DRAFT

TRANSPORTATION ASSESSMENT FOR THE 1400 VINE STREET MIXED-USE DEVELOPMENT PROJECT

HOLLYWOOD, CALIFORNIA

MAY 2020

PREPARED FOR

TOOLEY INTERESTS, LLC

PREPARED BY

Gibson
transportation consulting, inc.

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Chapter 1
Introduction

This study presents the transportation assessment for the mixed-use development project (Project) proposed at 1400-1440 North Vine Street, 6263 West De Longpre Avenue, and 6262-6270 West Leland Way (Project Site) in the *Hollywood Community Plan* (Los Angeles Department of City Planning [LADCP], 1988) area of the City of Los Angeles, California (City). The methodology and base assumptions used in the analysis were established in conjunction with the Los Angeles Department of Transportation (LADOT).

PROJECT DESCRIPTION

The Project is proposing the construction of an eight-story mixed-use residential and commercial development, including 177 market-rate dwelling units, 21 affordable housing units, and approximately 16,000 square feet (sf) of neighborhood serving ground floor commercial uses. Parking for the Project would be provided within one ground level and three subterranean levels, with vehicular access provided via one commercial access driveway along Leland Way and a second driveway serving the residential parking and port cochere from De Longpre Avenue. The existing 14,809 sf of retail uses on the Project Site would be removed to allow for development of the Project.

The Project is anticipated to be completed in Year 2025. The conceptual Project Site plan is illustrated in Figure 1.

PROJECT LOCATION AND TRANSPORTATION ANALYSIS STUDY AREA

The Project Site is bound by Leland Way to the north, residential and surface parking uses to the east, De Longpre Avenue to the south, and Vine Street to the west.

The Project Site is located approximately 0.70 miles west of the Hollywood Freeway (US 101), which provides regional transportation between downtown Los Angeles (approximately 6.0 miles southeast) and the San Fernando Valley (approximately 10.0 miles northwest). In the vicinity of the Project Site, the Hollywood community is served by major Arterial Streets such as Sunset Boulevard and secondary Arterial Streets such as Vine Street.

As shown in Figure 2, the transportation analysis Study Area includes a geographic area bounded by Sunset Boulevard to the north, El Centro Avenue to the east, De Longpre Avenue to the south, and Vine Street to the west. Detailed traffic analyses were conducted at key intersections within the Study Area.

The Project Site is located approximately 0.30 miles south of the Los Angeles County Metropolitan Transportation Authority (Metro) B Line (formerly the Red Line) Hollywood/Vine Station. The B Line subway travels between Union Station in downtown Los Angeles and North Hollywood at 10-minute intervals throughout the day. Additionally, transit bus service is provided throughout the Study Area by Metro and LADOT Downtown Area Shuttle (DASH) service bus lines.

STUDY SCOPE

The scope of analysis for this study was developed in consultation with LADOT and is consistent with *Transportation Assessment Guidelines* (LADOT, July 2019) (the TAG) and in compliance with the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14, Section 15000 and following). The base assumptions and technical methodologies (i.e., trip generation, study locations, analysis methodology, etc.) were identified as part of the study approach and were outlined in a Memorandum of Understanding (MOU) that was reviewed and approved by LADOT in February 2020 and is provided in Appendix A.

ORGANIZATION OF REPORT

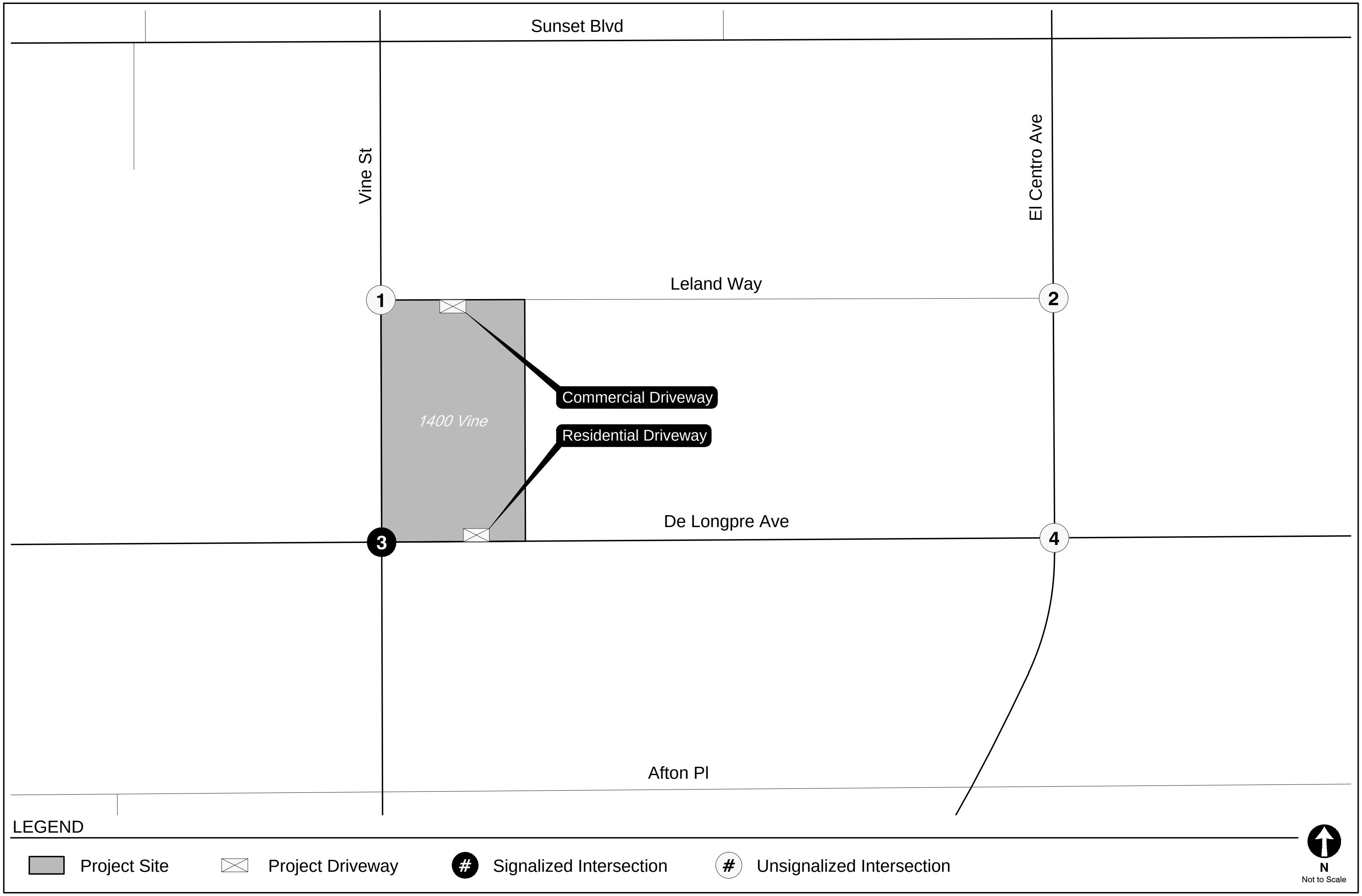
This report is divided into five chapters, including this Introduction. Chapter 2 describes the Project context including the existing and future circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 3 presents the CEQA analysis of transportation impacts. Chapter 4 details the non-CEQA transportation analyses. Chapter 5 summarizes the analyses and study conclusions. The appendices contain supporting documentation, including the MOU that outlines the study scope and assumptions, and additional details supporting the technical analyses.

N
Not to Scale

Source: TCA Architects. December, 2019.

PROJECT SITE PLAN

FIGURE 1



STUDY AREA & ANALYZED INTERSECTIONS

FIGURE 2

Chapter 2
Project Context

A comprehensive data collection effort was undertaken to develop a detailed description of existing and future conditions in the Project Study Area.

The Existing Conditions analysis includes an assessment of the existing transportation infrastructure and conditions of the Study Area including freeway and street systems, and transit service, as well as pedestrian and bicycle circulation, at the time the MOU was approved in February 2020. Fieldwork (lane configurations, signal phasing, parking restrictions, etc.) for the analyzed intersections was collected in Year 2020.

In addition, this Chapter contains a discussion of the future conditions detailing the assumptions used to develop the Future without Project Conditions in Year 2025, which corresponds to projected occupancy of the Project.

STUDY AREA

The Project's transportation analysis Study Area, shown in Figure 2, includes a geographic area that is generally bounded by Sunset Boulevard to the north, El Centro Avenue to the east, De Longpre Avenue to the south, and Vine Street to the west. This Study Area was established in consultation with LADOT by reviewing the existing intersection/corridor operations, Project peak hour vehicle trip generation, anticipated distribution of Project vehicular trips, and potential impacts of Project Traffic.

A transportation analysis study area generally comprises those intersections with the greatest potential to experience significant transportation impacts due to the project as defined by the City. Factors identified in the TAG that guide the selection of intersections include:

1. Primary driveway(s)
2. Intersections at either end of the block on which the Project is located or up to 600 feet from the primary Project driveway(s)
3. Unsignalized intersections adjacent to the Project Site that are integral to the Project's site access and circulation plan
4. Signalized intersections in proximity to the Project Site where 100 or more Project trips would be added

A total of four intersections, one signalized and three unsignalized, listed in Table 1, were identified during the MOU process for detailed analysis of the above conditions. Figure 2 illustrates the location of the Project Site in relation to the surrounding street system and the four study intersections. The existing lane configurations at the analyzed intersections are provided in Figure 3.

EXISTING TRANSPORTATION CONDITIONS

Existing Street System

The existing street system in the Study Area consists of a regional roadway system including Arterial Streets and Local Streets that provide regional, sub-regional, or local access and circulation to the Project Site. These transportation facilities generally provide two to four travel lanes and usually allow parking on either side of the street. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the streets and between 55 mph on freeways.

Street classifications for roadways within the City of Los Angeles are designated in *Mobility Plan 2035, An Element of the General Plan* (LADCP, January 2016) (the Mobility Plan). The Mobility Plan defines specific street standards in an effort to provide an enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the Mobility Plan, street classifications are defined as follows:

- Freeways are 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 are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:
    - Boulevards represent the widest Arterial 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, and generally includes a right-of-way width of 136 feet and pavement width of 100 feet.
        - Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph, with right-of-way widths varying from 104-110 feet, and pavement widths from 70-80 feet.
    - Avenues are typically narrower Arterial Streets that 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, with a right-of-way width of 100 feet and pavement width of 70 feet.
        - Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph, with a right-of-way width of 86 feet and pavement width of 56 feet.
        - Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph, with a right-of-way width of 72 feet and pavement width of 46 feet.
- Collector Streets are generally located in residential neighborhoods and provide access to and from Arterial Streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph, with a right-of-way width generally at 65 feet and pavement width of 44 feet.
- Local Streets are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Pavement widths may vary between 30-36 feet within a right-of-way width of 50-60 feet. Local Streets include two categories:
    - Continuous Local Streets connect to other streets at both ends
    - Non-continuous Local Streets lead to a dead-end

Primary regional access to the Project Site is provided by US 101. In proximity to the Project Site, the Study Area is served by Arterial Streets such as Sunset Boulevard and Vine Street. The following is a brief description of the roadways in the area, including their classifications in the Mobility Plan:

Freeways

- US 101 – US 101 generally runs in the northwest-southeast direction and is located approximately 0.70 miles east of the Project Site. In the vicinity of the Project Site, US 101 provides four travel lanes in each direction with access available via interchanges at Vine Street, Hollywood Boulevard, Sunset Boulevard, and Santa Monica Boulevard.

Roadways

- Vine Street– Vine Street is a designated Avenue II. It travels in the north-south direction and is located adjacent to the western boundary of the Project Site. It generally provides four travel lanes, two lanes in each direction, and left-turn lanes at most intersections. One-hour and two-hour metered parking is generally provided on both sides of the street within the Study Area.

- El Centro Avenue – El Centro Avenue is a designated Local Street. It travels in the north-south direction and is located east of the Project Site. It generally provides two travel lanes, one lane in each direction. One-hour metered and unmetered parking is generally provided on both sides of the street within the Study Area.

- Leland Way – Leland Way is a designated Local Street. It travels in the east-west direction and is located adjacent to the northern boundary of the Project Site. It generally provides two travel lanes, one lane in each direction. Two-hour unmetered parking is generally provided on the north side of the street within the Study Area.

- De Longpre Avenue – De Longpre Avenue is a designated Local Street. It travels in the east-west direction and is located adjacent to the southern boundary of the Project Site. It generally provides two travel lanes, one lane in each direction. Unmetered parking is generally provided on the north side of the street within the Study Area.

The existing intersection mobility facilities are shown in Figure 4 and the existing transportation facilities are shown in Figure 5.

Existing Transit System

Figure 6 illustrates the existing transit service in the Study Area, which is served by bus lines operated by Metro and DASH.

In addition to the bus lines that provide service within the Project Site vicinity, the Metro B Line fixed-rail subway operates in the Study Area. The Metro B Line runs between North Hollywood and downtown Los Angeles, connecting with the Metro G Line (formerly the Orange Line) in North Hollywood, the Metro D Line (formerly the Purple Line) at Wilshire Boulevard, the Metro A Line (formerly the Blue Line) and Metro E Line (formerly the Expo Line) in downtown Los Angeles, and the Metro L Line (formerly the Gold Line) at Union Station. In the Project vicinity, the Metro B Line has a station at Hollywood Boulevard & Vine Street, approximately 0.30 miles from the Project Site.

Table 2 summarizes the transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service, as described above. The average frequency of transit service during the peak hour was derived from the number of peak period stops made at the stop nearest the Project Site.

Tables 3A and 3B summarize the available capacity of the Metro and DASH transit systems during the morning and afternoon peak hours, respectively, based on the frequency of service of each line and the maximum seated and standing capacity of each bus or train. As shown, the Metro and DASH transit lines within 0.25 miles walking distance of the Project Site currently provide additional capacity for 5,898 transit riders during the morning peak hour and 4,887 transit riders during the afternoon peak hour.

Existing Bicycle System

Based on *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (LADCP, 2010) (the 2010 Bicycle Plan), the existing bicycle system in the Study Area consists of a limited coverage of bicycle routes (Class III). Bicycle routes are identified as bicycle-friendly streets where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes are preferably located on collector and lower volume Arterial Streets. Bicycle routes with shared lane markings, or “sharrows”, remind bicyclists to ride farther from parked cars to prevent collisions, increase awareness of motorists that bicycles may be in the travel lane, and shows bicyclists the correct direction of travel. The components of the 2010 Bicycle Plan have been incorporated into the bicycle network of the Mobility Plan.

The Mobility Plan consists of a Low-Stress Bikeway System and a Bicycle Lane Network. The Low-Stress Bikeway System is comprised of the Bicycle Enhanced Network, the Neighborhood

Enhanced Network, and Bike Paths. The Bicycle Enhanced Network includes protected bicycle lanes (Class IV), which provide bicycling infrastructure including cycle tracks, bicycle signals, and demarcated areas to facilitate turns at intersections and neighborhood streets. These typically provide mini-roundabouts, cross-street stop signs, crossing islands at major intersection crossings, improved street lighting, bicycle boxes, and bicycle-only left-turn pockets. Once implemented, these facilities would offer a safer environment for both cyclists and motorists.

Sharrowed bicycle routes are currently provided along Vine Street within the Study Area.

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile; these attributes are quantified by WalkScore.com and assigned a score out of 100 points. With the various commercial businesses and cultural facilities adjacent to residential neighborhoods, the walkability of the Project site is approximately 97 points[1].

The sidewalks that serve as routes to the Project Site provide proper connectivity and adequate widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at intersections within the Study Area. All four study intersections provide pedestrian facilities to the Project Site, with curb ramps on all approaches. The signalized intersection at Vine Street & De Longpre Avenue (Intersection #3) provides pedestrian phasing, crosswalk striping, and Americans with Disabilities Act (ADA) wheelchair ramps as shown in Figure 4.

Vision Zero

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City of Los Angeles, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate

[1] WalkScore.com rates the Project site (1400 Vine Street) with a score of 97 of 100 possible points (scores accessed on February 11, 2020 for the Central Hollywood Neighborhood). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.

collisions that result in severe injury or death. Vision Zero has identified the High Injury Network, a network of streets based on the collision data from the last five years, where strategic investments will have the biggest impact in reducing death and severe injury. Within the Study Area, Vine Street is identified in the High Injury Network.

<u>**Existing Traffic Volumes**</u>

Intersection turning movement counts were conducted at the four study intersections during the weekday morning and afternoon peak periods in February 2020 in accordance with LADOT guidelines. Local schools were in session when all traffic counts were conducted, and the weather conditions were typical. The existing intersection peak hour traffic volumes are illustrated in Figure 7. Traffic volume data worksheets are provided in Appendix B.

FUTURE CUMULATIVE TRANSPORTATION CONDITIONS

The forecast of Future without Project Conditions was prepared in accordance with procedures outlined in the CEQA Guidelines. Specifically, two options are provided for developing the cumulative traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> "(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

As described in detail below, this analysis includes increases to traffic from future projects (option "A" above, the "Related Projects") and from regional growth projections (option "B" above, or ambient growth). As such, the ambient growth factor discussed below likely includes some traffic growth resulting from the Related Projects. Therefore, the traffic analysis provides a highly conservative estimate of Future without Project traffic volumes.

The Future without Project traffic projections reflect growth in traffic over existing conditions from ambient growth, which reflects increases in traffic due to regional growth and development outside the Study Area and traffic generated by ongoing or entitled projects in, or in the vicinity of, the Study Area.

Ambient Traffic Growth

Existing traffic is expected to increase as a result of regional growth and development outside the Study Area. Based on discussions with LADOT through the MOU process, a conservative ambient growth factor of 1% per year compounded annually was applied to adjust the existing traffic volumes to reflect the effects of the regional growth and development by Year 2025. The total adjustment applied over the five-year period was 5.10%. These growth factors account for increases in traffic due to potential projects not yet proposed or projects outside the Study Area.

Related Projects

In accordance with the CEQA Guidelines, this study also considers the effects of the Project in relation to the Related Projects. The list of Related Projects is based on information provided by LADCP and LADOT in January 2020, as well as recent studies of development projects in the area. The Related Projects are detailed in Table 4 and their approximate locations shown in Figure 8.

Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this Study and conservatively assumed to be completed by the Project buildout Year 2025. Therefore, the traffic growth due to the development of Related Projects considered in this analysis is highly conservative and, by itself, substantially overestimates the actual traffic volume growth in the Hollywood area that would likely occur in the next five years prior to Project buildout. With the addition of the 1% per year ambient growth factor previously discussed, the Future without Project Condition is even more conservative.

Using these assumptions, the Project was evaluated within the context of the worst-case cumulative impact of all prospective development. The development of estimated traffic volumes added to the Study Area as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

Trip Generation. Trip generation estimates for the Related Projects were provided by LADOT or were calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation, 10th Edition* (Institute of Transportation Engineers, 2017). Table 4 summarizes the Related Project trip generation for typical weekdays, including daily trips, morning peak hour trips, and afternoon peak hour trips. These projections are very conservative in that they do not in every case account for either the trips generated by the existing uses to be removed or the likely use of other travel modes (transit, bicycle, walk, etc.) Further, in many cases, they do not account for the internal capture trips within a multi-use development, nor the interaction of trips between multiple related projects within the Hollywood area, in which one Related Project serves as the origin for a trip destined for another Related Project.

Trip Distribution. The geographic distribution of the traffic generated by the Related Projects is dependent on several factors. These include the type and density of the proposed land uses, the geographic distribution of the population from which the employees/residents and potential patrons of the proposed developments are drawn, and the location of these projects in relation to the surrounding street system. These factors are considered along with logical travel routes through the street system to develop a reasonable pattern of trip distribution.

Traffic Assignment. The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above. Figure 9 shows the peak hour traffic volumes associated with these Related Projects at the study intersections. These volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected buildout year of 2025. As discussed above, this is a conservative approach as many of the Related Projects may already be reflected in the ambient growth rate. These volumes represent the Future without Project Conditions (i.e., existing traffic volumes added to ambient traffic growth and Related Project traffic growth) and are shown in Figure 10 for the four study intersections.

Future without Project Traffic Volumes

The Related Projects volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected Project completion year of 2025. As discussed above, this is a conservative approach as many of the Related Projects may already be reflected in the ambient growth rate. These volumes represent the Future without Project Conditions (i.e., ambient traffic growth and Related Project traffic growth added to existing traffic volumes) for Year 2025 and are shown in Figure 10 for the four study intersections.

Future Roadway Improvements

The analysis of future conditions considered roadway improvements that were funded and reasonably expected to be implemented prior to the buildout of the proposed Project. Any roadway improvement that would result in changes to the physical configuration at the study intersections would be incorporated into the analysis. However, these improvements depend on the construction of the development projects, which are not guaranteed to be built or may not be completed by Project buildout. Therefore, this analysis conservatively concluded that these improvements would not be implemented by Year 2025. Other proposed traffic/trip reduction strategies such as the proposed creation of a Hollywood Transportation Management Organization (TMO) and Transportation Demand Management (TDM) programs for individual buildings and developments were not applied to the Future Conditions analysis.

Mobility Plan. In the Mobility Plan, the City identifies key corridors as components of various "mobility-enhanced networks." Each network is intended to focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The specific improvements that may be implemented in those networks have not yet been identified, and there is no schedule for implementation; therefore, no changes to vehicular lane configurations were made as a result of Mobility Plan. However, the following mobility-enhanced networks included corridors within the Study Area and are depicted in Figure 11:

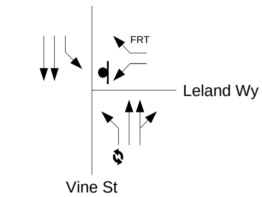
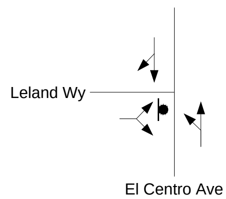
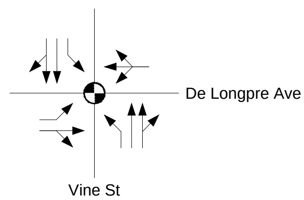
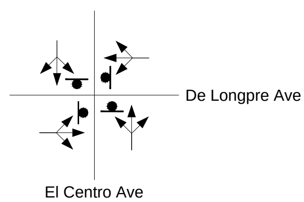
- Neighborhood Enhanced Network (NEN): The NEN reflects the synthesis of the bicycle and pedestrian networks and serves as a system of local streets that are slow moving and safe enough to connect neighborhoods through active transportation. The NEN has designated El Centro Avenue north of De Longpre Avenue and De Longpre Avenue east of El Centro Avenue as part of the network.

- Bicycle Path Network / Bicycle Network: The Bicycle Lane Network designates Vine Street as part of the Bicycle Network

- Pedestrian Enhanced District (PED): The Mobility Plan aims to promote walking to reduce the reliance on automobile travel by providing more attractive and pedestrian-friendly sidewalks, as well as adding pedestrian signalizations, street trees, and pedestrian-oriented design features. The PED has designated Vine Street as part of the Pedestrian Segments, where pedestrian improvements could be prioritized to provide better connectivity to and from major destinations within communities.

LEGEND

- Traffic Signal
- Stop Sign
- FRT Functional Right-Turn
- Two-Way Left-Turn Lane

	EXISTING CONDITIONS (YEAR 2020)	FUTURE CONDITIONS (YEAR 2025)
1. Vine Street & Leland Way		Same as Existing Conditions
2. El Centro Avenue & Leland Way		Same as Existing Conditions
3. Vine Street & De Longpre Avenue		Same as Existing Conditions
4. El Centro Avenue & De Longpre Avenue		Same as Existing Conditions

INTERSECTION LANE CONFIGURATIONS

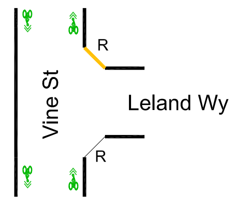
FIGURE 3

LEGEND

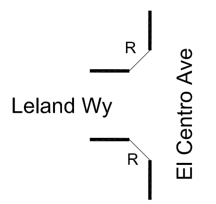
- Continental Crosswalk
- R Ramp
- Tactile Curb
- Ped Signal
- Ped Call Button
- Bus Stop
- Class III Sharrow

N
Not to Scale

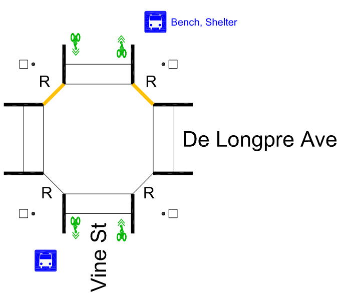
1. Vine Street & Leland Way



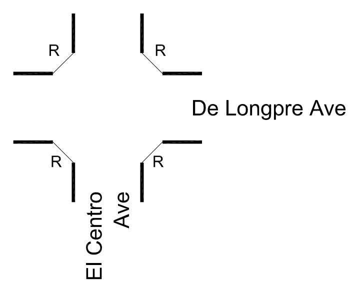
2. El Centro Avenue & Leland Way



3. Vine Street & De Longpre Avenue

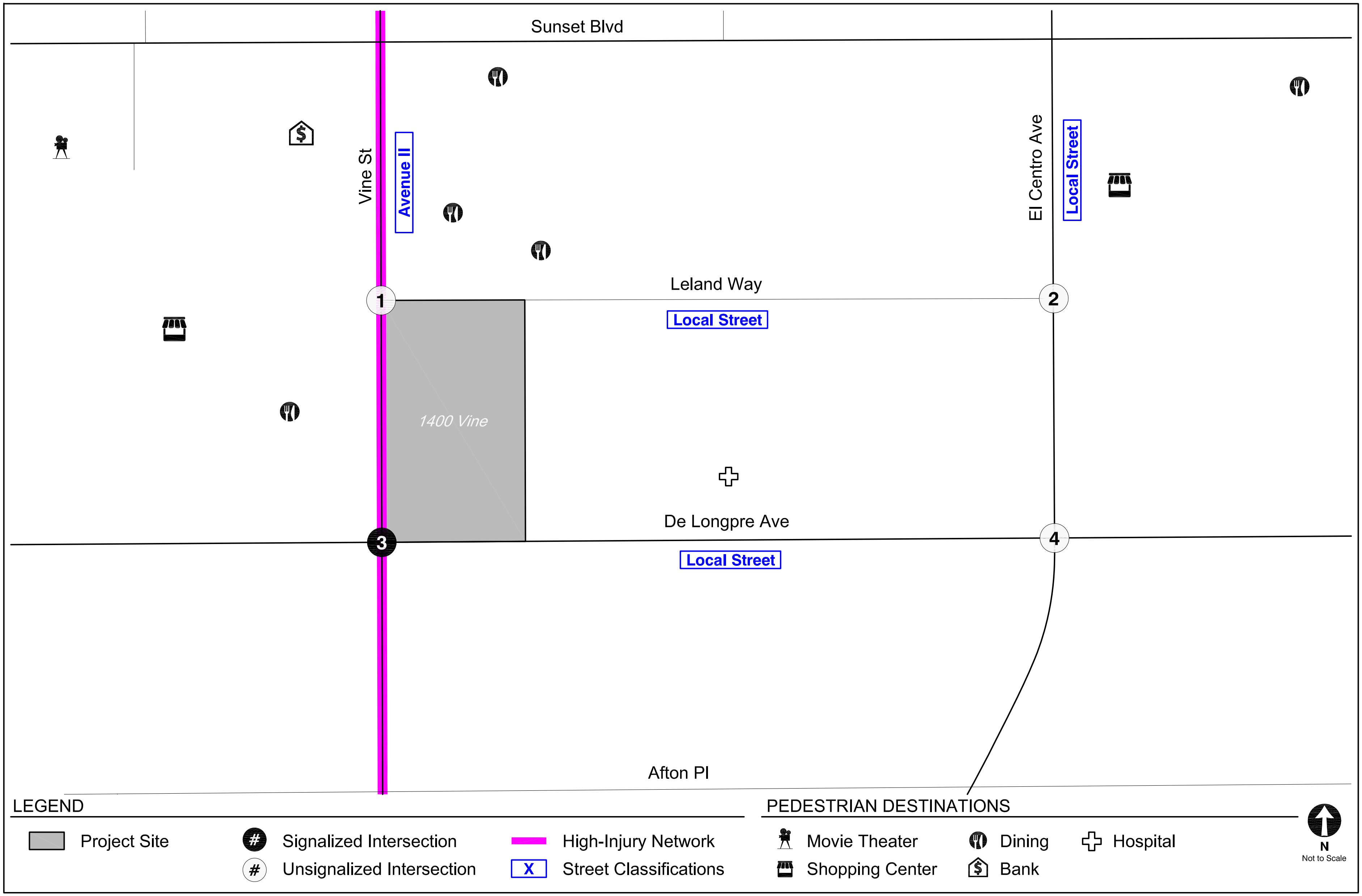


4. El Centro Avenue & De Longpre Avenue



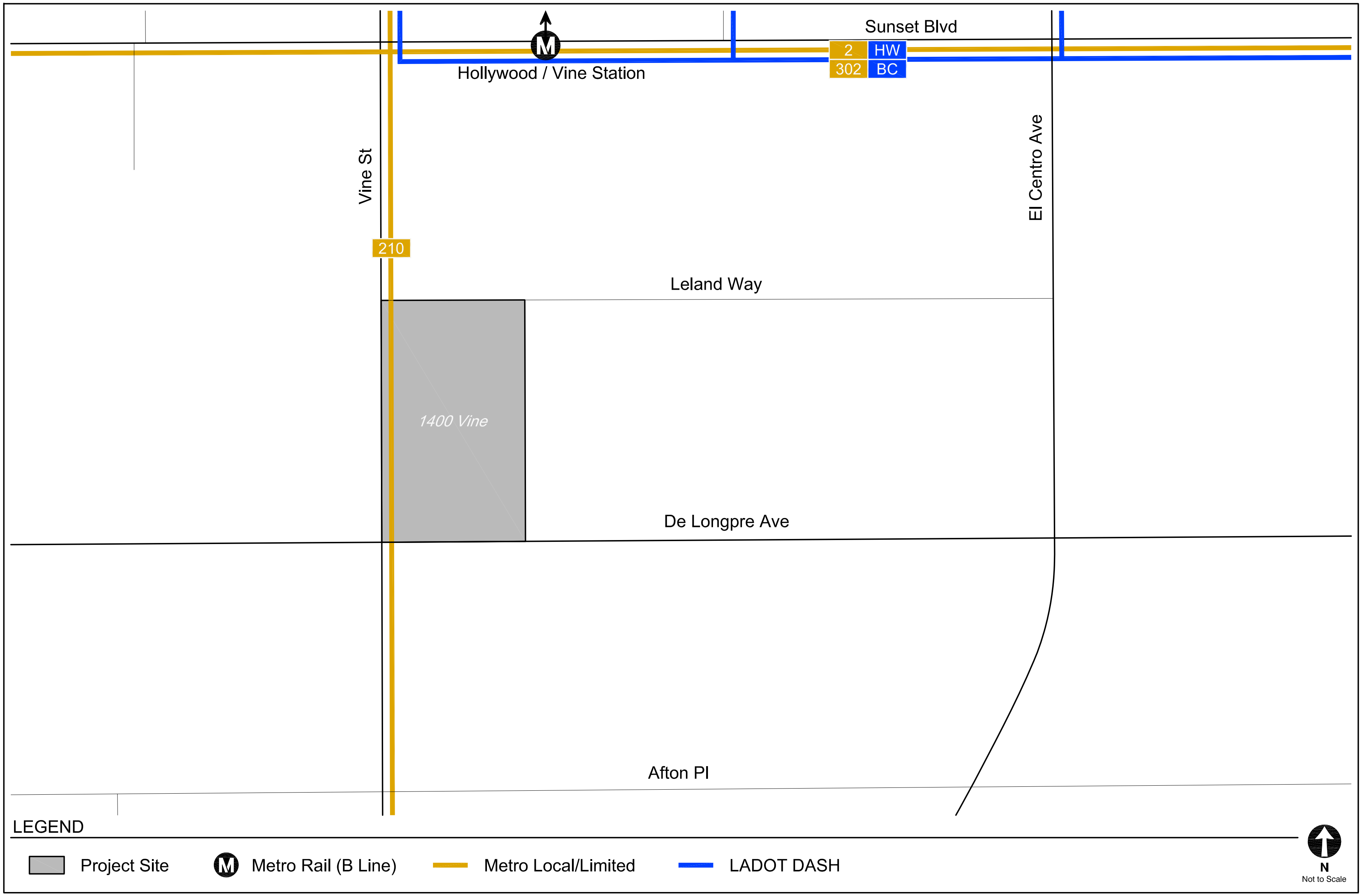
EXISTING INTERSECTION MOBILITY FACILITIES

FIGURE 4



EXISTING TRANSPORTATION FACILITIES

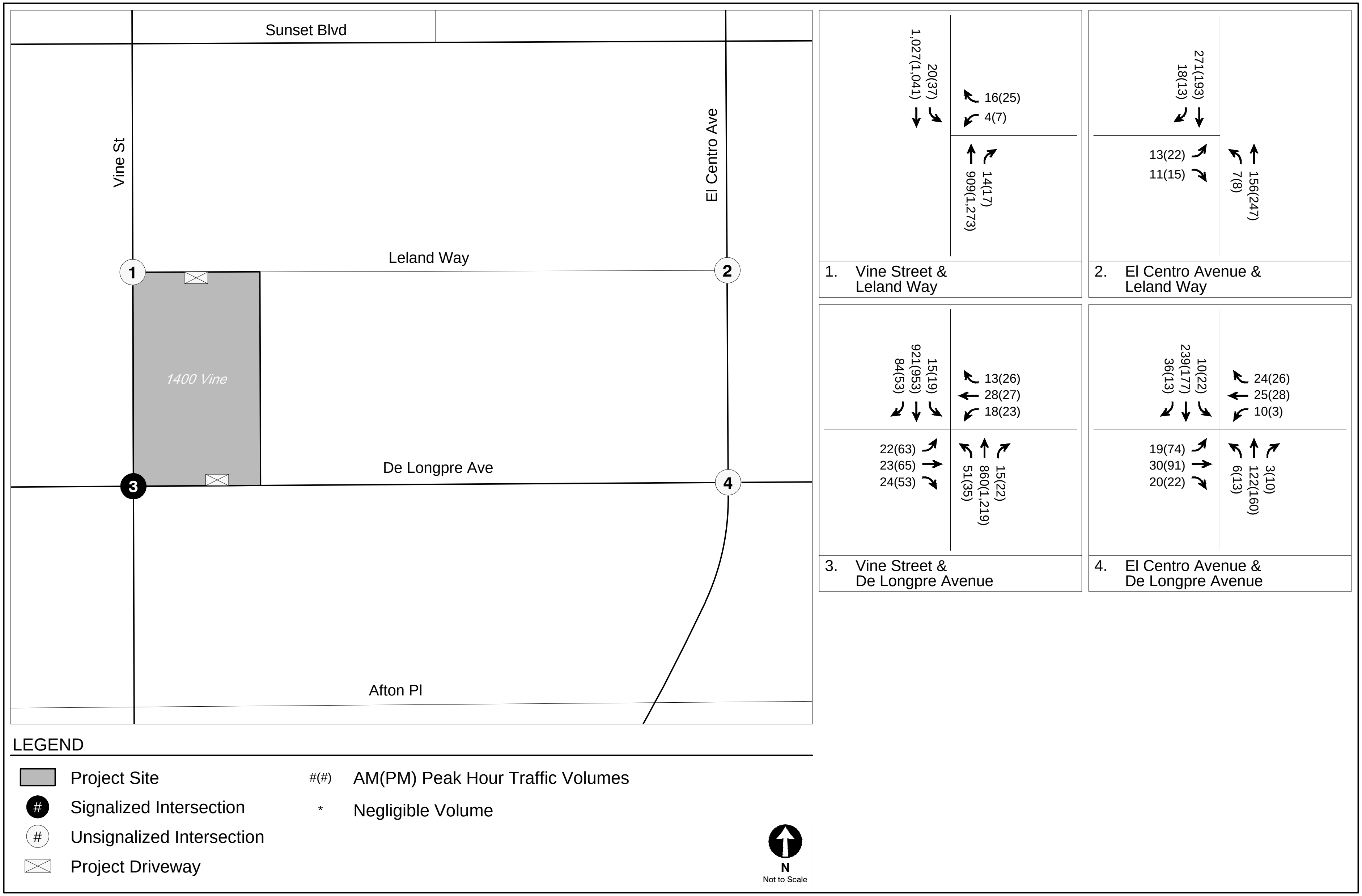
FIGURE 5



EXISTING TRANSIT SERVICE

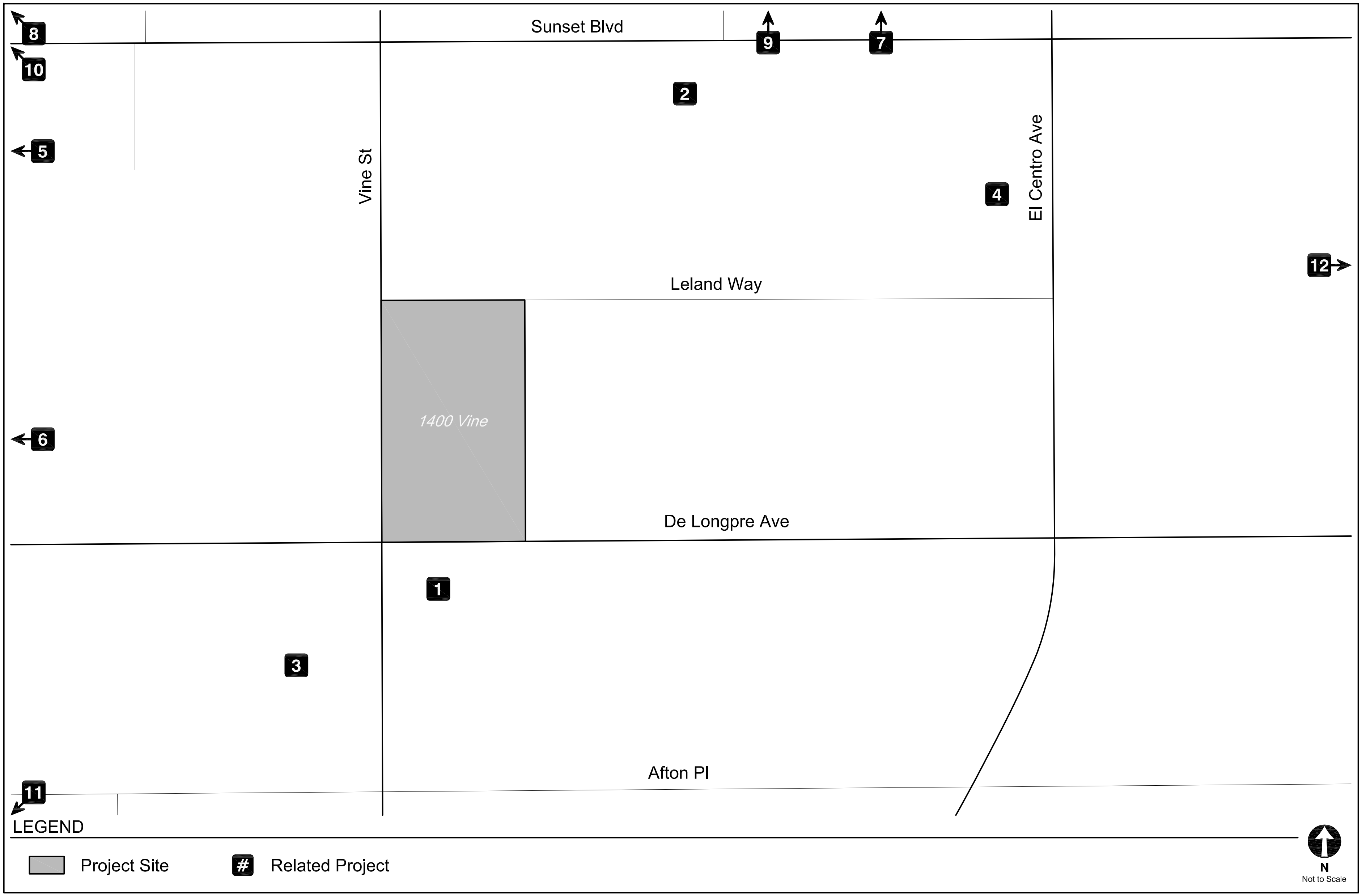
FIGURE 6

Gibson transportation consulting, inc.



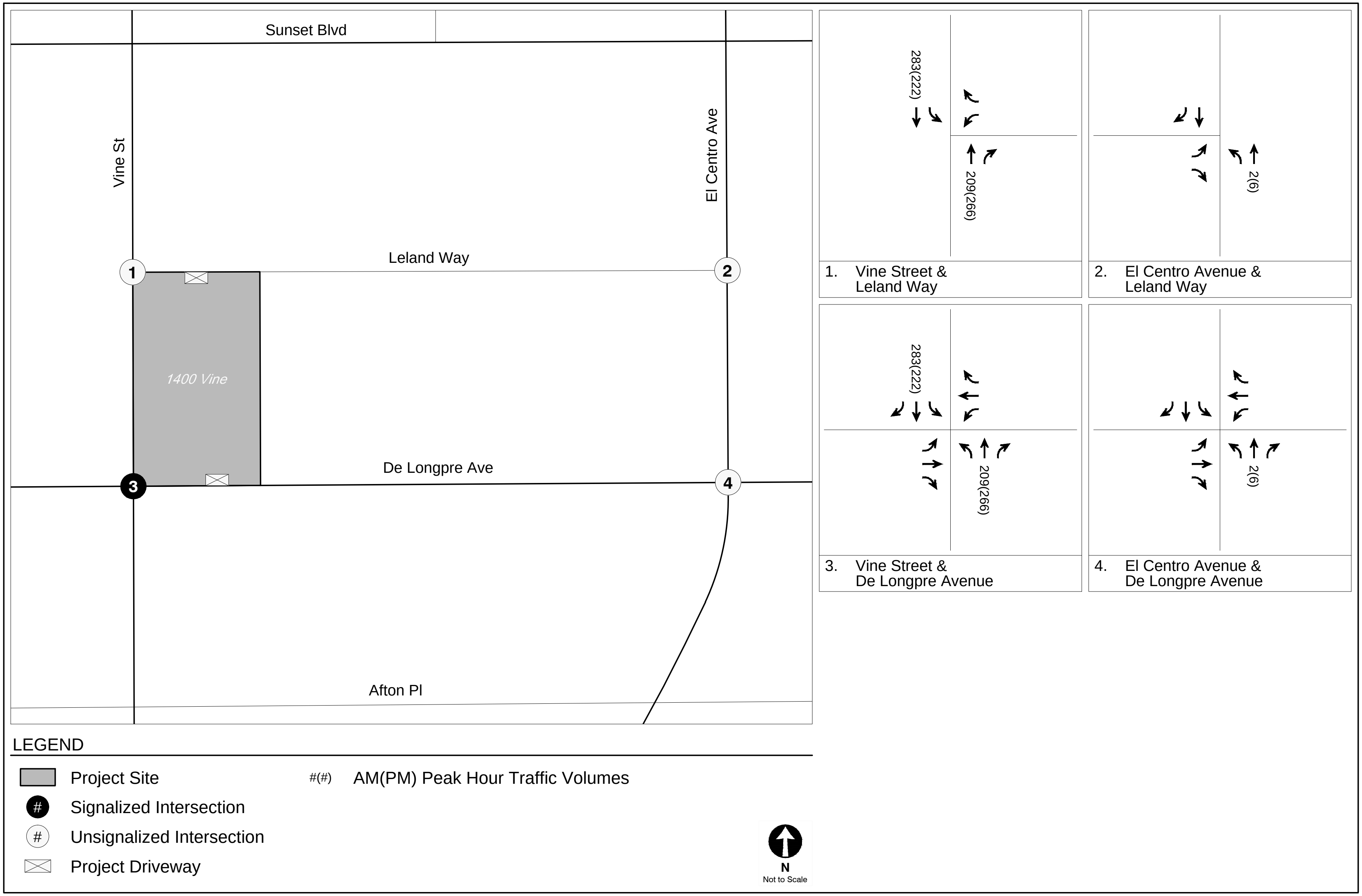
EXISTING CONDITIONS (YEAR 2020)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 7



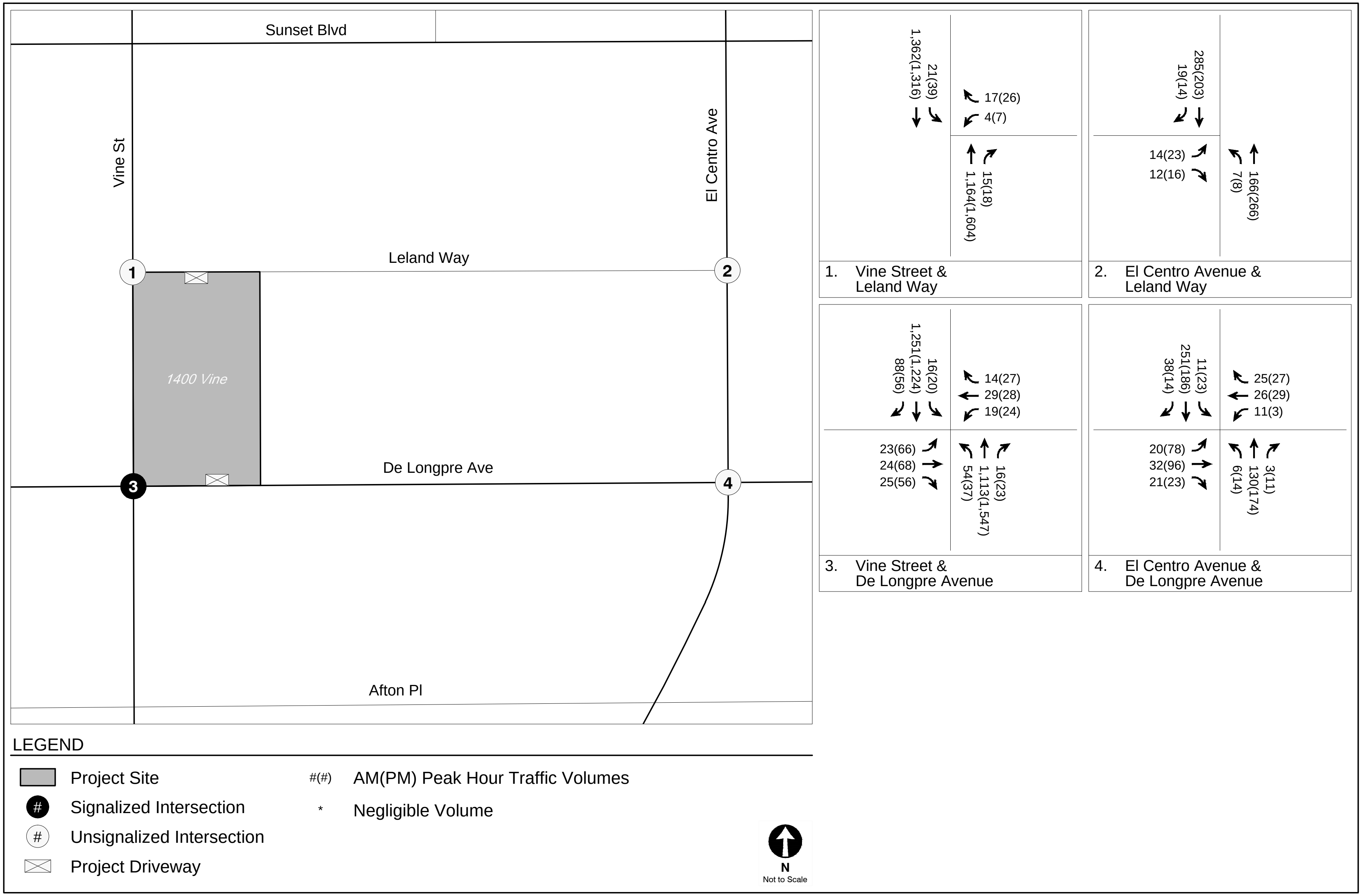
LOCATIONS OF RELATED PROJECTS

FIGURE 8



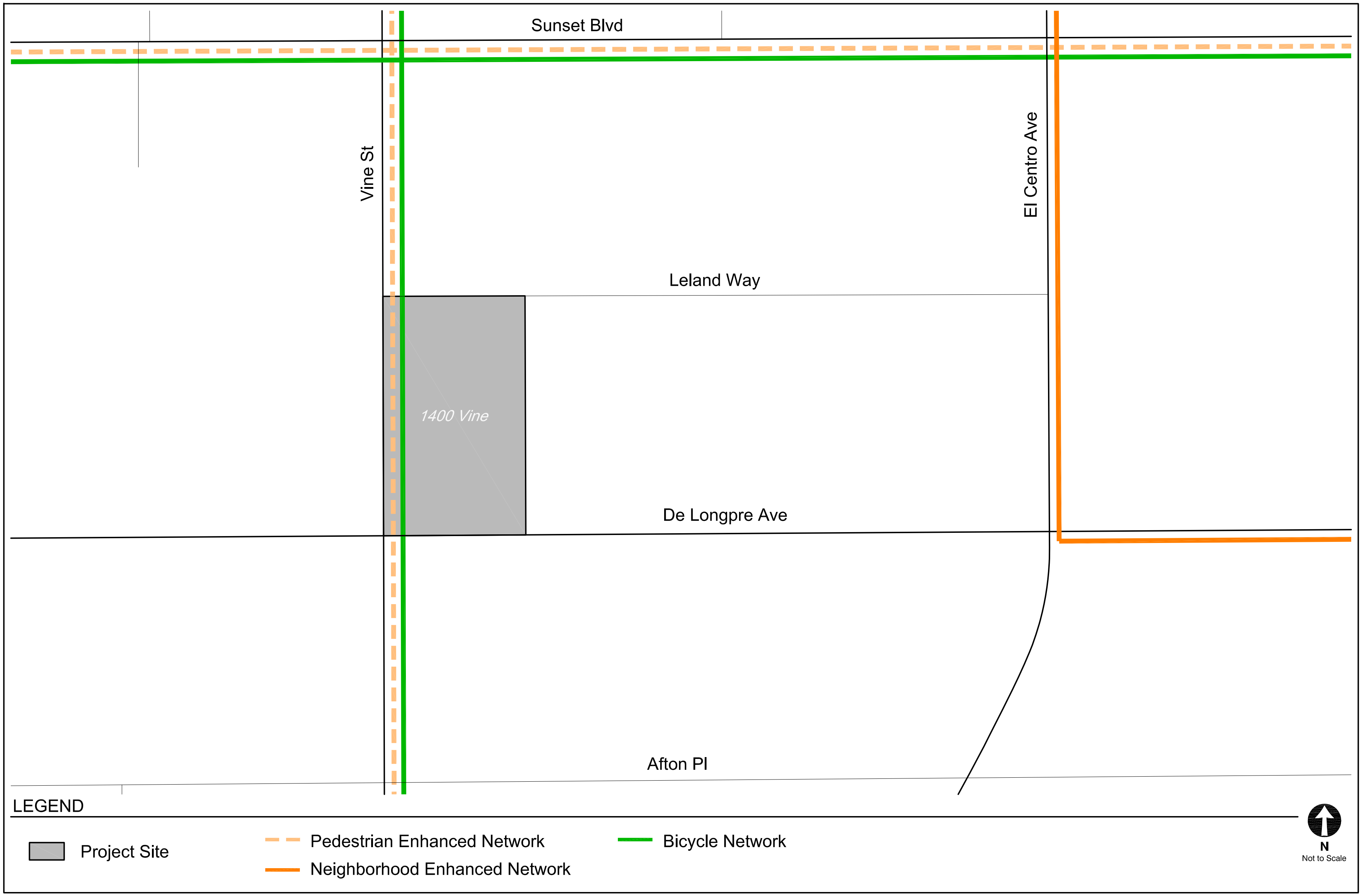
RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE 9



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2025)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 10



FUTURE TRANSPORTATION FACILITIES

FIGURE 11

TABLE 1
STUDY INTERSECTIONS

No.	North/South Street	East/West Street	Jurisdiction
1. [a]	Vine Street	Leland Way	City of Los Angeles
2. [a]	El Centro Avenue	Leland Way	City of Los Angeles
3. [b]	Vine Street	De Longpre Avenue	City of Los Angeles
4. [a]	El Centro Avenue	De Longpre Avenue	City of Los Angeles

<u>Notes</u>

[a] Unsignalized Intersection

[b] Signalized Intersection

TABLE 2
EXISTING TRANSIT SERVICE IN STUDY AREA

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes)			
				Morning Peak Hour		Afternoon Peak Hour	
Metro Bus Service				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
2/302	Eastbound to Downtown Los Angeles - Westbound to Westwood	Local	5:00 A.M. - 2:30 A.M.	15	7	8	12
210	Hollywood/Vine Station - South Bay Galleria via Crenshaw Boulevard	Local	4:00 A.M. - 1:30 A.M.	17	18	20	18
LADOT DASH Bus Service				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
HW	Hollywood/Wilshire	Local	6:15 A.M. - 7:15 P.M.	20	N/A	24	N/A
BC	Beachwood Canyon (Northbound)	Local	6:45 A.M. - 7:45 P.M.	23	N/A	24	N/A
Metro Rail Service				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
B	Downtown Los Angeles - North Hollywood	Rail	4:30 A.M. - 2:00 A.M.	10	10	10	10

Notes
Metro: Los Angeles County Metropolitan Transportation Authority
NB: Northbound
EB: Eastbound
SB: Southbound
WB: Westbound
LADOT DASH: Los Angeles Department of Transportation Downtown Area Shuttle
[a] Metro B Line was formerly known as Metro Red Line.

TABLE 3A
TRANSIT SYSTEM CAPACITY IN STUDY AREA - MORNING PEAK HOUR

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
2/302	Eastbound to Downtown Los Angeles - Westbound to Westwood	50	41	33	29	20	21	30	152	150
210	Hollywood/Vine Station - South Bay Galleria via Crenshaw Boulevard	50	22	16	12	21	38	29	114	94
LADOT DASH Bus Service										
HW	Hollywood/Wilshire	30	3	N/A	1	N/A	29	N/A	71	N/A
BC	Beachwood Canyon (Northbound)	30	*No information provided.*							
Metro Rail Service										
B	Downtown Los Angeles - North Hollywood	750	*No information provided.*		364	250	386	500	2,316	3,000
Remaining Bus Service Capcity									582	
Remaining Rail Transit Capacity									5,316	
Total Remaining Transit System Capacity									**5,898**	

Notes
Metro: Los Angeles County Metropolitan Transportation Authority.
LADOT DASH: Los Angeles Department of Transportation Downtown Area Shuttle
NB: Northbound
EB: Eastbound
SB: Southbound
WB: Westbound
[a] Capacity assumptions:
Metro Bus - 40 seated / 50 standing.
Metro B Line - 55 seats / car, 6 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car.
LADOT DASH - 25 seated / 30 standing.
[b] Based on ridership data provided by Metro in 2019 and LADOT DASH in 2020.

TABLE 3B
TRANSIT SYSTEM CAPACITY IN STUDY AREA - AFTERNOON PEAK HOUR

Provider, Route, and Service Area		Capacity per Trip [a]	Peak Hour Ridership [b]				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service										
2/302	Eastbound to Downtown Los Angeles - Westbound to Westwood	50	18	44	7	30	43	20	312	100
210	Hollywood/Vine Station - South Bay Galleria via Crenshaw Boulevard	50	14	17	11	10	39	40	117	130
LADOT DASH Bus Service										
HW	Hollywood/Wilshire	30	6	N/A	4	N/A	26	N/A	66	N/A
BC	Beachwood Canyon (Northbound)	30	3	N/A	2	N/A	28	N/A	71	N/A
Metro Rail Service										
B	Downtown Los Angeles - North Hollywood	750	*No information provided.*		367	451	383	299	2,298	1,794
Remaining Bus Service Capcity									795	
Remaining Rail Transit Capacity									4,092	
Total Remaining Transit System Capacity									**4,887**	

Notes
Metro: Los Angeles County Metropolitan Transportation Authority.
LADOT DASH: Los Angeles Department of Transportation Downtown Area Shuttle
NB: Northbound
EB: Eastbound
SB: Southbound
WB: Westbound
[a] Capacity assumptions:
Metro Bus - 40 seated / 50 standing.
Metro B Line - 55 seats / car, 6 cars / run during peak periods. Metro assumes a maximum capacity of 230% of seated capacity, or approximately 125 / car.
LADOT DASH - 25 seated / 30 standing.
[b] Based on ridership data provided by Metro in 2019 and LADOT DASH in 2020.

TABLE 4
RELATED PROJECTS LIST

No.	Project	Address	Distance to Project (mi)	Use	Trip Generation [a] Daily	Morning Peak Hour In	Morning Peak Hour Out	Morning Peak Hour Total	Afternoon Peak Hour In	Afternoon Peak Hour Out	Afternoon Peak Hour Total
1.	Omni Group Mixed-Use Development	1360 N Vine Street	0.06	429 condominium units, 55,000 sf grocery, 5,000 sf retail and 8,988 sf of restaurant	4,455	61	128	189	180	98	278
2.	6250 Sunset (Nickelodeon)	6250 W Sunset Boulevard	0.09	200 apartment units and 4,700 sf retail	1,473	52	80	132	71	50	121
3.	Academy Square	1341 Vine Street	0.1	285,719 sf office, 200 apartment units and 16,135 sf restaurant	6,218	330	164	494	152	220	372
4.	6200 W Sunset Boulevard	6200 W Sunset Boulevard	0.14	270 apartment units, 1,750 sf quality restaurant, 2,300 sf pharmacy and 8,070 sf retail	1,778	26	97	123	100	35	135
5.	6400 Sunset Mixed-Use	6400 Sunset Boulevard	0.16	200 apartment units and 7,000 sf restaurant	11	14	77	91	57	(6)	51
6.	Godfrey Hotel	1400 N Cahuenga Boulevard	0.16	220 hotel rooms and 2,723 sf restaurant, 1,440 sf bar	1,875	55	47	102	78	60	138
7.	Palladium Residences	6201 W Sunset Boulevard	0.17	731 apartment units (37 affordable) and 24,000 sf of retail and restaurant uses	4,913	128	228	356	234	169	403
8.	Ivar Gardens Hotel	6409 W Sunset Blvd	0.19	275 hotel rooms and 1,900 sf retail	1,285	51	26	77	53	60	113
9.	Modera Argyle	1546 N Argyle Ave	0.2	276 apartment units, 9,000 sf of retail and 15,000 sf of restaurant	2,013	43	127	170	128	51	179
10.	Cahuenga Boulevard Hotel	1525 N Cahuenga Blvd	0.22	64 hotel rooms, 700 sf rooftop restaurant/lounge and 3,300 sf restaurant	469	13	9	22	17	17	34
11.	Mixed-Use	1310 N Cole Ave	0.24	369 apartment units and 2,570 sf office	2,226	20	139	159	139	58	197
12.	Sunset Gower Studios	1438 N Gower St	0.24	169,400 sf sound stage, 52,800 sf of production support, 852,830 sf of office and 6,516 sf restaurant	4,108	424	67	491	77	410	487

OTHER AREA-WIDE PROJECTS

Project	Description	Extents
Hollywood Community Plan Update	The Hollywood Community Plan Update proposes updates to land use policies and the land use diagram. The proposed changes would primarily increase commercial and residential development potential in and near the Regional Center Commercial portion of the community and along selected corridors in the Community Plan Area. The decreases in development potential would be primarily focused on low to medium scale multi-family residential neighborhoods to conserve existing density and intensity of those neighborhoods. The projected population growth has been captured in the conservative ambient growth rate assumed in the Future analysis.	South of City of Burbank, City of Glendale, and SR 134; west of Interstate 5; north of Melrose Avenue; south of Mulholland Drive, City of West Hollywood, Beverly Hills, including land south of the City of West Hollywood and north of Rosewood Avenue between La Cienega Boulevard and La Brea Avenue.

Notes
[a] Related project information provided by the Los Angeles Department of Transportation in January 2020, Department of City Planning, and recent traffic studies prepared in the area.

Chapter 3
CEQA Analysis of Transportation Impacts

This chapter presents the results of an analysis of CEQA-related transportation impacts. The analysis identifies any potential conflicts the proposed Project may have with adopted City plans and policies and the improvements associated with the potential conflicts as well as the results of a Project vehicle miles traveled (VMT) analysis that satisfies State requirements under *State of California Senate Bill 743* (Steinberg, 2013) (SB 743).

METHODOLOGY

SB 743, made effective in January 2014, required the Governor's Office of Planning and Research to change the CEQA guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis shifts from driver delay (LOS) to VMT, in order to reduce greenhouse gas emissions (GHG), create multimodal networks, and promote mixed-use developments.

To adapt to SB 743, the Los Angeles City Planning Commission recommended the approval of revised guidelines to include new transportation analysis screening procedures and thresholds, subsequently approved by the Los Angeles City Council on July 30, 2019 (Council File 14-1169). The TAG defines the methodology of analyzing a project's transportation impacts in accordance with SB 743.

Per the TAG, the CEQA transportation analysis contains the following thresholds for identifying significant impacts:

- *Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies*
- *Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)*
- *Threshold T-2.2: Substantially Inducing Additional Automobile Travel*

- *Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use*

The thresholds were reviewed and analyzed, as detailed in the following Sections 3A-3D.

Section 3A: Threshold T-1
Conflicting with Plans, Programs, Ordinances, or Policies Analysis

Threshold T-1 states that a project would result in an impact if it conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities.

PLANS, PROGRAMS, ORDINANCES, AND POLICIES

Table 2.1-1 of the TAG provides the City plans, policies, programs, ordinances and standards relevant in determining project consistency. Table 2.1-2 of the TAG provides a list of questions to help guide whether a project conflicts with the City's plans, programs, ordinances, or policies. A review of Table 2.1-2 of the TAG is presented in Table C-1 of Appendix C. As summarized below, the Project is consistent with the City documents listed in Table 2.1-1 of the TAG; therefore, the Project would not result in a significant impact under Threshold T-1. Detailed discussion of the plans, programs, ordinances, or policies related are provided below.

Mobility Plan

The Mobility Plan combines "complete street" principles with the following five goals that define the City's mobility priorities:

- Safety First: Design and operate streets in a way that enables safe access for all users, regardless of age, ability, or transportation mode of choice.
- World Class Infrastructure: A well-maintained and connected network of streets, paths, bikeways, trails, and more provides Angelenos with the optimum variety of mode choices.
- Access for All Angelenos: A fair and equitable system must be accessible to all and must pay particularly close attention to the most vulnerable users.
- Collaboration, Communication, and Informed Choices: The impact of new technologies on our day-to-day mobility demands will continue to become increasingly important to the

future. The amount of information made available by new technologies must be managed responsibly in the future.

- Clean Environments and Healthy Communities: Active transportation modes such as bicycling and walking can significantly improve personal fitness and create new opportunities for social interaction, while lessening impacts on the environment.

A detailed analysis of the Project's consistency with the Mobility Plan is provided in Table C-2 in Appendix C. As detailed in Chapter 2, the Mobility Plan identifies key corridors within the Study Area as components of various "mobility-enhanced networks." Though no specific improvements have been identified and there is no schedule for implementation, the mobility-enhanced networks represent a focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The Project would be designed with the mobility-enhanced networks as a top priority.

With the development of the Project, Vine Street, Leland Way, and De Longpre Avenue along the Project frontage would be improved to provide adequate pedestrian safety and refuge areas, as well as continue to satisfy the right-of-way and roadway standards to meet the goals and long-term needs of the Mobility Plan.

Vehicular access to the commercial parking spaces of the Project Site would be provided via one driveway from Leland Way, a designated Local Street. Access to the port cochere, residential parking, and loading areas would occur off of De Longpre Avenue, a designated Local Street. Both driveways would be located on Local Streets so as not to disrupt the operations of Vine Street, the Arterial Street adjacent to the Project. As further detailed in Section 4G, the Project would provide off-street parking to satisfy LAMC requirements. The Project would also retain the existing on-street parking around Project frontage.

The Project would also enhance pedestrian access within and around the Project Site by providing a mid-block paseo into the Project from Vine Street and improvements to the sidewalks, landscaping, and decorative pavement within the Project's entrance area and along the perimeter of the Project Site. Secured bicycle parking facilities within the Project Site would also be provided. Further, the Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure, and the Project driveways are not proposed along a street with an existing bicycle facility. These measures would promote active transportation modes such as biking and walking, thereby reducing the Project VMT per capita for residents and employees compared to the average for the area, as demonstrated in Section 3B.

Thus, the Project would be consistent with the goals of the Mobility Plan.

Plan for a Healthy Los Angeles

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan (Los Angeles Department of City Planning, March 2015) (Plan for a Healthy Los Angeles) introduces guidelines for the City to follow to enhance the City's position as a regional leader in health and equity, encourage healthy design and equitable access, and increase awareness of equity and environmental issues.

A detailed analysis of the Project's consistency with Plan for a Healthy Los Angeles is provided in Table C-3 of Appendix C. The Project prioritizes safety and access for all individuals utilizing the site by complying with all ADA requirements and providing direct connections to pedestrian amenities. Further, the Project supports healthy lifestyles by locating jobs adjacent to transit (Metro Local and LADOT DASH Bus Lines, as well as Metro Rail Service), providing bicycle amenities, and enhancing the pedestrian environment by providing shade trees and extensive landscaping for a more comfortable environment for pedestrians.

Thus, the Project would be consistent with the goals of *Plan for a Healthy Los Angeles*.

Land Use Element of the General Plan

The City General Plan's Land Use Element contains 35 Community Plans that establish specific goals and strategies for the various neighborhoods across Los Angeles. This Project falls within the boundaries of the *Hollywood Community Plan* (LADCP, December 1998) (the Community Plan).

A detailed analysis of the Project's consistency with the Hollywood Community Plan is provided in Table C-4 of Appendix C. The Project would provide both market-rate and affordable residential units to further the development of Hollywood as a major center of population and satisfy the varying needs and desires of all economic segments of the community, maximizing the opportunity for individual choice. Thus, the Project promotes and encourages development standards in line with the goals and objectives of the Community Plan. The City is currently in the process of updating the Hollywood Community Plan to guide development for the Hollywood area through Year 2040. *Hollywood Community Plan Update Draft Environmental Impact Report* (Terry A. Hayes Associates, Inc., November 2018) was released for public review in October 2019. Formal adoption of the Hollywood Community Plan Update is anticipated in Year 2020.

Redevelopment Plan

The Project is located within the *Redevelopment Plan for the Hollywood Redevelopment Project* (The Community Redevelopment Agency of the City of Los Angeles, May 1986) (the Redevelopment Plan). A detailed analysis of the Project's consistency with the Redevelopment Plan is provided in Table C-5 of Appendix C. The Project promotes and encourages development standards in line with the goals and objectives of the Redevelopment Plan including, but not limited to, making provision for the housing required to satisfy the varying needs and desires of all economic segments of the community, maximizing the opportunity for individual choice, and making provision for a circulation system coordinated with land uses and densities and adequate to accommodate traffic; and to encourage the expansion and improvement of public transportation service. Thus, the Project would be consistent with the goals and objectives of the Redevelopment Plan.

Los Angeles Promise Zone Strategic Plan

The Los Angeles Promise Zone is a collective impact initiative that brings together leaders from government, local institutions, non-profits, and community organizations to identify and implement innovative solutions to the problems that affect the five target neighborhoods, including Hollywood in which the Project is located. The Los Angeles Promise Zone Strategic Plan has defined the following four goals that are reflective of the initiative's values:

1. Create Economic Opportunity
2. Improve Educational Outcomes
3. Make Our Neighborhoods Safe
4. Build Equitable, Livable, and Sustainable Communities

The Project would meet the four goals of the Los Angeles Promise Zone by employing innovative economic development strategies and hiring local workers for its commercial elements, improving safety conditions on and around the Project Site, and increasing the housing supply for community members at various income levels.

Los Angeles Municipal Code (LAMC) Section 12.21.A.16

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments in accordance with the new bicycle parking requirements have been developed by the City and the Project would follow the new requirements set out in Case No. CPC-2016-4216-CA and Council File No. 12-1297-S1. As further detailed in Section 4G, per the updated LAMC, the Project would provide a total of 21 short-term and 132 required long-term spaces. to satisfy the LAMC requirements for on-site bicycle parking supply.

LAMC Section 12.26J (TDM Ordinance)

LAMC Section 12.26J, the TDM Ordinance (1993) establishes TDM requirements for non-residential projects, in addition to non-residential components of the mixed-use projects, in excess of 25,000 sf. The commercial component of the Project is 16,000 sf. Therefore, the requirements of LAMC Section 12.26J do not apply to the Project.

LAMC Section 12.37 (Waivers of Dedications and Improvement)

LAMC Section 12.37 states that a project must dedicate and improve adjacent streets to half-right-of-way (ROW) standards consistent with the street designations of the Mobility Plan. The Project would request C4-D2-SN dedications of three-feet along Vine Street and 10-feet along

Leland Way, as well as R4-2D dedications of 10-feet on Leland Way and five-feet on De Longpre Avenue in order to be compliant with the requirements of LAMC Section 12.37.

<u>Vision Zero Corridor Plans</u>

Vision Zero implements projects that are designed to increase safety on the most vulnerable City streets. The City has identified a number of streets as part of the High Injury Network where City projects will be targeted. Within the Study Area, Sunset Boulevard and Vine Street are identified in the City's High Injury Network; however, no Vision Zero Safety Improvements are planned near the Project Site.

The Project improvements to the pedestrian environment would not preclude future Vision Zero Safety Improvements by the City. Thus, the Project does not conflict with Vision Zero.

<u>Citywide Design Guidelines for Residential, Commercial, and Industrial Development</u>

Citywide Design Guidelines (Los Angeles City Planning Urban Design Studio, October 2019) (the Design Guidelines) identifies urban design principles to guide architects and developers in designing high-quality projects that meet the City's functional, aesthetic, and policy objectives and help foster a sense of community. A detailed analysis of the Project's consistency with the Design Guidelines is provided in Table C-6 of Appendix C.

The Design Guidelines are organized around the following approaches:

- **<u>Pedestrian-first design</u>**
  - <u>Guideline 1</u>: Promote a safe, comfortable, and accessible pedestrian experience for all.
  - <u>Guideline 2</u>: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience.
  - <u>Guideline 3</u>: Design projects to actively engage with streets and public space and maintain human scale.

- **360-degree design**
  - Guideline 4: Organize and shape projects to recognize and respect surrounding context.
  - Guideline 5: Express a clear and coherent architectural idea.
  - Guideline 6: Provide amenities that support community building and provide an inviting, comfortable user experience.
  - Guideline 7: Carefully arrange design elements and uses to protect site users.

- **Climate-adapted design**
  - Guideline 8: Protect the site's unique natural resources and features.
  - Guideline 9: Configure the site layout, building massing and orientation to lower energy demand and increase the comfort and well-being of users.
  - Guideline 10: Enhance green features to increase opportunities to capture stormwater and promote habitat.

The Project design includes accessible sidewalks, pedestrian amenities, and well-designed vehicular access driveways in accordance with the City's design considerations. The Project would provide street trees uniformly within the sidewalk to provide adequate shade, as well as a more comfortable environment for pedestrians. Further, the orientation of the Project design and active ground floor facilities ensures that the Project actively engages with the street and its surrounding uses. Thus, the Project would align with Pedestrian-first design goal.

The Project design also includes elements that reinforce orientation to the street, such as the mid-block paseo along Vine Street that connects to the commercial uses. The Project would provide landscaped areas along Vine Street, Leland Way, and De Longpre Avenue, enhancing the user experience of the Project Site. Further, all design elements of the Project would be developed in conjunction with the others to ensure consistency of the architectural ideas. Thus, the Project would align with the 360-degree design goal.

The Project would also incorporate elements of shade, natural light, and ventilation as considerations in the building orientation and design. Further, the Project would include trees and landscaped spaces that allow water to percolate into the ground and offer ecological enhancements and shaded spaces for community benefits. Thus, the Project would align with the Climate-adapted design goal.

Because the Project would be consistent with the Pedestrian-first design, 360-degree design, and Climate-adapted design goals, the Project would be consistent with the Design Guidelines.

Walkability Checklist

City of Los Angeles Walkability Checklist – Guidance for Entitlement Review (LADCP, November 2008) (the Walkability Checklist) serves as a guide for creating improved conditions for pedestrians to travel and contribute to the overall walkability of the City. A detailed analysis of the Project's consistency with the Walkability Checklist is provided in Table C-7 of Appendix C. The Walkability Checklist includes the following topics:

- Sidewalks
- Crosswalks/Street Crossings
- On-Street Parking
- Utilities
- Building Orientation
- Off-Street Parking and Driveways
- On-Site Landscaping
- Building Façade
- Building Signage and Lighting

The Project incorporates many of the recommended strategies applicable to commercial developments, including but not limited to providing continuous and adequate sidewalks along the Project Site, providing trees and landscape planters to provide adequate shade and habitat to for a more comfortable mobility environment for pedestrians, and designing direct primary entrances for pedestrians to be visible and ADA accessible. Therefore, the Project would be consistent with the Walkability Checklist.

LADOT Transportation Technology Strategy – Urban Mobility in a Digital Age

The LADOT transportation technology strategy, based on *Urban Mobility in a Digital Age: A Transportation Technology Strategy for Los Angeles* (Ashley Z. Hand, August 2016), is designed to ensure the City stays on top of emerging transportation technologies as both a regulator and a transportation service provider. This strategy document includes the following goals:

- Data as a Service: Providing and receiving real-time data to improve the City's ability to serve transportation needs
- Mobility as a Service: Improving the experience of mobility consumers by encouraging partnerships across different modes and fostering clear communication between transportation service providers
- Infrastructure as a Service: Re-thinking how the City pays for, maintains, and operates public, physical infrastructure to provide more transparency

LADOT also developed the *Technology Action Plan* (2019) to realize the vision developed in Transportation Technology Strategy. Key action steps include:

- Develop a comprehensive digital inventory of the City's signs, parking meters, curb paint, and regulatory tools
- Continue to develop and maintain the Automated Traffic Surveillance and Control (ATSAC) system
- Use active management strategies to dynamically monitor and control things like speed limits, parking availability, detour routes, etc.
- Develop a mobility data specification around which software tools can be developed and data can be accessed
- Develop a transportation tax model that minimizes data collection and retention in favor of user privacy

The Project does not interfere with any of the general policy recommendations and/or pilot proposals set forth by this document.

Mobility Hub Reader's Guide

Mobility Hubs: A Reader's Guide (LADCP, 2016) provides guidance for enhancing transportation connections and multi-modal improvements in proximity to new or existing transit stations. It specifically focuses on enhancing bicycle connections, providing vehicle sharing services, improving bus infrastructure, providing real-time transit and wayfinding information, and enhancing walkability and pedestrian connections.

The Project would implement many of the key features identified above, including LAMC-required short-term and long-term bicycle parking that both facilitates and encourages bicycling in and around the Project. The Project is therefore consistent with *Mobility Hubs: A Reader's Guide*.

LADOT Manual of Policies and Procedures (Design Standards)

Manual of Policies and Procedures (LADOT, December 2008) provides plans and requirements for traffic infrastructure features in the City, including driveway design and placement guidelines, loading zones, roadway striping and other markings, signage, on-street parking, crosswalks, and turn lanes.

The driveways, truck loading dock, and residential port cochere would be designed in accordance with the standards set forth in *Manual of Policies and Procedures*. The Project would not interfere with any of the policies and procedures contained in this document. Additionally, the Project would comply with all applicable LADOT design standards.

CONSISTENCY

The Project is consistent with the City documents listed in Table 2.1-1 of the TAG along with the described documents above; therefore, the Project would not result in a significant impact under Threshold T-1.

CUMULATIVE ANALYSIS

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with nearby Related Projects to determine if there may be a cumulatively significant impact resulting from inconsistency with a particular program, plan, policy, or ordinance. In accordance with the TAG, the cumulative analysis must include consideration of any Related Projects within 0.25 miles of the Project Site and any transportation system improvements in the vicinity. Related Projects located within 0.25 miles of the Project site are identified in Table 4.

Similar to the Project, the Related Projects would be individually responsible for complying with relevant plans, programs, ordinances, or policies addressing the circulation system. Thus, the Project, together with the Related Projects, would not result in cumulative impacts with respect to consistency with each of the plans, ordinances, or policies reviewed. The Project and the Related Projects do not interfere with any of the general policy recommendations and/or pilot proposals and, therefore, there would be no significant Project impact or cumulative impact.

Section 3B: Threshold T-2.1
Causing Substantial VMT Analysis

Threshold T-2.1 states that a residential project would result in a significant VMT impact if it would generate household VMT per capita exceeding 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which a project is located. Similarly, a commercial project would result in a significant VMT impact if it would generate work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC area in which the project is located.

The VMT analysis presented below was conducted in accordance with the TAG, which satisfies State requirements under SB 743.

VMT METHODOLOGY

The following describes the methodology by which vehicle trips and VMT are calculated in *City of Los Angeles VMT Calculator Version 1.2* (November 2019) (VMT Calculator), as detailed in *City of Los Angeles VMT Calculator Documentation* (LADOT and LADCP, November 2019). LADOT developed the VMT Calculator to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits, which are based on the following types of one-way trips:

- Home-Based Work Production: trips to a workplace destination originating from a residential use
- Home-Based Other Production: trips to a non-workplace destination (e.g., retail, restaurant, etc.) originating from a residential use
- Home-Based Work Attraction: trips to a workplace destination originating from a residential use

As detailed in *City of Los Angeles VMT Calculator Documentation*, the household VMT per capita threshold applies to Home-Based Work Production and Home-Based Other Production trips, and the work VMT per employee threshold applies to Home-Based Work Attraction trips, as the location and characteristics of residences and workplaces are often the main drivers of VMT, as detailed in Appendix 1 of *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor's Office of Planning and Research, December 2018). As noted in the TAG, small-scale commercial components less than 50,000 sf of larger mixed-use development projects are not considered for the purposes of identifying significant work VMT impacts, as those trips are assumed to be local serving and would have a negligible effect on VMT.

Table 2.2-1 of the TAG details the following daily household VMT per capita and daily work VMT per employee impact criteria for the APC areas:

APC	Daily Household VMT per Capita	Daily Work VMT per Employee
Central	6.0	7.6
East LA	7.2	12.7
Harbor	9.2	12.3
North Valley	9.2	15.0
South LA	6.0	11.6
South Valley	9.4	11.6
West LA	7.4	11.1

Source: TAG (LADOT, July 2019)

Other types of trips generated in the VMT Calculator include Non-Home-Based Other Production (trips to a non-residential destination originating from a non-residential use), Home-Based Other Attraction (trips to a non-workplace destination originating from a residential use), and Non-Home-Based Other Attraction (trips to a non-residential destination originating from a non-residential use). These trip types are not factored into the VMT per capita and VMT per employee thresholds as those trips are typically localized and are assumed to have a negligible effect on the VMT impact assessment. However, those trips are factored into the calculation of total project VMT for screening purposes when determining if VMT analysis would be required.

Travel Behavior Zone (TBZ)

The City developed TBZ categories to determine the magnitude of VMT and vehicle trip reductions that could be achieved through TDM strategies. As detailed in *City of Los Angeles VMT Calculator Documentation*, the development of the TBZs considered the population density, land use density, intersection density, and proximity to transit of each Census tract in the City and are categorized as follows:

1. *Suburban (Zone 1): Very low-density primarily centered around single-family homes and minimally connected street network*
2. *Suburban Center (Zone 2): Low-density developments with a mix of residential and commercial uses with larger blocks and lower intersection density*
3. *Compact Infill (Zone 3): Higher density neighborhoods that include multi-story buildings and well-connected streets*
4. *Urban (Zone 4): High-density neighborhoods characterized by multi-story buildings with a dense road network*

The VMT Calculator determines a project's TBZ based on the latitude and longitude of a project address.

Mixed-Use Development Methodology

As detailed in *City of Los Angeles VMT Calculator Documentation*, the VMT Calculator accounts for the interaction of land uses within a mixed-use development and considers the following sociodemographic, land use, and built environment factors for a project area:

- The project's jobs/housing balance
- Land use density of the project
- Transportation network connectivity
- Availability of and proximity to transit
- Proximity to retail and other destinations
- Vehicle ownership rates
- Household size

VMT

The VMT Calculator determines a project's VMT based on trip length information from the City's Travel Demand Forecasting Model, which considers the traffic analysis zone where a project is located to determine the trip length and trip type, which factor into the calculation of a project's VMT.

Population and Employment Assumptions

As previously stated, the VMT thresholds identified in the TAG are based on household VMT per capita and work VMT per employee. Thus, the VMT Calculator contains population assumptions developed based on Census data for the City and employment assumptions derived from multiple data sources, including *2012 Developer Fee Justification Study* (Los Angeles Unified School District, 2012), *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012), the San Diego Association of Governments Activity Based Model, the United States Department of Energy, and other modeling resources. A summary of population and employment assumptions for various land uses is provided in Table 1 of *City of Los Angeles VMT Calculator Documentation.*

TDM Measures

Additionally, the VMT Calculator measures the reduction in VMT resulting from a project's incorporation of TDM strategies as project design features or mitigation measures. The following seven categories of TDM strategies are included in the VMT Calculator:

1. Parking
2. Transit
3. Education and Encouragement
4. Commute Trip Reductions
5. Shared Mobility
6. Bicycle Infrastructure
7. Neighborhood Enhancement

TDM strategies within each of these categories have been empirically demonstrated to reduce trip-making or mode choice in such a way as to reduce VMT, as documented in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association, 2010).

PROJECT VMT ANALYSIS

The VMT Calculator was used to evaluate Project VMT for comparison to the VMT impact criteria. Based on guidance from the City, the VMT Calculator was modeled for the Project's land uses and their respective sizes as the primary input.

The following assumptions were identified in the VMT Calculator:

- APC: Central
    - Household VMT Impact Threshold: 6.0
    - Work VMT Impact Threshold: N/A
- TBZ: Urban
    - Maximum VMT Reduction: 75%

The VMT analysis results based on the VMT Calculator are summarized in Table 5. Detailed output from the VMT Calculator is provided in Appendix D. The Project includes small-scale commercial components less than 50,000 sf of larger mixed-use development. Therefore, as noted in the TAG, the commercial component of the Project is not considered for the purposes of identifying significant work VMT impacts, as those trips are assumed to be local serving and would have a negligible effect on VMT.

<u>**Project VMT**</u>

The Project incorporates several design features which include measures to reduce the number of single occupancy vehicle trips to the Project Site. For the purposes of this analysis, the following Project design features were accounted for in the VMT evaluation:

- Bike parking per LAMC, including short-term and long-term parking facilities
- Pedestrian network improvements, within the Project site and connecting off-site

As shown in Table 5, the VMT Calculator estimates that the Project described above would generate 2,469 daily household VMT. Thus, the Project would generate an average VMT per capita of 5.3. The average household VMT per capita would not exceed the Central APC significant household VMT impact threshold of 6.0, and therefore, the overall Project would not result in a significant VMT impact and no mitigation measures would be required.

The detailed output from the VMT Calculator is provided in Appendix D.

CUMULATIVE ANALYSIS

Cumulative effects of development projects are determined based on the consistency with the air quality and GHG reduction goals of *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (Southern California Association of Governments, Adopted April 2016) (RTP/SCS) in terms of development location, density, and intensity. The RTP/SCS presents a long-term vision for the region's transportation system through Year 2040 and balances the region's future mobility and housing needs with economic, environmental, and public health goals.

As detailed in the TAG, for projects that do not demonstrate a project impact by applying an efficiency-based impact threshold (i.e., household VMT per capita or work VMT per employee) in the project impact analysis, a less than significant impact conclusion is sufficient in demonstrating there is no cumulative VMT impact, as those projects are already shown to align with the long-term VMT and greenhouse gas goals of the RTP/SCS.

This Project would not result in a significant VMT impact, as described above. Therefore, the Project is not anticipated to result in a cumulative VMT impact under Threshold T-2.1, and no further evaluation or mitigation measures would be required.

Furthermore, the Project includes a mix of residential and commercial uses. The Project Site is located within 0.30 miles of the Metro Red Line Hollywood/Vine Station and is also well-served by various local and rapid bus lines. The Project would also contribute to the productivity and use of the regional transportation system by providing employment near transit and encourage active transportation by providing new bicycle parking infrastructure and active street frontages, in line with RTP/SCS goals. Thus, the Project encourages a variety of transportation options and is consistent with the RTP/SCS goal of maximizing mobility and accessibility in the region.

TABLE 5
VMT ANALYSIS SUMMARY

Project Information	
Land Use	**Size**
Housing | Multi-Family	177 dwelling units
Housing | Affordable Housing - Family	21 dwelling units
Retail | High-Turnover Sit-Down Restaurant	16,000 sf
Project Analysis *[a]*	
Project Area Planning Commission	Central
Travel Behavior Zone [b]	Urban
Maximum Allowable VMT Reduction	75%
VMT Analysis *[c]*	
Daily Vehicle Trips	1,407
Daily VMT	8,688
Daily Household VMT	2,469
Household VMT per Capita [d]	5.3
Impact Threshold	6.0
Significant Impact	NO
Daily Work VMT	348
Work VMT per Employee [e]	N/A
Impact Threshold	7.6
Significant Impact	-

Notes:

[a] Project Analysis based on the *City of Los Angeles VMT Calculator Version 1.2* (November 2019).

[b] An "Urban" TBZ is characterized in *City of Los Angeles VMT Calculator Documentation* (LADOT and DCP, November 2019) as high-density neighborhoods characterized by multi-story buildings with a dense road network.

[c] The following Project design features were accounted for in the VMT evaluation:

- Include bike parking per LAMC, including short-term and long-term parking facilities
- Pedestrian network improvements, within Project and connecting off-site

[d] Based on home-based production trips only (see Appendix D, Report 4).

[e] Based on home-based work attraction trips only (see Appendix D, Report 4).

Section 3C: Threshold T-2.2

Substantially Inducing Additional Automobile Travel Analysis

The intent of Threshold T-2.2 is to assess whether a transportation project would induce substantial VMT, such as the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges.

The Project does not propose a transportation project that would induce automobile travel. Therefore, the Project would not result in a significant impact under Threshold T-2.2 and further evaluation is not required.

Section 3D: Threshold T-3

Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use Analysis

Further evaluation is required for projects that propose new access points or modifications along the public right-of-way (i.e., street dedications) under Threshold T-3. A review of Project access points, internal circulation, and parking access would determine if the Project would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts.

Vehicular access to the commercial parking spaces of the Project Site would be provided via one driveway from Leland Way, a designated Local Street. Access to the port cochere, residential parking, and loading areas would occur off of De Longpre Avenue, a designated Local Street. Both driveways would be located on Local Streets so as not to disrupt the operations of Vine Street, the Arterial Street adjacent to the Project. The Project would maintain the designated roadway width requirements as indicated in the Mobility Plan.

No additional access points or excessive driveway widening are proposed. No unusual or new obstacles are presented in the design that would be considered hazardous to motorized vehicles, non-motorized vehicles, or pedestrians. The driveway designs do not present significant safety issues regarding traffic/pedestrian conflicts. The driveways will be designed according to LADOT standards and will be reviewed by the City Bureau of Engineering during site plan review.

Street dedications along Vine Street, Leland Way, and De Longpre Avenue would be required to meet City standards. In compliance with such requirements, the Project would provide a partial three-foot dedication along Vine Street, partial 10-foot dedication along Leland Way, and a partial five-foot dedication along De Longpre Avenue.

Based on the site plan review and design assumptions, the Project does not present any geometric design hazards related to traffic movement, mobility, or pedestrian accessibility, and is considered less than significant.

CUMULATIVE ANALYSIS

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with Related Projects with access points along the same block as the proposed project to determine if there may be a cumulatively significant impact. There are currently no identified Related Projects proposed with access points along the same block of the Project. Therefore, the Project would not result in cumulative impacts that would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts.

Section 3E
Caltrans Analysis

In May 2020, LADOT issued *Interim Guidance for Freeway Safety Analysis* (City Freeway Guidance) identifying City requirements for a CEQA safety analysis of California Department of Transportation (Caltrans) facilities as part of a transportation assessment.

ANALYSIS METHODOLOGY

The City Freeway Guidance relates to the identification of potential safety impacts at freeway off-ramps as a result of increased traffic from development projects. It provides a methodology and significance criteria for assessing whether additional vehicle queueing at off-ramps could result in a safety impact due to speed differentials between the mainline freeway lanes and the queued vehicles at the off-ramp.

Based on the City Freeway Guidance, a transportation assessment for a development project must include analysis of any freeway off-ramp where the project adds 25 or more peak hour trips. A project would result in a significant impact at such a ramp if each of the following three criteria were met:

1. Under a scenario analyzing future conditions upon project buildout, with project traffic included, the off-ramp queue would extend to the mainline freeway lanes[2].
2. A project would contribute at least two vehicle lengths (50 feet, assuming 25 feet per vehicle) to the queue.
3. The average speed of mainline freeway traffic adjacent to the off-ramp during the analyzed peak hour(s) is greater than 30 mph.

[2] If an auxiliary lane is provided on the freeway, then half the length of the auxiliary lane is added to the ramp storage length.

Should a significant impact be identified, mitigation measures to be considered include TDM measures to reduce a project's trip generation, investments in active transportation or transit system infrastructure to reduce a project's trip generation, changes to the traffic signal timing or lane assignments at the ramp intersection, or physical changes to the off-ramp. Any physical change to the ramp would have to improve safety, not induce greater VMT, and not result in secondary environmental impacts.

CALTRANS ANALYSIS

Based on the Project's trip generation estimates and trip assignments, which are later detailed in Section 4A, the Project would not add 25 or more peak hour trips to any freeway off-ramp. Therefore, no further freeway off-ramp queuing analysis is required. Furthermore, the Project would not result in a significant safety impact, and no corrective measures at any freeway off-ramps would be required.

Chapter 4

Non-CEQA Transportation Analysis

This chapter summarizes the non-CEQA transportation analysis of the Project. It includes Project traffic, the proposed access provisions, safety, and circulation operations of the Project, and the adjacent pedestrian, bicycle, and transit facilities. This chapter also summarizes the evaluation of the Project's operational conditions, parking supply and requirements, and effects due to Project construction.

NON-CEQA TRANSPORTATION ANALYSIS METHODOLOGY

Intersection operations were evaluated for typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods. A total of four intersections, one signalized and three unsignalized, in the vicinity of the Project Site within the City were selected for detailed transportation analysis and are shown in Figure 2.

The following traffic conditions were developed and analyzed as part of this study:

- Existing with Project Conditions: This analysis condition projects the potential intersection operating conditions that could be expected if the Project were built under existing conditions.

- Future with Project Conditions (Year 2025): This analysis condition projects the potential intersection operating conditions that could be expected if the Project were occupied in the projected buildout year. In this analysis, the Project-generated traffic is added to Future without Project Conditions (Year 2025).

Operational Evaluation

In accordance with the TAG, the intersection delay and queue analyses for the operational evaluation were conducted using the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) (HCM) methodology, which was implemented using Synchro software and signal timing worksheets from the City to analyze intersection operating conditions. The HCM signalized and all-way stop control unsignalized methodologies calculate the average delay, in seconds, for each vehicle passing through the intersections. The HCM two-way stop-control unsignalized methodology calculates the control delay, in seconds, for individual approaches of an intersection. Table 6 presents a description of the LOS categories, which range from excellent, nearly free-flow traffic at LOS A, to stop-and-go conditions at LOS F, for signalized and unsignalized intersections. The queue lengths were estimated using Synchro, which reports the 85th percentile queue length, in feet, for each approach lane. The reported queues are calculated using the HCM signalized intersection methodology.

LOS and queuing worksheets for each scenario are provided in Appendix E.

Section 4A
Project Traffic

Trip generation estimates, trip distribution patterns and trip assignments were prepared for the Project. These components form the basis of the Project's traffic analysis.

PROJECT TRIP GENERATION

The number of trips expected to be generated by the Project was estimated using rates published in *Trip Generation, 10th Edition*. For the purposes of this assessment, the trip generation rates for multi-family residential (mid-rise) and high-turnover restaurant uses were utilized to develop the trip generation estimates for the residential and commercial components of the Project, respectively. These rates are based on surveys of similar land uses at sites around the country and are provided as both daily rates and morning and afternoon peak hour rates. They relate the number of vehicle trips traveling to and from the Project Site to the size of development of each land use. Additionally, per the TAG, residential or mixed-use developments inside a Transit Priority Area which include affordable housing units are eligible to use a City-specific trip generation rate based on vehicle trip count data collected at affordable housing sites in the City.

Appropriate trip generation reductions to account for public transit usage/walking arrivals, internal capture, and pass-by trips were made in consultation with LADOT. The Project site is located within 0.25 miles of a Metro Local Bus stop (Line 210) and 0.30 miles of a Metro B (Red) Line Hollywood/Vine Station ; therefore, a 10% transit/walk-in adjustment was applied to the Project to account for transit usage and walk-in arrivals from surrounding neighborhoods and adjacent commercial developments. A 10% internal capture adjustment was applied to the commercial trip generation estimates to account for person trips made between the different uses of the Project without using an off-site road system. Additionally, a 20% pass-by adjustment was applied to the commercial trip generation estimates to account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

The number of trips currently generated by the existing uses of the Project Site was also estimated using the rates published in *Trip Generation, 10th Edition* for shopping center uses. Adjustments were also applied to account for some level of transit usage/walking arrivals, and pass-by trips.

After accounting for the adjustments above and the removal of the existing uses, the Project is anticipated to generate 165 net new morning peak hour trips (71 inbound, 94 outbound) and 153 net new afternoon peak hour trips (97 inbound, 56 outbound), as summarized in Table 7.

PROJECT TRIP DISTRIBUTION

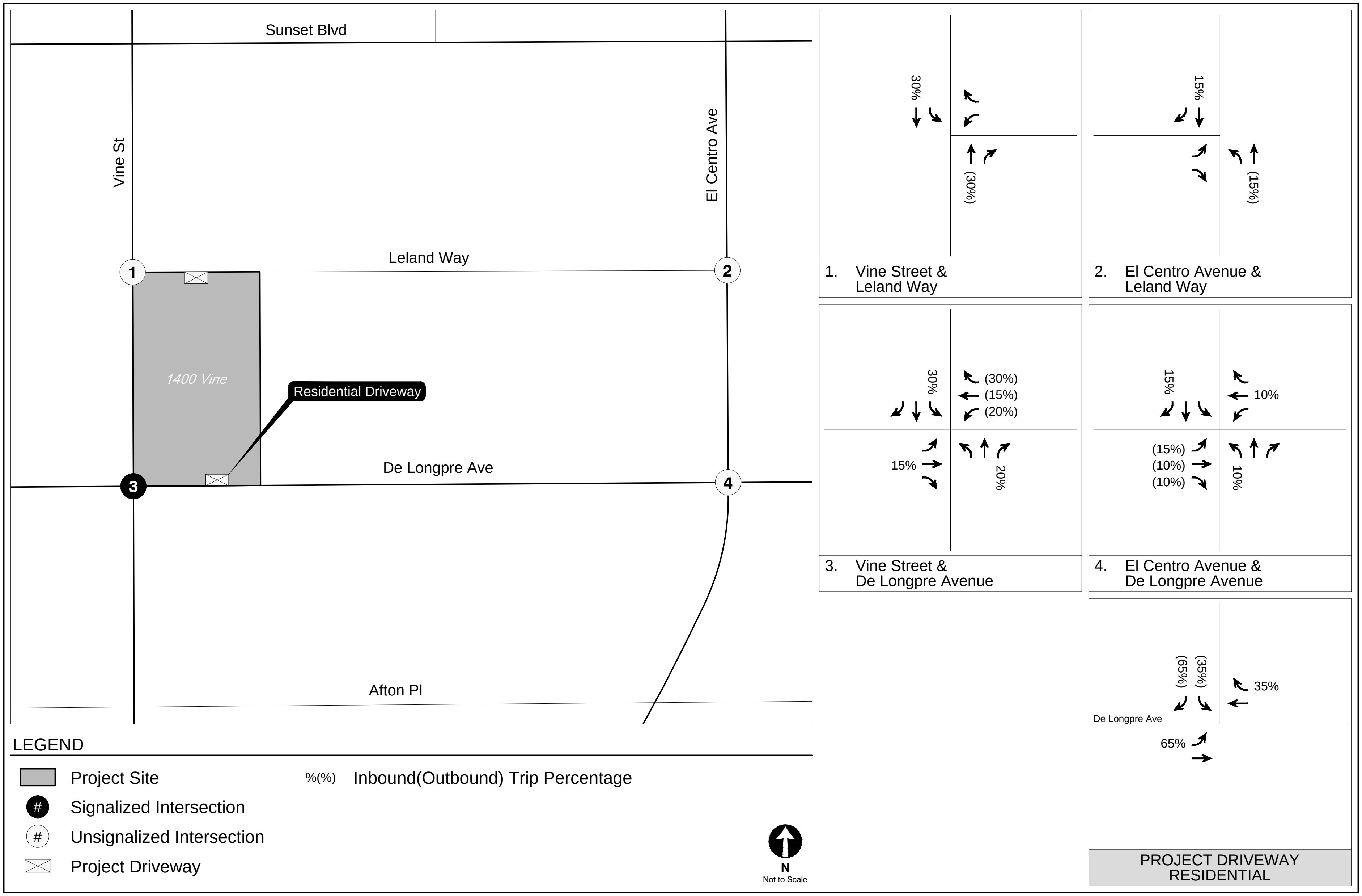
Similar to the distribution of traffic for the Related Projects described in Chapter 2, the geographic distribution of trips generated by the Project is dependent on the location of residential and commercial centers from which employees and guests of the Project would be drawn, characteristics of the street system serving the Project Site, and the level of accessibility of the routes to and from the Project Site, existing intersection traffic volumes, the Project ingress/egress availability based on the proposed site access and circulation scheme, the location of the proposed driveways, as well as input from LADOT staff.

Since the commercial component and the residential component would have differing trip patterns, the intersection-level trip distribution for the Project is shown in Figure 12A for the residential use and Figure 12B for the commercial use. Generally, the regional pattern is as follows:

- 15% to/from the north (Vine Street)
- 25% to/from the south (Vine Street, El Centro Avenue)
- 25% to/from the east (Sunset Boulevard, De Longpre Avenue)
- 35% to/from the west (Sunset Boulevard, De Longpre Avenue, Fountain Avenue)

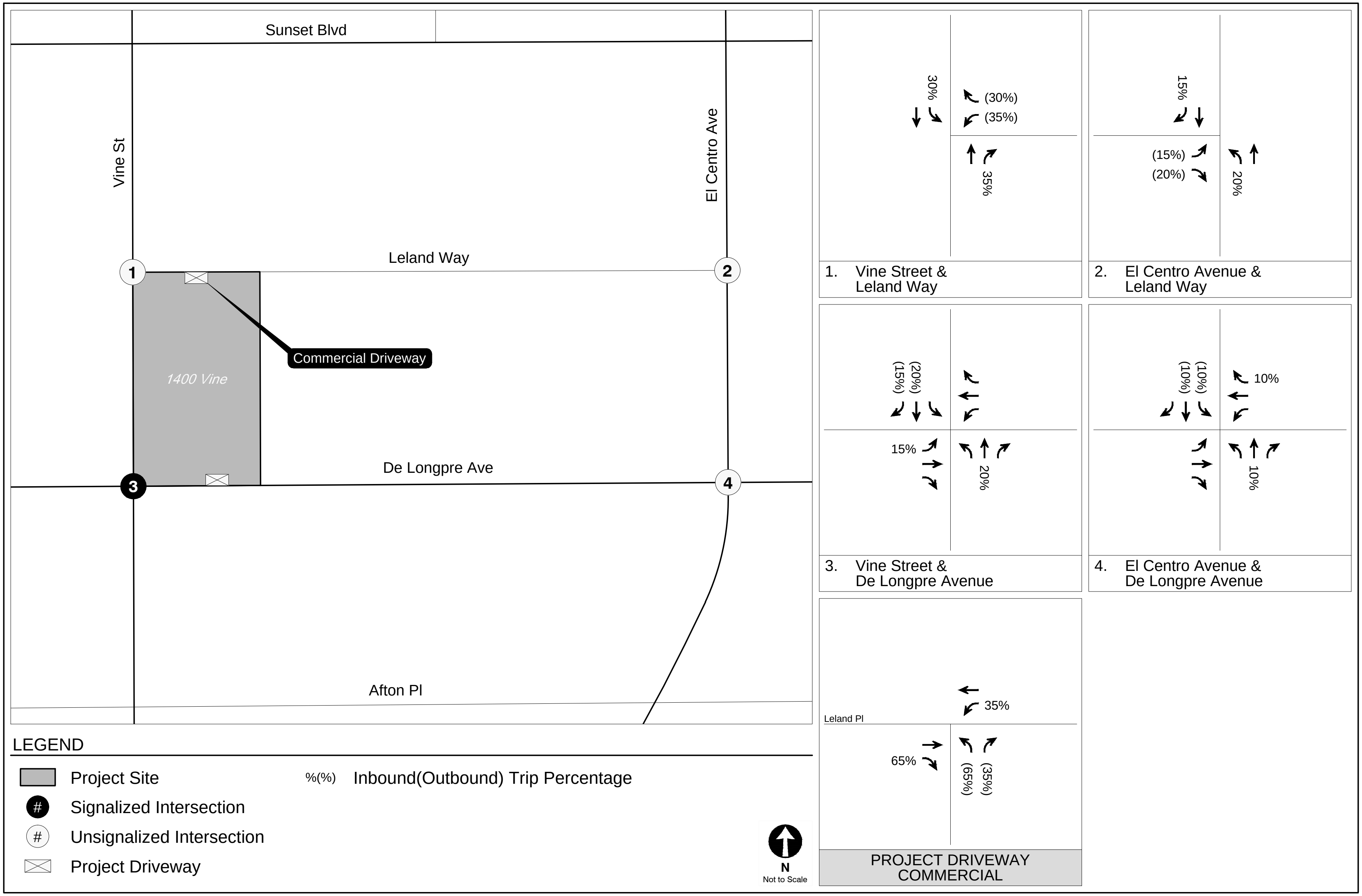
PROJECT TRIP ASSIGNMENT

The Project trip generation estimates summarized in Table 7 and the trip distribution patterns shown in Figures 12A and 12B were used to assign the Project-generated traffic through the study intersections. Figure 13 illustrates the Project-only traffic volumes at the study intersections during typical weekday morning and afternoon peak hours.



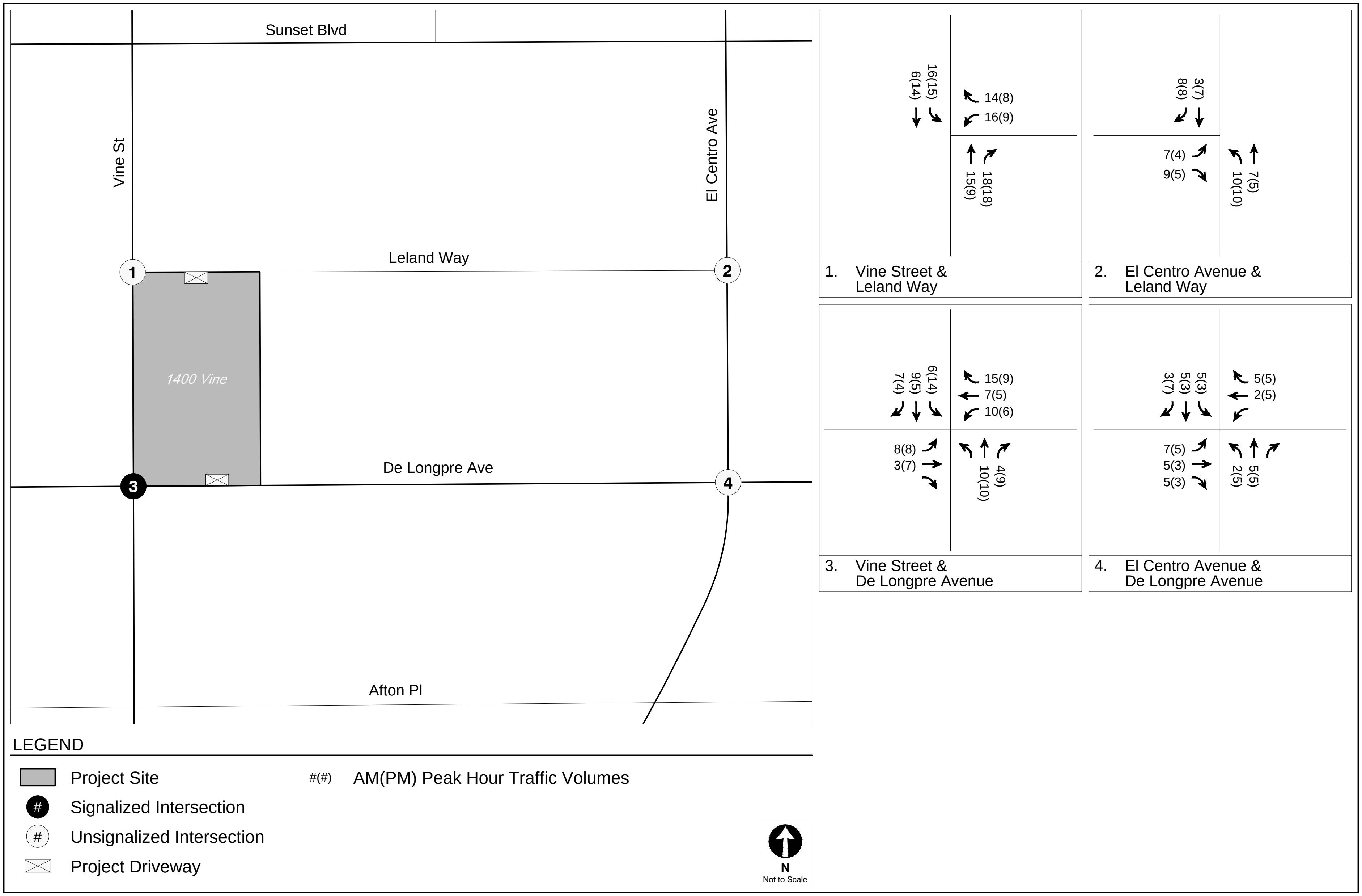
PROJECT TRIP DISTRIBUTION
RESIDENTIAL

FIGURE
12A



PROJECT TRIP DISTRIBUTION
COMMERCIAL

FIGURE 12B



PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE 13

TABLE 6
INTERSECTION LEVEL OF SERVICE

Level of Service	Description	Delay [a]	
		Signalized Intersections	Unsignalized Intersections
A	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.	≤ 10	≤ 10
B	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.	> 10 and ≤ 20	> 10 and ≤ 15
C	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.	> 20 and ≤ 35	> 15 and ≤ 25
D	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.	> 35 and ≤ 55	> 25 and ≤ 35
E	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.	> 55 and ≤ 80	> 35 and ≤ 50
F	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.	> 80	> 50

Notes
Source: *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).
[a] Measured in seconds.

TABLE 7
TRIP GENERATION ESTIMATES

Land Use	ITE Land Use	Rate	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Rates [a]								
Multi-family (Mid-Rise)	221	per du	26%	74%	0.36	61%	39%	0.44
Affordable Housing - Family	[b]	per du	37%	63%	0.49	56%	44%	0.35
Shopping Center	820	per ksf	62%	38%	0.94	48%	52%	3.81
High-Turnover (Sit-Down) Restaurant	932	per ksf	55%	45%	9.94	62%	38%	9.77
Proposed Project								
Residential	221	177 du	17	47	64	48	30	78
Transit/Walk Adjustment - 10% [c]			*(2)*	*(4)*	*(6)*	*(5)*	*(3)*	*(8)*
Affordable Housing	[b]	21 du	4	6	10	4	3	7
Subtotal - Residential			**19**	**49**	**68**	**47**	**30**	**77**
Commercial - Restaurant	932	16 ksf	87	72	159	97	59	156
Internal Capture Adjustment - 10% [d]			*(9)*	*(7)*	*(16)*	*(10)*	*(6)*	*(16)*
Transit/Walk Adjustment - 10% [c]			*(8)*	*(7)*	*(14)*	*(9)*	*(5)*	*(14)*
Pass-by Adjustment - 20% [e]			*(14)*	*(12)*	*(26)*	*(16)*	*(10)*	*(25)*
Subtotal - Commercial			**56**	**47**	**103**	**62**	**39**	**101**
TOTAL PROPOSED PROJECT TRIPS			**75**	**96**	**171**	**109**	**69**	**178**
Existing Uses to be Removed								
Retail	820	14.809 ksf	9	5	14	27	29	56
Transit/Walk Adjustment - 10% [c]			*(1)*	*(1)*	*(1)*	*(3)*	*(3)*	*(6)*
Pass-by Adjustment - 50% [e]			*(4)*	*(2)*	*(7)*	*(12)*	*(13)*	*(25)*
Subtotal - Existing			**4**	**2**	**6**	**12**	**13**	**25**
TOTAL NET NEW PROJECT TRIPS			**71**	**94**	**165**	**97**	**56**	**153**

du: dwelling unit
ksf: 1,000 square feet
[a] Source: *Trip Generation, 10th Edition* , Institute of Transportation Engineers, 2017.
[b] Per LADOT's *Transportation Assessment Guidelines,* residential or mixed-use developments inside a Transit Priority Area (TPA) which include Affordable Housing Units are eligible to use a City specific trip generation rate based on vehicle trip count data collected at affordable housing sites in the City of Los Angeles in 2016.
[c] The Project site is located within a 1/4 mile of a Metro Local Bus stop (Line 210) and 1/2 mile of a Metro B (Red) Line station (Hollywood/Vine Station), therefore the trip generation estimates account for transit usage and walking visitor arrivals.
[d] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development (i.e., between residential and retail).
[e] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

Section 4B
Project Access, Safety, and Circulation Assessment

This section summarizes the site access, safety, and circulation of the Project Site. It includes an evaluation of the expected access and circulation operations of the Project.

VEHICLES

The proposed circulation plan for the Project, illustrated in Figure 1, shows vehicular access to the commercial parking spaces via one driveway from Leland Way. Access to the port cochere, residential parking, and loading areas is provided from De Longpre Avenue. The driveways would be constructed to meet the applicable City standards. Adequate reservoir and maneuvering space would be provided within the parking garage and from the back of sidewalk to limit potential vehicular maneuvers and queues overflowing into public right-of-way. In addition, access to the public parking area within the Project's parking garage would be contained to the commercial driveway along Leland Way thereby prohibiting the use of the public roadway system to circulate the Project Site.

Thus, the vehicular access and circulation system would be adequate to serve the Project site and is not anticipated to affect traffic flow on the adjacent public streets.

PEDESTRIANS AND BICYCLES

Pedestrian access to the Project Site would be provided from the mid-block paseo along Vine Street, as well as entrances at the corner of Vine Street and Leland Way and Vine Street and De Longpre Avenue. The Project access locations would be designed to provide adequate sight distance, sidewalks, crosswalks, and pedestrian movement controls that meet the City's requirements to protect pedestrian safety. The design does not locate street trees or other potential impediments in the sidewalk which would affect sight distance and visibility. Pedestrian entrances would provide access from the adjacent streets and parking facilities.

Visitors, residents and employees arriving by bicycle would have the same access opportunities as pedestrian visitors. As discussed in Chapter 2, sharrowed bicycle routes are currently provided along Vine Street. In order to facilitate bicycle use, short-term and long-term bicycle parking spaces would be provided, consistent with LAMC Section 12.21 A16.

Section 4C
Pedestrian, Bicycle, and Transit Assessment

This section assesses the Project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the Project Site.

Factors to consider when assessing a project's potential effect on pedestrian, bicycle, and transit facilities, include the following:

- Would the project directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian, bicycle, or transit facilities?
- Would a project intensify use of existing pedestrian, bicycle, or transit facilities?

PEDESTRIANS AND BICYCLES

The Project would not directly or indirectly result in a permanent removal or modification that would lead to the degradation of pedestrian or bicycle facilities. Although the Project may intensify use of existing pedestrian and bicycle facilities, the Project would provide adequate measures to ensure the safety of those accessing the site and utilizing the street system surrounding it.

TRANSIT

As detailed in Chapter 2 and illustrated in Figure 6, there are numerous transit stops within the Study Area. The Project area is served by bus lines operated by Metro and LADOT DASH.

In addition to the bus lines that provide service within the Project Site vicinity, the Metro B Line subway operates in the Study Area. The Metro B Line runs between North Hollywood and downtown Los Angeles, connecting with the Metro G Line in North Hollywood, the Metro D Line at Wilshire Boulevard, the Metro A Line and Metro E Line in downtown Los Angeles, and the

Metro L Line at Union Station. In the Project vicinity, the Metro B Line has a station at Hollywood Boulevard & Vine Street, approximately 0.30 miles from the Project Site.

Although the Project (and other Related Projects) will cumulatively add transit ridership, the Project Site, the Study Area, and Hollywood are served by a vast amount of transit service. Table 2 summarizes the transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service. The average frequency of transit service during the peak hour was derived from the number of peak period stops made at the stop nearest the Project Site.

Tables 3A and 3B summarize the total residual capacity of the Metro and DASH transit systems during the morning and afternoon peak hours based on the frequency of service of each line and the maximum seated and standing capacity of each bus or train. As shown in Tables 3A and 3B, the Metro bus and DASH transit lines within 0.25 miles walking distance of the Project Site currently have additional capacity for 582 additional riders during the morning peak hour and 795 additional riders during the afternoon peak hour. Additionally, the Metro B Line has additional capacity for 5,316 additional riders during the morning peak hour and 4,092 additional riders during the afternoon peak hour. In total, the public transit system in the Study Area has available capacity for approximately 5,898 additional riders during the morning peak hour and 4,887 additional riders during the afternoon peak hour.

Section 4D
Operational Evaluation

This section provides a quantitative evaluation of the Project's access and circulation operations, including the anticipated LOS at the study intersections and anticipated traffic queues.

LOS ANALYSIS

The intersection analysis was conducted based on the HCM methodologies to identify delay and LOS at each of the study intersections with development of the Project. Detailed LOS calculation worksheets are provided in Appendix E.

Existing with Project Conditions

Traffic Volumes. The Project-only morning and afternoon peak hour traffic volumes described in Chapter 6 and shown in Figure 13 were added to the Existing morning and afternoon peak hour traffic volumes shown in Figure 7. The resulting volumes are illustrated in Figure 14 and represent Existing with Project Conditions, assuming Project operation under Existing Conditions.

Intersection LOS. Table 8 summarizes the weekday morning and afternoon peak hour LOS results for each of the study intersections under Existing and Existing with Project Conditions. As shown in Table 8, the four study intersections would operate at LOS C or better during both the morning and afternoon peak hours under Existing and Existing with Project Conditions.

Future with Project Conditions

All future cumulative traffic growth (i.e., ambient and Related Project traffic growth) and transportation infrastructure improvements described in Chapter 3 are incorporated into this analysis.

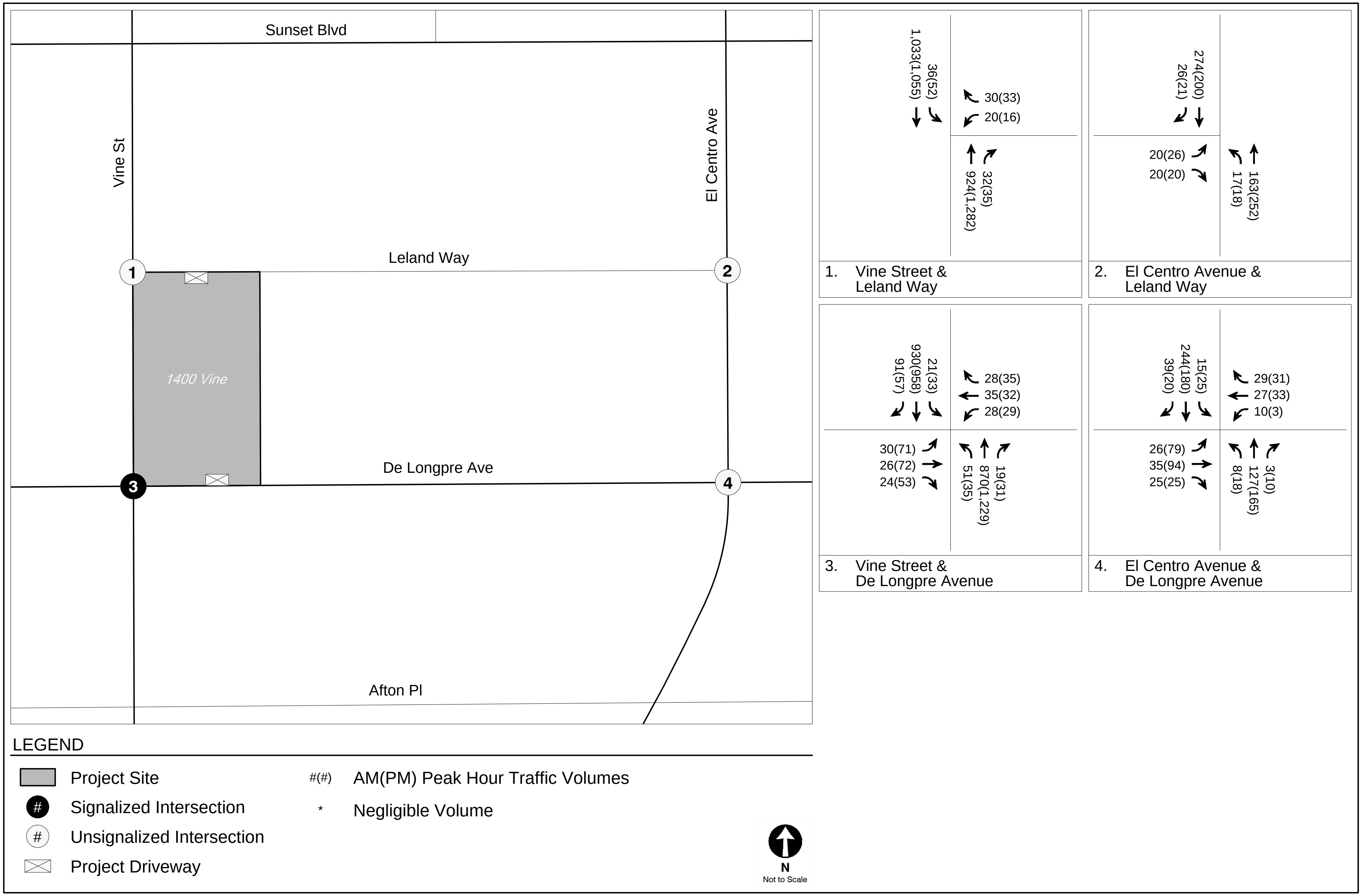
Traffic Volumes. The Project-only morning and afternoon peak hour traffic volumes described in Chapter 4 and shown in Figure 13 were added to the Future without Project Conditions (Year 2025) morning and afternoon peak hour traffic volumes shown in Figure 10. The resulting volumes are illustrated in Figure 15 and represent Future with Project Conditions after development of the Project in Year 2025.

Intersection LOS. Table 9 summarizes the results of the Future without Project (Year 2025) and Future with Project Conditions during the weekday morning and afternoon peak hours for the four study intersections. As shown in Table 9, the four study intersections would operate at LOS D or better during both the morning and afternoon peak hours under Future without Project (Year 2025) and Future with Project (Year 2025) Conditions.

It should be noted that, based on LOS results shown in Table 9 and the minor street traffic volumes illustrated in Figure 15 under Future with Project Conditions, the three unsignalized study intersections likely would not meet the minimum vehicular threshold requirements set forth in *Manual of Policies and Procedures* (LADOT, December 2008) and *California Manual on Uniform Traffic Control Devices* (Caltrans, 2014) to warrant the installation of a traffic signal. Therefore, the installation of a traffic signal at the three unsignalized intersections is not recommended.

INTERSECTION QUEUING ANALYSIS

The study intersections were also analyzed to determine whether the lengths of intersection turning lanes could accommodate vehicle queue lengths. The queue lengths were estimated using Synchro software, which reports the 85^{th} percentile queue length, in feet, for each approach lane. The reported queues are calculated using the HCM signalized and unsignalized intersection methodology. Detailed queuing analysis worksheets are provided in Appendix E.



EXISTING WITH PROJECT CONDITIONS (YEAR 2020)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 14

LEGEND

- Project Site
- # Signalized Intersection
- # Unsignalized Intersection
- Project Driveway
- #(#) AM(PM) Peak Hour Traffic Volumes
- * Negligible Volume

N
Not to Scale

FUTURE WITH PROJECT CONDITIONS (YEAR 2025)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
15

TABLE 8
EXISTING CONDITIONS (YEAR 2020)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Exisiting		Existing with Project	
			Delay	LOS	Delay	LOS
1. [a]	Vine Street & Leland Way	AM PM	14.1 18.9	B C	17.5 22.3	C C
2. [a]	El Centro Avenue & Leland Way	AM PM	11.2 11.3	B B	11.5 11.6	B B
3. [b]	Vine Street & De Longpre Avenue	AM PM	5.2 8.0	A A	6.3 8.9	A A
4. [c]	El Centro Avenue & De Longpre Avenue	AM PM	9.3 9.9	A A	9.6 10.2	A B

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10
[a] Intersection analysis based on the HCM 6th Edition Two-Way Stop Control Unsignalized methodology, which calculates the control delay, in seconds, for each individual approach of an intersection. The reported control delay represents the worst-case approach, and does not account for traffic gaps created by adjacent traffic signals.
[b] Intersection analysis based on HCM 6th Edition Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.
[c] Intersection analysis based on HCM 6th Edition All-Way Stop Control Unsignalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through an intersection.

TABLE 9
FUTURE CONDITIONS (YEAR 2025)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project		Future with Project	
			Delay	LOS	Delay	LOS
1. [a]	Vine Street & Leland Way	AM PM	17.0 25.1	C D	22.7 31.6	C D
2. [a]	El Centro Avenue & Leland Way	AM PM	11.4 11.5	B B	11.7 11.9	B B
3. [b]	Vine Street & De Longpre Avenue	AM PM	5.5 8.7	A A	6.6 9.6	A A
4. [c]	El Centro Avenue & De Longpre Avenue	AM PM	9.5 10.2	A B	9.9 10.6	A B

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10
[a] Intersection analysis based on the HCM 6th Edition Two-Way Stop Control Unsignalized methodology, which calculates the control delay, in seconds, for each individual approach of an intersection. The reported control delay represents the worst-case approach, and does not account for traffic gaps created by adjacent traffic signals.
[b] Intersection analysis based on HCM 6th Edition Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.
[c] Intersection analysis based on HCM 6th Edition All-Way Stop Control Unsignalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through an intersection.

Section 4E
Residential Street Cut-Through Analysis

This section summarizes the residential street cut-through analysis for the Project. The residential street cut-through analysis determines potential increases in average daily traffic volumes on designated Local Streets, as classified in the Mobility Plan, that can be identified as cut-through trips generated by the Project and that can adversely affect the character and function of those streets.

Section 3.5.2 of the TAG provides a list of questions to assess whether the Project would negatively affect residential streets. The Project is not projected to lead to trip diversion along residential Local Streets, nor is the Project projected to add a substantial amount of automobile traffic to congested Arterial Streets that could potentially cause a shift to residential Local Streets. Thus, the Project is not required to conduct a Local Residential Street Cut-Through Analysis.

Section 4F
Construction Impact Analysis

This section summarizes the construction schedule and construction impact analysis for the Project. The construction impact analysis relates to the temporary impacts that may result from the construction activities associated with the Project and was performed in accordance with Section 3.4 of the TAG.

CONSTRUCTION EVALUATION CRITERIA

Section 3.4.3 of the TAG identifies three types of in-street construction impacts that require further analysis to assess the effects of Project construction on the existing pedestrian, bicycle, transit, or vehicle circulation. The three types of impacts and related populations are:

1. Temporary transportation constraints – potential impacts on the transportation system
2. Temporary loss of access – potential impacts on visitors entering and leaving sites
3. Temporary loss of bus stops or rerouting of bus lines – potential impacts on bus travelers

The factors used to determine the significance of a project's impacts involve the likelihood and extent to which an impact might occur, the potential inconvenience caused to users of the transportation system, and consideration for public safety. Construction activities could potentially interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas. As detailed in Section 3.4.4 of the TAG, the proposed construction plans should be reviewed to determine whether construction activities would require any of the following actions:

- Street, sidewalk, or lane closures
- Block existing vehicle, bicycle, or pedestrian access along a street or to parcels fronting the street
- Modification of access to transit stations, stops, or facilities during revenue hours

- Closure or movement of an existing bus stop or rerouting of an existing bus line
- Creation of transportation hazards

PROPOSED CONSTRUCTION SCHEDULE

The Project is anticipated to be constructed over a period of approximately 31 months, with an anticipated completion in Year 2025. The construction period would include sub-phases of site demolition, excavation and grading, foundations, and building construction. Peak haul truck activity occurs during demolition, and peak worker activity occurs during building construction. These two sub-phases of construction were studied in greater detail.

EXCAVATION AND GRADING PHASE

The peak period of truck activity during construction of the Project would occur during the excavation and grading of the Project Site.

With the implementation of the Construction Management Plan, which is described in more detail below, it is anticipated that almost all haul truck activity to and from the Project Site would occur outside of the morning and afternoon peak hours. In addition, as discussed in more detail in the following section, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during the demolition phase of construction.

Haul trucks would travel on approved truck routes designated within the City. Given the Project Site's proximity to US 101, haul truck traffic would take the most direct route to the appropriate freeway ramps. The haul route will be reviewed and approved by the City.

Based on projections compiled for the Project, approximately 50,500 cubic yards of material would be removed from the Project Site. Based on estimates from the Applicant, this period would require up to 145 haul trucks per day. Thus, up to 290 daily haul truck trips (145 inbound, 145 outbound) are forecast to occur during the demolition period, with approximately 18 trips per hour (nine inbound, nine outbound) uniformly over a typical eight-hour off-peak workday.

Transportation Research Circular No. 212, Interim Materials on Highway Capacity (Transportation Research Board, 1980) defines passenger car equivalency (PCE) for a vehicle as the number of through moving passenger cars to which it is equivalent based on the vehicle's headway and delay-creating effects. Table 8 of *Transportation Research Circular No. 212* and Exhibit 12-25 of the HCM suggest a PCE of 2.0 for trucks. Assuming a PCE factor of 2.0, the 290 truck trips would be equivalent to 580 daily PCE trips. The 18 hourly truck trips would be equivalent to 36 PCE trips (18 inbound, 18 outbound) per hour.

In addition, a maximum of 20 construction workers would work at the Project Site during this phase. Assuming minimal carpooling amongst those workers, an average vehicle occupancy (AVO) of 1.135 persons per vehicle was applied, as provided in *CEQA Air Quality Handbook* (South Coast Air Quality Management District, 1993). Therefore, 20 workers would result in a total of 18 vehicle trips to and from the Project Site on a daily basis.

With implementation of the Construction Management Plan, it is anticipated that almost all haul truck activity to and from the Project Site would occur outside of the morning and afternoon peak hours. In addition, as discussed in more detail in the following section, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during the demolition phase of construction.

BUILDING CONSTRUCTION PHASE

The traffic impacts associated with construction workers depends on the number of construction workers employed during various phases of construction, as well as the travel mode and travel time of the workers. In general, the hours of construction typically require workers to be on-site before the weekday morning commuter peak period and allow them to leave before or after the afternoon commuter peak period (i.e., arrive at the site prior to 7:00 AM and depart before 4:00 PM or after 6:00 PM). Therefore, most, if not all, construction worker trips would occur outside of the typical weekday commuter peak periods.

The estimated number of construction workers each day depends on the phase of construction. According to construction projections prepared for the Project, the building subphase of construction would employ the most construction workers, with a maximum of approximately 175 workers per day for all components of the building (i.e., framing, plumbing, elevators, inspections, finishing). However, since the different building components would not be constructed or installed simultaneously, this cumulative estimate likely overstates the number of workers that would be expected on the peak construction day. Furthermore, on most of the estimated workdays to complete the Project, there would be far fewer workers than on the peak day. Therefore, the estimate of 175 workers per day used for the purposes of this analysis represents a very conservative estimate.

Assuming an AVO of 1.135 persons per vehicle, 175 workers would result in a total of 155 vehicles that would arrive and depart from the Project Site each day. The estimated number of daily trips associated with the construction workers is approximately 310 (155 inbound and 155 outbound trips), but nearly all of those trips would occur outside of the peak hours, as described above. As such, the building phase of Project construction is not expected to cause a significant traffic impact at any of the study intersections.

During construction, adequate parking for construction workers would be secured in local public parking facilities or, if needed, a remote site with shuttle service provided. Restrictions against workers parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site would be identified as part of the Construction Management Plan. All construction materials storage and truck staging would be contained on-site.

POTENTIAL IMPACTS ON ACCESS, TRANSIT, AND PARKING

Project construction is not expected to create hazards for roadway travelers, bus riders, or parkers, so long as commonly practiced safety procedures for construction are followed. Such procedures and other measures (e.g., to address temporary traffic control, lane closures, sidewalk closures, etc.) will be incorporated into the Construction Management Plan. The construction-related impacts associated with access and transit are anticipated to be less than significant, and the implementation of the Construction Management Plan described below would further reduce those impacts.

Access

Construction activities are expected to be primarily contained within the Project Site boundaries. However, it is expected that construction fences may encroach into the public right-of-way (e.g., sidewalks and roadways) adjacent to the Project Site, where the parking lane and sidewalk on Vine Street and De Longpre Avenue would be used throughout the construction period of the Project. It is anticipated that one northbound travel lane on Vine Street and/or one westbound travel lane on De Longpre Avenue may be removed during concrete pour. As part of the requirements of the Construction Management Plan, flag persons would be present to maintain two-way traffic operations along De Longpre Avenue should the westbound travel lane be closed during this period. Additional temporary traffic controls would be provided to direct traffic around any closures and to maintain emergency access, as required in the Construction Management Plan. The anticipated temporary lane closure would be coordinated with LADOT to minimize degrading operational effects to adjacent intersections through the implementation of the Construction Management Plan. For informational purposes, the impacts associated with the anticipated lane closure along Vine Street were reviewed under Existing and Future Conditions, and are summarized in Appendix F. Detailed LOS worksheets of the analyses are also provided in Appendix F.

The use of the public right-of-way along Vine Street and De Longpre Avenue would require temporary re-routing of pedestrian and bicycle traffic as the sidewalks fronting the Project Site would be closed. The Construction Management Plan would include measures to ensure pedestrian and bicycle safety along the affected sidewalks, bicycle facilities, and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering).

Transit

The construction activities of the Project may require a temporary transit stop relocation of a Metro Line 210 bus stop currently located adjacent to the Project Site on the northeast corner of Vine Street & De Longpre Avenue during construction. The Project would coordinate with Metro to review an acceptable location to temporarily relocate the bus stop that would meet Metro requirements. Metro would be notified should the Project construction affect any other Metro facilities.

Parking

Parking is allowed on Vine Street and De Longpre Avenue, so construction could result in a temporary loss of on-street parking spaces. On Vine Street, this could result in the temporary loss of up to four metered on-street parking spaces adjacent to the Project Site on the east side of the street. On De Longpre Avenue, this could result in the temporary loss of up to seven unmetered on-street parking spaces adjacent to the Project Site on the north side of the street. Coordination with LADOT would be included in the Construction Management Plan as a result of the potential temporary loss of up to eleven metered on-street parking spaces.

CONSTRUCTION MANAGEMENT PLAN

A detailed Construction Management Plan, including street closure information, a detour plan, haul routes, and a staging plan, would be prepared and submitted to the City for review and approval, prior to commencing construction. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community. The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the Project Site, and shall include, but not be limited to, the following elements, as appropriate:

- Advance, bilingual notification of adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of operation
- Prohibition of construction worker or equipment parking on adjacent streets
- Temporary pedestrian, bicycle, and vehicular traffic controls during all construction activities adjacent to Vine Street and De Longpre Avenue, to ensure traffic safety on public rights of way
- Temporary traffic control during all construction activities adjacent to public rights-of-way to improve traffic flow on public roadways (e.g., flag persons)
- Scheduling of construction activities to reduce the effect on traffic flow on surrounding Arterial Streets

- Containment of construction activity within the Project Site boundaries, to the extent feasible
- Coordination with Metro to address any transit stop relocations
- Coordination with LADOT Parking Meter Division to address loss of metered parking spaces
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate, including along all identified Los Angeles Unified School District (LAUSD) pedestrian routes to nearby schools
- Scheduling of construction-related deliveries, haul trips, etc., to occur outside the commuter peak hours, so as to not impede school drop-off and pick-up activities and students using LAUSD's identified pedestrian routes to nearby schools
- No staging of hauling trucks on any streets adjacent to the Project, unless specifically approved as a condition of an approved haul route
- Spacing of trucks so as to discourage a convoy effect
- Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind
- Maintenance of a log, available on the job site at all times, documenting the dates of hauling and the number of trips (i.e., trucks) per day
- Identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction

It is likely that Construction Management Plans would also be submitted for approval to the City by the Related Projects prior to the start of construction activities. As part of the LADOT and/or Los Angeles Department of Building and Safety established review process of Construction Management Plans, potential overlapping construction activities and proposed haul routes would be reviewed to minimize the impacts of cumulative construction activities on any particular roadway.

Section 4G
Parking

This section provides an analysis of the proposed parking and the potential parking impacts of the Project.

PARKING SUPPLY

All Project parking would be provided on-site. The Project would provide a total of 278 automobile spaces and 153 bicycle spaces in a parking garage with one at-grade level and three subterranean levels.

VEHICLE PARKING CODE REQUIREMENTS

The parking requirements for the residential use of the Project were calculated by applying the appropriate parking ratios for a housing development project that qualifies for a Density Bonus, as follows:

- Residential
  - 1.0 space per studio dwelling unit
  - 1.0 space per one-bedroom dwelling unit
  - 2.0 spaces per two-bedroom dwelling unit

The parking requirements for the restaurant use of the Project were calculated by applying the appropriate parking ratios for commercial uses within the Hollywood Redevelopment Project Area from LAMC Section 12.21.A4(x)(3)(2). The following LAMC parking rates were applied:

- Commercial
    - 2.0 space per 1,000 sf of gross floor area

Per the LAMC, the Project would require a total of 231 spaces for the 198 residential dwelling units and 32 spaces for the 16,000 sf of commercial use. As summarized in Table 10, the total LAMC requirement for the Project is 263 vehicle spaces. Thus, the Project's proposed parking supply would meet the LAMC requirements.

BICYCLE PARKING CODE REQUIREMENTS

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. However, new bicycle parking requirements have been developed by the City and the Project would follow the new requirements set out in Case No. CPC-2016-4216-CA and Council File No. 12-1297-S1. The updated Code bicycle parking requirement of the Project is based on the following rates:

- Residential
    - Short-Term
        - 1-25 dwelling units: 1.0 space per 10 dwelling units
        - 26-100 dwelling units: 1.0 space per 15 dwelling units
        - 101-198 dwelling units: 1.0 space per 20 dwelling units
    - Long-Term
        - 1-15 dwelling units: 1.0 space per 1 dwelling unit
        - 26-198 dwelling units: 1/0 space per 2 dwelling units

- Commercial
    - Short-Term
        - 1.0 space per 2,000 sf
    - Long-Term
        - 1.0 space per 2,000 sf

Per the updated LAMC, the Project's proposed 198 dwelling units would require a total of 13 short-term and 124 long-term bicycle parking spaces and the commercial space would require eight short-term and eight long-term spaces.

As summarized in Table 11, the total LAMC requirement for the Project is 21 short-term and 132 long-term bicycle parking spaces. Therefore, the Project's proposed short-term and long-term bicycle parking supply would meet the LAMC requirements.

TABLE 10
VEHICLE PARKING CODE REQUIREMENTS

Land Use	Size	Code Requirement	Parking Required
Residential [a]			
Studio	54 du	1.0 space / 1 unit	54 spaces
One-bedroom	111 du	1.0 space / 1 unit	111 spaces
Two-bedroom	33 du	2.0 spaces / 1 unit	66 spaces
Commercial Retail/Restaurant [b]	16,000 sf	2.0 spaces / 1,000 sf	32 spaces
		Total Parking Required	**263 spaces**

Notes
du: dwelling unit
sf: square feet
[a] Residential parking spaces per LAMC Section 12.22.A.25(d)(1).
[b] Commercial parking requirement per LAMC Section 12.21.A.4(x)(3)(2) pursuant to the Project Site's location within a State Enterprise Zone.

TABLE 11
BICYCLE PARKING CODE REQUIREMENTS

Land Use	Size	Short-Term				Long-Term			
		Rate [a]			Requirement	Rate [a]			Requirement
Residential (1-25 du)	25 du	1.0 sp	/	10 du	3 sp	1.0 sp	/	1 du	25 sp
Residential (26-100 du)	75 du	1.0 sp	/	15 du	5 sp	1.0 sp	/	2 du	50 sp
Residential (101-198 du)	98 du	1.0 sp	/	20 du	5 sp	1.0 sp	/	2 du	49 sp
Commercial Retail/Restaurant	16,000 sf	1.0 sp	/	2,000 sf	8 sp	1.0 sp	/	2,000 sf	8 sp
Total Bicycle Parking Requirements				Short-Term:	21 sp			Long-Term:	132 sp
Total Code Bicycle Parking Requirement									**153 sp**

Notes
sp: spaces
[a] Bicycle requirements as calculated by Section 12.21.A.16 of *Los Angeles Municipal Code (LAMC)* and proposed amendments per Case No. CPC-2016-4216-CA and Council File No. 12-1297-51.

Chapter 5
Summary and Conclusions

This study was undertaken to analyze the potential transportation impacts of the mixed-use development Project at 1400-1440 N. Vine Street, 6263-6275 W. De Longpre Avenue, 6262-6270 W. Leland Way on the local street system. The following summarizes the results of this analysis:

- The Project consists of an eight-story mixed-use residential and commercial development, including 177 market-rate dwelling units, 21 affordable dwelling units, and approximately 16,000 sf of neighborhood serving ground floor commercial uses.
- The Project is anticipated to be complete in Year 2025 and is estimated to generate 165 morning peak hour trips and 153 afternoon peak hour trips.
- The Project is consistent with the City's plans, programs, ordinances, and policies and would not result in geometric design hazard impacts.
- The Project would include the TDM strategies as part of the Project design features.
- The Project would not result in VMT per capita or VMT per employee impacts, and no further mitigation measures would be required.
- The Project would not cause a significant safety impact at any freeway off-ramp locations.
- The Project provides adequate internal circulation to accommodate vehicular, pedestrian, and bicycle traffic without impeding through traffic movements on City streets.
- The Project will incorporate pedestrian and bicycle-friendly designs, such as a bicycle parking, adequate sidewalks, and open space.
- All construction activities would occur outside of the commuter morning and afternoon peak hours to the extent feasible and will not result in significant traffic impacts. A Construction Management Plan will ensure that construction impacts are less than significant.
- The Project is in compliance with LAMC vehicle and bicycle parking requirements.

References

2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element, Los Angeles Department of City Planning, 2010.

2012 Developer Fee Justification Study, Los Angeles Unified School District, 2012.

The 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy, Southern California Association of Governments, April 2016.

California Manual on Uniform Traffic Control Devices, Caltrans, 2014.

CEQA Air Quality Handbook, South Coast Air Quality Management District, 1993.

City of Los Angeles VMT Calculator Documentation, Los Angeles Department of Transportation and Los Angeles Department of City Planning, November 2019.

City of Los Angeles VMT Calculator User Guide, Los Angeles Department of Transportation and Los Angeles Department of City Planning, November 2019.

City of Los Angeles Walkability Checklist – Guidance for Entitlement Review, City of Los Angeles Department of City Planning, November 2008.

Citywide Design Guidelines, Los Angeles City Planning Urban Design Studio, October 2019.

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

Hollywood Community Plan, Los Angeles Department of City Planning, 1988.

Hollywood Community Plan Update Draft Environmental Impact Report, Terry A. Hayes Associates, Inc., November 2018.

Interim Guidance for Freeway Safety Analysis, Los Angeles Department of Transportation, May 1, 2020.

LA Promise Zone Strategic Plan, LA Promise Zone, January 27, 2016.

Los Angeles Municipal Code, City of Los Angeles.

Manual of Policies and Procedures, Los Angeles Department of Transportation, December 2008.

Mobility Hubs: A Reader's Guide, Los Angeles Department of City Planning, 2016.

Mobility Plan 2035, An Element of the General Plan, Los Angeles Department of City Planning, September 2016.

References, cont.

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan, Los Angeles Department of City Planning, March 2015.

Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association, 2010.

Redevelopment Plan for the Hollywood Redevelopment Project, The Community Redevelopment Agency of the City of Los Angeles, May 1986.

State of California Senate Bill 743, Steinberg, 2013.

Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor's Office of Planning and Research, December 2018.

Technology Action Plan, Los Angeles Department of Transportation, 2019.

Transportation Assessment Guidelines, Los Angeles Department of Transportation, July 2019.

Transportation Research Circular No. 212, Interim Materials on Highway Capacity, Transportation Research Board, 1980.

Trip Generation, 9th Edition, Institute of Transportation Engineers, 2012.

Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025, City of Los Angeles, August 2015.

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: 1400 Vine

Project Address: 1400-1440 N Vine Street, 6263-6275 W De Longpre Avenue, and 6262-6270 W Leland Way, Los Angeles, CA 90028

Project Description: The Project consists of an eight-story mixed-use residential and retail development, including 179 market-rate dwelling units, 19 affordable dwelling units, and approximately 16,000 square feet (sf) of neighborhood serving ground floor commercial uses, over three levels of subterranean parking. The existing 14,809 sf of retail uses will be removed to allow for development of the project.

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

II. TRIP GENERATION

Geographic Distribution: N 45 % S 30 % E 10 % W 15 %

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

Trip Generation Rate(s): ITE 10th Edition / Other ITE 10th Edition; LADOT TAG

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	70	93	163
PM Trips	97	56	153

Daily Trips 1,446
(From VMT Calculator)

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2025 Ambient Growth Rate: 1 % 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 Vine Street & Leland Way
2 El Centro Avenue & Leland Way
3 Vine Street & De Longpre Avenue
4 El Centro Avenue & De Longpre Avenue
5
6

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:	Gibson Transportation Consulting, Inc.	Tooley Interests, LLC
Address:	555 W. 5th St., Suite 3375, Los Angeles, CA 90013	2001 Wilshire Blvd, Suite 420, Santa Monica, CA 90403
Phone Number:	(213) 683-0088	(310) 458-2520
E-Mail:	ewong@gibsontrans.com	ptooley@tooleyco.com

Approved by: x ______________________ ____________ x [signature] 2/6/2020

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.

Appendix B

Traffic Volume Data

Location ID: 1
North/South: Vine Street
East/West: Leland Way
Date: 02/12/20
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	308	7	2	0	4	5	131	0	0	0	0	457
7:15	0	265	5	3	0	1	4	146	0	0	0	0	424
7:30	0	328	6	3	0	1	5	167	0	0	0	0	510
7:45	0	297	8	2	0	1	2	174	0	0	0	0	484
8:00	0	279	7	1	0	2	1	191	0	0	0	0	481
8:15	0	278	6	1	0	1	0	208	0	0	0	0	494
8:30	0	264	10	2	0	2	2	193	0	0	0	0	473
8:45	0	283	4	4	0	1	5	242	0	0	0	0	539
9:00	0	244	4	5	0	1	4	210	0	0	0	0	468
9:15	0	252	8	3	0	1	2	225	0	0	0	0	491
9:30	0	248	4	4	0	1	3	232	0	0	0	0	492
9:45	0	280	9	6	0	4	0	189	0	0	0	0	488
Total Volume:	0	3326	78	36	0	20	33	2308	0	0	0	0	5801
Approach %	0%	98%	2%	64%	0%	36%	1%	99%	0%	0%	0%	0%	
Peak Hr Begin:	8:45												
PHV	0	1027	20	16	0	4	14	909	0	0	0	0	1990
PHF		0.912			0.833			0.934			0.000		0.923

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	202	4	14	0	0	9	288	0	0	0	0	517
15:15	0	235	5	3	0	1	8	341	0	0	0	0	593
15:30	0	275	8	6	0	3	8	302	0	0	0	0	602
15:45	0	257	5	5	0	4	7	318	0	0	0	0	596
16:00	0	221	5	2	0	3	5	320	0	0	0	0	556
16:15	0	262	13	6	0	0	3	327	0	0	0	0	611
16:30	0	301	14	12	0	0	2	308	0	0	0	0	637
16:45	0	233	11	4	0	1	8	316	0	0	0	0	573
17:00	0	258	9	2	0	1	8	301	0	0	0	0	579
17:15	0	289	4	5	0	1	7	257	0	0	0	0	563
17:30	0	301	13	7	0	1	7	227	0	0	0	0	556
17:45	0	282	6	2	0	1	5	285	0	0	0	0	581
Total Volume:	0	3116	97	68	0	16	77	3590	0	0	0	0	6964
Approach %	0%	97%	3%	81%	0%	19%	2%	98%	0%	0%	0%	0%	
Peak Hr Begin:	15:45												
PHV	0	1041	37	25	0	7	17	1273	0	0	0	0	2400
PHF		0.856			0.667			0.977			0.000		0.942

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	7	0	3	0	0	0
7:15	0	0	15	0	1	0	0	0
7:30	0	0	23	0	0	0	0	0
7:45	0	0	22	0	0	1	0	0
8:00	0	0	38	0	0	0	0	0
8:15	0	0	30	0	1	0	0	0
8:30	0	0	36	3	0	0	0	0
8:45	1	0	40	2	0	0	0	0
9:00	0	0	27	0	1	0	0	0
9:15	0	0	25	0	0	0	0	0
9:30	0	0	29	0	0	0	0	0
9:45	0	0	27	1	0	0	0	0

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	0	0	56	1	0	0	0	0
15:15	0	0	48	3	0	0	0	0
15:30	0	0	47	1	1	0	0	0
15:45	0	0	45	2	2	0	0	0
16:00	0	0	52	5	0	0	0	0
16:15	0	0	47	2	0	0	0	0
16:30	0	0	56	4	1	0	0	0
16:45	0	0	37	2	1	0	0	0
17:00	0	0	37	2	1	0	0	0
17:15	1	0	60	2	1	0	0	0
17:30	0	0	52	2	0	0	0	0
17:45	0	0	56	2	0	0	0	0

Location ID:	2		
North/South:	El Centro Avenue	Date:	02/12/20
East/West:	Leland Way	City:	Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	5	21	2	0	0	0	0	14	3	2	0	3	50
7:15	7	22	2	0	0	0	0	19	2	3	0	2	57
7:30	4	37	4	2	0	0	0	29	1	3	0	2	82
7:45	2	54	3	0	0	2	1	22	3	6	1	2	96
8:00	3	74	2	1	0	0	0	29	3	2	0	1	115
8:15	3	80	0	0	0	0	0	42	1	3	0	4	133
8:30	6	44	1	0	0	0	0	38	1	3	0	3	96
8:45	6	73	0	1	0	0	0	47	2	3	0	5	137
9:00	4	66	2	0	0	1	0	33	0	0	0	3	109
9:15	1	58	0	1	0	0	0	52	0	3	0	5	120
9:30	0	42	0	0	0	1	1	48	0	0	0	2	94
9:45	7	33	1	1	1	0	0	31	4	2	0	2	82
Total Volume:	48	604	17	6	1	4	2	404	20	30	1	34	1171
Approach %	7%	90%	3%	55%	9%	36%	0%	95%	5%	46%	2%	52%	
Peak Hr Begin:	8:00												
PHV	18	271	3	2	0	0	0	156	7	11	0	13	481
PHF		0.880			0.500			0.832			0.750		0.878

	Southbound			Westbound			Northbound			Eastbound			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	2	28	1	1	0	0	0	50	5	14	0	10	111
15:15	5	36	1	1	0	0	0	57	1	8	0	3	112
15:30	1	39	2	1	0	0	0	52	4	9	1	9	118
15:45	4	39	1	3	1	1	0	47	4	3	0	4	107
16:00	3	32	1	1	0	0	0	45	2	2	0	2	88
16:15	4	34	1	3	0	1	0	50	2	5	0	6	106
16:30	9	43	0	4	2	0	0	53	5	4	0	4	124
16:45	2	39	0	0	0	0	0	53	2	6	0	3	105
17:00	6	44	0	0	0	0	0	44	1	5	0	7	107
17:15	3	51	1	2	0	0	0	65	1	5	1	2	131
17:30	3	58	1	1	0	0	0	72	5	5	0	8	153
17:45	1	40	0	1	0	0	0	66	1	0	0	5	114
Total Volume:	43	483	9	18	3	2	0	654	33	66	2	63	1376
Approach %	8%	90%	2%	78%	13%	9%	0%	95%	5%	50%	2%	48%	
Peak Hr Begin:	17:00												
PHV	13	193	2	4	0	0	0	247	8	15	1	22	505
PHF		0.839			0.500			0.828			0.731		0.825

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	0	0	2	0	0	0	7	0
7:15	0	0	2	0	0	0	4	0
7:30	0	0	1	0	1	0	3	0
7:45	0	0	3	0	0	0	4	0
8:00	0	0	0	0	0	0	4	0
8:15	1	0	4	0	1	0	6	0
8:30	0	0	6	0	0	0	7	0
8:45	0	0	4	0	0	0	8	0
9:00	1	0	4	0	0	0	10	1
9:15	0	1	4	0	0	0	6	1
9:30	0	0	7	1	0	0	6	0
9:45	0	0	8	0	1	0	6	0

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	0	0	1	0	0	0	11	0
15:15	0	0	0	0	0	0	10	0
15:30	0	0	2	0	1	0	11	0
15:45	0	0	1	0	0	0	10	1
16:00	0	0	2	1	0	0	11	0
16:15	0	0	5	0	1	0	16	0
16:30	1	0	8	0	3	0	16	0
16:45	0	0	3	0	0	0	8	0
17:00	0	0	7	0	0	0	7	0
17:15	0	0	5	0	2	0	20	0
17:30	0	0	6	0	2	0	12	0
17:45	0	0	4	1	0	0	9	0

Location ID: 3
North/South: Vine Street
East/West: De Longpre Avenue

Date: 02/12/20
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	4	306	9	3	2	1	5	135	4	1	0	2	472
7:15	2	250	4	6	8	5	2	128	11	5	1	2	424
7:30	8	280	5	5	8	3	3	166	10	3	2	6	499
7:45	21	261	4	7	7	3	5	163	9	0	6	3	489
8:00	14	233	10	9	6	5	6	172	16	7	8	4	490
8:15	19	236	7	6	6	9	4	202	21	9	4	3	526
8:30	24	221	5	2	7	5	4	191	13	4	3	3	482
8:45	29	241	5	2	8	2	1	223	15	2	6	7	541
9:00	9	220	3	6	4	8	4	207	13	3	5	4	486
9:15	18	232	4	2	10	6	5	207	11	9	5	5	514
9:30	28	228	3	3	6	2	5	223	12	10	7	6	533
9:45	23	249	4	2	10	4	6	177	9	5	0	3	492
Total Volume:	199	2957	63	53	82	53	50	2194	144	58	47	48	5948
Approach %	6%	92%	2%	28%	44%	28%	2%	92%	6%	38%	31%	31%	

Peak Hr Begin:	8:45												
PHV	84	921	15	13	28	18	15	860	51	24	23	22	2074
PHF		0.927			0.819			0.965			0.750		0.958

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	2	196	4	13	9	10	8	265	14	8	29	29	587
15:15	12	224	2	6	8	6	6	323	12	20	32	8	659
15:30	13	248	5	8	12	5	8	279	9	19	17	22	645
15:45	16	251	6	6	8	4	7	303	10	12	15	15	653
16:00	18	196	4	7	3	4	5	314	10	11	13	15	600
16:15	6	258	4	5	4	10	2	323	6	11	20	11	660
16:30	5	272	3	8	5	5	4	282	16	10	18	12	640
16:45	9	215	5	7	9	7	3	291	6	14	25	13	604
17:00	17	230	4	5	4	8	3	279	8	12	28	16	614
17:15	8	270	9	2	9	7	5	265	7	16	21	13	632
17:30	21	271	7	2	6	6	11	209	15	15	37	13	613
17:45	15	261	5	4	8	3	8	259	18	13	38	13	645
Total Volume:	142	2892	58	73	85	75	70	3392	131	161	293	180	7552
Approach %	5%	94%	2%	31%	36%	32%	2%	94%	4%	25%	46%	28%	

Peak Hr Begin:	15:30												
PHV	53	953	19	26	27	23	22	1219	35	53	65	63	2558
PHF		0.939			0.760			0.964			0.780		0.969

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	6	0	10	0	1	0	5	0
7:15	13	0	22	0	0	0	6	0
7:30	12	0	25	0	4	0	7	0
7:45	8	0	19	0	3	0	7	0
8:00	7	0	30	0	0	0	8	0
8:15	9	1	30	1	1	0	8	1
8:30	4	0	34	1	3	0	10	0
8:45	13	0	40	1	0	0	6	0
9:00	12	0	24	0	0	0	6	0
9:15	20	0	36	1	7	0	10	0
9:30	15	0	29	1	1	0	6	0
9:45	17	0	26	1	4	0	10	0

Leg:	North		East		South		West	
Class:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	15	0	62	1	8	0	17	0
15:15	15	1	38	2	5	0	11	1
15:30	13	0	46	0	9	1	28	1
15:45	12	1	42	2	9	0	17	0
16:00	9	0	49	2	3	0	17	1
16:15	12	0	42	1	0	0	25	0
16:30	10	0	49	2	3	0	19	1
16:45	19	0	34	1	1	1	26	0
17:00	12	0	29	1	1	0	22	0
17:15	10	0	40	2	1	0	23	0
17:30	6	0	39	1	1	0	24	0
17:45	8	0	44	1	1	0	11	0

Location ID: 4
North/South: El Centro Avenue
East/West: De Longpre Avenue

Date: 02/12/20
City: Los Angeles, CA

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	4	14	1	4	11	0	1	13	2	1	2	4	57
7:15	10	17	0	3	8	0	1	16	0	3	1	1	60
7:30	8	27	6	0	10	2	0	15	0	2	6	15	91
7:45	5	55	0	6	2	6	0	13	4	3	10	5	109
8:00	11	60	6	3	5	0	0	23	1	5	13	9	136
8:15	12	72	1	8	6	2	0	29	3	5	8	3	149
8:30	7	37	2	5	8	5	2	29	2	4	4	7	112
8:45	6	70	1	8	6	3	1	41	0	6	5	0	147
9:00	7	58	1	6	8	1	1	27	2	5	7	2	125
9:15	9	45	7	6	9	1	1	39	4	4	4	7	136
9:30	5	36	2	10	4	1	0	33	1	5	6	5	108
9:45	9	28	0	4	12	0	4	28	2	1	2	6	96
Total Volume:	93	519	27	63	89	21	11	306	21	44	68	64	1326
Approach %	15%	81%	4%	36%	51%	12%	3%	91%	6%	25%	39%	36%	
Peak Hr Begin:	8:00												
PHV	36	239	10	24	25	10	3	122	6	20	30	19	544
PHF	0.838			0.819			0.780			0.639			0.913

	Southbound			Westbound			Northbound			Eastbound			
	1	2	3	4	5	6	7	8	9	10	11	12	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	7	30	8	7	13	2	6	28	7	6	25	12	151
15:15	3	35	6	5	9	1	1	35	2	5	25	15	142
15:30	8	32	9	6	14	3	1	33	1	3	19	17	146
15:45	2	31	12	6	8	1	2	29	2	3	21	13	130
16:00	4	25	5	8	3	0	3	30	4	2	15	12	111
16:15	3	32	5	6	9	1	0	36	4	1	16	9	122
16:30	7	36	3	4	1	1	2	34	2	0	8	14	112
16:45	13	34	1	2	3	1	1	38	1	5	15	15	129
17:00	3	44	4	4	5	0	1	27	0	4	15	16	123
17:15	3	48	5	9	9	1	3	41	5	5	23	18	170
17:30	4	50	9	5	3	1	4	48	4	7	27	24	186
17:45	3	35	4	8	11	1	2	44	4	6	26	16	160
Total Volume:	60	432	71	70	88	13	26	423	36	47	235	181	1682
Approach %	11%	77%	13%	41%	51%	8%	5%	87%	7%	10%	51%	39%	
Peak Hr Begin:	17:00												
PHV	13	177	22	26	28	3	10	160	13	22	91	74	639
PHF	0.841			0.713			0.817			0.806			0.859

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
7:00	3	0	1	0	0	0	3	0
7:15	1	0	2	0	2	0	2	0
7:30	2	0	2	0	1	0	5	0
7:45	4	0	6	0	3	0	8	0
8:00	1	0	0	0	0	0	6	0
8:15	3	0	7	0	3	0	5	0
8:30	2	0	3	0	2	0	10	0
8:45	3	0	5	0	2	0	7	0
9:00	4	0	6	0	1	0	7	1
9:15	2	0	2	0	1	0	6	0
9:30	2	0	3	1	3	0	5	0
9:45	2	0	1	0	1	0	6	0

Leg:	North		East		South		West	
Class:	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle	Peds	Bicycle
15:00	1	0	2	0	1	0	11	0
15:15	6	0	0	1	5	0	5	0
15:30	1	0	2	0	2	0	7	0
15:45	4	1	1	0	0	0	13	1
16:00	1	0	2	1	4	0	11	0
16:15	2	0	3	0	1	0	12	0
16:30	4	0	4	0	2	0	15	1
16:45	1	0	3	0	2	1	7	0
17:00	1	0	5	0	1	0	6	0
17:15	0	0	5	0	4	0	15	1
17:30	7	0	4	0	4	0	7	1
17:45	2	0	5	0	1	0	17	1

Appendix C

Threshold T-1 Consistency Tables

TABLE C-1
QUESTIONS TO DETERMINE PROJECT APPLICABILITY TO PLANS, POLICIES, AND PROGRAMS

No.	Guiding Question	Relevant Plans, Policies, and Programs	Supporting/Complementary City Plans, Policies, and Programs to Consult	Project Response
Existing Plan Applicability				
1.	Does the project include additions or new construction along a street designated as a Boulevard I or II, and/or Avenue I, II, or III, on property zoned for R3 or less restrictive zone?	LAMC Section 12.37		YES
2.	Is the project site along any Network identified in Mobility Plan 2035?	MP - 2.3 through 2.7		YES
3.	Are dedications or improvements needed to serve long-term mobility needs as identified Mobility Plan 2035?	MP - Street Classifications; MP - Street Designations and Standard Roadway Dimensions	MP - 2.17 Street Widenings	YES
4.	Does the project require placement of transit furniture in accordance with City's Coordinated Street Furniture and Bus Bench Program?			NO
5.	Is the project site in an identified Transit Oriented Community?	MP - TEN; MP - PED; MP - BEN; TOC Guidelines		YES
6.	Is the project site on a roadway identified in the City's High-Injury Network?	Vision Zero	Mobility Plan 2035	YES
7.	Does the 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	NO
8.	Does the project propose narrowing or shifting existing sidewalk placement?	MP - 2.3 Pedestrian Infrastructurel; MP - 3.1 Access for All; MP - PED; MP - ENG.19; MP - 2.17 Street Widenings	Healthy LA; Vision Zero; Sustainability pLAn	NO
9.	Does the project propose paving, narrowing, shifting, or removing an existing parkway?	MP - 5.5 Green Streets, Sustainability pLAn		NO
10.	Does the 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	NO
11.	Is the 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		NO
12.	Does project create a cul-de-sac or is the project site located adjacent to an existing cul-de-sac? If yes, is the cul-de-sac consistent with the design goal in Mobility Plan 2035 (maintain through bicycle and pedestrian access)?	MP - 3.10 Cul-de-sacs		NO
Access: Driveways and Loading				
13.	Does the 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	NO
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 - Sec No. 321 Driveway Design	Vision Zero	N/A
15.	Does the project site include a corner lot? (Avoid driveways too close to intersections.)	CDG 4.1.01		YES
16.	Does the project propose a driveway width in excess of City standard?	MPP - Sec No. 321 Driveway Design		NO
17.	Does the project propose more driveways than required by City maximum standard?	MPP - Sec No. 321 Driveway Design		NO
18.	Are loading zones proposed as part of the project?	MP - 2.10 Loading Areas; MP - PK.1; MP - PK.7; MP - PK.8; MPP - Sec No. 321 Driveway Design		YES
19.	Does the project include "drop-off" zones or areas? If yes, are such areas located to the side or rear of the building?	MP - 2.10 Loading Areas		YES
20.	Does the 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		NO

Notes:
Questions from Table 2.1-2 of *Transportation Assessment Guidelines* (LADOT, July 2019).

TABLE C-2
PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Chapter 1 - Safety First	
Policy 1.1, Roadway User Vulnerability Design, plan, and operate streets to prioritize the safety of the most vulnerable roadway user.	**Consistent.** With the development of the Project, Vine Street, Leland Way, and De Longpre Avenue along the Project frontage would be improved to provide adequate pedestrian safety and refuge areas, as well as continue to satisfy the right-of-way and roadway standards to meet the goals and long-term needs of the Mobility Plan. Further, the Project does not propose modifying, removing, or otherwise affecting existing bicycle infrastructure, and the Project driveways are not proposed along a street with an existing bicycle facility.
Chapter 2 - World Class Infrastructure	
Policy 2.3 Pedestrian Infrastructure Recognize walking as a component of every trip, and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.	**Consistent.** The Project would enhance pedestrian access within and around the Project Site by providing a mid-block paseo along from Vine Street and improvements to the sidewalks, landscaping, and decorative pavement within the Project's entrance area and along the perimeters of the Project Site.
Policy 2.4 Neighborhood Enhanced Network Provide a slow speed network of locally serving streets.	**Consistent.** El Centro Avenue north of De Longpre Avenue, De Longpre Avenue east of El Centro Avenue are part of the Neighborhood Enhanced Network adjacent to the Project Site. No access to the Project Site is provided along street segments identified in the Neighborhood Enhanced Network, thereby ensuring that minmum Project traffic would interfere with the neighborhood character of the surrounding area.
Policy 2.6 Bicycle Networks Provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities. (includes scooters, skateboards, rollerblades, etc.)	**Consistent.** The Mobility Plan designated Sunset Boulevard and Vine Street as part of the Bicycle Network. The Project does not propose any driveways along these streets and thus, would not interfere with future implementation of bicycle infrastructure on Sunset Boulevard or Vine Street. Further, the Project provides infrastructure and services to encourage bicycling for residents, employees, and visitors to the Project Site. There would be 21 short-term and 132 long-term bicycle parking spaces provided by the Project.
Policy 2.10 Loading Areas Facilitate the provision of adequate on and off-street loading areas.	**Consistent.** The Project provides a port cochere for residential passenger loading on-site and is accessed via De Longpre Avenue. Commercial loading would be provided internal to the Project Site, with loading access from Leland Way. Together, these would be sufficient to meet the Project Site loading needs without disrupting operations within the public right-of-way.

Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

TABLE C-2 (CONT.)
PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Chapter 3 - Access for All Angelenos	
Policy 3.1 Access for All Recognize all modes of travel, including pedestrian, bicycle, transit, and vehicular modes – including goods movement – as integral components of the City's transportation system.	**Consistent.** The Project is committed to enacouraging multi-modal transportation alternatives and access for all travel modes to and from the Project Site. The Project provides a port cochere for residential passenger loading on-site via the De Longpre Avenue driveway, as well as infrastructure (short- and long-term bicycle parking, easy bicycle accessibility to the Project Site) to encourage walking and bicycling. Additionally, the Project is located adjacent to a Metro bus stop and within 0.3 miles of the Metro B Line, which provides access for a variety of travel modes for residents, employees, and visitors to the Project Site.
Policy 3.2 People with Disabilities Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.	**Consistent.** The Project's vehicular and pedestrian entrances would be designed in accordance with LADOT standards and would comply with Americans with Disabilities Act (ADA) requirements. The Project design would also be in compliance with all ADA requirements and would provide direct connections to pedestrian amenities at adjacent intersections.
Policy 3.8 Bicycle Parking Provide bicyclists with convenient, secure, and well-maintained bicycle parking facilities.	**Consistent.** The Project provides infrastructure and services to encourage bicycling for residents, employees, and visitors to the Project Site. There would be 21 short-term and 132 long-term bicycle parking spaces provided by the Project.
Chapter 4 - Collaboration, Communication, & Informed Choices	
Policy 4.8 Transportation Demand Management Strategies Encourage greater utilization of Transportation Demand Management (TDM) strategies to reduce dependence on single-occupancy vehicles.	**Consistent.** The Project incorporates several design features, which include TDM measures to reduce the number of single occupancy vehicle trips to the Project Site, including the following: •Include bike parking per LAMC, including short-term and long-term parking facilities •Pedestrian network improvements, within the Project site and connecting off-site
Policy 4.13 Parking and Land Use Management Balance on-street and off-street parking supply with other transportation and land use objectives.	**Consistent.** The Project would provide sufficient off-street parking to accommodate Project parking demand. The Project would also retain the existing on-street parking around Project frontage.

Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

TABLE C-2 (CONT.)
PROJECT CONSISTENCY WITH MOBILITY PLAN 2035

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Chapter 5 - Clean Environments & Healthy Communities	
Policy 5.1 Sustainable Transportation Encourage the development of a sustainable transportation system that promotes environmental and public health.	**Consistent.** As part of the Project, secured bicycle parking facilities and pedestrian connections within the Project Site and connecting to off-site pedestrian facilities would be provided. This would promote active transportation modes such as biking and walking. Additionally, the Project is located adjacent to a Metro bus stop and within 0.3 miles of the Metro B Line, providing residents, employees, and visitors to the Project with public transportation alternatives.
Policy 5.2 Vehicle Miles Traveled (VMT) Support ways to reduce vehicle miles traveled (VMT) per capita.	**Consistent.** The Project is estimated to generate lower VMT per capita for residents and employees than the average for the area, as demonstrated in Section 3B. Additionally, the Project incorporates several design features, which include TDM measures to reduce the number of single occupancy vehicle trips to the Project Site, including the following: •Include bike parking per LAMC, including short-term and long-term parking facilities •Pedestrian network improvements, within the Project site and connecting off-site

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in *Mobility Plan 2035: An Element of the General Plan* (Los Angeles Department of City Planning, January 2016).

TABLE C-3
PROJECT CONSISTENCY WITH PLAN FOR A HEALTHY LOS ANGELES

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Chapter 1 - Los Angeles, a Leader in Health and Equity	
Policy 1.5 Plan for Health Improve Angelenos' health and well-being by incorporating a health perspective into land use, design, policy, and zoning decisions through existing tools, practices, and programs.	**Consistent.** The Project would enhance pedestrian access within and around the Project Site by providing a mid-block paseo along from Vine Street and improvements to the sidewalks, landscaping, and decorative pavement within the Project's entrance area and along the perimeters of the Project Site. Further, the Project provides infrastructure and services to encourage bicycling for residents, employees, and visitors to the Project Site. There would be 21 short-term and 132 long-term bicycle parking spaces provided by the Project. As such, it would encourage the use of active travel modes and thereby promote healthy living.
Policy 1.6 Poverty and Health Reduce the debilitating impact that poverty has on individual, familial, and community health and well-being by: promoting cross-cutting efforts and partnerships to increase access to income; safe, healthy, and stable affordable housing options; and attainable opportunities for social mobility.	**Consistent.** The Project includes up to 19 affordable housing units. Also, the Project's 16,000 square feet of neighborhood serving ground floor commercial uses provide employment and entrepreneurial opportunities.
Policy 1.7 Displacement and Health Reduce the harmful health impacts of displacement on individuals, families and communities by pursuing strategies to create opportunities for existing residents to benefit from local revitalization efforts by: creating local employment and economic opportunities for low-income residents and local small businesses; expanding and preserving existing housing opportunities available to low-income residents; preserving cultural and social resources; and creating and implementing tools to evaluate and mitigate the potential displacement caused by large-scale investment and development.	**Consistent.** In addition to up to 19 affordable housing units provided by the Project, it provides employment and entrepreneurial opportunities through its provision of up to 16,000 square feet of retail and restaurant space. The Project does not displace any existing housing; rather, it converts a substantial amount of underutilized land into an active and vibrant mixed-use community.

Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan* (Los Angeles Department of City Planning, March 2015).

TABLE C-3 (CONT.)
PROJECT CONSISTENCY WITH PLAN FOR A HEALTHY LOS ANGELES

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Chapter 2 - A City Built for Health	
Policy 2.8 Basic Amenities Promote increased access to basic amenities, which include public restrooms and free drinking water in public spaces, to support active living and access to health-promoting resources.	**Consistent.** The Project would provide substantial amounts of open space (20,700 sf) to support active living.
Chapter 5 - An Environment Where Life Thrives	
Policy 5.7 Land Use Planning for Public Health and GHG Emission Reduction Promote land use policies that reduce per capita greenhouse gas emissions, result in improved air quality and decreased air pollution, especially for children, seniors and others susceptible to respiratory diseases.	**Consistent.** The Project is estimated to generate lower VMT per capita for residents and employees than the average for the area, as demonstrated in Section 3B. Additionally, the Project incorporates several design features, which include TDM measures to reduce the number of single occupancy vehicle trips to the Project Site, including the following: •Include bike parking per LAMC, including short-term and long-term parking facilities •Pedestrian network improvements, within the Project site and connecting off-site VMT directly contributes to GHG emissions, so a reduced VMT per capita also reduces GHG per capita.

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in *Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan* (Los Angeles Department of City Planning, March 2015).

TABLE C-4
PROJECT CONSISTENCY WITH HOLLYWOOD COMMUNITY PLAN

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Objective 1: To coordinate the development of Hollywood with that of other parts of the City of Los Angeles and the metropolitan area. To further the development of Hollywood as a major center of population, employment, retail services, and entertainment; and to perpetuate its image as the international center of the motion picture industry.	**Consistent.** The Project would provide both market-rate and affordable residential units to further the development of Hollywood as a major center of population, as well as 16,000 sf of commercial uses to enhance employment and retail services in the area.
Objective 3: To make provision for the housing required to satisfy the varying needs and desires of all economic segments of the Community, maximizing the opportunity for individual choice.	**Consistent.** The Project's provision of 19 affordable units would contribute to the goal of providing all economic segments of the community with opportunities to have their needs and desires met.
Objective 6: To make provision for a circulation system coordinated with land uses and densities and adequate to accommodate traffic; and to encourage and the expansion and improvement of public transportation service.	**Consistent.** The Project would provide residential and commercial land uses adjacent to a Metro bus stop and within 0.3 miles of the Metro B Line. The Project's close proximity to transit provides alternative modes of transportation for residents, employees, and visitors to take to and from the Project Site.

Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in the *Hollywood Community Plan,* Los Angeles Department of City Planning, 1988.

TABLE C-5
PROJECT CONSISTENCY WITH REDEVELOPMENT PLAN FOR THE HOLLYWOOD REDEVELOPMENT PROJECT

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Goal 3: Promote a balanced community meeting the needs of the residential, commercial, industrial, arts and entertainment sectors.	**Consistent.** The Project would provide a balance of market-rate and affordable residential and commercial uses to meet the needs for both sectors in the Hollywood area.
Goal 9: Provide housing choices and increase the supply and improve the quality of housing for all income and age groups, especially for persons with low and moderate incomes; and to provide home ownership opportunities and other housing choices which meet the needs of the resident population.	**Consistent.** The Project would provide 19 affordable units to increase the supply and provide opportunities for housing choices for persons with low and moderate incomes.
Goal 12: Support and encourage a circulation system which will improve the quality of life in Hollywood, including pedestrian, automobile, parking and mass transit systems with an emphasis on serving existing facilities and meeting future needs.	**Consistent.** The Project prioritizes the pedestrian experience by providing a protected pick-up / drop-off area at the residential port cochere on De Longpre Avenue and encourages multi-modal transportation options by incorporating infrastructure such as short- and long-term bicycle parking spaces. Additionally, the Project would provide ample off-street parking with access points separated from the primary pedestrian entrances.

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in the draft text of the *Hollywood Redevelopment Project,* The Community Redevelopment Agency of the City of Los Angeles, May 1986.

TABLE C-6
PROJECT CONSISTENCY WITH CITYWIDE DESIGN GUIDELINES

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Pedestrian-First Design	
Guideline 1: Promote a safe, comfortable, and accessible pedestrian experience for all Design projects to be safe and accesible and contribute to a better public right-of-way for people of all ages, genders, and abilities, especially the most vulnerable - children, seniors, and people with disabilities. **Guideline 2: Carefully incorporate vehicular access such that it does not degrade the pedestrian experience** Design to avoid pedestrian and vehiular conflicts and to create an inviting and comfortable public right-of-way. A pleasant and welcoming public realm reinforces walkability and improves the quality of life for users. **Guideline 3: Design projects to actively engage with streets and public space and maintain human scale** New projects should be designed to contribute to a vibrant and attractive public realm that promotes a sense of civic pride. Better connections within the built environment contribute to a livable and accessible city and a healthier public realm.	**Consistent.** The Project design includes accessible sidewalks, pedestrian amenities, and well-designed vehicular access driveways in accordance with the City's design considerations. The Project would provide street trees uniformly within the sidewalk to provide adequate shade, as well as a more comfortable environment for pedestrians. Further, the orientation of the Project design and active ground floor facilities ensures that the Project actively engages with the street and its surrounding uses.

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in the Citywide Design Guidelines (Los Angeles Department of City Planning, 2019).

TABLE C-6 (CONT.)
PROJECT CONSISTENCY WITH CITYWIDE DESIGN GUIDELINES

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
360 Degree Design	
Guideline 6: Provide amenities that support community building and provide an inviting, comfortable user experience Design to create livable places and desirable environments where people want to spend time engaging in social, civic, and recreational activities. Projects that encourage connections with a variety of transit modes and enhance their immediate environment with amenities are highly encouraged.	**Consistent.** The Project design includes elements that reinforce orientation to the street, such as the mid-block paseo along Vine Street that connects to the commercial uses. The Project would provide landscaped areas along Vine Street, Leland Way, and De Longpre Avenue, enhancing the inviting and comfortable user experience of the Project Site. Further, all design elements of the Project would be developed in conjunction with the others to ensure consistency of the architectural ideas.
Climate-Adpated Design	
Guideline 9: Configure the site layout, building massing and orientation to lower energy demand and increase the comfort and well-being of users Design projects to incorporate sustainable design and energy efficiency principles. Encouraging sustainability and innovation contributes to the well-being of current and future generations.	**Consistent.** The Project would incorporate elements of shade, natural light, and ventilation as considerations in the building orientation and design. Further, the Project would include trees and landscaped spaces that allow water to percolate into the ground and offer ecological enhancements and shaded spaces for community benefits.

Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in the Citywide Design Guidelines (Los Angeles Department of City Planning, 2019).

TABLE C-7
PROJECT CONSISTENCY WITH WALKABILITY CHECKLIST

Objective, Policy, Program, or Plan [a]	**Analysis of Project Consistency**
Sidewalks	
Objective Support ease of pedestrian movement and enrich the quality of the public realm by providing appropriate connections and street furnishings in the public right-of-way. **Policies** 1. Delineate the pedestrian corridor. 2. Provide for pedestrian safety and comfort. 3. Encourage pedestrian travel. 4. Create active environments by supporting a variety of pedestrian activities. 5. Create, preserve, and enhance neighborhood identity and "placemaking." 6. Comply with governmental regulations for all improvements in the public right-of-way.	**Consistent.** The Project incorporates neighborhood serving ground floor commercial uses oriented toward Vine Street and Leland Way to help encourage pedestrian engagement. In addition, a mid-block paseo on Vine Street would be provided on-site.
On-Street Parking	
Objective On-street parking is often desired in residential and commercial areas for its convenient access to street front entrances. Residents, shoppers, and businesses are amenable to limited slowing of traffic as a trade-off for the economic benefits of on-street parking. **Policies** 1. Maximize on-street parking. 2. Directly serve adjacent street front entrances with on-street parking. 3. Create a buffer between pedestrians and the roadway. 4. Comply with applicable governmental regulations for all parking in the public right-of-way.	**Consistent.** The Project would not interfere with on-street parking, which is currently provided on all streets surrounding the Project Site. The Project would also provide sufficient off-street parking on-site to accommodate the requirements of the Project.

Notes:
[a] Objectives, Policies, Programs, or Plans based on information provided in *Walkability Checklist* (Los Angeles Department of City Planning, November 2008).

TABLE C-7 (CONT.)
PROJECT CONSISTENCY WITH WALKABILITY CHECKLIST

Objective, Policy, Program, or Plan [a]	Analysis of Project Consistency
Building Orientation	
Objective Use the relationship between building and street to improve neighborhood character and the pedestrian environment. **Policies** 1. Enliven the public realm by siting buildings so they interact with the sidewalk and the street. 3. Support ease of accessibility to buildings.	**Consistent.** The Project incorporates neighborhood serving ground floor commercial uses toward Vine Street and Leland Way to help encourage pedestrian engagement. Additionally, the mid-block paseo located along Vine Street would serve as a highly visible, pedestrian-oriented front door to the Project Site.
Off-Street Parking and Driveways	
Objective The safety of the pedestrian is primary in an environment that must accommodate pedestrians and vehicles. **Policies** 1. Ensure that clear and convenient access for pedestrians is not minimized by vehicular needs. 2. Eliminate auto-pedestrian conflicts. 3. Increase awareness between pedestrians and motorists. 4. Maintain the character of a pedestrian friendly street.	**Consistent.** The Project prioritizes the pedestrian experience, including safety. It provides a protected pick-up / drop-off area on-site within the residential port cochere along De Longpre Avenue. Further, pedestrian access is separate from all vehicular access, and vehicular access would be located in such a way as to minimize interaction between vehicles and pedestrians.

Notes:

[a] Objectives, Policies, Programs, or Plans based on information provided in *Walkability Checklist* (Los Angeles Department of City Planning, November 2008).

Appendix D

VMT Analysis Worksheets

CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

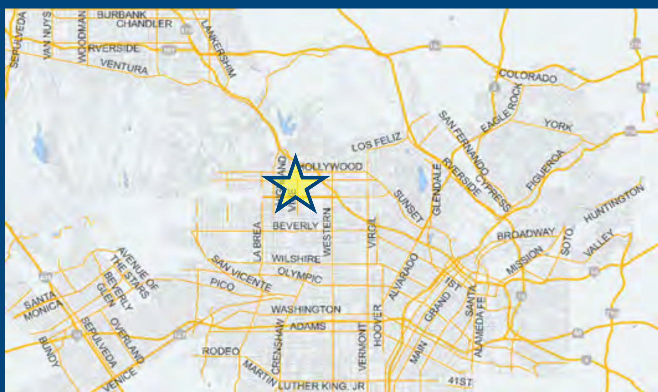
Project Information

Project: 1400 Vine

Scenario:

Address: 1400 N VINE ST, 90028

WWW



If the project is replacing an existing number of residential units with a smaller number of residential units, is the proposed project located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
Retail | General Retail		ksf
Retail | General Retail	14.809	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Housing | Affordable Housing - Family	19	DU
Retail | High-Turnover Sit-Down Restaurant	16	ksf
Housing | Multi-Family	177	DU
Housing | Affordable Housing - Family	21	DU

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
399 Daily Vehicle Trips	1,445 Daily Vehicle Trips
2,639 Daily VMT	8,920 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

Criterion	Value
The net increase in daily trips < 250 trips	1,046 Net Daily Trips
The net increase in daily VMT ≤ 0	6,281 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	16.000 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

4/28/2020

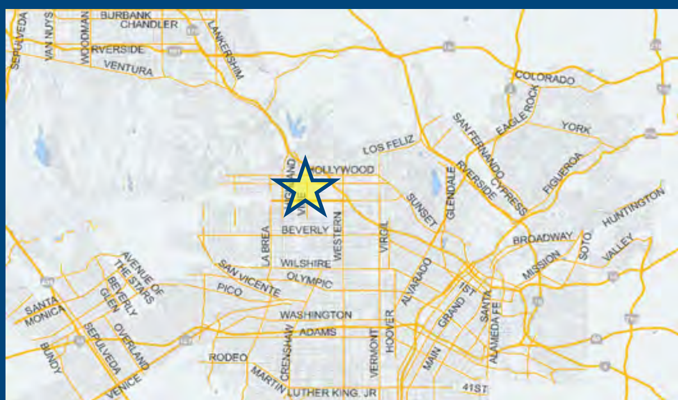
CITY OF LOS ANGELES VMT CALCULATOR Version 1.2

Project Information

Project: 1400 Vine

Scenario:

Address: 1400 N VINE ST, 90028



Proposed Project Land Use Type	Value	Unit
Retail | High-Turnover Sit-Down Restaurant	16	ksf
Housing | Multi-Family	177	DU
Housing | Affordable Housing - Family	21	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

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

G Neighborhood Enhancement

Traffic Calming Improvements
☐ Proposed Prj ☐ Mitigation
25 — percent of streets within project with traffic calming improvements
100 — percent of intersections within project with traffic calming improvements

Pedestrian Network Improvements
☑ Proposed Prj ☐ Mitigation
within project and connecting off-site

Analysis Results

Proposed Project	With Mitigation
1,407 Daily Vehicle Trips	**1,407** Daily Vehicle Trips
8,688 Daily VMT	**8,688** Daily VMT
5.3 Household VMT per Capita	**5.3** Household VMT per Capita
N/A Work VMT per Employee	**N/A** Work VMT per Employee

Significant VMT Impact?

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

Measuring the Miles

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: April 28, 2020
Project Name: 1400 Vine
Project Scenario:
Project Address: 1400 N VINE ST, 90028

Version 1.2

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	177	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	Family	21	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	16.000	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*

Analysis Results

Total Employees: 64
Total Population: 465

Proposed Project		*With Mitigation*	
1,407	**Daily Vehicle Trips**	**1,407**	**Daily Vehicle Trips**
8,688	**Daily VMT**	**8,688**	**Daily VMT**
5.3	**Household VMT per Capita**	**5.3**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**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	N/A	Work > 7.6	N/A

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)	within project and connecting off-site	within project and connecting off-site

TDM Adjustments by Trip Purpose & Strategy

Place type: Urban

		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: Urban

		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	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	

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	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
MAX. TDM EFFECT	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%

= 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.

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	266	-49.2%	135	7.4	1,968	999
Home Based Other Production	714	-53.2%	334	4.6	3,284	1,536
Non-Home Based Other Production	296	-16.6%	247	7.4	2,190	1,828
Home-Based Work Attraction	93	-54.8%	42	8.5	791	357
Home-Based Other Attraction	809	-53.2%	379	5.8	4,692	2,198
Non-Home Based Other Attraction	368	-16.3%	308	6.5	2,392	2,002

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	-2.6%	131	973	-2.6%	131	973
Home Based Other Production	-2.6%	325	1,496	-2.6%	325	1,496
Non-Home Based Other Production	-2.6%	241	1,780	-2.6%	241	1,780
Home-Based Work Attraction	-2.6%	41	348	-2.6%	41	348
Home-Based Other Attraction	-2.6%	369	2,141	-2.6%	369	2,141
Non-Home Based Other Attraction	-2.6%	300	1,950	-2.6%	300	1,950

MXD VMT Methodology Per Capita & Per Employee

Total Population: 465
Total Employees: 64
APC: Central

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**2,469**	**2,469**
Total Home Based Work Attraction VMT	**348**	**348**
Total Home Based VMT Per Capita	**5.3**	**5.3**
Total Work Based VMT Per Employee	**N/A**	**N/A**

Appendix E

HCM Analysis Worksheets

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	16	909	14	20	1027
Future Vol, veh/h	4	16	909	14	20	1027
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	0	-	-	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	4	17	988	15	22	1116

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1598	502	0	0	1003	0
Stage 1	996	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	97	515	-	-	686	-
Stage 1	318	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	94	515	-	-	686	-
Mov Cap-2 Maneuver	217	-	-	-	-	-
Stage 1	318	-	-	-	-	-
Stage 2	494	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	217	515	686	-
HCM Lane V/C Ratio	-	-	0.02	0.034	0.032	-
HCM Control Delay (s)	-	-	21.9	12.2	10.4	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.1	-

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	25	1273	17	37	1041
Future Vol, veh/h	7	25	1273	17	37	1041
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	0	-	-	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	8	27	1384	18	40	1132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2039	701	0	0	1402	0
Stage 1	1393	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	49	381	-	-	483	-
Stage 1	195	-	-	-	-	-
Stage 2	484	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	45	381	-	-	483	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	195	-	-	-	-	-
Stage 2	444	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.9	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	141	381	483	-
HCM Lane V/C Ratio	-	-	0.054	0.071	0.083	-
HCM Control Delay (s)	-	-	32	15.2	13.1	-
HCM Lane LOS	-	-	D	C	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.3	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	30	924	32	36	1033
Future Vol, veh/h	20	30	924	32	36	1033
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	0	-	-	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	22	33	1004	35	39	1123

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1662	520	0	0	1039	0
Stage 1	1022	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	88	501	-	-	665	-
Stage 1	308	-	-	-	-	-
Stage 2	487	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	83	501	-	-	665	-
Mov Cap-2 Maneuver	204	-	-	-	-	-
Stage 1	308	-	-	-	-	-
Stage 2	458	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.5	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	204	501	665	-
HCM Lane V/C Ratio	-	-	0.107	0.065	0.059	-
HCM Control Delay (s)	-	-	24.7	12.7	10.8	-
HCM Lane LOS	-	-	C	B	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0.2	0.2	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	33	1282	35	52	1055
Future Vol, veh/h	16	33	1282	35	52	1055
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	0	-	-	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	17	36	1393	38	57	1147

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2100	716	0	0	1431	0
Stage 1	1412	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	45	373	-	-	471	-
Stage 1	191	-	-	-	-	-
Stage 2	460	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	40	373	-	-	471	-
Mov Cap-2 Maneuver	134	-	-	-	-	-
Stage 1	191	-	-	-	-	-
Stage 2	404	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.3	0	0.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	134	373	471	-
HCM Lane V/C Ratio	-	-	0.13	0.096	0.12	-
HCM Control Delay (s)	-	-	35.8	15.7	13.7	-
HCM Lane LOS	-	-	E	C	B	-
HCM 95th %tile Q(veh)	-	-	0.4	0.3	0.4	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	17	1164	15	21	1362
Future Vol, veh/h	4	17	1164	15	21	1362
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	0	-	-	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	4	18	1265	16	23	1480

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2059	641	0	0	1281	0
Stage 1	1273	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	48	417	-	-	538	-
Stage 1	227	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	417	-	-	538	-
Mov Cap-2 Maneuver	150	-	-	-	-	-
Stage 1	227	-	-	-	-	-
Stage 2	392	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	150	417	538	-
HCM Lane V/C Ratio	-	-	0.029	0.044	0.042	-
HCM Control Delay (s)	-	-	29.7	14	12	-
HCM Lane LOS	-	-	D	B	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	26	1604	18	39	1316
Future Vol, veh/h	7	26	1604	18	39	1316
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	0	-	-	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	8	28	1743	20	42	1430

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2552	882	0	0	1763	0
Stage 1	1753	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	22	289	-	-	350	-
Stage 1	124	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	19	289	-	-	350	-
Mov Cap-2 Maneuver	90	-	-	-	-	-
Stage 1	124	-	-	-	-	-
Stage 2	355	-	-	-	-	-

Approach	WB		NB		SB	
HCM Control Delay, s	25.1		0		0.5	
HCM LOS	D					

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	90	289	350	-
HCM Lane V/C Ratio	-	-	0.085	0.098	0.121	-
HCM Control Delay (s)	-	-	48.7	18.8	16.7	-
HCM Lane LOS	-	-	E	C	C	-
HCM 95th %tile Q(veh)	-	-	0.3	0.3	0.4	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↑↱		↰	↑↑
Traffic Vol, veh/h	20	31	1179	33	37	1368
Future Vol, veh/h	20	31	1179	33	37	1368
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	0	-	-	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	22	34	1282	36	40	1487

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2124	659	0	0	1318	0
Stage 1	1300	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	43	406	-	-	520	-
Stage 1	219	-	-	-	-	-
Stage 2	391	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	40	406	-	-	520	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	219	-	-	-	-	-
Stage 2	361	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	22.7	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	141	406	520	-
HCM Lane V/C Ratio	-	-	0.154	0.083	0.077	-
HCM Control Delay (s)	-	-	35.1	14.7	12.5	-
HCM Lane LOS	-	-	E	B	B	-
HCM 95th %tile Q(veh)	-	-	0.5	0.3	0.2	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	34	1613	36	54	1330
Future Vol, veh/h	16	34	1613	36	54	1330
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	0	-	-	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	17	37	1753	39	59	1446

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2614	896	0	0	1792	0
Stage 1	1773	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	20	283	-	-	341	-
Stage 1	121	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 17	283	-	-	341	-
Mov Cap-2 Maneuver	86	-	-	-	-	-
Stage 1	121	-	-	-	-	-
Stage 2	317	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.6	0	0.7
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	86	283	341	-
HCM Lane V/C Ratio	-	-	0.202	0.131	0.172	-
HCM Control Delay (s)	-	-	57.2	19.6	17.7	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	0.7	0.4	0.6	-

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	11	7	156	271	18
Future Vol, veh/h	13	11	7	156	271	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	12	8	170	295	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	491	305	315	0	-	0
Stage 1	305	-	-	-	-	-
Stage 2	186	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	537	735	1245	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	533	735	1245	-	-	-
Mov Cap-2 Maneuver	533	-	-	-	-	-
Stage 1	743	-	-	-	-	-
Stage 2	846	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.2	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1245	-	610	-	-
HCM Lane V/C Ratio	0.006	-	0.043	-	-
HCM Control Delay (s)	7.9	0	11.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	0.9					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	15	8	247	193	13
Future Vol, veh/h	22	15	8	247	193	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	16	9	268	210	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	503	217	224	0	-	0
Stage 1	217	-	-	-	-	-
Stage 2	286	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	528	823	1345	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	524	823	1345	-	-	-
Mov Cap-2 Maneuver	524	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	763	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1345	-	615	-	-
HCM Lane V/C Ratio	0.006	-	0.065	-	-
HCM Control Delay (s)	7.7	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	20	17	163	274	26
Future Vol, veh/h	20	20	17	163	274	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	22	18	177	298	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	525	312	326	0	-	0
Stage 1	312	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	513	728	1234	-	-	-
Stage 1	742	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	505	728	1234	-	-	-
Mov Cap-2 Maneuver	505	-	-	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1234	-	596	-	-
HCM Lane V/C Ratio	0.015	-	0.073	-	-
HCM Control Delay (s)	8	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection						
Int Delay, s/veh	1.2					

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	20	18	252	200	21
Future Vol, veh/h	26	20	18	252	200	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	-	-	-	-	-
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	28	22	20	274	217	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	543	229	240	0	-	0
Stage 1	229	-	-	-	-	-
Stage 2	314	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	501	810	1327	-	-	-
Stage 1	809	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	492	810	1327	-	-	-
Mov Cap-2 Maneuver	492	-	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	0.5	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1327	-	593	-	-
HCM Lane V/C Ratio	0.015	-	0.084	-	-
HCM Control Delay (s)	7.8	0	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	12	7	166	285	19
Future Vol, veh/h	14	12	7	166	285	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	13	8	180	310	21

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	517	321	331	0	-	0
Stage 1	321	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	518	720	1228	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	514	720	1228	-	-	-
Mov Cap-2 Maneuver	514	-	-	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	837	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1228	-	592	-	-
HCM Lane V/C Ratio	0.006	-	0.048	-	-
HCM Control Delay (s)	8	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	23	16	8	266	203	14
Future Vol, veh/h	23	16	8	266	203	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	17	9	289	221	15

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	536	229	236	0	-	0
Stage 1	229	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	505	810	1331	-	-	-
Stage 1	809	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	501	810	1331	-	-	-
Mov Cap-2 Maneuver	501	-	-	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1331	-	594	-	-
HCM Lane V/C Ratio	0.007	-	0.071	-	-
HCM Control Delay (s)	7.7	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	21	17	173	288	27
Future Vol, veh/h	21	21	17	173	288	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	23	18	188	313	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	552	328	342	0	-	0
Stage 1	328	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	495	713	1217	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	813	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	487	713	1217	-	-	-
Mov Cap-2 Maneuver	487	-	-	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	813	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.7	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1217	-	579	-	-
HCM Lane V/C Ratio	0.015	-	0.079	-	-
HCM Control Delay (s)	8	0	11.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	27	21	18	271	210	22
Future Vol, veh/h	27	21	18	271	210	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	23	20	295	228	24

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	575	240	252	0	-	0
Stage 1	240	-	-	-	-	-
Stage 2	335	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	480	799	1313	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	471	799	1313	-	-	-
Mov Cap-2 Maneuver	471	-	-	-	-	-
Stage 1	786	-	-	-	-	-
Stage 2	725	-	-	-	-	-

Approach	EB		NB		SB	
HCM Control Delay, s	11.9		0.5		0	
HCM LOS	B					

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1313	-	574	-	-
HCM Lane V/C Ratio	0.015	-	0.091	-	-
HCM Control Delay (s)	7.8	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	23	24	18	28	13	51	860	15	15	921	84
Future Volume (veh/h)	22	23	24	18	28	13	51	860	15	15	921	84
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	25	26	20	30	14	55	935	16	16	1001	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	63	66	76	65	25	458	2908	50	521	2680	244
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1362	840	873	315	864	330	516	3575	61	590	3294	299
Grp Volume(v), veh/h	24	0	51	64	0	0	55	465	486	16	540	552
Grp Sat Flow(s),veh/h/ln	1362	0	1713	1508	0	0	516	1777	1859	590	1777	1816
Q Serve(g_s), s	0.0	0.0	2.6	1.3	0.0	0.0	2.9	5.9	5.9	0.6	7.3	7.3
Cycle Q Clear(g_c), s	1.2	0.0	2.6	3.9	0.0	0.0	10.2	5.9	5.9	6.6	7.3	7.3
Prop In Lane	1.00		0.51	0.31		0.22	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	200	0	129	166	0	0	458	1445	1513	521	1445	1478
V/C Ratio(X)	0.12	0.00	0.39	0.39	0.00	0.00	0.12	0.32	0.32	0.03	0.37	0.37
Avail Cap(c_a), veh/h	484	0	487	504	0	0	458	1445	1513	521	1445	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	39.7	40.2	0.0	0.0	3.6	2.1	2.1	2.9	2.2	2.2
Incr Delay (d2), s/veh	0.3	0.0	2.0	1.5	0.0	0.0	0.5	0.6	0.6	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	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	0.0	1.1	1.4	0.0	0.0	0.3	1.3	1.4	0.1	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	41.6	41.6	0.0	0.0	4.2	2.7	2.7	3.1	3.0	3.0
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		75			64			1006			1108	
Approach Delay, s/veh		40.9			41.6			2.8			3.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		77.8		12.2		77.8		12.2				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		54.4		* 26		54.4		* 26				
Max Q Clear Time (g_c+I1), s		9.3		5.9		12.2		4.6				
Green Ext Time (p_c), s		18.4		0.2		15.8		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		5.2
HCM 6th LOS		A

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	24	51	64	55	951	16	1092
v/c Ratio	0.16	0.27	0.39	0.14	0.32	0.04	0.38
Control Delay	38.6	25.5	37.8	3.5	2.8	2.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	25.5	37.8	3.5	2.8	2.6	3.0
Queue Length 50th (ft)	13	13	27	5	57	1	68
Queue Length 95th (ft)	36	46	64	17	96	6	114
Internal Link Dist (ft)		562	808		238		245
Turn Bay Length (ft)							
Base Capacity (vph)	457	508	460	385	2931	451	2904
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.10	0.14	0.14	0.32	0.04	0.38

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	65	53	23	27	26	35	1219	22	19	953	53
Future Volume (veh/h)	63	65	53	23	27	26	35	1219	22	19	953	53
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	71	58	25	29	28	38	1325	24	21	1036	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	104	85	70	61	41	433	2785	50	343	2669	149
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	1346	952	778	161	562	375	515	3571	65	404	3421	192
Grp Volume(v), veh/h	68	0	129	82	0	0	38	659	690	21	538	556
Grp Sat Flow(s),veh/h/ln	1346	0	1730	1097	0	0	515	1777	1859	404	1777	1836
Q Serve(g_s), s	0.0	0.0	6.5	1.0	0.0	0.0	2.3	11.7	11.7	1.7	8.6	8.6
Cycle Q Clear(g_c), s	5.4	0.0	6.5	7.5	0.0	0.0	10.9	11.7	11.7	13.4	8.6	8.6
Prop In Lane	1.00		0.45	0.30		0.34	1.00		0.03	1.00		0.10
Lane Grp Cap(c), veh/h	204	0	188	172	0	0	433	1386	1450	343	1386	1432
V/C Ratio(X)	0.33	0.00	0.68	0.48	0.00	0.00	0.09	0.48	0.48	0.06	0.39	0.39
Avail Cap(c_a), veh/h	440	0	492	443	0	0	433	1386	1450	343	1386	1432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	0.0	38.6	38.1	0.0	0.0	4.8	3.5	3.5	5.8	3.1	3.1
Incr Delay (d2), s/veh	1.0	0.0	4.3	2.1	0.0	0.0	0.4	1.2	1.1	0.3	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	2.9	1.8	0.0	0.0	0.3	3.2	3.3	0.2	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	0.0	43.0	40.2	0.0	0.0	5.2	4.6	4.6	6.2	3.9	3.9
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		197			82			1387			1115	
Approach Delay, s/veh		41.6			40.2			4.6			4.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.8		15.2		74.8		15.2				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		54.4		* 26		54.4		* 26				
Max Q Clear Time (g_c+I1), s		15.4		9.5		13.7		8.5				
Green Ext Time (p_c), s		17.6		0.3		24.0		0.8				

Intersection Summary			
HCM 6th Ctrl Delay			8.0
HCM 6th LOS			A

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	68	129	82	38	1349	21	1094
v/c Ratio	0.42	0.54	0.45	0.11	0.49	0.08	0.40
Control Delay	44.4	32.5	33.0	3.9	4.7	3.9	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	32.5	33.0	3.9	4.7	3.9	4.0
Queue Length 50th (ft)	37	45	29	4	110	2	78
Queue Length 95th (ft)	74	95	69	15	189	10	137
Internal Link Dist (ft)		562	808		238		245
Turn Bay Length (ft)							
Base Capacity (vph)	400	527	417	351	2736	255	2724
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.24	0.20	0.11	0.49	0.08	0.40

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	26	24	28	35	28	51	870	19	21	930	91
Future Volume (veh/h)	30	26	24	28	35	28	51	870	19	21	930	91
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	33	28	26	30	38	30	55	946	21	23	1011	99
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	198	81	75	82	65	42	439	2837	63	501	2610	255
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.80	0.80	0.80	0.80	0.80	0.80
Sat Flow, veh/h	1333	892	829	330	716	461	508	3554	79	581	3270	320
Grp Volume(v), veh/h	33	0	54	98	0	0	55	473	494	23	549	561
Grp Sat Flow(s),veh/h/ln	1333	0	1721	1507	0	0	508	1777	1856	581	1777	1813
Q Serve(g_s), s	0.0	0.0	2.7	3.2	0.0	0.0	3.2	6.6	6.6	1.0	8.1	8.1
Cycle Q Clear(g_c), s	2.2	0.0	2.7	5.8	0.0	0.0	11.3	6.6	6.6	7.6	8.1	8.1
Prop In Lane	1.00		0.48	0.31		0.31	1.00		0.04	1.00		0.18
Lane Grp Cap(c), veh/h	198	0	156	189	0	0	439	1418	1482	501	1418	1447
V/C Ratio(X)	0.17	0.00	0.35	0.52	0.00	0.00	0.13	0.33	0.33	0.05	0.39	0.39
Avail Cap(c_a), veh/h	456	0	490	498	0	0	439	1418	1482	501	1418	1447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	0.0	38.4	39.9	0.0	0.0	4.3	2.5	2.5	3.5	2.7	2.7
Incr Delay (d2), s/veh	0.4	0.0	1.3	2.2	0.0	0.0	0.6	0.6	0.6	0.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.2	2.2	0.0	0.0	0.3	1.6	1.7	0.1	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	0.0	39.7	42.1	0.0	0.0	4.9	3.1	3.1	3.7	3.5	3.4
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		87			98			1022			1133	
Approach Delay, s/veh		39.3			42.1			3.2			3.5	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		76.4		13.6		76.4		13.6				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		54.4		* 26		54.4		* 26				
Max Q Clear Time (g_c+I1), s		10.1		7.8		13.3		4.7				
Green Ext Time (p_c), s		18.9		0.4		16.0		0.3				

Intersection Summary			
HCM 6th Ctrl Delay			6.3
HCM 6th LOS			A

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	54	98	55	967	23	1110
v/c Ratio	0.24	0.25	0.51	0.15	0.34	0.05	0.39
Control Delay	39.6	24.6	37.1	4.2	3.3	3.2	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	24.6	37.1	4.2	3.3	3.2	3.5
Queue Length 50th (ft)	18	15	40	6	65	2	78
Queue Length 95th (ft)	44	47	85	20	112	9	134
Internal Link Dist (ft)		562	808		238		245
Turn Bay Length (ft)							
Base Capacity (vph)	360	510	463	366	2884	433	2858
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.11	0.21	0.15	0.34	0.05	0.39

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	72	53	29	32	35	35	1229	31	33	958	57
Future Volume (veh/h)	71	72	53	29	32	35	35	1229	31	33	958	57
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	78	58	32	35	38	38	1336	34	36	1041	62
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	125	93	76	68	52	417	2704	69	326	2603	155
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1327	996	741	191	540	415	511	3541	90	396	3408	203
Grp Volume(v), veh/h	77	0	136	105	0	0	38	670	700	36	543	560
Grp Sat Flow(s),veh/h/ln	1327	0	1737	1145	0	0	511	1777	1854	396	1777	1834
Q Serve(g_s), s	0.0	0.0	6.7	2.2	0.0	0.0	2.5	12.9	12.9	3.4	9.4	9.4
Cycle Q Clear(g_c), s	6.8	0.0	6.7	8.9	0.0	0.0	11.8	12.9	12.9	16.3	9.4	9.4
Prop In Lane	1.00		0.43	0.30		0.36	1.00		0.05	1.00		0.11
Lane Grp Cap(c), veh/h	210	0	217	196	0	0	417	1357	1416	326	1357	1401
V/C Ratio(X)	0.37	0.00	0.63	0.54	0.00	0.00	0.09	0.49	0.49	0.11	0.40	0.40
Avail Cap(c_a), veh/h	422	0	494	441	0	0	417	1357	1416	326	1357	1401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	0.0	37.4	37.8	0.0	0.0	5.6	4.0	4.0	7.1	3.6	3.6
Incr Delay (d2), s/veh	1.1	0.0	2.9	2.3	0.0	0.0	0.4	1.3	1.2	0.7	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.0	2.4	0.0	0.0	0.3	3.7	3.9	0.3	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	0.0	40.3	40.1	0.0	0.0	6.1	5.3	5.3	7.8	4.5	4.5
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		213			105			1408			1139	
Approach Delay, s/veh		39.6			40.1			5.3			4.6	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		73.3		16.7		73.3		16.7				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		54.4		* 26		54.4		* 26				
Max Q Clear Time (g_c+I1), s		18.3		10.9		14.9		8.8				
Green Ext Time (p_c), s		17.7		0.4		24.0		0.9				

Intersection Summary			
HCM 6th Ctrl Delay			8.9
HCM 6th LOS			A

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	77	136	105	38	1370	36	1103
v/c Ratio	0.52	0.56	0.55	0.11	0.51	0.15	0.41
Control Delay	48.6	33.7	36.9	4.2	5.0	5.0	4.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	33.7	36.9	4.2	5.0	5.0	4.3
Queue Length 50th (ft)	42	51	39	4	118	4	84
Queue Length 95th (ft)	82	102	87	16	201	16	144
Internal Link Dist (ft)		562	808		238		245
Turn Bay Length (ft)							
Base Capacity (vph)	355	526	407	342	2712	245	2703
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.26	0.26	0.11	0.51	0.15	0.41

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	24	25	19	29	14	54	1113	16	16	1251	88
Future Volume (veh/h)	23	24	25	19	29	14	54	1113	16	16	1251	88
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	26	27	21	32	15	59	1210	17	17	1360	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	64	66	75	64	25	330	2917	41	406	2738	193
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1359	840	873	304	843	325	365	3588	50	454	3368	237
Grp Volume(v), veh/h	25	0	53	68	0	0	59	599	628	17	716	740
Grp Sat Flow(s),veh/h/ln	1359	0	1713	1472	0	0	365	1777	1861	454	1777	1828
Q Serve(g_s), s	0.0	0.0	2.7	1.6	0.0	0.0	5.4	8.6	8.6	1.0	11.3	11.5
Cycle Q Clear(g_c), s	1.3	0.0	2.7	4.3	0.0	0.0	16.9	8.6	8.6	9.5	11.3	11.5
Prop In Lane	1.00		0.51	0.31		0.22	1.00		0.03	1.00		0.13
Lane Grp Cap(c), veh/h	196	0	130	164	0	0	330	1445	1513	406	1445	1486
V/C Ratio(X)	0.13	0.00	0.41	0.41	0.00	0.00	0.18	0.41	0.41	0.04	0.50	0.50
Avail Cap(c_a), veh/h	449	0	449	465	0	0	330	1445	1513	406	1445	1486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	39.7	40.3	0.0	0.0	5.3	2.4	2.4	3.7	2.6	2.6
Incr Delay (d2), s/veh	0.3	0.0	2.1	1.7	0.0	0.0	1.2	0.9	0.8	0.2	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.2	1.5	0.0	0.0	0.5	2.0	2.1	0.1	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	41.7	42.0	0.0	0.0	6.5	3.3	3.2	3.9	3.8	3.8
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		78			68			1286			1473	
Approach Delay, s/veh		41.0			42.0			3.4			3.8	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		77.8		12.2		77.8		12.2
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4
Max Green Setting (Gmax), s		56.4		* 24		56.4		* 24
Max Q Clear Time (g_c+I1), s		13.5		6.3		18.9		4.7
Green Ext Time (p_c), s		26.9		0.2		21.4		0.3

Intersection Summary	
HCM 6th Ctrl Delay	5.5
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	25	53	68	59	1227	17	1456
v/c Ratio	0.16	0.28	0.40	0.24	0.42	0.05	0.50
Control Delay	38.7	25.4	37.9	5.6	3.3	2.9	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	25.4	37.9	5.6	3.3	2.9	3.8
Queue Length 50th (ft)	13	14	29	6	84	2	110
Queue Length 95th (ft)	36	47	67	24	140	7	183
Internal Link Dist (ft)		562	808		238		245
Turn Bay Length (ft)							
Base Capacity (vph)	408	471	426	249	2929	327	2907
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.16	0.24	0.42	0.05	0.50

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	68	56	24	28	27	37	1547	23	20	1224	56
Future Volume (veh/h)	66	68	56	24	28	27	37	1547	23	20	1224	56
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	74	61	26	30	29	40	1682	25	22	1330	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	107	88	70	63	42	327	2782	41	246	2686	123
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	1344	948	782	158	555	369	389	3584	53	287	3460	158
Grp Volume(v), veh/h	72	0	135	85	0	0	40	833	874	22	682	709
Grp Sat Flow(s),veh/h/ln	1344	0	1730	1082	0	0	389	1777	1861	287	1777	1842
Q Serve(g_s), s	0.0	0.0	6.8	1.1	0.0	0.0	3.8	17.8	17.9	3.2	12.5	12.6
Cycle Q Clear(g_c), s	5.9	0.0	6.8	7.9	0.0	0.0	16.4	17.8	17.9	21.0	12.5	12.6
Prop In Lane	1.00		0.45	0.31		0.34	1.00		0.03	1.00		0.09
Lane Grp Cap(c), veh/h	205	0	195	174	0	0	327	1379	1444	246	1379	1430
V/C Ratio(X)	0.35	0.00	0.69	0.49	0.00	0.00	0.12	0.60	0.61	0.09	0.49	0.50
Avail Cap(c_a), veh/h	401	0	448	400	0	0	327	1379	1444	246	1379	1430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	38.4	37.9	0.0	0.0	6.6	4.2	4.3	8.7	3.7	3.7
Incr Delay (d2), s/veh	1.0	0.0	4.4	2.1	0.0	0.0	0.8	2.0	1.9	0.7	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	3.1	1.9	0.0	0.0	0.3	5.0	5.2	0.2	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	0.0	42.8	40.0	0.0	0.0	7.4	6.2	6.1	9.4	4.9	4.9
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		207			85			1747			1413	
Approach Delay, s/veh		41.5			40.0			6.2			5.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.5		15.5		74.5		15.5				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		56.7		* 23		56.7		* 23				
Max Q Clear Time (g_c+I1), s		23.0		9.9		19.9		8.8				
Green Ext Time (p_c), s		22.1		0.3		29.3		0.8				
Intersection Summary												
HCM 6th Ctrl Delay			8.7									
HCM 6th LOS			A									

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	72	135	85	40	1707	22	1391
v/c Ratio	0.44	0.56	0.46	0.17	0.63	0.14	0.51
Control Delay	44.7	33.6	33.6	5.3	6.2	5.8	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	33.6	33.6	5.3	6.2	5.8	5.0
Queue Length 50th (ft)	39	49	31	5	171	2	118
Queue Length 95th (ft)	77	101	72	18	294	13	204
Internal Link Dist (ft)		562	808		238		245
Turn Bay Length (ft)							
Base Capacity (vph)	358	482	374	240	2726	155	2714
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.28	0.23	0.17	0.63	0.14	0.51

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	27	25	29	36	29	54	1123	20	22	1260	95
Future Volume (veh/h)	31	27	25	29	36	29	54	1123	20	22	1260	95
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	29	27	32	39	32	59	1221	22	24	1370	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	84	78	84	66	44	314	2837	51	388	2662	199
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	1329	891	830	335	698	466	359	3571	64	447	3351	251
Grp Volume(v), veh/h	34	0	56	103	0	0	59	607	636	24	724	749
Grp Sat Flow(s),veh/h/ln	1329	0	1721	1499	0	0	359	1777	1859	447	1777	1825
Q Serve(g_s), s	0.0	0.0	2.7	3.4	0.0	0.0	6.2	9.6	9.6	1.6	12.7	12.9
Cycle Q Clear(g_c), s	2.3	0.0	2.7	6.2	0.0	0.0	19.0	9.6	9.6	11.2	12.7	12.9
Prop In Lane	1.00		0.48	0.31		0.31	1.00		0.03	1.00		0.14
Lane Grp Cap(c), veh/h	199	0	162	194	0	0	314	1412	1477	388	1412	1450
V/C Ratio(X)	0.17	0.00	0.34	0.53	0.00	0.00	0.19	0.43	0.43	0.06	0.51	0.52
Avail Cap(c_a), veh/h	416	0	444	454	0	0	314	1412	1477	388	1412	1450
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	0.0	38.1	39.7	0.0	0.0	6.5	2.9	2.9	4.6	3.2	3.2
Incr Delay (d2), s/veh	0.4	0.0	1.3	2.3	0.0	0.0	1.3	1.0	0.9	0.3	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	1.2	2.3	0.0	0.0	0.5	2.5	2.5	0.2	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	0.0	39.4	42.0	0.0	0.0	7.9	3.8	3.8	4.9	4.5	4.5
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		90			103			1302			1497	
Approach Delay, s/veh		39.0			42.0			4.0			4.5	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		76.1		13.9		76.1		13.9				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		56.8		* 23		56.8		* 23				
Max Q Clear Time (g_c+I1), s		14.9		8.2		21.0		4.7				
Green Ext Time (p_c), s		27.1		0.4		21.1		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			6.6									
HCM 6th LOS			A									

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	34	56	103	59	1243	24	1473
v/c Ratio	0.24	0.26	0.52	0.25	0.43	0.08	0.52
Control Delay	39.4	24.3	37.9	6.7	4.0	3.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.4	24.3	37.9	6.7	4.0	3.7	4.6
Queue Length 50th (ft)	18	15	43	7	96	2	126
Queue Length 95th (ft)	45	48	89	28	165	11	215
Internal Link Dist (ft)		562	808		238		245
Turn Bay Length (ft)							
Base Capacity (vph)	317	465	420	233	2872	310	2854
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.12	0.25	0.25	0.43	0.08	0.52

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	75	56	30	33	36	37	1557	32	34	1229	60
Future Volume (veh/h)	74	75	56	30	33	36	37	1557	32	34	1229	60
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	82	61	33	36	39	40	1692	35	37	1336	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	129	96	76	69	53	313	2703	56	232	2619	127
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	1325	996	741	187	535	408	385	3560	73	281	3449	168
Grp Volume(v), veh/h	80	0	143	108	0	0	40	843	884	37	687	714
Grp Sat Flow(s),veh/h/ln	1325	0	1737	1130	0	0	385	1777	1857	281	1777	1840
Q Serve(g_s), s	0.0	0.0	7.0	2.2	0.0	0.0	4.1	19.5	19.7	6.3	13.7	13.7
Cycle Q Clear(g_c), s	7.3	0.0	7.0	9.2	0.0	0.0	17.8	19.5	19.7	26.0	13.7	13.7
Prop In Lane	1.00		0.43	0.31		0.36	1.00		0.04	1.00		0.09
Lane Grp Cap(c), veh/h	212	0	225	199	0	0	313	1349	1410	232	1349	1397
V/C Ratio(X)	0.38	0.00	0.63	0.54	0.00	0.00	0.13	0.62	0.63	0.16	0.51	0.51
Avail Cap(c_a), veh/h	429	0	510	450	0	0	313	1349	1410	232	1349	1397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	0.0	37.1	37.5	0.0	0.0	7.8	5.0	5.0	11.0	4.3	4.3
Incr Delay (d2), s/veh	1.1	0.0	2.9	2.3	0.0	0.0	0.8	2.2	2.1	1.5	1.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	3.1	2.4	0.0	0.0	0.4	5.8	6.1	0.5	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	0.0	40.1	39.8	0.0	0.0	8.6	7.2	7.1	12.4	5.6	5.6
LnGrp LOS	D	A	D	D	A	A	A	A	A	B	A	A
Approach Vol, veh/h		223			108			1767			1438	
Approach Delay, s/veh		39.5			39.8			7.2			5.8	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		72.9		17.1		72.9		17.1				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		53.6		* 26		53.6		* 26				
Max Q Clear Time (g_c+I1), s		28.0		11.2		21.7		9.3				
Green Ext Time (p_c), s		18.6		0.4		26.2		0.9				
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.

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	80	143	108	40	1727	37	1401
v/c Ratio	0.53	0.57	0.60	0.17	0.64	0.25	0.52
Control Delay	49.0	34.5	42.6	5.6	6.6	8.8	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	34.5	42.6	5.6	6.6	8.8	5.3
Queue Length 50th (ft)	44	55	46	5	182	5	124
Queue Length 95th (ft)	85	107	94	19	313	23	213
Internal Link Dist (ft)		562	808		238		245
Turn Bay Length (ft)							
Base Capacity (vph)	361	541	398	233	2705	148	2695
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.26	0.27	0.17	0.64	0.25	0.52

Intersection Summary

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	19	30	20	10	25	24	6	122	3	10	239	36
Future Vol, veh/h	19	30	20	10	25	24	6	122	3	10	239	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	33	22	11	27	26	7	133	3	11	260	39
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.3	8.7	10
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	28%	17%	4%
Vol Thru, %	93%	43%	42%	84%
Vol Right, %	2%	29%	41%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	131	69	59	285
LT Vol	6	19	10	10
Through Vol	122	30	25	239
RT Vol	3	20	24	36
Lane Flow Rate	142	75	64	310
Geometry Grp	1	1	1	1
Degree of Util (X)	0.182	0.102	0.086	0.376
Departure Headway (Hd)	4.606	4.916	4.842	4.369
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	777	727	738	824
Service Time	2.639	2.959	2.885	2.395
HCM Lane V/C Ratio	0.183	0.103	0.087	0.376
HCM Control Delay	8.7	8.5	8.3	10
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.3	0.3	1.8

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	74	91	22	3	28	26	13	160	10	22	177	13
Future Vol, veh/h	74	91	22	3	28	26	13	160	10	22	177	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	99	24	3	30	28	14	174	11	24	192	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.1	8.6	9.7	10.1
HCM LOS	B	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	40%	5%	10%
Vol Thru, %	87%	49%	49%	83%
Vol Right, %	5%	12%	46%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	183	187	57	212
LT Vol	13	74	3	22
Through Vol	160	91	28	177
RT Vol	10	22	26	13
Lane Flow Rate	199	203	62	230
Geometry Grp	1	1	1	1
Degree of Util (X)	0.269	0.285	0.086	0.309
Departure Headway (Hd)	4.871	5.047	4.986	4.835
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	732	705	710	737
Service Time	2.94	3.119	3.075	2.902
HCM Lane V/C Ratio	0.272	0.288	0.087	0.312
HCM Control Delay	9.7	10.1	8.6	10.1
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	1.1	1.2	0.3	1.3

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	26	35	25	10	27	29	8	127	3	15	244	39
Future Vol, veh/h	26	35	25	10	27	29	8	127	3	15	244	39
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	38	27	11	29	32	9	138	3	16	265	42
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	8.5	8.9	10.4
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	30%	15%	5%
Vol Thru, %	92%	41%	41%	82%
Vol Right, %	2%	29%	44%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	138	86	66	298
LT Vol	8	26	10	15
Through Vol	127	35	27	244
RT Vol	3	25	29	39
Lane Flow Rate	150	93	72	324
Geometry Grp	1	1	1	1
Degree of Util (X)	0.196	0.13	0.098	0.4
Departure Headway (Hd)	4.702	4.993	4.908	4.45
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	761	714	726	807
Service Time	2.749	3.048	2.964	2.488
HCM Lane V/C Ratio	0.197	0.13	0.099	0.401
HCM Control Delay	8.9	8.8	8.5	10.4
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.7	0.4	0.3	1.9

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	79	94	25	3	33	31	18	165	10	25	180	20
Future Vol, veh/h	79	94	25	3	33	31	18	165	10	25	180	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	86	102	27	3	36	34	20	179	11	27	196	22
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.5	8.8	10.1	10.5
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	40%	4%	11%
Vol Thru, %	85%	47%	49%	80%
Vol Right, %	5%	13%	46%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	193	198	67	225
LT Vol	18	79	3	25
Through Vol	165	94	33	180
RT Vol	10	25	31	20
Lane Flow Rate	210	215	73	245
Geometry Grp	1	1	1	1
Degree of Util (X)	0.289	0.307	0.105	0.333
Departure Headway (Hd)	4.964	5.127	5.182	4.903
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	715	693	695	724
Service Time	3.055	3.217	3.182	2.99
HCM Lane V/C Ratio	0.294	0.31	0.105	0.338
HCM Control Delay	10.1	10.5	8.8	10.5
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.2	1.3	0.4	1.5

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	20	32	21	11	26	25	6	130	3	11	251	38
Future Vol, veh/h	20	32	21	11	26	25	6	130	3	11	251	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	35	23	12	28	27	7	141	3	12	273	41
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	8.5	8.8	10.3
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	27%	18%	4%
Vol Thru, %	94%	44%	42%	84%
Vol Right, %	2%	29%	40%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	139	73	62	300
LT Vol	6	20	11	11
Through Vol	130	32	26	251
RT Vol	3	21	25	38
Lane Flow Rate	151	79	67	326
Geometry Grp	1	1	1	1
Degree of Util (X)	0.195	0.11	0.092	0.399
Departure Headway (Hd)	4.649	4.982	4.912	4.401
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	771	717	726	815
Service Time	2.69	3.033	2.964	2.435
HCM Lane V/C Ratio	0.196	0.11	0.092	0.4
HCM Control Delay	8.8	8.7	8.5	10.3
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.7	0.4	0.3	1.9

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	96	23	3	29	27	14	174	11	23	186	14
Future Vol, veh/h	78	96	23	3	29	27	14	174	11	23	186	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	85	104	25	3	32	29	15	189	12	25	202	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.5	8.7	10.1	10.4
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	40%	5%	10%
Vol Thru, %	87%	49%	49%	83%
Vol Right, %	6%	12%	46%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	199	197	59	223
LT Vol	14	78	3	23
Through Vol	174	96	29	186
RT Vol	11	23	27	14
Lane Flow Rate	216	214	64	242
Geometry Grp	1	1	1	1
Degree of Util (X)	0.296	0.305	0.092	0.33
Departure Headway (Hd)	4.931	5.127	5.192	4.9
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	720	694	695	727
Service Time	3.015	3.214	3.192	2.982
HCM Lane V/C Ratio	0.3	0.308	0.092	0.333
HCM Control Delay	10.1	10.5	8.7	10.4
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.2	1.3	0.3	1.4

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Vol, veh/h	27	37	26	11	28	30	8	135	3	16	256	41
Future Vol, veh/h	27	37	26	11	28	30	8	135	3	16	256	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	40	28	12	30	33	9	147	3	17	278	45
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.9	8.6	9.1	10.8
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	30%	16%	5%
Vol Thru, %	92%	41%	41%	82%
Vol Right, %	2%	29%	43%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	146	90	69	313
LT Vol	8	27	11	16
Through Vol	135	37	28	256
RT Vol	3	26	30	41
Lane Flow Rate	159	98	75	340
Geometry Grp	1	1	1	1
Degree of Util (X)	0.209	0.138	0.104	0.424
Departure Headway (Hd)	4.75	5.064	4.984	4.487
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	752	704	715	800
Service Time	2.801	3.123	3.047	2.529
HCM Lane V/C Ratio	0.211	0.139	0.105	0.425
HCM Control Delay	9.1	8.9	8.6	10.8
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.8	0.5	0.3	2.1

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✥			✥			✥			✥	
Traffic Vol, veh/h	83	99	26	3	34	32	19	179	11	26	189	21
Future Vol, veh/h	83	99	26	3	34	32	19	179	11	26	189	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	90	108	28	3	37	35	21	195	12	28	205	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11	9	10.5	10.8
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	40%	4%	11%
Vol Thru, %	86%	48%	49%	80%
Vol Right, %	5%	12%	46%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	209	208	69	236
LT Vol	19	83	3	26
Through Vol	179	99	34	189
RT Vol	11	26	32	21
Lane Flow Rate	227	226	75	257
Geometry Grp	1	1	1	1
Degree of Util (X)	0.317	0.334	0.11	0.354
Departure Headway (Hd)	5.142	5.313	5.302	5.084
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	704	681	679	713
Service Time	3.142	3.313	3.31	3.084
HCM Lane V/C Ratio	0.322	0.332	0.11	0.36
HCM Control Delay	10.5	11	9	10.8
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	1.4	1.5	0.4	1.6

Appendix F

Construction Analysis

TABLE F-1
EXISTING WITH CONSTRUCTION CONDITIONS (YEAR 2020)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Existing without Construction		Existing with Construction [a]	
			Delay	LOS	Delay	LOS
1. [b]	Vine Street & Leland Way	AM PM	14.4 19.8	B C	18.4 29.4	C D
3. [c]	Vine Street & De Longpre Avenue	AM PM	5.2 8.0	A A	6.2 14.2	A B

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10
[a] This analysis reflects the potential construction condition in which one northbound lane on Vine Street is removed during concrete pour.
[b] Intersection analysis based on the HCM 6th Edition Two-Way Stop Control Unsignalized methodology, which calculates the control delay, in seconds, for each individual approach of an intersection. The reported control delay represents the worst-case approach, and does not account for traffic gaps created by adjacent traffic signals.
[c] Intersection analysis based on HCM 6th Edition Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.

TABLE F-2
FUTURE WITH CONSTRUCTION CONDITIONS (YEAR 2025)
INTERSECTION LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Construction		Future with Construction [a]	
			Delay	LOS	Delay	LOS
1. [a]	Vine Street & Leland Way	AM PM	17.5 27.3	C D	25.0 49.5	C E
3. [b]	Vine Street & De Longpre Avenue	AM PM	5.5 8.7	A A	7.9 49.5	A D

Notes
Delay is measured in seconds per vehicle
LOS = Level of service
Results per Synchro 10
[a] This analysis reflects the potential construction condition in which one northbound lane on Vine Street is removed during concrete pour.
[b] Intersection analysis based on the HCM 6th Edition Two-Way Stop Control Unsignalized methodology, which calculates the control delay, in seconds, for each individual approach of an intersection. The reported control delay represents the worst-case approach, and does not account for traffic gaps created by adjacent traffic signals.
[c] Intersection analysis based on HCM 6th Edition Signalized methodology, which calculates the average intersection delay, in seconds, for each vehicle passing through the intersection.

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	16	909	14	20	1027
Future Vol, veh/h	4	16	909	14	20	1027
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	0	-	-	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	4	17	988	15	22	1116

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1598	996	0	0	1003	0
Stage 1	996	-	-	-	-	-
Stage 2	602	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	107	296	-	-	688	-
Stage 1	356	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	104	296	-	-	688	-
Mov Cap-2 Maneuver	235	-	-	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	495	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.4	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	235	296	688	-
HCM Lane V/C Ratio	-	-	0.019	0.059	0.032	-
HCM Control Delay (s)	-	-	20.6	17.9	10.4	-
HCM Lane LOS	-	-	C	C	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	25	1273	17	37	1041
Future Vol, veh/h	7	25	1273	17	37	1041
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	0	-	-	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	8	27	1384	18	40	1132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2039	1393	0	0	1402	0
Stage 1	1393	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	55	173	-	-	485	-
Stage 1	229	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	50	173	-	-	485	-
Mov Cap-2 Maneuver	158	-	-	-	-	-
Stage 1	229	-	-	-	-	-
Stage 2	445	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	29.4	0	0.4
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	158	173	485	-
HCM Lane V/C Ratio	-	-	0.048	0.157	0.083	-
HCM Control Delay (s)	-	-	28.9	29.6	13.1	-
HCM Lane LOS	-	-	D	D	B	-
HCM 95th %tile Q(veh)	-	-	0.2	0.5	0.3	-

Intersection						
Int Delay, s/veh	0.3					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	17	1164	15	21	1362
Future Vol, veh/h	4	17	1164	15	21	1362
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	0	-	-	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	4	18	1265	16	23	1480

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2059	1273	0	0	1281	0
Stage 1	1273	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	54	204	-	-	540	-
Stage 1	262	-	-	-	-	-
Stage 2	410	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	52	204	-	-	540	-
Mov Cap-2 Maneuver	166	-	-	-	-	-
Stage 1	262	-	-	-	-	-
Stage 2	392	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	166	204	540	-
HCM Lane V/C Ratio	-	-	0.026	0.091	0.042	-
HCM Control Delay (s)	-	-	27.3	24.4	12	-
HCM Lane LOS	-	-	D	C	B	-
HCM 95th %tile Q(veh)	-	-	0.1	0.3	0.1	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↰	↱	↱		↰	↑↑
Traffic Vol, veh/h	7	26	1604	18	39	1316
Future Vol, veh/h	7	26	1604	18	39	1316
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	0	-	-	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	8	28	1743	20	42	1430

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2552	1753	0	0	1763	0
Stage 1	1753	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	25	105	-	-	352	-
Stage 1	152	-	-	-	-	-
Stage 2	404	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	22	105	-	-	352	-
Mov Cap-2 Maneuver	105	-	-	-	-	-
Stage 1	152	-	-	-	-	-
Stage 2	356	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	49.5	0	0.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	105	105	352	-
HCM Lane V/C Ratio	-	-	0.072	0.269	0.12	-
HCM Control Delay (s)	-	-	41.9	51.5	16.6	-
HCM Lane LOS	-	-	E	F	C	-
HCM 95th %tile Q(veh)	-	-	0.2	1	0.4	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	23	24	18	28	13	51	860	15	15	921	84
Future Volume (veh/h)	22	23	24	18	28	13	51	860	15	15	921	84
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	25	26	20	30	14	55	935	16	16	1001	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	200	63	66	76	65	25	458	1522	1289	450	2680	244
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1362	840	873	315	864	330	516	1870	1585	590	3294	299
Grp Volume(v), veh/h	24	0	51	64	0	0	55	935	16	16	540	552
Grp Sat Flow(s),veh/h/ln	1362	0	1713	1508	0	0	516	1870	1585	590	1777	1816
Q Serve(g_s), s	0.0	0.0	2.6	1.3	0.0	0.0	2.9	16.8	0.2	0.9	7.3	7.3
Cycle Q Clear(g_c), s	1.2	0.0	2.6	3.9	0.0	0.0	10.2	16.8	0.2	17.7	7.3	7.3
Prop In Lane	1.00		0.51	0.31		0.22	1.00		1.00	1.00		0.16
Lane Grp Cap(c), veh/h	200	0	129	166	0	0	458	1522	1289	450	1445	1478
V/C Ratio(X)	0.12	0.00	0.39	0.39	0.00	0.00	0.12	0.61	0.01	0.04	0.37	0.37
Avail Cap(c_a), veh/h	445	0	438	457	0	0	458	1522	1289	450	1445	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	39.7	40.2	0.0	0.0	3.6	3.1	1.6	6.4	2.2	2.2
Incr Delay (d2), s/veh	0.3	0.0	2.0	1.5	0.0	0.0	0.5	1.9	0.0	0.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	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	0.0	1.1	1.4	0.0	0.0	0.3	4.1	0.0	0.1	1.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	41.6	41.6	0.0	0.0	4.2	5.0	1.6	6.6	3.0	3.0
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		75			64			1006			1108	
Approach Delay, s/veh		40.9			41.6			4.9			3.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		77.8		12.2		77.8		12.2				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		57.0		* 23		57.0		* 23				
Max Q Clear Time (g_c+I1), s		19.7		5.9		18.8		4.6				
Green Ext Time (p_c), s		17.0		0.2		18.7		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			6.2									
HCM 6th LOS			A									

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	24	51	64	55	935	16	16	1092
v/c Ratio	0.16	0.27	0.39	0.14	0.60	0.01	0.04	0.38
Control Delay	38.6	25.5	37.8	3.5	5.9	0.5	2.7	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	25.5	37.8	3.5	5.9	0.5	2.7	3.0
Queue Length 50th (ft)	13	13	27	5	158	0	1	68
Queue Length 95th (ft)	36	46	64	17	311	3	6	114
Internal Link Dist (ft)		562	808		238			245
Turn Bay Length (ft)								
Base Capacity (vph)	410	459	414	385	1547	1319	399	2904
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.15	0.14	0.60	0.01	0.04	0.38

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↱			✣		↰	↑	↱	↰	↑↱	
Traffic Volume (veh/h)	63	65	53	23	27	26	35	1219	22	19	953	53
Future Volume (veh/h)	63	65	53	23	27	26	35	1219	22	19	953	53
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	71	58	25	29	28	38	1325	24	21	1036	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	103	85	70	61	41	433	1459	1237	180	2669	149
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	1346	952	778	160	560	374	515	1870	1585	404	3421	192
Grp Volume(v), veh/h	68	0	129	82	0	0	38	1325	24	21	538	556
Grp Sat Flow(s),veh/h/ln	1346	0	1730	1094	0	0	515	1870	1585	404	1777	1836
Q Serve(g_s), s	0.0	0.0	6.5	1.1	0.0	0.0	2.3	48.1	0.3	3.7	8.6	8.6
Cycle Q Clear(g_c), s	5.4	0.0	6.5	7.5	0.0	0.0	10.9	48.1	0.3	51.8	8.6	8.6
Prop In Lane	1.00		0.45	0.30		0.34	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	203	0	188	171	0	0	433	1459	1237	180	1386	1432
V/C Ratio(X)	0.33	0.00	0.69	0.48	0.00	0.00	0.09	0.91	0.02	0.12	0.39	0.39
Avail Cap(c_a), veh/h	401	0	442	398	0	0	433	1459	1237	180	1386	1432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	0.0	38.6	38.2	0.0	0.0	4.8	7.5	2.2	27.0	3.1	3.1
Incr Delay (d2), s/veh	1.0	0.0	4.4	2.1	0.0	0.0	0.4	9.8	0.0	1.3	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	2.9	1.8	0.0	0.0	0.3	15.8	0.1	0.4	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	0.0	43.0	40.2	0.0	0.0	5.2	17.3	2.2	28.3	3.9	3.9
LnGrp LOS	D	A	D	D	A	A	A	B	A	C	A	A
Approach Vol, veh/h		197			82			1387			1115	
Approach Delay, s/veh		41.7			40.2			16.7			4.4	
Approach LOS		D			D			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.8		15.2		74.8		15.2				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		57.0		* 23		57.0		* 23				
Max Q Clear Time (g_c+I1), s		53.8		9.5		50.1		8.5				
Green Ext Time (p_c), s		2.6		0.3		6.5		0.7				

Intersection Summary			
HCM 6th Ctrl Delay			14.2
HCM 6th LOS			B

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	68	129	82	38	1325	24	21	1094
v/c Ratio	0.42	0.54	0.44	0.11	0.92	0.02	0.26	0.40
Control Delay	44.3	33.1	32.8	3.9	21.4	1.1	12.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	33.1	32.8	3.9	21.4	1.1	12.8	4.1
Queue Length 50th (ft)	37	46	29	4	445	0	3	79
Queue Length 95th (ft)	74	96	69	15	#1026	5	19	138
Internal Link Dist (ft)		562	808		238			245
Turn Bay Length (ft)								
Base Capacity (vph)	359	476	380	349	1443	1232	81	2722
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.27	0.22	0.11	0.92	0.02	0.26	0.40

Intersection Summary

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	24	25	19	29	14	54	1113	16	16	1251	88
Future Volume (veh/h)	23	24	25	19	29	14	54	1113	16	16	1251	88
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	25	26	27	21	32	15	59	1210	17	17	1360	96
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	196	64	66	75	64	25	330	1521	1289	294	2738	193
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	1359	840	873	304	843	325	365	1870	1585	454	3368	237
Grp Volume(v), veh/h	25	0	53	68	0	0	59	1210	17	17	716	740
Grp Sat Flow(s),veh/h/ln	1359	0	1713	1472	0	0	365	1870	1585	454	1777	1828
Q Serve(g_s), s	0.0	0.0	2.7	1.6	0.0	0.0	5.4	30.8	0.2	1.9	11.3	11.5
Cycle Q Clear(g_c), s	1.3	0.0	2.7	4.3	0.0	0.0	16.9	30.8	0.2	32.7	11.3	11.5
Prop In Lane	1.00		0.51	0.31		0.22	1.00		1.00	1.00		0.13
Lane Grp Cap(c), veh/h	196	0	130	164	0	0	330	1521	1289	294	1445	1486
V/C Ratio(X)	0.13	0.00	0.41	0.41	0.00	0.00	0.18	0.80	0.01	0.06	0.50	0.50
Avail Cap(c_a), veh/h	440	0	438	454	0	0	330	1521	1289	294	1445	1486
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	39.7	40.3	0.0	0.0	5.3	4.5	1.6	13.1	2.6	2.6
Incr Delay (d2), s/veh	0.3	0.0	2.1	1.7	0.0	0.0	1.2	4.4	0.0	0.4	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.2	1.5	0.0	0.0	0.5	8.0	0.0	0.2	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.3	0.0	41.7	42.0	0.0	0.0	6.5	8.8	1.6	13.5	3.8	3.8
LnGrp LOS	D	A	D	D	A	A	A	A	A	B	A	A
Approach Vol, veh/h		78			68			1286			1473	
Approach Delay, s/veh		41.0			42.0			8.6			4.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		77.8		12.2		77.8		12.2				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		57.0		* 23		57.0		* 23				
Max Q Clear Time (g_c+I1), s		34.7		6.3		32.8		4.7				
Green Ext Time (p_c), s		16.8		0.2		19.3		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			7.9									
HCM 6th LOS			A									

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	25	53	68	59	1210	17	17	1456
v/c Ratio	0.16	0.28	0.40	0.24	0.78	0.01	0.08	0.50
Control Delay	38.7	25.4	37.9	5.6	10.8	0.6	3.4	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	25.4	37.9	5.6	10.8	0.6	3.4	3.8
Queue Length 50th (ft)	13	14	29	6	297	0	2	110
Queue Length 95th (ft)	36	47	67	24	#662	3	8	183
Internal Link Dist (ft)		562	808		238			245
Turn Bay Length (ft)								
Base Capacity (vph)	398	459	416	249	1544	1317	218	2908
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.12	0.16	0.24	0.78	0.01	0.08	0.50

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	68	56	24	28	27	37	1547	23	20	1224	56
Future Volume (veh/h)	66	68	56	24	28	27	37	1547	23	20	1224	56
Initial Q (Qb), veh	0	0	0	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	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	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	74	61	26	30	29	40	1682	25	22	1330	61
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	107	88	70	63	42	327	1452	1230	80	2686	123
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.78	0.78	0.78	0.78	0.78	0.78
Sat Flow, veh/h	1344	948	782	157	555	369	389	1870	1585	287	3460	158
Grp Volume(v), veh/h	72	0	135	85	0	0	40	1682	25	22	682	709
Grp Sat Flow(s),veh/h/ln	1344	0	1730	1082	0	0	389	1870	1585	287	1777	1842
Q Serve(g_s), s	0.0	0.0	6.8	1.1	0.0	0.0	3.8	69.9	0.3	0.0	12.5	12.6
Cycle Q Clear(g_c), s	5.9	0.0	6.8	7.9	0.0	0.0	16.4	69.9	0.3	69.9	12.5	12.6
Prop In Lane	1.00		0.45	0.31		0.34	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	205	0	195	174	0	0	327	1452	1230	80	1379	1430
V/C Ratio(X)	0.35	0.00	0.69	0.49	0.00	0.00	0.12	1.16	0.02	0.27	0.49	0.50
Avail Cap(c_a), veh/h	397	0	442	395	0	0	327	1452	1230	80	1379	1430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	38.4	37.9	0.0	0.0	6.6	10.1	2.3	45.0	3.7	3.7
Incr Delay (d2), s/veh	1.0	0.0	4.4	2.1	0.0	0.0	0.8	79.5	0.0	8.3	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	3.1	1.9	0.0	0.0	0.3	49.7	0.1	0.7	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	0.0	42.8	40.1	0.0	0.0	7.4	89.6	2.3	53.3	4.9	4.9
LnGrp LOS	D	A	D	D	A	A	A	F	A	D	A	A
Approach Vol, veh/h		207			85			1747			1413	
Approach Delay, s/veh		41.5			40.1			86.4			5.7	
Approach LOS		D			D			F			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		74.5		15.5		74.5		15.5				
Change Period (Y+Rc), s		4.6		* 5.4		4.6		* 5.4				
Max Green Setting (Gmax), s		57.0		* 23		57.0		* 23				
Max Q Clear Time (g_c+I1), s		71.9		9.9		71.9		8.8				
Green Ext Time (p_c), s		0.0		0.3		0.0		0.8				

Intersection Summary			
HCM 6th Ctrl Delay			49.5
HCM 6th LOS			D

Notes

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

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	72	135	85	40	1682	25	22	1391
v/c Ratio	0.44	0.56	0.46	0.17	1.17	0.02	0.27	0.51
Control Delay	44.7	33.6	33.6	5.3	99.8	1.2	13.3	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	33.6	33.6	5.3	99.8	1.2	13.3	5.0
Queue Length 50th (ft)	39	49	31	5	~1147	0	3	118
Queue Length 95th (ft)	77	101	72	18	#1466	6	21	204
Internal Link Dist (ft)		562	808		238			245
Turn Bay Length (ft)								
Base Capacity (vph)	354	476	369	240	1437	1228	83	2714
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.28	0.23	0.17	1.17	0.02	0.27	0.51

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.