent alley. This alley provides direct access to 11th Street, which is also not an arterial. However, the other driveway is provided on Hill Street. The existing warehouse already has a driveway on Hill Street, and the new driveway will be reconstructed in a similar location, so it is not fully introducing a new hazard. Also, the existing curb cut on 11th Street would be removed, resulting in an overall reduction of driveway curb cuts along the Project frontage. However, the proposed interior circulation would allow full access from either driveway, so vehicles choosing to enter from the alley would not be limited. Additionally, left turns out of the Hill Street driveway will be prohibited, to prevent conflicts near the 11th Street/Hill Street intersection and discourage drivers from having to cross two lanes of traffic near an active bus stop in addition to the sidewalk when exiting the site. The loading areas for the Project will be located on the ground floor level, with a loading area set aside adjacent to the alley.

The existing alley, as described in Section 2.1, runs directly west of the Project, beginning at an intersection with 11th Street and primarily running south until it turns west to intersect with Olive Street before it reaches 12th Street. The alley will be converted to two-way for the portion directly adjacent to the Project site. This will allow vehicles to enter the alley from 11th Street and drive along it until they turn left into the Project site, and allow vehicles to exit the Project from the alley, turning right to drive along the alley to connect with 11th Street. Any vehicles that mistakenly enter the alley from 11th Street will either be able to drive through the Project site and exit out of the Hill Street driveway.

The driveways would be designed to comply with LADOT standards. The driveways would not require the removal or relocation of existing passenger transit stops and would be designed and configured to avoid or minimize potential conflicts with transit services and pedestrian traffic. Neither of the driveways will be along streets in the HIN. 11th Street at the border of the project has a bike lane, but neither of the two Project driveways will introduce direct access to the bike lane, and vehicles entering or exiting the alley to or from 11th Street will not cross the lane because it is on the opposite side of the street. In addition, the loading driveway will be placed along the alley and not on 11th Street or Hill Street. As a result, the Project would not substantially increase hazards, conflicts, and would contribute to overall walkability and bike-ability through enhancements to the Project site. **Appendix C** contains more detailed responses to the TAG evaluation questions that support this conclusion.

4. Non-CEQA Transportation Analyses

The purpose of the non-CEQA transportation analyses required in LADOT's TAG are to promote orderly development, evaluate and address transportation-system deficiencies, and promote public safety and the general welfare by ensuring that development projects are properly related to their sites, surrounding properties, and traffic circulation.

4.1 Pedestrian, Bicycle, and Transit Access

The pedestrian, bicycle, and transit facilities assessment is intended to determine a project's potential effects on pedestrian, bicycle, and transit facilities in the vicinity of the proposed project based on an evaluation of physical or demand-based considerations that would affect the experience of people utilizing the multimodal transportation network.

The pedestrian, bicycle, and transit facilities surrounding the Project Site were assessed to determine potential Project effects on pedestrian, bicycle, and transit facilities in the vicinity of the Project.

The following checklist from the TAG was reviewed to evaluate whether direct or indirect Project effects would lead to removal, modification, or degradation of pedestrian, bicycle, or transit facilities, such as:

❏ Removal or degradation of existing sidewalks, crosswalks, pedestrian refuge islands, and/or curb extensions/bulbouts

- No, the Project would not remove or degrade existing pedestrian facilities in the pedestrian environment.

❏ Removal or degradation of existing bikeways and/or supporting facilities (e.g., bikeshare stations, on-street bike racks/parking, bike corrals, etc.)

- No, the Project would not remove or degrade the existing bikeways and/or supporting facilities. 11th Street already has a bike lane on the side of the street opposite the Project, and the Project is not proposing any new access points along the bike lane.

❏ Removal or degradation of existing transit and/or local circulator facilities including stop, bench, shelter, concrete pad, bus lane, or other amenities

- No, the Project would not remove or degrade existing transit and/or local circulator facilities. The bus stop directly in front of the Project site on Hill Street would be temporarily relocated north or south of the site during construction, as discussed in the Project

Construction section, and this would not affect the long-term location of the bus stop in front of the site.

❑ Removal of other existing transportation system elements supporting sustainable mobility

- No, the Project does not propose to remove sustainable transportation elements.

❑ Increase street crossing distance for pedestrians; increase in number of travel/turning lanes; increase in turning radius or turning speeds

- No, the Project does not propose to widen streets or add travel lanes.

❑ Removal, degradation, or narrowing of an existing sidewalk, path, crossing, or pedestrian access way

- No, the Project does not propose to remove, degrade, or narrow sidewalks or limit pedestrian access paths. The sidewalk on 11th would be widened by 3 feet to meet downtown street standards, via an easement, and a 2 foot dedication would also widen the adjacent alley. Sidewalk conditions would be adjusted, with a pedestrian path around the site remaining in place, during construction as discussed in section 4.4.

❑ Removal or narrowing of existing sidewalk-street buffering elements (e.g., curb extension, parkway, planting strip, street trees, etc.)

- No, the Project does not propose to remove existing street buffering elements.

❑ Increase in pedestrian or vehicle volume, and thereby increase the need or attraction to cross a street at unmarked pedestrian crossings or unsignalized or uncontrolled intersections where a crossing is not available without significant rerouting.

- No, although there will be an increase in pedestrian volumes around the Project Site there are marked crosswalks across all four legs of the intersection at 11th and Hill adjacent to the project site, and a signalized midblock crossing south of the Project site across Hill Street. All the intersections surrounding the block that the Project is on also have marked crosswalks on all four legs.

❑ Result in new pedestrian demand between project site entries/exits and major destinations or transit stops expected to serve the development where there are missing pedestrian facilities (e.g., gaps in the sidewalk network) or substandard pedestrian facilities (e.g., narrow or uneven sidewalks, no crosswalks at intersections or mid-block, no marked crossing, or push button crossing rather than actuated, etc.).

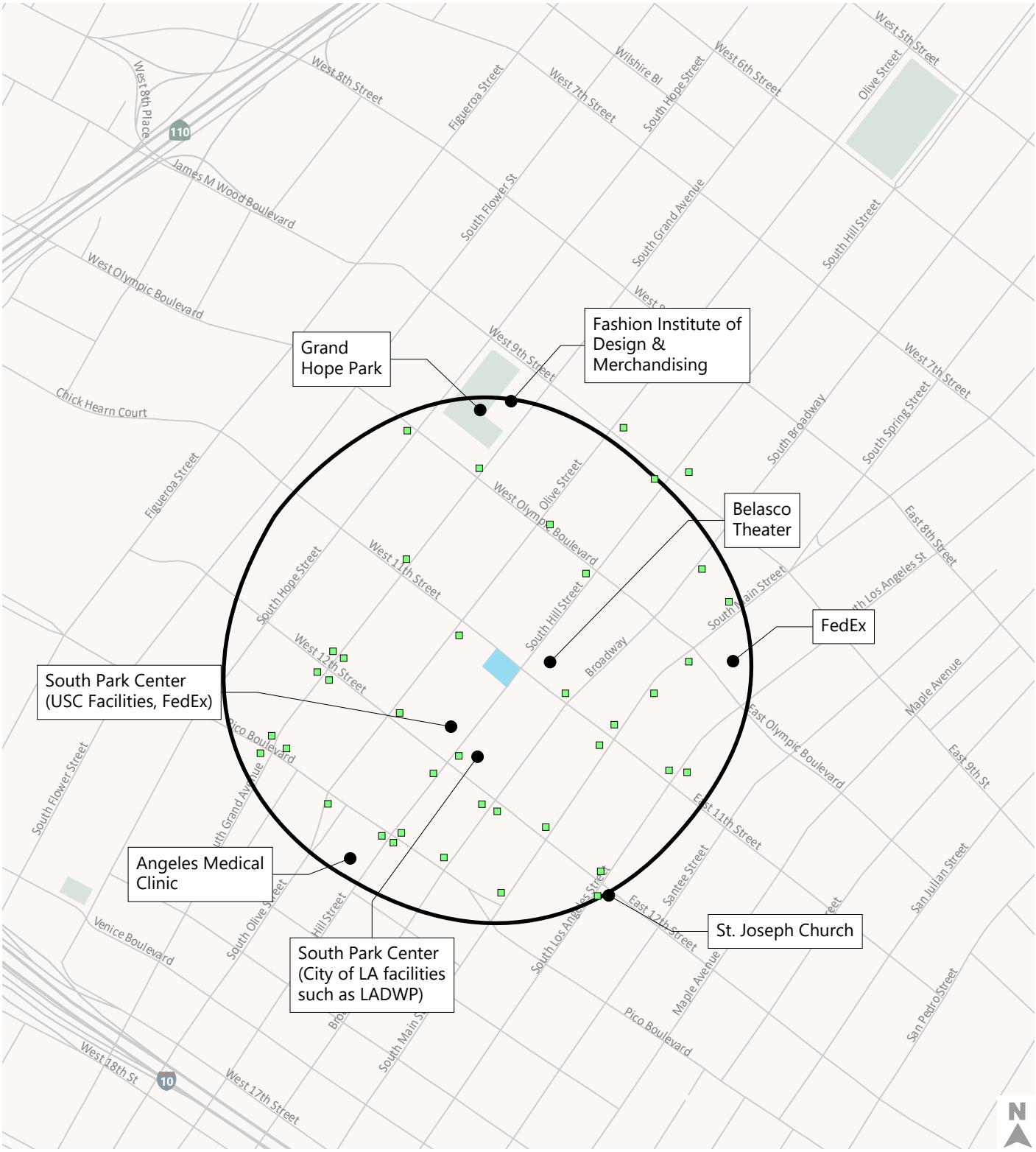
- No, although the Project will generate an increase in pedestrian volumes, there are no missing pedestrian facilities or substandard conditions between the Project and nearby major destinations.

❑ Increase transit demand at bus stops that lack marked crossings, with insufficient sidewalks, or are in isolated, unshaded, or unlit areas.

- No, all bus stops near to the Project Site are accessible by crosswalks and sidewalks. None are in isolated areas and they generally include light and shade adjacent to the project site.

The responses provided above reflect conditions upon Project completion. During construction there may be temporary closures that result in temporary impacts. **Figure 7** provides a map of pedestrian destinations within 1,320 feet (0.25 mile) of the edge of the Project Site. Per the LADOT TAG, this includes schools, government offices, medical clinics, post offices, places of worship, bus stops, and other facilities that could attract pedestrian trips. **Table 5** also provides a table identifying locations of curb ramps, pedestrian push buttons, and other pedestrian amenities such as tactile warning strips. Pedestrian facilities were generally found to be in adequate condition. Several intersections that do not provide push buttons at the intersections are pretimed to provide walk phases for every signal cycle.

The Project frontage is not on a street segment that is part of the HIN. Pedestrian and bicyclist entrances to the Project Site will be provided along Hill Street and 11th Street.



Pedestrian Destination

1/4 Mile Radius Around Edge of Project Site

Project Site

Bus Stop

Figure 7

Pedestrian Destinations
1111 S Hill Street

Table 5
1111 S Hill Street Project
Pedestrian Amenities Summary

Int	North/South Street	East/West Street	Int. Control (Signal, Stop)	Number of Curb Ramps per Corner				Tactile Warning Strips on Curb Ramps?				Crosswalk type (W = White, Y = Yellow, 1 = two parallel lines, 2 = continental (zebra stripes))				Pedestrian push buttons for crossing?				Other Notes (Curb Extensions, etc.)
				NE	SE	SW	NW	NE	SE	SW	NW	N	E	S	W	N	E	S	W	
5	S Olive Street	9th Street	Signal	1	1	1	1	Yes	No	No	No	W1	W1	W1	W1	No	No	No	No	
6	S Hill Street	9th Street	Signal	1	1	1	1	No	No	No	No	W2	W1	W2	W1	No	No	No	No	
7	S Hope Street	Olympic Boulevard	Signal	1	1	1	1	No	No	No	No	W1	W1	W1	W1	Yes	Yes	Yes	Yes	
8	S Grand Avenue	Olympic Boulevard	Signal	1	1	1	1	No	Yes	No	No	W2	W2	W2	W2	Yes	Yes	Yes	Yes	
9	S Olive Street	Olympic Boulevard	Signal	1	1	1	1	Yes	No	Yes	No	Y2	Y2	Y2	Y2	Yes	Yes	Yes	Yes	
10	S Hill Street	Olympic Boulevard	Signal	1	1	1	1	No	No	No	Yes	Y2	Y2	Y2	Y2	No	No	No	No	
11	S Broadway	Olympic Boulevard	Signal	1	1	1	1	No	Yes	No	No	W2	W2	W2	W2	No	No	No	No	Curb ext. along Broadway at SW & NE Corner
12	S Main Street	Olympic Boulevard	Signal	1	1	1	1	No	No	Yes	Yes	W2	W2	W2	W2	Yes	Yes	Yes	Yes	
13	Los Angeles Street	Olympic Boulevard	Signal	1	1	2	1	Yes	Yes	Yes	Yes	W2	W2	W2	W2	No	No	No	No	
14	S Hope Street	11th Street	Signal	1	2	2	1	Yes	Yes	Yes	Yes	W2	W2	W2	W2	Yes	Yes	Yes	Yes	Curb ext. along 11th at SE & SW corner
15	S Grand Avenue	11th Street	Signal	2	1	2	2	Yes	Yes	Yes	Yes	W2	W2	W2	W2	Yes	Yes	Yes	Yes	Curb exts. along both 11th & Grand at SW corner
1	**S Olive Street**	**11th Street**	Signal	2	1	2	2	Yes	Yes	Yes	Yes	Y2	Y2	Y2	Y2	Yes	Yes	Yes	Yes	Curb ext. along 11th at SE & SW corner
3	**S Hill Street**	**11th Street**	Signal	2	1	1	1	Yes	Yes	Yes	Yes	Y2	Y2	Y2	Y2	Yes	Yes	Yes	Yes	Curb ext. along 11th at SW corner
16	S Broadway	11th Street	Signal	1	1	1	2	No	No	Yes	Yes	W2	W2	W2	W2	No	No	No	No	Curb ext. along 11th at SW corner
17	S Main Street	11th Street	Signal	1	1	1	1	No	No	No	No	W2	W2	W2	W2	No	No	No	No	
18	Los Angeles Street	11th Street	Signal	1	1	1	1	No	No	No	No	W2	W2	W2	W2	No	No	No	No	
19	S Hope Street	12th Street	Signal	1	1	[a]	1	No	No	No	[a]	W1	W1	W1	W1	No	No	No	No	
20	S Grand Avenue	12th Street	Signal	2	1	1	2	Yes	Yes	No	Yes	W2	W2	W2	W2	Yes	Yes	Yes	Yes	Curb exts. Along both 12th & Grand at SW & SE corners
2	**S Olive Street**	**12th Street**	Signal	1	1	1	1	No	No	No	No	W1	W1	W1	W1	No	No	No	No	
4	**S Hill Street**	**12th Street**	Signal	1	1	1	1	Yes	Yes	Yes	Yes	W2	W2	W2	W2	No	No	No	No	
21	S Broadway	12th Street	Signal	1	1	1	1	No	Yes	Yes	Yes	W1	W1	W1	W1	No	No	No	No	
22	S Main Street	12th Street	Signal	1	1	1	1	No	No	Yes	No	W2	W2	W2	W2	No	No	No	No	

Table 5
1111 S Hill Street Project
Pedestrian Amenities Summary

Int	North/South Street	East/West Street	Int. Control (Signal, Stop)	Number of Curb Ramps per Corner				Tactile Warning Strips on Curb Ramps?				Crosswalk type (W = White, Y = Yellow, 1 = two parallel lines, 2 = continental (zebra stripes))				Pedestrian push buttons for crossing?				Other Notes (Curb Extensions, etc.)
				NE	SE	SW	NW	NE	SE	SW	NW	N	E	S	W	N	E	S	W	
23	Los Angeles Street	12th Street	Signal	1	1	1	1	No	No	No	No	W2	W2	W2	W2	No	No	No	No	
24	S Hope Street	Pico Boulevard	Signal	2	1	1	1	Yes	Yes	Yes	No	W1	W1	W1	W1	Yes	Yes	Yes	Yes	Curb exts. along both Pico & Hope at SE corner
25	S Grand Avenue	Pico Boulevard	Signal	1	1	1	1	No	No	No	Yes	W2	W2	W2	W2	Yes	Yes	Yes	Yes	
26	S Olive Street	Pico Boulevard	Signal	1	1	1	1	Yes	Yes	Yes	Yes	W2	W2	W2	W2	Yes	Yes	Yes	Yes	Pork chop island on SE corner
27	S Hill Street	Pico Boulevard	Signal	1	1	0	1	No	No	No	Yes	W2	W2	W2	W2	Yes	Yes	Yes	Yes	
28	S Broadway	Pico Boulevard	Signal	1	1	1	1	No	No	No	No	W1	W1	W1	W1	No	No	No	No	
29	S Main Street	Pico Boulevard	Signal	1	1	1	0	No	No	No	No	W1	W1	W1	W1	No	No	No	No	Pork chop island on NW corner
30	Los Angeles Street	Pico Boulevard	Signal	0	1	1	0	No	No	No	No	W1	W1	W1	W1	No	No	No	No	

[a] Under construction at the time of observation.

4.2 Project Access, Safety, and Circulation Evaluation

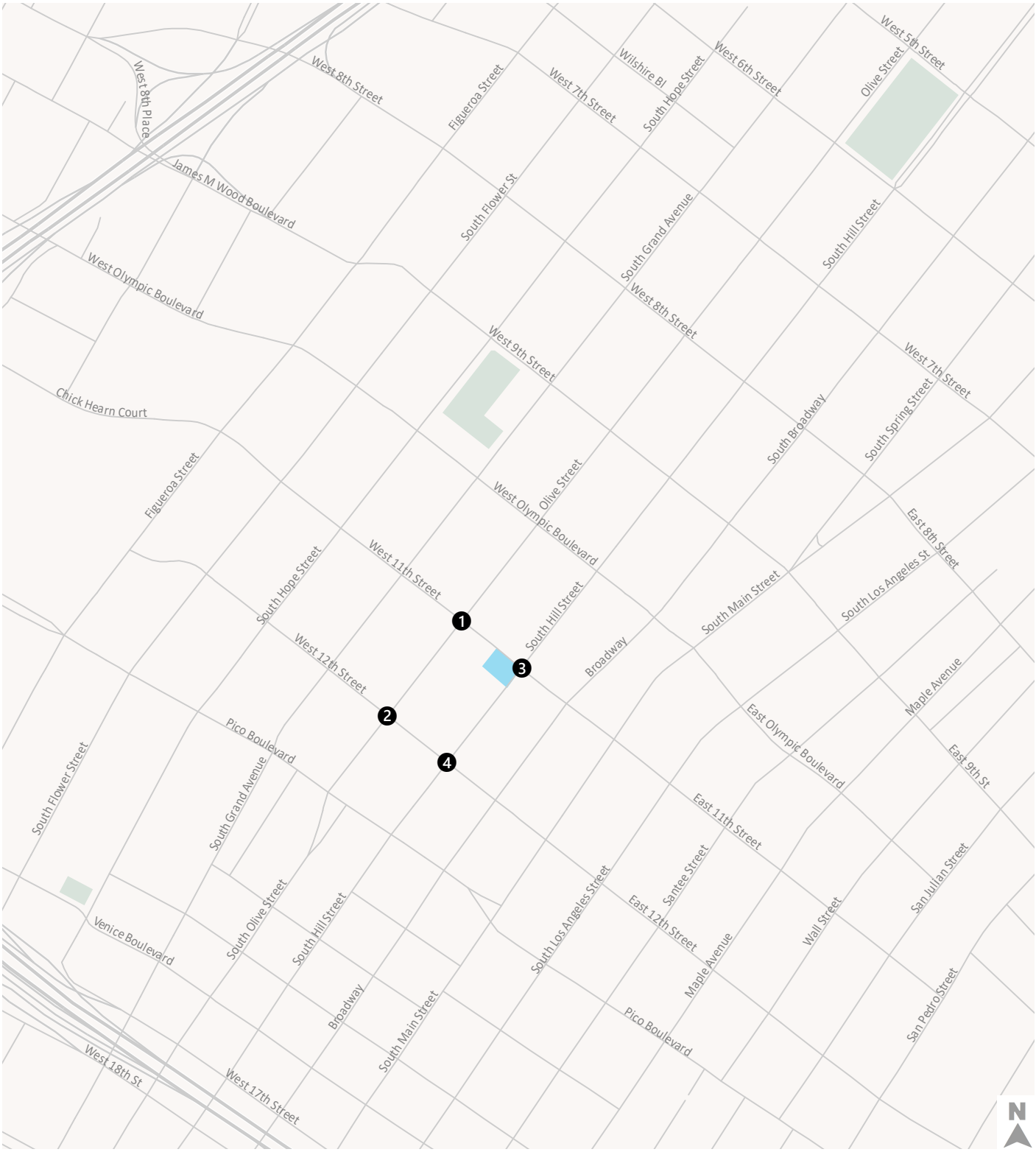
This section documents the peak hour intersection analysis conducted based on the screening criteria and trip threshold for intersection analysis provided in the TAG.

Study Analysis Locations

The scope and selection of study intersections was developed in conjunction with LADOT staff. Four study intersections have been analyzed. The study locations were selected for analysis based on guidance from LADOT's TAG, which indicates that intersections immediately adjacent to the site and in proximity to the site through which 100 or more project-generated trips would travel should be analyzed. The study intersections are illustrated in **Figure 8** and listed in **Table 6**.

Level of Service Methodology

Per the direction of LADOT, this analysis uses the *Highway Capacity Manual, 6th Edition* (HCM) (Transportation Research Board, 2016) methodology to evaluate the operation of Project driveways and nearby intersections. This was performed using the Synchro 10.0 software program. Synchro calculates vehicle delay and level of service (LOS) based on procedures outlined in the HCM. This methodology was used to determine the intersection delay in seconds and corresponding level of service (LOS) at the signalized and unsignalized intersections, as presented in **Table 7**. The calculation of delay represents the amount of delay experienced by vehicles passing through the intersection. The unsignalized driveways were analyzed using the 2-way stop method from the HCM 6th Edition. Delay was calculated based on the worst-case approach (for the 2-way stop-controlled intersection), and used to assign the corresponding LOS, as presented in **Table 7**. Access is considered constrained if the addition of Project related trips contributes to unacceptable queueing at a Project driveway or nearby signalized intersections.



Study Intersections

Project Site

Figure 8

Study Intersections
1111 S Hill Street

Table 6
1111 S Hill Street Project
Study Intersections

ID	N/S Street Name	E/W Street Name
1	Olive Street	11th Street
2	Olive Street	12th Street
3	Hill Street	11th Street
4	Hill Street	12th STreet

Table 7
1111 S Hill Street Project
LOS Thresholds for Signalized and Unsignalized Intersections

Level of Service (LOS)	Signalized Intersection Average Control Delay (sec/veh)	Unsignalized Intersection Average Control Delay (sec/veh)
A	≤ 10.0	≤ 10.0
B	> 10.1 to 20.0	> 10.1 to 15.0
C	> 20.1 to 35.0	> 15.1 to 25.0
D	> 35.1 to 55.0	> 25.1 to 35.0
E	> 55.1 to 80.0	> 35.1 to 50.0
F	> 80.0	> 50.0

Source: *Highway Capacity Manual*, 6th Edition Transportation Research Board, 2016.

Analysis Scenarios

The following three scenarios were analyzed:

- Existing Conditions (2020) – intersection turning movement counts were obtained for the study area and LOS was calculated to determine existing conditions. Turning movement counts were used from 2017 for the intersection of 12th Street and Olive Street, and counts for the other three study intersections were taken in 2019. The 0.2% growth factor, established in the MOU, was applied to grow these counts to the 2020 base year of the Project.
- Future (2024) Base (Without Project)– Based on historic trends and at the direction of LADOT, it was established that an ambient growth factor of 0.2% per year should be applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development. This adjustment was applied to the existing year (2020) traffic volume data to reflect the effect of ambient growth by the year 2024. Additionally, Future Base traffic forecasts include the effects of known related projects, as shown in **Table 3**, expected to be implemented in the vicinity of the proposed Project site prior to the buildout date of the proposed project.
- Future (2024) With Project – the proposed Project trip estimates were added to the Future Base forecasts.

Existing Base Traffic Volumes

Weekday AM and PM peak hour turning movements were collected at Olive St & 12th St on June 8th, 2017, at Olive St & 11th St and Hill St & 12th St on January 9th, 2019, and at Hill St & 11th St on June 23rd, 2019. The count sheets for each of these intersections can be found in **Appendix G**. As mentioned, the 0.2% ambient growth was applied to bring these turning movement volumes up to the 2020 base year.

Existing Level of Service

Existing traffic volumes were analyzed to determine the projected delay and LOS for each intersection. **Table 8** summarized the existing weekday peak hour LOS for signalized study intersections. There are no existing weekday peak hour LOS results presented for the unsignalized driveways since they do not exist at the base year.

Detailed intersection LOS analysis for study intersections is presented in **Appendix F**.

Table 8
1111 S Hill Street Project
Existing (2020) Signalized Intersection LOS Results - HCM 6th Edition

Int	North/South	East/West	Time of day	Delay (sec/veh)	LOS
1	Olive Street	11th Street	AM	23.9	C
			PM	27.1	C
2	Olive Street	12th Street	AM	14.5	B
			PM	15.2	B
3	Hill Street	11th Street	AM	27.9	C
			PM	22.8	C
4	Hill Street	12th Street	AM	10.7	B
			PM	9.6	A

Project Traffic

The development of peak hour vehicular traffic estimates for the proposed Project involves the use of a 3-step process: trip generation, trip distribution, and traffic assignment.

Trip Generation

The proposed Project consists of 319 residential units, 160 hotel rooms, 7,071 SF of ancillary hotel meeting rooms, and 3,381 SF of ground-floor restaurant space. The hotel meeting rooms are considered an ancillary hotel use that would not be expected to generate additional trips not captured by the hotel trip rate.

Trip generation rates from *Trip Generation, 10th Edition* (Institute of Transportation Engineers [ITE], 2017) and rates developed in discussion with LADOT were used to estimate the number of peak hour trips associated with the Project. The ITE 10th edition introduces and defines the geographic setting for four different settings/locations: Rural, General Urban/Suburban, Dense Multi-Use Urban, and City Core. In many instances, trip generation rates are provided for each land use by geographic setting. The Project is located in an area that meets the dense multi-use urban ITE definitions; therefore, the trip generation rates for dense multi-use urban were used when available. However, for mid-rise and high-rise multifamily housing sites in dense multi-use urban areas, empirical trip generation rates derived from surveys conducted at properties located within the City of Los Angeles area are available as a secondary data source to the ITE trip rates and are provided in the TAG. The local data reveals higher high-rise residential trip generation rates than the ITE 10th edition rates; therefore, the local data was used for the residential component of this project. Furthermore, ITE rates for general Urban/Suburban were used for the restaurant use since data is not available for the Dense Multi-Use Urban geographic setting for these uses. **Table 9** presents the specific rates used for each land use.

Several trip reduction adjustments were applied to the Project's gross trip generation estimates based on the Project's design, location, programming, and provided amenities. Discussion of these credits is summarized below.

Internal Capture Adjustment

Internal trip capture is the portion of vehicular trips generated by a mixed-use development that both begin and end within the development. An example of this would be residents or hotel guests eating dinner at one of the Project's restaurants. Indeed, the Project's restaurant uses have been selected and oriented in a way that makes them easily accessible to the Project's visitors, hotel guests, and residents. Internal trip estimates were made for each of the Project's land uses based on the specific mix of uses and sizes within the Project utilizing Transportation Research Board (TRB) National Cooperative Highway Research Program (NCHRP) Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments. This methodology is consistent with internal capture trip reductions previously applied and approved by LADOT and is a best practice for determining internal capture reductions. The NCHRP methodology considers the specific mix and size of uses to determine internal trip capture rates by land use and analysis period.

Transit/Walk Adjustment

The Project is located in a transit-rich environment, less than 0.5 miles from the Metro A Line (Blue)/E Line (Expo) light rail station, and in close proximity to over a dozen rapid and local bus lines. LADOT traffic study guidelines allow a 15% vehicle trip reduction to be applied to developments located within a quarter-mile walking distance of a rail transit station or Rapid Bus stop, assuming that percentage of visitors may take transit and walk to the Project. LA Metro Rapid lines 733, 745, 770, and 794 all offer Rapid Bus stops within a quarter mile of the Project, meeting the criteria for the transit/walk adjustment. The locally developed dense multi-use urban rates for high-rise residential were used for the project, and these already assume a proximity to transit, so a transit/walk adjustment was not applied to the residential use. The reduction was applied to the hotel and restaurant uses, as these rates did not already factor in the dense multi-use urban location of the Project.

Pass-by Adjustment

Per LADOT's Transportation Assessment Guidelines Appendix H, a pass-by reduction of 20% was applied to the restaurant use. This adjustment accounts for patrons making an intermediate stop on the way from an origin to a primary trip destination without a route diversion. These trips would be attracted from traffic passing the site on nearby streets such as Hill Street. This reduction is applied to the total Project trips, but not to the total driveway trips, since a pass-by trip will still result in a trip into or out of the driveway.

The full trip generation estimates are shown in **Table 9**. The Project is expected to generate 150 trips in the AM Peak Hour, with 64 inbound trips and 86 outbound trips. In the PM Peak Hour, the Project is expected to generate 181 trips, with 105 inbound and 76 outbound trips.

Trip Distribution

The geographic distribution of trips generated by the proposed Project is dependent on characteristics of the street system serving the Project site; the level of accessibility of routes to and from the proposed Project site; locations of employment and commercial centers to which residents of the Project would be drawn; and residential areas from which the commercial visitors would be drawn. A select zone analysis was conducted for the proposed uses using the City of Los Angeles' Travel Demand Model to inform the general distribution pattern for this study. The distribution of Project trips is illustrated in **Figure 9.**

Traffic Assignment

The traffic to be generated by the proposed Project was assigned to the street network using the distribution pattern described in **Figure 9**. The assignment of traffic volumes took into consideration the locations of the proposed Project driveway access to Hill Street, which would allow full inbound access and only right turns out, and the Project driveway on the alley connecting to 11th Street, which only allows westbound traffic. Both driveways will allow access to the full parking area of the Project site.

Table 9
1111 S Hill Street Project
Trip Generation Estimates

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]						Estimated Trip Generation					
			AM Peak Hour			PM Peak Hour			AM Peak Hour Trips			PM Peak Hour Trips		
			Rate	In%	Out%	Rate	In%	Out%	In	Out	Total	In	Out	Total
PROPOSED PROJECT														
Multifamily Housing (High-Rise) [b]	222	319 DU	0.23	24%	76%	0.3	61%	39%	18	55	73	59	37	96
Less: Internal capture [c]				*4%*	*8%*		*5%*	*13%*	*(1)*	*(4)*	*(5)*	*(3)*	*(5)*	*(8)*
Total Driveway Trips									17	51	68	56	32	88
Hotel [c]	310	160 Rooms	[g]	59%	41%	[h]	51%	49%	44	31	75	48	46	94
Less: Internal capture [d]				*2%*	*6%*		*6%*	*3%*	*(1)*	*(2)*	*(3)*	*(3)*	*(1)*	*(4)*
Less: Transit/walk/bike credit [e]			*15%*			*15%*			*(6)*	*(4)*	*(10)*	*(7)*	*(7)*	*(14)*
Total Driveway Trips									37	25	62	38	38	76
High-Turnover (Sit Down) Restaurant	932	3.381 ksf	9.94	55%	45%	9.77	62%	38%	19	15	34	20	13	33
Less: Internal capture [d]				*25%*	*8%*		*21%*	*27%*	*(5)*	*(1)*	*(6)*	*(4)*	*(4)*	*(8)*
Less: Transit/walk/bike credit [e]			*15%*			*15%*			*(2)*	*(2)*	*(4)*	*(2)*	*(1)*	*(3)*
Total Driveway Trips									12	12	24	14	8	22
Less: Pass-by [i]			*20%*			*20%*			*(2)*	*(2)*	*(4)*	*(3)*	*(2)*	*(5)*
Net External Vehicle Trips									10	10	20	11	6	17
TOTAL DRIVEWAY TRIPS									66	88	154	108	78	186
TOTAL PROJECT EXTERNAL VEHICLE TRIPS									64	86	150	105	76	181

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition* , 2017.

[b] Local dense multi-use urban high-rise residential data presented in the LADOT Transportation Assessment Guidelines was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the dense multi-use urban daily rate from the ITE Trip Generation Manual, 10th Edition was used.

[c] Hotel includes 7,071 SF of ancillary meeting rooms. Per the ITE definition of Hotel, "A hotel is a place of lodging that provides sleeping accommodations and supporting facilities such as ... meeting and banquet rooms or convention facilities ..." so the meeting rooms can be included in the hotel rate, as they will be intended for use by hotel guests.

[d] Internal capture represents the percentage of trips between land uses that occur within the site. Transportation Research Board (TRB) National Cooperative Highway Research Program (NCHRP) Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, 2011. The daily credit is assumed to be 75% of peak hour credits taken.

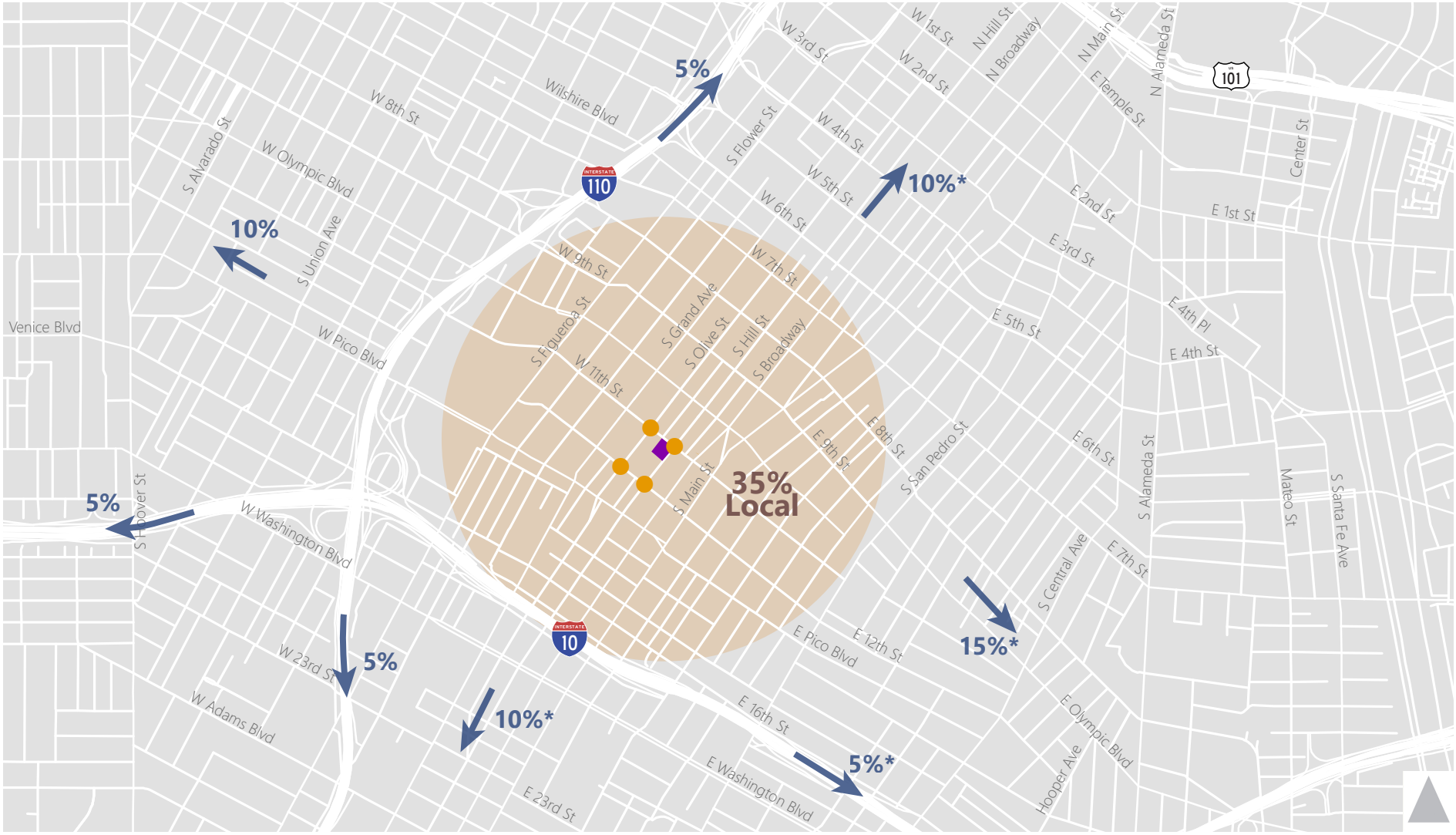
[e] The transit credit is based on LADOT's Transportation Assessment Guidelines. The guidelines state that up to 15% transit credit may be taken for projects within 1/4 mile walking distance of a transit station or of a RapidBus stop.

[f] The equation T = 11.29X - 426.97 was used to calculate the Daily Hotel trips, with X representing the number of rooms and T representing the number of trips, per ITE Trip Generation Handbook.

[g] The equation T = 0.50X - 5.34 was used to calculate the AM Hotel trips, with X representing the number of rooms and T representing the number of trips, per ITE Trip Generation Handbook.

[h] The equation T = 0.75X - 26.02 was used to calculate the PM Hotel trips, with X representing the number of rooms and T representing the number of trips, per ITE Trip Generation Handbook.

[i] The pass-by credit is based on Attachment H of LADOT's Transportation Assessment Guidelines



Study Intersections Project Site

*Some trips ultimately distributed onto freeways.

Figure 9

Trip Distribution

Future (2024) Traffic Volumes

To evaluate the potential impacts of the proposed Project on future (2024) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with Project traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the Project. These forecasts included traffic increases as a result of both regional ambient traffic growth of 0.2% per year and traffic generated by specific developments in the vicinity of the Project (related projects).

These projected traffic volumes, identified herein as the Future Base conditions, represent the future conditions without the proposed Project. The traffic generated by the proposed Project was then estimated and assigned to the surrounding street system. Project traffic was added to the Future Base conditions to form Future (2024) plus Project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the Project itself.

The assumptions and analysis methodology used to develop each of the future year scenarios discussed above are described in more detail in the following sections.

Background or Ambient Growth

Based on historic trends and at the direction of LADOT, it was established that an ambient growth factor of 0.2% per year should be applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development by year 2024. This adjustment was applied to the Baseline (2020) traffic volume data to reflect the effect of ambient growth by the year 2024.

Related Project Traffic Generation and Assignment

Future Base traffic forecasts include the effects of known specific projects, called related projects, expected to be implemented in the vicinity of the proposed Project site prior to the buildout date of the proposed Project. For purposes of providing a conservative evaluation of the Project, conversion of these uses is also accounted for in the background growth as a related project. The list of related projects was prepared based on data from LADOT and LA Department of City Planning (LADCP). A total of 35 related projects were identified in the study area; these projects are listed in **Table 3** and illustrated in **Figure 5**.

Trip Generation

For related projects provided by LADOT, the trip generation was used as provided. For related projects provided by City Planning or other sources, trip generation was used from a combination of previous study findings and ITE Trip Generation rates. **Table 3** presents the resulting trip generation estimates for these related projects. These projections are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.). Traffic mitigation measures associated with the related projects are also not in every case accounted for in the analysis.

Trip Distribution

The geographic distribution of the traffic generated by the related projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which employees and potential patrons of proposed commercial developments may be drawn, the locations of employment and commercial centers to which residents of residential projects may be drawn, and the location of the projects in relation to the surrounding street system. Additionally, if the traffic study or environmental document for a related project was available, the trip distribution from that study was used.

Traffic Assignment

Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related projects was assigned to the street network.

Transportation Infrastructure Projects

Several additional roadway improvements, and bikeway, and streetscape projects, are anticipated to be completed in the Project vicinity. These planned projects would reduce capacity on some of the roadways in the Project study area. These planned projects are as follows:

- **Los Angeles Streetcar:** The project's proposed route within the study area will be along Broadway and 11th Street near the Project site. The full one-way route would travel southbound on Broadway from 1st Street to 11th Street, west to Figueroa Street, north to 7th Street, east to Hill Street, north to 1st Street, and east one block to close the loop at 1st Street & Broadway. The Streetcar would include a station at 11th Street and Olive Street, and the single westbound lane on 11th Street would become a shared lane for passenger vehicles and the streetcar, per the Environmental Impact Report (EIR) released for the project in 2016. This would not remove any vehicle travel lanes, but would add this additional vehicle. The Streetcar would provide additional mass transit options, but no additional credit for this added transit option was taken. As the project is not currently funded for construction, lane geometry and volume changes as a result of this project were not included in this analysis.

- **Broadway Streetscape Master Plan (BSMP)** has reduced Broadway to two travel lanes in the northbound direction and one travel lane in the southbound direction. In addition, southbound motorists are prohibited from making left turns at intersections along Broadway on to cross streets. Currently, right turns are permitted along the southbound direction of Broadway as part of the recently implemented Broadway Dress Rehearsal. The existing lane configuration, which was implemented as part of the Broadway Dress Rehearsal, is reflected in the existing conditions analysis and would be maintained in the future scenarios.

Future Base Traffic Volumes

Future year 2024 base weekday AM and PM peak hour traffic volumes and lane geometries for the analyzed intersections are provided in **Appendix E**. The Future Base traffic conditions represent an estimate of future conditions without the proposed Project inclusive of the ambient background growth and related projects.

Future plus Project Traffic Projections

The proposed Project traffic volumes were added to the year 2024 Future Base traffic projections, resulting in Future (year 2024) plus Project AM and PM peak hour traffic volumes. As provided in **Appendix E**, the Future (year 2024) plus Project scenario presents future traffic conditions with the completion of the proposed Project.

Future Year Intersection Analysis

Future Base Analysis

The Future Base traffic volumes presented in **Appendix E** were analyzed to determine the projected delay and LOS for each of the analyzed intersections under this scenario. **Table 10** summarizes the Future Base LOS for the Project. All the intersections are projected to operate at LOS D or better during the morning and afternoon peak hours in the Future Base scenario.

Detailed intersection LOS analysis for the intersections is presented in **Appendix F**.

Future Plus Project Analysis

The Future plus Project traffic volumes presented in **Appendix E** were analyzed to determine the projected delay and LOS for each of the analyzed intersections under this scenario. **Table 11** summarizes the Future plus Project LOS for the Project. All the intersections are projected to operate at LOS D or better during the morning and afternoon peak hours in the Future plus Project scenario. The addition of Project trips from Future Base to Future plus Project would not change the level of service at any of the intersections and peak hours.

Detailed intersection LOS analysis for the intersections is presented in **Appendix F**.

Table 10
1111 S Hill Street Project
Future (2024) Base Signalized Intersection LOS Results - HCM 6th Edition

Int	North/South	East/West	Time of day	Delay (sec/veh)	LOS
1	Olive Street	11th Street	AM	28.5	C
			PM	33.3	C
2	Olive Street	12th Street	AM	16.3	B
			PM	19.2	B
3	Hill Street	11th Street	AM	25.2	C
			PM	20.7	C
4	Hill Street	12th Street	AM	10.8	B
			PM	11.2	B

Table 11
1111 S Hill Street Project
Future (2024) plus Project LOS Results - HCM 6th Edition

Int	North/South	East/West	Time of day	Future Base		Future plus Project	
				Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1	Olive Street	11th Street	AM	28.5	C	28.4	C
			PM	33.3	C	33.6	C
2	Olive Street	12th Street	AM	16.3	B	16.3	B
			PM	19.2	B	19.2	B
3	Hill Street	11th Street	AM	25.2	C	24.5	C
			PM	20.7	C	20.5	C
4	Hill Street	12th Street	AM	10.8	B	10.8	B
			PM	11.2	B	11.6	B

4.3 Project Access Evaluation

The Project would have the following two driveways providing site access:

- Hill Street – Full-access inbound driveway with right turn out only onto Hill Street near the southeast corner of the site.
- Alley – Driveway providing access to the alley along the east border of the site would allow left turns into the project from the alley and right turns out, providing connections to and from 11th Street. Vehicles will only be allowed to turn left into the alley from 11th Street and left from the alley onto 11th Street, since 11th Street is a one way westbound street.

Both driveways would provide full access to the subterranean and above grade parking garage. Pedestrian access to the residential units would be on Hill Street, and pedestrian access to the hotel would be on 11th Street, with restaurant entrances on both streets. Visitors, patrons, and employees arriving to the Project by bicycle would have the same access opportunities as pedestrians and would be able to utilize on-site bicycle parking facilities. The loading area will be located on the ground floor near the alley driveway.

A level of service analysis was conducted to evaluate the ability of each driveway access to accommodate the anticipated traffic levels at the driveway access points. The driveways will be unsignalized and stop-controlled and were analyzed using the 2-way Stop methodology from HCM 6th Edition. The alley driveway was analyzed at the intersection of the alley and 11th Street, rather than the intersection of the Project driveway and the alley, because the alley & 11th Street intersection is where Project trips will encounter other trips. The HCM methodology determines the average vehicle delay for the stop-controlled approach to find the corresponding LOS based on the definitions presented in **Table 7**. Driveway analysis LOS worksheets are included in **Appendix F**. **Table 12** shows the results of the LOS analysis for the driveways described above as part of the Project site access.

As shown, the driveways are projected to operate at LOS C or better under the Future plus Project scenario.

Queueing analysis was also performed at the Project driveways, using the HCM 6th Edition 2-way Stop methodology. As shown in **Table 12**, the outbound queues at each driveway are projected to be less than one car length in the peak hours. The queueing analysis is provided on the same worksheets as the LOS analysis in **Appendix F**.

Passenger Loading

As shown in **Figure 2**, a passenger loading zone will be located off of 11th Street in front of the Project. This will replace four existing metered parking spaces, and allow for passengers to be picked up and dropped off at the site. Due to the permanent loss of four metered parking spaces, the Project will coordinate with LADOT's Parking Meters Division to calculate the Meter Revenue Recovery Fee, which accounts for the lost revenue from the four parking spaces over the course of ten years.

For valet trips, visitors arriving at the site will drop off their vehicles at the passenger loading zone on 11th Street, and departing visitors will pick up their vehicles within the Project site on one of the parking levels above or below grade.

Table 12
1111 S Hill Street Project
Existing (2024) plus Project Project Driveway LOS Results - HCM 6th Edition

Driveway	North/South	East/West	Time of day	Delay (sec/veh)	LOS	Outbound Queue (# of 25ft vehicles)
Hill Street	Hill Street	Driveway	AM	10.7	B	0.2
			PM	13.5	B	0.3
Alley	Alley	Driveway	AM	12.6	B	0.3
			PM	18.0	C	0.4

4.4 Project Construction

This section provides a construction period traffic analysis in accordance with the LADOT TAG.

This section assesses whether the construction of the project would interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility, considering three categories of construction impacts per the LADOT TAG: (1) temporary transportation constraints, (2) temporary loss of access, and (3) temporary loss of bus stops or rerouting of bus lines.

Construction of the Project would commence with demolition of the existing warehouse on the Project site. This phase would be followed by site preparation, grading, building construction, paving/concrete installation, and other exterior elements. Project construction is anticipated to be completed in 2024.

Construction Analysis

The assessment of the Project against the evaluation factors described above is presented in **Table 13** and discussed below.

Temporary Traffic Constraints

At the Project site, S. Hill Street is a Modified Avenue II, with two northbound and two southbound lanes. For the full duration of construction, approximately 32 months, the rightmost southbound lane on Hill Street will be closed, and both northbound lanes will remain open. Hill Street does not connect to a freeway on- or off-ramp, and experiences a southbound volume of less than 800 vehicles in the existing AM and PM peak hours and about 1,000 vehicles in the future base (2024) AM and PM peak hours per the Hill Street & 11th Street intersection volumes in **Appendix E**. The nearest emergency service is a fire station at 1335 S Olive Street, south of the site between Pico Boulevard and 14th Street. As there will still be at least one travel lane in each direction on Hill Street, this will not prevent fire department vehicles or other emergency services or vehicles from traveling past the Project along Hill Street. There are no other emergency services within the immediate vicinity of the Project site.

11th Street is a Modified Collector at the Project site, with one westbound lane and a buffered bike lane on the right side of the street. For the full duration of construction, the existing vehicle travel lane will remain open, but the four parking spots adjacent to the Project, which are currently not metered, will be closed. The bicycle lane may be converted to a shared Class III lane with the vehicles using "sharrows" for the duration of construction at the Project site, to be confirmed when final plans are developed with LADOT. 11th Street connects to I-110 about 0.6 miles west of the Project with both on- and off-ramps, and it experiences a westbound volume of less than 450 vehicles in the AM and PM peak hours per the volumes in **Appendix E**. Fire department vehicles traveling to or from the stations on Olive Street would still have access to one westbound lane on 11th Street, the same as existing, as would other emergency services using the street. There are no other emergency services within the immediate vicinity of the Project site.

The alley adjacent to the Project site will be closed for the duration of construction, pending approval from the City of Los Angeles. With the alley closure, access to destinations along the alley will still be provided from the Olive Street end.

There may be intermittent periods when large numbers of material deliveries are required, such as when concrete trucks will be needed for the parking garage and the buildings. Some of the materials and equipment could require the use of large trucks (18-wheelers). Worksite traffic control plans would be prepared for any temporary vehicle lane, parking lane, or sidewalk closures in accordance with applicable City and Manual on Uniform Traffic Control Devices (MUTCD) guidelines. During construction, the Project may experience a continuous concrete pour, which would also be addressed in the worksite traffic control plans.

Temporary Loss of Access

The existing land uses near the vicinity of the construction site will remain open throughout construction. Pedestrian and vehicular access to properties located nearby to the Project site will be open for the duration of construction. The sidewalks at the Project frontages along Hill Street and 11th Street will be closed for the duration of construction, but access will be provided via a covered pedestrian canopy and walkway along those two Project frontages. While the covered walkway is constructed, utility connections are made, or select other construction procedures are performed, there may be temporary closure of pedestrian access along either of the Project frontages. During this time, appropriate signage would be implemented to direct pedestrians to accessible nearby routes. The long-term walkway available during most of construction would still restrict ADA access to the bus stop in front of the Project along Hill Street, but the stop will be relocated either north or south of the site in coordination with LA Metro and Montebello Bus Lines, so full access to the relocated stop will still be provided.

Temporary Loss of Bus Stops or Rerouting of Bus Lines

As mentioned, the bus stop along Hill Street at the Project site will need to be relocated either just north or just south of the site in coordination with LA Metro and Montebello Bus Lines. This would occur throughout the whole construction period. Even with the relocated stop, the existing stops less than 0.2 miles north and south of the Project, for the same bus routes, will not be relocated due to construction.

Haul Route & Truck Analysis

The proposed haul route for the Project will require trucks to access the Project site from the nearby I-10 Freeway, taking the Los Angeles Street exit from the westbound I-10 and the Los Angeles Street entrance onto the eastbound I-10. Trucks will drive along Hill Street to travel between the freeway and the Project site. The greatest amount of trucks will be during the one-day continuous concrete pour for the building foundation, which would require approximately 576 concrete truck round trips for that day. The next greatest amount of daily trucks will be during the grading portion of the Project construction, with an estimated 126 truck round trips per day. This portion is expected to last for approximately two months. There will be 30 daily trucks per day during demolition, which is also a two-month period, and the rest of the construction period is projected to have a maximum of 10 trucks per day.

Table 13
1111 S Hill Street Project
Construction Evaluation [a]

Evaluation Criteria	Assessment
Temporary Traffic Constraints:	
• The length of time of temporary street closures or closures of two or more traffic lanes;	• Temporary street closures or closures of two or more traffic lanes are not anticipated.
• The classification of the street (major arterial, state highway) affected;	• Hill Street is a Modified Avenue II. 11th Street is a Collector.
• The existing traffic levels and level of service (LOS) on the affected street segments and intersections;	• The Hill Street & 11th Street intersection currently operates at LOS C during both peak periods. The Hill Street & 12th Street intersection currently operates at LOS B in the AM peak and LOS A in the PM peak. The Olive Street & 11th Street intersection currently operates at LOS C during both peak periods
• Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;	• 11th Street connects to I-110 about 0.6 miles west of the Project Site.
• Potential safety issues involved with street or lane closures;	• Worksite traffic control plans would be prepared for any temporary lane closures in accordance with applicable City and Manual on Uniform Traffic Control Devices guidelines.
• The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.	• The nearest emergency service is a fire station at 1335 S Olive Street, south of the site between Pico Boulevard and 14th Street. Vehicles from this site may use either Hill Street or 11th Street.
Temporary Loss of Access:	
• The length of time of any loss of pedestrian or bicycle circulation past a construction area;	• Blockage of existing pedestrian access past the construction area is not anticipated, as temporary walkways will be constructed on the perimeter of the construction site. In terms of bicycle access, the bike lane on 11th Street may be converted to a Class III shared lane using "sharrows" during the 32 months of construction.
• The length of time of any loss of vehicular or pedestrian access to a parcel fronting the construction area;	• Loss of vehicular or pedestrian access to parcels fronting the construction area is not anticipated. Full alley closure at the portion adjacent to the Project during construction will be requested, in which case access to the alley would still be provided on Olive Street.
• The length of time of any loss of ADA pedestrian access to a transit station, stop, or facility;	• The southbound bus stop on Hill Street south of 11th Street will be relocated just north or south of the site in coordination with Metro during the 32 months of construction. Other than this relocated stop, there are existing stops on the same routes north and south of this one within less than 0.2 miles.
• The availability of alternative vehicular or pedestrian access within ¼ mile of the lost access;	• Although pedestrian access will still be available, all sidewalks on opposite sides of Hill Street & 11th Street are expected to remain open.
• The type of land uses affected, and related safety, convenience, and/or economic issues.	• Loss of access to other land uses is not anticipated.
Temporary Loss of Bus Stops or Rerouting of Bus Lines:	
• The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;	• The bus stop at the Project site along Hill Street would be relocated for the approximately 32 months of construction.
• The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated;	• The curbside just north of the site along Hill Street appears to be a suitable location for a relocated bus stop, but exact coordination of this would be done with Metro.
• The existence of other bus stops or routes with similar routes/ destinations within a ¼mile radius of the affected stops or routes;	• There is a bus stop for all the same routes less than 0.2 miles north of the site and another one less than 0.2 miles south of the site.
• Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).	• The interruption would continue throughout all of construction on all days of the week.

Notes:
[a] Evaluation Criteria Source: LADOT Transportation Assessment Guidelines, July 2020.

Construction Management Plan

A Construction Management Plan will be developed by the contractor and approved by the City of Los Angeles to alleviate construction period impacts, which may include but is not limited to the following measures:

- Provide off-site truck staging in a legal area furnished by the construction truck contractor.
- Schedule deliveries and pick-ups of construction materials during non-peak travel periods to the extent possible and coordinate to reduce the potential of trucks waiting to load or unload for protracted periods.
- As parking, travel lane, and/or sidewalk closures are anticipated, worksite traffic control plan(s), approved by the City of Los Angeles, should be implemented to route vehicular traffic, bicyclists, and pedestrians around any such closures.
- Determine with the City the number and location of flag men required to reroute traffic and accommodate deliveries as needed.
- Establish requirements for loading/unloading and storage of materials on the Project site, where parking spaces would be encumbered, length of time traffic travel lanes can be encumbered, sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses and residences.
- Ensure that access will remain unobstructed for land uses in proximity to the Project site during Project construction.
- Coordinate with the City and emergency service providers to ensure adequate access is maintained to the Project site and neighboring businesses, residences, and other ongoing projects such as the Los Angeles Streetcar.
- Construction notices/hotline will be posted at several locations on the Project site.

5. Summary and Conclusions

This study was undertaken to analyze the potential traffic impacts of the proposed development at 1111 S Hill Street on the corner of S. Hill Street and 11th Street. The following summarizes the results of this analysis:

- The Project involves the construction of 319 apartment units, 160 hotel rooms with 7,071 square feet of ancillary meeting rooms, and 3,381 square feet of high turnover restaurant space.
- The proposed Project is located on the corner of S Hill Street and 11th Street. Access will be provided to the parking via two driveways. One driveway will be on S Hill Street, near the south end of the site, and the other driveway will be on the alley on the west end of the site, providing access to 11th Street. A loading area will be provided off the alleyway.
- The Project features, location, and design would be consistent with City plans, programs, ordinances, and policies that support alternative transportation and have been adopted to protect the environment. Therefore, the Project would have a less than significant impact on the City's transportation-related plans, programs, ordinances, and policies.
- Based on the Project's mix of land uses and location, the Project is projected to have less than significant VMT impacts.
- The Project is not projected to substantially increase hazards, conflicts, or preclude City action to fulfill or implement projects associated with surrounding transportation networks and will contribute to overall walkability through enhancements to the surrounding sidewalks. Therefore, the Project is expected to have a less than significant impact.
- The Project would not have a direct or indirect effect that would lead to permanent removal, modification, or degradation of pedestrian, bicycle, or transit facilities.
- The site circulation and access assessment includes analysis of four intersections, all of which operate under signal control. The two Project driveways were analyzed as two-way stop controlled intersections. The HCM methodology was used for all intersections and driveways. The Project would generate an estimated 150 trips in the AM Peak Hour, with 64 inbound trips and 86 outbound trips. In the PM Peak Hour, the Project is expected to generate 181 trips, with 105 inbound and 76 outbound trips.
    - The LOS analysis for the existing scenario determined that all four signalized study intersections currently operate at LOS C or better during both peak periods
    - The LOS analysis for the Future Base and Future plus Project determine that all signalized intersections continue to operate at LOS C or better during both peak periods.

- A construction traffic management plan will be prepared, and a discussion of construction considerations did not identify substantial interference of Project construction activity on the surrounding circulation system.

Appendix A – Memorandum of Understanding

LADOT

Transportation Assessment Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: 1111 S Hill Street

Project Address: 1111 S Hill Street, Los Angeles, CA, 90015

Project Description: See Figure 1. Includes 319 residential units, 160 hotel rooms, including 7,071 SF of ancillary hotel meeting rooms, and 3,381 SF of restaurant space.

LADOT Project Case Number: _____ Project Site Plan attached? *(Required)* ■ Yes ☐ No

II. TRIP GENERATION

Geographic Distribution: N 24 % S 24 % E 28 % W 23 %

Illustration of Project trip distribution percentages at Study intersections attached? *(Required)* ■ Yes ☐ No

Trip Generation Rate(s): ITE 10th Edition / Other _____

Trip Generation Adjustment *(Exact amount of credit subject to approval by LADOT)*	**Yes**	**No**
Transit Usage	■	☐
Transportation Demand Management	☐	■
Existing Active Land Use	☐	■
Previous Land Use	☐	■
Internal Trip	■	☐
Pass-By Trip	■	☐

Trip generation table including a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ■ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	64	86	150
PM Trips	105	76	181

Daily Trips 1,679
(From VMT Calculator)

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2024 Ambient Growth Rate: 0.2 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ■ Yes ☐ No

Map of Study Intersections/Segments attached? ■ Yes ☐ No

STUDY INTERSECTIONS *(May be subject to LADOT revision after access, safety and circulation analysis)*

1 S Olive Street & W 11th Street
2 S Olive Street & W 12th Street
3 S Hill Street & W 11th Street
4 S Hill Street & W 12th Street

Is this Project located on a street within the High Injury Network? ☐ Yes ■ No

IV. ACCESS ASSESSMENT

Is the project on a lot that is 0.5-acre or more in total gross area? ■ Yes ☐ No

Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ■ No

Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ■ No

V. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	John Muggridge	Crown 1111, LLC
Address:	600 Wilshire Blvd, Suite 1050, Los Angeles, CA 90034	511 N. La Cienega Blvd. Ste 206
Phone Number:	(213) 261-3064	West Hollywood, CA 90048
E-Mail:	j.muggridge@fehrandpeers.com	patrickcaruso@crowngroup.com.au

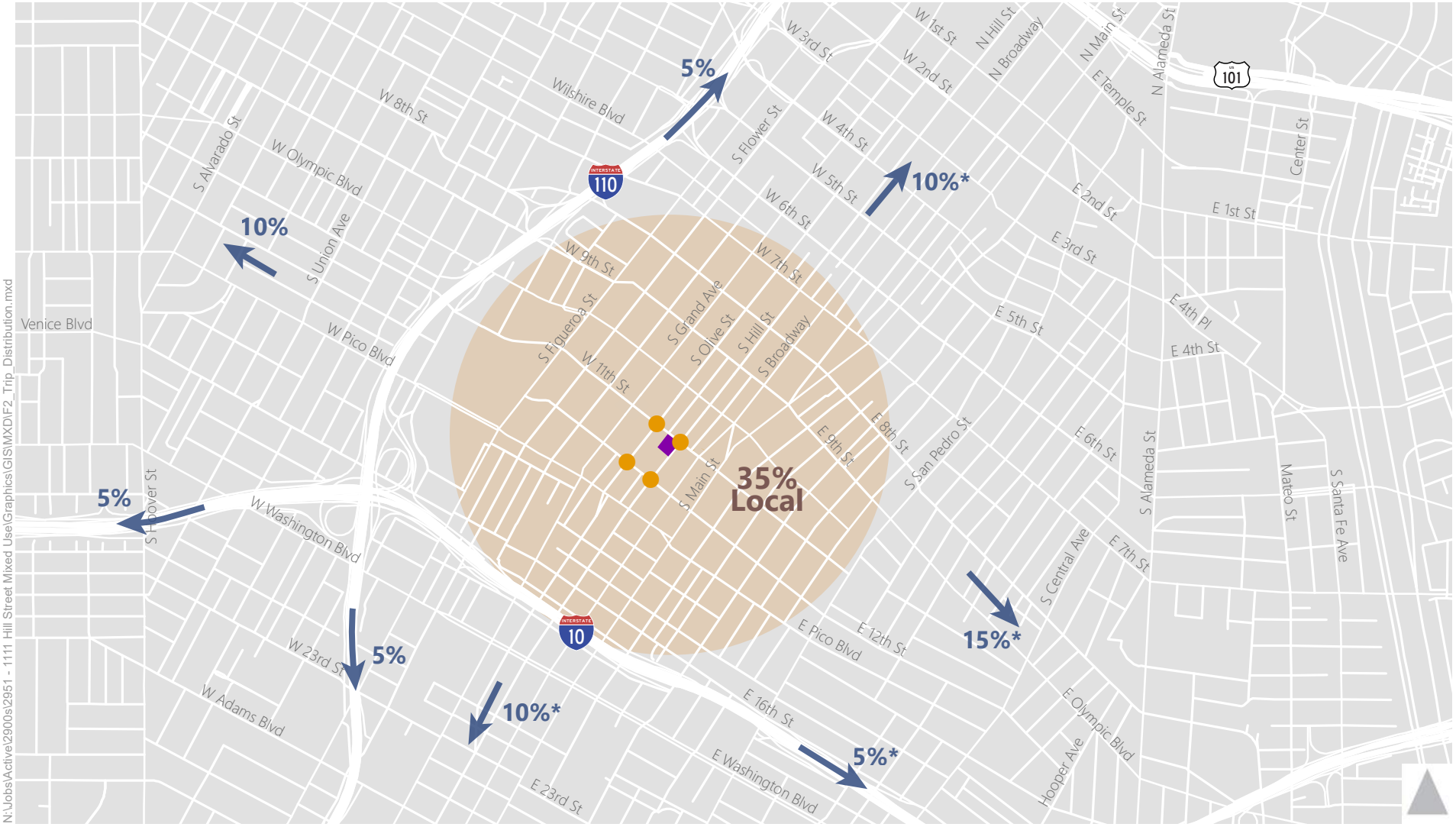
Approved by:	x _____	5/18/2020	x _____	5/14/2020
	Consultant's Representative	Date	LADOT Representative	*Date

*MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.

Figure 1

Site Plan: Residential Option
1111 S. Hill Street

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.



Study Intersections Project Site

*Some trips ultimately distributed onto freeways.

Figure 2

Trip Distribution

TABLE 1
1111 S HILL STREET PROJECT
TRIP GENERATION ESTIMATES

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]							Estimated Trip Generation						
			Daily	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	In%	Out%	Rate	In%	Out%		In	Out	Total	In	Out	Total
PROPOSED PROJECT																
Multifamily Housing (High-Rise) [b]	222	319 DU	2.07	0.23	24%	76%	0.3	61%	39%	660	18	55	73	59	37	96
Less: Internal capture [c]			*6%*		*4%*	*8%*		*5%*	*13%*	*(40)*	*(1)*	*(4)*	*(5)*	*(3)*	*(5)*	*(8)*
Total Driveway Trips										620	17	51	68	56	32	88
Hotel [c]	310	160 Rooms	[f]	[g]	59%	41%	[h]	51%	49%	1,379	44	31	75	48	46	94
Less: Internal capture [d]			*3%*		*2%*	*6%*		*6%*	*3%*	*(41)*	*(1)*	*(2)*	*(3)*	*(3)*	*(1)*	*(4)*
Less: Transit/walk/bike credit [e]			*15%*	*15%*			*15%*			*(201)*	*(6)*	*(4)*	*(10)*	*(7)*	*(7)*	*(14)*
Total Driveway Trips										1,137	37	25	62	38	38	76
High-Turnover (Sit Down) Restaurant	932	3.381 ksf	112.18	9.94	55%	45%	9.77	62%	38%	379	19	15	34	20	13	33
Less: Internal capture [d]			*16%*		*25%*	*8%*		*21%*	*27%*	*(61)*	*(5)*	*(1)*	*(6)*	*(4)*	*(4)*	*(8)*
Less: Transit/walk/bike credit [e]			*15%*	*15%*			*15%*			*(48)*	*(2)*	*(2)*	*(4)*	*(2)*	*(1)*	*(3)*
Total Driveway Trips										270	12	12	24	14	8	22
Less: Pass-by [i]			*20%*	*20%*			*20%*			*(54)*	*(2)*	*(2)*	*(4)*	*(3)*	*(2)*	*(5)*
Net External Vehicle Trips										216	10	10	20	11	6	17
TOTAL DRIVEWAY TRIPS										2,027	66	88	154	108	78	186
TOTAL PROJECT EXTERNAL VEHICLE TRIPS										1,973	64	86	150	105	76	181

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition* , 2017.

[b] Local dense multi-use urban high-rise residential data presented in the LADOT Transportation Assessment Guidelines was used to determine the trip generation for the residential land use. The local data did not include information on daily rates, so the dense multi-use urban daily rate from the ITE Trip Generation Manual, 10th Edition was used.

[c] Hotel includes 7,071 SF of ancillary meeting rooms.

[d] Internal capture represents the percentage of trips between land uses that occur within the site. Transportation Research Board (TRB) National Cooperative Highway Research Program (NCHRP) Report 684: Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, 2011. The daily credit is assumed to be 75% of peak hour credits taken.

[e] The transit credit is based on LADOT's Transportation Assessment Guidelines. The guidelines state that up to 15% transit credit may be taken for projects within 1/4 mile walking distance of a transit station or of a RapidBus stop.

[f] The equation T = 11.29X - 426.97 was used to calculate the Daily Hotel trips, with X representing the number of rooms and T representing the number of trips, per ITE Trip Generation Handbook.

[g] The equation T = 0.50X - 5.34 was used to calculate the AM Hotel trips, with X representing the number of rooms and T representing the number of trips, per ITE Trip Generation Handbook.

[h] The equation T = 0.75X - 26.02 was used to calculate the PM Hotel trips, with X representing the number of rooms and T representing the number of trips, per ITE Trip Generation Handbook.

[i] The pass-by credit is based on Attachment H of LADOT's Transportation Assessment Guidelines

TABLE 2
1111 S HILL STREET PROJECT
TRIP GENERATION ESTIMATES FOR CUMULATIVE PROJECTS

ID	PROJECT ADDRESS	LAND USE	SIZE		TRIP GENERATION ESTIMATES[a]						
					DAILY	AM PEAK HOUR			PM PEAK HOUR		
						IN	OUT	TOTAL	IN	OUT	TOTAL
1	1133 S Hope St	Apartments	208	du	1,543	20	74	94	91	50	141
		Retail	5.029	ksf							
2	1401 S Grand Ave [b]	Hospital	148.465	ksf	1,859	94	59	153	32	43	75
		Retail	6	ksf							
3	1300 S Hope St	Apartments	419	du	4,280	88	105	193	136	102	238
		Retail	42.2	ksf							
4	928 S Broadway	Apartments	667	du	4,715	21	229	250	272	109	381
		Retail	58.7	ksf							
5	920 S Hill St	Apartments	239	du	1,476	23	84	107	87	50	137
		Retail	5.4	ksf							
6	955 S Broadway	Apartments	201	du	1,275	21	72	93	74	43	117
		Retail	6	ksf							
7	1212 W Flower St	Condominiums	730	du	3,956	78	233	311	229	121	43
		Retail	10.5	ksf							
		Office	70.465	ksf							
8	1111 S Broadway	Apartments	391	du	5,198	144	176	320	258	274	532
		Office	41.14	ksf							
		Retail	40	ksf							
9	1148 S Broadway	Apartments	94	du	553	8	30	38	32	18	50
		Retail	2.5	ksf							
10	1120 S Grand Ave	Apartments	666	du	2,730	42	127	169	136	93	229
		Retail	20.69	ksf							
11	1036 S Grand Ave	Restaurant	7.149	ksf	492	2	3	5	27	14	41
12	1229 S Grand Ave	Condominiums	161	du	1,116	23	62	85	62	33	95
		Restaurant	3	ksf							
13	940 S Hill St	Apartments	232	du	1881	20	80	100	115	53	168
		Restaurant	14	ksf							
14	1340 S Olive St	Apartments	156	du	1700	51	82	133	89	57	146
		Retail	5	ksf							
		Restaurant	10	ksf							
15	1100 S Main St	Apartments	379.000	du	385	9	103	112	78	14	92
		Retail	25.81	ksf							
16	1340 S Hill St	Apartments	235	du	1755	11	103	114	108	30	138
		Retail	5.25	ksf							
		Restaurant	4	ksf							
17	1030 S Hill St	Apartments	700	du	3392	49	193	242	181	104	285
		Retail	7	ksf							
		Restaurant	8	ksf							
18	1323 S Grand Av	Apartments	284	du	2158	33	118	151	125	74	199
		Retail	5.2	ksf							
		Restaurant	1.1	ksf							
19	1219 S Hope St	Hotel	75	Rooms	613	24	16	40	23	22	45
		Retail	2.650	ksf							
20	124 E Olympic Bl	Hotel	149	rooms	1334	53	45	98	58	33	91
		Restaurant	6.7	ksf							
21	949 S Hope St	Apartments	236	du	791	8	45	53	43	7	50
		Restaurant	5.06	ksf							
		Retail	1	ksf							
22	1138 S Broadway	Hotel	138	rooms	644	20	25	45	22	25	47
23	1045 S Olive St	Apartments	794	du	2227	39	157	196	138	62	200
		Commercial	15	ksf							
24	1155 S Olive St	Hotel	258	Rooms	2008	77	56	133	77	72	149
		Retail	1.896	ksf							
		Restaurant	2.722	ksf							
25	1246 S Hope St	Apartments	258	du	5433	141	128	269	269	199	468
		Hotel	265	rooms							
		Retail	6	ksf							
26	1123 S Main St	Apartments	363	du	463	5	64	69	34	6	40
		Retail	12.5	ksf							
27	1105 S Olive St [b]	Apartments	536	du	5241	122	278	400	258	160	418
		Commercial	6.153	ksf							
28	1200 S Broadway [b]	Apartments	177	du	366	4	33	37	24	10	34
29	1000 S. Hill St [b]	Apartments	498	du	3683	56	206	262	216	125	341
		Commercial	8.707	ksf							
30	1001 S Olive St [c]	Apartments	225	du	1581	22	79	101	94	51	145
		Restaurant	5	ksf							
31	1317 S Hope St [b]	Apartments	38	ksf	655	25	28	53	34	22	56
		Retail	4	ksf							
32	1201 S Grand Ave [b]	Apartments	312	du	2,185	56	86	142	100	63	163
		Retail	7.1	ksf							
33	1317 S Grand Ave [b]	Apartments	151	du	821	14	40	54	40	26	66

TABLE 2
1111 S HILL STREET PROJECT
TRIP GENERATION ESTIMATES FOR CUMULATIVE PROJECTS

ID	PROJECT ADDRESS	LAND USE	SIZE		TRIP GENERATION ESTIMATES[a]						
					DAILY	AM PEAK HOUR			PM PEAK HOUR		
						IN	OUT	TOTAL	IN	OUT	TOTAL
34	1320 S Flower St [b]	Hotel	43	rooms	370	12	9	21	14	13	27
		Apartments	2	du							
35	1120 S Olive St [b]	Apartments	713	du	4,438	101	175	276	199	125	324
		Commercial	11.277	ksf							
36	Los Angeles Street Car [d]	Infrastructure Project	-	-	-	-	-	-	-	-	-
37	Regional Connector Transit Project [e]	Infrastructure Project	-	-	-	-	-	-	-	-	-
38	1099 S Grand Ave	Hotel	160	Rooms	2,908	121	93	214	134	99	233
		Restaurant [f]	14	ksf							

Notes:

du = dwelling units

ksf = one thousand square feet

[a] Related projects list is based on information provided by LADOT on March 24, 2020

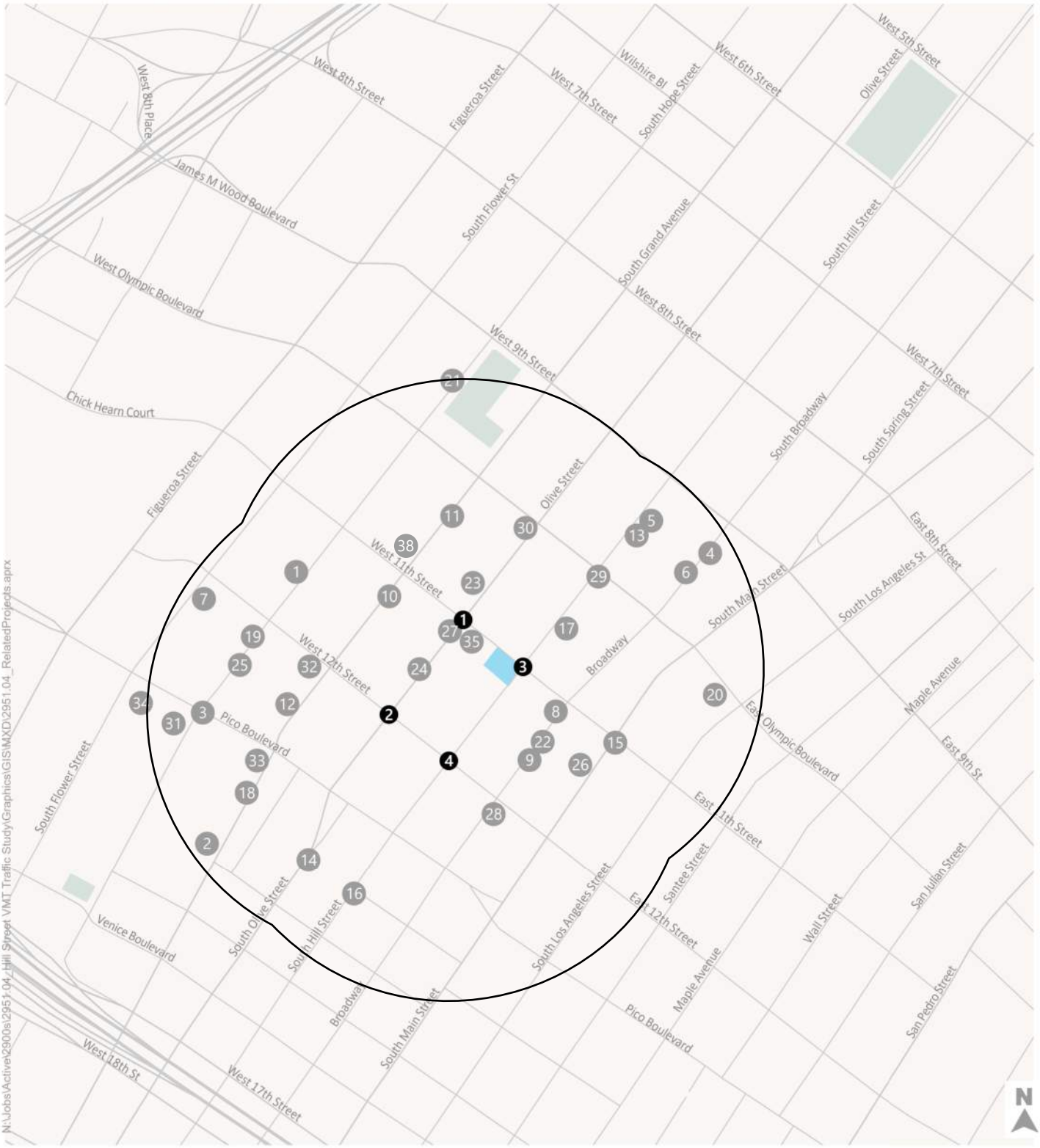
[b] Projects were not included in information provided by LADOT. Projects and land use from third party research. Trip generation estimates based on ITE rates.

[c] Projects were not included on information provided by LADOT, but were included from list provided on December 10, 2018 due to close proximity to project.

[d] The Los Angeles Street Car is a 3.8-mile route connecting riders with places like South Park, the Financial District and Historic Broadway, Grand Park and the Civic Center, the Fashion District and the Convention Center, Staples Center, and LA Live.

[e] The Regional Connector Transit Project is a 1.9-mile alignment that will serve Little Tokyo, the Arts District, Civic Center, The Historic Core, Broadway, Grand Avenue, Bunker Hill, Flower Street, and the Financial District.

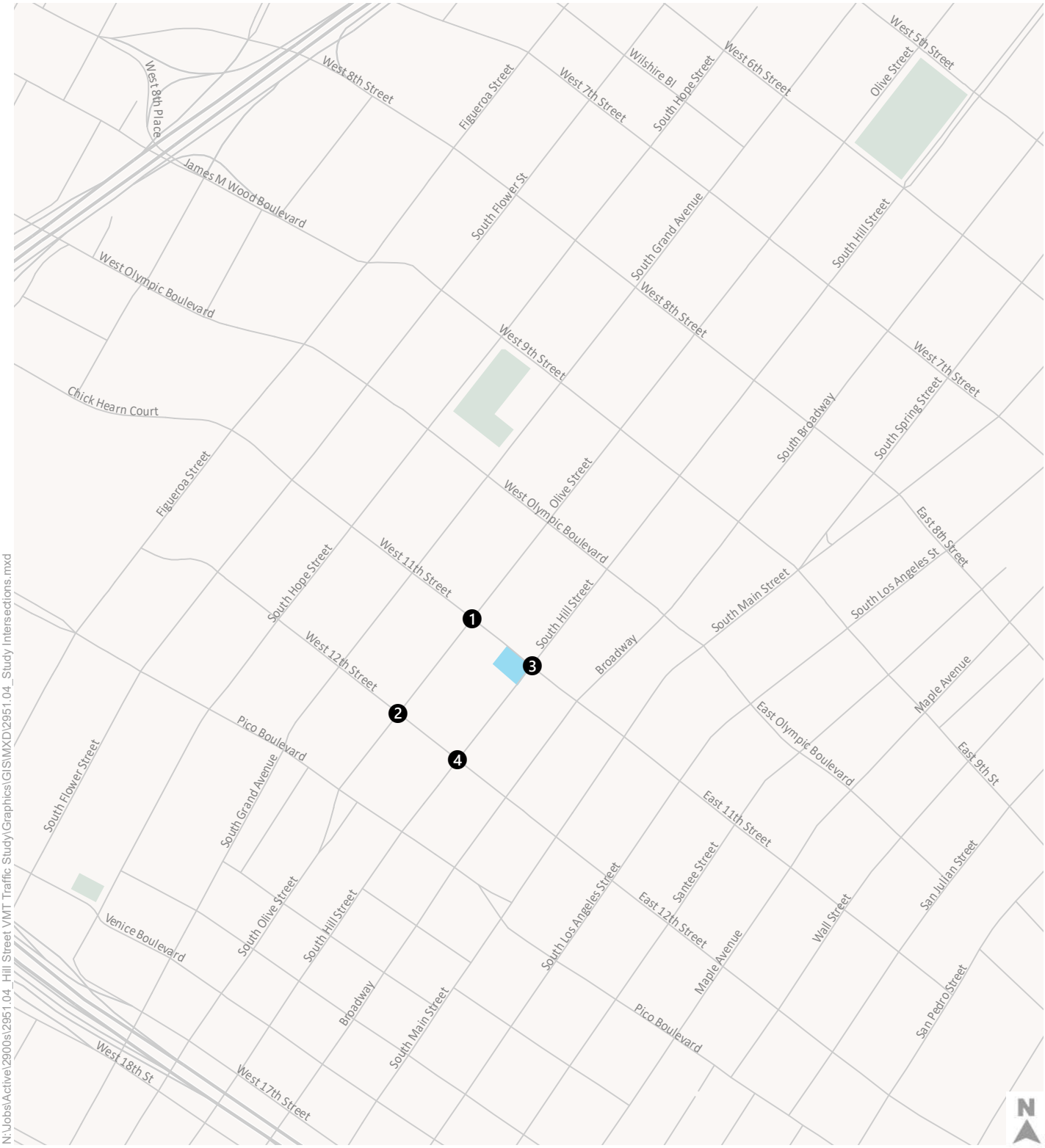
[f] Publicly available project information for 1099 S Grand Ave did not include square footage for the restaurant, so 14 ksf was used to match the largest restaurant on this list.



Study Intersections
Related Projects
Project Site
Quarter Mile Radius Around Study Intersections

Figure 3

Related Projects
1111 S Hill Street



N:\Jobs\Active\2900s\2951.04_Hill Street VMT Traffic Study\Graphics\GIS\MXD\2951.04_Study Intersections.mxd

● Study Intersections

Project Site

Figure 4

Study Intersections
1111 S Hill Street

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

Project Information

Project: 1111 S Hill Street

Scenario: Project

Address: 1111 S HILL ST, 90015

Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	319	DU
Housing | Hotel	160	Rooms
Retail | High-Turnover Sit-Down Restaurant	3.381	ksf

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	**No**	**No**
Max Work Based TDM Achieved?	**No**	**No**

A Parking

Reduce Parking Supply
☐ Proposed Prj ☐ Mitigation
100 city code parking provision for the project site
74 actual parking provision for the project site

Unbundle Parking
☐ Proposed Prj ☐ Mitigation
150 monthly parking cost (dollar) for the project site

Parking Cash-Out
☐ Proposed Prj ☐ Mitigation
50 percent of employees eligible

Price Workplace Parking
☐ Proposed Prj ☐ Mitigation
6.00 daily parking charge (dollar)
25 percent of employees subject to priced parking

Residential Area Parking Permits
☐ Proposed Prj ☐ Mitigation
200 cost (dollar) of annual permit

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
1,679 Daily Vehicle Trips	**1,679** Daily Vehicle Trips
9,266 Daily VMT	**9,266** Daily VMT
4.7 Household VMT per Capita	**4.7** Household VMT per Capita
6.0 Work VMT per Employee	**6.0** Work VMT per Employee

Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	**Work: No** Threshold = 7.6 15% Below APC

Measuring the Miles

Figure 5

VMT Calculator

3/30/2020

John Muggridge

From: Tomas Carranza <tomas.carranza@lacity.org>
Sent: Monday, July 20, 2020 10:10 AM
To: John Muggridge
Subject: TAG Update

Hi John,
I just checked with Eddie and Wes. Your study can proceed as planned from the TAG that was in place at the time the MOU was executed. We are giving applicants the option to apply the new TAG provisions if they had an executed MOU under the old TAG.
--

Tomas Carranza, PE
Principal Transportation Engineer
Transportation Planning & Land Use Review
Los Angeles Department of Transportation
213.972.5900

Appendix B – TAG Screening Criteria

LADOT TAG SCREENING EVALUATION
(Based on LADOT TAG, July 2019)

Screening Criteria	Screening Evaluation	Analysis Required?
2.1 CONFLICTING WITH PLANS, PROGRAMS, ORDINANCES, OR POLICIES		
If the project requires a discretionary action, and the answer is yes to any of the following questions, further analysis will be required to assess whether the proposed project would negatively affect existing pedestrian, bicycle, or transit facilities: 1. Would the project generate a net increase of 250 or more daily vehicle trips? 2. Is the project proposing to, or required to make any voluntary or required, modifications to the public right-of-way (i.e., street dedications, reconfigurations of curb line, etc.)? 3. Is the project on a lot that is 0.5-acre or more in total gross area, or is the project's frontage along a street classified as an Avenue or Boulevard (as designated in the City's General Plan), 250 linear feet or more, or is the project's building frontage encompassing an entire block along a street classified as an Avenue or Boulevard by the City's General Plan?	1. Yes 2. Yes 3. Yes	
2.2 CAUSING SUBSTANTIAL VEHICLE MILES TRAVELED		
If the project requires a discretionary action, and the answer is no to either T-2.1-1 or T-2.1-2, further analysis will not be required for Threshold T-2.1, and a "no impact" determination can be made for that threshold: 1. T-2.1-1: Would the land use project generate a net increase of 250 or more daily vehicle trips? 2. T-2.1-2: Would the project generate a net increase in daily VMT? In addition to the above screening criteria, the portion of, or the entirety of a project that contains small-scale or local serving retail uses are assumed to have less than significant VMT impacts. If the answer to the following question is no, then that portion of the project meets the screening criteria and a no impact determination can be made for the portion of the project that contains retail uses. However, if the retail project is part of a larger mixed-use project, then the remaining portion of the project may be subject to further analysis in accordance with the above screening criteria. Projects that include retail uses in excess of the screening criteria would need to evaluate the entirety of the project's vehicle miles traveled, as specified in Section 2.2.4. 3. If the project includes retail uses, does the portion of the project that contain retail uses exceed a net 50,000 square feet?	1. Yes 2. Yes 3. No 4. No	

Independent of the above screening criteria, and the project requires a discretionary action, further analysis will be required if the following statement is true: 4. Would the Project or Plan located within a one-half mile of a fixed-rail or fixed-guideway transit station replace an existing number of residential units with a smaller number of residential units?		
2.3 SUBSTANTIALLY INDUCING ADDITIONAL AUTOMOBILE TRAVEL		
If the answer is no to the following question, further analysis will not be required for Threshold T-2.2, and a no impact determination can be made for that threshold: 1. T-2.2: Would the project include the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle (HOV) lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than one mile in length designed to improve roadway safety)?	1. No	
2.4 SUBSTANTIALLY INCREASING HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE OR INCOMPATIBLE USE		
If the project requires a discretionary action, and the answer is "yes" to either of the following questions, further analysis will be required to assess whether the project would result in impacts due to geometric design hazards or incompatible uses: 1. Is the project proposing new driveways, or introducing new vehicle access to the property from the public right-of-way? 2. Is the project proposing to, or required to make any voluntary or required, modifications to the way (i.e., street dedications, reconfigurations of curb line, etc.)?	1. Yes 2. Yes	
3.2 PEDESTRIAN, BICYCLE, AND TRANSIT ACCESS ASSESSMENT		
If the answer is yes to all of the following questions, further analysis will be required to assess whether the project would negatively affect existing pedestrian, bicycle, or transit facilities: 1. Would the project generate a net increase of 250 or more daily vehicle trips? 2. Does the land use project include the construction, or addition of: a. 50 dwelling units or guest rooms or combination thereof, or b. 50,000 square feet of non-residential space? 3. Is the project on a lot that is ½ acre or more in total gross area, or is the project's frontage along an Avenue or Boulevard (as designated in the City's General Plan), 250 linear feet or more, or is the project's building frontage encompassing an entire block along an Avenue or Boulevard (as designated in the City's General Plan)?	1. Yes 2. Yes 3. Yes	

3.3 PROJECT ACCESS, SAFETY, AND CIRCULATION EVALUATION		
Land Use Development Projects For land use projects, if the answer is yes to all of the following questions, further analysis will be required to assess whether the project would negatively affect project access and circulation: 1. Does the land use project involve a discretionary action that would be under review by the Department of City Planning? 2. Would the land use project generate a net increase of 250 or more daily vehicle trips? Transportation Projects For transportation projects, if the answer is yes to the following question, further analysis will be required to assess how the project would affect project access, safety and circulation: 3. Does the transportation project reduce travel lane capacity on a road that would be expected to carry more than 750 vehicles per hour per lane for at least two (2) consecutive hours in a 24-hour period after the project is completed?	1. Yes 2. Yes 3. N/A	
3.4 PROJECT CONSTRUCTION		
If the answer is yes to any of the following questions, further analysis will be required to assess if the project could negatively affect existing pedestrian, bicycle, transit, or vehicle circulation: 1. Would a project that requires construction activities to take place within the right-of-way of a Boulevard or Avenue (as designated in the Mobility Plan 2035) which would necessitate temporary lane, alley, or street closures for more than one day (including day and evening hours, and overnight closures if on a residential street?) 2. Would a project require construction activities to take place within the right-of-way of a Collector or Local Street (as designated in the Mobility Plan 2035) which would necessitate temporary lane, alley, or street closures for more than seven days (including day and evening hours, and including overnight closures if on a residential street)? 3. Would in-street construction activities result in the loss of regular vehicle, bicycle, or pedestrian access, including loss of existing bicycle parking to an existing land use for more than one day, including day and evening hours and overnight closures if access is lost to residential units? 4. Would in-street construction activities result in the loss of regular ADA pedestrian access to an existing transit station, stop, or facility (e.g., layover zone) during revenue hours? 5. Would in-street construction activities result in the temporary loss for more than one day of an existing bus stop or rerouting of a bus route that serves the project site?	1. Yes 2. Yes 3. No 4. No, stop would be relocated. 5. No, stop would be relocated.	

3.5 RESIDENTIAL STREET CUT-THROUGH ANALYSIS		
<u>Land Use Development Projects</u> If the answer is yes to all of the following questions, further analysis may be required to assess whether the project would negatively affect residential streets: 1. Would the project generate a net increase of 250 or more daily vehicle trips? 2. Does the land use project include a discretionary action that would be under review by the Department of City Planning? In addition, for development projects, when selecting residential street segments for analyses during the transportation assessment scoping process, all of the following conditions must be present: 3. The project is located along a currently congested Boulevard or Avenue and adds trips that may lead to trip diversion to parallel routes along residential Local Streets. The congestion level of the Boulevard or Avenue can be determined based on the estimated peak hour LOS under project conditions of the study intersection(s) (as determined in Section 3.3). LOS E and F are considered to represent congested conditions; 4. The project is projected to add a substantial amount of automobile traffic to the congested Boulevard(s), Avenue(s), or Collector(s) that could potentially cause a shift to alternative route(s); and 5. Nearby local residential street(s) (defined as Local streets as designated in the City's General Plan passing through a residential neighborhood) provide motorists with a viable alternative route. A viable alternative route is defined as one which is parallel and reasonably adjacent to the primary route as to make it attractive as an alternative to the primary route. LADOT has discretion to define which routes are viable alternative routes, based on, but not limited to, features such as geography and presence of existing traffic control devices, etc. <u>Transportation Projects</u> For transportation projects, if the answer is yes to the following question, further analysis may be required to assess whether the project would negatively affect project access and circulation: 6. Does the transportation project reduce travel lane capacity on a road that would be expected to carry more than 750 vehicles per hour per lane for at least two (2) consecutive hours in a 24-hour period after the project is completed? In addition, for transportation projects, when selecting residential street segments for analyses during the transportation assessment study scoping process, all of the following conditions must be present:	1. Yes 2. Yes 3. No 4. No 5. No 6. N/A	

• The transportation project will reduce automobile capacity on a Boulevard, Avenue, or Collector (as designated in the City's General Plan) such that motorists traveling on the Boulevard, Avenue, or Collector may opt to divert to a parallel route through a Local Street, • The project is projected to cause a shift of a substantial amount of traffic to alternative route(s), and • Nearby local residential street(s) (defined as Local streets as designated in the City's General Plan residential neighborhood) provide motorists with a viable alternative route. A viable alternative route is defined as one which is parallel and reasonably adjacent to the primary route as to make it attractive as an alternative to the primary route. LADOT has discretion to define which routes are viable alternative routes, based on, but not limited to, features such as geography and presence of existing traffic control devices, etc.		

Appendix C – Consistency with Plans, Programs, Ordinances, and Policies and Geometric Hazards Review

Appendix C: 1111 S Hill Street Project

Detailed Responses in Support of Determining Plans, Programs, Ordinances, or Policies Applicability

Adapted from Table 2.1-2 In Transportation Analysis Guidelines, LADOT, July 2019

Screening Criteria

If the project requires a discretionary action, and the answer is yes to any of the following questions, further analysis will be required to assess whether the proposed project would negatively affect existing pedestrian, bicycle, or transit facilities:

Screening Criteria	**Answer**
Would the project generate a net increase of 250 or more daily vehicle trips?	Yes
Is the project proposing to, or required to make any voluntary or required, modification to the public right-of-way (i.e., street dedications, reconfigurations of curb lines, etc.)?	Yes
Is the project on a lot that is 0.5-acre or more in total gross area, or is the project's frontage along a street classified as an Avenue or Boulevard (as designated in the City's General Plan), 250 linear feet or more, or is it the project's building frontage encompassing an entire block along a street classified as an Avenue or Boulevard by the City's General Plan?	Yes

Project Consistency with Plans, Policies and Programs

#	Guiding Questions (from TAG Table 2.1-2)	Relevant Plans, Policies, and Programs	Supporting or Complementary City Plans, Policies, and Programs	Response
EXISTING PLAN APPLICABILITY				
1	Does the project include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone? (screening question)	LAMC Section 12.37		The Project does include new construction on an Avenue I, II, or III, with a corresponding C2-4D-O zone that is less restrictive than the R3 zone. Dedications would be made as outlined in the proposed VTTM entitlement request. There is no conflict.
2	Is project site along any network identified in the City's Mobility Plan?	MP 2.3 through 2.7		Portions of the Project frontages are along three of the networks identified in the City's Mobility Plan – the Pedestrian Enhanced Districts, Neighborhood Enhanced Network, and Bicycle Enhanced Network. 2.3 Pedestrian Infrastructure: Mobility Plan 2035 identifies Pedestrian Enhanced Districts (PED) where initial analysis suggests arterials can be improved and further analysis and prioritization will occur as funding and projects become available. Hill Street is part of the PED at the project frontage, and 11th street is not. There is no conflict. 2.4 Neighborhood Enhanced Network: The Neighborhood Enhanced Network (NEN) is a selection of local streets to provide comfortable and safe routes for localized travel of slower-moving modes, such as walking or biking. Hill Street is part of the NEN at the project frontage, and 11th street is not. There is no conflict. 2.5 Transit Network: This policy identifies specific streets as part of the Transit Enhanced Network (TEN) to receive improvements that enhance the performance and reliability of existing and future bus service. The Project frontages are not along streets part of the TEN. There is no conflict. 2.6 Bicycle Networks: This policy establishes a Bicycle Enhanced Network (BEN), which is comprised of protected bicycle lanes and bicycle paths, to provide

				bikeways for a variety of users. Both Hill Street and 11th Street are part of the BEN at the project frontage. There is no conflict. 2.7 Vehicle Network: This policy establishes a Vehicle Enhanced Network (VEN) to identify corridors that will remain critical to vehicular circulation and to balance regional and local circulation needs. The Project frontages are not along streets that are part of the VEN. There is no conflict.
3	Are dedications or improvements needed to serve long-term mobility needs identified in the Mobility Plan 2035?	MP – Street Classifications; MP – Street Designations and Standard Roadway Dimensions	MP - 2.17 Street Widenings	The Project proposes to dedicate two feet of right-of-way along the 11th Street frontage to bring the project-adjacent half of the street up to the modified local street width specified in the Mobility Plan 2035. An additional three feet of easement is provided per Project site plans. Along Hill Street, an existing 6' easement is retained, leaving the sidewalk at the existing width. There is no conflict.
4	Does the project require placement of transit furniture in accordance with City's Coordinated Street Furniture and Bus Bench Program?			The Project does not require placement of transit furniture, although there are six bus routes (LA Metro 2, 4, 90, 91, 94, and 302, and Montebello 50) with an existing stop at the Project frontage on Hill Street. There is no conflict.
5	Is project site in an identified Transit Oriented Community (TOC)?	MP - TEN; MP - PED; MP - BEN; TOC Guidelines		The Transit-Oriented Community (TOC) guidelines define parameters of housing incentives based on considerations such as proximity to high-quality transit, type of housing, and the land uses being replaced. The location of the Project site qualifies as Tier 3 per ZIMAS. MP-TEN: The Project frontages are not along streets part of the TEN. MP-PED: The Project frontage on Hill Street is part of the PED. MP-BEN: The Project frontages on both Hill and 11th Street are part of the BEN. There is no conflict.
6	Is project site on a roadway identified in City's High Injury Network?	Vision Zero	Mobility Plan 2035	The Project is not located on roadways identified in City's High Injury Network. There is no conflict.

7	Does project propose repurposing existing curb space? (Bike corral, car-sharing, parklet, electric vehicle charging, loading zone, curb extension, etc.)	MP - 2.1 Adaptive Reuse of Streets; MP - 2.10 Loading Areas; MP - 3.5 Multi-Modal Features; MP - 3.8 Bicycle Parking; MP - 4.13 Parking and Land Use Management; MP - 5.4 Clean Fuels and Vehicles	MP - 2.3 Pedestrian Infrastructure; MP - 2.4 Neighborhood Enhanced Network; MP - 3.2 People with Disabilities; MP - 4.1 New Technologies; MP 5.1 Sustainable Transportation; MP - 5.5 Green Streets	*Mobility Plan 2035* considers ways to balance the needs of various users and trip purposes through a multimodal transportation network that includes features such as loading areas, electric vehicle charging areas, and bike sharing. The Project relates to the following policies regarding adjacent curb space in *Mobility Plan 2035*: 2.1 Adaptive Reuse of Streets: Urban streets serve multiple purposes that not only include travel but also play a role in providing other roles such as landscaping and drainage. The Project will not alter adjacent streets or the right-of-way in a manner that would preclude or conflict with future changes by various City Departments. There is no conflict. 2.3 Pedestrian Infrastructure: The Project site is part of a Pedestrian Enhanced District along Hill Street, but the Project will improve pedestrian infrastructure on 11th Street as well, with addition of new sidewalks at the Project frontage on both streets. Additionally, the Project will remove an existing curb cut along 11th Street, further improving the pedestrian infrastructure. The one curb cut that is built on Hill Street will be replacing an existing one, so it will not increase the number of curb cuts on Hill Street. There is no conflict. 2.4 Neighborhood Enhanced Network: The Neighborhood Enhanced Network (NEN) is a selection of local streets to provide comfortable and safe routes for localized travel of slower-moving modes, such as walking or biking. The Project frontage is part of a NEN along Hill Street, but not along 11th Street, and the Project will not conflict with NEN guidelines along Hill Street. There is no conflict. 2.10 Loading Areas: When designing developments, it is important to consider a loading area that minimally impacts other travelers such as people driving or walking. The Project proposes a loading/service area adjacent to the alleyway on the West side of the project, which will keep incoming trucks off the major through streets during loading and unloading. There is a passenger loading area proposed at the Project frontage along 11th Street, replacing the existing four parking spaces. This will not reduce the sidewalk width or remove travel lanes in the street. There is no conflict. 3.2 People with Disabilities: When designing developments, it is important to accommodate the needs of all people with varying levels of mobility. The Project proposes to provide improved ADA-compliant sidewalks along 11th Street and Hill Street. There is no conflict.

				3.5 Multi-Modal Features: Depending on the local context, various multimodal features may be considered to encourage walking and/or assist in making first/last mile connections with transit. The Project would support multi-modal travel with bike amenities, such as short-term outdoor bike racks on the sidewalk outside of the path of pedestrian travel, long-term bike parking on the site, and a self-service bike repair area onsite. Pedestrian amenities, such as wide sidewalks will be retained. There is no conflict. 3.8 Bicycle Parking: The Project is providing on-site bicycle parking consistent with the City's Bicycle Parking Ordinance. The Project will provide short and long-term parking that meets code requirements. The Project is required to provide 53 short-term bike parking and 183 long-term bike parking and will provide the respective required amounts. There is no conflict. 4.1 New Technologies: This policy supports new technology systems and infrastructure to expand access to transportation choices. The Project does not propose elements that would limit or preclude the City's ability to offer or introduce new technology systems or infrastructure. There is no conflict. 4.13 Parking and Land Use Management: Excessive parking can incentivize undesirable behavior or result in large areas of vacant land that make it harder to reach destinations without a vehicle. The Project is providing subterranean and aboveground parking. The Project is required to provide and would provide 390 vehicle parking spaces, which is reduced from 484 required vehicle spaces due to the provision of bicycle parking spaces and a conditional use permit reduction, and will provide the required amount. There is no conflict. 5.1 Sustainable Transportation: As mentioned for Policies 3.5 and 3.8, the Project would encourage the development of a sustainable transportation system with its provision of bicycle parking and self-service bike repair area. There is no conflict. 5.4 Clean Fuels and Vehicles: This policy encourages the adoption of low and zero emission fuel sources, new mobility technologies, and supporting infrastructure. The Project's site plans do not impede it from installing electric vehicle charging spots. There is no conflict. 5.5 Green Streets: This policy maximizes opportunities to capture and infiltrate stormwater within the City's public right-of-way. The Project supports this policy by proposing to plant 13 street trees on the perimeter of the Project site, replacing the current 6, with additional landscaping between trees. Additionally, there are proposed landscaped areas on the 43rd floor roof deck, other terraced upper

				floors, 8th floor podium amenity deck, and walls of the parking garage, which can aid the green streets policy before the stormwater runoff reaches the public right-of-way. There is no conflict.
8	Does project propose narrowing or shifting existing sidewalk placement?	MP 2.3 Pedestrian Infrastructure; MP 3.1 - Access for All; MP -PED; MP - ENG 19; MP 2.17 Street Widenings	Healthy LA; Vision Zero; Sustainability Plan	The Project will replace the existing sidewalk along the 11th and Hill Street frontages of the Project site such that the Project would be supportive of and not preclude or conflict with *Mobility Plan 2035* policies such as: 2.3 Pedestrian Infrastructure: The Project will retain and resurface sidewalks around the 11th and Hill Street portions of the Project site perimeter. 3.1 Access for All: *Mobility Plan 2035* emphasizes the importance of multimodal networks as integral components of the City's transportation system. The Project location and design will leverage proximity to multiple Metro bus routes and the nearby Metro rail Pico Station. The Project's design is providing vehicle parking, bicycle parking, and improved pedestrian access. MP PED: Pedestrian Enhanced Districts (PED) identify areas where pedestrian improvements on streets could be prioritized to provide better walking conditions to major destinations within communities. Hill Street is part of the PED at the project frontage, and 11th street is not. MP ENG.19: *Mobility Plan 2035* discusses first/last mile improvements near transit stops that could include measures such as landscaping, lighting, signage, and midblock crosswalks, among other options. The Project will contribute to first/last mile enhancements with bike parking. MP 2.17 Street Widenings: Street widenings should be carefully considered as they can impact the cost, character, safety, and environment of a street segment. The Project is dedicating two feet of right-of-way along the 11th Street frontage to conform with the street classifications in *Mobility Plan 2035* but is not proposing to widen these streets. Healthy LA: This plan states a balanced, affordable, and sustainable transportation system is a cornerstone of a healthy city. Policy 2.11, Foundation for Health, highlights the role of sidewalks as an important asset that promotes active transportation, safe community corridors, and healthy neighborhoods. The Project supports this policy by retaining and resurfacing the sidewalks around the Project site. The Project would not conflict with, limit, or preclude the City's ability to implement programs and policies in furtherance of Healthy LA.

				Vision Zero: The City of Los Angeles Vision Zero initiative strives to enable all people to move freely and safely on the street. The Project supports this initiative by retaining existing sidewalks around the Project site. Sustainability pLAn: The Sustainability pLAn focuses on public transit, bicycling, walking, and locating Angeleno's residences near transit and places they would want to travel. The Project supports this plan by its bike parking infrastructure, proximity to transit routes and the mix of land uses.
9	Does project propose paving, narrowing, shifting or removing an existing parkway?	MP - 5.5 Green Streets; Sustainability pLAn		The Project does not propose a net reduction of street trees and will provide new street trees along the perimeter. This supports *Mobility Plan 2035, 5.5 Green Streets* goal to implement stormwater Best Management Practices, which includes adding new street trees, and the *Sustainability pLAn* goals in the Urban Ecosystems & Resilience chapter to expand the tree canopy.
10	Does project propose modifying, removing or otherwise affect existing bicycle infrastructure? (ex: driveway proposed along street with bicycle facility)	MP - BEN; MP - 4.15 Public Hearing Process	Vision Zero	MP-BEN/Vision Zero: The Project frontage on Hill Street, which is in the BEN but does not yet have a dedicated bicycle facility, will have a driveway near the location of the existing one. The Project does not propose a driveway along 11th Street, which is on the BEN and has a buffered bike lane on the opposite side of the street, but cars will be exiting and entering via an existing alley that connects to 11th Street and Olive Street. However, the Project proposes to provide on-site bicycle parking and preserves the City's ability to implement bicycle projects on adjacent streets that are part of the bikeway network. The Project does not propose to modify, remove, or otherwise affect existing bicycle infrastructure, so there is no conflict. MP 4.15 Public Hearing Process: The Project will not be removing any bicycle facilities, but the Project's entitlement will still require multiple public hearings.
11	Is project site adjacent to an alley? If yes, will project make use of, modify, or restrict alley access?	MP - 3.9 Increased Network Access; MP - ENG.9; MP - PL.1; MP - PL.13; MP - PS.3		Yes, the Project site is adjacent to an alley located along the western edge of the Project side. The Project will not restrict alley access and proposes a driveway off the alley to provide access to and from 11th Street. There are several relevant polices from *Mobility Plan 2035* that were reviewed for conflicts: 3.9 Increased Network Access: This policy discourages the vacation of public rights-of-way, and the Project will not be vacating the adjacent alley. ENG.9: *Mobility Plan 2035* Green Alleys Program encourages stormwater features that improve the quality and safety of alleys. The Project is not proposing any

				features that would preclude the City from adding green elements to the public right-of-way. PL.1: This policy encourages driveway access from non-arterial streets. The Project proposes one of the driveways in the alleyway, but the other is on Hill Street, which is the second smallest of the five arterial classifications as an Avenue II. Given the constrained location on a corner, the second driveway on Hill Street is helpful for interior circulation. PL.13: This policy encourages the use of alternative materials at alleys, and the Project does not conflict or preclude such actions by the City in the alley. PS.3: This policy discusses pedestrian loops and exploring options in the public right-of-way to provide a connected network of walking passageways that use both public and private spaces to facilitate pedestrian circulation. The Project does not restrict any existing pedestrian movements.
12	Does project create a cul-de-sac or is project site located adjacent to existing cul-de-sac? If yes, is cul-de-sac consistent with design goal in Mobility Plan 2035 (maintain through bicycle and pedestrian access)?	MP - 3.10 Cul-de-sacs		The Project site is not located on or adjacent to a cul-de-sac, nor does it propose creating one.
ACCESS: DRIVEWAYS AND LOADING				
13	Does project site introduce a new driveway or loading access along an arterial (Avenue or Boulevard)?	MP – PL.1; MP – PK.10, CDG 4.1.02	Vision Zero	The Project frontages are not along the Vision Zero network, but the Project does propose to modify the existing driveway along Hill Street, an Avenue II. *Mobility Plan 2035* policies PL.1 and PK.10 encourage vehicular access from non-arterial streets (or alleys) and incentives for redesigning access points to be more pedestrian friendly. This project does not create any new conflicts with the policies regarding access. Per MPP 321, a project should only have one driveway on an arterial with 0 to 200 feet of frontage, and the Project has 148 feet of frontage on Hill Street so it meets this. Overall, the Project will result in one less driveway curb cut, due to the removal of the driveway curb cut on 11th Street. The Project is consistent with the goals of this policy by providing truck loading access directly

				off the alley. The passenger loading will be along 11th Street, which is a Modified Collector, not an Avenue or a Boulevard, so there is no conflict.
14	If yes to 13, Is a non-arterial frontage or alley access available to serve the driveway or loading access needs?	MP - PL.1; MPP 321	Vision Zero	The Project frontages are not along streets part of the Vision Zero High Injury Network. *Mobility Plan 2035* policy PL.1 encourages vehicular access from non-arterial streets (or alleys). MPP 321 discourages loading areas where vehicle maneuvers require driving onto the public right-of-way and back-in/back-out facilities along arterials or collector streets. Driveway and access is also available on the alley, splitting some of the trips off from the Avenue II entrance on Hill Street. Limiting all driveway access to the alley may unduly congest the alley and create more conflicts on 11th Street. Loading access is only provided off of the alley, so these trips will not affect the Hill Street frontage. Additionally, the Project still reduces the number of driveways around the site by one, due to the removed driveway on 11th Street.
15	Does project site include a corner lot? (avoid driveways too close to intersections)	CDG 4.1.01		The Project is on a corner lot. MPP 321 on the design of driveways states that for lots with frontages greater than 250 feet, driveways should not be placed within 150 feet of the adjacent street, on an arterial street, such as Hill Street. The proposed driveway on Hill would be about 117 feet away from the closest street, which is 11th Street, and the total project frontage on Hill Street is 149 feet.
16	Does project propose driveway width in excess of City standard?	MPP Sec. 321	Vision Zero, Sustainability plan, MP - PED, MP -BEN CDG 4.1.04	MPP Section 321 recommends that two-way driveways for multi-family residential developments with more than 25 spaces and commercial developments are 30 feet in width. The proposed driveway on the alley 30' in width, and the proposed driveway on Hill Street would only be 24' in width, so neither would exceed the city standard. Vision Zero: The Project frontages are not along streets in the Vision Zero network. Sustainability pLAn: The Sustainability pLAn focuses on public transit, bicycling, walking, and locating Angeleno's residences near transit and places they would want to travel. The Project supports multi-modal travel with driveways that conform to City standards, its proximity to transit routes, and the mix of land uses. MP-PED: The Project frontage on Hill Street is part of the PED. MP-BEN: The Project frontages on both Hill and 11th Street are part of the BEN.

17	Does project propose more driveways than required by City maximum standard?	MPP - Sec No. 321 Driveway Design	Vision Zero, MP, Healthy LA	MPP 321 allows one driveway on an arterial with less than 200 feet of frontage on the arterial, which the project has. The other driveway is on an alley that feeds onto a collector street and thus the Project does not propose more driveways than allowed by the City's maximum standard. Vision Zero: The Project frontages are not along streets in the Vision Zero network. Healthy LA: This plan states a balanced, affordable, and sustainable transportation system is a cornerstone of a healthy city. The Project does not conflict with this plan and supports multi-modal travel with driveways that conform to City standards, by its proximity to transit routes, and the mix of land uses.
18	Are loading zones proposed as a part of the project?	MP - 2.10 Loading Areas; MP - PK.1; MP - PK.7; MP – PK.8; MPP 321		A loading dock for trucks is proposed off of the alley. Under *Mobility Plan 2035* 2.10, loading areas should be strategically located and designed so as to not interfere with public right-of-way while still meeting commercial needs of businesses and residences. The loading dock off of the alley will not encroach on or block the public right-of-way. MP – PK.1: This policy encourages working with communities, businesses, and organizations to identify and implement creative strategies to resolve parking conflicts in areas with high parking demand. The Project will help address parking conflicts by providing parking in compliance with LAMC requirements and by providing an on-site loading area off the alley. MP – PK.7: This policy requires off-street loading facilities for new non-residential buildings or existing non-residential buildings undergoing extensive renovation or expansion in non-industrial areas. This project has a loading area adjacent to the alley. MP – PK.8: This policy encourages the designation of on-street loading areas in established industrial areas where off-street loading facilities are lacking. The Project is not in an industrial area, but much of the loading will be done in the alley. MPP 321 provides guidance on loading docks that back-in or back-out loading facilities should not be permitted along arterial highways or collector streets. There is no back-in or back-out loading facility directly off of Hill Street or 11th Street.
19	Does project include "drop-off" zones or areas? If yes,	MP - 2.10 Loading Areas		MP – 2.10 Loading Areas: This policy notes that loading areas should be strategically located and designed so as to not interfere with public right-of-way

	are such areas located to the side or rear of the building?			while still meeting commercial needs of businesses and residences. The Project includes a zone for passenger pick-up and drop-off along 11th Street. This is along one of the building entrances, but there are no driveways along this face of the building.
20	Does project propose modifying, limiting/restricting, or removing public access to a public right-of-way (e.g., vacating public right-of-way?)	MP - 2.3 Pedestrian Infrastructure; MP - 3.9 Increased Network Access		MP 2.3 Pedestrian Infrastructure: This policy emphasizes walking as a component of every trip and the importance of high-quality pedestrian access. The Project does not propose to limit or remove any public right-of-way and would maintain all existing pedestrian access. During construction, the sidewalks will be closed but a covered walkway will be provided along 11th Street and Hill Street along the Project frontage to retain access. MP 3.9 Increased Network Access: This policy discourages the vacation of public rights-of-way. The Project does not propose to remove or restrict access to a public right-of-way.

Review of Consistency with Current Central City Community Plan

The Central City Community Plan was adopted in 2003 and amended in 2016 as part of the Mobility Plan 2035 Update. While an updated Community Plan is currently under development, the plan from 2016 is currently in effect and forms the basis for this review of conflicts relating to the transportation system.

The Central City Community Plan (CCCP) is one of 35 in the City of Los Angeles that establishes the policies and programs that inform the framework for local land use, circulation, and service systems within the selected community plan area. Per the City's new TAG, a review of the CCCP was conducted to evaluate whether the project conflicts with or precludes the implementation of the community plan framework.

The CCCP contains transportation-related objectives, policies, and programs in Chapter III, Land Use Plan Policies and Programs. The following objectives, policies, and programs are relevant to the Project:

Policy 2-3.1 Support the development of a hotel and entertainment district surrounding the Convention Center/Staples Arena with linkages to other areas of Central City and the Figueroa corridor.

- The Project supports this policy by adding 160 new hotel rooms to the site, which is about half a mile from the Staples Center and Convention Center.

The CCCP contains more transportation-related objectives, policies, and programs in Chapter IV, Transportation and Circulation. The following objectives, policies, and programs are relevant to the Project:

Policy 11-6.1 Preserve and enhance Central city's primary pedestrian-oriented streets and sidewalks

- The Project proposes to repave the existing sidewalks surrounding the property.

Detailed Responses for 2.4 Substantially Increasing Hazards Due to A Geometric Design Feature or Incompatible Use

Adapted from Section 2.4 in Transportation Analysis Guidelines, LADOT, July 2019

Impacts regarding the potential increase of hazards due to a geometric design feature generally relate to the design of access points to and from the project site, and may include safety, operational, or capacity impacts. Impacts can be related to vehicle/vehicle, vehicle/bicycle, or vehicle/pedestrian conflicts as well as to operational delays caused by vehicles slowing and/or queuing to access a project site. These conflicts may be created by the driveway configuration or through the placement of project driveway(s) in areas of inadequate visibility, adjacent to bicycle or pedestrian facilities, or too close to busy or congested intersections. These impacts are typically evaluated for permanent conditions after project completion but can also be evaluated for temporary conditions during project construction. If the project requires a discretionary action, and the answer is "yes" to either of the following questions, further analysis will be required to assess whether the project would result in impacts due to geometric design hazards or incompatible uses:

Screening Criteria

- Is the project proposing new driveways, or introducing new vehicle access to the property from the public right-of-way?
    - Yes, the Project is proposing new driveways and to introduce new vehicle access to the property from the public right-of-way. One new driveway, on Hill Street, replaces and is adjacent to an existing one. There is also a fully new access point at the alley. An existing driveway on 11th Street will be removed.

- Is the project proposing to, or required to make any voluntary or required, modifications to the public right-of-way (i.e., street dedications, reconfigurations of curb line, etc.)?
    - Yes, the Project proposes to dedicate two feet of right-of-way along the 11th Street frontage and along the alley to comply with the street classification standards in *Mobility Plan 2035*. Because of this, the 11th Street sidewalk will be widened by 3 feet, and the alley will be widened by 2 feet.

Assessing Project Impacts

Project access points, internal circulation, and parking access were reviewed to assess vehicle, bicycle, and pedestrian safety impacts from an operational and safety perspective (e.g. turning radii, driveway queuing, and line of sight for turns into and out of project driveway[s]) through the lens of Threshold T-3:

> Threshold T-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Operational and safety issues related to the potential for vehicle/pedestrian and vehicle/bicycle conflicts and the severity of consequences that could result were considered for locations where project driveways would cross pedestrian facilities or bicycle facilities (bike lanes or bike paths). Preliminary project access plans were reviewed in light of commonly accepted traffic engineering design standards (Section 321 of LADOT's Manual of Policies and Procedures, which provides guidance on driveway design) to ascertain whether any deficiencies are apparent in the site access plans which would be considered significant. The determination of significance considered the following factors:

- The relative amount of pedestrian activity at project access points.
    - The Project site is located in a mixed use area with dense commercial and residential development. The Project collected pedestrian counts at the intersection of Hill Street and 11th Street, which is the closest intersection to the Project. The 11th Street and Hill Street intersection had pedestrian activity of 100 pedestrians observed in the AM peak period and 221 pedestrians observed in the PM peak period. The Project will contribute to improving walkability with enhancements to the Project site, such as replacing the sidewalks around the perimeter of the Project.

- Design features/physical configurations that affect the visibility of pedestrians and bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.
    - Pedestrian access to the Project site would be provided via sidewalks along Hill Street and 11th Street. Residents, visitors, patrons, and employees arriving to the Project site by bicycle would have the same access opportunities as pedestrians and would be able to utilize on-site bicycle parking facilities. The Project's access locations would be designed to the City standards and would provide adequate sight distance, sidewalks, crosswalks, and pedestrian movement controls that meet the City's requirements to protect pedestrian safety. All roadways and driveways will intersect at right angles. Street trees and other potential impediments to adequate driver and pedestrian visibility would be minimal. Pedestrian entrances separated from vehicular driveways would provide access from the adjacent streets, parking facilities, and transit stops. The driveway width of 24'-10" at the Hill Street driveway is wide enough to provide visibility for vehicles exiting the site, and since left turns out of this driveway are prohibited, vehicles will be able to focus more on passing pedestrians. Flashing lights or alarms to alert pedestrians to the presence of vehicles are not currently proposed.

- The type of bicycle facilities the project driveway(s) crosses and the relative level of utilization.
    - There are no existing bicycle facilities along Hill Street, and the relocation of an existing driveway for the Project does not preclude a future addition of a bicycle facility. There is a bike lane on the opposite side of 11th Street, but the alley that intersects with 11th Street that will provide access to the Project is an existing condition and does not conflict with the bike facility. The counts collected at Hill Street and 11th Street show 24 bicyclists in the AM peak and 48 bicyclists in the PM peak periods. Given that only one of the two driveways, the one on Hill Street, is directly on a street, and is only a relocation of an existing driveway, the location of the driveways is not expected to contribute to an increase in hazards for this factor.

- The physical conditions of the site and surrounding area, such as curves, slopes, walks, landscaping or other barriers, that could result in vehicle/pedestrian, vehicle/bicycle, or vehicle/vehicle impacts.
    - The streets surrounding the Project site are flat and do not curve. The Project would retain and resurface the existing sidewalks.

- The project location, or project-related changes to the public right-of-way, relative to proximity to the High Injury Network or a Safe Routes to School program area.
    - There are no streets along the Project's frontage that are on the High Injury Network, and the Project is not located in a Safe Routes to School program area.

- Any other conditions, including the approximate location of incompatible uses that would substantially increase a transportation hazard.
    - The Project's multimodal amenities and location of driveways would not substantially increase transportation hazards.

Cumulative Impacts

The nearest related project to the Project site is a mixed-use residential and commercial project at 1120 South Olive Street, across from the alley on the west border of the Project on the site of an existing parking lot. Given that the alley is expected to be retained, there are no cumulative impacts anticipated from this project. Other related projects located farther from the Project site would not share adjacent street frontages with the Project site.

Appendix D – VMT Documentation

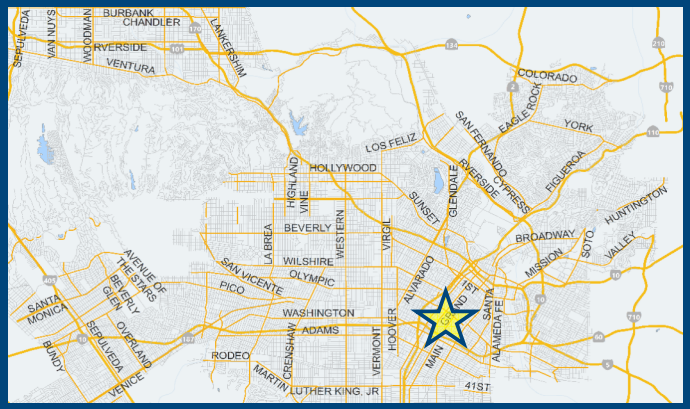
CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: 1111 S Hill Street

Scenario: Project

Address: 1111 S HILL ST, 90015



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	319	DU
Housing | Hotel	160	Rooms
Retail | High-Turnover Sit-Down Restaurant	3.381	ksf

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	**No**	**No**
Max Work Based TDM Achieved?	**No**	**No**

A Parking

Reduce Parking Supply

☐ Proposed Prj ☐ Mitigation

100 city code parking provision for the project site

74 actual parking provision for the project site

Unbundle Parking

☐ Proposed Prj ☐ Mitigation

175 monthly parking cost (dollar) for the project site

Parking Cash-Out

☐ Proposed Prj ☐ Mitigation

50 percent of employees eligible

Price Workplace Parking

☐ Proposed Prj ☐ Mitigation

6.00 daily parking charge (dollar)

50 percent of employees subject to priced parking

Residential Area Parking Permits

☐ Proposed Prj ☐ Mitigation

200 cost (dollar) of annual permit

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
2,001 Daily Vehicle Trips	**2,001** Daily Vehicle Trips
11,674 Daily VMT	**11,674** Daily VMT
3.7 Household VMT per Capita	**3.7** Household VMT per Capita
7.3 Work VMT per Employee	**7.3** Work VMT per Employee

Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 6.0 15% Below APC	**Household: No** Threshold = 6.0 15% Below APC
Work: No Threshold = 7.6 15% Below APC	**Work: No** Threshold = 7.6 15% Below APC

Measuring the Miles

6/17/2020

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: June 17, 2020
Project Name: 1111 S Hill Street
Project Scenario: Project
Project Address: 1111 S HILL ST, 90015

Version 1.3

Project Information			
Land Use Type		**Value**	**Units**
Housing	*Single Family*	*0*	*DU*
	Multi Family	319	DU
	Townhouse	*0*	*DU*
	Hotel	160	Rooms
	Motel	*0*	*Rooms*
Affordable Housing	*Family*	*0*	*DU*
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	3.381	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: June 17, 2020
Project Name: 1111 S Hill Street
Project Scenario: Project
Project Address: 1111 S HILL ST, 90015

Version 1.3

Analysis Results			
Total Employees: 94 Total Population: 719			
Proposed Project		***With Mitigation***	
2,001	**Daily Vehicle Trips**	**2,001**	**Daily Vehicle Trips**
11,674	**Daily VMT**	**11,674**	**Daily VMT**
3.7	**Household VMT per Capita**	**3.7**	**Household VMT per Capita**
7.3	**Work VMT per Employee**	**7.3**	**Work VMT per Employee**

Significant VMT Impact?			
APC: Central			
Impact Threshold: 15% Below APC Average Household = 6.0 Work = 7.6			
Proposed Project		***With Mitigation***	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 6.0	No	Household > 6.0	No
Work > 7.6	No	Work > 7.6	No

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: June 17, 2020
Project Name: 1111 S Hill Street
Project Scenario: Project
Project Address: 1111 S HILL ST, 90015

Version 1.3

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	*Reduce parking supply*	*City code parking provision (spaces)*	*0*	*0*
		Actual parking provision (spaces)	*0*	*0*
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	*Employees and residents participating (%)*	*0%*	*0%*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	*Employees eligible (%)*	*0%*	*0%*
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	*Included (within project and connecting off-site/within project only)*	*0*	*0*

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: June 17, 2020
Project Name: 1111 S Hill Street
Project Scenario: Project
Project Address: 1111 S HILL ST, 90015

Version 1.3

TDM Adjustments by Trip Purpose & Strategy

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Parking cash-out	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Price workplace parking	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Residential area parking permits	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	
Transit	Reduce transit headways	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Transit subsidies	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
Education & Encouragement	Voluntary travel behavior change program	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
Commute Trip Reductions	Required commute trip reduction program	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Employer sponsored vanpool or shuttle	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Ride-share program	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
Shared Mobility	Car-share	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	
	School carpool program	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Compact Infill

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
MAX. TDM EFFECT	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*

= Minimum (X%, 1-[(1-A)*(1-B)…])

where X%=

PLACE TYPE MAX:	*urban*	*75%*
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)…]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,…). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: June 17, 2020
Project Name: 1111 S Hill Street
Project Scenario: Project
Project Address: 1111 S HILL ST, 90015

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	286	-24.5%	216	5.9	1,687	1,274
Home Based Other Production	792	-56.2%	347	4.1	3,247	1,423
Non-Home Based Other Production	551	-14.7%	470	7.1	3,912	3,337
Home-Based Work Attraction	136	-36.0%	87	7.9	1,074	687
Home-Based Other Attraction	1,474	-54.8%	666	5.4	7,960	3,596
Non-Home Based Other Attraction	271	-16.2%	227	6.3	1,707	1,430

MXD Methodology with TDM Measures

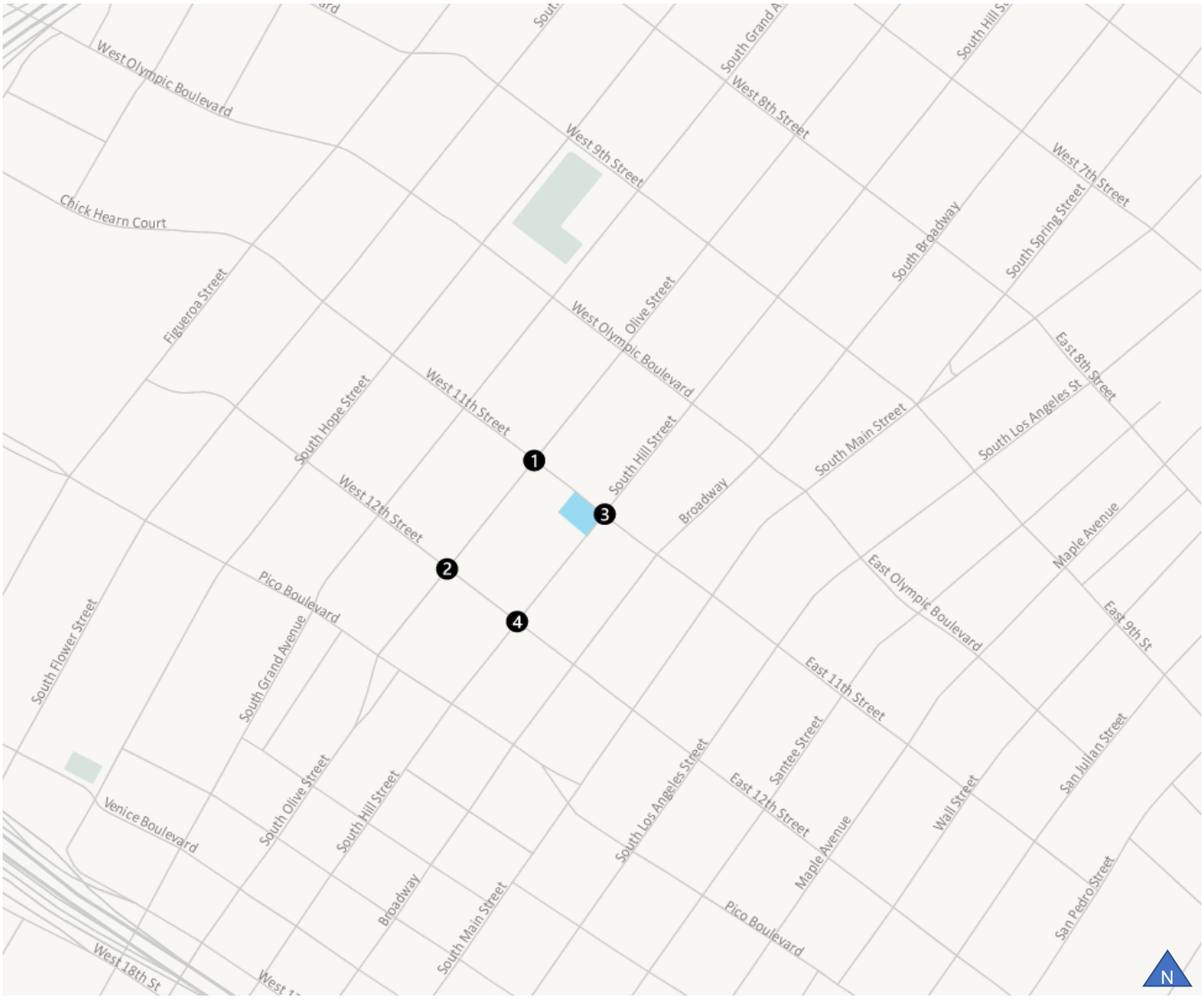
	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-0.6%	215	1,266	-0.6%	215	1,266
Home Based Other Production	-0.6%	345	1,414	-0.6%	345	1,414
Non-Home Based Other Production	-0.6%	467	3,316	-0.6%	467	3,316
Home-Based Work Attraction	-0.6%	86	683	-0.6%	86	683
Home-Based Other Attraction	-0.6%	662	3,574	-0.6%	662	3,574
Non-Home Based Other Attraction	-0.6%	226	1,421	-0.6%	226	1,421

MXD VMT Methodology Per Capita & Per Employee

Total Population: 719
Total Employees: 94
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**2,680**	**2,680**
Total Home Based Work Attraction VMT	**683**	**683**
Total Home Based VMT Per Capita	**3.7**	**3.7**
Total Work Based VMT Per Employee	**7.3**	**7.3**

Appendix E – Intersection Volumes



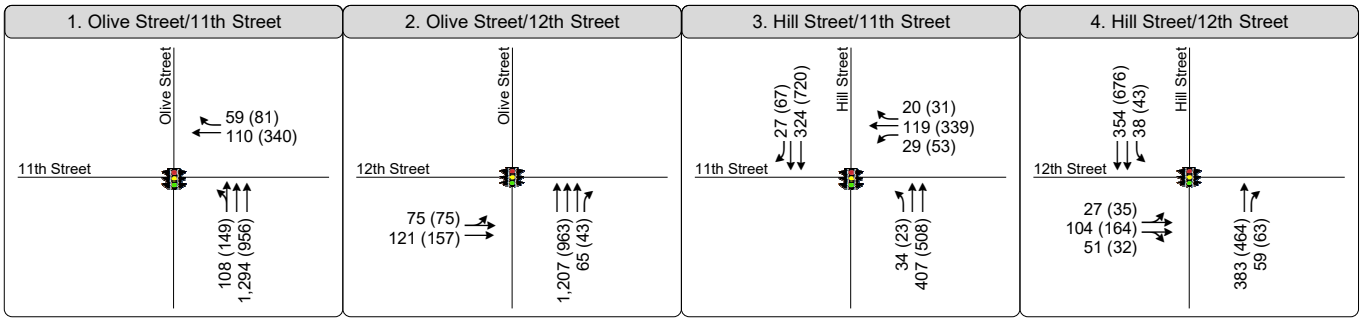
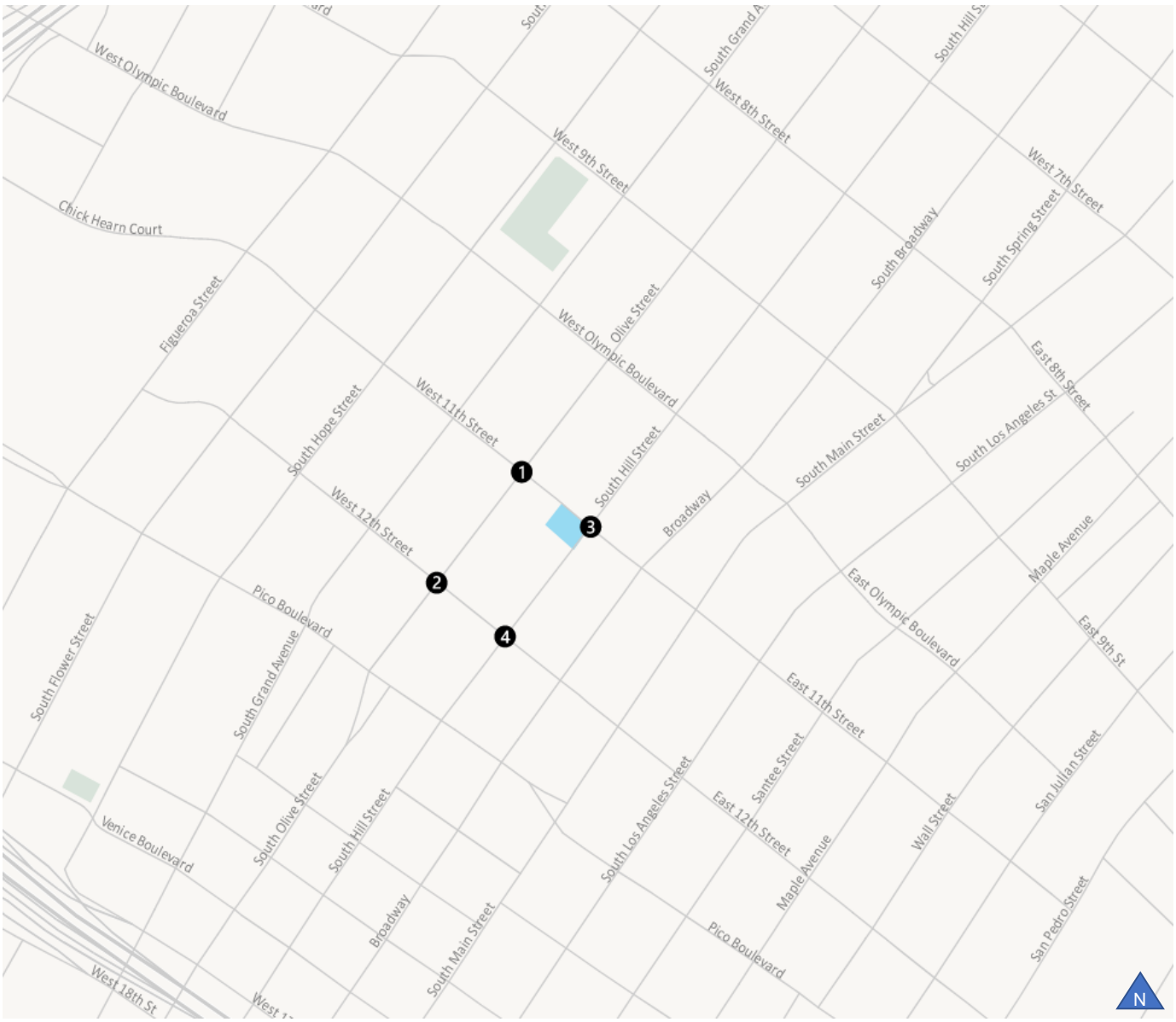


Figure 1

Peak Hour Traffic Volumes and Lane Configurations - Existing (2020) Conditions



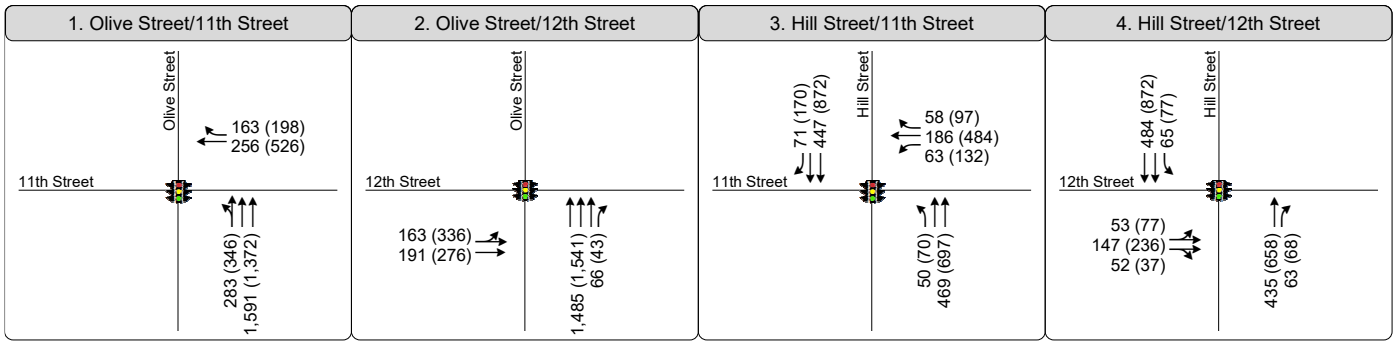
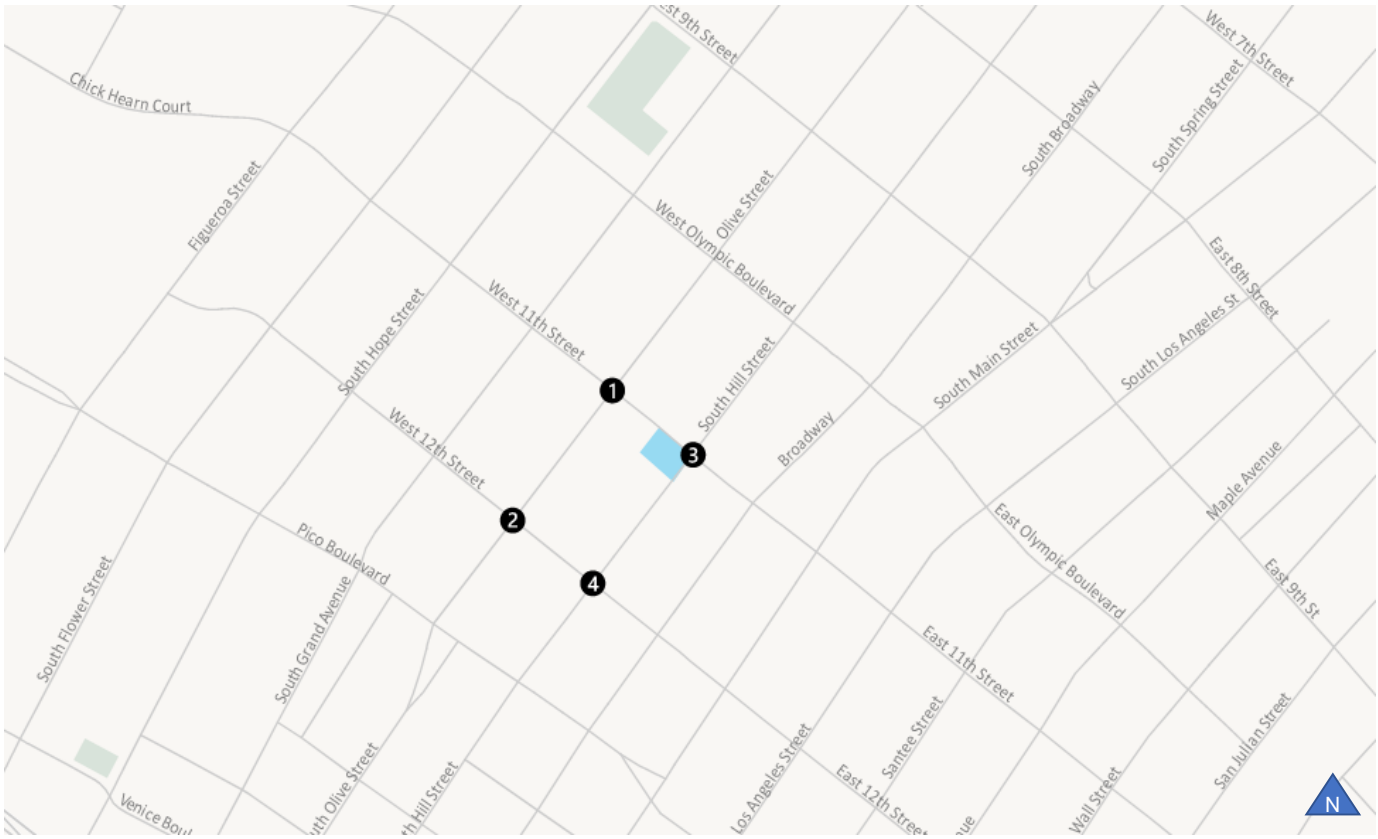


Figure 2

Peak Hour Traffic Volumes and Lane Configurations - Future (2024) Base Conditions



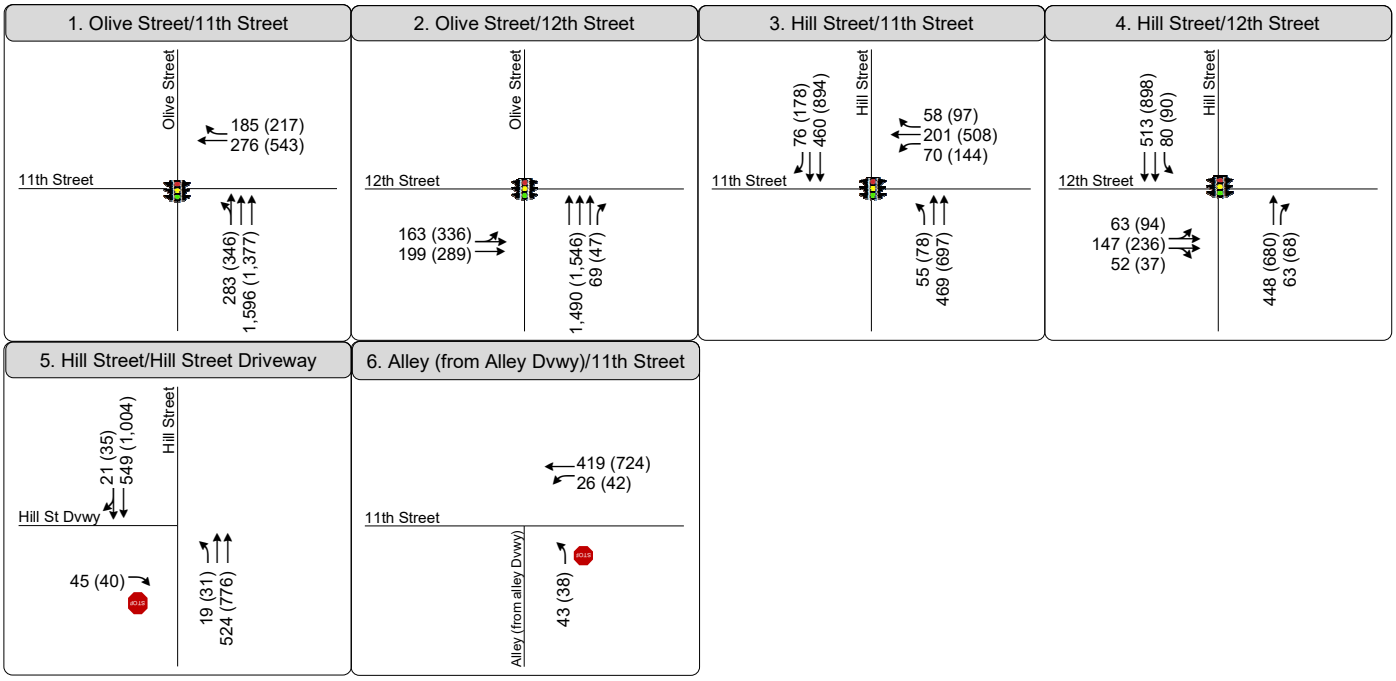
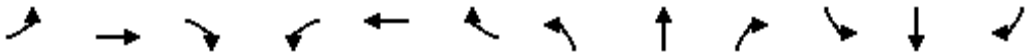


Figure 3

Peak Hour Traffic Volumes and Lane Configurations - Future (2024) with Project Conditions

Appendix F – Intersection Level of Service and Queueing Worksheets



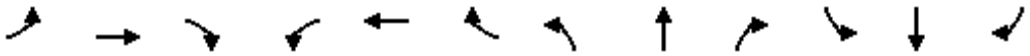
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	110	59	108	1294	0	0	0	0
Future Volume (veh/h)	0	0	0	0	110	59	108	1294	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	124	76	129	1362	0			
Peak Hour Factor				0.92	0.89	0.78	0.84	0.95	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	700	593	241	2208	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1870	1585	361	4645	0			
Grp Volume(v), veh/h				0	124	76	545	946	0			
Grp Sat Flow(s),veh/h/ln				0	1870	1585	1755	1549	0			
Q Serve(g_s), s				0.0	3.1	2.2	15.9	19.9	0.0			
Cycle Q Clear(g_c), s				0.0	3.1	2.2	20.2	19.9	0.0			
Prop In Lane				0.00		1.00	0.24		0.00			
Lane Grp Cap(c), veh/h				0	700	593	926	1522	0			
V/C Ratio(X)				0.00	0.18	0.13	0.59	0.62	0.00			
Avail Cap(c_a), veh/h				0	700	593	926	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.83	0.83	0.00			
Uniform Delay (d), s/veh				0.0	14.7	14.4	23.2	23.3	0.0			
Incr Delay (d2), s/veh				0.0	0.6	0.4	2.3	1.6	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	1.3	0.8	9.9	8.4	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	15.2	14.8	25.5	24.8	0.0			
LnGrp LOS				A	B	B	C	C	A			
Approach Vol, veh/h					200			1491				
Approach Delay, s/veh					15.1			25.1				
Approach LOS					B			C				

Timer - Assigned Phs	2							8				
Phs Duration (G+Y+Rc), s	31.0							39.0				
Change Period (Y+Rc), s	* 4.8							4.6				
Max Green Setting (Gmax), s	* 26							34.4				
Max Q Clear Time (g_c+I1), s	5.1							22.2				
Green Ext Time (p_c), s	0.8							7.7				

Intersection Summary												
HCM 6th Ctrl Delay		23.9										
HCM 6th LOS		C										

Notes

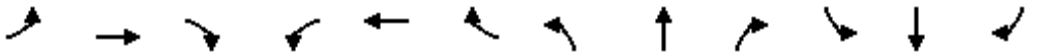
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	121	0	0	0	0	0	1207	65	0	0	0
Future Volume (veh/h)	75	121	0	0	0	0	0	1207	65	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	94	151	0				0	1232	66			
Peak Hour Factor	0.80	0.80	0.80				0.98	0.98	0.98			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	532	870	0				0	2298	713			
Arrive On Green	0.42	0.42	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1063	2170	0				0	5274	1585			
Grp Volume(v), veh/h	131	114	0				0	1232	66			
Grp Sat Flow(s),veh/h/ln	1531	1617	0				0	1702	1585			
Q Serve(g_s), s	2.9	3.1	0.0				0.0	12.2	1.7			
Cycle Q Clear(g_c), s	3.6	3.1	0.0				0.0	12.2	1.7			
Prop In Lane	0.72		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	727	674	0				0	2298	713			
V/C Ratio(X)	0.18	0.17	0.00				0.00	0.54	0.09			
Avail Cap(c_a), veh/h	727	674	0				0	2298	713			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	12.9	12.8	0.0				0.0	14.0	11.0			
Incr Delay (d2), s/veh	0.5	0.5	0.0				0.0	0.9	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.3	1.1	0.0				0.0	4.4	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.5	13.3	0.0				0.0	14.9	11.3			
LnGrp LOS	B	B	A				A	B	B			
Approach Vol, veh/h		245						1298				
Approach Delay, s/veh		13.4						14.7				
Approach LOS		B						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		5.6						14.2				
Green Ext Time (p_c), s		1.3						8.6				
Intersection Summary												
HCM 6th Ctrl Delay			14.5									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



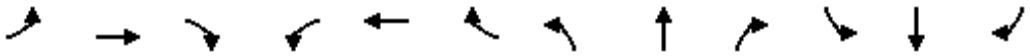
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	29	119	20	34	407	0	0	324	27
Future Volume (veh/h)	0	0	0	29	119	20	34	407	0	0	324	27
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				40	124	32	48	447	0	0	410	36
Peak Hour Factor				0.72	0.96	0.62	0.71	0.91	0.92	0.92	0.79	0.75
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1205	1266	1073	183	754	0	0	754	336
Arrive On Green				0.68	0.68	0.68	0.21	0.21	0.00	0.00	0.21	0.21
Sat Flow, veh/h				1781	1870	1585	944	3647	0	0	3647	1585
Grp Volume(v), veh/h				40	124	32	48	447	0	0	410	36
Grp Sat Flow(s),veh/h/ln				1781	1870	1585	944	1777	0	0	1777	1585
Q Serve(g_s), s				0.7	2.1	0.6	4.3	10.2	0.0	0.0	9.2	1.6
Cycle Q Clear(g_c), s				0.7	2.1	0.6	13.5	10.2	0.0	0.0	9.2	1.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1205	1266	1073	183	754	0	0	754	336
V/C Ratio(X)				0.03	0.10	0.03	0.26	0.59	0.00	0.00	0.54	0.11
Avail Cap(c_a), veh/h				1205	1266	1073	512	1990	0	0	1990	888
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				4.8	5.0	4.8	37.6	31.9	0.0	0.0	31.6	28.6
Incr Delay (d2), s/veh				0.1	0.2	0.1	0.8	0.7	0.0	0.0	0.6	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.7	0.2	1.0	4.4	0.0	0.0	4.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				4.9	5.2	4.9	38.3	32.7	0.0	0.0	32.2	28.7
LnGrp LOS				A	A	A	D	C	A	A	C	C
Approach Vol, veh/h					196			495			446	
Approach Delay, s/veh					5.1			33.2			31.9	
Approach LOS					A			C			C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		66.3		23.7				23.7				
Change Period (Y+Rc), s		* 5.4		* 4.6				* 4.6				
Max Green Setting (Gmax), s		* 30		* 50				* 50				
Max Q Clear Time (g_c+I1), s		4.1		11.2				15.5				
Green Ext Time (p_c), s		0.9		3.1				3.6				

Intersection Summary		
HCM 6th Ctrl Delay		27.9
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	104	51	0	0	0	0	383	59	38	354	0
Future Volume (veh/h)	27	104	51	0	0	0	0	383	59	38	354	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1900				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	36	141	60				0	403	72	48	412	0
Peak Hour Factor	0.75	0.74	0.85				0.92	0.95	0.82	0.79	0.86	0.92
Percent Heavy Veh, %	0	2	0				0	2	2	2	2	0
Cap, veh/h	58	233	102				0	1449	1228	735	2753	0
Arrive On Green	0.11	0.11	0.11				0.00	0.77	0.77	0.77	0.77	0.00
Sat Flow, veh/h	526	2100	922				0	1870	1585	919	3647	0
Grp Volume(v), veh/h	126	0	111				0	403	72	48	412	0
Grp Sat Flow(s),veh/h/ln	1844	0	1704				0	1870	1585	919	1777	0
Q Serve(g_s), s	5.9	0.0	5.6				0.0	5.6	1.0	1.4	2.7	0.0
Cycle Q Clear(g_c), s	5.9	0.0	5.6				0.0	5.6	1.0	7.0	2.7	0.0
Prop In Lane	0.29		0.54				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	204	0	189				0	1449	1228	735	2753	0
V/C Ratio(X)	0.62	0.00	0.59				0.00	0.28	0.06	0.07	0.15	0.00
Avail Cap(c_a), veh/h	604	0	559				0	1449	1228	735	2753	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.00	0.99				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.2	0.0	38.1				0.0	2.9	2.4	3.9	2.6	0.0
Incr Delay (d2), s/veh	3.0	0.0	2.9				0.0	0.5	0.1	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	2.4				0.0	1.6	0.2	0.3	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	40.9				0.0	3.4	2.5	4.1	2.7	0.0
LnGrp LOS	D	A	D				A	A	A	A	A	A
Approach Vol, veh/h		237						475			460	
Approach Delay, s/veh		41.1						3.3			2.8	
Approach LOS		D						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		74.5		15.5		74.5						
Change Period (Y+Rc), s		* 4.8		* 5.5		* 4.8						
Max Green Setting (Gmax), s		* 50		* 30		* 50						
Max Q Clear Time (g_c+I1), s		9.0		7.9		7.6						
Green Ext Time (p_c), s		3.3		1.3		3.0						

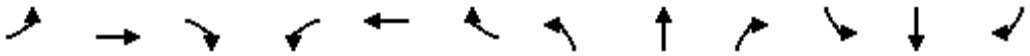
Intersection Summary		
HCM 6th Ctrl Delay		10.7
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
1: Olive St & 11th St

06/10/2020



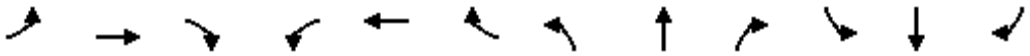
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	340	81	149	956	0	0	0	0
Future Volume (veh/h)	0	0	0	0	340	81	149	956	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	386	100	184	1062	0			
Peak Hour Factor				0.92	0.88	0.81	0.81	0.90	0.92			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	732	620	393	2062	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1870	1585	667	4241	0			
Grp Volume(v), veh/h				0	386	100	443	803	0			
Grp Sat Flow(s),veh/h/ln				0	1870	1585	1657	1549	0			
Q Serve(g_s), s				0.0	14.3	3.7	20.6	21.3	0.0			
Cycle Q Clear(g_c), s				0.0	14.3	3.7	21.9	21.3	0.0			
Prop In Lane				0.00		1.00	0.42		0.00			
Lane Grp Cap(c), veh/h				0	732	620	893	1563	0			
V/C Ratio(X)				0.00	0.53	0.16	0.50	0.51	0.00			
Avail Cap(c_a), veh/h				0	732	620	893	1563	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.90	0.90	0.00			
Uniform Delay (d), s/veh				0.0	21.0	17.8	27.6	27.5	0.0			
Incr Delay (d2), s/veh				0.0	2.7	0.6	1.8	1.1	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	6.5	1.4	10.1	9.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	23.7	18.4	29.4	28.5	0.0			
LnGrp LOS				A	C	B	C	C	A			
Approach Vol, veh/h					486			1246				
Approach Delay, s/veh					22.6			28.9				
Approach LOS					C			C				

Timer - Assigned Phs	2							8				
Phs Duration (G+Y+Rc), s	40.0							50.0				
Change Period (Y+Rc), s	* 4.8							4.6				
Max Green Setting (Gmax), s	* 35							45.4				
Max Q Clear Time (g_c+I1), s	16.3							23.9				
Green Ext Time (p_c), s	2.6							9.0				

Intersection Summary		
HCM 6th Ctrl Delay	27.1	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

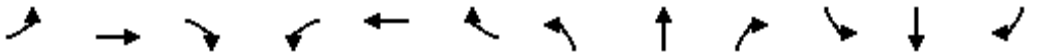


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	157	0	0	0	0	0	963	43	0	0	0
Future Volume (veh/h)	75	157	0	0	0	0	0	963	43	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	84	176	0				0	1107	49			
Peak Hour Factor	0.89	0.89	0.89				0.87	0.87	0.87			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	424	889	0				0	2581	801			
Arrive On Green	0.39	0.39	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	920	2359	0				0	5274	1585			
Grp Volume(v), veh/h	138	122	0				0	1107	49			
Grp Sat Flow(s),veh/h/ln	1576	1617	0				0	1702	1585			
Q Serve(g_s), s	3.7	4.5	0.0				0.0	12.3	1.4			
Cycle Q Clear(g_c), s	5.0	4.5	0.0				0.0	12.3	1.4			
Prop In Lane	0.61		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	681	632	0				0	2581	801			
V/C Ratio(X)	0.20	0.19	0.00				0.00	0.43	0.06			
Avail Cap(c_a), veh/h	681	632	0				0	2581	801			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	18.2	18.0	0.0				0.0	14.0	11.4			
Incr Delay (d2), s/veh	0.7	0.7	0.0				0.0	0.5	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	1.7	0.0				0.0	4.6	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	18.7	0.0				0.0	14.6	11.5			
LnGrp LOS	B	B	A				A	B	B			
Approach Vol, veh/h		260						1156				
Approach Delay, s/veh		18.8						14.4				
Approach LOS		B						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		7.0						14.3				
Green Ext Time (p_c), s		1.5						9.8				

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



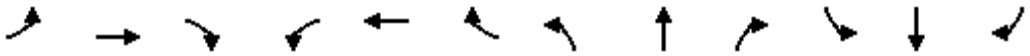
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	53	339	31	23	508	0	0	720	67
Future Volume (veh/h)	0	0	0	53	339	31	23	508	0	0	720	67
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				68	404	40	40	535	0	0	791	84
Peak Hour Factor				0.78	0.84	0.78	0.57	0.95	0.92	0.92	0.91	0.80
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1023	1074	910	155	1118	0	0	1118	498
Arrive On Green				0.57	0.57	0.57	0.31	0.31	0.00	0.00	0.31	0.31
Sat Flow, veh/h				1781	1870	1585	634	3647	0	0	3647	1585
Grp Volume(v), veh/h				68	404	40	40	535	0	0	791	84
Grp Sat Flow(s),veh/h/ln				1781	1870	1585	634	1777	0	0	1777	1585
Q Serve(g_s), s				1.5	10.6	1.0	5.3	10.9	0.0	0.0	17.7	3.5
Cycle Q Clear(g_c), s				1.5	10.6	1.0	23.0	10.9	0.0	0.0	17.7	3.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1023	1074	910	155	1118	0	0	1118	498
V/C Ratio(X)				0.07	0.38	0.04	0.26	0.48	0.00	0.00	0.71	0.17
Avail Cap(c_a), veh/h				1023	1074	910	226	1516	0	0	1516	676
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				8.5	10.4	8.4	37.3	24.9	0.0	0.0	27.2	22.3
Incr Delay (d2), s/veh				0.1	1.0	0.1	0.9	0.3	0.0	0.0	1.0	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	4.3	0.3	0.9	4.5	0.0	0.0	7.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				8.6	11.4	8.5	38.2	25.2	0.0	0.0	28.2	22.5
LnGrp LOS				A	B	A	D	C	A	A	C	C
Approach Vol, veh/h					512			575			875	
Approach Delay, s/veh					10.8			26.1			27.6	
Approach LOS					B			C			C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	57.1	32.9	32.9
Change Period (Y+Rc), s	* 5.4	* 4.6	* 4.6
Max Green Setting (Gmax), s	* 42	* 38	* 38
Max Q Clear Time (g_c+I1), s	12.6	19.7	25.0
Green Ext Time (p_c), s	3.0	5.7	3.3

Intersection Summary	
HCM 6th Ctrl Delay	22.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	164	32	0	0	0	0	464	63	43	676	0
Future Volume (veh/h)	35	164	32	0	0	0	0	464	63	43	676	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1900				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	40	193	44				0	499	91	48	824	0
Peak Hour Factor	0.88	0.85	0.73				0.92	0.93	0.69	0.90	0.82	0.92
Percent Heavy Veh, %	0	2	0				0	2	2	2	2	0
Cap, veh/h	58	289	69				0	1441	1221	647	2737	0
Arrive On Green	0.12	0.12	0.12				0.00	0.77	0.77	0.77	0.77	0.00
Sat Flow, veh/h	504	2510	595				0	1870	1585	826	3647	0
Grp Volume(v), veh/h	147	0	130				0	499	91	48	824	0
Grp Sat Flow(s),veh/h/ln	1845	0	1763				0	1870	1585	826	1777	0
Q Serve(g_s), s	6.9	0.0	6.4				0.0	7.5	1.3	1.7	6.2	0.0
Cycle Q Clear(g_c), s	6.9	0.0	6.4				0.0	7.5	1.3	9.3	6.2	0.0
Prop In Lane	0.27		0.34				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	213	0	203				0	1441	1221	647	2737	0
V/C Ratio(X)	0.69	0.00	0.64				0.00	0.35	0.07	0.07	0.30	0.00
Avail Cap(c_a), veh/h	605	0	578				0	1441	1221	647	2737	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.00	0.99				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.3	0.0	38.0				0.0	3.2	2.5	4.7	3.1	0.0
Incr Delay (d2), s/veh	3.9	0.0	3.3				0.0	0.7	0.1	0.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	2.9				0.0	2.2	0.3	0.3	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.2	0.0	41.4				0.0	3.9	2.6	4.9	3.4	0.0
LnGrp LOS	D	A	D				A	A	A	A	A	A
Approach Vol, veh/h		277						590			872	
Approach Delay, s/veh		41.8						3.7			3.5	
Approach LOS		D						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		74.1		15.9		74.1						
Change Period (Y+Rc), s		* 4.8		* 5.5		* 4.8						
Max Green Setting (Gmax), s		* 50		* 30		* 50						
Max Q Clear Time (g_c+I1), s		11.3		8.9		9.5						
Green Ext Time (p_c), s		7.4		1.5		3.9						

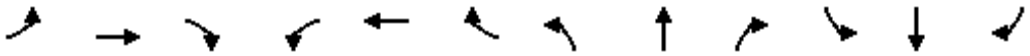
Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
1: Olive St & 11th St

06/11/2020



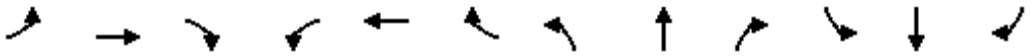
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	256	163	283	1591	0	0	0	0
Future Volume (veh/h)	0	0	0	0	256	163	283	1591	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	269	172	298	1675	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	700	593	414	1992	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1870	1585	693	4206	0			
Grp Volume(v), veh/h				0	269	172	709	1264	0			
Grp Sat Flow(s),veh/h/ln				0	1870	1585	1649	1549	0			
Q Serve(g_s), s				0.0	7.4	5.3	29.4	27.7	0.0			
Cycle Q Clear(g_c), s				0.0	7.4	5.3	29.4	27.7	0.0			
Prop In Lane				0.00		1.00	0.42		0.00			
Lane Grp Cap(c), veh/h				0	700	593	883	1522	0			
V/C Ratio(X)				0.00	0.38	0.29	0.80	0.83	0.00			
Avail Cap(c_a), veh/h				0	700	593	883	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.67	0.67	0.00			
Uniform Delay (d), s/veh				0.0	16.0	15.4	27.2	26.5	0.0			
Incr Delay (d2), s/veh				0.0	1.6	1.2	5.2	3.7	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	3.2	2.0	13.9	12.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	17.6	16.6	32.4	30.2	0.0			
LnGrp LOS				A	B	B	C	C	A			
Approach Vol, veh/h					441			1973				
Approach Delay, s/veh					17.2			31.0				
Approach LOS					B			C				

Timer - Assigned Phs	2							8				
Phs Duration (G+Y+Rc), s	31.0							39.0				
Change Period (Y+Rc), s	* 4.8							4.6				
Max Green Setting (Gmax), s	* 26							34.4				
Max Q Clear Time (g_c+I1), s	9.4							31.4				
Green Ext Time (p_c), s	2.0							2.7				

Intersection Summary		
HCM 6th Ctrl Delay	28.5	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

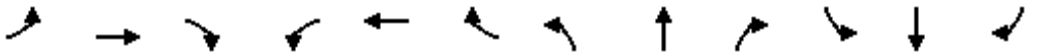


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	191	0	0	0	0	0	1485	66	0	0	0
Future Volume (veh/h)	163	191	0	0	0	0	0	1485	66	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	172	201	0				0	1563	69			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	625	757	0				0	2298	713			
Arrive On Green	0.42	0.42	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1267	1900	0				0	5274	1585			
Grp Volume(v), veh/h	196	177	0				0	1563	69			
Grp Sat Flow(s),veh/h/ln	1466	1617	0				0	1702	1585			
Q Serve(g_s), s	6.0	5.0	0.0				0.0	17.0	1.8			
Cycle Q Clear(g_c), s	6.2	5.0	0.0				0.0	17.0	1.8			
Prop In Lane	0.88		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	708	674	0				0	2298	713			
V/C Ratio(X)	0.28	0.26	0.00				0.00	0.68	0.10			
Avail Cap(c_a), veh/h	708	674	0				0	2298	713			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	13.7	13.3	0.0				0.0	15.3	11.1			
Incr Delay (d2), s/veh	1.0	0.9	0.0				0.0	1.6	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.1	1.8	0.0				0.0	6.2	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.7	14.3	0.0				0.0	16.9	11.3			
LnGrp LOS	B	B	A				A	B	B			
Approach Vol, veh/h		373						1632				
Approach Delay, s/veh		14.5						16.7				
Approach LOS		B						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		8.2						19.0				
Green Ext Time (p_c), s		2.1						8.6				

Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



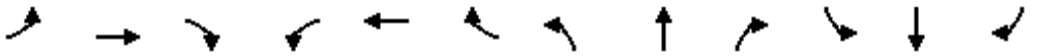
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	63	186	58	50	469	0	0	447	71
Future Volume (veh/h)	0	0	0	63	186	58	50	469	0	0	447	71
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				66	196	61	53	494	0	0	471	75
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1155	1213	1028	187	854	0	0	854	381
Arrive On Green				0.65	0.65	0.65	0.24	0.24	0.00	0.00	0.24	0.24
Sat Flow, veh/h				1781	1870	1585	861	3647	0	0	3647	1585
Grp Volume(v), veh/h				66	196	61	53	494	0	0	471	75
Grp Sat Flow(s),veh/h/ln				1781	1870	1585	861	1777	0	0	1777	1585
Q Serve(g_s), s				1.2	3.7	1.3	5.2	11.0	0.0	0.0	10.4	3.4
Cycle Q Clear(g_c), s				1.2	3.7	1.3	15.6	11.0	0.0	0.0	10.4	3.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1155	1213	1028	187	854	0	0	854	381
V/C Ratio(X)				0.06	0.16	0.06	0.28	0.58	0.00	0.00	0.55	0.20
Avail Cap(c_a), veh/h				1155	1213	1028	462	1990	0	0	1990	888
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				5.8	6.2	5.8	36.8	30.2	0.0	0.0	29.9	27.3
Incr Delay (d2), s/veh				0.1	0.3	0.1	0.8	0.6	0.0	0.0	0.6	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	1.4	0.4	1.1	4.7	0.0	0.0	4.4	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				5.9	6.5	5.9	37.6	30.8	0.0	0.0	30.5	27.5
LnGrp LOS				A	A	A	D	C	A	A	C	C
Approach Vol, veh/h					323			547			546	
Approach Delay, s/veh					6.3			31.4			30.1	
Approach LOS					A			C			C	

Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		63.8		26.2				26.2				
Change Period (Y+Rc), s		* 5.4		* 4.6				* 4.6				
Max Green Setting (Gmax), s		* 30		* 50				* 50				
Max Q Clear Time (g_c+I1), s		5.7		12.4				17.6				
Green Ext Time (p_c), s		1.5		3.8				4.0				

Intersection Summary		
HCM 6th Ctrl Delay		25.2
HCM 6th LOS		C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	147	52	0	0	0	0	435	63	65	484	0
Future Volume (veh/h)	53	147	52	0	0	0	0	435	63	65	484	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1900				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	56	155	55				0	458	66	68	509	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	2	2	2	2	0
Cap, veh/h	82	233	86				0	1446	1226	695	2748	0
Arrive On Green	0.11	0.11	0.11				0.00	0.77	0.77	0.77	0.77	0.00
Sat Flow, veh/h	728	2076	763				0	1870	1585	878	3647	0
Grp Volume(v), veh/h	141	0	125				0	458	66	68	509	0
Grp Sat Flow(s),veh/h/ln	1834	0	1733				0	1870	1585	878	1777	0
Q Serve(g_s), s	6.7	0.0	6.2				0.0	6.6	0.9	2.3	3.4	0.0
Cycle Q Clear(g_c), s	6.7	0.0	6.2				0.0	6.6	0.9	8.9	3.4	0.0
Prop In Lane	0.40		0.44				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	206	0	195				0	1446	1226	695	2748	0
V/C Ratio(X)	0.68	0.00	0.64				0.00	0.32	0.05	0.10	0.19	0.00
Avail Cap(c_a), veh/h	601	0	568				0	1446	1226	695	2748	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.4	0.0	38.2				0.0	3.1	2.4	4.4	2.7	0.0
Incr Delay (d2), s/veh	3.9	0.0	3.4				0.0	0.6	0.1	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	2.8				0.0	1.9	0.2	0.4	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	41.6				0.0	3.6	2.5	4.7	2.9	0.0
LnGrp LOS	D	A	D				A	A	A	A	A	A
Approach Vol, veh/h		266						524			577	
Approach Delay, s/veh		42.0						3.5			3.1	
Approach LOS		D						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		74.4		15.6		74.4						
Change Period (Y+Rc), s		* 4.8		* 5.5		* 4.8						
Max Green Setting (Gmax), s		* 50		* 30		* 50						
Max Q Clear Time (g_c+I1), s		10.9		8.7		8.6						
Green Ext Time (p_c), s		4.3		1.5		3.5						

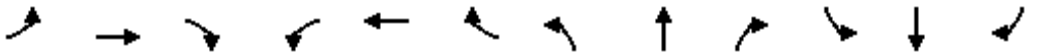
Intersection Summary		
HCM 6th Ctrl Delay		10.8
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
1: Olive St & 11th St

06/11/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	526	198	346	1372	0	0	0	0
Future Volume (veh/h)	0	0	0	0	526	198	346	1372	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	554	208	364	1444	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	732	620	522	1901	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1870	1585	909	3921	0			
Grp Volume(v), veh/h				0	554	208	632	1176	0			
Grp Sat Flow(s),veh/h/ln				0	1870	1585	1580	1549	0			
Q Serve(g_s), s				0.0	23.1	8.3	34.6	32.5	0.0			
Cycle Q Clear(g_c), s				0.0	23.1	8.3	34.6	32.5	0.0			
Prop In Lane				0.00		1.00	0.58		0.00			
Lane Grp Cap(c), veh/h				0	732	620	860	1563	0			
V/C Ratio(X)				0.00	0.76	0.34	0.74	0.75	0.00			
Avail Cap(c_a), veh/h				0	732	620	860	1563	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.73	0.73	0.00			
Uniform Delay (d), s/veh				0.0	23.7	19.2	33.0	32.2	0.0			
Incr Delay (d2), s/veh				0.0	7.2	1.5	4.1	2.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	11.2	3.2	15.5	13.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	30.9	20.7	37.1	34.7	0.0			
LnGrp LOS				A	C	C	D	C	A			
Approach Vol, veh/h					762			1808				
Approach Delay, s/veh					28.1			35.5				
Approach LOS					C			D				

Timer - Assigned Phs	2							8				
Phs Duration (G+Y+Rc), s	40.0							50.0				
Change Period (Y+Rc), s	* 4.8							4.6				
Max Green Setting (Gmax), s	* 35							45.4				
Max Q Clear Time (g_c+I1), s	25.1							36.6				
Green Ext Time (p_c), s	3.2							6.8				

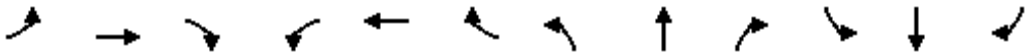
Intersection Summary												
HCM 6th Ctrl Delay		33.3										
HCM 6th LOS		C										

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
2: Olive St & 12th St

06/11/2020

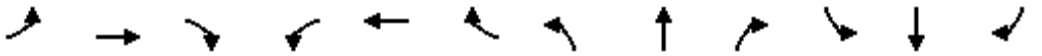


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	276	0	0	0	0	0	1541	43	0	0	0
Future Volume (veh/h)	336	276	0	0	0	0	0	1541	43	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	354	291	0				0	1622	45			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	634	632	0				0	2581	801			
Arrive On Green	0.39	0.39	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1418	1702	0				0	5274	1585			
Grp Volume(v), veh/h	354	291	0				0	1622	45			
Grp Sat Flow(s),veh/h/ln	1418	1617	0				0	1702	1585			
Q Serve(g_s), s	18.2	12.0	0.0				0.0	20.7	1.3			
Cycle Q Clear(g_c), s	18.2	12.0	0.0				0.0	20.7	1.3			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	634	632	0				0	2581	801			
V/C Ratio(X)	0.56	0.46	0.00				0.00	0.63	0.06			
Avail Cap(c_a), veh/h	634	632	0				0	2581	801			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	22.2	20.3	0.0				0.0	16.1	11.3			
Incr Delay (d2), s/veh	3.5	2.4	0.0				0.0	1.2	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.4	4.8	0.0				0.0	7.8	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	22.7	0.0				0.0	17.3	11.5			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		645						1667				
Approach Delay, s/veh		24.4						17.1				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		20.2						22.7				
Green Ext Time (p_c), s		3.5						13.4				

Intersection Summary	
HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



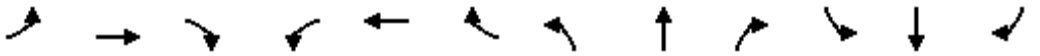
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	132	484	97	70	697	0	0	872	170
Future Volume (veh/h)	0	0	0	132	484	97	70	697	0	0	872	170
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				139	509	102	74	734	0	0	918	179
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				876	920	779	176	1411	0	0	1411	629
Arrive On Green				0.49	0.49	0.49	0.40	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1781	1870	1585	514	3647	0	0	3647	1585
Grp Volume(v), veh/h				139	509	102	74	734	0	0	918	179
Grp Sat Flow(s),veh/h/ln				1781	1870	1585	514	1777	0	0	1777	1585
Q Serve(g_s), s				3.9	17.1	3.1	12.3	14.1	0.0	0.0	18.9	6.9
Cycle Q Clear(g_c), s				3.9	17.1	3.1	31.2	14.1	0.0	0.0	18.9	6.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				876	920	779	176	1411	0	0	1411	629
V/C Ratio(X)				0.16	0.55	0.13	0.42	0.52	0.00	0.00	0.65	0.28
Avail Cap(c_a), veh/h				876	920	779	191	1516	0	0	1516	676
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				12.6	16.0	12.4	34.7	20.6	0.0	0.0	22.1	18.4
Incr Delay (d2), s/veh				0.4	2.4	0.3	1.6	0.3	0.0	0.0	0.9	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.6	7.5	1.1	1.6	5.7	0.0	0.0	7.7	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.0	18.4	12.8	36.3	20.9	0.0	0.0	23.0	18.7
LnGrp LOS				B	B	B	D	C	A	A	C	B
Approach Vol, veh/h					750			808			1097	
Approach Delay, s/veh					16.6			22.3			22.3	
Approach LOS					B			C			C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	49.7	40.3	40.3
Change Period (Y+Rc), s	* 5.4	* 4.6	* 4.6
Max Green Setting (Gmax), s	* 42	* 38	* 38
Max Q Clear Time (g_c+I1), s	19.1	20.9	33.2
Green Ext Time (p_c), s	4.1	6.8	2.5

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	236	37	0	0	0	0	658	68	77	872	0
Future Volume (veh/h)	77	236	37	0	0	0	0	658	68	77	872	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1900				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	81	248	39				0	693	72	81	918	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	2	2	2	2	0
Cap, veh/h	112	359	59				0	1384	1173	492	2629	0
Arrive On Green	0.15	0.15	0.15				0.00	0.74	0.74	0.74	0.74	0.00
Sat Flow, veh/h	766	2462	402				0	1870	1585	702	3647	0
Grp Volume(v), veh/h	194	0	174				0	693	72	81	918	0
Grp Sat Flow(s),veh/h/ln	1832	0	1798				0	1870	1585	702	1777	0
Q Serve(g_s), s	9.1	0.0	8.3				0.0	13.8	1.1	4.8	8.2	0.0
Cycle Q Clear(g_c), s	9.1	0.0	8.3				0.0	13.8	1.1	18.6	8.2	0.0
Prop In Lane	0.42		0.22				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	267	0	262				0	1384	1173	492	2629	0
V/C Ratio(X)	0.73	0.00	0.67				0.00	0.50	0.06	0.16	0.35	0.00
Avail Cap(c_a), veh/h	601	0	589				0	1384	1173	492	2629	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.89				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.7	0.0	36.4				0.0	4.8	3.2	8.7	4.1	0.0
Incr Delay (d2), s/veh	3.3	0.0	2.6				0.0	1.3	0.1	0.7	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	3.8				0.0	4.5	0.3	0.8	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	0.0	39.0				0.0	6.1	3.3	9.4	4.5	0.0
LnGrp LOS	D	A	D				A	A	A	A	A	A
Approach Vol, veh/h		368						765			999	
Approach Delay, s/veh		39.5						5.9			4.9	
Approach LOS		D						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		71.4		18.6		71.4						
Change Period (Y+Rc), s		* 4.8		* 5.5		* 4.8						
Max Green Setting (Gmax), s		* 50		* 30		* 50						
Max Q Clear Time (g_c+I1), s		20.6		11.1		15.8						
Green Ext Time (p_c), s		8.5		2.0		5.9						

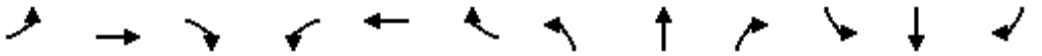
Intersection Summary		
HCM 6th Ctrl Delay		11.2
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
1: Olive St & 11th St

06/11/2020



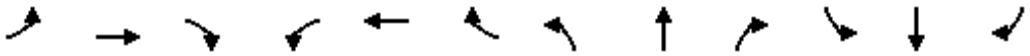
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	276	185	283	1596	0	0	0	0
Future Volume (veh/h)	0	0	0	0	276	185	283	1596	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	291	195	298	1680	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	700	593	413	1993	0			
Arrive On Green				0.00	0.37	0.37	0.16	0.16	0.00			
Sat Flow, veh/h				0	1870	1585	692	4209	0			
Grp Volume(v), veh/h				0	291	195	711	1267	0			
Grp Sat Flow(s),veh/h/ln				0	1870	1585	1649	1549	0			
Q Serve(g_s), s				0.0	8.1	6.1	29.5	27.7	0.0			
Cycle Q Clear(g_c), s				0.0	8.1	6.1	29.5	27.7	0.0			
Prop In Lane				0.00		1.00	0.42		0.00			
Lane Grp Cap(c), veh/h				0	700	593	884	1522	0			
V/C Ratio(X)				0.00	0.42	0.33	0.80	0.83	0.00			
Avail Cap(c_a), veh/h				0	700	593	884	1522	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.67	0.67	0.00			
Uniform Delay (d), s/veh				0.0	16.2	15.6	27.3	26.5	0.0			
Incr Delay (d2), s/veh				0.0	1.8	1.5	5.3	3.8	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	3.5	2.3	14.0	12.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	18.0	17.1	32.5	30.3	0.0			
LnGrp LOS				A	B	B	C	C	A			
Approach Vol, veh/h					486			1978				
Approach Delay, s/veh					17.7			31.1				
Approach LOS					B			C				

Timer - Assigned Phs	2							8				
Phs Duration (G+Y+Rc), s	31.0							39.0				
Change Period (Y+Rc), s	* 4.8							4.6				
Max Green Setting (Gmax), s	* 26							34.4				
Max Q Clear Time (g_c+I1), s	10.1							31.5				
Green Ext Time (p_c), s	2.2							2.6				

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

Notes

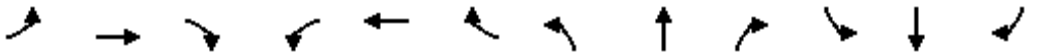
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	199	0	0	0	0	0	1490	69	0	0	0
Future Volume (veh/h)	163	199	0	0	0	0	0	1490	69	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	172	209	0				0	1568	73			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	615	769	0				0	2298	713			
Arrive On Green	0.42	0.42	0.00				0.00	0.45	0.45			
Sat Flow, veh/h	1245	1929	0				0	5274	1585			
Grp Volume(v), veh/h	200	181	0				0	1568	73			
Grp Sat Flow(s),veh/h/ln	1472	1617	0				0	1702	1585			
Q Serve(g_s), s	6.0	5.1	0.0				0.0	17.1	1.9			
Cycle Q Clear(g_c), s	6.3	5.1	0.0				0.0	17.1	1.9			
Prop In Lane	0.86		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	710	674	0				0	2298	713			
V/C Ratio(X)	0.28	0.27	0.00				0.00	0.68	0.10			
Avail Cap(c_a), veh/h	710	674	0				0	2298	713			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	13.7	13.4	0.0				0.0	15.3	11.1			
Incr Delay (d2), s/veh	1.0	1.0	0.0				0.0	1.7	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	1.9	0.0				0.0	6.2	0.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.7	14.4	0.0				0.0	16.9	11.4			
LnGrp LOS	B	B	A				A	B	B			
Approach Vol, veh/h		381						1641				
Approach Delay, s/veh		14.5						16.7				
Approach LOS		B						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		34.0						36.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 29						31.5				
Max Q Clear Time (g_c+I1), s		8.3						19.1				
Green Ext Time (p_c), s		2.1						8.5				
Intersection Summary												
HCM 6th Ctrl Delay			16.3									
HCM 6th LOS			B									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



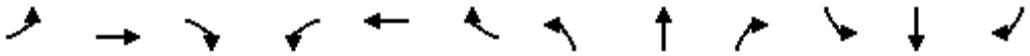
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	70	201	58	55	469	0	0	460	76
Future Volume (veh/h)	0	0	0	70	201	58	55	469	0	0	460	76
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				74	212	61	58	494	0	0	484	80
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				1139	1196	1014	191	886	0	0	886	395
Arrive On Green				0.64	0.64	0.64	0.25	0.25	0.00	0.00	0.25	0.25
Sat Flow, veh/h				1781	1870	1585	847	3647	0	0	3647	1585
Grp Volume(v), veh/h				74	212	61	58	494	0	0	484	80
Grp Sat Flow(s),veh/h/ln				1781	1870	1585	847	1777	0	0	1777	1585
Q Serve(g_s), s				1.4	4.1	1.3	5.8	10.9	0.0	0.0	10.7	3.6
Cycle Q Clear(g_c), s				1.4	4.1	1.3	16.4	10.9	0.0	0.0	10.7	3.6
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1139	1196	1014	191	886	0	0	886	395
V/C Ratio(X)				0.06	0.18	0.06	0.30	0.56	0.00	0.00	0.55	0.20
Avail Cap(c_a), veh/h				1139	1196	1014	454	1990	0	0	1990	888
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				6.1	6.6	6.1	36.5	29.4	0.0	0.0	29.3	26.7
Incr Delay (d2), s/veh				0.1	0.3	0.1	0.9	0.6	0.0	0.0	0.5	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.5	1.6	0.4	1.2	4.6	0.0	0.0	4.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				6.2	6.9	6.2	37.4	30.0	0.0	0.0	29.9	26.9
LnGrp LOS				A	A	A	D	C	A	A	C	C
Approach Vol, veh/h					347			552			564	
Approach Delay, s/veh					6.6			30.8			29.5	
Approach LOS					A			C			C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	62.9	27.1	27.1
Change Period (Y+Rc), s	* 5.4	* 4.6	* 4.6
Max Green Setting (Gmax), s	* 30	* 50	* 50
Max Q Clear Time (g_c+I1), s	6.1	12.7	18.4
Green Ext Time (p_c), s	1.6	3.9	4.0

Intersection Summary	
HCM 6th Ctrl Delay	24.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	147	52	0	0	0	0	448	63	80	513	0
Future Volume (veh/h)	63	147	52	0	0	0	0	448	63	80	513	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1900				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	66	155	55				0	472	66	84	540	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	2	2	2	2	0
Cap, veh/h	96	232	85				0	1440	1220	680	2735	0
Arrive On Green	0.12	0.12	0.12				0.00	0.77	0.77	0.77	0.77	0.00
Sat Flow, veh/h	825	2005	737				0	1870	1585	867	3647	0
Grp Volume(v), veh/h	146	0	130				0	472	66	84	540	0
Grp Sat Flow(s),veh/h/ln	1829	0	1738				0	1870	1585	867	1777	0
Q Serve(g_s), s	6.9	0.0	6.4				0.0	7.0	0.9	3.0	3.7	0.0
Cycle Q Clear(g_c), s	6.9	0.0	6.4				0.0	7.0	0.9	10.0	3.7	0.0
Prop In Lane	0.45		0.42				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	212	0	201				0	1440	1220	680	2735	0
V/C Ratio(X)	0.69	0.00	0.64				0.00	0.33	0.05	0.12	0.20	0.00
Avail Cap(c_a), veh/h	600	0	570				0	1440	1220	680	2735	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.98	0.00	0.98				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.2	0.0	38.0				0.0	3.2	2.5	4.7	2.8	0.0
Incr Delay (d2), s/veh	3.9	0.0	3.4				0.0	0.6	0.1	0.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	2.9				0.0	2.1	0.2	0.5	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	0.0	41.4				0.0	3.8	2.6	5.1	3.0	0.0
LnGrp LOS	D	A	D				A	A	A	A	A	A
Approach Vol, veh/h		276						538			624	
Approach Delay, s/veh		41.8						3.7			3.3	
Approach LOS		D						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		74.1		15.9		74.1						
Change Period (Y+Rc), s		* 4.8		* 5.5		* 4.8						
Max Green Setting (Gmax), s		* 50		* 30		* 50						
Max Q Clear Time (g_c+I1), s		12.0		8.9		9.0						
Green Ext Time (p_c), s		4.7		1.5		3.6						

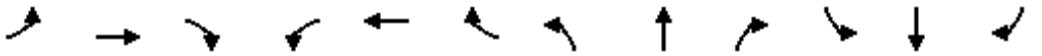
Intersection Summary		
HCM 6th Ctrl Delay		10.8
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
1: Olive St & 11th St

06/11/2020



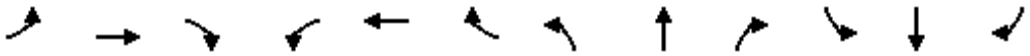
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	543	217	346	1377	0	0	0	0
Future Volume (veh/h)	0	0	0	0	543	217	346	1377	0	0	0	0
Initial Q (Qb), veh				0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00			
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach					No			No				
Adj Sat Flow, veh/h/ln				0	1870	1870	1870	1870	0			
Adj Flow Rate, veh/h				0	572	228	364	1449	0			
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %				0	2	2	2	2	0			
Cap, veh/h				0	732	620	521	1902	0			
Arrive On Green				0.00	0.39	0.39	0.17	0.17	0.00			
Sat Flow, veh/h				0	1870	1585	907	3924	0			
Grp Volume(v), veh/h				0	572	228	634	1179	0			
Grp Sat Flow(s),veh/h/ln				0	1870	1585	1581	1549	0			
Q Serve(g_s), s				0.0	24.1	9.2	34.7	32.6	0.0			
Cycle Q Clear(g_c), s				0.0	24.1	9.2	34.7	32.6	0.0			
Prop In Lane				0.00		1.00	0.57		0.00			
Lane Grp Cap(c), veh/h				0	732	620	860	1563	0			
V/C Ratio(X)				0.00	0.78	0.37	0.74	0.75	0.00			
Avail Cap(c_a), veh/h				0	732	620	860	1563	0			
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00			
Upstream Filter(I)				0.00	1.00	1.00	0.73	0.73	0.00			
Uniform Delay (d), s/veh				0.0	24.0	19.5	33.0	32.2	0.0			
Incr Delay (d2), s/veh				0.0	8.1	1.7	4.1	2.5	0.0			
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln				0.0	11.8	3.6	15.5	13.9	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				0.0	32.2	21.2	37.2	34.7	0.0			
LnGrp LOS				A	C	C	D	C	A			
Approach Vol, veh/h					800			1813				
Approach Delay, s/veh					29.0			35.6				
Approach LOS					C			D				

Timer - Assigned Phs	2							8				
Phs Duration (G+Y+Rc), s	40.0							50.0				
Change Period (Y+Rc), s	* 4.8							4.6				
Max Green Setting (Gmax), s	* 35							45.4				
Max Q Clear Time (g_c+I1), s	26.1							36.7				
Green Ext Time (p_c), s	3.1							6.8				

Intersection Summary												
HCM 6th Ctrl Delay		33.6										
HCM 6th LOS		C										

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

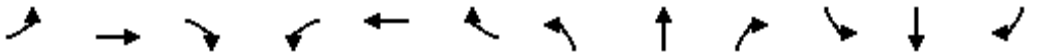


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	289	0	0	0	0	0	1546	47	0	0	0
Future Volume (veh/h)	336	289	0	0	0	0	0	1546	47	0	0	0
Initial Q (Qb), veh	0	0	0				0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00			
Work Zone On Approach		No						No				
Adj Sat Flow, veh/h/ln	1870	1870	0				0	1870	1870			
Adj Flow Rate, veh/h	354	304	0				0	1627	49			
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95			
Percent Heavy Veh, %	2	2	0				0	2	2			
Cap, veh/h	634	632	0				0	2581	801			
Arrive On Green	0.39	0.39	0.00				0.00	0.51	0.51			
Sat Flow, veh/h	1418	1702	0				0	5274	1585			
Grp Volume(v), veh/h	354	304	0				0	1627	49			
Grp Sat Flow(s),veh/h/ln	1418	1617	0				0	1702	1585			
Q Serve(g_s), s	18.2	12.7	0.0				0.0	20.8	1.4			
Cycle Q Clear(g_c), s	18.2	12.7	0.0				0.0	20.8	1.4			
Prop In Lane	1.00		0.00				0.00		1.00			
Lane Grp Cap(c), veh/h	634	632	0				0	2581	801			
V/C Ratio(X)	0.56	0.48	0.00				0.00	0.63	0.06			
Avail Cap(c_a), veh/h	634	632	0				0	2581	801			
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00			
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	1.00			
Uniform Delay (d), s/veh	22.2	20.5	0.0				0.0	16.1	11.4			
Incr Delay (d2), s/veh	3.5	2.6	0.0				0.0	1.2	0.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.4	5.1	0.0				0.0	7.8	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	23.2	0.0				0.0	17.3	11.5			
LnGrp LOS	C	C	A				A	B	B			
Approach Vol, veh/h		658						1676				
Approach Delay, s/veh		24.6						17.2				
Approach LOS		C						B				
Timer - Assigned Phs		2						8				
Phs Duration (G+Y+Rc), s		40.0						50.0				
Change Period (Y+Rc), s		* 4.8						4.5				
Max Green Setting (Gmax), s		* 35						45.5				
Max Q Clear Time (g_c+I1), s		20.2						22.8				
Green Ext Time (p_c), s		3.6						13.4				

Intersection Summary	
HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



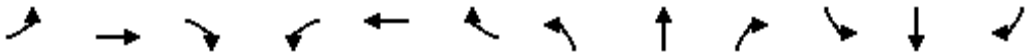
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	144	508	97	78	697	0	0	894	178
Future Volume (veh/h)	0	0	0	144	508	97	78	697	0	0	894	178
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				152	535	102	82	734	0	0	941	187
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				852	895	758	179	1459	0	0	1459	651
Arrive On Green				0.48	0.48	0.48	0.41	0.41	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1781	1870	1585	499	3647	0	0	3647	1585
Grp Volume(v), veh/h				152	535	102	82	734	0	0	941	187
Grp Sat Flow(s),veh/h/ln				1781	1870	1585	499	1777	0	0	1777	1585
Q Serve(g_s), s				4.4	18.8	3.2	14.2	13.8	0.0	0.0	19.1	7.1
Cycle Q Clear(g_c), s				4.4	18.8	3.2	33.3	13.8	0.0	0.0	19.1	7.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				852	895	758	179	1459	0	0	1459	651
V/C Ratio(X)				0.18	0.60	0.13	0.46	0.50	0.00	0.00	0.64	0.29
Avail Cap(c_a), veh/h				852	895	758	187	1516	0	0	1516	676
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				13.4	17.2	13.1	34.6	19.7	0.0	0.0	21.3	17.7
Incr Delay (d2), s/veh				0.5	2.9	0.4	1.8	0.3	0.0	0.0	0.9	0.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	8.3	1.2	1.8	5.5	0.0	0.0	7.8	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.8	20.1	13.5	36.4	20.0	0.0	0.0	22.2	18.0
LnGrp LOS				B	C	B	D	B	A	A	C	B
Approach Vol, veh/h					789			816			1128	
Approach Delay, s/veh					18.0			21.6			21.5	
Approach LOS					B			C			C	

Timer - Assigned Phs	2	4	8
Phs Duration (G+Y+Rc), s	48.4	41.6	41.6
Change Period (Y+Rc), s	* 5.4	* 4.6	* 4.6
Max Green Setting (Gmax), s	* 42	* 38	* 38
Max Q Clear Time (g_c+I1), s	20.8	21.1	35.3
Green Ext Time (p_c), s	4.3	7.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	236	37	0	0	0	0	680	68	90	898	0
Future Volume (veh/h)	94	236	37	0	0	0	0	680	68	90	898	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1870	1900				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	99	248	39				0	716	72	95	945	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	2	0				0	2	2	2	2	0
Cap, veh/h	135	357	58				0	1372	1163	471	2608	0
Arrive On Green	0.15	0.15	0.15				0.00	0.73	0.73	0.73	0.73	0.00
Sat Flow, veh/h	891	2353	384				0	1870	1585	687	3647	0
Grp Volume(v), veh/h	203	0	183				0	716	72	95	945	0
Grp Sat Flow(s),veh/h/ln	1826	0	1801				0	1870	1585	687	1777	0
Q Serve(g_s), s	9.5	0.0	8.6				0.0	14.9	1.1	6.2	8.7	0.0
Cycle Q Clear(g_c), s	9.5	0.0	8.6				0.0	14.9	1.1	21.1	8.7	0.0
Prop In Lane	0.49		0.21				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	277	0	273				0	1372	1163	471	2608	0
V/C Ratio(X)	0.73	0.00	0.67				0.00	0.52	0.06	0.20	0.36	0.00
Avail Cap(c_a), veh/h	598	0	590				0	1372	1163	471	2608	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.00	0.89				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	36.4	0.0	36.0				0.0	5.2	3.3	9.7	4.3	0.0
Incr Delay (d2), s/veh	3.3	0.0	2.5				0.0	1.4	0.1	1.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	3.9				0.0	4.9	0.3	1.0	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	0.0	38.6				0.0	6.6	3.4	10.7	4.7	0.0
LnGrp LOS	D	A	D				A	A	A	B	A	A
Approach Vol, veh/h		386						788			1040	
Approach Delay, s/veh		39.2						6.3			5.3	
Approach LOS		D						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		70.8		19.2		70.8						
Change Period (Y+Rc), s		* 4.8		* 5.5		* 4.8						
Max Green Setting (Gmax), s		* 50		* 30		* 50						
Max Q Clear Time (g_c+I1), s		23.1		11.5		16.9						
Green Ext Time (p_c), s		8.7		2.1		6.2						

Intersection Summary		
HCM 6th Ctrl Delay		11.6
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	45	19	524	549	21
Future Vol, veh/h	0	45	19	524	549	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	49	21	570	597	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	310	620	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	686	956	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	686	956	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	956	-	686	-	-
HCM Lane V/C Ratio	0.022	-	0.071	-	-
HCM Control Delay (s)	8.8	-	10.7	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑	↰	
Traffic Vol, veh/h	0	0	26	419	43	0
Future Vol, veh/h	0	0	26	419	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	28	455	47	0

Major/Minor	Major2		Minor1	
Conflicting Flow All	0	0	511	-
Stage 1	-	-	0	-
Stage 2	-	-	511	-
Critical Hdwy	4.12	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	2.218	-	3.518	-
Pot Cap-1 Maneuver	-	-	523	0
Stage 1	-	-	-	0
Stage 2	-	-	602	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	523	-
Mov Cap-2 Maneuver	-	-	523	-
Stage 1	-	-	-	-
Stage 2	-	-	602	-

Approach	WB	NB
HCM Control Delay, s		12.6
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	523	-	-
HCM Lane V/C Ratio	0.089	-	-
HCM Control Delay (s)	12.6	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	40	31	776	1004	35
Future Vol, veh/h	0	40	31	776	1004	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	50	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	43	34	843	1091	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	565	1129	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	468	615	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	468	615	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.5	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	615	-	468	-	-
HCM Lane V/C Ratio	0.055	-	0.093	-	-
HCM Control Delay (s)	11.2	-	13.5	-	-
HCM Lane LOS	B	-	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑	↰	
Traffic Vol, veh/h	0	0	42	724	38	0
Future Vol, veh/h	0	0	42	724	38	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	46	787	41	0

Major/Minor	Major2		Minor1	
Conflicting Flow All	0	0	879	-
Stage 1	-	-	0	-
Stage 2	-	-	879	-
Critical Hdwy	4.12	-	6.42	-
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	-
Follow-up Hdwy	2.218	-	3.518	-
Pot Cap-1 Maneuver	-	-	318	0
Stage 1	-	-	-	0
Stage 2	-	-	406	0
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	318	-
Mov Cap-2 Maneuver	-	-	318	-
Stage 1	-	-	-	-
Stage 2	-	-	406	-

Approach	WB	NB
HCM Control Delay, s		18
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBL	WBT
Capacity (veh/h)	318	-	-
HCM Lane V/C Ratio	0.13	-	-
HCM Control Delay (s)	18	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.4	-	-

Appendix G – Count Sheets

Prepared by National Data & Surveying Services

Olive St & 11th St

Peak Hour Turning Movement Count

ID: 19-05018-001
City: Los Angeles

Day: Wednesday
Date: 01/09/2019

PEAK HOURS
AM: 08:00 AM - 09:00 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS
AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 03:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	1568	0	1523
PHF	0.95		0.90

Olive St — SOUTHBOUND

AM	0	0	0	0	1350	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	1035	PM

11th St — EASTBOUND

	AM	NOON	PM
	218	0	488
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	AM	NOON	PM

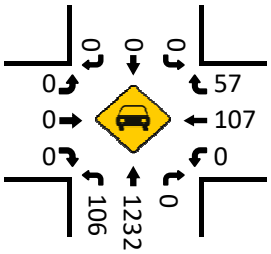
11th St — WESTBOUND

	PM	NOON	AM
	81	0	59
	339	0	110
	0	0	0
	0	0	0
	0	0	0
	PM	NOON	AM

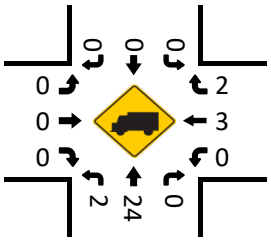
Olive St — NORTHBOUND

PM	0	0	149	954	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	108	1291	0	AM

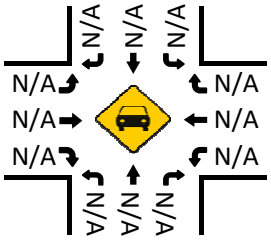
Cars (AM)



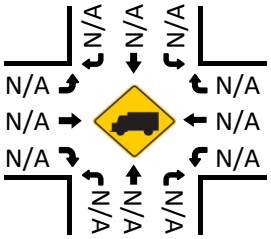
HT (AM)



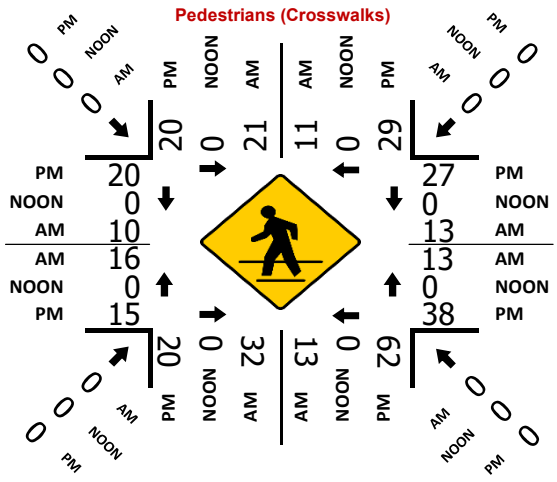
Cars (NOON)



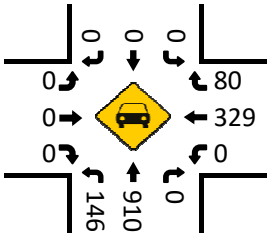
HT (NOON)



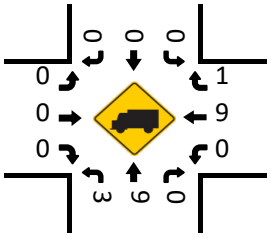
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



ITM Peak Hour Summary

Prepared by:

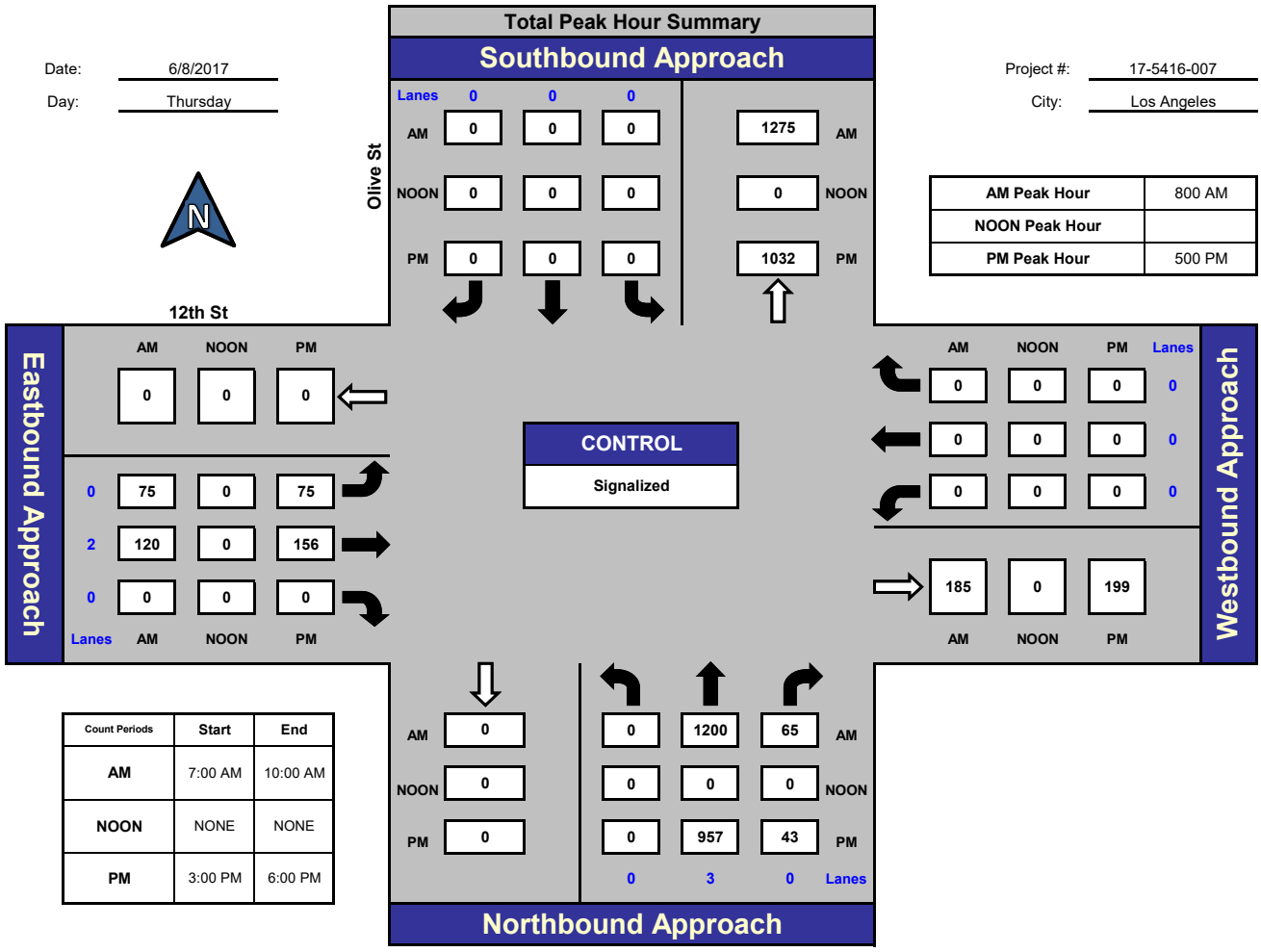
National Data & Surveying Services

Olive St and 12th St , Los Angeles

Date: 6/8/2017
Day: Thursday

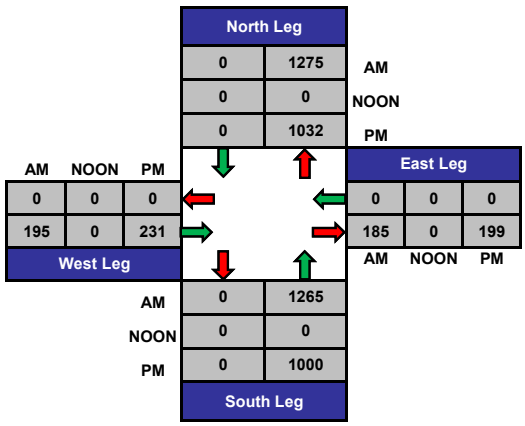
Project #: 17-5416-007
City: Los Angeles

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	500 PM

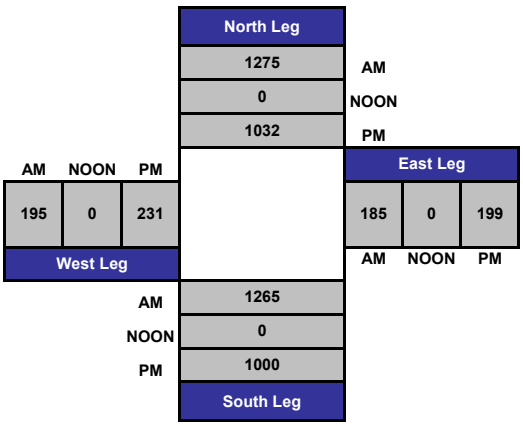


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Prepared by National Data & Surveying Services

Hill St & 11th St

Peak Hour Turning Movement Count

ID: 19-05039-001
City: Los Angeles

Day: Wednesday
Date: 01/23/2019

PEAK HOURS
AM: 08:30 AM - 09:30 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

COUNT PERIODS
AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 03:00 PM - 06:00 PM

CONTROL: signalized

	AM	NOON	PM
TEV	958	0	1738
PHF	0.95		0.93

Hill St — SOUTHBOUND

	L	T	R	U		
AM	27	323	0	0	426	AM
NOON	0	0	0	0	0	NOON
PM	67	719	0	0	538	PM
	0	2	0	0		

11th St — EASTBOUND

	AM	NOON	PM	
	180	0	428	
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	AM	NOON	PM	

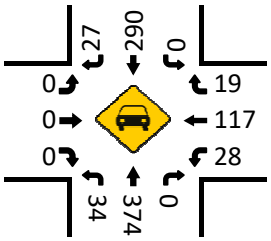
11th St — WESTBOUND

	PM	NOON	AM	
	31	0	20	0
	338	0	119	1
	53	0	29	1
	0	0	0	0
	0	0	0	
	PM	NOON	AM	

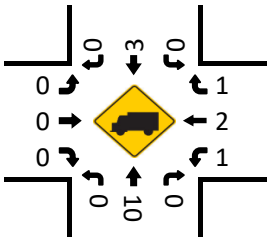
Hill St — NORTHBOUND

	L	T	R	U		
PM	772	0	23	507	0	PM
NOON	0	0	0	0	0	NOON
AM	352	0	34	406	0	AM
	0	1	1	0		

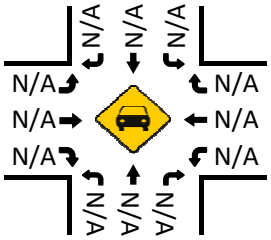
Cars (AM)



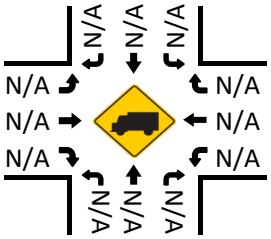
HT (AM)



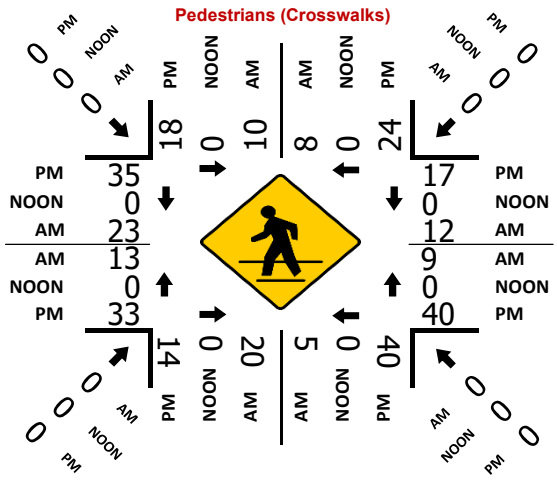
Cars (NOON)



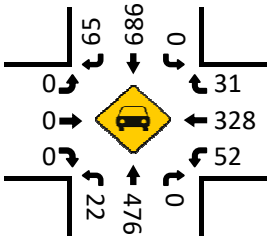
HT (NOON)



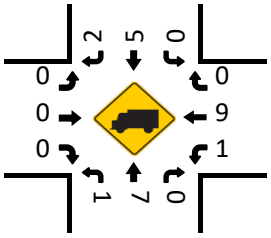
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Hill St & 12th St

Peak Hour Turning Movement Count

ID: 19-05018-004
City: Los Angeles

Day: Wednesday
Date: 01/09/2019

PEAK HOURS
AM: 07:30 AM - 08:30 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS
AM: 07:00 AM - 10:00 AM
NOON: NONE
PM: 03:00 PM - 06:00 PM

Hill St — SOUTHBOUND

AM	0	353	38	0	409	AM
NOON	0	0	0	0	0	NOON
PM	0	675	43	0	498	PM

12th St — EASTBOUND

AM	NOON	PM	
0	0	0	
0	0	0	0
27	0	35	0
104	0	164	2
51	0	32	0
AM	NOON	PM	

12th St — WESTBOUND

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
270	0	201	
PM	NOON	AM	

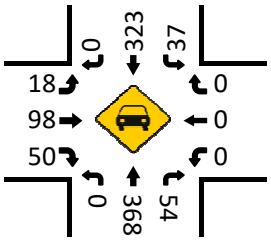
CONTROL: Signalized

TEV	1014 AM	0 NOON	1475 PM
PHF	0.95		0.94

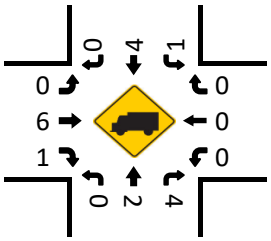
Hill St — NORTHBOUND

PM	707	0	0	463	63	PM
NOON	0	0	0	0	0	NOON
AM	404	0	0	382	59	AM

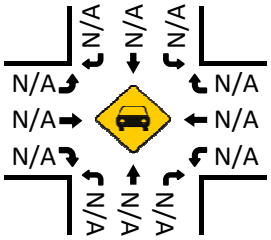
Cars (AM)



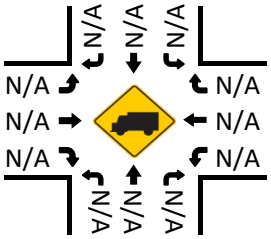
HT (AM)



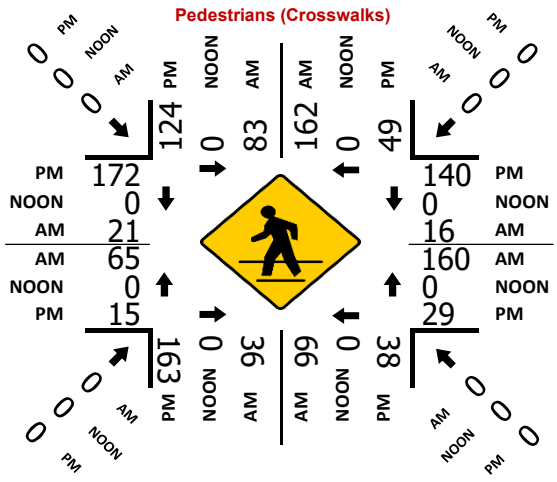
Cars (NOON)



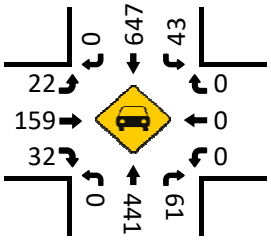
HT (NOON)



Pedestrians (Crosswalks)



Cars (PM)



HT (PM)