Appendix H

Transportation Study

TRANSPORTATION STUDY FOR THE ARTS CLUB WEST HOLLYWOOD PROJECT

WEST HOLLYWOOD, CALIFORNIA

SEPTEMBER 2017

PREPARED FOR

CITY OF WEST HOLLYWOOD

PREPARED BY

Gibson transportation consulting, inc.

TRANSPORTATION STUDY
FOR THE
ARTS CLUB
WEST HOLLYWOOD PROJECT

WEST HOLLYWOOD, CALIFORNIA

September 2017

Prepared for:

CITY OF WEST HOLLYWOOD

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Chapter 1
Introduction

The transportation analysis described in this study has been prepared for the Arts Club West Hollywood Project (Project). The report identifies the assumptions, describes the methodologies, and summarizes the findings of the study. The methodology and assumptions used in this analysis were established in conjunction with the City of West Hollywood (the City).

PROJECT LOCATION

The Project is located at 8920 Sunset Boulevard (Project Site), at the southeast corner of Hilldale Avenue and Sunset Boulevard. The Project Site is bound by Sunset Boulevard to the north, commercial uses to the east, multi-family residential developments to the south, and Hilldale Avenue to the west. Access to the Project Site is provided via a driveway located along Hilldale Avenue. The Project Site lies within an urbanized area consisting of residential, retail, and commercial uses.

PROJECT DESCRIPTION

The Project proposes the demolition of an existing two-story commercial building containing retail, office, and fitness studio uses and the development of a new nine-story, 132,000 square foot (sf) multi-use commercial building. The Project would be considered the United States West Coast location of the Arts Club, a membership club founded in London. The Arts Club includes restaurants, lounges, private dining, guestrooms, and a fitness/spa, which would occupy Levels 5 through 9, with an outdoor pool and deck on the Pool Terrace/Level 9. Levels 5 through 9 would be accessible only to Arts Club members and guests.

The Project also contains commercial uses open to the public on Levels 1 through 4, which would include 11,933 sf of retail space, a 2,192 sf art gallery, and 46,009 sf of office uses. Parking for

the Project would be valet-operated and up to 354 parking spaces would be provided within an automated five-level subterranean garage.

Figure 1 illustrates the site plan of the proposed Project.

Site Access and Circulation

Vehicular access to the Project Site would be provided via a single full access driveway on Hilldale Avenue. The driveway would also provide access to the valet-operated, automated parking portals, which would automatically transport vehicles to the parking spaces within the subterranean parking levels. The driveway would also provide access to the building loading dock area on Hilldale Avenue.

STUDY SCOPE AND METHODOLOGY

This traffic study has been prepared in accordance with City guidelines, adopted policies, procedures, and standards detailed in *Traffic Study Thresholds* (City of West Hollywood Community Development Department, October 2009), and provides a comprehensive analysis of the potential traffic impacts associated with the Project. The scope for the traffic analysis was developed in consultation with the City, in coordination with adjacent jurisdictions, and in consideration of input received during the public scoping process. The assumptions and technical methodologies were identified as part of the study approach, which was reviewed and approved by the City.

As described in more detail below, the study analyzed the potential Project-generated traffic impacts on the street system surrounding the Project Site as compared to Existing Conditions (year 2016) and Future Conditions (year 2020). Intersection traffic impacts for the Project were evaluated for typical weekday morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak periods. A total of eight intersections in the vicinity of the Project Site were selected for detailed traffic analysis in coordination with City staff. The analysis of future year traffic forecasts was conducted for full buildout of the Project and is based on projected conditions in year 2020 both with and without the addition of the Project's traffic.

Accordingly, the following traffic scenarios were developed and analyzed as part of this study:

- Existing Conditions (Year 2016) – The analysis of existing traffic conditions provides a basis for the assessment of existing and future traffic conditions with the addition of Project traffic. The Existing Conditions analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Project Site vicinity. The Existing Conditions in this traffic study reflect conditions at the time the Notice of Preparation (NOP) was issued in April 2016. Intersection turning movement counts for typical weekday morning and afternoon peak periods and fieldwork (lane configurations and signal phasing) for the analyzed intersections were collected in 2015. Traffic counts collected in year 2015 were utilized due to atypical traffic conditions as a result of ongoing construction activities on Sunset Boulevard during the time of the NOP (year 2016). The City typically allows for the utilization of traffic counts conducted within two years of the NOP, as the City has determined that traffic patterns are generally consistent over a two-year period if no significant changes (e.g., roadway improvements, construction activities, etc.) have occurred. To provide a conservative analysis, an ambient traffic growth rate of 1% was applied to the traffic counts to reflect regional growth and development between year 2015 and the existing year 2016.

- Existing with Project Conditions (Year 2016) – This scenario projects the potential intersection operating conditions that could be expected if the Project were built given the existing street system and traffic volumes. In this scenario, the proposed Project-generated traffic is added to the Existing Conditions (year 2016) traffic volumes.

- Future without Project Conditions (Year 2020) – This scenario projects the potential intersection operating conditions that could be expected as a result of regional growth and related project traffic in the vicinity of the Project Site by year 2020. This analysis provides the baseline conditions by which Project impacts are evaluated in the future at full buildout. In addition, an annual ambient growth factor of 1% was applied to Existing Conditions traffic volumes to reflect regional growth and development between Existing Conditions (year 2016) and full Project buildout (year 2020).

- Future with Project Conditions (Year 2020) – This scenario projects the potential intersection operating conditions that could be expected if the Project were built in the projected buildout year (2020) by adding the Project traffic to the Future without Project Conditions (year 2020) traffic volumes. In addition, an annual ambient growth factor of 1% was applied to traffic counts to reflect regional growth and development between Existing Conditions (year 2016) and full Project buildout (year 2020).

Intersection Capacity Analyses

Intersection capacity was analyzed using the methods prescribed by the City.

In accordance with City policy, the intersection capacity analysis was conducted using the Synchro software to implement the *2010 Highway Capacity Manual* (Transportation Research

Board, 2010) (HCM) signalized and unsignalized methodologies. The HCM signalized methodology calculates the average delay, in seconds, for each vehicle passing through the intersections, while the HCM unsignalized methodology calculates the control delay, in seconds, for the movement with the worst level of service (LOS) at each intersection. Table 1 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 both signalized and unsignalized intersections.

Significant Impact Criteria

The City has adopted a sliding scale for determining significant traffic impacts to intersections. The significant impact criteria are based on a minimum allowable increase in delay attributable to a project as the overall LOS of the intersection decreases:

Intersection Conditions with Project Traffic		**Project-Related Increase of Delay (seconds)**
Level of Service	**Intersection Delay (seconds)**	
Signalized Intersection of Two Commercial Corridors		
D	35.1 - 55.0	≥ 12.0
E or F	> 55.0	≥ 8.0
Other Signalized Intersection		
D	35.1 - 55.0	≥ 8.0
E or F	> 55.0	≥ 5.0
Four-Way Stop-Controlled Intersection		
D	25.1 - 35.0	≥ 8.0
E or F	> 35.0	≥ 5.0
Unsignalized (Two-Way/One-Way Stop-Controlled) Intersection		
D, E or F	> 25.0	≥ 5.0

Source: Traffic Study Thresholds, *City of West Hollywood Community Development Department, October 2009.*

Congestion Management Program Analysis

An analysis also was conducted according to Los Angeles County (County) Congestion Management Program (CMP) guidelines. The CMP is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program (RTIP) and State Transportation Improvement Program (STIP) processes. The CMP requires that a Traffic Impact Analysis (TIA) be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hours and all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. Additionally, it requires a review of potential impacts to the regional transit system.

State of California Senate Bill No. 743

Senate Bill 743 (SB 743) (Steinberg, 2013), made effective in January 2014, requires the Governor's Office of Planning and Research to change the California Environmental Quality Act (CEQA) guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of greenhouse gas emissions (GHG), creation of multimodal networks and promotion mixed-use developments. Although originally scheduled to be fully implemented in guidelines by January 1, 2016, an extension has allowed cities more time to establish an analysis methodology.

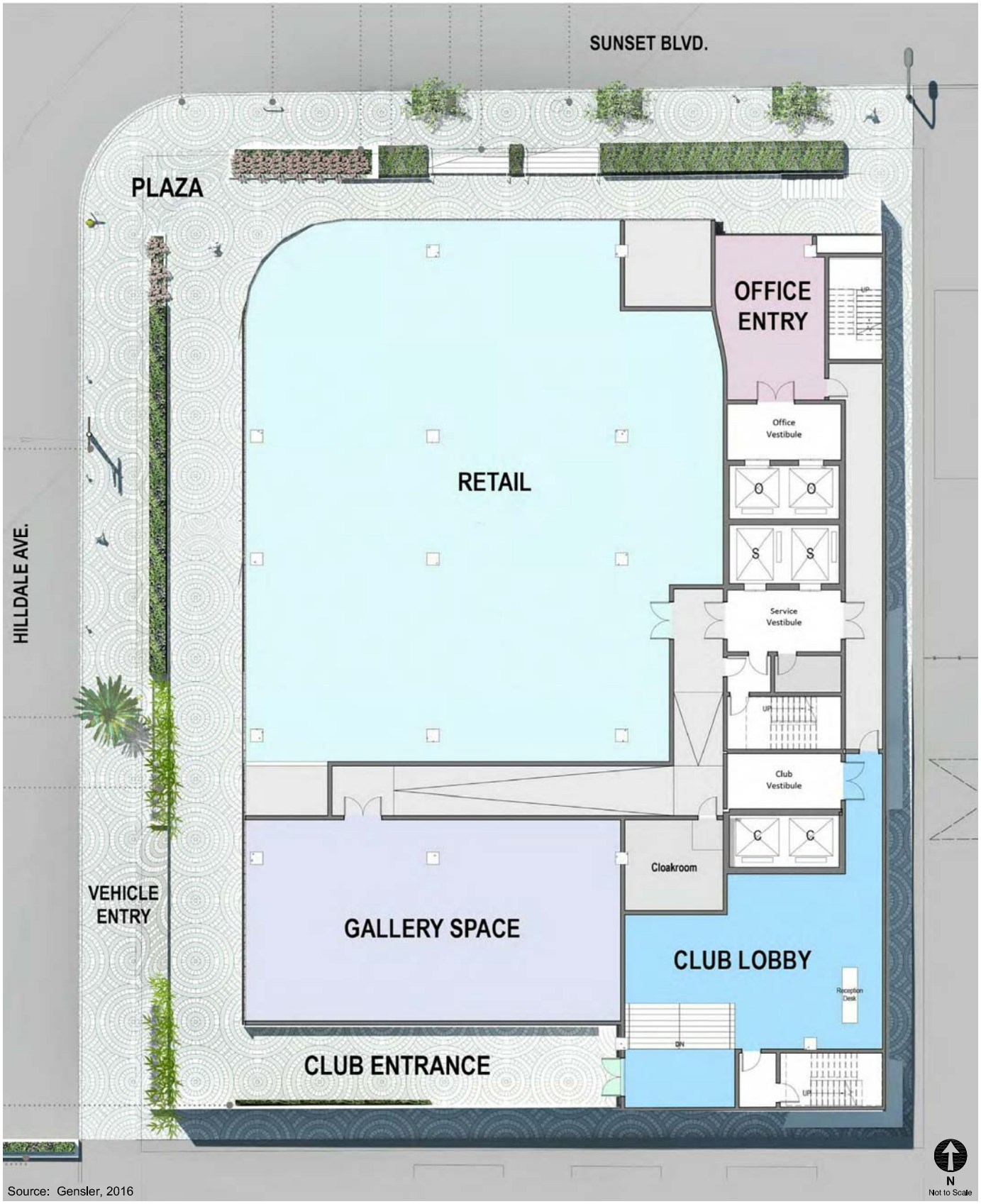
The Project's transportation characteristics (e.g., its location, proximity to transit, access to other nearby destinations, pedestrian connections, bicycle amenities, etc.) would encourage non-auto modes of transportation such as walking, bicycling, carpool, transit, etc. and, therefore, would reduce vehicle miles traveled (VMT) to the Project Site and associated transportation-related GHG emissions.

The Project Site represents an urban/compact infill location within the City served by numerous transit lines and is located along the major corridor of Sunset Boulevard. The location efficiency of the Project Site would result in synergistic benefits that would reduce vehicle trips and VMT. Further, the Project would be located within an area that offers access to other nearby retail and

entertainment destinations. Access to on-site uses would be provided from existing pedestrian pathways, as well as from adequate bicycle parking. Streets within a half-mile of the Project Site are equipped with sidewalks and intersections include marked crosswalks and/or countdown signal timers. The combined effects of these factors would reduce the Project's anticipated vehicle trips by encouraging walking and other non-auto forms of transportation, which would result in corresponding reductions in VMT and transportation-related emissions, as compared to developments that do not benefit from the same transportation characteristics.

ORGANIZATION OF REPORT

This report is divided into nine chapters, including this introduction. Chapter 2 describes Existing Conditions, including the existing circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 3 presents the development of Future without Project operating conditions. Chapter 4 describes the procedure used to forecast Project traffic volumes and distribution through the Study Area. Chapter 5 presents the intersection operating conditions associated with the Existing with Project Conditions. Chapter 6 presents the intersection operating conditions associated with the Future with Project Conditions. Chapter 7 presents the CMP analyses. Chapter 8 presents an assessment of potential impacts associated with construction traffic. Chapter 9 presents an analysis of the Project's proposed parking supply. Chapter 10 summarizes the analyses and study conclusions. The aforementioned additional analyses, as well as details of the technical analyses, are included in the appendices.



Source: Gensler, 2016

SITE PLAN

FIGURE 1

TABLE 1

LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS

Level of Service	Signalized Intersection Delay (sec)	Unsignalized Intersection Delay (sec)	Definition
A	0.0 - 10.0	0.0 - 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	10.1 - 20.0	10.1 - 15.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	20.1 - 35.0	15.1 - 25.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	35.1 - 55.0	25.1 - 35.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	55.1 - 80.0	35.1 - 50.0	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 80.0	> 50.0	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source

Highway Capacity Manual 2000, Transportation Research Board, 2000.

Chapter 2
Existing Conditions

A comprehensive data collection effort was undertaken to develop a detailed description of Existing Conditions in the traffic analysis Study Area. The Existing Conditions analysis includes an assessment of the existing street system, an analysis of traffic volumes and current operating conditions, and an analysis of the existing public transit service.

STUDY AREA

This Study Area was established in consultation with the City and by reviewing the existing intersection/corridor operations, Project peak hour vehicle trip generation, the anticipated distribution of Project vehicular trips, and the potential impacts of Project traffic.

A traffic analysis study area generally comprises those locations with the greatest potential to experience significant traffic impacts due to the project as defined by the lead agency. In the traffic engineering practice, a study area generally includes those intersections that are:

1. Immediately adjacent or in close proximity to the project site
2. In the vicinity of the project site that are documented to have current or projected future adverse operational issues
3. In the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections)

The Project Study Area was designed to ensure that all potentially significantly impacted intersections, prior to any mitigation, were analyzed, and the boundary of the Study Area was extended, as necessary, to confirm that there were no significant impacts at or beyond the boundary of the Study Area by reviewing the Project traffic's travel patterns. As detailed later in this traffic study, the study intersections on the Study Area periphery are not anticipated to be significantly impacted by the Project and, thus, the analyzed locations are considered to be

adequate such that no additional significant impacts are anticipated to occur beyond the Study Area.

The intersections selected for analysis are consistent with the above criteria. The study locations were also selected based on the Project vehicle trip generation, the anticipated distribution of the Project trips, existing intersection/corridor operations, and travel routes/patterns to and from the Project. Several additional study locations were considered, but were not selected for analysis as they did not meet the criteria listed above. These intersections accommodated little, if any, Project-related traffic volumes/vehicular turning movements, were located a farther distance from the Project Site with relatively lower traffic volumes on the minor approach, and have no documented existing or projected future adverse operational issues.

A total of eight intersections in the Study Area, seven signalized and one unsignalized, were identified during the scoping process for detailed analysis in the traffic study. Figure 2 illustrates the location of the Project Site in relation to the surrounding street system and eight study intersections.

The eight intersections selected for evaluation are:

1. Doheny Drive & Sunset Boulevard (signalized)
2. Hammond Street & Sunset Boulevard (signalized)
3. Hilldale Avenue & Sunset Boulevard (unsignalized)
4. Clark Street/San Vicente Boulevard & Sunset Boulevard (signalized)
5. Horn Avenue/Holloway Drive & Sunset Boulevard (signalized)
6. San Vicente Boulevard & Cynthia Street (signalized)
7. Doheny Drive & Santa Monica Boulevard/Melrose Avenue (signalized)
8. San Vicente Boulevard & Santa Monica Boulevard (signalized)

EXISTING STREET SYSTEM

The existing street system in the Study Area consists of a regional roadway system including arterials, secondary/collector and local streets. The arterials, secondary/collectors, and selected local streets in the Study Area offer sub-regional and local access and circulation opportunities.

These transportation facilities generally provide two to four travel lanes and generally allow parking on either side of the street. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the arterials, secondary/collector, and local streets.

Roadway Descriptions

Primary regional access to the Project Site is provided by the Hollywood Freeway (US 101), the Santa Monica Freeway (I-10), and the San Diego Freeway (I-405). US 101 is located approximately 3.25 miles east of the Project Site, with access provided via an interchange at Highland Avenue. I-10 is located approximately 3.5 miles to the south of the Project Site, with access provided via interchanges at Robertson Boulevard and La Cienega Boulevard. I-405 is located approximately 4.5 miles to the west of the Project Site, with access provided via interchanges at Sunset Boulevard and Santa Monica Boulevard.

The major arterials providing regional and sub-regional access to the Project Site include Sunset Boulevard, San Vicente Boulevard, and Santa Monica Boulevard. The street classifications were designated as defined in *West Hollywood General Plan 2035* (City of West Hollywood, 2011). The following is a brief description of the major streets in the Study Area:

- Doheny Drive – Doheny Drive is a designated Collector Street that runs in the north-south direction and is located west of the Project Site. It provides local and sub-regional access to the Project Site, with two travel lanes, one in each direction, and left turns at intersections within the Study Area. Two-hour and four-hour metered parking with parking prohibited between 4:00 AM and 7:00 AM is generally provided north of Sunset Boulevard and unmetered daytime parking (parking permits exempt) is available between Sunset Boulevard and Phyllis Avenue. Doheny Drive is under the shared jurisdiction of the Cities of West Hollywood and Beverly Hills south of Phyllis Avenue. Therefore, the parking restrictions on the east and west side of the street are enforced by the City of West Hollywood and the City of Beverly Hills, respectively. On the east side of the street, unmetered parking (with nighttime prohibitions, except by parking permit) is provided between Phyllis Avenue and Keith Street, unmetered parking is provided between Keith Street and Nemo Street, and metered two-hour daytime parking is generally available south of Nemo Street. On the west side of the street, unmetered one-hour and two-hour daytime parking with nighttime restrictions and permit exemptions is generally available between Phyllis Avenue and Santa Monica Boulevard and unmetered two-hour parking with peak hour restrictions is available south of Santa Monica Boulevard.

- Hammond Street – Hammond Street is a designated Local Street that runs in the north-south direction and is located adjacent to the western boundary of the Project Site. It provides two travel lanes, one in each direction, and local access to the Project Site.

Travel along Hammond Street south of the Project Site to the adjacent neighborhood is restricted daily between 7:00 PM and 7:00 AM, with posted signage and in-pavement bollards that are raised during nighttime hours. Unmetered two-hour parking with nighttime prohibitions, except by parking permit, is generally provided on the west side of the street north of Phyllis Avenue and unmetered parking with nighttime prohibitions, except by parking permit, is generally provided on both sides of the street south of Phyllis Avenue.

- Hilldale Avenue – Hilldale Avenue is a designated Local Street that runs in the north-south direction and is located adjacent to the eastern boundary of the Project Site. It provides two travel lanes, one in each direction, and local access to the Project Site. Travel along Hilldale Avenue south of the Project Site is limited due to the installation of a physical barricade between Sunset Boulevard and Harratt Street that precludes travel between the neighborhood to the south and Sunset Boulevard. Metered two-hour daytime parking is provided adjacent to the Project Site and unmetered parking with nighttime prohibitions, except by parking permit, is generally provided on both sides of the street south of the Project Site within the Study Area.

- Clark Street – Clark Street is a designated Local Street that runs in the north-south direction and is located northeast of the Project Site. It provides two travel lanes, one in each direction, and local access to the Project Site. Unmetered angled parking with nighttime prohibitions, except by parking permit, is generally provided on the west side of the street within the Study Area.

- San Vicente Boulevard – San Vicente Boulevard is a designated Collector Street north of Santa Monica Boulevard and a designated Arterial Street south of Santa Monica Boulevard that runs in the northwest-southeast direction and is located east of the Project Site. It provides regional access to the Project Site with four travel lanes, two in each direction, and left-turns at intersections. Unmetered parking with nighttime prohibitions, except by parking permit, and metered one-hour and two-hour daytime parking is generally provided on both sides of the street within the Study Area.

- Horn Avenue – Horn Avenue is a designated Local Street that runs in the north-south direction and is located northeast of the Project Site. It provides two travel lanes, one in each direction, and local access to the Project Site. Unmetered two-hour parking with nighttime prohibitions, except by parking permit, is generally provided on the west side of the street within the Study Area.

- Holloway Drive – Holloway Drive is a designated Collector Street that runs in the east-west direction and is located east of the Project Site. It provides sub-regional access to the Project Site, with two travel lanes, one in each direction, and left-turns at intersections. Two-hour and four-hour metered parking, prohibited between 4:00 AM and 7:00 AM, is generally provided on both sides of the street within the Study Area.

- Sunset Boulevard – Sunset Boulevard is a designated Arterial Street that runs in the east-west direction and is located adjacent to the northern boundary of the Project Site. It provides regional access to the Project Site, with four travel lanes, two in each direction, with left-turn lanes at intersections. Metered two-hour and four-hour parking, prohibited on weekdays between 4:00 AM and 7:00 AM, is generally provided on both sides of the street within the Study Area.

- Harratt Street – Harratt Street is a designated Local Street that runs in the east-west direction and is located south of the Project Site. It provides two travel lanes, one in each direction. Unmetered parking with nighttime restrictions, except by parking permit, is generally provided on both sides of the street within the Study Area, with daytime school loading on the south side of the street adjacent to the nearby school.

- Cynthia Street – Cynthia Street is a designated Local Street that runs in the east-west direction and is located south of the Project Site. It provides two travel lanes, one in each direction, and local access to the Project Site. Unmetered parking with nighttime restrictions, except by parking permit, is generally provided on both sides of the street within the Study Area.

- Santa Monica Boulevard – Santa Monica Boulevard is a designated Arterial Street that runs in the northeast-southwest direction and is located south of the Project Site. It provides regional access to the Project Site, with four travel lanes, two in each direction, and left-turn lanes at intersections. Metered two-hour parking, prohibited on weekdays between 4:00 AM and 7:00 AM, is generally provided on both sides of the street within the Study Area.

- Melrose Avenue – Melrose Avenue is a designated Collector Street that runs in the east-west direction and is located south of the Project Site. It provides sub-regional access to the Project Site, with two travel lanes, one in each direction, and left-turn lanes at intersections. Metered two-hour parking is generally provided on both sides of the street within the Study Area.

The existing lane configurations at the analyzed intersections are provided in Appendix A.

EXISTING TRANSIT SYSTEM

As described in Chapter 1, the Study is well served by public transit and is located in an area defined as a “transit priority area” under SB 743. The Project Site area is served by bus lines operated by the Los Angeles County Metropolitan Transportation Authority (Metro) and the West Hollywood CityLine service.

Bus transit service in the vicinity of the proposed Project is available along the following streets:

- Sunset Boulevard
- Santa Monica Boulevard
- San Vicente Boulevard
- Melrose Avenue

Figure 3 illustrates the existing transit service in the Study Area. Table 2 summarizes the various 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 following provides a brief description of the bus lines providing service in Project vicinity:

- Metro Local Line 2/Limited Line 302 – Line 2 is a local line and Line 302 is a limited line that travels from Downtown Los Angeles to Pacific Palisades via Sunset Boulevard, with average headways of approximately 10 to 15 minutes during the weekday morning and afternoon peak hours. These lines provide service to Westwood, Beverly Hills, and Hollywood, and travels along Sunset Boulevard adjacent to the Project Site.

- Metro Local Line 4 – Line 4 is a local line that travels from Downtown Los Angeles to Santa Monica via Santa Monica Boulevard, with average headways of approximately 10 to 15 minutes during the weekday morning and afternoon peak hours. This line provides service to West Los Angeles, West Hollywood, and Echo Park, and travels along Santa Monica Boulevard south of the Project Site.

- Metro Local Line 10 – Line 10 is a local line that travels from Downtown Los Angeles to West Hollywood via Temple Street and Melrose Avenue, with average headways of approximately 15 to 25 minutes during the weekday morning and afternoon peak hours. This line travels along Melrose Avenue south of the Project Site.

- Metro Local Line 30/Limited Line 330 – Line 30 is a local line and Line 330 is a limited line that travels from West Hollywood to the Metro Gold Line Indiana Station via San Vicente Boulevard, Pico Boulevard, and 1st Street, with average headways of approximately 30 to 40 minutes during the weekday morning and afternoon peak hours. These lines provide service to Beverly Hills and Downtown Los Angeles, and travels along San Vicente Boulevard east of the Project Site.

- Metro Local Line 105 – Line 105 is a local line that travels from West Hollywood to Vernon via La Cienega Boulevard and Vernon Avenue, with average headways of approximately 20 to 25 minutes during the weekday morning and afternoon peak hours. This line provides service to Beverly Hills, Leimert Park, and Los Angeles, and travels along San Vicente Boulevard and Holloway Drive east of the Project Site.

- Metro Rapid Line 704 – Line 704 is a rapid line that travels from Downtown Los Angeles to Santa Monica, with average headways of approximately 10 to 20 minutes during the weekday morning and afternoon peak hours. This line provides service to West Los Angeles, West Hollywood, and Echo Park, and travels along Santa Monica Boulevard south of the Project Site.

- CityLine Blue Route – Cityline Blue Route travels north-south on San Vicente Boulevard in the vicinity of the Project Site, with average headways of 30 minutes during the morning and afternoon peak hours. The line serves the City.

- CityLine Orange Route – Cityline Orange Route travels north-south on San Vicente Boulevard in the vicinity of the Project Site, with average headways of 30 minutes during the morning and afternoon peak hours. The line serves the City.

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.

Table 3 summarizes the total residual capacity of the Metro and CityLine bus lines 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 line. As shown in Table 3, the bus lines within the Study Area currently have residual capacity for 1,516 transit trips during the morning peak hour and 1,540 transit trips during the afternoon peak hour.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each intersection indicating delay and LOS.

Existing Traffic Volumes

Intersection turning movement counts during the typical weekday morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) commuter peak periods were conducted at the eight study intersections in March 2015. Local schools were in session at the time the traffic counts were conducted. Traffic counts collected in year 2015 were utilized due to atypical traffic conditions as a result of ongoing construction activities on Sunset Boulevard during the time of the NOP (year 2016). The City allows for the utilization of traffic count data within two years of the NOP date, as the City has determined that traffic volumes and patterns remain generally consistent within a two-year period if no significant changes (e.g., roadway improvements, construction activities, etc.) have occurred. In an effort to provide a conservative analysis, an ambient growth rate of 1% was applied to the traffic counts to reflect regional growth and development between year 2015 and the existing year 2016. The Existing Conditions traffic volumes illustrated in Figure 4 represent

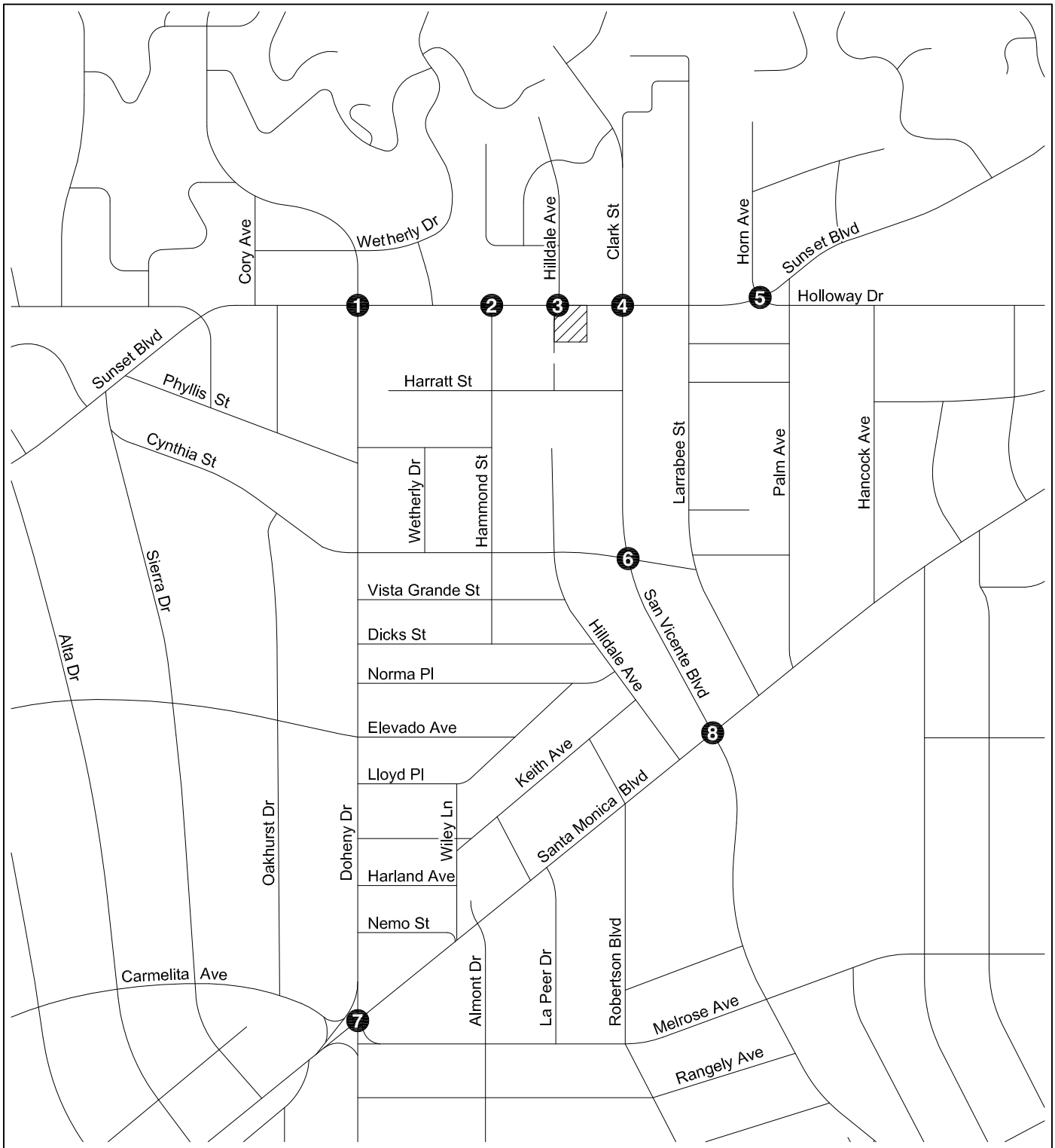
conditions as the issuance of the Project's NOP. The summary data worksheets of turning movement counts at the study intersections are provided in Appendix B.

The traffic volumes illustrated in Figure 4 were analyzed to determine the existing operating conditions at the analyzed intersections.

Existing Intersection Levels of Service

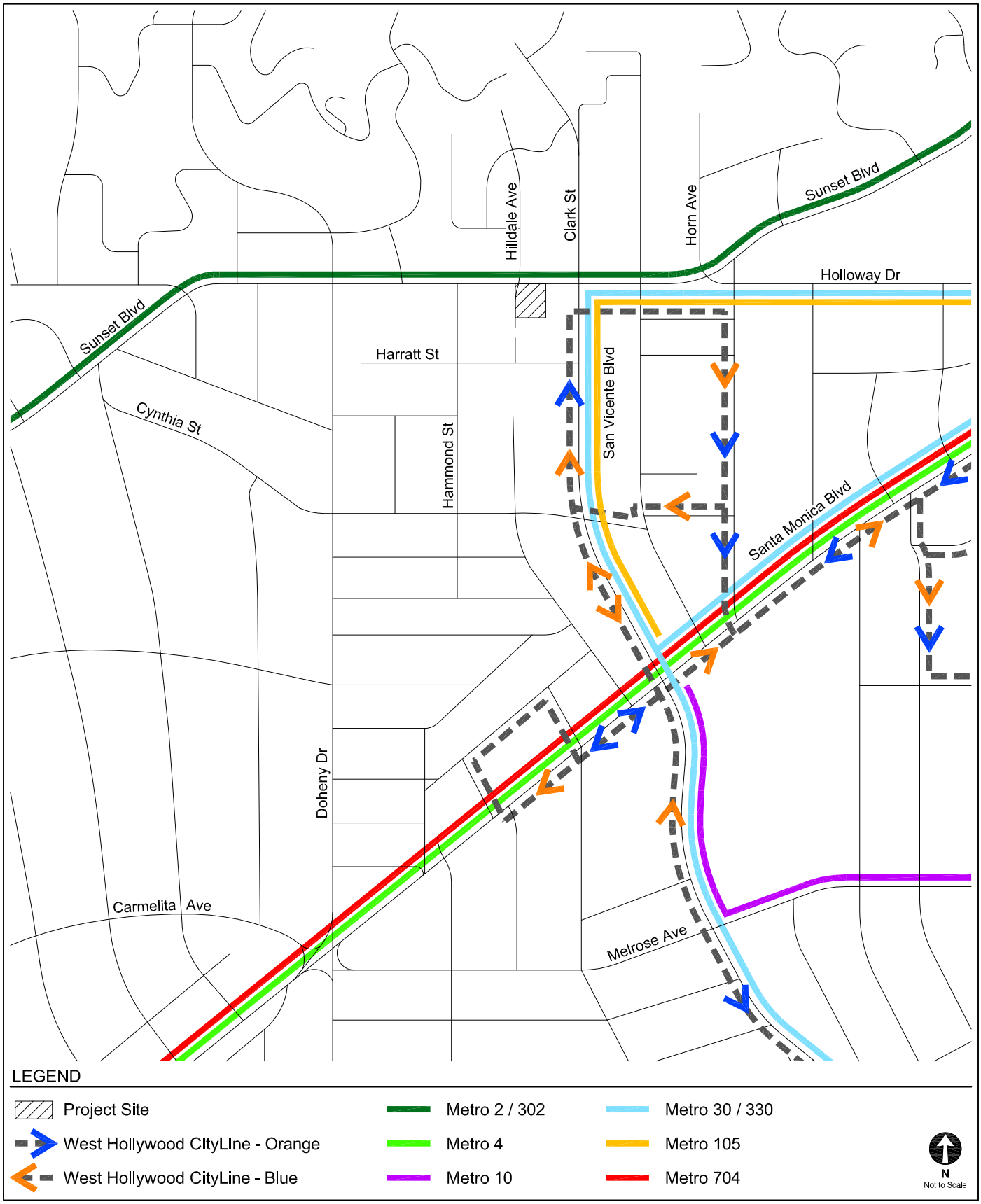
Table 4 summarizes the existing weekday morning and afternoon peak hour delay and the corresponding LOS for each of the study intersections. Based on observations of existing operations at commercial corridor intersections along Sunset Boulevard, it is recognized that the HCM methodology does not in every case account for vehicular queues, pedestrian conflicts, etc. Thus, the calculated average operating conditions may appear better than is observed in the field.

The LOS presented in Table 4 for two study intersections located along Sunset Boulevard reflect observed conditions and provide a worst-case analysis of Project impacts. As shown in Table 4, five of the eight study intersections operate at LOS D or better during both the morning and afternoon peak hours under Existing Conditions. The remaining three intersections operate at LOS F during both of the analyzed peak hours. The detailed LOS calculation worksheets are provided in Appendix C.



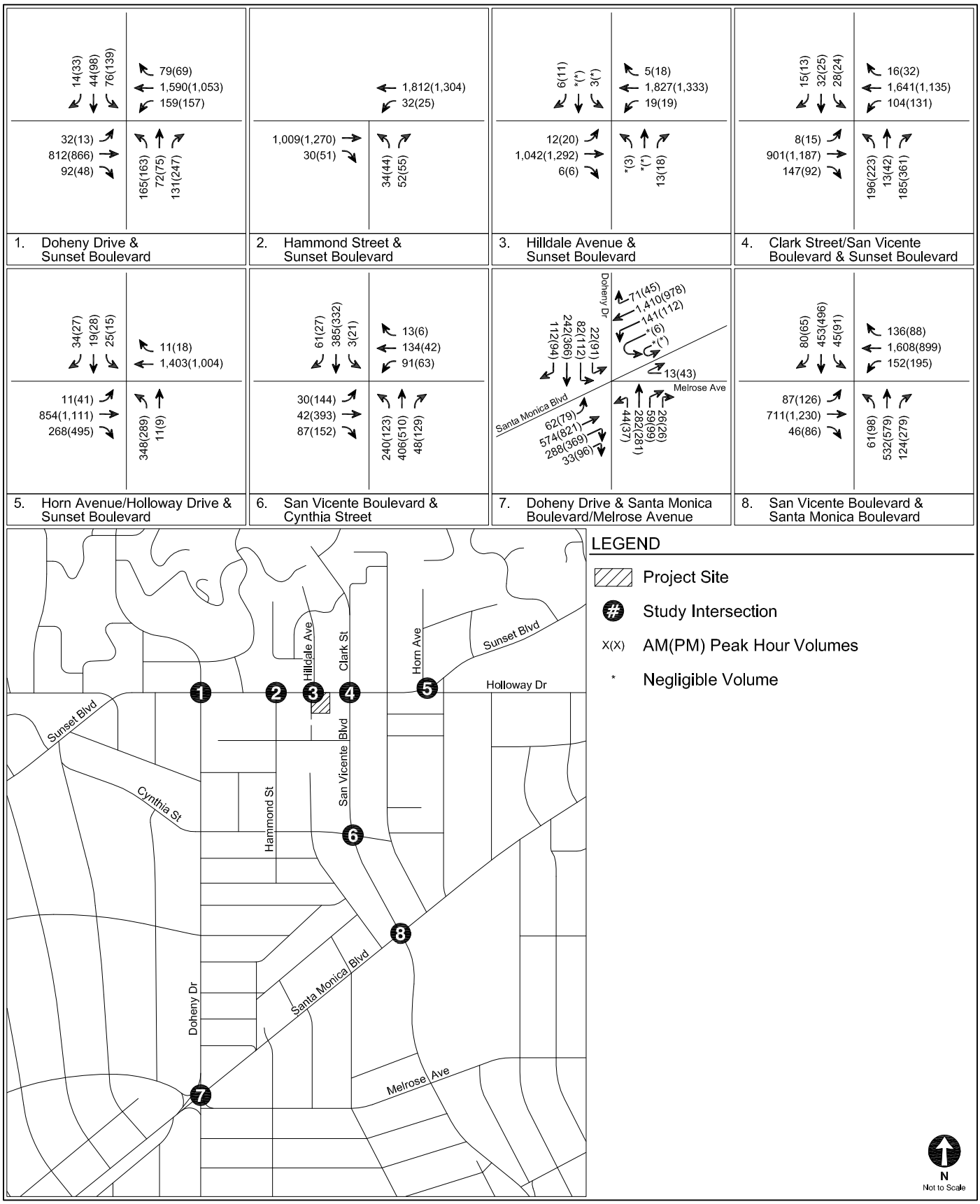
STUDY AREA AND ANALYZED LOCATIONS

FIGURE 2



EXISTING TRANSIT SERVICE

FIGURE 3



EXISTING CONDITIONS (YEAR 2016)
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

FIGURE 4

TABLE 2
EXISTING TRANSIT SERVICE

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes) [a]			
				AM Peak Period [b]		PM Peak Period [b]	
Metro				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
2/302	Downtown Los Angeles - Pacific Palisades via Sunset Boulevard	Local/Limited	5:00 AM - 2:00 AM	14	7	8	11
4	Downtown Los Angeles - West Los Angeles - Santa Monica via Santa Monica Boulevard	Local	24-Hour	12	13	11	13
10	Downtown Los Angeles - West Hollywood - via Temple Street & Melrose Avenue	Local	4:00 AM - 1:00 AM	13	12	24	18
30/330	West Hollywood - Downtown Los Angeles - Indiana Station via San Vicente Bl, Pico Bl & E 1st St	Local/Limited	5:30 AM - 4:30 AM	27	30	40	34
105	West Hollywood - Vernon via La Cienega Boulevard & Vernon Avenue	Local	4:00 AM - 11:00 PM	24	18	18	20
704	Downtown Los Angeles - Santa Monica Boulevard via Santa Monica Boulevard	Rapid	5:30 AM - 1:00 AM	16	12	11	13
West Hollywood CityLine				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Orange	Robertson Bl to La Brea Ave (Eastbound)	Local	9:00 AM - 6:00 PM	30	N/A	45	N/A
Blue	La Brea Ave to Robertson Blvd (Westbound)	Local	9:00 AM - 6:00 PM	N/A	60	N/A	36

Notes
Metro: Los Angeles County Metropolitan Transportation Authority
West Hollywood Cityline Bus: City of West Hollywood
[a] Average headway based on number of runs during the morning and afternoon peak period.
[b] AM Peak Period - 6:00 AM to 10:00 AM; PM Peak Period - 3:00 PM to 7:00 PM

TABLE 3
EXISTING TRANSIT SERVICE PATRONAGE
LINES SERVING PROJECT PERIPHERY

A.M. Peak Period							
Provider	**Route**	**Number of Runs During Peak Hour** [a]	**Capacity** [b]	**Maximum Load** [c]	**Load Factor - Maximum Load/Capacity**	**Residual Capacity per Run**	**Residual Capacity in Peak Hour** [d]
Metro	2 - 302	13	50	43	0.86	7	91
	4	10	50	28	0.56	22	220
	10	10	50	2	0.04	48	480
	30 - 330	4	50	3	0.06	47	188
	105	6	50	3	0.06	47	282
	704	9	75	52	0.69	23	207
WeHo CityLine	Blue - Orange	3	21	5	0.24	16	48
						Total Residual Capacity in Peak Hour	**1,516**

P.M. Peak Period							
Provider	**Route**	**Number of Runs During Peak Hour** [a]	**Capacity** [b]	**Maximum Load** [c]	**Load Factor - Maximum Load/Capacity**	**Residual Capacity per Run**	**Residual Capacity in Peak Hour** [d]
Metro	2 - 302	13	50	34	0.68	16	208
	4	10	50	30	0.60	20	200
	10	6	50	3	0.06	47	282
	30 - 330	3	50	2	0.04	48	144
	105	6	50	6	0.12	44	264
	704	10	75	50	0.67	25	250
WeHo CityLine	Blue - Orange	12	21	5	0.24	16	192
						Total Residual Capacity in Peak Hour	**1,540**

Notes:

[a] Number of runs in both directions combined during peak hour.

[b] Capacity assumptions based on discussions with agencies:
Metro Regular Bus - 40 seated / 50 seated and standing.
Metro Articulated Bus - 66 seated / 75 seated and standing standing.
West Hollywood CityLine Bus - 21 seated only

[c] Maximum Load is the maximum number of people per bus in the peak direction based on available data provided by Metro for year 2015.

[d] Maximum residual capacity in peak hours = (Maximum residual capacity per run) x (number of peak hour runs).

Metro: Los Angeles County Metropolitan Transportation Authority.

TABLE 4
EXISTING CONDITIONS (YEAR 2016)
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No	Intersection	Peak Hour	Existing Conditions	
			Delay (sec)	LOS
1.	Doheny Drive &	A.M.	27.4	F *
	Sunset Boulevard	P.M.	45.4	F *
2.	Hammond Street &	A.M.	11.6	B
	Sunset Boulevard	P.M.	10.1	B
3.	Hilldale Avenue &	A.M.	0.3	A
[a]	Sunset Boulevard	P.M.	0.3	A
4.	Clark Street/San Vicente Boulevard &	A.M.	17.5	F *
	Sunset Boulevard	P.M.	16.7	F *
5.	Horn Avenue/Holloway Drive &	A.M.	24.2	C
	Sunset Boulevard	P.M.	21.0	C
6.	San Vicente Boulevard &	A.M.	16.3	B
	Cynthia Street	P.M.	22.7	C
7.	Doheny Drive &	A.M.	159.7	F
	Santa Monica Boulevard/Melrose Avenue	P.M.	172.8	F
8.	San Vicente Boulevard &	A.M.	37.1	D
	Santa Monica Boulevard	P.M.	41.6	D

Notes

* LOS for commercial corridor intersections along Sunset Boulevard based on field observations, as the calculated delay for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed. Therefore, for purposes of determining impacts, the worst case LOS assumed to be LOS F.

[a] Intersection is unsignalized.

Chapter 3
Future without Project Conditions

In accordance with CEQA requirements, the Project's TIA considers the effects of the Project in relation to other developments either proposed, approved, or under construction in the Study Area. These development proposals and the methodologies used in projecting future cumulative traffic conditions without the Project are discussed in this section. The future year 2020 roadway network conditions are also discussed in this chapter in terms of anticipated supply, demand, and operations (system performance). The analyzed year 2020 was selected to coincide with the projected full buildout of the Project.

FUTURE WITHOUT PROJECT TRAFFIC PROJECTIONS

The Future without Project traffic projections reflect growth in traffic over Existing Conditions from two sources. The first source is the ambient growth in traffic, which reflects increases in traffic due to regional growth and development outside the Study Area. The second source is growth due to traffic generated by projects proposed, approved, or under construction within and in the vicinity of the Study Area (collectively, the Related Projects).

Ambient Traffic Growth

Existing traffic is expected to increase over time as a result of employment, housing, and regional growth and development. Based on historic trends, an annual ambient growth factor of 1.0% per year was assumed as a conservative estimate to adjust the Existing Conditions (year 2016) traffic volumes to reflect the effects of regional growth and development by the year 2020. The total adjustment applied over the four-year period between the issuance of the NOP for the proposed Project and its expected buildout of the Project (year 2020) was, therefore, 4.0%.

Related Projects

In accordance with CEQA requirements, this study considered the effects of the Project in relation to other developments either proposed, approved, or under construction in the Study Area and expected to be implemented prior to the buildout date of the Project. 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 and conservatively assumed to be completed by the Project buildout year 2020. The traffic projections of the Related Projects are also 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.) Information about Related Projects was obtained from the Cities of West Hollywood, Beverly Hills, and Los Angeles, as well as from recent published reports for other developments. A summary of the Related Projects information is provided in Appendix D.

The trips associated with these Related Projects have been accounted for in the future traffic forecasts through the following three-step process.

Trip Generation. Trip generation estimates for the Related Projects were either provided by the respective city or calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation*, *9th Edition* (Institute of Transportation Engineers, 2012). These projections are conservative in that they do not in every case provide credit for either the existing uses to be removed or the likely use of non-motorized travel modes (mass transit, bicycling, walking, etc.)

Trip Distribution. The geographic distribution of the traffic generated by the Related Projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees/residents and potential patrons of the Related Projects are drawn, and the location of these projects in relation to the surrounding street system.

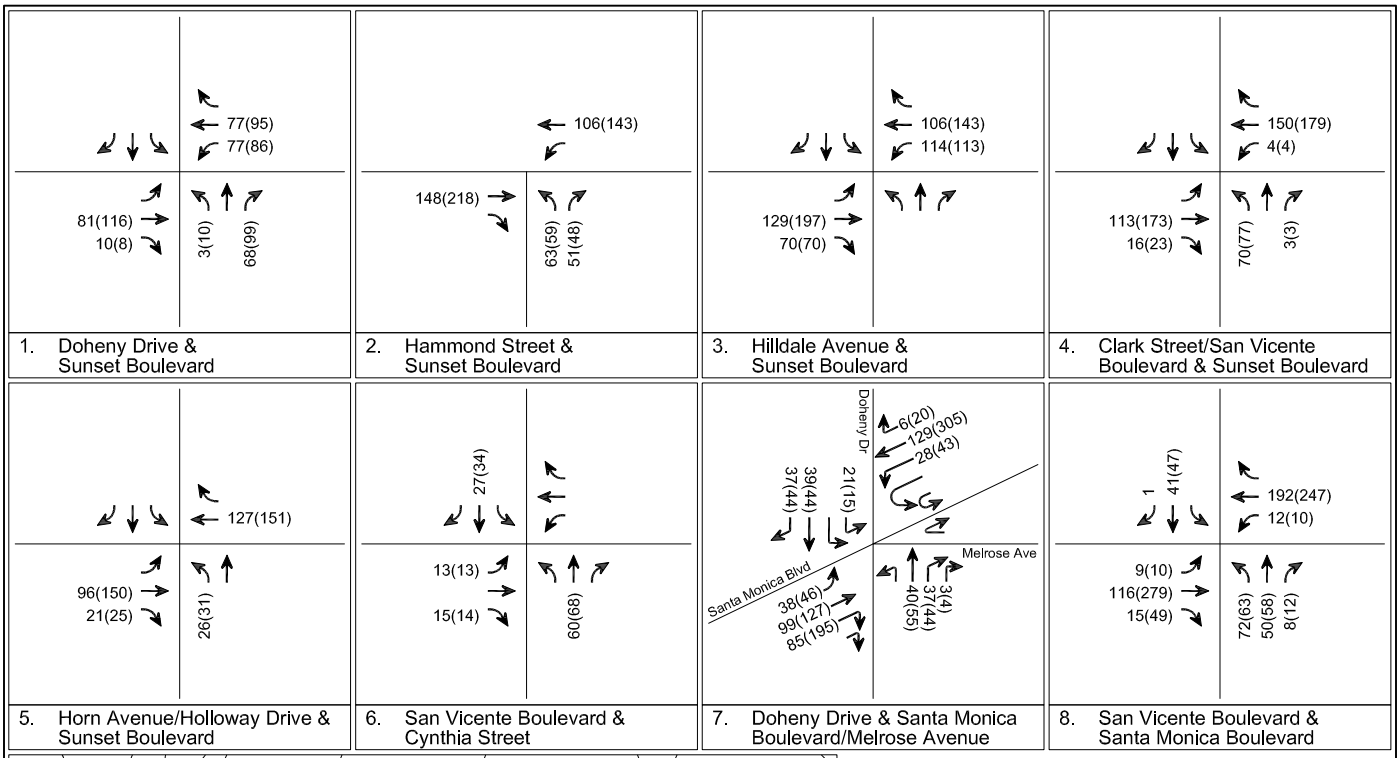
Trip Assignment. The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above and illustrated in Figure 5. These volumes were then added to the existing traffic volumes after adjustment for ambient

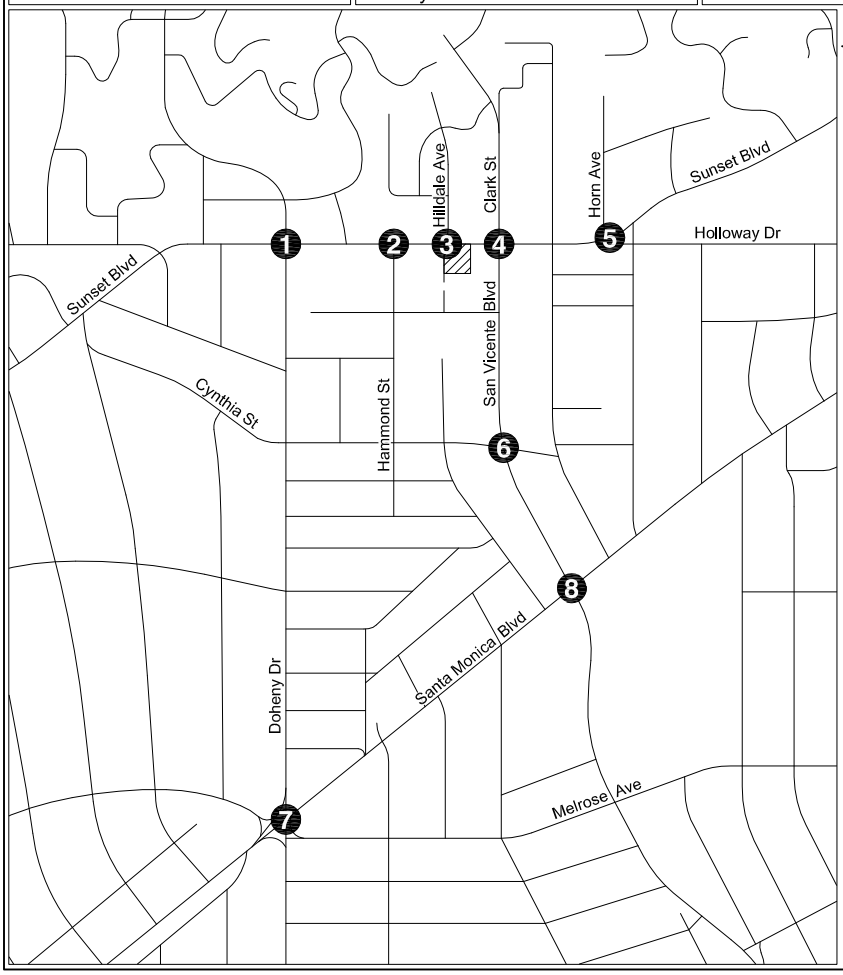
growth through the assumed buildout year of 2020. The resulting Future without Project intersection traffic volumes are illustrated in Figure 6.

INTERSECTION OPERATIONS

This section presents the methodology and results of the intersection operations for the Future without Project Conditions that are defined by the traffic volumes, intersection lane configurations, and roadways that would exist in the year 2020.

The projected Future without Project intersection operating conditions for the weekday morning and afternoon peak hours are shown in Table 5. As shown, four of the eight study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours. The remaining four intersections are projected to operate at LOS F during both of the analyzed peak hours.





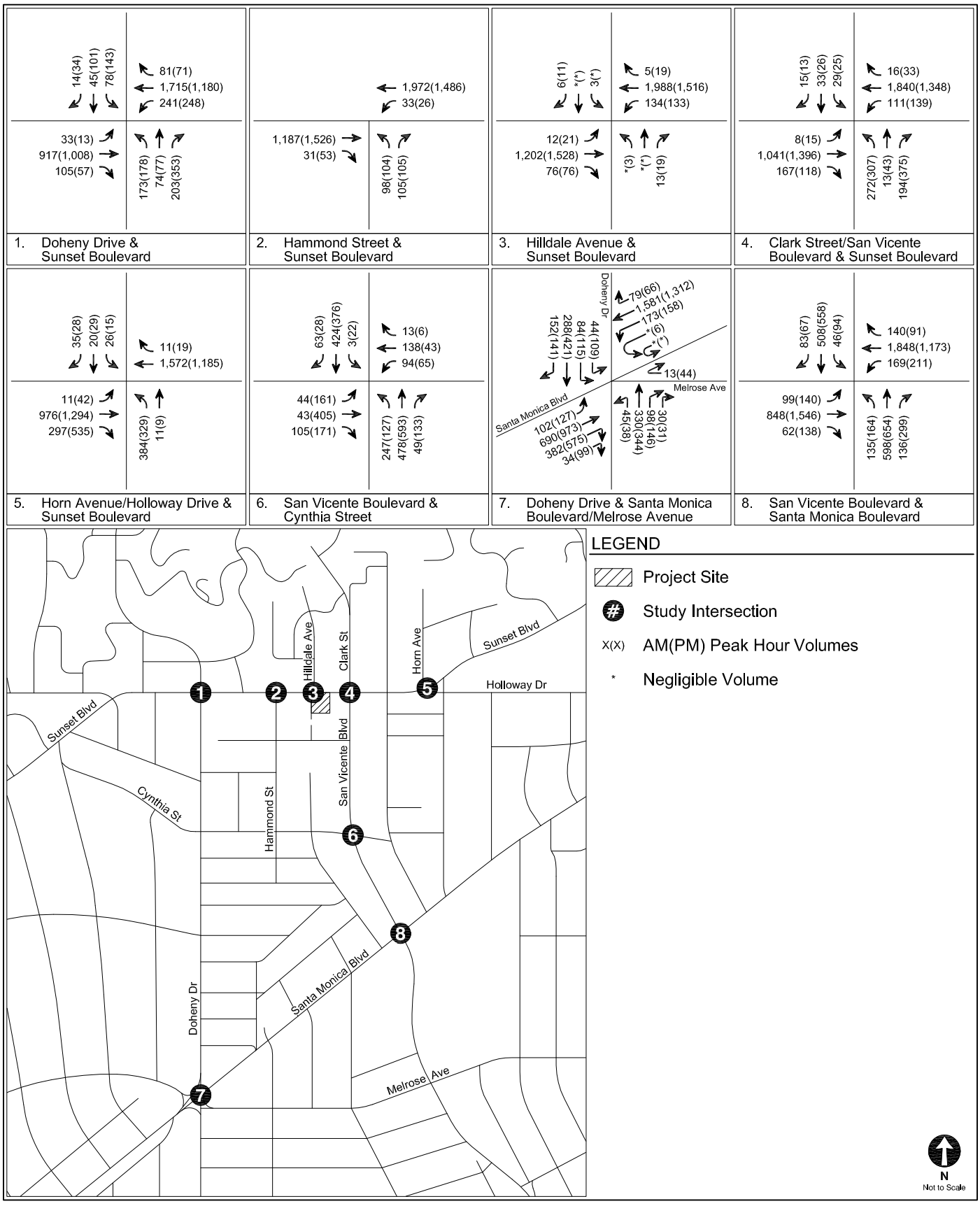
LEGEND

- Project Site
- # Study Intersection
- X(X) AM(PM) Peak Hour Peak Hour Volumes

N
Not to Scale

RELATED PROJECT-ONLY
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

FIGURE
5



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2020)
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

FIGURE 6

TABLE 5
FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2020)
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project Conditions	
			Delay (sec)	LOS
1.	Doheny Drive &	A.M.	33.2	F *
	Sunset Boulevard	P.M.	42.8	F *
2.	Hammond Street &	A.M.	27.7	C
	Sunset Boulevard	P.M.	17.4	B
3.	Hilldale Avenue &	A.M.	0.7	A
[a]	Sunset Boulevard	P.M.	0.8	A
4.	Clark Street/San Vicente Boulevard &	A.M.	22.7	F *
	Sunset Boulevard	P.M.	24.0	F *
5.	Horn Avenue/Holloway Drive &	A.M.	28.5	C
	Sunset Boulevard	P.M.	24.8	C
6.	San Vicente Boulevard &	A.M.	15.6	B
	Cynthia Street	P.M.	36.3	D
7.	Doheny Drive &	A.M.	139.3	F
	Santa Monica Boulevard/Melrose Avenue	P.M.	164.6	F
8.	San Vicente Boulevard &	A.M.	85.0	F
	Santa Monica Boulevard	P.M.	84.4	F

Notes

* LOS for commercial corridor intersections along Sunset Boulevard based on field observations, as the calculated delay for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed. Therefore, for purposes of determining impacts, the worst case LOS assumed to be LOS F.

[a] Intersection is unsignalized.

Chapter 4
Project Traffic

A trip generation estimate, trip distribution pattern and trip assignment analysis was prepared for the Project. These components form the basis of the Project's traffic impact analysis.

PROJECT TRAFFIC VOLUMES

The first step of the forecasting process is trip generation, which estimates the total arriving and departing trips generated by the Project on a peak hour and daily basis by applying the appropriate vehicle trip generation equations, or rates, to the size of Project development. For the purposes of this Project, trips were also generated for the existing facility at the Site to allow for comparison with the proposed Project.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project trips. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the Study Area. Localized routes of travel through the Study Area are developed based on existing traffic patterns and relative travel times on various corridors.

The third step of the forecasting process is traffic assignment. This involves applying the traffic generated by the Project (the trip generation) to the intersections and street segments in the Study Area according to the projected trip distribution patterns. These traffic volumes can then be added to existing or future background conditions to represent traffic volumes once the Project is complete.

With the forecasting process complete and Project traffic assignments developed, the impact of the proposed Project is isolated by comparing operational (i.e., LOS) conditions at the study intersections using expected future traffic volumes without and with forecast Project traffic. The

need for site-specific and/or cumulative local area traffic improvements may then be evaluated and the significance of the Project's impacts identified.

PROJECT TRIP GENERATION

The typical resource utilized in determining the number of trips generated by a project is *Trip Generation, 9th Edition*, which provides trip generation rates for a wide variety of land uses based on surveys across the nation. However, the use and operational characteristics of the private member-only uses of the Project are not directly applicable to conventional trip generation estimates based on the available land use categories provided in *Trip Generation, 9th Edition.* Therefore, consistent with the recommendation in *Trip Generation, 9th Edition* for land uses that are not represented by the land use classifications, trips generated by the private member-only uses of the proposed Project were conservatively developed based on site-specific empirical data collected from membership attendance and employee requirements for Arts Club London and the anticipated unique operational characteristics of the Project (i.e., the Project's land use components, membership levels, anticipated member/guest and employee arrival and departure patterns, events, and other programming, etc.). The published rates from *Trip Generation, 9th Edition* were utilized to estimate the trips generated by the public commercial uses of the Project.

Development of Trip Generation Rates

The trip generation rates associated with the Arts Club (i.e., member-only uses) were developed with consideration of the trip generation assumptions below and site-specific empirical data collected in February 2016 at Arts Club London and local West Hollywood considerations (e.g., parking, proximity to transit, etc.), as well as employee projections for the Project. The arrival and departure patterns of the Arts Club are assumed to be consistent with the patterns of Arts Club London. Although the membership of the two facilities would be consistent, it is anticipated that the Project would employ more staff than Arts Club London. The empirical trip data represents the typical arrival and departure patterns of person trips generated by Arts Club London on a weekday by members/guests. The employee projections are reflective of the arrival and departure patterns of Arts Club London. The arrival and departure patterns

throughout the day of both members/guests and employees were compared with the anticipated membership of Arts Club to develop the trip generation rates, shown in Table 6.

The empirical trip and attendance data is provided in Appendix E.

Trip Generation Assumptions

The Project trip generation was forecast based on the following considerations:

- The existing commercial building, which includes retail, office and fitness center uses, would be removed with development of the Project.
- The Project would include an approximately 132,000 sf commercial building, including commercial uses open to the public on Levels 1 through 4, consisting of 11,933 sf of retail space, 2,192 sf of art gallery space, and 46,009 sf of office uses, as well as approximately 32,200 sf on Levels 5 through 9 dedicated to the Arts Club.
- The Arts Club includes guestrooms, restaurants, lounges, and bars that are accessible to Arts Club members and guests only.
- The Arts Club will have a maximum membership of 7,000 members.
- Guests may utilize the Arts Club only when accompanied by members.
- Patronage to the Arts Club is distributed throughout the day, with peak attendance generally occurring during the evening hours. Attendance can fluctuate depending on schedule of programs, events, day of the week, etc.
- The employee arrival and departure patterns are also distributed throughout the day and are dependent on the scheduling of shifts.
- Some level of carpooling was assumed for Arts Club members/guests, thus, an average vehicle occupancy (AVO) of 1.4 was assumed, which is consistent with assumptions from the CMP, Southern California Association of Governments (SCAG) Regional Travel Demand Model forecasts, and transportation studies of other similar uses. Arts Club employees were assumed to arrive via a single occupant vehicle, in order to provide a conservative analysis. Thus, an AVO of 1.0 was assumed for employees.
- A 50% internal capture reduction was applied to the public commercial retail uses and art gallery to account for the interaction between visitors from the Arts Club and office uses who would also patronize the public commercial uses on the same visit, without traveling on the adjacent roadway system.

- Up to 354 parking spaces would be provided on-site within five subterranean levels in an automated parking garage. Vehicular access to the Project Site would be provided via one full access driveway on Hilldale Avenue.

- Pedestrian and bicycle access to the Project Site would be provided from Sunset Boulevard. Bicycle parking would also be provided.

- As detailed in Chapter 2, the Project Site is served by various Metro bus lines, as well as the CityLine. It is anticipated that up to 10% of members/guests and 15% of employees and public commercial patrons would travel to the Project Site via non-auto modes (e.g., transit, walk, bike, etc.), as well as via rideshare services (e.g., Uber, Lyft, etc.).

Trip Generation Summary

The peak hour trip generation forecasts were derived based on the empirical trip generation rates described above for the Arts Club and on published rates from *Trip Generation, 9th Edition* for the public commercial uses. As detailed in Table 6, the Project with the removal of the existing uses is anticipated to generate 1,961 daily trips, including 122 trips during the morning peak hour (103 inbound, 19 outbound) and 159 trips during the afternoon peak hour (68 inbound, 91 outbound).

PROJECT TRIP DISTRIBUTION

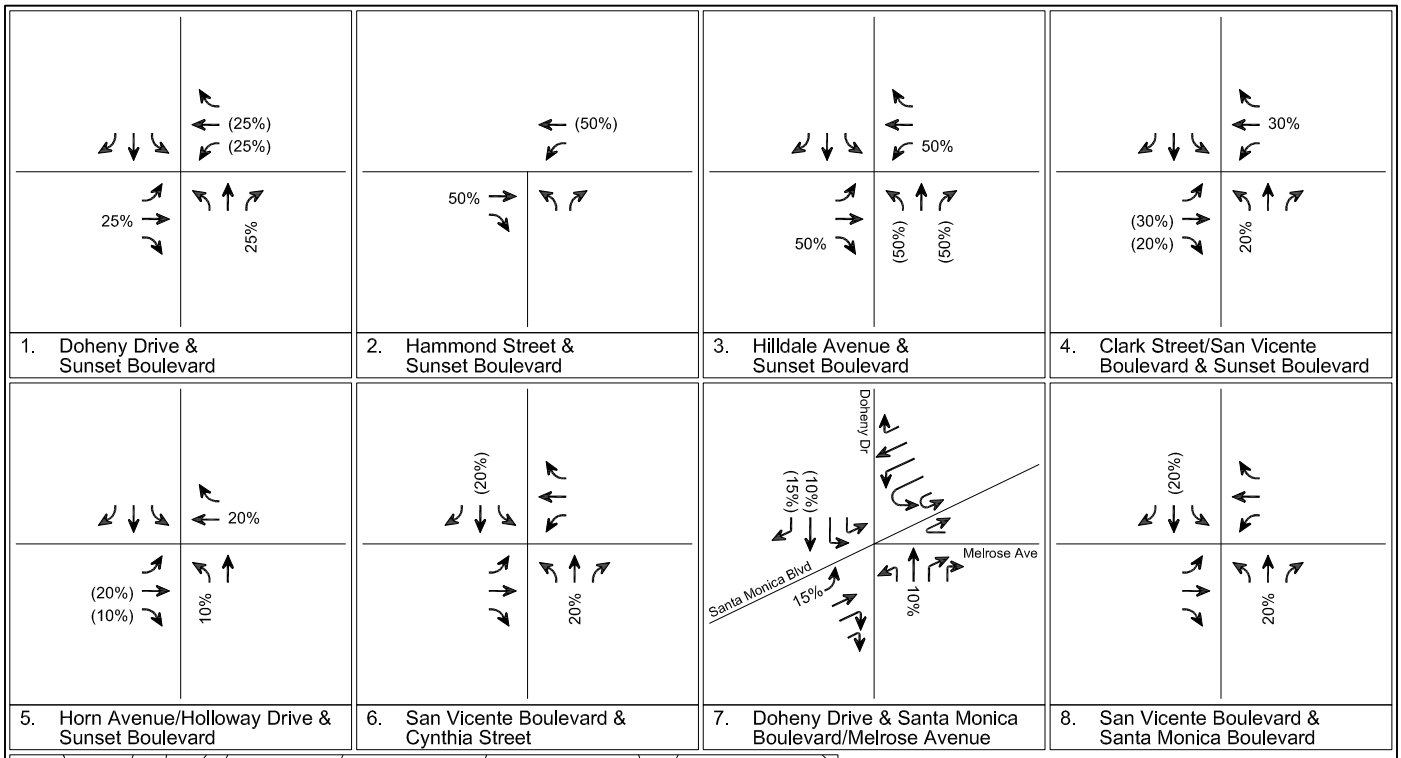
The volumes of both the existing use and the Project traffic entering and exiting the Project Site have been distributed and assigned to the local street system based on demographics and existing/anticipated travel patterns in the Study Area. Localized routes of travel through the Study Area were developed based on existing traffic patterns and relative travel times on various corridors and the level of accessibility of the route to and from the Project Site. The Project trip distribution was developed to reflect the primary access on Hilldale Avenue. The general distribution pattern was reviewed and approved by the City. Project traffic was assigned to the surrounding street system based on the following general distribution pattern:

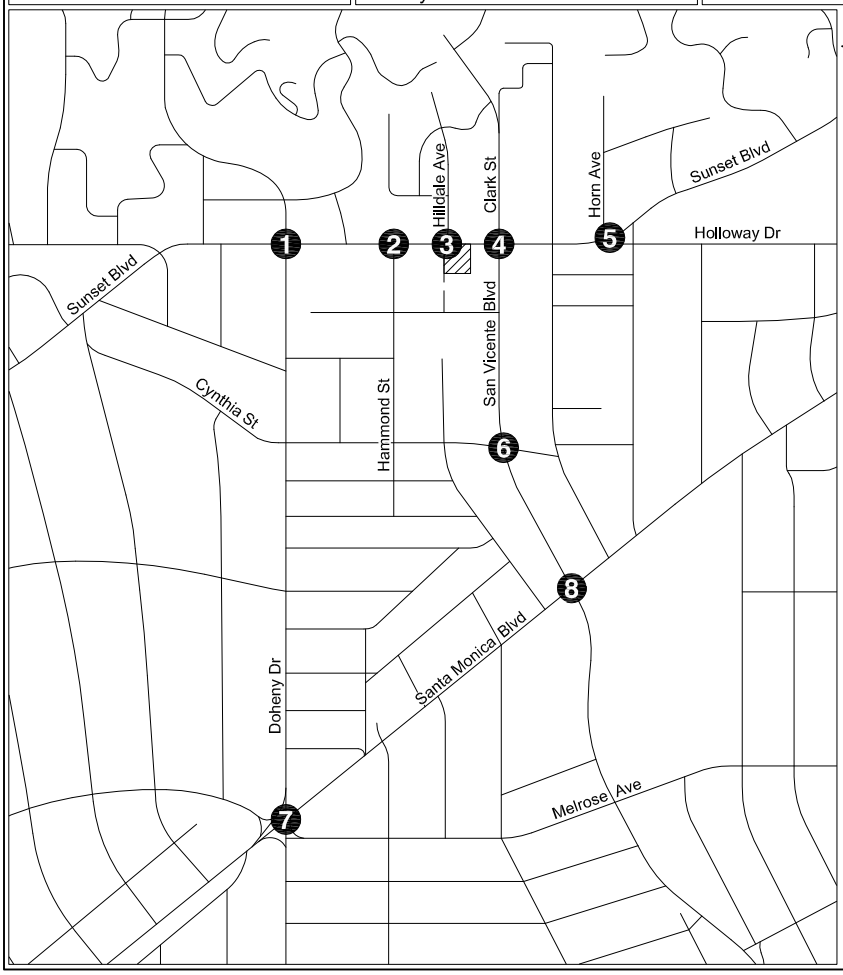
- 30% was assigned to/from the east (Sunset Boulevard, Holloway Drive)
- 30% was assigned to/from the south (San Vicente Boulevard, Doheny Drive)
- 40% was assigned to/from the west (Sunset Boulevard, Santa Monica Boulevard)

The trip distribution of the Project is illustrated in Figure 7.

PROJECT TRIP ASSIGNMENT

The trip distribution patterns illustrated in Figure 7 were applied to the trip generation estimates detailed in Table 6 to develop the Project-only traffic assignments. Figure 8 illustrates the Project-only traffic volumes for the Project at the study intersections during typical weekday morning and afternoon peak hours.





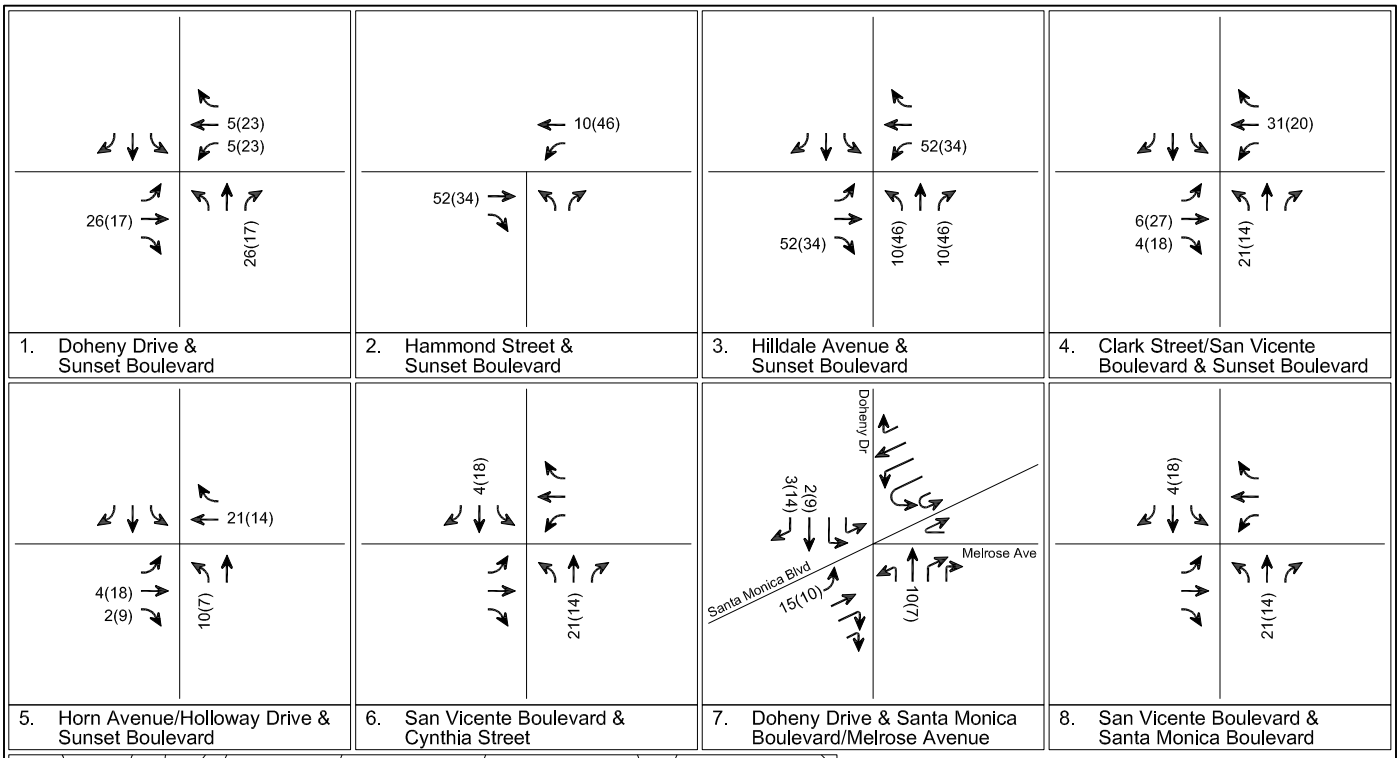
LEGEND

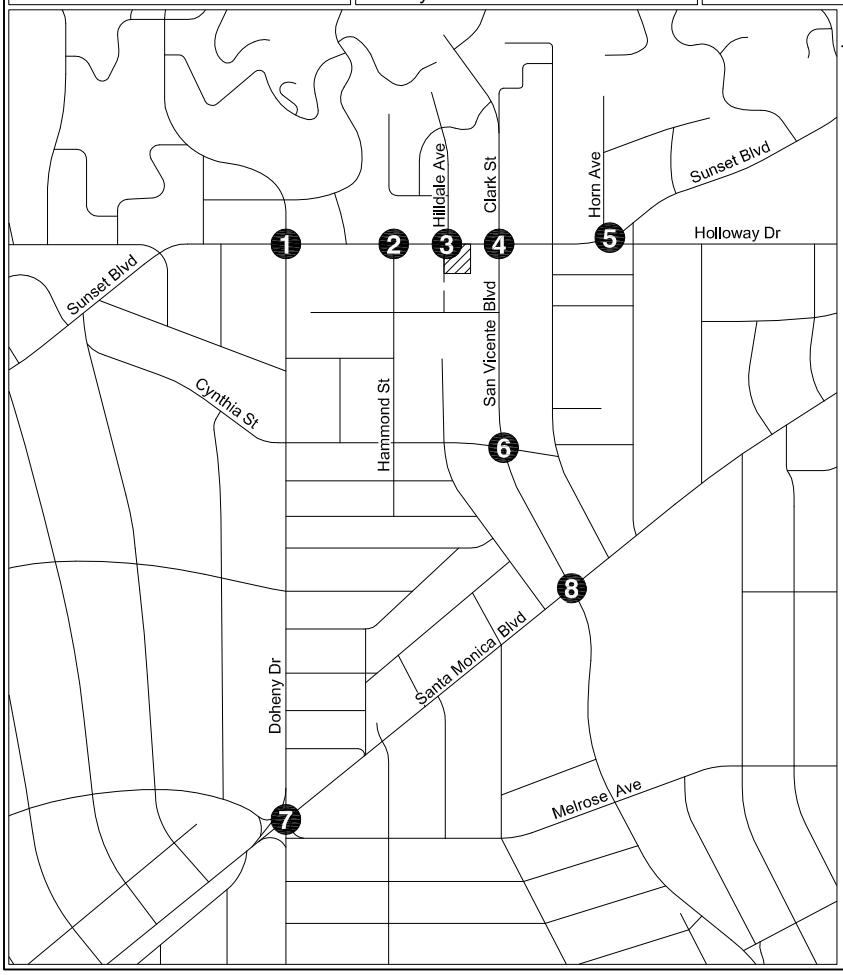
- Project Site
- # Study Intersection
- X%(X%) Inbound(Outbound) Trip Percentage

N
Not to Scale

PROJECT TRIP DISTRIBUTION

FIGURE 7





LEGEND

- Project Site
- # Study Intersection
- X(X) AM(PM) Peak Hour Peak Hour Volumes

N
Not to Scale

PROJECT-ONLY
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

FIGURE
8

TABLE 6
TRIP GENERATION

Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation Rates								
Arts Club Member-Only Uses [a]								
Members/Guests	per member [b]	0.20	73%	27%	0.01	52%	48%	0.01
Employees	per member [c]	0.09	86%	14%	0.01	59%	41%	0.01
Uses Open to the Public [d]								
Museum (ITE 580)	per 1,000 sf	N/A	86%	14%	0.28	16%	84%	0.18
Office (ITE 710)	per 1,000 sf	11.03	88%	12%	1.56	17%	83%	1.49
Specialty Retail (ITE 826) [e]	per 1,000 sf	44.32	60%	40%	1.20	44%	56%	2.71
Existing Uses to be Removed								
Health Club/Fitness Club (ITE 492)	per 1,000 sf	32.93	50%	50%	1.41	57%	43%	3.53
Office (ITE 710)	per 1,000 sf	11.03	88%	12%	1.56	17%	83%	1.49
Specialty Retail (ITE 826) [e]	per 1,000 sf	44.32	60%	40%	1.20	44%	56%	2.71
Proposed Project								
Arts Club Member-Only Uses								
Members/Guests	7,000 members [f]	1,428	31	11	42	44	40	84
Less 10% Non-Auto Modes [g]		*(143)*	*(3)*	*(1)*	*(4)*	*(4)*	*(4)*	*(8)*
Employees	7,000 members [f]	651	36	6	42	37	26	63
Less 15% Non-Auto Modes [g]		*(98)*	*(5)*	*(1)*	*(6)*	*(6)*	*(4)*	*(10)*
Subtotal - Arts Club Member-Only Uses		**1,838**	**59**	**15**	**74**	**71**	**58**	**129**
Uses Open to the Public								
Museum [h]	2,192 sf	N/A	1	0	1	0	0	0
Less 50% Internal Capture [i]		*N/A*	*(1)*	*0*	*(1)*	*0*	*0*	*0*
Office [j]	46,009 sf	507	63	9	72	12	57	69
Less 15% Non-Auto Modes [g]		*(76)*	*(9)*	*(1)*	*(10)*	*(2)*	*(9)*	*(11)*
Specialty Retail	11,933 sf	529	8	6	14	14	18	32
Less 50% Internal Capture [i]		*(265)*	*(4)*	*(3)*	*(7)*	*(7)*	*(9)*	*(16)*
Less 15% Non-Auto Modes [g]		*(40)*	*(1)*	*0*	*(1)*	*(1)*	*(1)*	*(2)*
Subtotal - Uses Open to the Public		**655**	**57**	**11**	**68**	**16**	**56**	**72**
Total - Project Trips		**2,493**	**116**	**26**	**142**	**87**	**114**	**201**
Existing Uses to be Removed								
Health Club/Fitness Club	5,250 sf	173	4	3	7	11	8	19
Less 15% Non-Auto Modes [g]		*(26)*	*(1)*	*0*	*(1)*	*(2)*	*(1)*	*(3)*
Office	4,000 sf	44	5	1	6	1	5	6
Less 15% Non-Auto Modes [g]		*(7)*	*(1)*	*0*	*(1)*	*0*	*(1)*	*(1)*
Specialty Retail	9,250 sf	410	7	4	11	11	14	25
Less 15% Non-Auto Modes [g]		*(62)*	*(1)*	*(1)*	*(2)*	*(2)*	*(2)*	*(4)*
Total - Existing Uses to be Removed		**532**	**13**	**7**	**20**	**19**	**23**	**42**
Total - Net New Project Trips		**1,961**	**103**	**19**	**122**	**68**	**91**	**159**

Notes
sf: square feet
[a] Empirical trip generation rates for the member/guest-only uses of the Arts Club were developed based on member in/out person data for typical conditions at Arts Club London in February 2016. The data accurately represents the general member/guest activitiy at Arts Club London. Empiricial employee trip generation rates were developed based on employee projections for Arts Club West Hollywood provided by LLG Engineers.
[b] Empirical visitor trip generation rate based on total Arts Club West Hollywood membership.
[c] Empirical employee trip generation rate developed based on the projected number of employees needed to service the anticipated Arts Club West Hollywood membership level.
[d] Trip generation rates from *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012) would be applied to the land uses open to the public.
[e] AM rate for specialty retail from *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (SANDAG, 2002), as no AM rate is available in *Trip Generation.*
[f] Arts Club West Hollywood would have a maximum of 7,000 members.
[g] Based on recent studies and discussions with City of West Hollywood staff, as well as the Project Site's proximity to transit stops and the increasing utilzation of rideshare programs, a reduction was applied to account for trips made via non-auto travel modes (e.g., transit, walk, bike, rideshare, etc.)
[h] In the absence of trip generation rates specific to Art Gallery uses, the published rates for Museum (ITE 580) in *Trip Generation, 9th Edition* were utilized.
[i] An internal capture reduction accounts for trips made between member-only uses and public uses.
[j] Specific trip generation rates for creative office uses have not been established. Therefore, published rates for General Office Building (ITE 710) in *Trip Generation, 9th Edition* were utilized.

Chapter 5
Existing with Project Conditions

This chapter describes the results of the analysis of intersection operating conditions associated with Existing with Project Conditions. The analysis year of 2016 corresponds with the Existing Conditions data and analysis presented in Chapter 2. Within this chapter, the Existing with Project Conditions are presented for the study intersections.

EXISTING WITH PROJECT INTERSECTION OPERATIONS

The Existing with Project Conditions are defined by the traffic volumes, roadways, and intersection configurations that currently exist in the year 2016. The Project-only traffic volumes described in Chapter 4 and shown in Figure 8 were added to the Existing traffic volumes shown in Figure 4 to obtain the Existing with Project peak hour traffic volumes, shown in Figure 9.

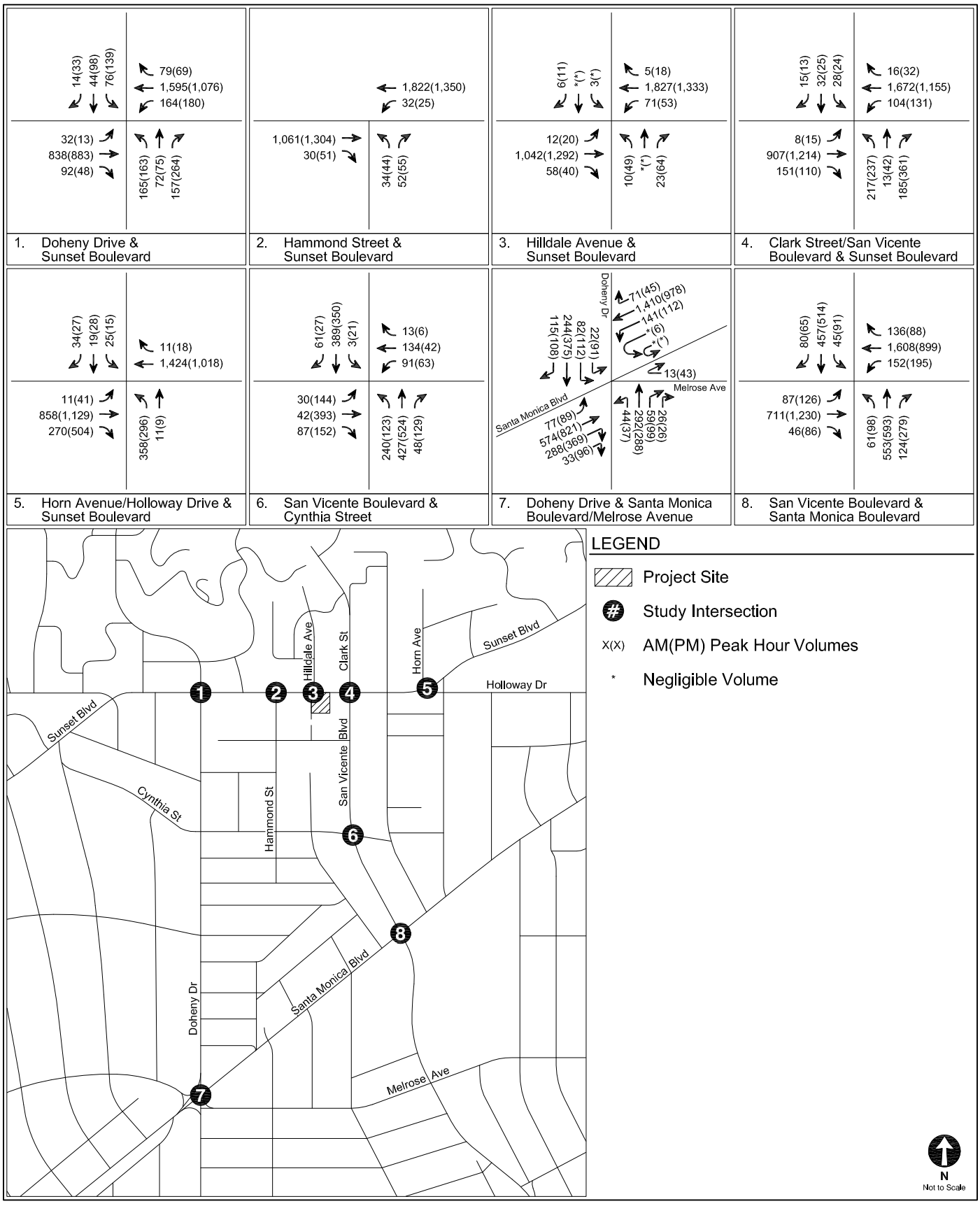
The study intersections were analyzed using the methodologies described in Chapter 1. The Existing with Project intersection operating conditions for typical weekday morning and afternoon peak hours are shown in Table 7. As shown, under the Existing with Project Conditions, five of the eight study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours. The remaining three intersections are projected to operate at LOS F during both of the analyzed peak hours.

Detailed LOS worksheets are provided in Appendix C.

SUMMARY

As shown in Table 7, the incremental increase in delay with the addition of Project traffic is not anticipated to exceed the City's significance thresholds detailed in Chapter 1 at any of the eight

study intersections. Thus, the Project would not result in a significant impact under Existing with Project Conditions, and no mitigation measures would be required.



EXISTING WITH PROJECT CONDITIONS (YEAR 2016)
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

FIGURE 9

TABLE 7
EXISTING WITH PROJECT CONDITIONS (YEAR 2016)
SIGNIFICANT IMPACT ANALYSIS

No	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions			
			Delay (sec)	LOS	Delay (sec)	LOS	Change in Delay (sec)	Impact [a]
1.	Doheny Drive &	A.M.	27.4	F *	27.6	F *	0.2	NO
	Sunset Boulevard	P.M.	45.4	F *	45.4	F *	0.0	NO
2.	Hammond Street &	A.M.	11.6	B	11.7	B	0.1	NO
	Sunset Boulevard	P.M.	10.1	B	10.1	B	0.0	NO
3.	Hilldale Avenue &	A.M.	0.3	A	0.7	A	0.4	NO
[b]	Sunset Boulevard	P.M.	0.3	A	2.0	A	1.7	NO
4.	Clark Street/San Vicente Boulevard &	A.M.	17.5	F *	18.6	F *	1.1	NO
	Sunset Boulevard	P.M.	16.7	F *	17.6	F *	0.9	NO
5.	Horn Avenue/Holloway Drive &	A.M.	24.2	C	25.1	C	0.9	NO
	Sunset Boulevard	P.M.	21.0	C	21.3	C	0.3	NO
6.	San Vicente Boulevard &	A.M.	16.3	B	16.5	B	0.2	NO
	Cynthia Street	P.M.	22.7	C	23.5	C	0.8	NO
7.	Doheny Drive &	A.M.	159.7	F	159.3	F	--	NO
	Santa Monica Boulevard/Melrose Avenue	P.M.	172.8	F	172.4	F	--	NO
8.	San Vicente Boulevard &	A.M.	37.1	D	37.7	D	0.6	NO
	Santa Monica Boulevard	P.M.	41.6	D	44.3	D	2.7	NO

Notes

* LOS for commercial corridor intersections along Sunset Boulevard based on field observations, as the calculated delay for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed. Therefore, for purposes of determining impacts, the worst case LOS assumed to be LOS F.

[a] Based on City of West Hollywood criteria, an impact is considered significant if the following criteria are met:

Intersection Formed by Two Commercial Corridors

- The addition of project traffic results in a LOS D and an increase in delay of 12 seconds or greater.
- The addition of project traffic results in a LOS E or F and an increase in delay of 8 seconds or greater.

All Other Signalized and/or 4-Way Stop-Controlled Intersections

- The addition of project traffic results in a LOS D and an increase in delay of 8 seconds or greater.
- The addition of project traffic results in a LOS E or F and an increase in delay of 5 seconds or greater.

Unsignalized Intersections

- The addition of project traffic results in a LOS D, E, or F and an increase in delay of 5 seconds or greater.

[b] Intersection is unsignalized.

Chapter 6
Future with Project Conditions

This chapter describes the results of the analysis of intersection operating conditions associated with the Future with Project Conditions. The analysis year of 2020 corresponds to the projected full buildout year of the Project. All future background traffic growth (i.e., ambient and related project traffic growth) and transportation system improvements described in Chapter 3 are assumed in this analysis.

FUTURE WITH PROJECT INTERSECTION OPERATIONS

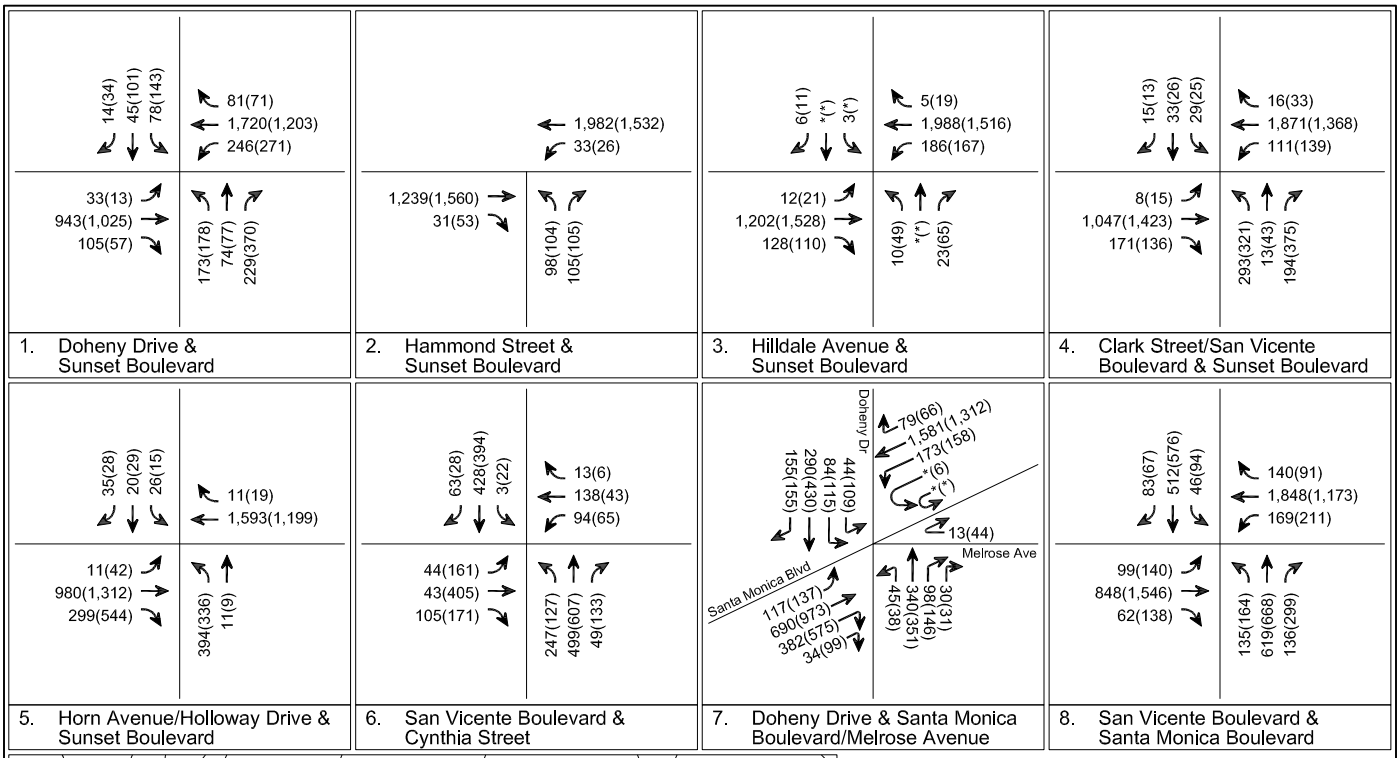
The Future with Project Conditions are defined by the traffic volumes, roadways, and intersection configurations that would exist in the year 2020 following full development of the Project. The Project-only traffic volumes described in Chapter 4 and shown in Figure 8 were added to the Future without Project traffic volumes shown in Figure 6 to obtain the Future with Project peak hour traffic volumes, shown in Figure 10.

The study intersections were analyzed using the methodologies described in Chapter 1. The Future with Project intersection operating conditions for typical weekday morning and afternoon peak hours are shown in Table 8. As shown, under the Future with Project Conditions, four of the eight study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours. The remaining four intersections are projected to operate at LOS F during both of the analyzed peak hours.

Detailed LOS worksheets are provided in Appendix C.

SUMMARY

As shown in Table 8, the incremental increase in delay with the addition of Project traffic is not anticipated to exceed the City's significance thresholds detailed in Chapter 1 at any of the eight study intersections. Thus, the Project would not result in a significant impact under Future with Project Conditions, and no mitigation measures would be required.



FUTURE WITH PROJECT CONDITIONS (YEAR 2020)
INTERSECTION PEAK HOUR TRAFFIC VOLUMES

FIGURE 10

TABLE 8
FUTURE WITH PROJECT CONDITIONS (YEAR 2020)
SIGNIFICANT IMPACT ANALYSIS

No	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions			
			Delay (sec)	LOS	Delay (sec)	LOS	Change in Delay (sec)	Impact [a]
1.	Doheny Drive &	A.M.	33.2	F *	33.6	F *	0.4	NO
	Sunset Boulevard	P.M.	42.8	F *	45.5	F *	2.7	NO
2.	Hammond Street &	A.M.	27.7	C	28.3	C	0.6	NO
	Sunset Boulevard	P.M.	17.4	B	17.5	B	0.1	NO
3.	Hilldale Avenue &	A.M.	0.7	A	1.1	A	0.4	NO
[b]	Sunset Boulevard	P.M.	0.8	A	4.0	A	3.2	NO
4.	Clark Street/San Vicente Boulevard &	A.M.	22.7	F *	25.2	F *	2.5	NO
	Sunset Boulevard	P.M.	24.0	F *	25.4	F *	1.4	NO
5.	Horn Avenue/Holloway Drive &	A.M.	28.5	C	29.4	C	0.9	NO
	Sunset Boulevard	P.M.	24.8	C	25.2	C	0.4	NO
6.	San Vicente Boulevard &	A.M.	15.6	B	15.8	B	0.2	NO
	Cynthia Street	P.M.	36.3	D	37.0	D	0.7	NO
7.	Doheny Drive &	A.M.	139.3	F	140.0	F	0.7	NO
	Santa Monica Boulevard/Melrose Avenue	P.M.	164.6	F	165.7	F	1.1	NO
8.	San Vicente Boulevard &	A.M.	85.0	F	85.1	F	0.1	NO
	Santa Monica Boulevard	P.M.	84.4	F	85.0	F	0.6	NO

Notes

* LOS for commercial corridor intersections along Sunset Boulevard based on field observations, as the calculated delay for individual intersections does not in every case account for vehicular queues along corridors, pedestrian conflicts, etc., and thus, the calculated average operating conditions may appear better than is observed. Therefore, for purposes of determining impacts, the worst case LOS assumed to be LOS F.

[a] Based on City of West Hollywood criteria, an impact is considered significant if the following criteria are met:

Intersection Formed by Two Commerical Corridors

- The addition of project traffic results in a LOS D and an increase in delay of 12 seconds or greater.
- The addition of project traffic results in a LOS E or F and an increase in delay of 8 seconds or greater.

All Other Signalized and/or 4-Way Stop-Controlled Intersections

- The addition of project traffic results in a LOS D and an increase in delay of 8 seconds or greater.
- The addition of project traffic results in a LOS E or F and an increase in delay of 5 seconds or greater.

Unsignalized Intersections

- The addition of project traffic results in a LOS D, E, or F and an increase in delay of 5 seconds or greater.

[b] Intersection is unsignalized.

Chapter 7

Congestion Management Program Analysis

This chapter presents an analysis of the regional transportation facilities in the vicinity of the Project Site, in accordance with the procedures outlined in *2010 Congestion Management Program for Los Angeles County* (Metro, 2010).

TRAFFIC IMPACT ANALYSIS GUIDELINES

The CMP requires that TIAs be performed on three types of facilities:

- Arterial Intersections
- Mainline Freeway Segments
- The Public Transit System

The CMP identifies specific arterial and freeway mainline locations for analysis.

Arterial Monitoring Intersection TIA Guidelines

The CMP requires that a TIA be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 50 trips to an arterial monitoring intersection. The CMP analysis uses the ICU methodology to determine intersection volume-to-capacity (V/C) ratio, which is used to determine the intersection LOS according to the LOS definitions provided in Table 12. A significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F (V/C > 1.00) after the addition of project traffic.

Mainline Freeway Monitoring Location TIA Guidelines

The CMP requires that a TIA be performed for all CMP mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 150 trips to a mainline freeway monitoring location (in either direction) during either the weekday morning or afternoon peak hour. The CMP analysis uses a demand-to-capacity (D/C) ratio to determine facility LOS based on capacity identified in Appendix A of the CMP. Similar to arterial monitoring intersections, a significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection D/C ratio of 0.02 or greater to a facility projected to operate at LOS F (D/C > 1.00) after the addition of project traffic.

Transit Impact Review Guidelines

The CMP requires that a transit system analysis be performed to determine whether a project would increase transit ridership beyond the current capacity of the transit system.

ARTERIAL MONITORING STATION ANALYSIS

The CMP identifies the following arterial monitoring intersections within or in proximity to the Study Area:

- Doheny Drive & Santa Monica Boulevard/Melrose Avenue (approximately 0.67 miles southwest of the Project Site)
- La Cienega Boulevard & Santa Monica Boulevard (approximately 0.60 miles east of the Project Site)
- La Cienega Boulevard & Wilshire Boulevard (approximately 1.85 miles southeast of the Project Site)

The arterial monitoring intersections listed above are located outside of the Project Study Area. Thus, morning and afternoon peak hour traffic for these intersections was based on the number of trips entering and leaving the Study Area (based on Figure 8) in the direction of the outlying

CMP arterial monitoring intersections, conservatively assuming there would be no diverging trips. Based on this methodology, the number of peak hour Project trips expected at each arterial monitoring intersection is as follows:

Intersection	Peak Hour Trips		Requires CMP Analysis?
	AM	PM	
Doheny Drive & Santa Monica Boulevard/Melrose Avenue (Intersection #7)	30	40	NO
La Cienega Boulevard & Santa Monica Boulevard	25	32	NO
La Cienega Boulevard & Wilshire Boulevard	25	32	NO

The Project would not add more than 50 peak hour trips to any of the three arterial monitoring intersections. Therefore, no further analysis was conducted or required.

FREEWAY SEGMENT ANALYSIS

The CMP identifies the following three mainline freeway monitoring location located approximately 4.50 miles from the Project Site:

Freeway Mainline	Peak Hour Trips		Requires CMP Analysis?
	AM	PM	
US 101 south of Santa Monica Boulevard			
Northbound	6	18	NO
Southbound	21	27	NO
I-10 at Overland Avenue			
Eastbound	10	7	NO
Westbound	2	9	NO
I-10 at La Brea Avenue			
Eastbound	4	18	NO
Westbound	21	14	NO

The Project would not add 150 or more trips in either direction during either peak hour. Therefore, no CMP impact would occur and no additional freeway analysis is required under the CMP criteria for existing or future conditions.

REGIONAL TRANSIT IMPACT ANALYSIS

Section B.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips. This methodology assumes an AVO factor of 1.4 in order to estimate the number of person trips to and from the Project and to provide guidance regarding the percentage of Project person trips that may use public transit to travel to and from the Project Site depending on the mix of uses and proximity to transit. Based on the assumption in the trip generation estimates shown in Table 6, a 10% to 15% transit/walk-in adjustment was applied to account for the use of non-auto travel modes (e.g., rail, light-rail, bus, bicycle, walk, etc.). For the purposes of the analysis, all transit/walk-in trip estimates from Table 6 were conservatively assumed to travel via public transit.

As shown in Table 6, accounting for internal capture reductions and the removal of existing uses, but prior to the trip reduction adjustments, the Project is anticipated to generate approximately 139 morning peak hour trips and 182 afternoon peak hour trips. Assuming an AVO of 1.4, the Project's vehicle trips result in an estimated increase of 195 person trips during the morning peak hour and 255 person trips during the afternoon peak hour. Conservatively using the 15% mode split, the Project would generate approximately 29 net new transit trips during the morning peak hour and 38 net new transit trips during the afternoon peak hour.

As detailed in Chapter 2, the Study Area is served by numerous established transit routes. The residual capacity of the analyzed transit lines within the Study Area during the morning and afternoon peak hours is approximately 1,516 and 1,540 trips, respectively. The Project's morning and afternoon peak hour person trips by transit are projected at 29 and 38 trips, respectively, or approximately less than 3% of the available capacity during morning and afternoon peak hours. Although the Project (and other related projects) will cumulatively add transit ridership, the total transit capacity of the numerous transit lines can accommodate the Project's transit trips. Therefore, the Project would not exceed regional transit capacity and transit impacts would be less than significant. Furthermore, it is assumed that public transit providers would add additional service when required in order to accommodate cumulative demand in the region. Therefore, cumulative impacts on public transit would be less than significant.

Chapter 8
Construction Impact Analysis

This chapter 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 of the Project, which may include safety, operational, or capacity impacts. This analysis was performed in accordance with the City guidelines. Though there is a small chance that Project construction activities could coincide with construction of other projects in the vicinity, the impacts of the Project would not be affected by these activities. Further, the Project would implement a construction traffic management plan that would be coordinated with other construction projects in the vicinity as necessary to minimize conflicts.

PROPOSED CONSTRUCTION SCHEDULE

The Project is anticipated to be constructed over a period of up to approximately 32 months, with construction commencing during late 2017 or early 2018 with completion anticipated in the year 2020. The construction period would include subphases of site demolition, grading, foundation, building construction, and paving/landscape. Peak haul activity occurs during site demolition and grading, and peak worker activity occurs during building construction. These two subphases of construction were studied in greater detail.

SITE DEMOLITION AND GRADING PHASE

The peak period of truck activity during construction would occur during demolition and grading of the Project Site. Based on projections compiled for the Project, approximately 48,000 cubic yards (CY) of material would be excavated and removed from the Project Site over a maximum potential 16-week period. That equates to approximately 600 CY of material exported each workday, requiring 43 haul trucks per work day based on an anticipated haul truck capacity of 14 CY each. Thus, up to 86 daily truck trips (43 inbound, 43 outbound) are forecast to occur

during the excavation and grading period, with approximately 10 trips per hour (five inbound, five outbound) uniformly over a typical eight-hour 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 16.7 of the HCM suggest a PCE of 2.0 for trucks. Assuming a PCE factor of 2.0, the 86 truck trips would be equivalent to 172 daily PCE trips. The 10 hourly truck trips would be equivalent to 20 PCE trips (10 inbound, 10 outbound) per hour. In addition, during this period a maximum of 20 construction workers would work at the Project Site. Assuming minimal carpooling amongst those workers, an 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 the implementation of the Construction Management Plan, which is described in more detail later in this chapter, 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 excavation and grading phase of construction.

Haul trucks would travel on approved truck routes designated within the City and would take the most direct route to the appropriate freeways. Trucks departing the Project Site would travel eastbound on Sunset Boulevard then southbound on La Cienega Boulevard to access I-10. Trucks arriving to the Project Site would travel northbound on La Cienega Boulevard from I-10, then westbound on Sunset Boulevard, northbound on Doheny Drive, and eastbound on Sunset Boulevard. Hilldale Avenue would be utilized to stage haul trucks arriving to the Project Site The proposed truck haul routes will be reviewed and approved by the City and identified within the Construction Management Plan.

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 onsite 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 up to 40 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 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 40 workers per day used for the purposes of this analysis conservatively represents a higher-than-expected estimate.

Assuming an AVO of 1.135 persons per vehicle to account for carpooling, as provided in *CEQA Air Quality Handbook*, 40 workers would result in a total of 35 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 70 (35 inbound and 35 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 the vicinity of the Project Site, at an appropriate location identified within the Project's Construction Management Plan approved by the City. Restrictions against workers parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site will be identified as part of the

Construction Management Plan. Construction parking may require the temporary use of offsite parking areas for materials storage and truck staging.

POTENTIAL IMPACTS ON ACCESS, TRANSIT, AND PARKING

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., sidewalk and roadways) adjacent to the Project Site. Adjacent to the Project Site, the curb lanes on Sunset Boulevard and Hilldale Avenue will be used intermittently throughout the construction period for equipment staging, concrete pumping, etc. Temporary traffic controls and/or flag men would be provided to direct traffic around any closures as required in the Construction Management Plan. The impacts associated with these lane closures are shown in Table 9, and the LOS worksheets are provided in Appendix F. As shown, lane closures would not result in a temporary significant impact at the intersection of Hilldale Avenue & Sunset Boulevard.

The use of the public right-of-way along Sunset Boulevard and Hilldale Avenue would require temporary rerouting of pedestrian traffic as the sidewalks fronting the Project Site would be closed. The Construction Management Plan would contain measures to ensure pedestrian safety along the affected sidewalks and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering).

There are no bus stops adjacent to the Project Site and, therefore, no temporary impacts to transit are expected. General public parking is allowed on both Sunset Boulevard and Hilldale Avenue (during certain hours of the day) adjacent to the Project Site, so the construction fences could result in the temporary loss of up to up to four on-street metered parking spaces on Sunset Boulevard and up to three on-street metered parking spaces on Hilldale Avenue.

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 as temporary traffic controls during all construction activities (e.g., flag men), alternate routing, and protection barriers. Such procedures and other measures (e.g., to address temporary traffic control, lane closures, sidewalk closures, etc.) have been incorporated into the Construction

Management Plan, which will be approved by the City. 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.

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. 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:

- Prohibition of construction worker parking on adjacent residential streets.
- Temporary traffic control during all construction activities adjacent to public rights-of-way to improve traffic flow on public roadways (e.g., flag men).
- Scheduling of construction activities to reduce the effect on traffic flow on surrounding arterial streets.
- Construction-related vehicles shall not park on surrounding public streets (e.g., Sunset Boulevard) unless a temporary encroachment permit is approved by the City for such parking.
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers as appropriate.
- Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.

TABLE 9
EXISTING WITH CONSTRUCTION CONDITIONS (YEAR 2016)
SIGNIFICANT IMPACT ANALYSIS

No	Intersection	Peak Hour	Existing Conditions		Existing with Construction Conditions			
			Delay (sec)	LOS	Delay (sec)	LOS	Change in Delay (sec)	Impact
3.	Hilldale Avenue &	A.M.	0.3	A	0.8	A	0.5	NO
[a]	Sunset Boulevard	P.M.	0.3	A	1.2	A	0.9	NO

Notes

[b] Intersection is unsignalized.

Chapter 9
Parking Analysis

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

PARKING SUPPLY

As proposed, the Project would provide approximately 354 parking spaces within an automated five-level subterranean garage. The automated garage would be serviced by three parking bays located on the ground level. The proposed parking layout is illustrated in Figure 11.

CODE REQUIREMENTS

Off-street parking requirements of various land uses are identified in *West Hollywood Municipal Code* (City of West Hollywood, June 2013) (WHMC); in particular, Section 19.28.040 details the required off-street parking ratio for all developments proposed within the City. The following parking rates are indicated in Table 3-6 of the WHMC:

- Offices
    - 3.5 spaces per 1,000 sf for the first 25,000 sf
    - Additional 3.0 spaces per 1,000 sf after 25,000 sf

- General Retail
    - 3.5 spaces per 1,000 sf

These parking rates were applied to the floor area of the public commercial uses.

As discussed in Chapter 4, the use and operational characteristics of The Arts Club are unique and are not similar to the available land use categories provided in the WHMC. Therefore, similar to the empirical trip generation rates, empirical parking demand rates were also developed based on the empirical data from The Arts Club London and the anticipated operational characteristics of the Project detailed in Chapter 4.

Based on the empirical data and operational assumptions, the following empirical parking demand rates were developed for The Arts Club members and employees:

- The Arts Club Members/Guests
  - 0.032 space per member/guest
- The Arts Club Employees
  - 0.023 space per member/guest

To provide a more conservative analysis, the Arts Club Members/Guests code parking requirement is based on the peak parking demand rate for a Saturday, which is higher than the rate for a weekday.

Code-Required Project Parking

The aforementioned off-street parking ratios were applied to these components in order to determine the off-street parking requirement for the Project. As detailed in Table 10, The Arts Club is required to provide a total of 385 spaces, including 224 member/guest spaces and 161 employee spaces, and the public commercial uses are required to provide 201 spaces, including 151 office spaces, 42 retail spaces, and eight museum spaces.

The total off-street parking requirement for the Project, as determined by the WHMC, is 586 parking spaces. This parking requirement, when compared to the proposed parking supply of 354 on-site parking spaces, would not be satisfied by the proposed parking supply. Thus, a deficit of 232 on-site parking spaces could be expected absent accounting for shared parking.

WHMC Parking Summary

As detailed above, the analysis indicates a parking deficit of 232 spaces and the Project would not be able to satisfy the off-street parking requirements as currently proposed.

It should be noted that the parking requirements are not necessarily reflective of the parking demands experienced with a development as a whole. Code parking requirements represent the sum of the peak parking requirements for each individual land use and do not take into account the shared parking concept (i.e., the hourly and/or day of the week variations in parking demand generated by individual land uses), nor for the synergy between uses. The WHMC analysis assumes that the demand for each land use peaks at the same time, which may lead to the provision of more parking than is needed at any given time (i.e., overestimation of required parking). Section 19.28.070 of the WHMC allows for reductions in parking requirements based on a shared parking concept if a shared parking demand study is performed to provide justification for the number of parking spaces a project will actually require. Accordingly, a shared parking analysis was performed to determine the appropriate number of parking spaces to support the Project.

SHARED PARKING DEMAND ANALYSIS

In order to determine the parking supply needed to accommodate the peak parking demand for the Project, the parking demand patterns of the various users were evaluated. As part of its national research on shared parking, the Urban Land Institute (ULI), along with the International Council of Shopping Centers (ICSC), developed a computer model that measures the peak demand for every land use within a mixed-use development. *Shared Parking, 2nd Edition* (ULI and ICSC, 2005) updated the basic methodology for analyzing parking demand in mixed-use developments and developed averages for parking rates by land use.

The parking demand model utilizes this methodology for the public commercial uses. The parking demand rates of The Arts Club were developed using member/guest and employee data provided by The Arts Club London, which includes anticipated membership, member/guest arrival and departure patterns, employee arrival and departure patterns, etc., and were calibrated to reflect the unique conditions of the Project. The parking demand model highlights

the change in parking demand patterns throughout the day for both weekday and weekend conditions

Model Calibration Methodology. *Shared Parking, 2nd Edition* defines national averages to be used for parking demand rates for various land uses and it suggests ranges of assumptions to be used for transit and internal capture. The recommended methodology, however, states that the best way to measure the demand at a particular project is to use local data to modify the national averages so that they reflect local conditions. As previously noted, the parking demand model was prepared and calibrated to the anticipated operations of the Project.

Similar to the Project trip generation assumptions, parking occupancy patterns were based on the anticipated arrival and departure patterns of members/guests and employees, length of stay, hours of operation, membership projections, etc. The parking demand model generally utilizes floor area as the metric to generate parking demand for each land use. Building floor area was used to determine the parking demand associated with the public commercial uses. However, the parking demand for the Project was based on the anticipated total membership. As described above, the model was calibrated using the anticipated operation scenarios envisioned with the Project. The process of calibration begins with the input of the land uses into the model, which generates parking demand estimates based on the ULI/ICSC database. The next steps involve refinements to the model factors, in order to have the model mimic the anticipated parking occupancy pattern. The key factors of the shared parking model include parking demand ratios, time of day, weekday vs. weekend, mode split and captive market, seasonal variation and auto occupancy are described below.

Parking Demand Ratio. The ULI/ICSC methodology requires that each land use select parking ratios; that is, the parking ratio for each land use if used independently. For the purposes of this analysis, the base rates for the public commercial uses were based on the WHMC parking rate for each land use. As previously detailed, the parking demand rates for members/guests and employees were derived based on the unique operational characteristics of The Arts Club.

Time of Day. The time of day factor is one of the key assumptions of the shared parking model. This factor reveals the hourly parking pattern of the analyzed land use; essentially, the peak demands are indicated by this factor. The research efforts of ULI/ICSC have yielded a comprehensive data set time of day factors for multiple land uses. As the demand for each land

use fluctuates over the course of the day, the ability to implement shared parking emerges. The time of day factors were adjusted to mimic the anticipated parking occupancy pattern at the Project. The Arts Club patronage is distributed throughout the day, with a peak occurring in the evening, while peak patronage to the public commercial uses occurs midday.

Weekday vs. Weekend. Each shared parking analysis measured the parking demand on a weekday as well as on a Saturday. Research has indicated that a source for variation in parking demand can be traced to the difference between weekday and weekend demand.

Seasonal Variation. The shared parking analysis in this report was based on the peak month of the year. The total parking demand of the Project was compared over the course of the year; the peak month's demand is reported.

Mode Split and Captive Market. One factor that affects the overall parking demand at a particular development is the number of visitors and employees that arrive by automobile. It is common that mixed-use projects and districts have patrons/visitors captured within the site itself based on the mixed-use nature of the Project. The mode split accounts for the number of visitors and employees that do not arrive by automobile (that use transit, walk, and other means) or are internally captured. The Project is located in proximity to an existing transit corridor; existing local bus service is available at the intersection of San Vicente Boulevard/Clark Street & Sunset Boulevard, less than 200 feet walking distance to the east. In addition, the Project is surrounded by residential and commercial developments that are not part of the Project. Due to these factors, the Project may experience higher volumes of walk-in traffic and public transit usage than the base model assumes; therefore, adjustments were made to the mode split for each land use. Adjustments consistent with the trip generation estimates were considered to account for mode split and internal capture.

Auto Occupancy. The Project's shared parking analysis used the national averages for auto occupancy, i.e., the typical number of passengers in each vehicle parking at the site, for the public commercial uses. To convert the number of members/guests and employee to number of vehicles, AVO rates were estimated based on a review of information provided by The Arts Club London, anticipated operations, member/guest trends, etc. An AVO of 1.4 (1.4 persons per vehicle) was assumed for Project members and guests, consistent with the assumptions of the CMP analysis. As a conservative estimate, Project employees were not assumed to carpool and

assumed to have an AVO of 1.0 (one person per vehicle). The shared parking model applies these assumptions/inputs and considers each land use separately, in order to identify the peak parking demands of each project component (i.e., art gallery was separated from retail). A shared parking model was prepared for the proposed land use variations.

Project Shared Parking Demand

Tables 11 and 12 detail the input assumptions and summary of the Project's shared parking analysis. For each land use, the tables show the base parking demand ratio for a weekday and a Saturday, the mode adjustment (mode split), the non-captive ratio (internal capture), and the peak hour and peak month adjustment ratios (the shared parking model calculates the peak demand to occur at 9:00 PM on a December Saturday, the busiest hour of the year for parking demand). Figures 12 and 13 illustrate the peak hour parking demand occurring during each month of the year for the weekday and Saturday, respectively.

By component, the model estimates that the busiest hour of the year would experience a parking demand of 339 spaces for The Arts Club and 11 spaces for the retail/art gallery. The office space is not anticipated to be in operation during that hour. The peak parking demand totals 350 spaces, and could be accommodated within the proposed parking supply of 354 spaces.

Figures 14 and 15 illustrate the hourly weekday and Saturday parking demand pattern, respectively, during the peak month of December.

As shown in Figure 14, the peak weekday parking demand of 317 spaces occurs at 1:00 PM, and as shown in Figure 15, the peak Saturday parking demand of 350 spaces occurs at 9:00 PM. Thus, both the weekday and Saturday peak parking demand could be accommodated within the proposed on-site supply.

The Project would also implement a Parking Management Plan to manage peak parking demands to prevent potential parking impacts on the street network and surrounding community.

PARKING MANAGEMENT PLAN (PMP)

A PMP will be developed to minimize potential parking and traffic related impacts on the surrounding street system to the extent feasible. Components of the plan include parking and traffic event management measures such as directional signage, operation/scheduling measures, identification of additional parking supplies, etc. The PMP will also include a selection of parking and traffic management strategies intended to effectively manage and direct parking demand during peak attendance for the Project. The PMP is subject to review and approval by the City and may include, but not be limited to, the following strategies:

- Implement Traffic Demand Management (TDM) strategies to encourage members, guests and employees to reduce parking demand.
- Designate an on-site TDM coordinator to implement the TDM program.
- Provide a Transportation Information Center (TIC) in a convenient and visible location to display transit information.
- Create an internal TDM website to electronically display the aforementioned TIC information.
- Monitor and participate, as appropriate, with various mobile applications that assist in the overall goal of reducing vehicle trips, traffic congestion, and automobile emissions.
- Require employees to participate in TDM education and training to shift the automobile culture toward alternative modes of transportation.
- Encourage alternate travel options (ridesharing, carpooling, transit) in marketing/media information.
- Encourage the use of ridesharing services (e.g., Uber, Lyft, etc.) by Project members and guests through operational incentives, particularly for events.
- Set up business accounts, as appropriate, with Uber Pool and/or Lyft Line for employees to use specifically for trips (or portions of trips) to and from the Project Site.
- Set up Zipcar accounts, as appropriate, for employees to use for business and/or personal use during the work day.
- Manage the use of all parking spaces in the parking garage to maximize parking efficiency and avoid underutilization of parking spaces.
- Provide preferred parking spaces for rideshare and carpool vehicles.

- Provide short-term and long-term bicycle parking and bicycle amenities (e.g., showers and lockers).

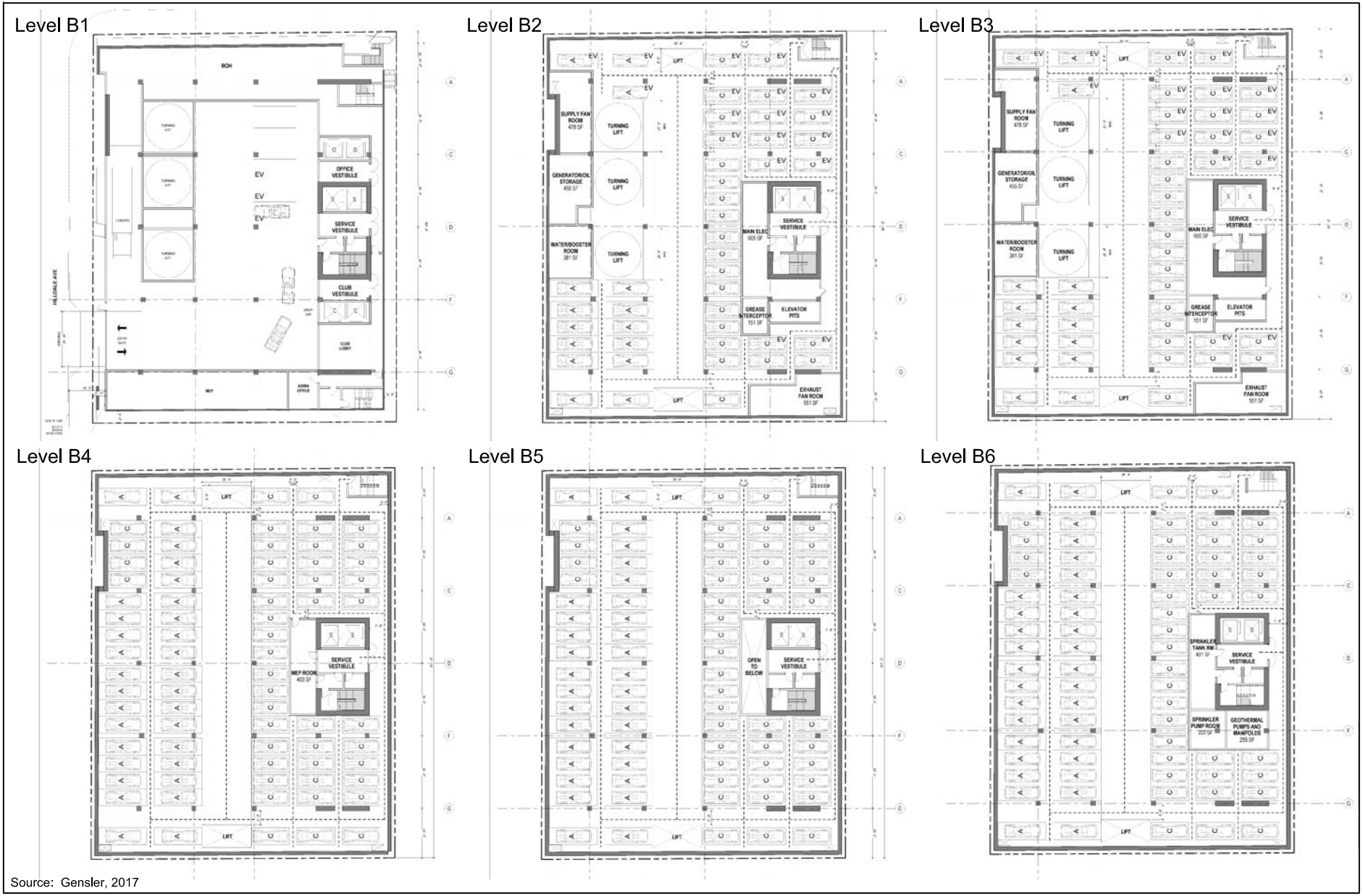
- Encourage bicycle travel by coordinating learn–to-ride education programs, how-to-ride, road safety, and maintenance classes.

- Provide unbundled leases for the tenants of the public commercial uses with the option of offering a parking cash-out allowance for those who choose to park at another location or take transit to work.

- Provide incentives to encourage employees and staff to utilize alternate travel options (e.g., discounted transit passes, employee carpooling programs, transit subsidies, guaranteed ride home programs, etc.)

- Minimize on-site parking for Project employees during peak parking demand periods.

- Secure off-site parking within nearby parking garages and parking lots to accommodate overflow parking during evening hours, as required.



Source: Gensler, 2017

PROPOSED PARKING PLAN

FIGURE 11

FIGURE 12
WEEKDAY MONTH-BY-MONTH ESTIMATED PARKING DEMAND

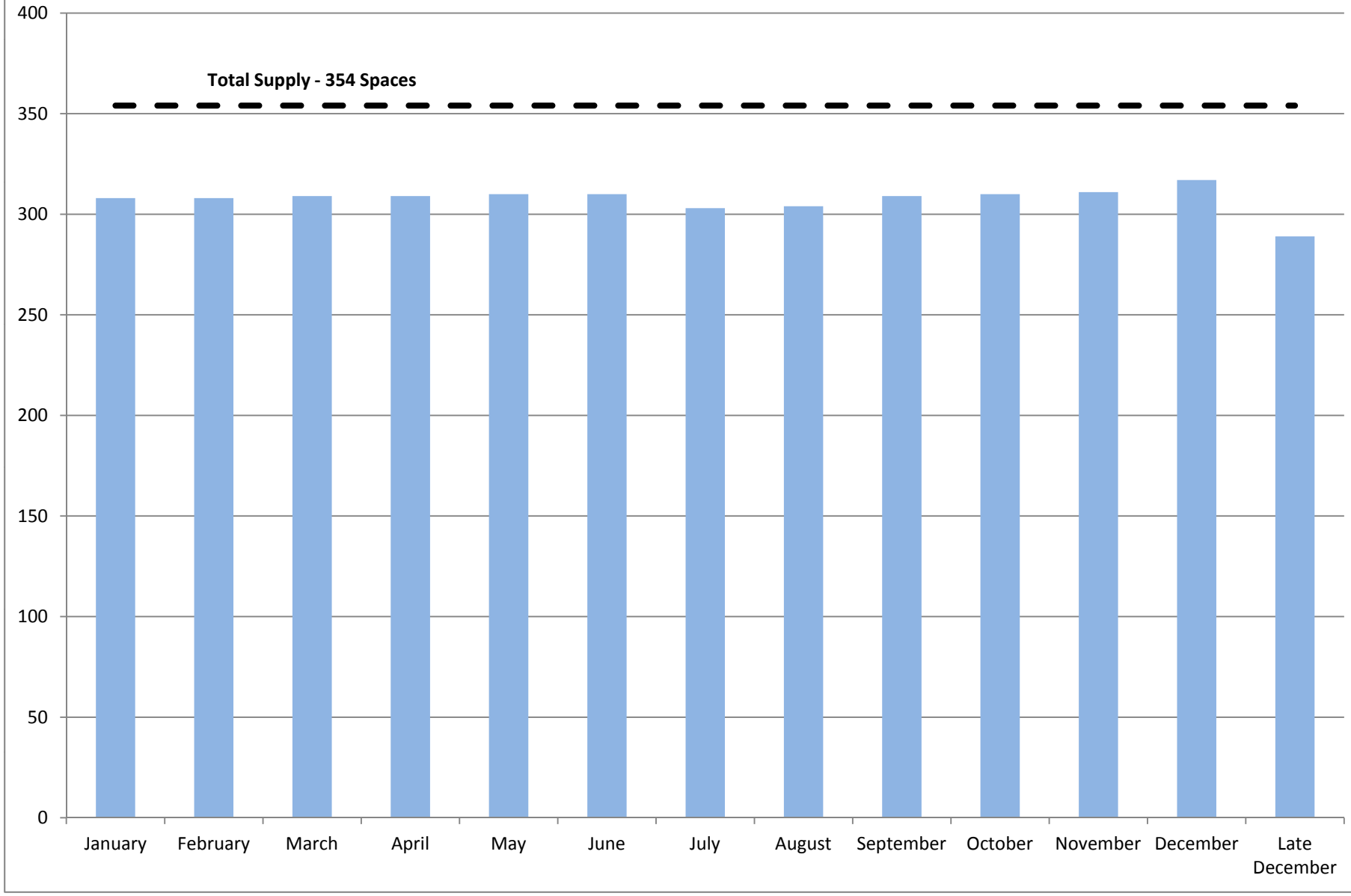


FIGURE 13
SATURDAY MONTH-BY-MONTH ESTIMATED PARKING DEMAND

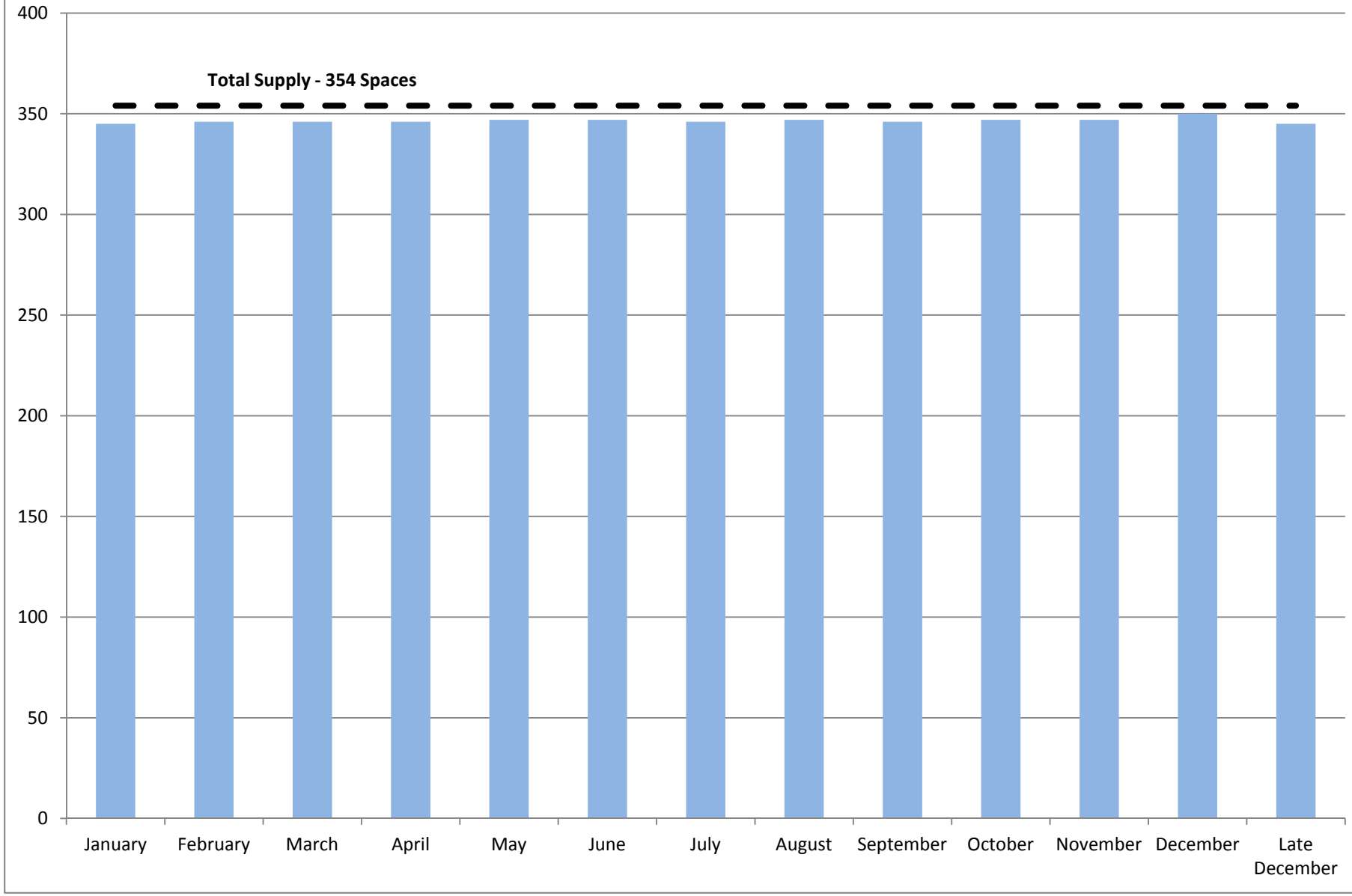


FIGURE 14
PROJECTED HOURLY PARKING DEMAND - WEEKDAY

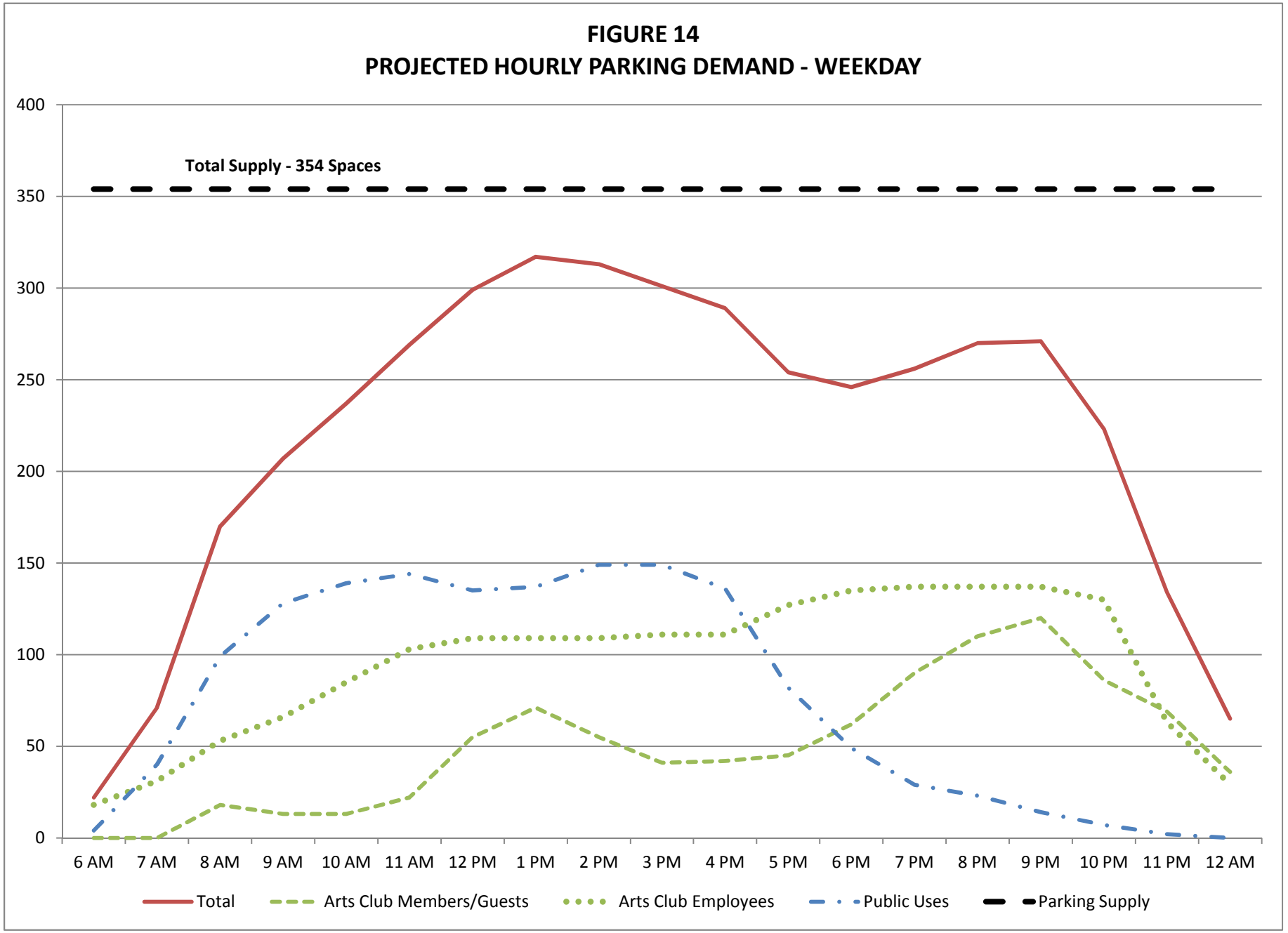


FIGURE 15
PROJECTED HOURLY PARKING DEMAND - SATURDAY

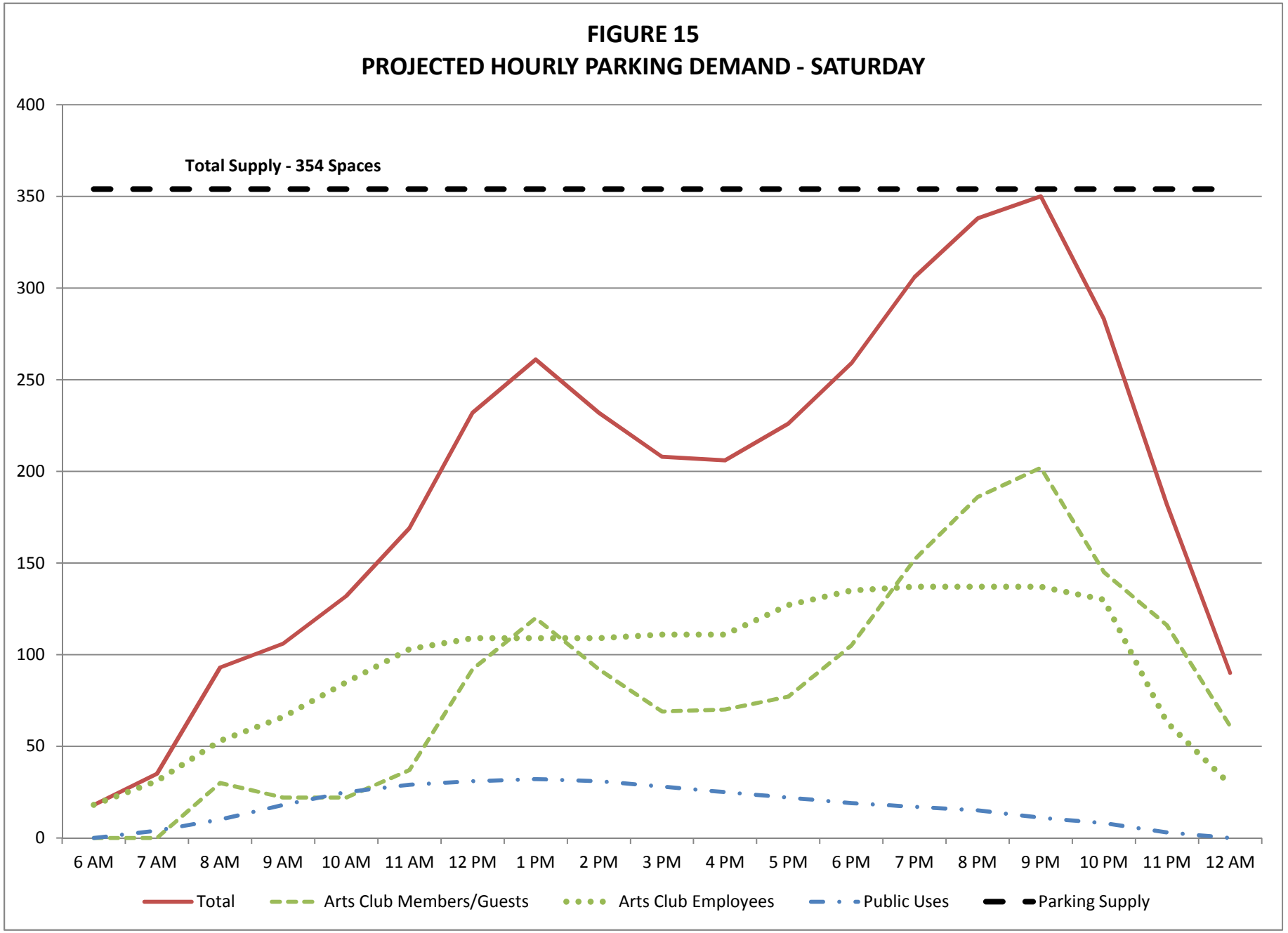


TABLE 10
CODE PARKING REQUIREMENT

Land Use	Size	Parking Rate	Code Required Parking
Arts Club Member-Only Uses [a]			
Members/Guests	7,000 members [b]	0.032 space [c] / 1 member	224 sp
Employees	7,000 members [b]	0.023 space / 1 member	161 sp
Subtotal - Arts Club Members-Only Uses			**385 sp**
Uses Open to the Public [d]			
Office	25,000 sf	3.50 spaces / 1,000 sf	88 sp
	21,009 sf	3.00 spaces / 1,000 sf	63 sp
Retail	11,933 sf	3.50 spaces / 1,000 sf	42 sp
Museum	2,192 sf	3.50 spaces / 1,000 sf	8 sp
Subtotal - Uses Open to the Public			**201 sp**
Total			**586 sp**

Notes
[a] Parking rate based on empirical data for members/guests from the Arts Club London for February 2016.
[b] Arts Club West Hollywood would have a maximum of 7,000 members.
[c] Parking rate from *West Hollywood Municipal Code* (City of West Hollywood, June 2013).
[d] For the purposes of providing a conservative analysis, the Saturday parking demand rate for Arts Club Members/Guests was utilized.

TABLE 11
SHARED PARKING DEMAND SUMMARY
ARTS CLUB WEST HOLLYWOOD

PEAK MONTH: DECEMBER -- PEAK PERIOD: 9 PM, SATURDAY

Projected Parking Supply:	354 Stalls		Weekday					Saturday					Weekday			Saturday		
Land Use	Project Data Quantity	Unit	Base Rate	Mode Adj	Non-Captive Ratio	Project Rate	Unit	Base Rate	Mode Adj	Non-Captive Ratio	Project Rate	Unit	Peak Hr Adj 1 PM	Peak Mo Adj December	Estimated Parking Demand	Peak Hr Adj 9 PM	Peak Mo Adj December	Estimated Parking Demand
Retail/Museum	14,125	sf GLA	3.50	0.85	0.50	1.49	/ksf GLA	3.85	0.85	0.50	1.64	/ksf GLA	1.00	1.00	21	0.50	1.00	11
Employee			0.00	1.00	1.00	0.00	/ksf GLA	0.00	1.00	1.00	0.00	/ksf GLA	1.00	1.00	0	0.65	1.00	0
Arts Club Member Only Use	7,000	members	0.02	0.90	1.00	0.02	/member	0.03	0.90	1.00	0.03	/member	0.60	1.00	71	1.00	1.00	202
Employee			0.02	0.85	1.00	0.02	/member	0.02	0.85	1.00	0.02	/member	0.80	1.00	109	1.00	1.00	137
Creative Office	46,009	sf GLA	3.28	0.85	1.00	2.79	/ksf GLA	0.33	0.85	1.00	0.28	/ksf GLA	0.90	1.00	116	0.00	1.00	0
Employee			0.00	1.00	1.00	0.00	/ksf GLA	0.00	1.00	1.00	0.00	/ksf GLA	0.90	1.00	0	0.00	1.00	0
														Customer	208		Customer	213
														Employee	109		Employee	137
														Reserved	0		Reserved	0
														Total	**317**		**Total**	**350**

ULI base data have been modified from default values.

TABLE 12
PEAK MONTH SHARED PARKING SUMMARY FOR
ARTS CLUB WEST HOLLYWOOD

December																								
Weekday Estimated Peak-Hour Parking Demand																								
Projected Parking Supply: 354 Stalls																					Overall Pk	AM Peak Hr	PM Peak Hr	Eve Peak Hr
	Monthly Adj.	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM	1 PM	11 AM	1 PM	9 PM
Retail/Museum	100%	-	1	3	6	11	16	19	21	21	21	20	18	17	16	14	10	6	2	-	21	16	21	10
Employee	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arts Club Member Only Use	100%	-	-	18	13	13	22	55	71	55	41	42	45	62	90	110	120	86	69	36	71	22	71	120
Employee	100%	18	31	53	66	85	103	109	109	109	111	111	127	135	137	137	137	130	63	29	109	103	109	137
Creative Office	100%	4	39	96	122	128	128	116	116	128	128	116	64	32	13	9	4	1	-	-	116	128	116	4
Subtotal Demand by User Type	Customer	4	40	117	141	152	166	190	208	204	190	178	127	111	119	133	134	93	71	36	208	166	208	134
	Employee	18	31	53	66	85	103	109	109	109	111	111	127	135	137	137	137	130	63	29	109	103	109	137
	Reserved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL DEMAND		**22**	**71**	**170**	**207**	**237**	**269**	**299**	**317**	**313**	**301**	**289**	**254**	**246**	**256**	**270**	**271**	**223**	**134**	**65**	**317**	**269**	**317**	**271**
ULI base data have been modified from default values.																					317	269	317	271

Footnote(s):

December																								
Saturday Estimated Peak-Hour Parking Demand																								
																					Overall Pk	AM Peak Hr	PM Peak Hr	Eve Peak Hr
	Monthly Adj.	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM	9 PM	11 AM	1 PM	9 PM
Retail/Museum	100%	-	1	2	8	14	16	20	22	23	23	22	21	18	17	15	11	8	3	-	11	16	22	11
Employee	100%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arts Club Member Only Use	100%	-	-	30	22	22	37	92	120	92	69	70	77	105	152	186	202	145	116	61	202	37	120	202
Employee	100%	18	31	53	66	85	103	109	109	109	111	111	127	135	137	137	137	130	63	29	137	103	109	137
Creative Office	100%	-	3	8	10	11	13	11	10	8	5	3	1	1	-	-	-	-	-	-	-	13	10	-
Subtotal Demand by User Type	Customer	-	4	40	40	47	66	123	152	123	97	95	99	124	169	201	213	153	119	61	213	66	152	213
	Employee	18	31	53	66	85	103	109	109	109	111	111	127	135	137	137	137	130	63	29	137	103	109	137
	Reserved	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GRAND TOTAL DEMAND		18	35	93	106	132	169	232	261	232	208	206	226	259	306	338	350	283	182	90	350	169	261	350
ULI base data have been modified from default values.																					350	169	261	350

Chapter 10

Summary and Conclusions

This study was undertaken to analyze the potential traffic impacts of the Project on the local street system. The following summarizes the results of this analysis:

- The Project would include an approximately 132,000 sf commercial building, including 11,933 sf of retail space, 2,192 sf of art gallery space, and 46,009 sf of office uses open to the public on Levels 1 through 4. Levels 5 through 9 would be accessible only to Arts Club members and guests. The Project would provide up to 354 parking spaces within five subterranean levels in an automated parking garage.

- The Project is estimated to generate a total of 1,961 daily trips, including 122 trips during the morning peak hour and 159 trips during the afternoon peak hour.

- Of the eight study intersections, five operate at LOS D or better under Existing Conditions (Year 2016) during both the morning and afternoon peak hours, and four intersections are anticipated to operate at LOS D or better under Future without Project Conditions(Year 2020) during both the morning and afternoon peak hours.

- The Project traffic was added to the existing circulation system to develop the Existing with Project traffic condition. Based on City significance criteria, impacts were determined to be less than significant under Existing with Project Conditions (Year 2016). Therefore, mitigation is not required.

- Future traffic conditions in the Study Area were forecast for the Project buildout year of 2020. Based on the City significance criteria, impacts were determined to be less than significant under Future with Project Conditions (Year 2020). Therefore, no mitigation measures are required or recommended for the Future with Project Conditions.

- Analysis of potential impacts on the regional transportation system conducted in accordance with CMP guidelines determined that the Project would not have a significant impact on the regional arterial system or transit system.

- The Project would provide approximately 354 parking spaces in an on-site automated parking garage. The weekday and Saturday peak parking demands would be satisfied within the on-site parking supply.

References

2010 Highway Capacity Manual, Transportation Research Board, 2010.

2010 Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, 2010.

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

Shared Parking, 2nd Edition, Urban Land Institute and International Council of Shopping Centers, 2005.

State of California Senate Bill No. 743, Steinberg, 2013.

Traffic Study Thresholds, City of West Hollywood Community Development Department, October 2009.

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

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

West Hollywood General Plan 2035, City of West Hollywood, 2011.

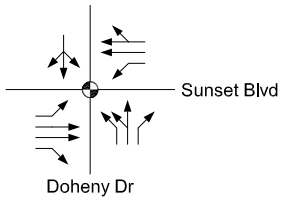
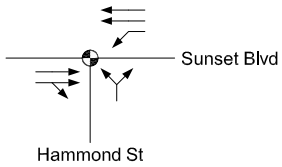
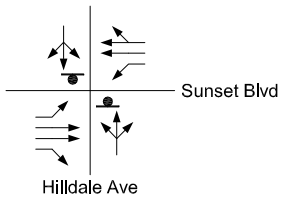
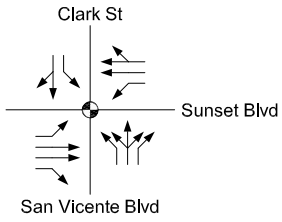
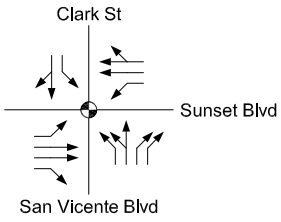
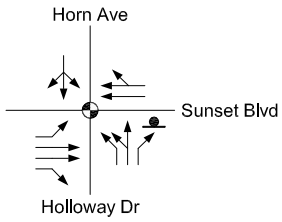
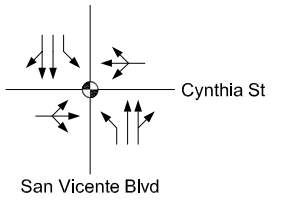
West Hollywood Municipal Code, City of West Hollywood, June 2013.

Appendix A

Intersection Lane Configurations

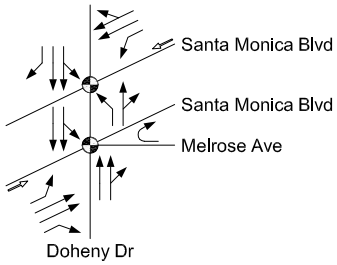
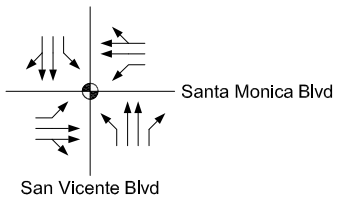
LEGEND

- Traffic Signal
- Stop Sign

	EXISTING CONDITIONS (YEAR 2016)	FUTURE CONDITIONS (YEAR 2020)
1. Doheny Drive & Sunset Boulevard		Same as Existing Conditions
2. Hammond Street & Sunset Boulevard		Same as Existing Conditions
3. Hilldale Avenue & Sunset Boulevard		Same as Existing Conditions
4. Clark Street/San Vicente Boulevard & Sunset Boulevard		
5. Horn Avenue/Holloway Drive & Sunset Boulevard		Same as Existing Conditions
6. San Vicente Boulevard & Cynthia Street		Same as Existing Conditions

LEGEND

Traffic Signal

	EXISTING CONDITIONS (YEAR 2016)	FUTURE CONDITIONS (YEAR 2020)
7. Doheny Drive & Santa Monica Santa Monica Boulevard/Melrose Avenue		Same as Existing Conditions
8. San Vicente Boulevard & Santa Monica Boulevard		Same as Existing Conditions

Appendix B

Traffic Counts

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-001 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	Doheny Dr			Doheny Dr			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	12	6	10	5	2	4	7	99	13	41	411	16	626
7:15 AM	38	6	17	5	5	6	8	106	15	48	433	15	702
7:30 AM	37	9	19	13	12	4	1	139	14	32	437	17	734
7:45 AM	43	17	29	23	18	1	14	125	13	25	440	16	764
8:00 AM	42	13	32	19	8	3	7	180	21	42	387	18	772
8:15 AM	34	17	34	15	10	4	8	189	19	33	421	17	801
8:30 AM	47	21	27	28	15	5	5	209	21	37	394	25	834
8:45 AM	40	20	37	13	11	2	12	226	30	45	372	18	826
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	293	109	205	121	81	29	62	1273	146	303	3295	142	6059
APPROACH %'s :	48.27%	17.96%	33.77%	52.38%	35.06%	12.55%	4.19%	85.96%	9.86%	8.10%	88.10%	3.80%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	163	71	130	75	44	14	32	804	91	157	1574	78	3233
PEAK HR FACTOR :		0.938			0.693			0.865			0.960		0.969

UTURNS	NB	SB	EB	WB
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
TOTAL VOLUMES :	0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-001 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	Doheny Dr			Doheny Dr			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 0.5	NR 1	SL 0	ST 1	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
4:00 PM	39	22	57	48	24	10	4	260	15	43	276	15	813
4:15 PM	37	16	64	40	22	4	5	204	7	49	247	15	710
4:30 PM	43	19	71	32	27	10	2	201	16	29	250	21	721
4:45 PM	42	17	53	18	24	9	2	192	10	34	270	17	688
5:00 PM	47	13	47	27	22	6	1	241	14	42	270	15	745
5:15 PM	50	20	63	17	24	4	3	252	10	36	247	11	737
5:30 PM	38	13	72	23	22	4	1	236	15	41	276	13	754
5:45 PM	56	18	58	21	11	3	8	183	14	31	258	24	685
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	352	138	485	226	176	50	26	1769	101	305	2094	131	5853
APPROACH %'s :	36.10%	14.15%	49.74%	50.00%	38.94%	11.06%	1.37%	93.30%	5.33%	12.06%	82.77%	5.18%	
PEAK HR START TIME :	400 PM												TOTAL
PEAK HR VOL :	161	74	245	138	97	33	13	857	48	155	1043	68	2932
PEAK HR FACTOR :		0.902			0.817			0.823			0.948		0.902

UTURNS

NB	SB	EB	WB
0	0	1	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	1	0
NB	SB	EB	WB
0	0	2	2

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Doheny Dr and Sunset Blvd , West Hollywood

Peak Hour Summary

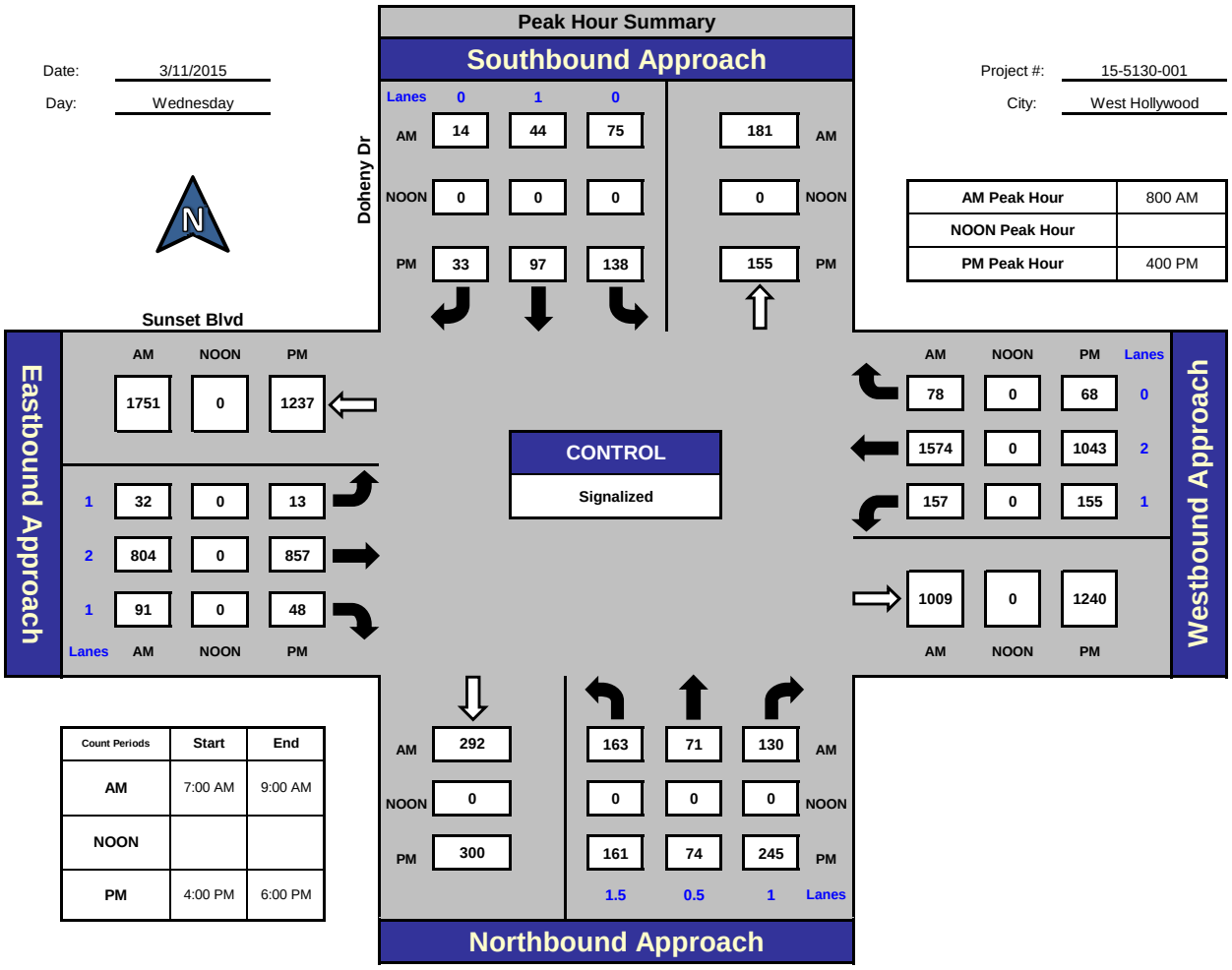
Date: 3/11/2015

Day: Wednesday

Project #: 15-5130-001

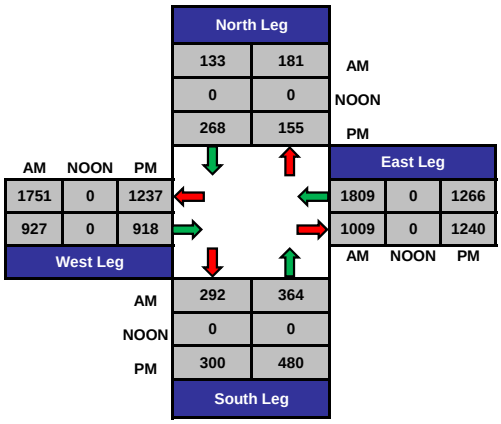
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	400 PM

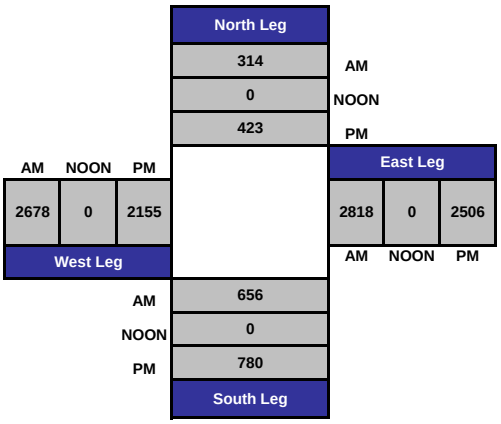


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-002 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	Hammond St			Hammond St			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	2	0	1	2	0	
7:00 AM	0	0	4	0	0	0	0	118	5	5	467	0	599
7:15 AM	2	0	2	0	0	0	0	128	2	3	506	0	643
7:30 AM	1	0	3	0	0	0	0	168	5	9	487	0	673
7:45 AM	6	0	9	0	0	0	0	179	3	3	480	0	680
8:00 AM	11	0	27	0	0	0	0	229	14	8	451	0	740
8:15 AM	8	0	16	0	0	0	0	237	7	8	469	0	745
8:30 AM	11	0	4	0	0	0	0	260	5	7	458	0	745
8:45 AM	4	0	4	0	0	0	0	273	4	9	416	0	710
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	43	0	69	0	0	0	0	1592	45	52	3734	0	5535
APPROACH %'s :	38.39%	0.00%	61.61%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	97.25%	2.75%	1.37%	98.63%	0.00%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	34	0	51	0	0	0	0	999	30	32	1794	0	2940
PEAK HR FACTOR :		0.559			0.000			0.929			0.957		0.987

UTURNS	NB	SB	EB	WB

	NB	SB	EB	WB
TOTAL VOLUMES :	0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-002 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	Hammond St			Hammond St			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	2	0	1	2	0	
4:00 PM	5	0	7	0	0	0	0	385	10	7	348	0	762
4:15 PM	2	0	7	0	0	0	0	318	9	10	300	0	646
4:30 PM	10	0	15	0	0	0	0	318	11	7	314	0	675
4:45 PM	10	0	5	0	0	0	0	258	10	5	330	0	618
5:00 PM	17	0	14	0	0	0	0	344	14	7	328	0	724
5:15 PM	8	0	23	0	0	0	0	338	11	7	303	0	690
5:30 PM	9	0	12	0	0	0	0	317	15	6	330	0	689
5:45 PM	14	0	20	0	0	0	0	244	15	9	309	0	611
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	75	0	103	0	0	0	0	2522	95	58	2562	0	5415
APPROACH %'s :	42.13%	0.00%	57.87%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	96.37%	3.63%	2.21%	97.79%	0.00%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	44	0	54	0	0	0	0	1257	50	25	1291	0	2721
PEAK HR FACTOR :		0.790			0.000			0.913			0.979		0.940

UTURNS				
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

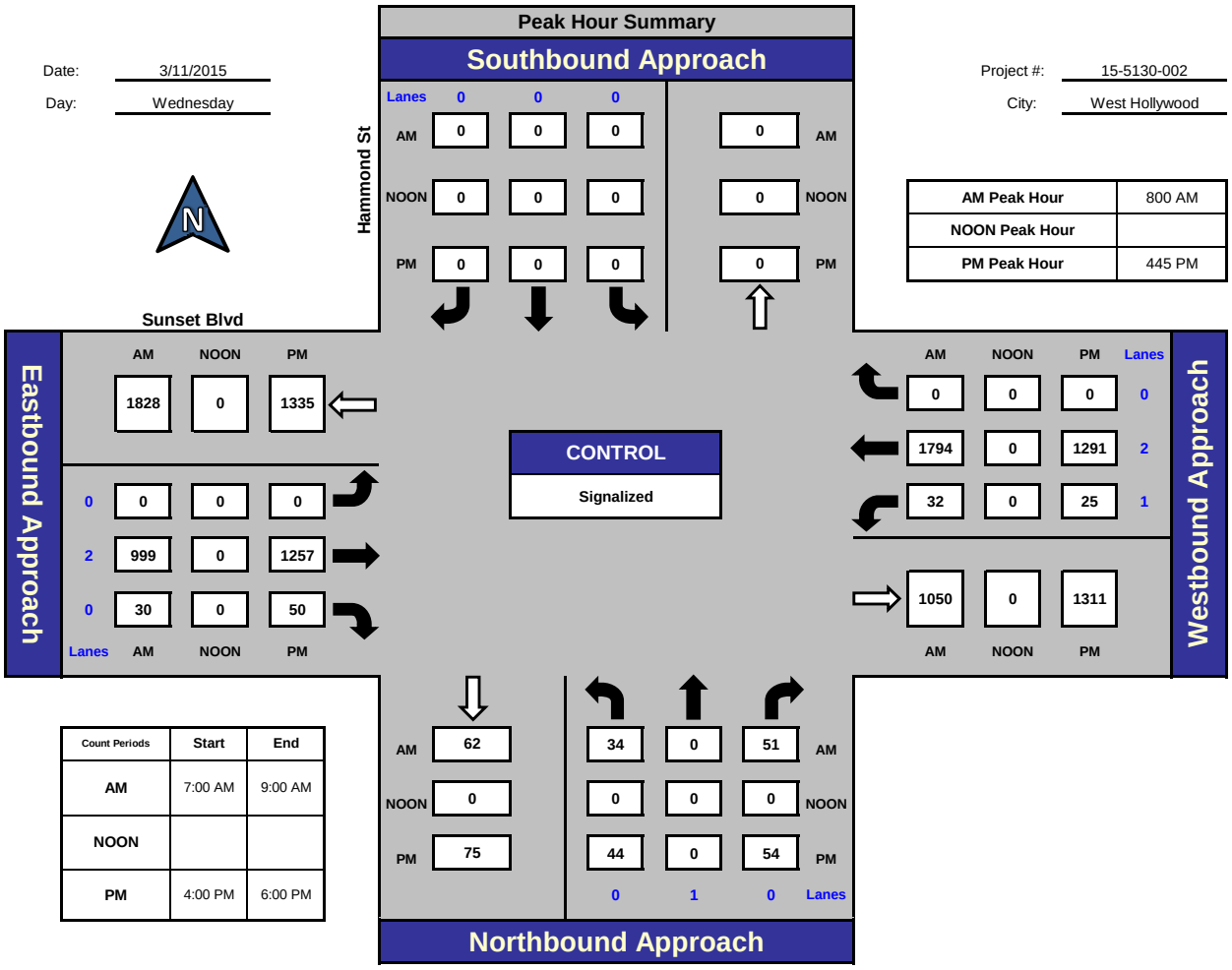
National Data & Surveying Services

Hammond St and Sunset Blvd , West Hollywood

Date: 3/11/2015
Day: Wednesday

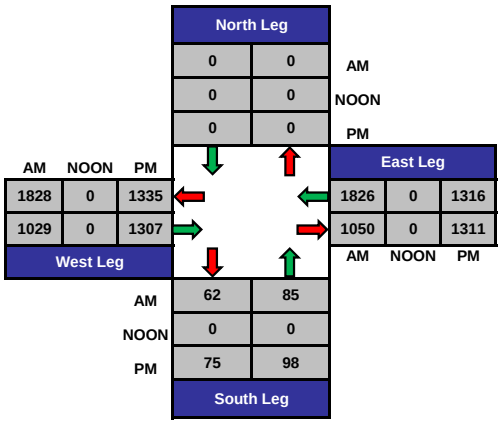
Project #: 15-5130-002
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	445 PM

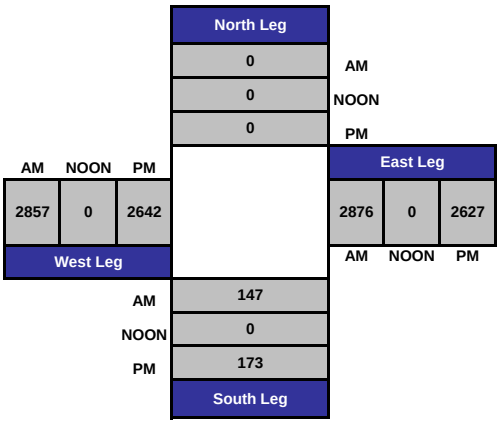


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-003 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	Hilldale Ave			Hilldale Ave			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	1	119	2	2	472	0	596
7:15 AM	1	0	2	1	0	0	0	129	0	2	507	0	642
7:30 AM	0	0	1	1	0	1	2	160	1	2	492	4	664
7:45 AM	0	0	2	0	0	0	3	188	0	7	477	3	680
8:00 AM	0	0	3	1	0	2	5	234	4	8	457	1	715
8:15 AM	0	0	8	0	0	1	1	259	2	5	474	2	752
8:30 AM	0	0	1	1	0	2	4	260	0	4	459	2	733
8:45 AM	0	0	1	1	0	1	2	279	0	2	419	0	705
TOTAL VOLUMES :	1	0	18	5	0	7	18	1628	9	32	3757	12	5487
APPROACH %'s :	5.26%	0.00%	94.74%	41.67%	0.00%	58.33%	1.09%	98.37%	0.54%	0.84%	98.84%	0.32%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	0	0	13	3	0	6	12	1032	6	19	1809	5	2905
PEAK HR FACTOR :		0.406			0.750			0.934			0.953		0.966

UTURNS	NB	SB	EB	WB
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	1	2
	0	0	2	0
	0	0	0	1
	0	0	0	1
	0	0	0	0
TOTAL VOLUMES :	0	0	3	4

CONTROL : 2-Way Stop (NB/SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-003 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	Hilldale Ave			Hilldale Ave			Sunset Blvd			Sunset Blvd				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
LANES:	0	1	0	0	1	0	1	2	0	1	2	0					
4:00 PM	0	0	4	1	0	5	0	387	1	3	345	3	749	0	0	0	2
4:15 PM	0	0	4	0	0	3	2	301	4	4	312	2	632	0	0	1	2
4:30 PM	0	0	3	1	0	2	1	348	4	4	326	3	692	0	0	0	2
4:45 PM	1	0	3	0	0	5	9	250	1	2	335	5	611	0	0	0	0
5:00 PM	1	0	4	0	0	3	1	350	1	6	327	4	697	0	0	0	4
5:15 PM	0	0	3	0	0	3	6	351	1	7	316	3	690	0	0	2	1
5:30 PM	1	0	8	0	0	0	4	328	3	4	342	6	696	0	0	0	0
5:45 PM	3	0	5	1	0	6	4	250	3	6	314	4	596	0	0	0	0
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
TOTAL VOLUMES :	6	0	34	3	0	27	27	2565	18	36	2617	30	5363	0	0	3	11
APPROACH %'s :	15.00%	0.00%	85.00%	10.00%	0.00%	90.00%	1.03%	98.28%	0.69%	1.34%	97.54%	1.12%					
PEAK HR START TIME :	445 PM												TOTAL				
PEAK HR VOL :	3	0	18	0	0	11	20	1279	6	19	1320	18	2694				
PEAK HR FACTOR :		0.583			0.550			0.911			0.964		0.966				

CONTROL : 2-Way Stop (NB/SB)

ITM Peak Hour Summary

Prepared by:

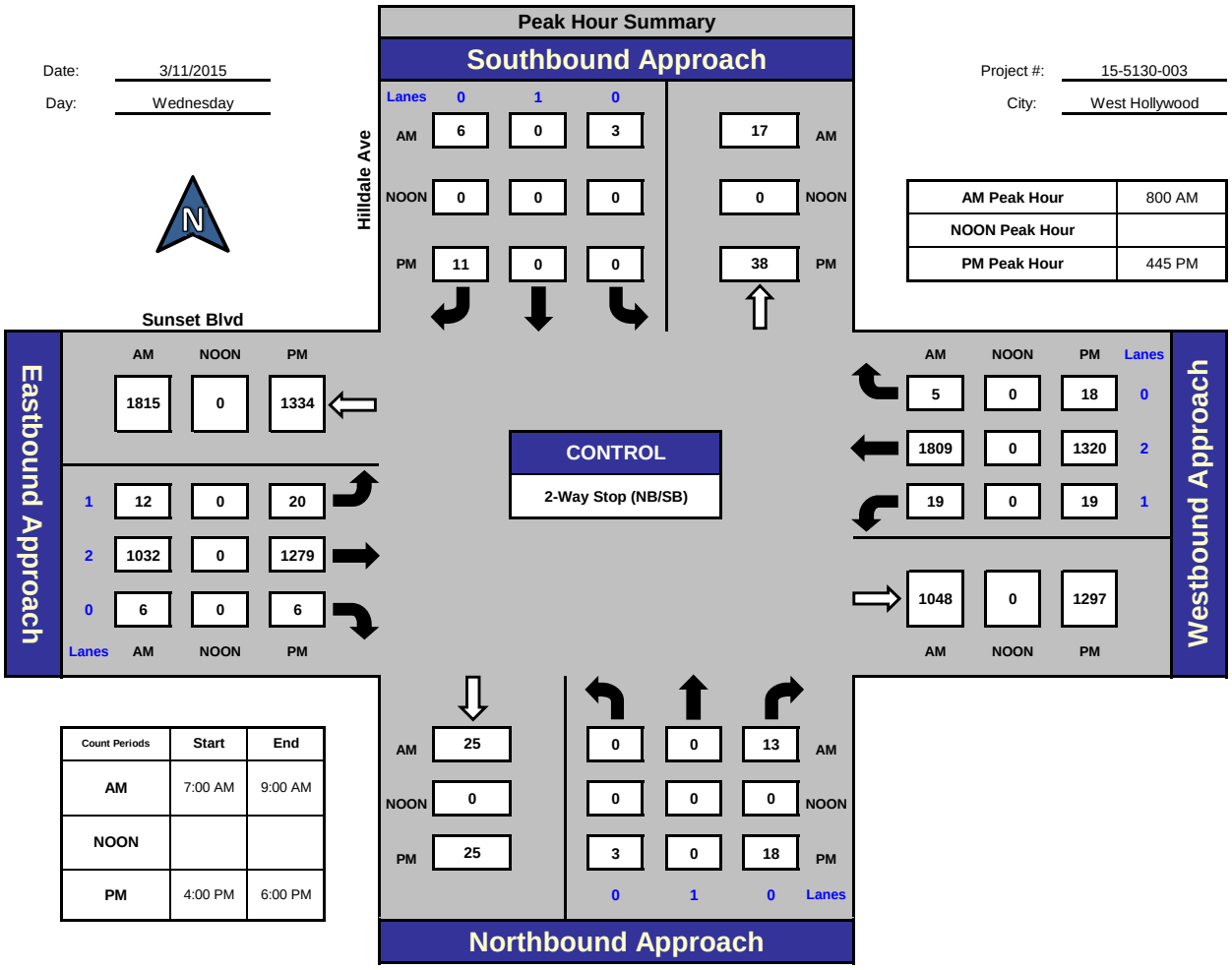
National Data & Surveying Services

Hilldale Ave and Sunset Blvd , West Hollywood

Date: 3/11/2015
Day: Wednesday

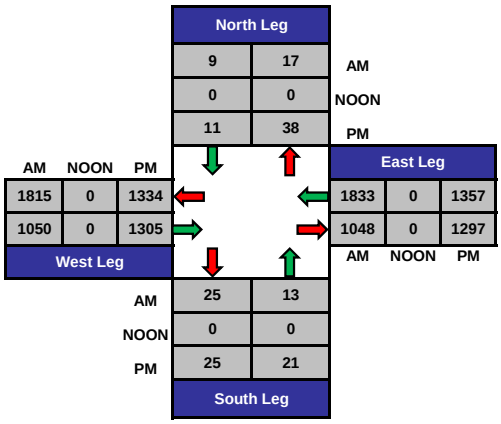
Project #: 15-5130-003
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	445 PM

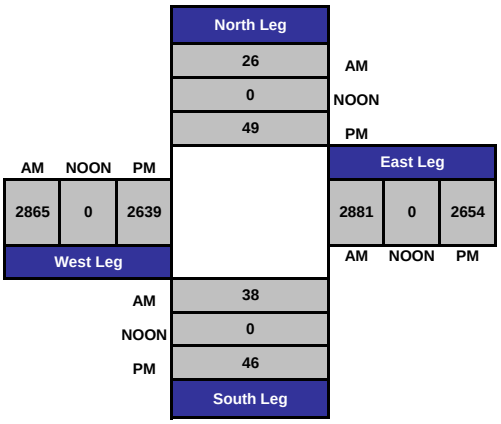


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-004 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	Clark St/San Vicente Blvd			Clark St/San Vicente Blvd			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.3	NT 0.3	NR 1.3	SL 1	ST 1	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	44	3	22	1	5	1	2	89	19	9	435	0	630
7:15 AM	43	4	24	2	3	0	4	106	23	24	467	2	702
7:30 AM	46	2	25	4	4	3	0	133	26	25	456	1	725
7:45 AM	49	4	29	7	7	2	1	156	31	24	433	0	743
8:00 AM	47	3	37	10	5	6	0	188	39	33	420	5	793
8:15 AM	56	3	67	6	12	3	5	222	42	20	424	5	865
8:30 AM	39	5	41	10	8	6	1	226	30	27	418	3	814
8:45 AM	52	2	38	2	7	0	2	256	35	23	363	3	783
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	376	26	283	42	51	21	15	1376	245	185	3416	19	6055
APPROACH %'s :	54.89%	3.80%	41.31%	36.84%	44.74%	18.42%	0.92%	84.11%	14.98%	5.11%	94.36%	0.52%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	194	13	183	28	32	15	8	892	146	103	1625	16	3255
PEAK HR FACTOR :		0.774			0.781			0.892			0.952		0.941

UTURNS	NB	SB	EB	WB
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	NB	SB	EB	WB
	0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-004 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	Clark St/San Vicente Blvd			Clark St/San Vicente Blvd			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.3	NT 0.3	NR 1.3	SL 1	ST 1	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
4:00 PM	57	3	66	8	7	4	5	350	36	36	284	2	858
4:15 PM	29	15	60	8	8	2	4	288	20	39	280	18	771
4:30 PM	51	6	70	5	12	2	1	328	19	41	276	2	813
4:45 PM	51	10	90	7	2	6	3	233	15	30	291	6	744
5:00 PM	49	14	80	8	10	1	2	320	26	39	284	12	845
5:15 PM	63	9	90	6	3	2	7	317	29	30	266	5	827
5:30 PM	58	9	97	3	10	4	3	305	21	31	283	9	833
5:45 PM	48	9	91	8	2	2	0	234	17	37	278	3	729
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	406	75	644	53	54	23	25	2375	183	283	2242	57	6420
APPROACH %'s :	36.09%	6.67%	57.24%	40.77%	41.54%	17.69%	0.97%	91.95%	7.08%	10.96%	86.83%	2.21%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	221	42	357	24	25	13	15	1175	91	130	1124	32	3249
PEAK HR FACTOR :		0.945			0.816			0.907			0.960		0.961

UTURNS

	NB	SB	EB	WB
	0	0	0	0
	0	0	0	1
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	NB	SB	EB	WB
	0	0	0	1

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Clark St/San Vicente Blvd and Sunset Blvd , West Hollywood

Date: 3/11/2015
Day: Wednesday

Project #: 15-5130-004
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	445 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Peak Hour Summary

Southbound Approach (Clark St/San Vicente Blvd)

Lanes	0	1	1		
AM	15	32	28	37	AM
NOON	0	0	0	0	NOON
PM	13	25	24	89	PM

Eastbound Approach (Sunset Blvd)

Lanes	AM	NOON	PM
	1834	0	1358
1	8	0	15
2	892	0	1175
1	146	0	91
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
16	0	32	0
1625	0	1124	2
103	0	130	1
1103	0	1556	
AM	NOON	PM	

CONTROL: Signalized

Northbound Approach

AM	281	194	13	183	AM
NOON	0	0	0	0	NOON
PM	246	221	42	357	PM
		1.3	0.3	1.3	Lanes

Total Ins & Outs

	North Leg		
	75	37	AM
	0	0	NOON
	62	89	PM

West Leg				East Leg		
AM	NOON	PM		AM	NOON	PM
1834	0	1358		1744	0	1286
1046	0	1281		1103	0	1556

	South Leg	
AM	281	390
NOON	0	0
PM	246	620

Total Volume Per Leg

	North Leg	
AM	112	
NOON	0	
PM	151	

West Leg			East Leg		
AM	NOON	PM	AM	NOON	PM
2880	0	2639	2847	0	2842

	South Leg
AM	671
NOON	0
PM	866

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-005 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	Horn Ave			Horn Ave			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 0.5	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 1	WL 0	WT 2	WR 0	TOTAL
7:00 AM	105	1	0	2	6	3	1	86	24	0	336	1	565
7:15 AM	110	0	0	4	2	5	1	109	30	0	381	3	645
7:30 AM	108	2	0	2	4	11	3	126	31	0	368	3	658
7:45 AM	89	2	0	6	3	9	4	156	54	0	327	3	653
8:00 AM	87	0	0	2	1	7	2	196	59	0	386	4	744
8:15 AM	100	2	0	11	8	6	4	206	51	0	320	2	710
8:30 AM	83	6	0	4	4	9	3	225	79	0	354	3	770
8:45 AM	75	3	0	8	6	12	2	219	76	0	329	2	732
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	757	16	0	39	34	62	20	1323	404	0	2801	21	5477
APPROACH %'s :	97.93%	2.07%	0.00%	28.89%	25.19%	45.93%	1.14%	75.73%	23.13%	0.00%	99.26%	0.74%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	345	11	0	25	19	34	11	846	265	0	1389	11	2956
PEAK HR FACTOR :		0.873			0.750			0.914			0.897		0.960

UTURNS

NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-005 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	Horn Ave			Horn Ave			Sunset Blvd			Sunset Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1.5	NT 0.5	NR 0	SL 0	ST 1	SR 0	EL 1	ET 2	ER 1	WL 0	WT 2	WR 0	TOTAL
4:00 PM	66	4	0	2	8	3	6	299	117	0	263	3	771
4:15 PM	64	4	0	0	5	3	4	257	112	0	258	4	711
4:30 PM	74	6	0	6	8	8	5	281	104	0	222	6	720
4:45 PM	83	1	0	4	5	9	15	260	103	0	249	4	733
5:00 PM	69	3	0	7	9	8	7	269	133	0	248	2	755
5:15 PM	56	2	0	2	6	5	10	290	127	0	247	6	751
5:30 PM	78	3	0	2	8	5	9	281	127	0	250	6	769
5:45 PM	72	3	0	3	6	9	10	233	105	0	253	5	699
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	562	26	0	26	55	50	66	2170	928	0	1990	36	5909
APPROACH %'s :	95.58%	4.42%	0.00%	19.85%	41.98%	38.17%	2.09%	68.58%	29.33%	0.00%	98.22%	1.78%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	286	9	0	15	28	27	41	1100	490	0	994	18	3008
PEAK HR FACTOR :		0.878			0.729			0.955			0.988		0.978

UTURNS	NB	SB	EB	WB
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	1	0
	NB	SB	EB	WB
	0	0	1	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

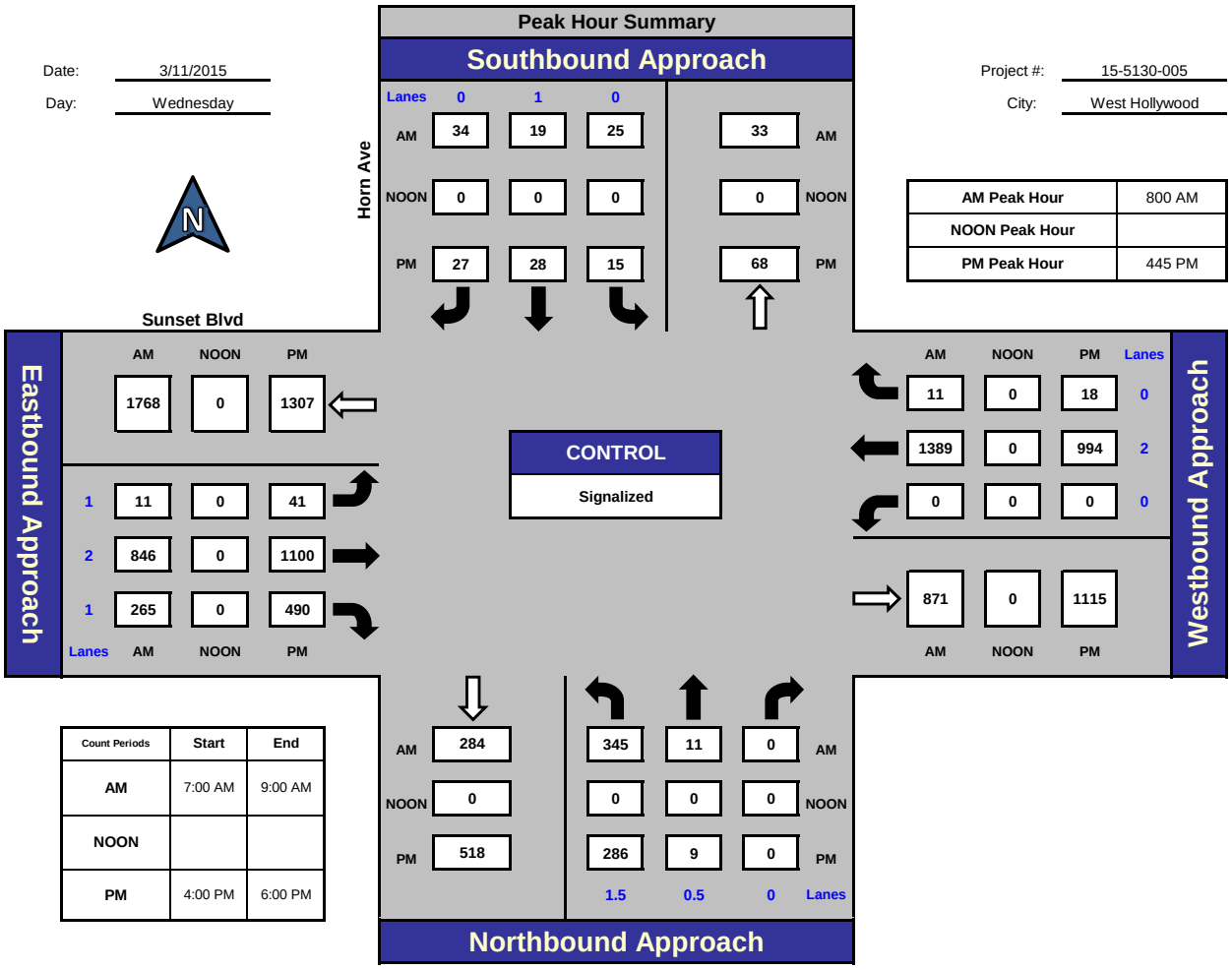
Horn Ave and Sunset Blvd , West Hollywood

Date: 3/11/2015
Day: Wednesday

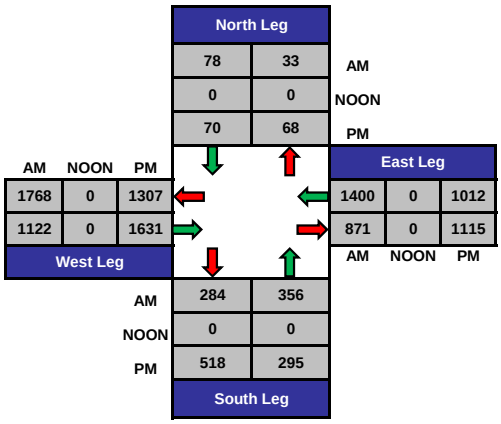
Project #: 15-5130-005
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	445 PM

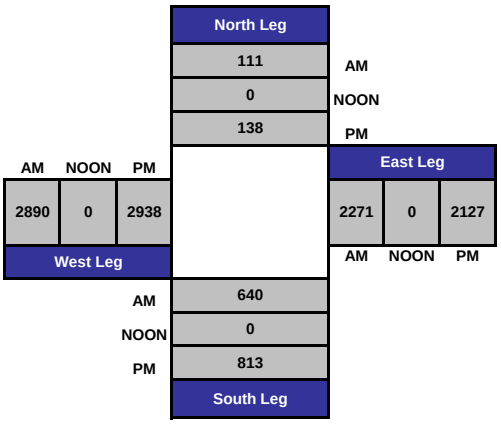
Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-105 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	Palm Ave			Palm Ave			Holloway Dr			Holloway Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0	NT 1	NR 0	SL 0	ST 0	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	3	9	0	0	0	0	29	1	21	103	2	168
7:15 AM	0	3	10	0	0	0	0	31	1	20	114	6	185
7:30 AM	1	3	9	0	0	0	0	32	3	12	105	3	168
7:45 AM	0	3	14	0	0	0	0	53	5	15	94	4	188
8:00 AM	3	4	16	0	0	0	0	56	4	25	84	4	196
8:15 AM	1	3	18	0	0	0	0	52	7	24	96	4	205
8:30 AM	1	1	27	0	0	0	0	77	7	23	91	2	229
8:45 AM	1	6	20	0	0	0	0	75	7	17	78	0	204
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	7	26	123	0	0	0	0	405	35	157	765	25	1543
APPROACH %'s :	4.49%	16.67%	78.85%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	92.05%	7.95%	16.58%	80.78%	2.64%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	6	14	81	0	0	0	0	260	25	89	349	10	834
PEAK HR FACTOR :		0.871			0.000			0.848			0.903		0.910

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : 1-Way Stop (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-105 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	Palm Ave			Palm Ave			Holloway Dr			Holloway Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	1	0	0	1	0	
4:00 PM	0	5	55	0	0	0	0	120	4	24	70	12	290
4:15 PM	0	8	58	0	0	0	0	107	9	15	71	12	280
4:30 PM	2	8	54	0	0	0	0	103	11	19	79	10	286
4:45 PM	2	3	65	0	0	0	0	100	4	22	82	15	293
5:00 PM	2	6	57	0	0	0	0	135	10	27	65	12	314
5:15 PM	0	8	70	0	0	0	0	126	5	18	58	12	297
5:30 PM	0	11	68	0	0	0	0	125	8	14	81	17	324
5:45 PM	0	9	60	0	0	0	0	107	4	28	78	12	298
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	6	58	487	0	0	0	0	923	55	167	584	102	2382
APPROACH %'s :	1.09%	10.53%	88.38%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	94.38%	5.62%	19.58%	68.46%	11.96%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	2	34	255	0	0	0	0	493	27	87	282	53	1233
PEAK HR FACTOR :		0.921			0.000			0.897			0.894		0.951

UTURNS

NB	SB	EB	WB

NB	SB	EB	WB
0	0	0	0

CONTROL : 1-Way Stop (NB)

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Palm Ave and Holloway Dr , West Hollywood

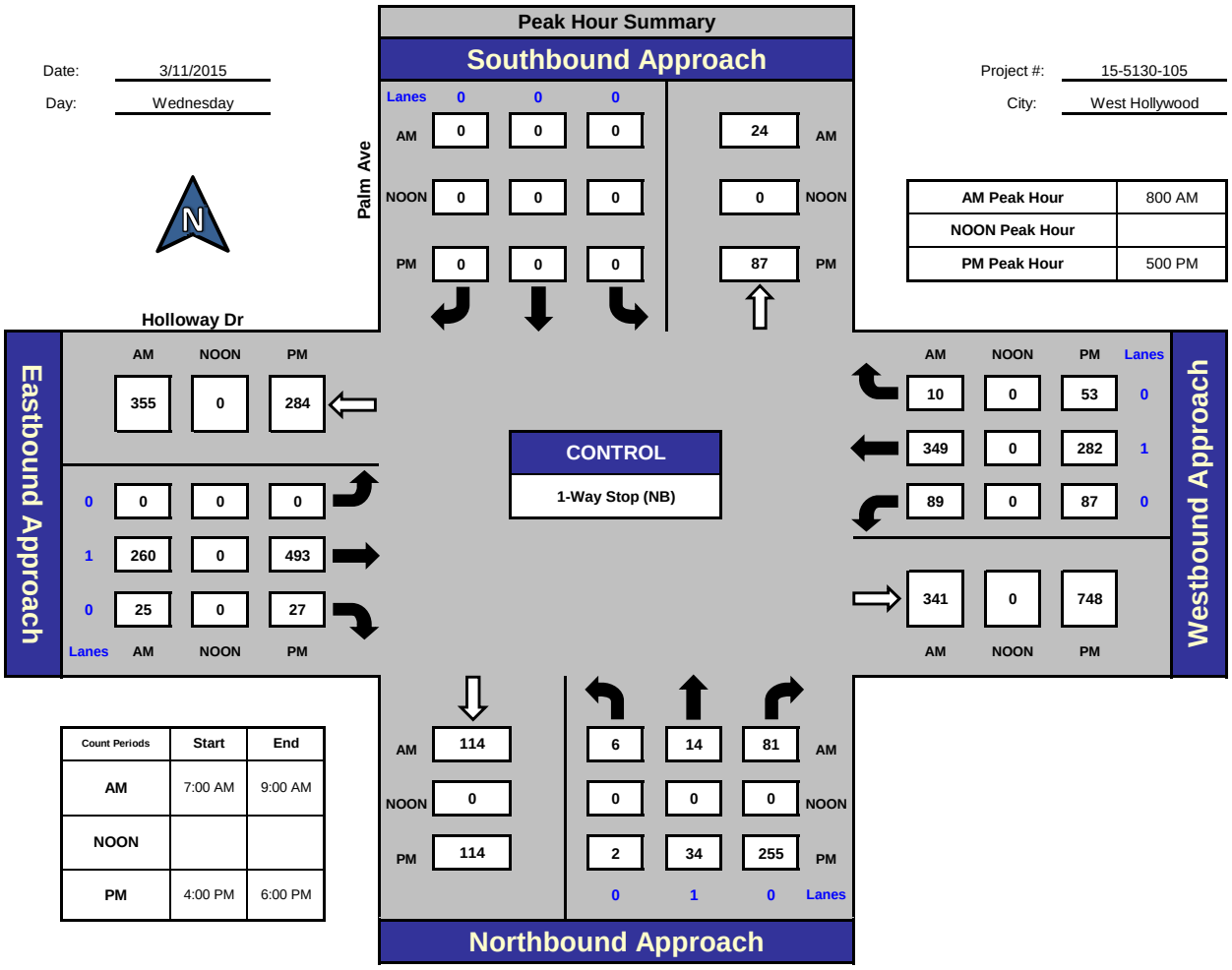
Date: 3/11/2015

Day: Wednesday

Project #: 15-5130-105

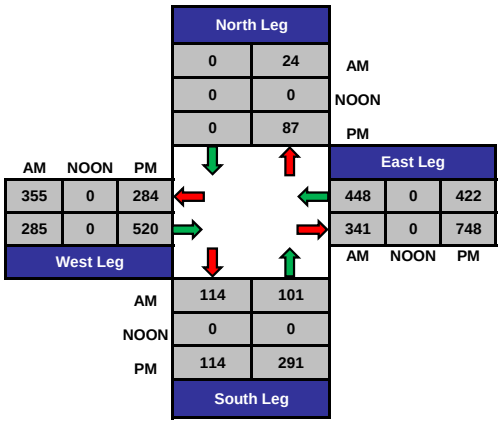
City: West Hollywood

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

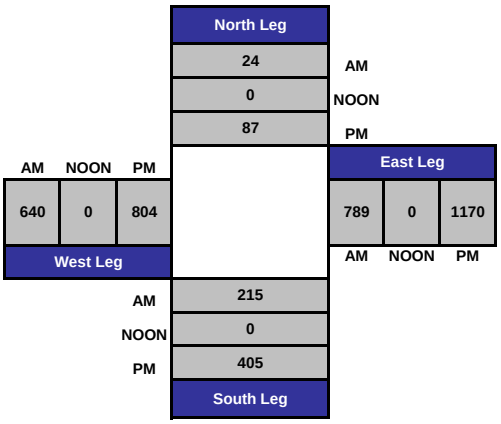


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-006 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	San Vicente Blvd			San Vicente Blvd			Cynthia St			Cynthia St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	11	60	1	1	34	3	4	5	5	11	10	1	146
7:15 AM	19	76	8	0	58	2	7	4	13	14	15	0	216
7:30 AM	30	78	6	1	67	4	4	4	8	18	14	4	238
7:45 AM	57	109	16	2	67	7	1	9	11	19	25	6	329
8:00 AM	86	104	13	1	104	17	2	8	19	23	20	4	401
8:15 AM	55	106	9	0	123	14	15	10	27	27	34	3	423
8:30 AM	32	78	15	2	82	19	9	13	25	13	43	5	336
8:45 AM	65	114	11	0	72	10	4	11	15	27	36	1	366
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	355	725	79	7	607	76	46	64	123	152	197	24	2455
APPROACH %'s :	30.63%	62.55%	6.82%	1.01%	87.97%	11.01%	19.74%	27.47%	52.79%	40.75%	52.82%	6.43%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	238	402	48	3	381	60	30	42	86	90	133	13	1526
PEAK HR FACTOR :		0.847			0.810			0.760			0.922		0.902

UTURNS	NB	SB	EB	WB
	1	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	NB	SB	EB	WB
	1	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-006 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	San Vicente Blvd			San Vicente Blvd			Cynthia St			Cynthia St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
4:00 PM	38	105	19	4	86	4	18	53	42	14	8	0	391
4:15 PM	29	109	24	1	82	4	29	81	38	16	13	5	431
4:30 PM	31	125	27	4	92	10	24	69	55	22	9	1	469
4:45 PM	26	118	33	2	70	5	44	81	47	14	13	1	454
5:00 PM	26	118	37	5	77	6	37	93	36	14	12	4	465
5:15 PM	30	142	24	7	88	5	34	101	40	16	11	0	498
5:30 PM	26	120	32	4	82	5	40	98	41	15	8	0	471
5:45 PM	40	125	35	5	82	11	32	97	33	17	11	2	490
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	246	962	231	32	659	50	258	673	332	128	85	13	3669
APPROACH %'s :	17.10%	66.85%	16.05%	4.32%	88.93%	6.75%	20.43%	53.29%	26.29%	56.64%	37.61%	5.75%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	122	505	128	21	329	27	143	389	150	62	42	6	1924
PEAK HR FACTOR :		0.944			0.943			0.953			0.917		0.966

UTURNS	NB	SB	EB	WB
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	1	0	0
	0	0	0	0
	0	0	0	0
	NB	SB	EB	WB
TOTAL VOLUMES :	0	1	0	0

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

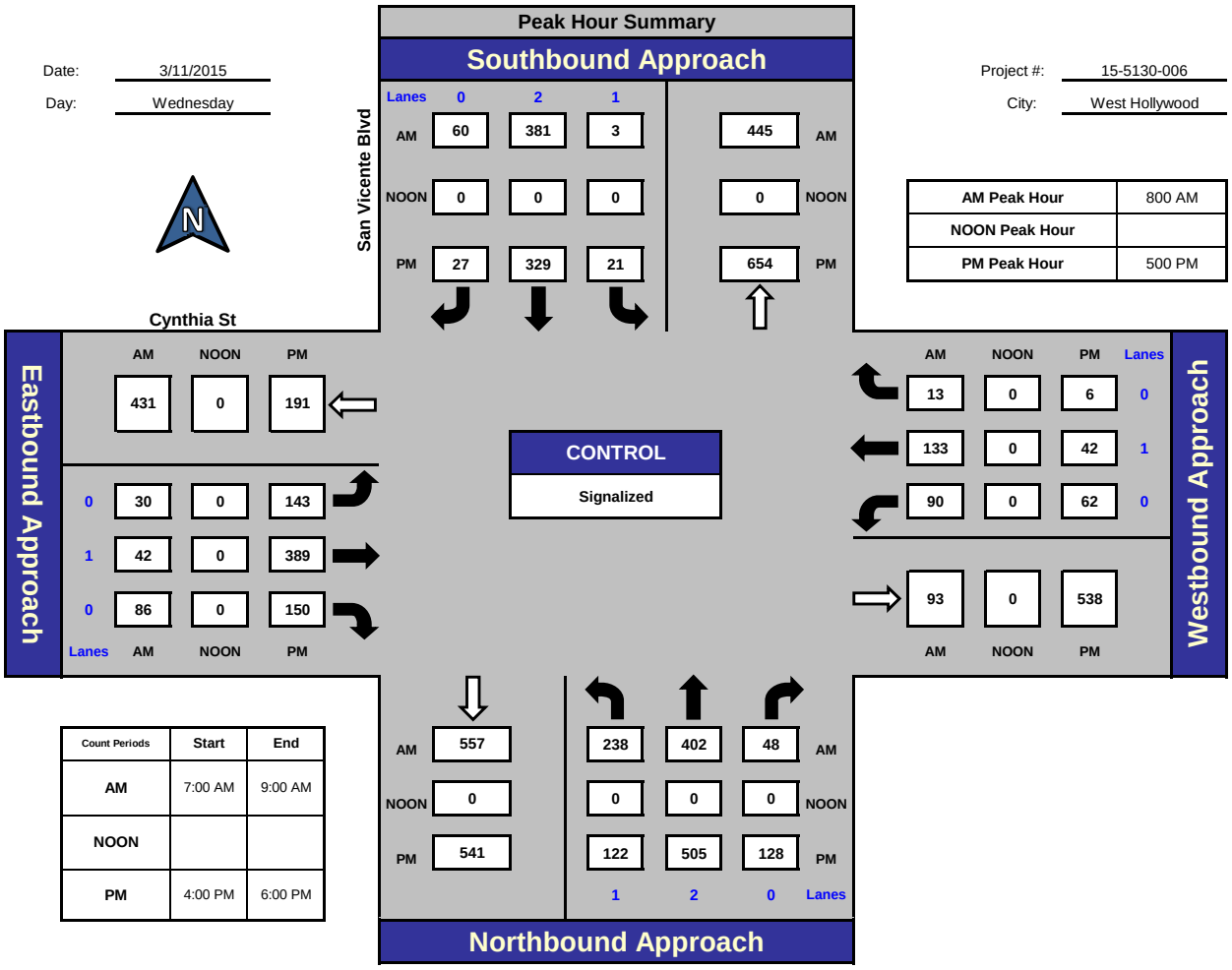
National Data & Surveying Services

San Vicente Blvd and Cynthia St , West Hollywood

Date: 3/11/2015
Day: Wednesday

Project #: 15-5130-006
City: West Hollywood

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



Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

	North Leg		
AM	444	445	AM
NOON	0	0	NOON
PM	377	654	PM

West Leg AM	West Leg NOON	West Leg PM		East Leg		
431	0	191		236	0	110
158	0	682		93	0	538
				AM	NOON	PM

	South Leg	
AM	557	688
NOON	0	0
PM	541	755

Total Volume Per Leg

	North Leg	
AM	889	AM
NOON	0	NOON
PM	1031	PM

West Leg AM	West Leg NOON	West Leg PM		East Leg		
589	0	873		329	0	648
				AM	NOON	PM

	South Leg
AM	1245
NOON	0
PM	1296

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-007 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	Doheny Dr			Doheny Dr			Santa Monica Blvd			Santa Monica Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0.5	NT 1	NR 0.5	SL 0.5	ST 1.5	SR 1	EL 1	ET 3	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	5	25	5	3	18	43	6	58	8	18	390	1	580
7:15 AM	9	54	18	16	38	36	8	75	13	37	403	6	713
7:30 AM	4	52	14	5	49	19	7	109	8	25	370	5	667
7:45 AM	6	73	15	5	67	21	16	86	8	36	356	9	698
8:00 AM	3	73	16	5	54	19	15	101	8	34	339	18	685
8:15 AM	11	49	17	6	54	23	19	154	10	45	367	20	775
8:30 AM	12	71	14	6	56	34	15	151	4	30	344	18	755
8:45 AM	18	86	11	5	76	35	12	162	11	31	346	14	807
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	68	483	110	51	412	230	98	896	70	256	2915	91	5680
APPROACH %'s :	10.29%	73.07%	16.64%	7.36%	59.45%	33.19%	9.21%	84.21%	6.58%	7.85%	89.36%	2.79%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	44	279	58	22	240	111	61	568	33	140	1396	70	3022
PEAK HR FACTOR :		0.828			0.804			0.895			0.929		0.936

UTURNS				
NB	SB	EB	WB	
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	0	1	
0	0	0	0	
0	0	0	0	
0	0	0	0	
NB	SB	EB	WB	
0	0	0	1	

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-007 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	Doheny Dr			Doheny Dr			Santa Monica Blvd			Santa Monica Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 0.5	NT 1	NR 0.5	SL 0.5	ST 1.5	SR 1	EL 1	ET 3	ER 1	WL 1	WT 2	WR 0	TOTAL
4:00 PM	8	69	24	18	84	19	22	240	13	30	239	13	779
4:15 PM	10	69	27	23	98	28	17	188	16	24	212	15	727
4:30 PM	12	67	22	16	82	23	18	223	25	25	241	18	772
4:45 PM	9	70	26	26	95	24	15	204	23	19	225	17	753
5:00 PM	11	75	25	23	80	18	23	239	23	29	239	16	801
5:15 PM	9	73	31	23	94	25	17	173	14	28	228	7	722
5:30 PM	8	60	16	18	93	26	23	197	35	35	276	8	795
5:45 PM	6	80	30	20	87	19	23	169	35	22	244	15	750
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	73	563	201	167	713	182	158	1633	184	212	1904	109	6099
APPROACH %'s :	8.72%	67.26%	24.01%	15.73%	67.14%	17.14%	8.00%	82.68%	9.32%	9.53%	85.57%	4.90%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	37	278	98	90	362	93	78	813	95	111	968	48	3071
PEAK HR FACTOR :		0.914			0.940			0.865			0.883		0.958

UTURNS				
NB	SB	EB	WB
0	0	0	0
0	0	0	2
0	0	0	2
0	0	0	1
0	0	0	1
0	0	0	0
0	0	0	1
0	0	0	0
NB	SB	EB	WB
0	0	0	7

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

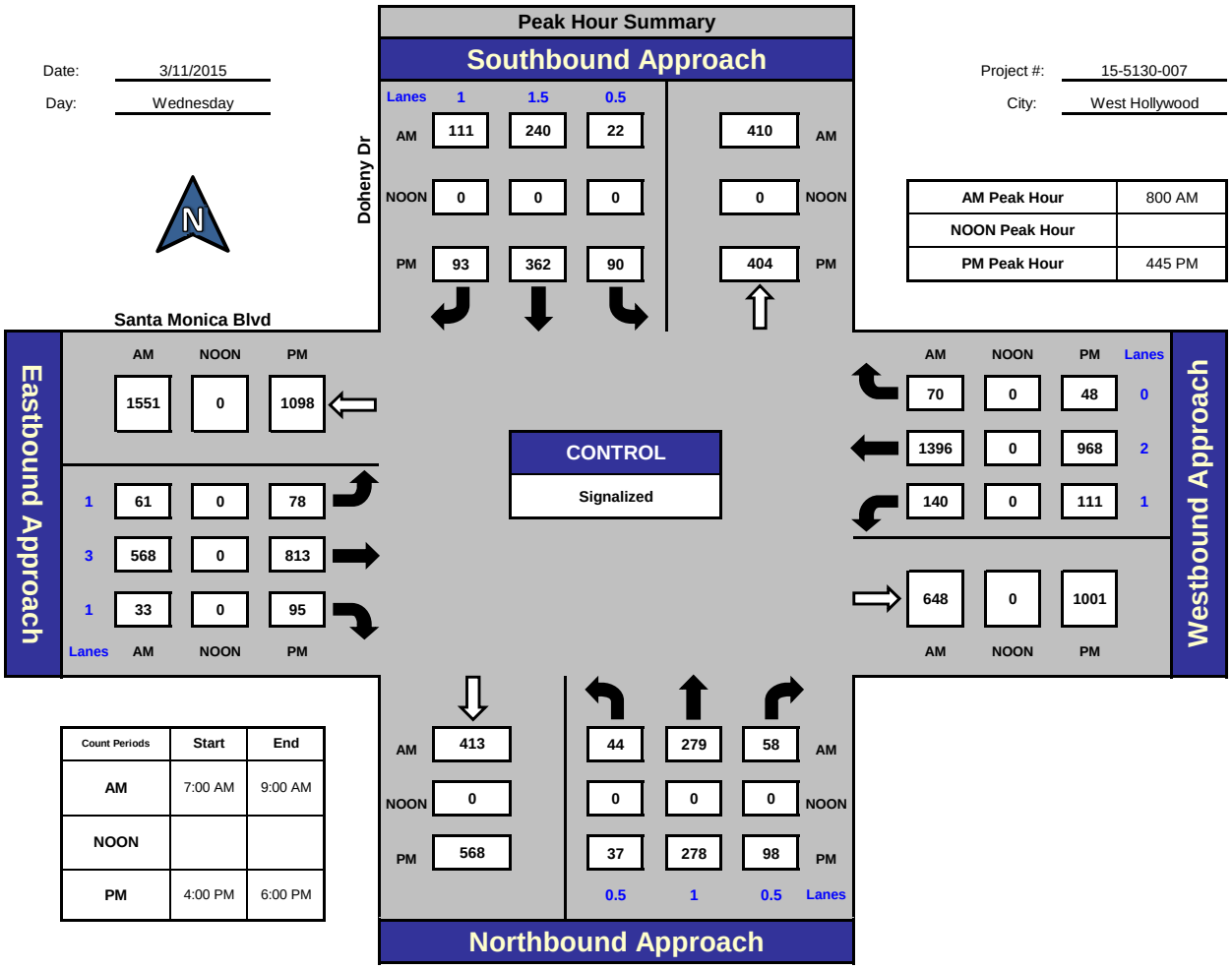
National Data & Surveying Services

Doheny Dr and Santa Monica Blvd , West Hollywood

Date: 3/11/2015
Day: Wednesday

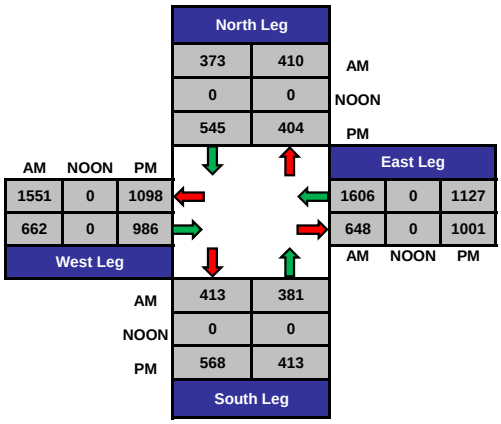
Project #: 15-5130-007
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	445 PM

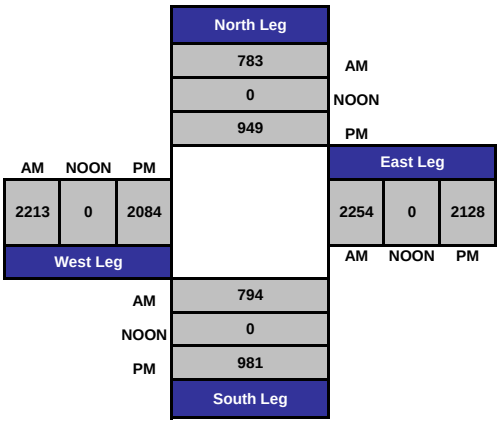


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-107 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	Doheny Dr			Doheny Dr			Santa Monica Blvd/Melrose Ave			Santa Monica Blvd/Melrose Ave				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
LANES:	0	2	0	0.5	1.5	0	1	3	1	0	0	1					
7:00 AM	0	0	3	3	0	0	0	10	0	0	0	1	17				
7:15 AM	0	0	3	8	0	0	0	30	0	0	0	2	43				
7:30 AM	0	0	2	17	0	0	0	48	0	1	0	4	72				
7:45 AM	0	0	12	15	0	0	0	40	0	0	0	4	71				
8:00 AM	0	0	6	14	0	0	0	51	0	0	0	2	73				
8:15 AM	0	0	4	23	0	0	0	84	0	0	0	2	113				
8:30 AM	0	0	7	18	0	0	0	73	0	0	0	5	103				
8:45 AM	0	0	9	26	0	0	0	77	0	0	0	4	116				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
TOTAL VOLUMES :	0	0	46	124	0	0	0	413	0	1	0	24	608	0	0	0	0
APPROACH %'s :	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	4.00%	0.00%	96.00%					
PEAK HR START TIME :	800 AM												TOTAL				
PEAK HR VOL :	0	0	26	81	0	0	0	285	0	0	0	13	405				
PEAK HR FACTOR :	0.722			0.779			0.848			0.650			0.873				

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-107 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	Doheny Dr			Doheny Dr			Santa Monica Blvd/Melrose Ave			Santa Monica Blvd/Melrose Ave				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
LANES:	0	2	0	0.5	1.5	0	1	3	1	0	0	1					
4:00 PM	0	0	4	26	0	0	0	93	0	1	0	8	132				
4:15 PM	0	0	13	29	0	0	0	83	0	2	0	17	144				
4:30 PM	0	0	10	34	0	0	0	95	0	1	0	7	147				
4:45 PM	0	0	6	29	0	0	0	96	0	1	0	6	138				
5:00 PM	0	0	8	19	0	0	0	91	0	2	0	13	133				
5:15 PM	0	0	9	33	0	0	0	89	0	0	0	8	139				
5:30 PM	0	0	10	29	0	0	0	68	0	0	0	13	120				
5:45 PM	0	0	6	28	0	0	0	102	0	0	0	9	145				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
TOTAL VOLUMES :	0	0	66	227	0	0	0	717	0	7	0	81	1098	0	0	0	0
APPROACH %'s :	0.00%	0.00%	100.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	7.95%	0.00%	92.05%					
PEAK HR START TIME :	415 PM												TOTAL				
PEAK HR VOL :	0	0	37	111	0	0	0	365	0	6	0	43	562				
PEAK HR FACTOR :	0.712			0.816			0.951			0.645			0.956				

CONTROL : Signalized

ITM Peak Hour Summary

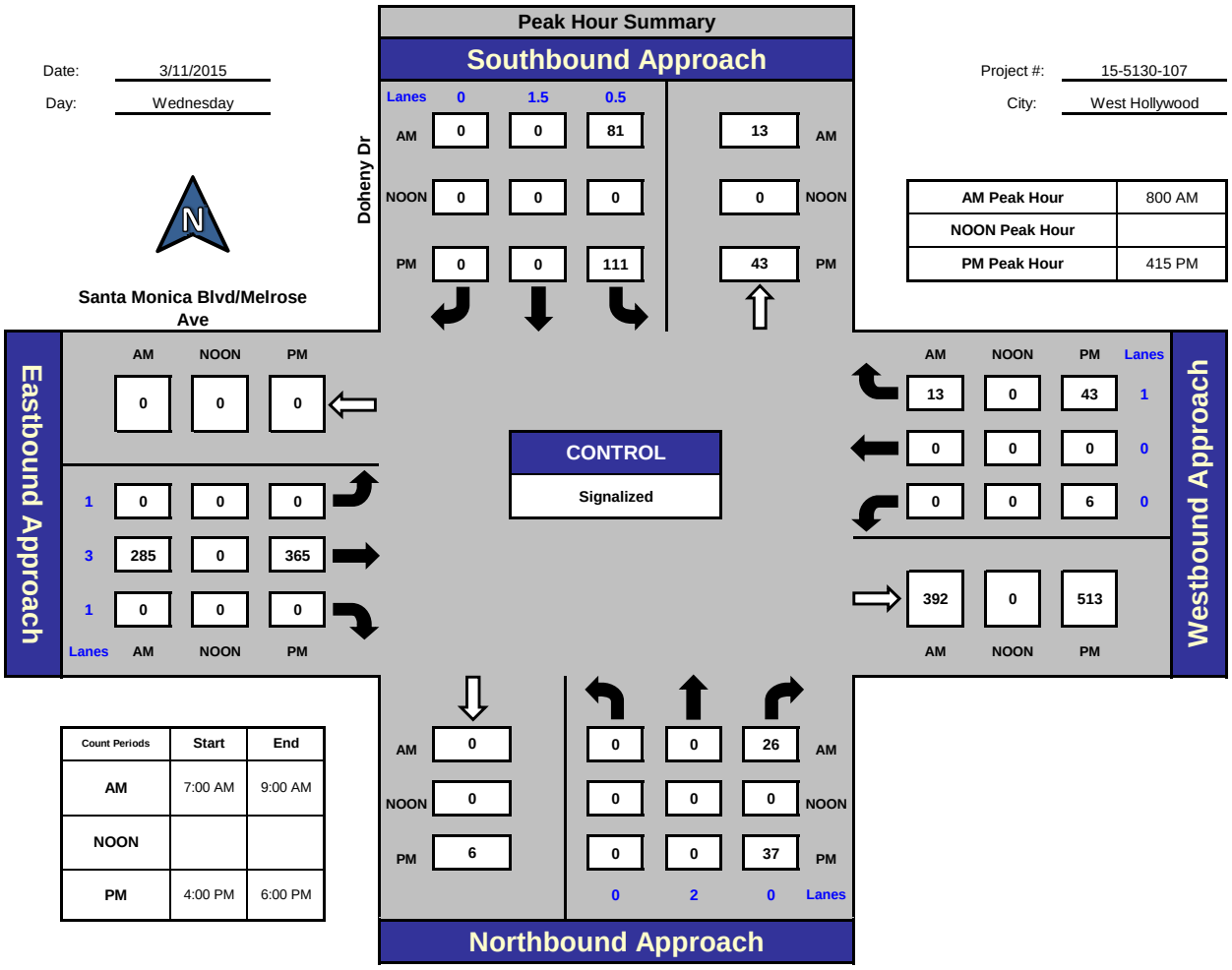
Prepared by:

National Data & Surveying Services

Doheny Dr and Santa Monica Blvd/Melrose Ave , West Hollywood

Date: 3/11/2015
Day: Wednesday

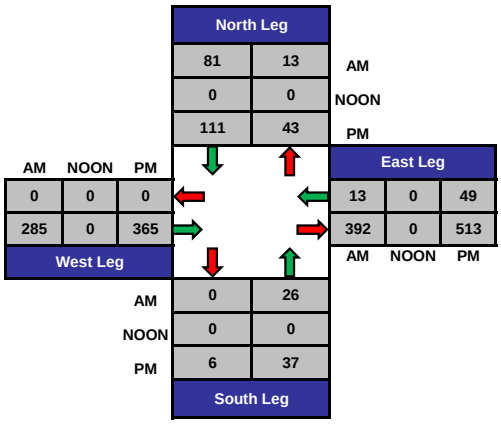
Project #: 15-5130-107
City: West Hollywood



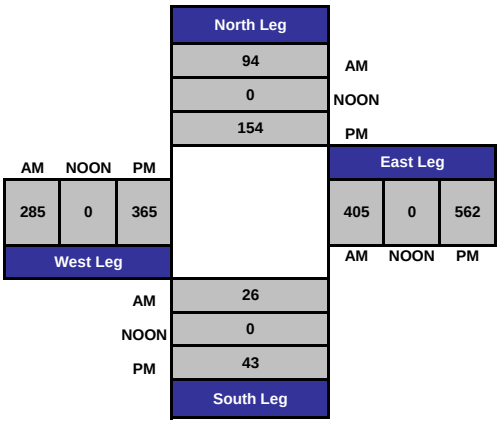
AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-008 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

AM

NS/EW Streets:	San Vicente Blvd			San Vicente Blvd			Santa Monica Blvd			Santa Monica Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
7:00 AM	22	76	17	12	49	15	11	90	5	27	376	19	719
7:15 AM	15	87	12	8	46	8	11	78	7	35	444	17	768
7:30 AM	13	76	22	8	48	14	22	127	4	33	437	34	838
7:45 AM	14	149	21	6	83	14	21	117	6	32	429	40	932
8:00 AM	13	151	18	8	102	17	20	159	6	38	446	48	1026
8:15 AM	18	136	28	13	149	30	21	171	17	33	372	29	1017
8:30 AM	13	100	44	14	88	17	27	177	14	36	365	22	917
8:45 AM	16	140	33	10	110	15	18	197	9	43	409	36	1036
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	124	915	195	79	675	130	151	1116	68	277	3278	245	7253
APPROACH %'s :	10.05%	74.15%	15.80%	8.94%	76.36%	14.71%	11.31%	83.60%	5.09%	7.29%	86.26%	6.45%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	60	527	123	45	449	79	86	704	46	150	1592	135	3996
PEAK HR FACTOR :		0.939			0.746			0.933			0.882		0.964

UTURNS

NB	SB	EB	WB
0	0	0	1
0	0	0	1
0	0	3	0
0	0	0	1
0	0	2	1
0	0	0	0
0	0	0	1
0	0	0	1
NB	SB	EB	WB
0	0	5	6

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 15-5130-008 **Day:** Wednesday

City: West Hollywood **Date:** 3/11/2015

PM

NS/EW Streets:	San Vicente Blvd			San Vicente Blvd			Santa Monica Blvd			Santa Monica Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
4:00 PM	24	132	58	25	120	14	32	313	20	51	244	25	1058
4:15 PM	25	139	56	27	119	19	31	340	18	46	203	18	1041
4:30 PM	23	148	75	14	120	12	31	290	23	44	204	18	1002
4:45 PM	25	154	87	24	132	19	31	275	24	52	239	26	1088
5:00 PM	29	134	63	14	108	17	34	288	20	45	181	29	962
5:15 PM	24	133	59	23	120	16	25	275	14	47	199	20	955
5:30 PM	24	147	62	20	111	12	29	255	10	47	207	21	945
5:45 PM	39	125	67	27	112	14	27	263	10	47	231	12	974
TOTAL VOLUMES :	213	1112	527	174	942	123	240	2299	139	379	1708	169	8025
APPROACH %'s :	11.50%	60.04%	28.46%	14.04%	76.03%	9.93%	8.96%	85.85%	5.19%	16.80%	75.71%	7.49%	
PEAK HR START TIME :	400 PM												TOTAL
PEAK HR VOL :	97	573	276	90	491	64	125	1218	85	193	890	87	4189
PEAK HR FACTOR :		0.889			0.921			0.918			0.914		0.963

UTURNS	NB	SB	EB	WB
4:00 PM	0	0	2	5
4:15 PM	0	0	2	4
4:30 PM	0	0	2	1
4:45 PM	0	0	1	4
5:00 PM	0	0	2	1
5:15 PM	0	0	0	0
5:30 PM	0	0	1	1
5:45 PM	0	0	2	5
TOTAL VOLUMES :	0	0	12	21

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

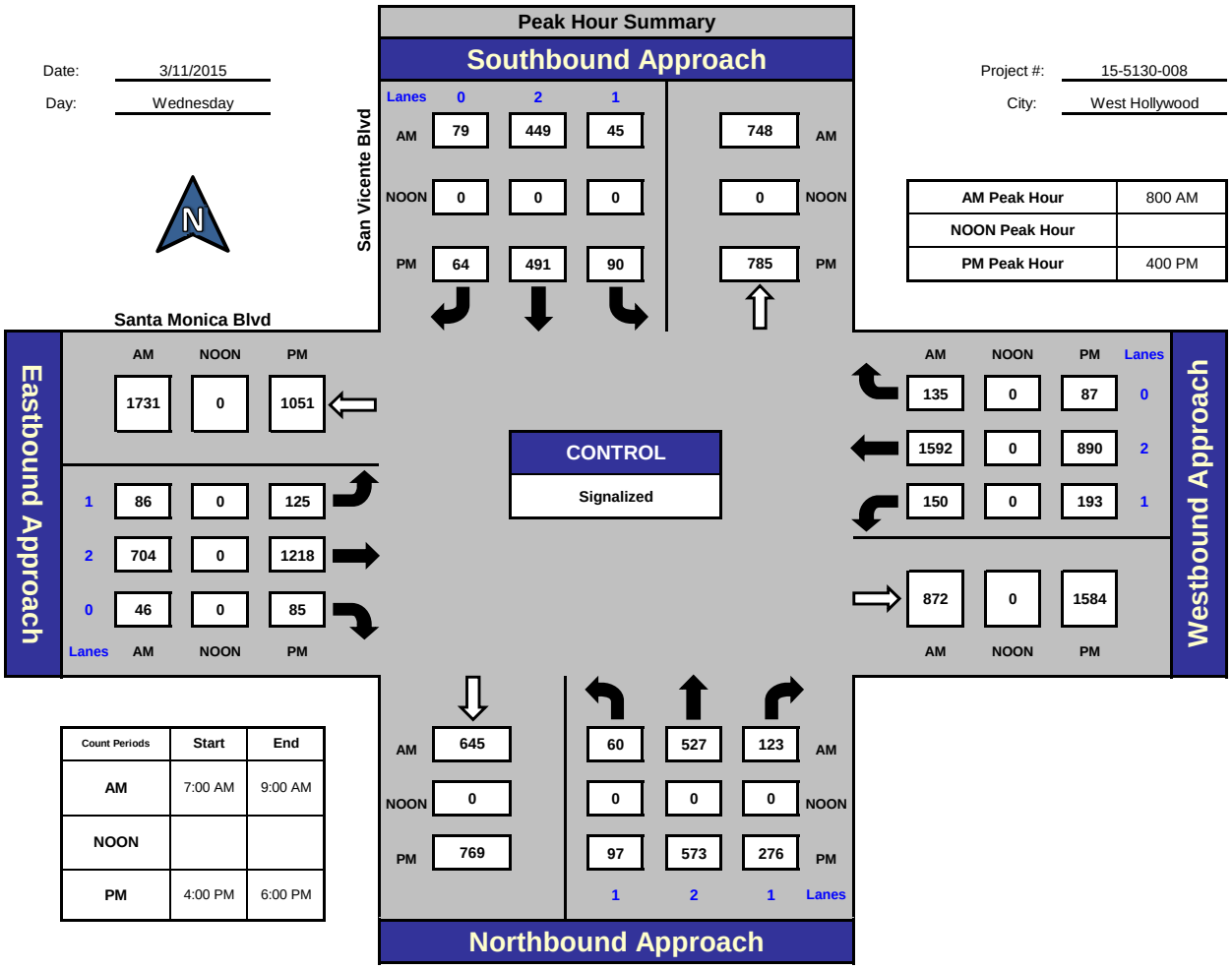
National Data & Surveying Services

San Vicente Blvd and Santa Monica Blvd , West Hollywood

Date: 3/11/2015
Day: Wednesday

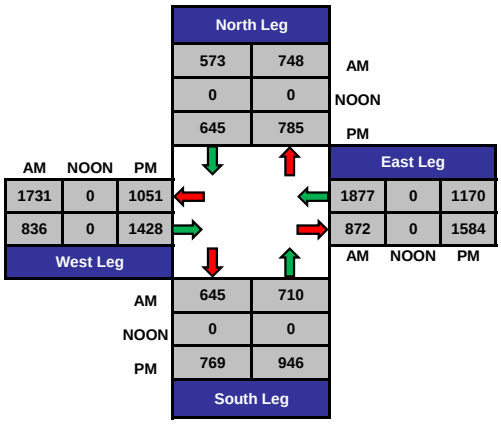
Project #: 15-5130-008
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	400 PM

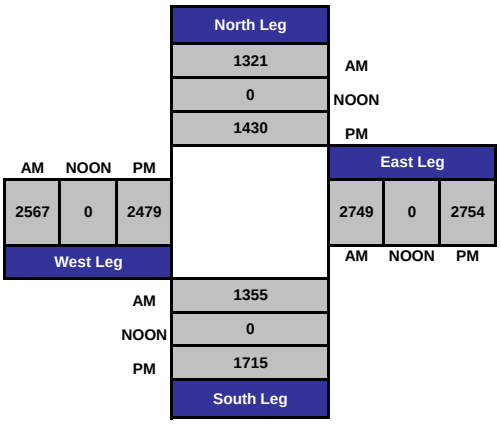


Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs

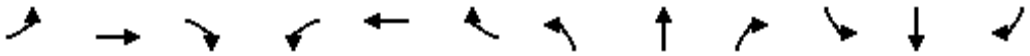


Total Volume Per Leg



Appendix C

Intersection Level of Service Worksheets

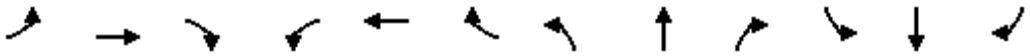


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	812	92	159	1590	79	165	72	131	76	44	14
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (prot)	1509	3018	1350	1509	2996		1433	1479	1350		1522	
Flt Permitted	0.08	1.00	1.00	0.25	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (perm)	131	3018	1350	400	2996		1433	1479	1350		1522	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	34	855	97	167	1674	83	174	76	138	80	46	15
RTOR Reduction (vph)	0	0	32	0	3	0	0	0	129	0	4	0
Lane Group Flow (vph)	34	855	65	167	1754	0	124	126	9	0	137	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	Over	Split	NA	
Protected Phases		6		5	2		4	4	5	8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)	68.7	68.7	68.7	80.4	80.4		13.6	13.6	8.7		15.0	
Effective Green, g (s)	68.7	68.7	68.7	79.4	80.4		13.1	13.1	7.7		14.5	
Actuated g/C Ratio	0.57	0.57	0.57	0.66	0.67		0.11	0.11	0.06		0.12	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		3.5	3.5	3.0		3.5	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0		4.0	
Lane Grp Cap (vph)	74	1727	772	335	2007		156	161	86		183	
v/s Ratio Prot		0.28		0.03	c0.59		c0.09	0.09	0.01		c0.09	
v/s Ratio Perm	0.26		0.05	0.30								
v/c Ratio	0.46	0.50	0.08	0.50	0.87		0.79	0.78	0.10		0.75	
Uniform Delay, d1	14.9	15.3	11.5	9.5	15.8		52.1	52.1	52.9		51.0	
Progression Factor	1.00	1.00	1.00	1.42	1.25		1.00	1.00	1.00		1.00	
Incremental Delay, d2	19.2	1.0	0.2	0.2	3.3		22.3	20.0	0.2		16.8	
Delay (s)	34.0	16.3	11.7	13.8	23.1		74.5	72.1	53.1		67.8	
Level of Service	C	B	B	B	C		E	E	D		E	
Approach Delay (s)		16.5			22.2			66.1			67.8	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	27.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

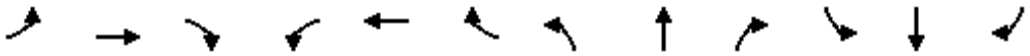
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1009	30	32	1812	34	52
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.92	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3004		1509	3018	1430	
Flt Permitted	1.00		0.23	1.00	0.98	
Satd. Flow (perm)	3004		361	3018	1430	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1097	33	35	1970	37	57
RTOR Reduction (vph)	1	0	0	0	52	0
Lane Group Flow (vph)	1129	0	35	1970	42	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	93.3		93.3	93.3	10.7	
Effective Green, g (s)	93.3		93.3	93.3	10.7	
Actuated g/C Ratio	0.78		0.78	0.78	0.09	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2335		280	2346	127	
v/s Ratio Prot	0.38			c0.65	c0.03	
v/s Ratio Perm			0.10			
v/c Ratio	0.48		0.12	0.84	0.33	
Uniform Delay, d1	4.8		3.3	8.6	51.3	
Progression Factor	1.50		1.32	1.09	1.00	
Incremental Delay, d2	0.6		0.6	2.6	1.5	
Delay (s)	7.8		5.0	11.9	52.8	
Level of Service	A		A	B	D	
Approach Delay (s)	7.8			11.8	52.8	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



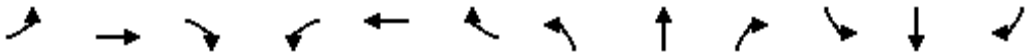
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	901	147	104	1641	16	196	13	185	28	32	15
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	0.88	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1509	3018	1350	1509	3013		1433	1446	2376	1509	1512	
Flt Permitted	0.10	1.00	1.00	0.25	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	165	3018	1350	392	3013		1433	1446	2376	1509	1512	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	948	155	109	1727	17	206	14	195	29	34	16
RTOR Reduction (vph)	0	0	34	0	1	0	0	0	0	0	15	0
Lane Group Flow (vph)	8	948	121	109	1743	0	109	111	195	29	35	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6		5	2		4	4	5	3	3	
Permitted Phases	6		6	2					4 6			
Actuated Green, G (s)	80.4	80.4	80.4	89.5	89.5		12.2	12.2	98.7	7.3	7.3	
Effective Green, g (s)	80.4	80.4	80.4	88.5	89.5		12.2	12.2	95.7	6.3	6.3	
Actuated g/C Ratio	0.67	0.67	0.67	0.74	0.75		0.10	0.10	0.80	0.05	0.05	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0	3.0	3.0	3.0	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0	2.0	2.0	
Lane Grp Cap (vph)	110	2022	904	336	2247		145	147	1974	79	79	
v/s Ratio Prot		0.31		0.01	c0.58		0.08	c0.08	0.00	0.02	c0.02	
v/s Ratio Perm	0.05		0.09	0.23					0.08			
v/c Ratio	0.07	0.47	0.13	0.32	0.78		0.75	0.76	0.10	0.37	0.44	
Uniform Delay, d1	6.9	9.5	7.2	5.7	9.2		52.4	52.4	2.7	54.9	55.1	
Progression Factor	1.13	1.71	2.26	1.02	1.10		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	0.7	0.3	0.1	1.8		17.5	17.6	0.0	1.1	1.4	
Delay (s)	8.9	17.0	16.5	5.9	11.9		70.0	70.0	2.7	56.0	56.6	
Level of Service	A	B	B	A	B		E	E	A	E	E	
Approach Delay (s)		16.9			11.5			38.4			56.4	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



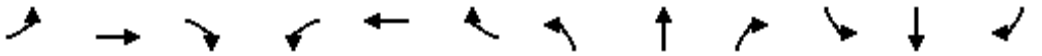
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	854	268	0	1403	11	348	11	0	25	19	34
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00		0.95		0.95	0.95			1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			0.94	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.96			0.98	
Satd. Flow (prot)	1509	3018	1350		3014		1433	1441			1471	
Flt Permitted	0.10	1.00	1.00		1.00		0.95	0.96			0.98	
Satd. Flow (perm)	153	3018	1350		3014		1433	1441			1471	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	899	282	0	1477	12	366	12	0	26	20	36
RTOR Reduction (vph)	0	0	64	0	0	0	0	0	0	0	24	0
Lane Group Flow (vph)	12	899	218	0	1489	0	190	188	0	0	58	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6						4			
Actuated Green, G (s)	79.3	79.3	79.3		74.6		22.7	22.7			6.0	
Effective Green, g (s)	78.3	79.3	79.3		74.6		22.7	22.7			6.0	
Actuated g/C Ratio	0.65	0.66	0.66		0.62		0.19	0.19			0.05	
Clearance Time (s)	3.0	4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)	1.0	6.0	6.0		6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	107	1994	892		1873		271	272			73	
v/s Ratio Prot	0.00	c0.30			c0.49		c0.13	0.13			c0.04	
v/s Ratio Perm	0.07		0.16									
v/c Ratio	0.11	0.45	0.24		0.79		0.70	0.69			0.80	
Uniform Delay, d1	12.6	9.8	8.2		17.0		45.5	45.4			56.4	
Progression Factor	1.12	1.29	2.04		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.2	0.7	0.6		3.6		7.9	7.4			43.8	
Delay (s)	14.3	13.3	17.4		20.6		53.4	52.8			100.2	
Level of Service	B	B	B		C		D	D			F	
Approach Delay (s)		14.3			20.6			53.1			100.2	
Approach LOS		B			C			D			F	

Intersection Summary			
HCM 2000 Control Delay	24.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	70.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



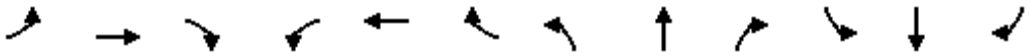
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	42	87	91	134	13	240	406	48	3	385	61
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.93			0.99		1.00	0.98		1.00	0.98	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1457			1547		1509	2969		1509	2956	
Flt Permitted		0.92			0.84		0.46	1.00		0.45	1.00	
Satd. Flow (perm)		1357			1319		729	2969		719	2956	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	44	92	96	141	14	253	427	51	3	405	64
RTOR Reduction (vph)	0	50	0	0	4	0	0	20	0	0	28	0
Lane Group Flow (vph)	0	118	0	0	247	0	253	458	0	3	441	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		22.7			22.7		20.7	20.7		20.7	20.7	
Effective Green, g (s)		23.3			23.3		19.7	19.7		19.7	19.7	
Actuated g/C Ratio		0.46			0.46		0.39	0.39		0.39	0.39	
Clearance Time (s)		4.6			4.6		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		4.5			4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		619			602		281	1146		277	1141	
v/s Ratio Prot								0.15			0.15	
v/s Ratio Perm		0.09			c0.19		c0.35			0.00		
v/c Ratio		0.19			0.41		0.90	0.40		0.01	0.39	
Uniform Delay, d1		8.2			9.3		14.7	11.4		9.6	11.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7			2.1		29.4	0.2		0.0	0.2	
Delay (s)		8.9			11.3		44.1	11.6		9.7	11.5	
Level of Service		A			B		D	B		A	B	
Approach Delay (s)		8.9			11.3			22.8			11.5	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	16.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	141	1410	71	44	344	0	0	242	112
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			0.95	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1509	2996		1509	1588			3018	1350
Flt Permitted				0.95	1.00		0.59	1.00			1.00	1.00
Satd. Flow (perm)				1509	2996		943	1588			3018	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	148	1484	75	46	362	0	0	255	118
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	148	1557	0	46	362	0	0	255	118
Turn Type				custom	NA		custom	NA			NA	Free
Protected Phases				2	2		3	3			1	
Permitted Phases				4	4		6	6				Free
Actuated Green, G (s)				68.4	68.4		43.0	43.0			31.0	160.0
Effective Green, g (s)				66.4	66.4		41.0	41.0			31.0	160.0
Actuated g/C Ratio				0.42	0.42		0.26	0.26			0.19	1.00
Clearance Time (s)				3.0	3.0		3.0	3.0			4.0	
Vehicle Extension (s)				1.0	1.0		1.0	1.0			4.0	
Lane Grp Cap (vph)				626	1243		280	406			584	1350
v/s Ratio Prot				0.02	c0.09		0.01	c0.06			c0.08	
v/s Ratio Perm				0.08	0.43		0.03	0.17				0.09
v/c Ratio				0.24	1.25		0.16	0.89			0.44	0.09
Uniform Delay, d1				30.4	46.8		46.5	57.4			56.8	0.0
Progression Factor				1.00	1.00		0.24	0.27			1.00	1.00
Incremental Delay, d2				0.9	120.3		0.1	18.5			2.4	0.1
Delay (s)				31.2	167.1		11.1	33.8			59.2	0.1
Level of Service				C	F		B	C			E	A
Approach Delay (s)		0.0			155.4			31.2			40.5	
Approach LOS		A			F			C			D	

Intersection Summary			
HCM 2000 Control Delay	117.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

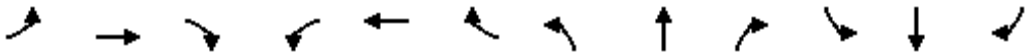


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	87	711	46	152	1608	136	61	532	124	45	453	80
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2990		1509	2982		1509	3018	1350	1509	2950	
Flt Permitted	0.07	1.00		0.29	1.00		0.23	1.00	1.00	0.23	1.00	
Satd. Flow (perm)	109	2990		456	2982		363	3018	1350	364	2950	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	92	748	48	160	1693	143	64	560	131	47	477	84
RTOR Reduction (vph)	0	4	0	0	6	0	0	0	101	0	15	0
Lane Group Flow (vph)	92	792	0	160	1830	0	64	560	30	47	546	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	62.8	58.3		67.7	60.5		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	62.8	58.3		66.7	60.5		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.63	0.58		0.67	0.60		0.23	0.23	0.23	0.23	0.23	
Clearance Time (s)	4.0	4.0		3.5	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	1.0	5.0		1.0	5.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	131	1743		374	1804		83	694	310	83	678	
v/s Ratio Prot	c0.03	0.26		c0.03	c0.61			c0.19			0.19	
v/s Ratio Perm	0.41			0.26			0.18		0.02	0.13		
v/c Ratio	0.70	0.45		0.43	1.01		0.77	0.81	0.10	0.57	0.81	
Uniform Delay, d1	18.1	11.8		7.0	19.8		36.0	36.4	30.3	34.1	36.4	
Progression Factor	1.88	0.62		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	11.4	0.7		0.3	24.8		49.4	9.7	0.6	25.1	9.9	
Delay (s)	45.5	8.1		7.3	44.6		85.4	46.1	30.9	59.2	46.3	
Level of Service	D	A		A	D		F	D	C	E	D	
Approach Delay (s)		12.0			41.6			46.8			47.3	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	98.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT	NWR2
Lane Configurations											
Volume (vph)	62	574	288	33	282	59	26	22	82	383	13
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95					0.95	1.00
Frt	1.00	1.00	0.85	0.85	0.97					1.00	0.86
Flt Protected	0.95	1.00	1.00	1.00	1.00					0.99	1.00
Satd. Flow (prot)	1509	3018	1350	1350	2913					2986	1374
Flt Permitted	0.95	1.00	1.00	1.00	1.00					0.61	1.00
Satd. Flow (perm)	1509	3018	1350	1350	2913					1830	1374
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	65	604	303	35	297	62	27	23	86	403	14
RTOR Reduction (vph)	0	0	0	33	3	0	0	0	0	0	0
Lane Group Flow (vph)	65	604	303	2	383	0	0	0	0	512	14
Turn Type	custom	NA	Perm	Perm	NA			custom	Prot	NA	Free
Protected Phases	3	3			6				2	1	
Permitted Phases	4	4	3	3				2		2	Free
Actuated Green, G (s)	68.4	68.4	12.0	12.0	31.0					43.0	160.0
Effective Green, g (s)	66.4	66.4	11.0	11.0	31.0					43.0	160.0
Actuated g/C Ratio	0.42	0.42	0.07	0.07	0.19					0.27	1.00
Clearance Time (s)	3.0	3.0	3.0	3.0	4.0					4.0	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0					4.0	
Lane Grp Cap (vph)	663	1327	92	92	564					715	1374
v/s Ratio Prot	0.01	c0.03			c0.13					c0.14	
v/s Ratio Perm	0.04	0.17	c0.22	0.00						c0.05	0.01
v/c Ratio	0.10	0.46	3.29	0.03	0.68					0.72	0.01
Uniform Delay, d1	28.6	33.8	74.5	69.5	59.9					53.0	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00					0.50	1.00
Incremental Delay, d2	0.0	0.1	1059.4	0.0	6.5					5.9	0.0
Delay (s)	28.6	33.8	1133.9	69.5	66.3					32.6	0.0
Level of Service	C	C	F	E	E					C	A
Approach Delay (s)		365.8			66.3					32.6	
Approach LOS		F			E					C	

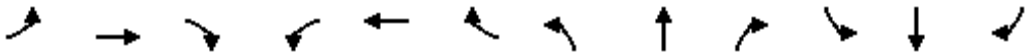
Intersection Summary			
HCM 2000 Control Delay	214.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1042	6	19	1827	5	0	0	13	3	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	13	1097	6	20	1923	5	0	0	14	3	0	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.64			0.88			0.71	0.71	0.88	0.71	0.71	0.64
vC, conflicting volume	1928			1103			2133	3094	552	2553	3094	964
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1338			843			1000	2362	215	1596	2363	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			97			100	100	98	93	100	99
cM capacity (veh/h)	330			694			131	23	694	47	23	699

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	13	731	372	20	1282	646	14	9
Volume Left	13	0	0	20	0	0	0	3
Volume Right	0	0	6	0	0	5	14	6
cSH	330	1700	1700	694	1700	1700	694	124
Volume to Capacity	0.04	0.43	0.22	0.03	0.75	0.38	0.02	0.08
Queue Length 95th (ft)	3	0	0	2	0	0	2	6
Control Delay (s)	16.4	0.0	0.0	10.3	0.0	0.0	10.3	36.4
Lane LOS	C			B			B	E
Approach Delay (s)	0.2			0.1			10.3	36.4
Approach LOS							B	E

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	70.0%	ICU Level of Service	C	
Analysis Period (min)	15			

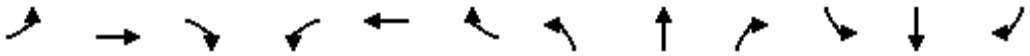


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	866	48	157	1053	69	163	75	247	139	98	33
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (prot)	1509	3018	1350	1509	2990		1433	1481	1350		1523	
Flt Permitted	0.22	1.00	1.00	0.23	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (perm)	350	3018	1350	358	2990		1433	1481	1350		1523	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	912	51	165	1108	73	172	79	260	146	103	35
RTOR Reduction (vph)	0	0	23	0	4	0	0	0	242	0	4	0
Lane Group Flow (vph)	14	912	28	165	1177	0	124	127	18	0	280	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	Over	Split	NA	
Protected Phases		6		5	2		4	4	5	8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)	66.5	66.5	66.5	78.9	78.9		13.6	13.6	9.4		16.5	
Effective Green, g (s)	66.5	66.5	66.5	77.9	78.9		13.1	13.1	8.4		16.0	
Actuated g/C Ratio	0.55	0.55	0.55	0.65	0.66		0.11	0.11	0.07		0.13	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		3.5	3.5	3.0		3.5	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0		4.0	
Lane Grp Cap (vph)	193	1672	748	312	1965		156	161	94		203	
v/s Ratio Prot		0.30		0.04	c0.39		c0.09	0.09	0.01		c0.18	
v/s Ratio Perm	0.04		0.02	0.31								
v/c Ratio	0.07	0.55	0.04	0.53	0.60		0.79	0.79	0.19		1.38	
Uniform Delay, d1	12.4	17.1	12.2	10.7	11.6		52.1	52.1	52.6		52.0	
Progression Factor	1.00	1.00	1.00	1.20	1.26		1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.7	1.3	0.1	0.6	1.1		22.3	20.6	0.4		197.7	
Delay (s)	13.2	18.4	12.3	13.4	15.7		74.5	72.7	53.0		249.7	
Level of Service	B	B	B	B	B		E	E	D		F	
Approach Delay (s)		18.0			15.5			63.1			249.7	
Approach LOS		B			B			E			F	

Intersection Summary			
HCM 2000 Control Delay	45.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

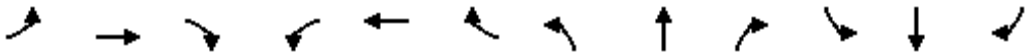
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1270	51	25	1304	44	55
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.99		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3000		1509	3018	1437	
Flt Permitted	1.00		0.15	1.00	0.98	
Satd. Flow (perm)	3000		243	3018	1437	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1380	55	27	1417	48	60
RTOR Reduction (vph)	1	0	0	0	41	0
Lane Group Flow (vph)	1434	0	27	1417	67	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	92.2		92.2	92.2	11.8	
Effective Green, g (s)	92.2		92.2	92.2	11.8	
Actuated g/C Ratio	0.77		0.77	0.77	0.10	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2305		186	2318	141	
v/s Ratio Prot	c0.48			0.47	c0.05	
v/s Ratio Perm			0.11			
v/c Ratio	0.62		0.15	0.61	0.47	
Uniform Delay, d1	6.2		3.6	6.1	51.2	
Progression Factor	1.24		1.29	1.20	1.00	
Incremental Delay, d2	1.0		1.4	1.0	2.5	
Delay (s)	8.7		6.1	8.3	53.6	
Level of Service	A		A	A	D	
Approach Delay (s)	8.7			8.3	53.6	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



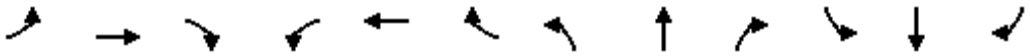
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1187	92	131	1135	32	223	42	361	24	25	13
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	0.88	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00	0.95	1.00	
Satd. Flow (prot)	1509	3018	1350	1509	3005		1433	1459	2376	1509	1505	
Flt Permitted	0.22	1.00	1.00	0.15	1.00		0.95	0.97	1.00	0.95	1.00	
Satd. Flow (perm)	344	3018	1350	245	3005		1433	1459	2376	1509	1505	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	1249	97	138	1195	34	235	44	380	25	26	14
RTOR Reduction (vph)	0	0	23	0	1	0	0	0	0	0	13	0
Lane Group Flow (vph)	16	1249	74	138	1228	0	139	140	380	25	27	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6		5	2		4	4	5	3	3	
Permitted Phases	6		6	2					4 6			
Actuated Green, G (s)	76.9	76.9	76.9	87.4	87.4		14.7	14.7	99.1	6.9	6.9	
Effective Green, g (s)	76.9	76.9	76.9	86.4	87.4		14.7	14.7	96.1	5.9	5.9	
Actuated g/C Ratio	0.64	0.64	0.64	0.72	0.73		0.12	0.12	0.80	0.05	0.05	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0	3.0	3.0	3.0	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0	2.0	2.0	
Lane Grp Cap (vph)	220	1934	865	244	2188		175	178	1981	74	73	
v/s Ratio Prot		c0.41		0.03	c0.41		c0.10	0.10	0.01	0.02	c0.02	
v/s Ratio Perm	0.05		0.05	0.38					0.15			
v/c Ratio	0.07	0.65	0.09	0.57	0.56		0.79	0.79	0.19	0.34	0.37	
Uniform Delay, d1	8.1	13.2	8.2	9.4	7.5		51.2	51.1	2.8	55.2	55.2	
Progression Factor	0.85	1.04	1.12	1.22	1.16		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.5	1.4	0.2	1.2	0.7		20.2	18.7	0.0	1.0	1.1	
Delay (s)	7.5	15.1	9.3	12.6	9.4		71.4	69.8	2.8	56.2	56.4	
Level of Service	A	B	A	B	A		E	E	A	E	E	
Approach Delay (s)		14.6			9.7			31.5			56.3	
Approach LOS		B			A			C			E	

Intersection Summary			
HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



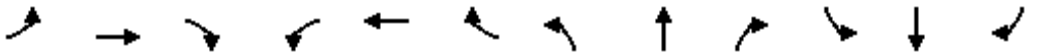
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	1111	495	0	1004	18	289	9	0	15	28	27
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00		0.95		0.95	0.95			1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			0.95	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (prot)	1509	3018	1350		3010		1433	1441			1490	
Flt Permitted	0.19	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (perm)	303	3018	1350		3010		1433	1441			1490	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	43	1169	521	0	1057	19	304	9	0	16	29	28
RTOR Reduction (vph)	0	0	89	0	1	0	0	0	0	0	19	0
Lane Group Flow (vph)	43	1169	432	0	1075	0	155	158	0	0	54	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6						4			
Actuated Green, G (s)	80.1	80.1	80.1		73.1		21.9	21.9			6.0	
Effective Green, g (s)	79.1	80.1	80.1		73.1		21.9	21.9			6.0	
Actuated g/C Ratio	0.66	0.67	0.67		0.61		0.18	0.18			0.05	
Clearance Time (s)	3.0	4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)	1.0	6.0	6.0		6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	229	2014	901		1833		261	262			74	
v/s Ratio Prot	0.00	c0.39			0.36		0.11	c0.11			c0.04	
v/s Ratio Perm	0.12		0.32									
v/c Ratio	0.19	0.58	0.48		0.59		0.59	0.60			0.73	
Uniform Delay, d1	9.3	10.8	9.8		14.3		45.0	45.1			56.2	
Progression Factor	1.10	1.36	1.73		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	1.2	1.7		1.4		3.6	3.9			29.9	
Delay (s)	10.4	15.9	18.6		15.6		48.6	48.9			86.1	
Level of Service	B	B	B		B		D	D			F	
Approach Delay (s)		16.6			15.6			48.8			86.1	
Approach LOS		B			B			D			F	

Intersection Summary			
HCM 2000 Control Delay	21.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	144	393	152	63	42	6	123	510	129	21	332	27
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.97			0.99		1.00	0.97		1.00	0.99	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1525			1534		1509	2926		1509	2984	
Flt Permitted		0.91			0.67		0.52	1.00		0.28	1.00	
Satd. Flow (perm)		1396			1051		821	2926		449	2984	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	152	414	160	66	44	6	129	537	136	22	349	28
RTOR Reduction (vph)	0	16	0	0	3	0	0	55	0	0	14	0
Lane Group Flow (vph)	0	710	0	0	113	0	129	618	0	22	363	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		26.4			26.4		17.0	17.0		17.0	17.0	
Effective Green, g (s)		27.0			27.0		16.0	16.0		16.0	16.0	
Actuated g/C Ratio		0.53			0.53		0.31	0.31		0.31	0.31	
Clearance Time (s)		4.6			4.6		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		4.5			4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		739			556		257	917		140	936	
v/s Ratio Prot								c0.21			0.12	
v/s Ratio Perm		c0.51			0.11		0.16			0.05		
v/c Ratio		0.96			0.20		0.50	0.67		0.16	0.39	
Uniform Delay, d1		11.5			6.3		14.3	15.2		12.6	13.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		24.9			0.8		1.5	2.0		0.5	0.3	
Delay (s)		36.4			7.2		15.8	17.2		13.2	13.9	
Level of Service		D			A		B	B		B	B	
Approach Delay (s)		36.4			7.2			17.0			13.9	
Approach LOS		D			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	112	978	45	37	360	0	0	366	94
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			0.95	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1509	2998		1509	1588			3018	1350
Flt Permitted				0.95	1.00		0.52	1.00			1.00	1.00
Satd. Flow (perm)				1509	2998		832	1588			3018	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	118	1029	47	39	379	0	0	385	99
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	118	1074	0	39	379	0	0	385	99
Turn Type				custom	NA		custom	NA			NA	Free
Protected Phases				2	2		3	3			1	
Permitted Phases				4	4		6	6				Free
Actuated Green, G (s)				68.4	68.4		43.0	43.0			31.0	160.0
Effective Green, g (s)				66.4	66.4		41.0	41.0			31.0	160.0
Actuated g/C Ratio				0.42	0.42		0.26	0.26			0.19	1.00
Clearance Time (s)				3.0	3.0		3.0	3.0			4.0	
Vehicle Extension (s)				1.0	1.0		1.0	1.0			4.0	
Lane Grp Cap (vph)				626	1244		259	406			584	1350
v/s Ratio Prot				0.01	c0.06		0.01	c0.06			c0.13	
v/s Ratio Perm				0.07	0.30		0.03	0.17				0.07
v/c Ratio				0.19	0.86		0.15	0.93			0.66	0.07
Uniform Delay, d1				29.7	42.7		46.4	58.2			59.6	0.0
Progression Factor				1.00	1.00		0.27	0.27			1.00	1.00
Incremental Delay, d2				0.7	8.1		0.1	24.8			5.7	0.1
Delay (s)				30.4	50.7		12.5	40.6			65.4	0.1
Level of Service				C	D		B	D			E	A
Approach Delay (s)		0.0			48.7			38.0			52.0	
Approach LOS		A			D			D			D	

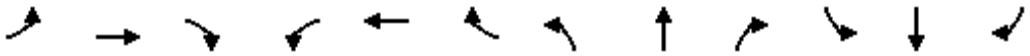
Intersection Summary			
HCM 2000 Control Delay	47.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	62.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	1230	86	195	899	88	98	579	279	91	496	65
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2988		1509	2977		1509	3018	1350	1509	2965	
Flt Permitted	0.23	1.00		0.09	1.00		0.20	1.00	1.00	0.19	1.00	
Satd. Flow (perm)	370	2988		141	2977		325	3018	1350	300	2965	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	133	1295	91	205	946	93	103	609	294	96	522	68
RTOR Reduction (vph)	0	5	0	0	7	0	0	0	160	0	10	0
Lane Group Flow (vph)	133	1381	0	205	1032	0	103	609	134	96	580	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	59.7	54.1		69.0	59.4		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	59.7	54.1		68.5	59.4		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.60	0.54		0.68	0.59		0.23	0.23	0.23	0.23	0.23	
Clearance Time (s)	4.0	4.0		3.5	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	1.0	5.0		1.0	5.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	284	1616		245	1768		74	694	310	69	681	
v/s Ratio Prot	0.03	0.46		c0.09	0.35			0.20			0.20	
v/s Ratio Perm	0.25			c0.48			0.32		0.10	c0.32		
v/c Ratio	0.47	0.85		0.84	0.58		1.39	0.88	0.43	1.39	0.85	
Uniform Delay, d1	9.4	19.6		23.9	12.6		38.5	37.1	32.9	38.5	36.9	
Progression Factor	1.11	0.91		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	5.7		20.4	1.4		239.9	14.7	4.3	243.2	12.7	
Delay (s)	10.9	23.5		44.3	14.0		278.4	51.8	37.3	281.7	49.6	
Level of Service	B	C		D	B		F	D	D	F	D	
Approach Delay (s)		22.4			19.0			70.8			82.1	
Approach LOS		C			B			E			F	

Intersection Summary			
HCM 2000 Control Delay	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT	NWR2
Lane Configurations											
Volume (vph)	79	821	369	96	281	99	26	91	118	478	43
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95					0.95	1.00
Frt	1.00	1.00	0.85	0.85	0.95					1.00	0.86
Flt Protected	0.95	1.00	1.00	1.00	1.00					0.99	1.00
Satd. Flow (prot)	1509	3018	1350	1350	2879					2972	1374
Flt Permitted	0.95	1.00	1.00	1.00	1.00					0.64	1.00
Satd. Flow (perm)	1509	3018	1350	1350	2879					1918	1374
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	83	864	388	101	296	104	27	96	124	503	45
RTOR Reduction (vph)	0	0	0	74	3	0	0	0	0	0	0
Lane Group Flow (vph)	83	864	388	27	424	0	0	0	0	723	45
Turn Type	custom	NA	Perm	Perm	NA			custom	Prot	NA	Free
Protected Phases	3	3			6				2	1	
Permitted Phases	4	4	3	3				2		2	Free
Actuated Green, G (s)	68.4	68.4	12.0	12.0	31.0					43.0	160.0
Effective Green, g (s)	66.4	66.4	11.0	11.0	31.0					43.0	160.0
Actuated g/C Ratio	0.42	0.42	0.07	0.07	0.19					0.27	1.00
Clearance Time (s)	3.0	3.0	3.0	3.0	4.0					4.0	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0					4.0	
Lane Grp Cap (vph)	663	1327	92	92	557					719	1374
v/s Ratio Prot	0.01	c0.04			c0.15					c0.19	
v/s Ratio Perm	0.05	0.24	c0.29	0.02						c0.08	0.03
v/c Ratio	0.13	0.65	4.22	0.30	0.76					1.01	0.03
Uniform Delay, d1	29.0	37.5	74.5	70.8	61.0					58.5	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00					0.47	1.00
Incremental Delay, d2	0.0	0.9	1473.0	0.7	9.4					33.9	0.0
Delay (s)	29.0	38.4	1547.5	71.5	70.4					61.6	0.0
Level of Service	C	D	F	E	E					E	A
Approach Delay (s)		447.9			70.4					61.6	
Approach LOS		F			E					E	

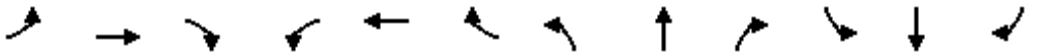
Intersection Summary			
HCM 2000 Control Delay	272.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	1292	6	19	1333	18	3	0	18	0	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	1360	6	20	1403	19	3	0	19	0	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.82			0.80			0.89	0.89	0.80	0.89	0.89	0.82
vC, conflicting volume	1422			1366			2158	2867	683	2194	2861	711
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1079			956			1148	1946	102	1188	1939	213
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			96			98	100	97	100	100	98
cM capacity (veh/h)	527			571			127	53	746	117	53	650

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	21	907	460	20	935	487	22	12
Volume Left	21	0	0	20	0	0	3	0
Volume Right	0	0	6	0	0	19	19	12
cSH	527	1700	1700	571	1700	1700	439	650
Volume to Capacity	0.04	0.53	0.27	0.04	0.55	0.29	0.05	0.02
Queue Length 95th (ft)	3	0	0	3	0	0	4	1
Control Delay (s)	12.1	0.0	0.0	11.5	0.0	0.0	13.6	10.6
Lane LOS	B			B			B	B
Approach Delay (s)	0.2			0.2			13.6	10.6
Approach LOS							B	B

Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	55.3%	ICU Level of Service		B
Analysis Period (min)	15			

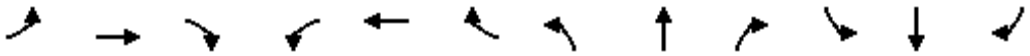


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	838	92	164	1595	79	165	72	157	76	44	14
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (prot)	1509	3018	1350	1509	2996		1433	1479	1350		1522	
Flt Permitted	0.08	1.00	1.00	0.24	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (perm)	130	3018	1350	384	2996		1433	1479	1350		1522	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	34	882	97	173	1679	83	174	76	165	80	46	15
RTOR Reduction (vph)	0	0	31	0	3	0	0	0	154	0	4	0
Lane Group Flow (vph)	34	882	66	173	1759	0	124	126	11	0	137	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	Over	Split	NA	
Protected Phases		6		5	2		4	4	5	8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)	68.5	68.5	68.5	80.4	80.4		13.6	13.6	8.9		15.0	
Effective Green, g (s)	68.5	68.5	68.5	79.4	80.4		13.1	13.1	7.9		14.5	
Actuated g/C Ratio	0.57	0.57	0.57	0.66	0.67		0.11	0.11	0.07		0.12	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		3.5	3.5	3.0		3.5	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0		4.0	
Lane Grp Cap (vph)	74	1722	770	328	2007		156	161	88		183	
v/s Ratio Prot		0.29		0.03	c0.59		c0.09	0.09	0.01		c0.09	
v/s Ratio Perm	0.26		0.05	0.31								
v/c Ratio	0.46	0.51	0.09	0.53	0.88		0.79	0.78	0.12		0.75	
Uniform Delay, d1	15.0	15.6	11.6	9.8	15.8		52.1	52.1	52.8		51.0	
Progression Factor	1.00	1.00	1.00	1.44	1.24		1.00	1.00	1.00		1.00	
Incremental Delay, d2	19.2	1.1	0.2	0.4	3.4		22.3	20.0	0.2		16.8	
Delay (s)	34.1	16.7	11.8	14.5	23.0		74.5	72.1	53.0		67.8	
Level of Service	C	B	B	B	C		E	E	D		E	
Approach Delay (s)		16.8			22.2			65.2			67.8	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	27.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

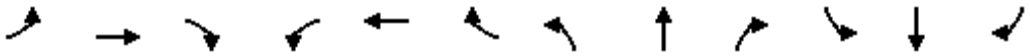
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1061	30	32	1822	34	52
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.92	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3005		1509	3018	1430	
Flt Permitted	1.00		0.21	1.00	0.98	
Satd. Flow (perm)	3005		337	3018	1430	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1153	33	35	1980	37	57
RTOR Reduction (vph)	1	0	0	0	52	0
Lane Group Flow (vph)	1185	0	35	1980	42	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	93.3		93.3	93.3	10.7	
Effective Green, g (s)	93.3		93.3	93.3	10.7	
Actuated g/C Ratio	0.78		0.78	0.78	0.09	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2336		262	2346	127	
v/s Ratio Prot	0.39			c0.66	c0.03	
v/s Ratio Perm			0.10			
v/c Ratio	0.51		0.13	0.84	0.33	
Uniform Delay, d1	4.9		3.3	8.6	51.3	
Progression Factor	1.48		1.30	1.09	1.00	
Incremental Delay, d2	0.7		0.7	2.6	1.5	
Delay (s)	8.0		5.0	12.0	52.8	
Level of Service	A		A	B	D	
Approach Delay (s)	8.0			11.9	52.8	
Approach LOS	A			B	D	

Intersection Summary			
HCM 2000 Control Delay	11.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



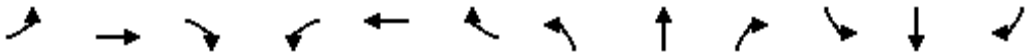
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	907	151	104	1672	16	217	13	185	28	32	15
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	0.88	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1509	3018	1350	1509	3013		1433	1445	2376	1509	1512	
Flt Permitted	0.10	1.00	1.00	0.24	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	155	3018	1350	387	3013		1433	1445	2376	1509	1512	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	955	159	109	1760	17	228	14	195	29	34	16
RTOR Reduction (vph)	0	0	35	0	1	0	0	0	0	0	15	0
Lane Group Flow (vph)	8	955	124	109	1776	0	121	121	195	29	35	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6		5	2		4	4	5	3	3	
Permitted Phases	6		6	2					4 6			
Actuated Green, G (s)	79.9	79.9	79.9	89.1	89.1		12.6	12.6	98.7	7.3	7.3	
Effective Green, g (s)	79.9	79.9	79.9	88.1	89.1		12.6	12.6	95.7	6.3	6.3	
Actuated g/C Ratio	0.67	0.67	0.67	0.73	0.74		0.10	0.10	0.80	0.05	0.05	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0	3.0	3.0	3.0	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0	2.0	2.0	
Lane Grp Cap (vph)	103	2009	898	332	2237		150	151	1974	79	79	
v/s Ratio Prot		0.32		0.01	c0.59		c0.08	0.08	0.00	0.02	c0.02	
v/s Ratio Perm	0.05		0.09	0.23					0.08			
v/c Ratio	0.08	0.48	0.14	0.33	0.79		0.81	0.80	0.10	0.37	0.44	
Uniform Delay, d1	7.1	9.8	7.4	5.9	9.7		52.5	52.5	2.7	54.9	55.1	
Progression Factor	1.12	1.70	2.22	1.00	1.08		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.3	0.7	0.3	0.1	2.0		24.9	24.2	0.0	1.1	1.4	
Delay (s)	9.2	17.4	16.6	6.0	12.4		77.4	76.7	2.7	56.0	56.6	
Level of Service	A	B	B	A	B		E	E	A	E	E	
Approach Delay (s)		17.2			12.0			43.9			56.4	
Approach LOS		B			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	18.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



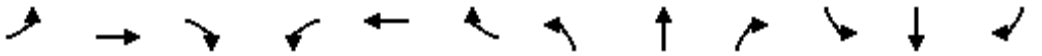
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	858	270	0	1424	11	358	11	0	25	19	34
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00		0.95		0.95	0.95			1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			0.94	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.96			0.98	
Satd. Flow (prot)	1509	3018	1350		3014		1433	1441			1471	
Flt Permitted	0.09	1.00	1.00		1.00		0.95	0.96			0.98	
Satd. Flow (perm)	145	3018	1350		3014		1433	1441			1471	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	903	284	0	1499	12	377	12	0	26	20	36
RTOR Reduction (vph)	0	0	65	0	0	0	0	0	0	0	24	0
Lane Group Flow (vph)	12	903	219	0	1511	0	196	193	0	0	58	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6						4			
Actuated Green, G (s)	79.1	79.1	79.1		74.4		22.9	22.9			6.0	
Effective Green, g (s)	78.1	79.1	79.1		74.4		22.9	22.9			6.0	
Actuated g/C Ratio	0.65	0.66	0.66		0.62		0.19	0.19			0.05	
Clearance Time (s)	3.0	4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)	1.0	6.0	6.0		6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	102	1989	889		1868		273	274			73	
v/s Ratio Prot	0.00	c0.30			c0.50		c0.14	0.13			c0.04	
v/s Ratio Perm	0.08		0.16									
v/c Ratio	0.12	0.45	0.25		0.81		0.72	0.70			0.80	
Uniform Delay, d1	13.1	9.9	8.3		17.4		45.5	45.4			56.4	
Progression Factor	1.14	1.39	2.21		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.2	0.7	0.6		3.9		8.7	8.0			43.8	
Delay (s)	15.0	14.5	19.0		21.3		54.2	53.4			100.2	
Level of Service	B	B	B		C		D	D			F	
Approach Delay (s)		15.6			21.3			53.8			100.2	
Approach LOS		B			C			D			F	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	71.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



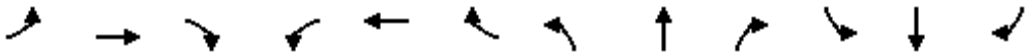
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	42	87	91	134	13	240	427	48	3	389	61
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.93			0.99		1.00	0.98		1.00	0.98	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1457			1547		1509	2971		1509	2956	
Flt Permitted		0.92			0.84		0.46	1.00		0.44	1.00	
Satd. Flow (perm)		1357			1319		724	2971		693	2956	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	32	44	92	96	141	14	253	449	51	3	409	64
RTOR Reduction (vph)	0	50	0	0	4	0	0	19	0	0	27	0
Lane Group Flow (vph)	0	118	0	0	247	0	253	481	0	3	446	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		22.7			22.7		20.7	20.7		20.7	20.7	
Effective Green, g (s)		23.3			23.3		19.7	19.7		19.7	19.7	
Actuated g/C Ratio		0.46			0.46		0.39	0.39		0.39	0.39	
Clearance Time (s)		4.6			4.6		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		4.5			4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		619			602		279	1147		267	1141	
v/s Ratio Prot								0.16			0.15	
v/s Ratio Perm		0.09			c0.19		c0.35			0.00		
v/c Ratio		0.19			0.41		0.91	0.42		0.01	0.39	
Uniform Delay, d1		8.2			9.3		14.8	11.5		9.6	11.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7			2.1		30.5	0.2		0.0	0.2	
Delay (s)		8.9			11.3		45.3	11.7		9.7	11.5	
Level of Service		A			B		D	B		A	B	
Approach Delay (s)		8.9			11.3			23.0			11.5	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	16.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	141	1410	71	44	369	0	0	244	115
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			0.95	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1509	2996		1509	1588			3018	1350
Flt Permitted				0.95	1.00		0.59	1.00			1.00	1.00
Satd. Flow (perm)				1509	2996		941	1588			3018	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	148	1484	75	46	388	0	0	257	121
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	148	1557	0	46	388	0	0	257	121
Turn Type				custom	NA		custom	NA			NA	Free
Protected Phases				2	2		3	3			1	
Permitted Phases				4	4		6	6				Free
Actuated Green, G (s)				68.4	68.4		43.0	43.0			31.0	160.0
Effective Green, g (s)				66.4	66.4		41.0	41.0			31.0	160.0
Actuated g/C Ratio				0.42	0.42		0.26	0.26			0.19	1.00
Clearance Time (s)				3.0	3.0		3.0	3.0			4.0	
Vehicle Extension (s)				1.0	1.0		1.0	1.0			4.0	
Lane Grp Cap (vph)				626	1243		280	406			584	1350
v/s Ratio Prot				0.02	c0.09		0.01	c0.07			c0.09	
v/s Ratio Perm				0.08	0.43		0.03	0.18				0.09
v/c Ratio				0.24	1.25		0.16	0.96			0.44	0.09
Uniform Delay, d1				30.4	46.8		46.5	58.6			56.9	0.0
Progression Factor				1.00	1.00		0.27	0.29			1.00	1.00
Incremental Delay, d2				0.9	120.3		0.1	30.1			2.4	0.1
Delay (s)				31.2	167.1		12.6	47.1			59.2	0.1
Level of Service				C	F		B	D			E	A
Approach Delay (s)		0.0			155.4			43.5			40.3	
Approach LOS		A			F			D			D	

Intersection Summary			
HCM 2000 Control Delay	118.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	87	711	46	152	1608	136	61	553	124	45	457	80
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2990		1509	2982		1509	3018	1350	1509	2950	
Flt Permitted	0.07	1.00		0.29	1.00		0.22	1.00	1.00	0.21	1.00	
Satd. Flow (perm)	109	2990		456	2982		357	3018	1350	335	2950	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	92	748	48	160	1693	143	64	582	131	47	481	84
RTOR Reduction (vph)	0	4	0	0	6	0	0	0	101	0	14	0
Lane Group Flow (vph)	92	792	0	160	1830	0	64	582	30	47	551	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	62.8	58.3		67.7	60.5		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	62.8	58.3		66.7	60.5		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.63	0.58		0.67	0.60		0.23	0.23	0.23	0.23	0.23	
Clearance Time (s)	4.0	4.0		3.5	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	1.0	5.0		1.0	5.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	131	1743		374	1804		82	694	310	77	678	
v/s Ratio Prot	c0.03	0.26		c0.03	c0.61			c0.19			0.19	
v/s Ratio Perm	0.41			0.26			0.18		0.02	0.14		
v/c Ratio	0.70	0.45		0.43	1.01		0.78	0.84	0.10	0.61	0.81	
Uniform Delay, d1	18.1	11.8		7.0	19.8		36.1	36.7	30.3	34.5	36.5	
Progression Factor	1.88	0.62		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	11.4	0.7		0.3	24.8		51.4	11.6	0.6	31.1	10.3	
Delay (s)	45.5	8.1		7.3	44.6		87.5	48.3	30.9	65.6	46.7	
Level of Service	D	A		A	D		F	D	C	E	D	
Approach Delay (s)		12.0			41.6			48.6			48.2	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

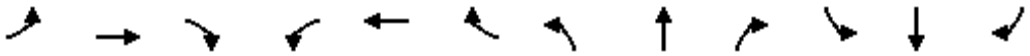
Movement	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT	NWR2
Lane Configurations											
Volume (vph)	77	574	288	33	292	59	26	22	82	385	13
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95					0.95	1.00
Frt	1.00	1.00	0.85	0.85	0.97					1.00	0.86
Flt Protected	0.95	1.00	1.00	1.00	1.00					0.99	1.00
Satd. Flow (prot)	1509	3018	1350	1350	2916					2986	1374
Flt Permitted	0.95	1.00	1.00	1.00	1.00					0.61	1.00
Satd. Flow (perm)	1509	3018	1350	1350	2916					1829	1374
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	81	604	303	35	307	62	27	23	86	405	14
RTOR Reduction (vph)	0	0	0	33	3	0	0	0	0	0	0
Lane Group Flow (vph)	81	604	303	2	393	0	0	0	0	514	14
Turn Type	custom	NA	Perm	Perm	NA			custom	Prot	NA	Free
Protected Phases	3	3			6				2	1	
Permitted Phases	4	4	3	3				2		2	Free
Actuated Green, G (s)	68.4	68.4	12.0	12.0	31.0					43.0	160.0
Effective Green, g (s)	66.4	66.4	11.0	11.0	31.0					43.0	160.0
Actuated g/C Ratio	0.42	0.42	0.07	0.07	0.19					0.27	1.00
Clearance Time (s)	3.0	3.0	3.0	3.0	4.0					4.0	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0					4.0	
Lane Grp Cap (vph)	663	1327	92	92	564					715	1374
v/s Ratio Prot	0.01	c0.03			c0.13					c0.14	
v/s Ratio Perm	0.05	0.17	c0.22	0.00						c0.05	0.01
v/c Ratio	0.12	0.46	3.29	0.03	0.70					0.72	0.01
Uniform Delay, d1	28.9	33.8	74.5	69.5	60.1					53.0	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00					0.50	1.00
Incremental Delay, d2	0.0	0.1	1059.4	0.0	7.0					6.0	0.0
Delay (s)	29.0	33.8	1133.9	69.5	67.1					32.6	0.0
Level of Service	C	C	F	E	E					C	A
Approach Delay (s)		360.5			67.1					32.6	
Approach LOS		F			E					C	

Intersection Summary			
HCM 2000 Control Delay	211.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1042	58	71	1827	5	10	0	23	3	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	13	1097	61	75	1923	5	11	0	24	3	0	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.63			0.87			0.69	0.69	0.87	0.69	0.69	0.63
vC, conflicting volume	1928			1158			2270	3231	579	2673	3258	964
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1292			876			1088	2473	209	1669	2513	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			89			90	100	96	92	100	99
cM capacity (veh/h)	334			665			104	18	691	37	16	680

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	13	731	427	75	1282	646	35	9
Volume Left	13	0	0	75	0	0	11	3
Volume Right	0	0	61	0	0	5	24	6
cSH	334	1700	1700	665	1700	1700	255	101
Volume to Capacity	0.04	0.43	0.25	0.11	0.75	0.38	0.14	0.09
Queue Length 95th (ft)	3	0	0	9	0	0	12	8
Control Delay (s)	16.2	0.0	0.0	11.1	0.0	0.0	21.3	44.3
Lane LOS	C			B			C	E
Approach Delay (s)	0.2			0.4			21.3	44.3
Approach LOS							C	E

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	76.1%	ICU Level of Service	D	
Analysis Period (min)	15			

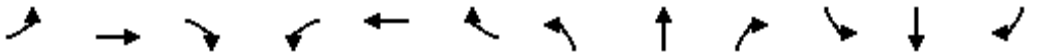


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	883	48	180	1076	69	163	75	264	139	98	33
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (prot)	1509	3018	1350	1509	2990		1433	1481	1350		1523	
Flt Permitted	0.21	1.00	1.00	0.22	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (perm)	341	3018	1350	345	2990		1433	1481	1350		1523	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	929	51	189	1133	73	172	79	278	146	103	35
RTOR Reduction (vph)	0	0	23	0	4	0	0	0	257	0	4	0
Lane Group Flow (vph)	14	929	28	189	1202	0	124	127	21	0	280	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	Over	Split	NA	
Protected Phases		6		5	2		4	4	5	8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)	65.8	65.8	65.8	78.9	78.9		13.6	13.6	10.1		16.5	
Effective Green, g (s)	65.8	65.8	65.8	77.9	78.9		13.1	13.1	9.1		16.0	
Actuated g/C Ratio	0.55	0.55	0.55	0.65	0.66		0.11	0.11	0.08		0.13	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		3.5	3.5	3.0		3.5	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0		4.0	
Lane Grp Cap (vph)	186	1654	740	312	1965		156	161	102		203	
v/s Ratio Prot		0.31		0.05	c0.40		c0.09	0.09	0.02		c0.18	
v/s Ratio Perm	0.04		0.02	0.35								
v/c Ratio	0.08	0.56	0.04	0.61	0.61		0.79	0.79	0.21		1.38	
Uniform Delay, d1	12.8	17.7	12.5	11.2	11.8		52.1	52.1	52.1		52.0	
Progression Factor	1.00	1.00	1.00	1.40	1.27		1.00	1.00	1.00		1.00	
Incremental Delay, d2	0.8	1.4	0.1	1.8	1.1		22.3	20.6	0.4		197.7	
Delay (s)	13.6	19.1	12.6	17.5	16.2		74.5	72.7	52.4		249.7	
Level of Service	B	B	B	B	B		E	E	D		F	
Approach Delay (s)		18.7			16.3			62.5			249.7	
Approach LOS		B			B			E			F	

Intersection Summary			
HCM 2000 Control Delay	45.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

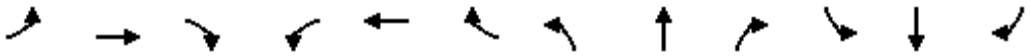
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1304	51	25	1350	44	55
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.99		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3001		1509	3018	1437	
Flt Permitted	1.00		0.15	1.00	0.98	
Satd. Flow (perm)	3001		231	3018	1437	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1417	55	27	1467	48	60
RTOR Reduction (vph)	1	0	0	0	41	0
Lane Group Flow (vph)	1471	0	27	1467	67	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	92.2		92.2	92.2	11.8	
Effective Green, g (s)	92.2		92.2	92.2	11.8	
Actuated g/C Ratio	0.77		0.77	0.77	0.10	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2305		177	2318	141	
v/s Ratio Prot	c0.49			0.49	c0.05	
v/s Ratio Perm			0.12			
v/c Ratio	0.64		0.15	0.63	0.47	
Uniform Delay, d1	6.3		3.6	6.3	51.2	
Progression Factor	1.19		1.26	1.16	1.00	
Incremental Delay, d2	1.1		1.5	1.1	2.5	
Delay (s)	8.6		6.1	8.4	53.6	
Level of Service	A		A	A	D	
Approach Delay (s)	8.6			8.3	53.6	
Approach LOS	A			A	D	

Intersection Summary			
HCM 2000 Control Delay	10.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



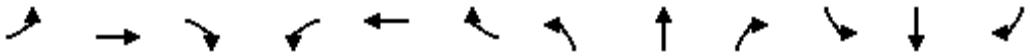
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1214	110	131	1155	32	237	42	361	24	25	13
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	0.88	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.97	1.00	0.95	1.00	
Satd. Flow (prot)	1509	3018	1350	1509	3005		1433	1457	2376	1509	1505	
Flt Permitted	0.21	1.00	1.00	0.15	1.00		0.95	0.97	1.00	0.95	1.00	
Satd. Flow (perm)	334	3018	1350	231	3005		1433	1457	2376	1509	1505	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	1278	116	138	1216	34	249	44	380	25	26	14
RTOR Reduction (vph)	0	0	23	0	1	0	0	0	0	0	13	0
Lane Group Flow (vph)	16	1278	93	138	1249	0	144	149	380	25	27	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6		5	2		4	4	5	3	3	
Permitted Phases	6		6	2					4 6			
Actuated Green, G (s)	76.3	76.3	76.3	87.0	87.0		15.1	15.1	99.1	6.9	6.9	
Effective Green, g (s)	76.3	76.3	76.3	86.0	87.0		15.1	15.1	96.1	5.9	5.9	
Actuated g/C Ratio	0.64	0.64	0.64	0.72	0.72		0.13	0.13	0.80	0.05	0.05	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0	3.0	3.0	3.0	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0	2.0	2.0	
Lane Grp Cap (vph)	212	1918	858	236	2178		180	183	1981	74	73	
v/s Ratio Prot		c0.42		0.03	c0.42		0.10	c0.10	0.01	0.02	c0.02	
v/s Ratio Perm	0.05		0.07	0.38					0.15			
v/c Ratio	0.08	0.67	0.11	0.58	0.57		0.80	0.81	0.19	0.34	0.37	
Uniform Delay, d1	8.4	13.8	8.5	10.0	7.8		51.0	51.1	2.8	55.2	55.2	
Progression Factor	0.87	1.07	1.11	1.26	1.14		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.6	1.5	0.2	1.5	0.7		20.8	22.4	0.0	1.0	1.1	
Delay (s)	7.8	16.4	9.7	14.1	9.6		71.8	73.5	2.8	56.2	56.4	
Level of Service	A	B	A	B	A		E	E	A	E	E	
Approach Delay (s)		15.7			10.0			33.2			56.3	
Approach LOS		B			B			C			E	

Intersection Summary			
HCM 2000 Control Delay	17.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



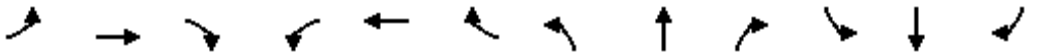
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	1129	504	0	1018	18	296	9	0	15	28	27
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00		0.95		0.95	0.95			1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			0.95	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (prot)	1509	3018	1350		3010		1433	1441			1490	
Flt Permitted	0.19	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (perm)	295	3018	1350		3010		1433	1441			1490	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	43	1188	531	0	1072	19	312	9	0	16	29	28
RTOR Reduction (vph)	0	0	90	0	1	0	0	0	0	0	19	0
Lane Group Flow (vph)	43	1188	441	0	1090	0	159	162	0	0	54	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6						4			
Actuated Green, G (s)	79.9	79.9	79.9		72.9		22.1	22.1			6.0	
Effective Green, g (s)	78.9	79.9	79.9		72.9		22.1	22.1			6.0	
Actuated g/C Ratio	0.66	0.67	0.67		0.61		0.18	0.18			0.05	
Clearance Time (s)	3.0	4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)	1.0	6.0	6.0		6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	224	2009	898		1828		263	265			74	
v/s Ratio Prot	0.00	c0.39			0.36		0.11	c0.11			c0.04	
v/s Ratio Perm	0.12		0.33									
v/c Ratio	0.19	0.59	0.49		0.60		0.60	0.61			0.73	
Uniform Delay, d1	9.5	11.1	10.0		14.5		44.9	45.0			56.2	
Progression Factor	1.11	1.36	1.73		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	1.2	1.8		1.4		3.9	4.1			29.9	
Delay (s)	10.7	16.2	19.0		15.9		48.8	49.1			86.1	
Level of Service	B	B	B		B		D	D			F	
Approach Delay (s)		16.9			15.9			49.0			86.1	
Approach LOS		B			B			D			F	

Intersection Summary			
HCM 2000 Control Delay	21.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



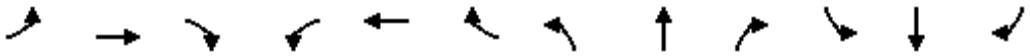
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	144	393	152	63	42	6	123	524	129	21	350	27
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.97			0.99		1.00	0.97		1.00	0.99	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1525			1534		1509	2928		1509	2986	
Flt Permitted		0.91			0.67		0.50	1.00		0.28	1.00	
Satd. Flow (perm)		1395			1052		796	2928		439	2986	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	152	414	160	66	44	6	129	552	136	22	368	28
RTOR Reduction (vph)	0	16	0	0	3	0	0	52	0	0	14	0
Lane Group Flow (vph)	0	710	0	0	113	0	129	636	0	22	382	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		26.1			26.1		17.3	17.3		17.3	17.3	
Effective Green, g (s)		26.7			26.7		16.3	16.3		16.3	16.3	
Actuated g/C Ratio		0.52			0.52		0.32	0.32		0.32	0.32	
Clearance Time (s)		4.6			4.6		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		4.5			4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		730			550		254	935		140	954	
v/s Ratio Prot								c0.22			0.13	
v/s Ratio Perm		c0.51			0.11		0.16			0.05		
v/c Ratio		0.97			0.21		0.51	0.68		0.16	0.40	
Uniform Delay, d1		11.8			6.5		14.1	15.1		12.4	13.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		27.3			0.8		1.6	2.0		0.5	0.3	
Delay (s)		39.1			7.3		15.7	17.1		13.0	13.8	
Level of Service		D			A		B	B		B	B	
Approach Delay (s)		39.1			7.3			16.8			13.8	
Approach LOS		D			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	112	978	45	37	377	0	0	375	108
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			0.95	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1509	2998		1509	1588			3018	1350
Flt Permitted				0.95	1.00		0.52	1.00			1.00	1.00
Satd. Flow (perm)				1509	2998		824	1588			3018	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	118	1029	47	39	397	0	0	395	114
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	118	1074	0	39	397	0	0	395	114
Turn Type				custom	NA		custom	NA			NA	Free
Protected Phases				2	2		3	3			1	
Permitted Phases				4	4		6	6				Free
Actuated Green, G (s)				68.4	68.4		43.0	43.0			31.0	160.0
Effective Green, g (s)				66.4	66.4		41.0	41.0			31.0	160.0
Actuated g/C Ratio				0.42	0.42		0.26	0.26			0.19	1.00
Clearance Time (s)				3.0	3.0		3.0	3.0			4.0	
Vehicle Extension (s)				1.0	1.0		1.0	1.0			4.0	
Lane Grp Cap (vph)				626	1244		258	406			584	1350
v/s Ratio Prot				0.01	c0.06		0.01	c0.07			c0.13	
v/s Ratio Perm				0.07	0.30		0.03	0.18				0.08
v/c Ratio				0.19	0.86		0.15	0.98			0.68	0.08
Uniform Delay, d1				29.7	42.7		46.5	59.0			59.8	0.0
Progression Factor				1.00	1.00		0.29	0.29			1.00	1.00
Incremental Delay, d2				0.7	8.1		0.1	34.5			6.2	0.1
Delay (s)				30.4	50.7		13.7	51.8			66.0	0.1
Level of Service				C	D		B	D			E	A
Approach Delay (s)		0.0			48.7			48.4			51.3	
Approach LOS		A			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	49.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

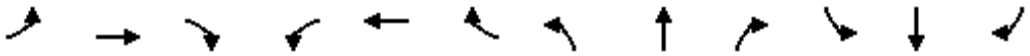


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	126	1230	86	195	899	88	98	593	279	91	514	65
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2988		1509	2977		1509	3018	1350	1509	2967	
Flt Permitted	0.23	1.00		0.09	1.00		0.19	1.00	1.00	0.18	1.00	
Satd. Flow (perm)	370	2988		141	2977		300	3018	1350	281	2967	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	133	1295	91	205	946	93	103	624	294	96	541	68
RTOR Reduction (vph)	0	5	0	0	7	0	0	0	160	0	10	0
Lane Group Flow (vph)	133	1381	0	205	1032	0	103	624	134	96	599	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	59.7	54.1		69.0	59.4		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	59.7	54.1		68.5	59.4		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.60	0.54		0.68	0.59		0.23	0.23	0.23	0.23	0.23	
Clearance Time (s)	4.0	4.0		3.5	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	1.0	5.0		1.0	5.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	284	1616		245	1768		69	694	310	64	682	
v/s Ratio Prot	0.03	0.46		c0.09	0.35			0.21			0.20	
v/s Ratio Perm	0.25			c0.48			c0.34		0.10	0.34		
v/c Ratio	0.47	0.85		0.84	0.58		1.49	0.90	0.43	1.50	0.88	
Uniform Delay, d1	9.4	19.6		23.9	12.6		38.5	37.4	32.9	38.5	37.1	
Progression Factor	1.11	0.91		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	5.7		20.4	1.4		283.5	16.9	4.3	290.4	15.0	
Delay (s)	10.9	23.5		44.3	14.0		322.0	54.2	37.3	328.9	52.1	
Level of Service	B	C		D	B		F	D	D	F	D	
Approach Delay (s)		22.4			19.0			76.4			89.8	
Approach LOS		C			B			E			F	

Intersection Summary			
HCM 2000 Control Delay	44.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT	NWR2
Lane Configurations											
Volume (vph)	89	821	369	96	288	99	26	91	118	487	43
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95					0.95	1.00
Frt	1.00	1.00	0.85	0.85	0.95					1.00	0.86
Flt Protected	0.95	1.00	1.00	1.00	1.00					0.99	1.00
Satd. Flow (prot)	1509	3018	1350	1350	2881					2973	1374
Flt Permitted	0.95	1.00	1.00	1.00	1.00					0.63	1.00
Satd. Flow (perm)	1509	3018	1350	1350	2881					1914	1374
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	94	864	388	101	303	104	27	96	124	513	45
RTOR Reduction (vph)	0	0	0	74	3	0	0	0	0	0	0
Lane Group Flow (vph)	94	864	388	27	431	0	0	0	0	733	45
Turn Type	custom	NA	Perm	Perm	NA			custom	Prot	NA	Free
Protected Phases	3	3			6				2	1	
Permitted Phases	4	4	3	3				2		2	Free
Actuated Green, G (s)	68.4	68.4	12.0	12.0	31.0					43.0	160.0
Effective Green, g (s)	66.4	66.4	11.0	11.0	31.0					43.0	160.0
Actuated g/C Ratio	0.42	0.42	0.07	0.07	0.19					0.27	1.00
Clearance Time (s)	3.0	3.0	3.0	3.0	4.0					4.0	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0					4.0	
Lane Grp Cap (vph)	663	1327	92	92	558					719	1374
v/s Ratio Prot	0.01	c0.04			c0.15					c0.20	
v/s Ratio Perm	0.05	0.24	c0.29	0.02						c0.08	0.03
v/c Ratio	0.14	0.65	4.22	0.30	0.77					1.02	0.03
Uniform Delay, d1	29.2	37.5	74.5	70.8	61.1					58.5	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00					0.46	1.00
Incremental Delay, d2	0.0	0.9	1473.0	0.7	10.0					37.5	0.0
Delay (s)	29.2	38.4	1547.5	71.5	71.1					64.6	0.0
Level of Service	C	D	F	E	E					E	A
Approach Delay (s)		444.8			71.1					64.6	
Approach LOS		F			E					E	

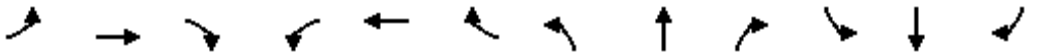
Intersection Summary			
HCM 2000 Control Delay	271.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	1292	40	53	1333	18	49	0	64	0	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	1360	42	56	1403	19	52	0	67	0	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.82			0.79			0.88	0.88	0.79	0.88	0.88	0.82
vC, conflicting volume	1422			1402			2248	2957	701	2314	2968	711
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1065			972			1202	2008	82	1277	2021	193
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			90			53	100	91	100	100	98
cM capacity (veh/h)	530			555			109	45	757	89	44	665

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	21	907	495	56	935	487	119	12
Volume Left	21	0	0	56	0	0	52	0
Volume Right	0	0	42	0	0	19	67	12
cSH	530	1700	1700	555	1700	1700	211	665
Volume to Capacity	0.04	0.53	0.29	0.10	0.55	0.29	0.56	0.02
Queue Length 95th (ft)	3	0	0	8	0	0	77	1
Control Delay (s)	12.1	0.0	0.0	12.2	0.0	0.0	42.1	10.5
Lane LOS	B			B			E	B
Approach Delay (s)	0.2			0.5			42.1	10.5
Approach LOS							E	B

Intersection Summary				
Average Delay	2.0			
Intersection Capacity Utilization	71.7%	ICU Level of Service	C	
Analysis Period (min)	15			

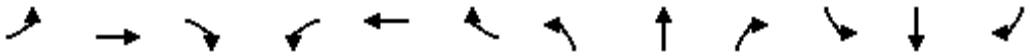


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	917	105	241	1715	81	173	74	203	78	45	14
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (prot)	1509	3018	1350	1509	2997		1433	1478	1350		1523	
Flt Permitted	0.06	1.00	1.00	0.20	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (perm)	99	3018	1350	317	2997		1433	1478	1350		1523	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	965	111	254	1805	85	182	78	214	82	47	15
RTOR Reduction (vph)	0	0	34	0	3	0	0	0	193	0	4	0
Lane Group Flow (vph)	35	965	77	254	1887	0	127	133	21	0	140	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	Over	Split	NA	
Protected Phases		6		5	2		4	4	5	8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)	64.1	64.1	64.1	79.9	79.9		14.0	14.0	12.8		15.1	
Effective Green, g (s)	64.1	64.1	64.1	78.9	79.9		13.5	13.5	11.8		14.6	
Actuated g/C Ratio	0.53	0.53	0.53	0.66	0.67		0.11	0.11	0.10		0.12	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		3.5	3.5	3.0		3.5	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0		4.0	
Lane Grp Cap (vph)	52	1612	721	325	1995		161	166	132		185	
v/s Ratio Prot		0.32		0.08	c0.63		0.09	c0.09	0.02		c0.09	
v/s Ratio Perm	0.35		0.06	0.44								
v/c Ratio	0.67	0.60	0.11	0.78	0.95		0.79	0.80	0.16		0.76	
Uniform Delay, d1	20.3	19.1	13.8	12.8	18.1		51.9	51.9	49.6		51.0	
Progression Factor	1.00	1.00	1.00	1.69	1.48		1.00	1.00	1.00		1.00	
Incremental Delay, d2	52.5	1.7	0.3	3.6	4.2		20.6	22.4	0.2		17.2	
Delay (s)	72.8	20.8	14.1	25.2	31.0		72.5	74.3	49.8		68.2	
Level of Service	E	C	B	C	C		E	E	D		E	
Approach Delay (s)		21.8			30.3			62.7			68.2	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	33.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

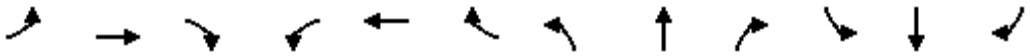
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1187	31	33	1972	98	105
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3006		1509	3018	1443	
Flt Permitted	1.00		0.16	1.00	0.98	
Satd. Flow (perm)	3006		259	3018	1443	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1290	34	36	2143	107	114
RTOR Reduction (vph)	1	0	0	0	33	0
Lane Group Flow (vph)	1323	0	36	2143	188	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	84.9		84.9	84.9	19.1	
Effective Green, g (s)	84.9		84.9	84.9	19.1	
Actuated g/C Ratio	0.71		0.71	0.71	0.16	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2126		183	2135	229	
v/s Ratio Prot	0.44			c0.71	c0.13	
v/s Ratio Perm			0.14			
v/c Ratio	0.62		0.20	1.00	0.82	
Uniform Delay, d1	9.2		6.0	17.5	48.8	
Progression Factor	1.47		1.19	0.97	1.00	
Incremental Delay, d2	1.1		1.2	14.8	20.6	
Delay (s)	14.6		8.3	31.8	69.4	
Level of Service	B		A	C	E	
Approach Delay (s)	14.6			31.5	69.4	
Approach LOS	B			C	E	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



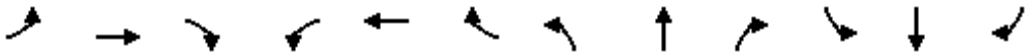
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	1041	167	111	1840	16	272	13	194	29	33	15
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	0.88	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1509	3018	1350	1509	3014		1433	1443	2376	1509	1513	
Flt Permitted	0.07	1.00	1.00	0.20	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	111	3018	1350	318	3014		1433	1443	2376	1509	1513	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	1096	176	117	1937	17	286	14	204	31	35	16
RTOR Reduction (vph)	0	0	34	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	8	1096	142	117	1954	0	149	151	204	31	36	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6		5	2		4	4	5	3	3	
Permitted Phases	6		6	2					4 6			
Actuated Green, G (s)	79.4	79.4	79.4	88.7	88.7		13.0	13.0	98.7	7.3	7.3	
Effective Green, g (s)	79.4	79.4	79.4	87.7	88.7		13.0	13.0	95.7	6.3	6.3	
Actuated g/C Ratio	0.66	0.66	0.66	0.73	0.74		0.11	0.11	0.80	0.05	0.05	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0	3.0	3.0	3.0	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0	2.0	2.0	
Lane Grp Cap (vph)	73	1996	893	285	2227		155	156	1974	79	79	
v/s Ratio Prot		0.36		0.02	c0.65		0.10	c0.10	0.00	0.02	c0.02	
v/s Ratio Perm	0.07		0.11	0.28					0.08			
v/c Ratio	0.11	0.55	0.16	0.41	0.88		0.96	0.97	0.10	0.39	0.45	
Uniform Delay, d1	7.4	10.8	7.7	6.8	11.6		53.2	53.3	2.7	55.0	55.2	
Progression Factor	0.75	1.50	1.44	0.93	0.94		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.4	0.9	0.3	0.2	3.7		60.1	61.5	0.0	1.2	1.5	
Delay (s)	8.0	17.0	11.3	6.6	14.6		113.4	114.8	2.7	56.2	56.7	
Level of Service	A	B	B	A	B		F	F	A	E	E	
Approach Delay (s)		16.2			14.1			69.0			56.5	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	22.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



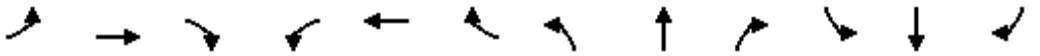
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	976	297	0	1572	11	384	11	0	26	20	35
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00		0.95		0.95	0.95			1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			0.94	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.95			0.98	
Satd. Flow (prot)	1509	3018	1350		3014		1433	1441			1472	
Flt Permitted	0.06	1.00	1.00		1.00		0.95	0.95			0.98	
Satd. Flow (perm)	101	3018	1350		3014		1433	1441			1472	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	1027	313	0	1655	12	404	12	0	27	21	37
RTOR Reduction (vph)	0	0	66	0	0	0	0	0	0	0	23	0
Lane Group Flow (vph)	12	1027	247	0	1667	0	206	210	0	0	62	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6						4			
Actuated Green, G (s)	78.8	78.8	78.8		74.2		21.6	21.6			7.6	
Effective Green, g (s)	77.8	78.8	78.8		74.2		21.6	21.6			7.6	
Actuated g/C Ratio	0.65	0.66	0.66		0.62		0.18	0.18			0.06	
Clearance Time (s)	3.0	4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)	1.0	6.0	6.0		6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	72	1981	886		1863		257	259			93	
v/s Ratio Prot	0.00	c0.34			c0.55		0.14	c0.15			c0.04	
v/s Ratio Perm	0.11		0.18									
v/c Ratio	0.17	0.52	0.28		0.89		0.80	0.81			0.66	
Uniform Delay, d1	15.8	10.7	8.7		19.6		47.1	47.2			54.9	
Progression Factor	1.15	1.41	2.25		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.4	0.9	0.7		7.1		16.3	17.2			16.3	
Delay (s)	18.5	16.0	20.2		26.7		63.4	64.5			71.3	
Level of Service	B	B	C		C		E	E			E	
Approach Delay (s)		17.0			26.7			64.0			71.3	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	28.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



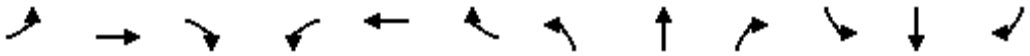
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	43	105	94	138	13	247	478	49	3	424	63
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.93			0.99		1.00	0.99		1.00	0.98	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1454			1547		1509	2975		1509	2959	
Flt Permitted		0.89			0.82		0.44	1.00		0.41	1.00	
Satd. Flow (perm)		1316			1293		693	2975		647	2959	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	46	45	111	99	145	14	260	503	52	3	446	66
RTOR Reduction (vph)	0	64	0	0	3	0	0	17	0	0	26	0
Lane Group Flow (vph)	0	138	0	0	255	0	260	538	0	3	486	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		21.1			21.1		22.3	22.3		22.3	22.3	
Effective Green, g (s)		21.7			21.7		21.3	21.3		21.3	21.3	
Actuated g/C Ratio		0.43			0.43		0.42	0.42		0.42	0.42	
Clearance Time (s)		4.6			4.6		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		4.5			4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		559			550		289	1242		270	1235	
v/s Ratio Prot								0.18			0.16	
v/s Ratio Perm		0.11			c0.20		c0.38			0.00		
v/c Ratio		0.25			0.46		0.90	0.43		0.01	0.39	
Uniform Delay, d1		9.4			10.5		13.9	10.6		8.7	10.3	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1			2.8		28.3	0.2		0.0	0.2	
Delay (s)		10.5			13.3		42.1	10.8		8.7	10.6	
Level of Service		B			B		D	B		A	B	
Approach Delay (s)		10.5			13.3			20.8			10.5	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	173	1581	79	45	432	0	0	288	152
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			0.95	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1509	2996		1509	1588			3018	1350
Flt Permitted				0.95	1.00		0.57	1.00			1.00	1.00
Satd. Flow (perm)				1509	2996		901	1588			3018	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	182	1664	83	47	455	0	0	303	160
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	182	1745	0	47	455	0	0	303	160
Turn Type				custom	NA		custom	NA			NA	Free
Protected Phases				2	2		3	3			1	
Permitted Phases				4	4		6	6				Free
Actuated Green, G (s)				68.4	68.4		54.0	54.0			20.0	160.0
Effective Green, g (s)				66.4	66.4		52.0	52.0			20.0	160.0
Actuated g/C Ratio				0.42	0.42		0.32	0.32			0.12	1.00
Clearance Time (s)				3.0	3.0		3.0	3.0			4.0	
Vehicle Extension (s)				1.0	1.0		1.0	1.0			4.0	
Lane Grp Cap (vph)				626	1243		422	516			377	1350
v/s Ratio Prot				0.09	c0.42		0.02	c0.19			c0.10	
v/s Ratio Perm				0.03	0.17		0.01	0.10				0.12
v/c Ratio				0.29	1.40		0.11	0.88			0.80	0.12
Uniform Delay, d1				31.1	46.8		38.5	51.1			68.1	0.0
Progression Factor				1.00	1.00		0.12	0.23			1.00	1.00
Incremental Delay, d2				1.2	186.5		0.0	1.8			16.5	0.2
Delay (s)				32.3	233.3		4.7	13.5			84.6	0.2
Level of Service				C	F		A	B			F	A
Approach Delay (s)		0.0			214.4			12.7			55.4	
Approach LOS		A			F			B			E	

Intersection Summary			
HCM 2000 Control Delay	153.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

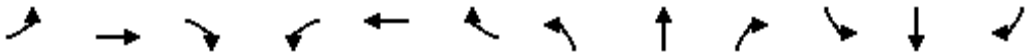


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	848	62	169	1848	140	135	598	136	46	508	83
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2987		1509	2986		1509	3018	1350	1509	2954	
Flt Permitted	0.08	1.00		0.19	1.00		0.25	1.00	1.00	0.24	1.00	
Satd. Flow (perm)	125	2987		308	2986		392	3018	1350	385	2954	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	104	893	65	178	1945	147	142	629	143	48	535	87
RTOR Reduction (vph)	0	5	0	0	5	0	0	0	102	0	13	0
Lane Group Flow (vph)	104	953	0	178	2087	0	142	629	41	48	609	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	54.9	50.9		63.0	55.0		29.0	29.0	29.0	29.0	29.0	
Effective Green, g (s)	54.9	50.9		62.5	55.0		29.0	29.0	29.0	29.0	29.0	
Actuated g/C Ratio	0.55	0.51		0.62	0.55		0.29	0.29	0.29	0.29	0.29	
Clearance Time (s)	4.0	4.0		3.5	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	1.0	5.0		1.0	5.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	123	1520		289	1642		113	875	391	111	856	
v/s Ratio Prot	0.03	0.32		c0.05	c0.70			0.21			0.21	
v/s Ratio Perm	0.43			0.33			c0.36		0.03	0.12		
v/c Ratio	0.85	0.63		0.62	1.27		1.26	0.72	0.11	0.43	0.71	
Uniform Delay, d1	22.7	17.7		10.9	22.5		35.5	31.8	26.0	28.8	31.8	
Progression Factor	1.46	0.82		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	33.6	1.7		2.7	126.8		168.8	5.1	0.5	11.8	5.0	
Delay (s)	66.8	16.2		13.6	149.3		204.3	36.9	26.6	40.6	36.8	
Level of Service	E	B		B	F		F	D	C	D	D	
Approach Delay (s)		21.2			138.7			61.3			37.0	
Approach LOS		C			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	85.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT	NWR2
Lane Configurations											
Volume (vph)	102	690	382	34	330	98	30	44	84	461	13
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95					0.95	1.00
Frt	1.00	1.00	0.85	0.85	0.96					1.00	0.86
Flt Protected	0.95	1.00	1.00	1.00	1.00					0.99	1.00
Satd. Flow (prot)	1509	3018	1350	1350	2891					2985	1374
Flt Permitted	0.95	1.00	1.00	1.00	1.00					0.53	1.00
Satd. Flow (perm)	1509	3018	1350	1350	2891					1603	1374
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	107	726	402	36	347	103	32	46	88	485	14
RTOR Reduction (vph)	0	0	0	28	4	0	0	0	0	0	0
Lane Group Flow (vph)	107	726	402	8	478	0	0	0	0	619	14
Turn Type	Perm	NA	Perm	Perm	NA			custom	Prot	NA	Free
Protected Phases		3			6				2	1	
Permitted Phases	3	4	3	3				2		2	Free
Actuated Green, G (s)	35.0	55.0	35.0	35.0	19.0					68.4	160.0
Effective Green, g (s)	34.0	53.0	34.0	34.0	19.0					68.4	160.0
Actuated g/C Ratio	0.21	0.33	0.21	0.21	0.12					0.43	1.00
Clearance Time (s)	3.0	3.0	3.0	3.0	4.0					4.0	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0					4.0	
Lane Grp Cap (vph)	320	1075	286	286	343					858	1374
v/s Ratio Prot		c0.14			c0.17					c0.09	
v/s Ratio Perm	0.07	0.10	c0.30	0.01						c0.22	0.01
v/c Ratio	0.33	0.68	1.41	0.03	1.39					0.72	0.01
Uniform Delay, d1	53.4	46.1	63.0	49.9	70.5					37.9	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00					0.46	1.00
Incremental Delay, d2	0.2	1.3	202.2	0.0	194.7					4.7	0.0
Delay (s)	53.6	47.4	265.2	49.9	265.2					22.0	0.0
Level of Service	D	D	F	D	F					C	A
Approach Delay (s)		116.9			265.2					22.0	
Approach LOS		F			F					C	

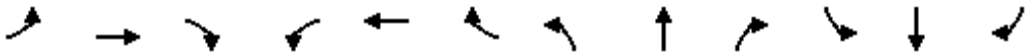
Intersection Summary			
HCM 2000 Control Delay	121.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1202	76	134	1988	5	0	0	13	3	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	13	1265	80	141	2093	5	0	0	14	3	0	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.51			0.78			0.62	0.62	0.78	0.62	0.62	0.51
vC, conflicting volume	2098			1345			2665	3711	673	3049	3748	1049
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1235			880			869	2553	18	1487	2613	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			76			100	100	98	92	100	99
cM capacity (veh/h)	286			596			119	12	825	42	11	554

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	13	844	502	141	1395	703	14	9
Volume Left	13	0	0	141	0	0	0	3
Volume Right	0	0	80	0	0	5	14	6
cSH	286	1700	1700	596	1700	1700	825	109
Volume to Capacity	0.04	0.50	0.30	0.24	0.82	0.41	0.02	0.09
Queue Length 95th (ft)	3	0	0	23	0	0	1	7
Control Delay (s)	18.2	0.0	0.0	12.9	0.0	0.0	9.4	41.3
Lane LOS	C			B			A	E
Approach Delay (s)	0.2			0.8			9.4	41.3
Approach LOS							A	E

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	81.8%	ICU Level of Service	D	
Analysis Period (min)	15			

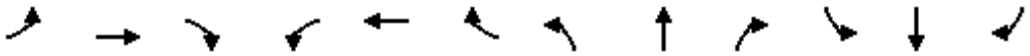


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	1008	57	248	1180	71	178	77	353	143	101	34
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (prot)	1509	3018	1350	1509	2992		1433	1479	1350		1523	
Flt Permitted	0.18	1.00	1.00	0.10	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (perm)	288	3018	1350	165	2992		1433	1479	1350		1523	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	1061	60	261	1242	75	187	81	372	151	106	36
RTOR Reduction (vph)	0	0	36	0	3	0	0	0	292	0	4	0
Lane Group Flow (vph)	14	1061	25	261	1314	0	133	135	80	0	289	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	Over	Split	NA	
Protected Phases		6		5	2		4	4	5	8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)	49.0	49.0	49.0	69.9	69.9		14.2	14.2	17.9		24.9	
Effective Green, g (s)	49.0	49.0	49.0	68.9	69.9		13.7	13.7	16.9		24.4	
Actuated g/C Ratio	0.41	0.41	0.41	0.57	0.58		0.11	0.11	0.14		0.20	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		3.5	3.5	3.0		3.5	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0		4.0	
Lane Grp Cap (vph)	117	1232	551	284	1742		163	168	190		309	
v/s Ratio Prot		0.35		c0.13	0.44		c0.09	0.09	0.06		c0.19	
v/s Ratio Perm	0.05		0.02	c0.40								
v/c Ratio	0.12	0.86	0.04	0.92	0.75		0.82	0.80	0.42		0.94	
Uniform Delay, d1	22.1	32.4	21.4	31.8	18.7		51.9	51.8	47.1		47.0	
Progression Factor	1.00	1.00	1.00	1.09	1.28		1.00	1.00	1.00		1.00	
Incremental Delay, d2	2.1	8.0	0.2	24.0	2.1		24.8	22.4	0.5		34.7	
Delay (s)	24.2	40.4	21.5	58.8	26.0		76.7	74.2	47.6		81.7	
Level of Service	C	D	C	E	C		E	E	D		F	
Approach Delay (s)		39.2			31.4			59.3			81.7	
Approach LOS		D			C			E			F	

Intersection Summary			
HCM 2000 Control Delay	42.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

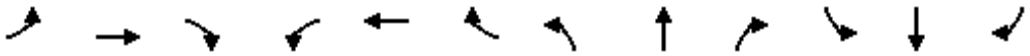
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1526	53	26	1486	104	105
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	0.99		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3002		1509	3018	1445	
Flt Permitted	1.00		0.09	1.00	0.98	
Satd. Flow (perm)	3002		137	3018	1445	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1659	58	28	1615	113	114
RTOR Reduction (vph)	1	0	0	0	31	0
Lane Group Flow (vph)	1716	0	28	1615	196	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	84.4		84.4	84.4	19.6	
Effective Green, g (s)	84.4		84.4	84.4	19.6	
Actuated g/C Ratio	0.70		0.70	0.70	0.16	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2111		96	2122	236	
v/s Ratio Prot	c0.57			0.54	c0.14	
v/s Ratio Perm			0.20			
v/c Ratio	0.81		0.29	0.76	0.83	
Uniform Delay, d1	12.3		6.6	11.4	48.6	
Progression Factor	1.06		1.01	0.92	1.00	
Incremental Delay, d2	2.2		5.4	1.9	21.3	
Delay (s)	15.2		12.1	12.4	69.9	
Level of Service	B		B	B	E	
Approach Delay (s)	15.2			12.4	69.9	
Approach LOS	B			B	E	

Intersection Summary			
HCM 2000 Control Delay	17.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



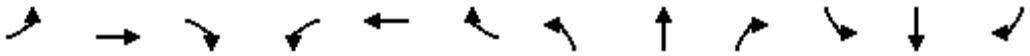
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1396	118	139	1348	33	307	43	375	25	26	13
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	0.88	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1509	3018	1350	1509	3007		1433	1454	2376	1509	1507	
Flt Permitted	0.16	1.00	1.00	0.10	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	252	3018	1350	153	3007		1433	1454	2376	1509	1507	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	1469	124	146	1419	35	323	45	395	26	27	14
RTOR Reduction (vph)	0	0	25	0	1	0	0	0	0	0	13	0
Lane Group Flow (vph)	16	1469	99	146	1453	0	184	184	395	26	28	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6		5	2		4	4	5	3	3	
Permitted Phases	6		6	2					4 6			
Actuated Green, G (s)	73.2	73.2	73.2	85.4	85.4		16.6	16.6	99.0	7.0	7.0	
Effective Green, g (s)	73.2	73.2	73.2	84.4	85.4		16.6	16.6	96.0	6.0	6.0	
Actuated g/C Ratio	0.61	0.61	0.61	0.70	0.71		0.14	0.14	0.80	0.05	0.05	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0	3.0	3.0	3.0	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0	2.0	2.0	
Lane Grp Cap (vph)	153	1840	823	200	2139		198	201	1980	75	75	
v/s Ratio Prot		c0.49		0.05	c0.48		c0.13	0.13	0.01	0.02	c0.02	
v/s Ratio Perm	0.06		0.07	0.46					0.15			
v/c Ratio	0.10	0.80	0.12	0.73	0.68		0.93	0.92	0.20	0.35	0.37	
Uniform Delay, d1	9.7	17.8	9.8	16.5	9.7		51.1	51.0	2.9	55.1	55.2	
Progression Factor	0.74	1.28	0.99	1.19	1.02		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	2.3	0.2	7.1	1.1		43.3	39.7	0.0	1.0	1.1	
Delay (s)	8.0	25.1	9.9	26.7	10.9		94.4	90.7	2.9	56.1	56.3	
Level of Service	A	C	A	C	B		F	F	A	E	E	
Approach Delay (s)		23.8			12.4			46.1			56.2	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



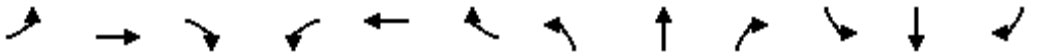
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	1294	535	0	1185	19	329	9	0	15	29	28
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00		0.95		0.95	0.95			1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			0.95	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (prot)	1509	3018	1350		3011		1433	1440			1491	
Flt Permitted	0.13	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (perm)	209	3018	1350		3011		1433	1440			1491	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	44	1362	563	0	1247	20	346	9	0	16	31	29
RTOR Reduction (vph)	0	0	83	0	1	0	0	0	0	0	19	0
Lane Group Flow (vph)	44	1362	480	0	1266	0	176	179	0	0	57	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6						4			
Actuated Green, G (s)	77.1	77.1	77.1		70.1		22.2	22.2			8.7	
Effective Green, g (s)	76.1	77.1	77.1		70.1		22.2	22.2			8.7	
Actuated g/C Ratio	0.63	0.64	0.64		0.58		0.18	0.18			0.07	
Clearance Time (s)	3.0	4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)	1.0	6.0	6.0		6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	165	1939	867		1758		265	266			108	
v/s Ratio Prot	0.01	c0.45			0.42		0.12	c0.12			c0.04	
v/s Ratio Perm	0.16		0.36									
v/c Ratio	0.27	0.70	0.55		0.72		0.66	0.67			0.53	
Uniform Delay, d1	12.4	14.0	11.9		17.9		45.4	45.5			53.7	
Progression Factor	1.22	1.37	1.69		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.3	2.1	2.5		2.6		6.1	6.6			5.0	
Delay (s)	15.4	21.2	22.6		20.5		51.6	52.1			58.6	
Level of Service	B	C	C		C		D	D			E	
Approach Delay (s)		21.5			20.5			51.8			58.6	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	24.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



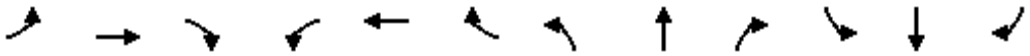
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	405	171	65	43	6	127	593	133	22	376	28
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.97			0.99		1.00	0.97		1.00	0.99	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1522			1534		1509	2935		1509	2987	
Flt Permitted		0.90			0.64		0.48	1.00		0.25	1.00	
Satd. Flow (perm)		1381			1014		766	2935		390	2987	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	169	426	180	68	45	6	134	624	140	23	396	29
RTOR Reduction (vph)	0	18	0	0	3	0	0	43	0	0	12	0
Lane Group Flow (vph)	0	757	0	0	116	0	134	721	0	23	413	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		24.9			24.9		18.5	18.5		18.5	18.5	
Effective Green, g (s)		25.5			25.5		17.5	17.5		17.5	17.5	
Actuated g/C Ratio		0.50			0.50		0.34	0.34		0.34	0.34	
Clearance Time (s)		4.6			4.6		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		4.5			4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		690			507		262	1007		133	1024	
v/s Ratio Prot								c0.25			0.14	
v/s Ratio Perm		c0.55			0.11		0.17			0.06		
v/c Ratio		1.10			0.23		0.51	0.72		0.17	0.40	
Uniform Delay, d1		12.8			7.2		13.3	14.6		11.7	12.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		63.9			1.1		1.7	2.4		0.6	0.3	
Delay (s)		76.6			8.2		15.0	17.0		12.3	13.0	
Level of Service		E			A		B	B		B	B	
Approach Delay (s)		76.6			8.2			16.7			13.0	
Approach LOS		E			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	158	1312	66	38	471	0	0	421	141
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			0.95	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1509	2996		1509	1588			3018	1350
Flt Permitted				0.95	1.00		0.50	1.00			1.00	1.00
Satd. Flow (perm)				1509	2996		787	1588			3018	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	166	1381	69	40	496	0	0	443	148
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	166	1448	0	40	496	0	0	443	148
Turn Type				custom	NA		custom	NA			NA	Free
Protected Phases				2	2		3	3			1	
Permitted Phases				4	4		6	6				Free
Actuated Green, G (s)				53.4	53.4		68.0	68.0			21.0	160.0
Effective Green, g (s)				51.4	51.4		66.0	66.0			21.0	160.0
Actuated g/C Ratio				0.32	0.32		0.41	0.41			0.13	1.00
Clearance Time (s)				3.0	3.0		3.0	3.0			4.0	
Vehicle Extension (s)				1.0	1.0		1.0	1.0			4.0	
Lane Grp Cap (vph)				484	962		532	655			396	1350
v/s Ratio Prot				0.07	c0.30		0.02	c0.22			c0.15	
v/s Ratio Perm				0.04	0.18		0.01	0.09				0.11
v/c Ratio				0.34	1.51		0.08	0.76			1.12	0.11
Uniform Delay, d1				41.4	54.3		29.1	40.2			69.5	0.0
Progression Factor				1.00	1.00		0.10	0.26			1.00	1.00
Incremental Delay, d2				1.9	232.8		0.0	0.4			81.5	0.2
Delay (s)				43.3	287.1		3.0	10.8			151.0	0.2
Level of Service				D	F		A	B			F	A
Approach Delay (s)		0.0			262.0			10.2			113.2	
Approach LOS		A			F			B			F	

Intersection Summary			
HCM 2000 Control Delay	180.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	80.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

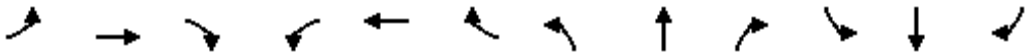


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	1546	138	211	1173	91	164	654	299	94	558	67
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2981		1509	2985		1509	3018	1350	1509	2969	
Flt Permitted	0.09	1.00		0.09	1.00		0.26	1.00	1.00	0.25	1.00	
Satd. Flow (perm)	135	2981		137	2985		418	3018	1350	390	2969	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	147	1627	145	222	1235	96	173	688	315	99	587	71
RTOR Reduction (vph)	0	6	0	0	6	0	0	0	99	0	9	0
Lane Group Flow (vph)	147	1766	0	222	1325	0	173	688	216	99	649	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	54.0	47.0		54.5	47.0		34.0	34.0	34.0	34.0	34.0	
Effective Green, g (s)	54.0	47.0		53.5	47.0		34.0	34.0	34.0	34.0	34.0	
Actuated g/C Ratio	0.54	0.47		0.54	0.47		0.34	0.34	0.34	0.34	0.34	
Clearance Time (s)	4.0	4.0		3.5	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	1.0	5.0		1.0	5.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	169	1401		169	1402		142	1026	459	132	1009	
v/s Ratio Prot	0.06	0.59		c0.09	0.44			0.23			0.22	
v/s Ratio Perm	0.41			c0.61			c0.41		0.16	0.25		
v/c Ratio	0.87	1.26		1.31	0.95		1.22	0.67	0.47	0.75	0.64	
Uniform Delay, d1	21.0	26.5		26.9	25.3		33.0	28.2	25.9	29.2	27.9	
Progression Factor	0.86	0.95		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	33.1	122.9		176.7	14.1		145.9	3.5	3.4	31.9	3.2	
Delay (s)	51.3	148.2		203.7	39.4		178.9	31.7	29.4	61.1	31.0	
Level of Service	D	F		F	D		F	C	C	E	C	
Approach Delay (s)		140.8			62.9			52.7			35.0	
Approach LOS		F			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	84.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT	NWR2
Lane Configurations											
Volume (vph)	127	973	575	99	344	146	31	109	121	579	44
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95					0.95	1.00
Frt	1.00	1.00	0.85	0.85	0.95					1.00	0.86
Flt Protected	0.95	1.00	1.00	1.00	1.00					0.99	1.00
Satd. Flow (prot)	1509	3018	1350	1350	2863					2975	1374
Flt Permitted	0.95	1.00	1.00	1.00	1.00					0.56	1.00
Satd. Flow (perm)	1509	3018	1350	1350	2863					1691	1374
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	134	1024	605	104	362	154	33	115	127	609	46
RTOR Reduction (vph)	0	0	0	56	3	0	0	0	0	0	0
Lane Group Flow (vph)	134	1024	605	48	546	0	0	0	0	851	46
Turn Type	Perm	NA	Perm	Perm	NA			custom	Prot	NA	Free
Protected Phases		3			6				2	1	
Permitted Phases	3	4	3	3				2		2	Free
Actuated Green, G (s)	47.0	67.0	47.0	47.0	21.0					54.4	160.0
Effective Green, g (s)	46.0	65.0	46.0	46.0	21.0					54.4	160.0
Actuated g/C Ratio	0.29	0.41	0.29	0.29	0.13					0.34	1.00
Clearance Time (s)	3.0	3.0	3.0	3.0	4.0					4.0	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0					4.0	
Lane Grp Cap (vph)	433	1301	388	388	375					743	1374
v/s Ratio Prot		c0.23			c0.19					c0.15	
v/s Ratio Perm	0.09	0.11	c0.45	0.04						c0.24	0.03
v/c Ratio	0.31	0.79	1.56	0.12	1.46					1.15	0.03
Uniform Delay, d1	44.6	41.5	57.0	42.1	69.5					52.8	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00					0.57	1.00
Incremental Delay, d2	0.1	3.0	264.0	0.1	220.0					77.7	0.0
Delay (s)	44.7	44.4	321.0	42.2	289.5					107.6	0.0
Level of Service	D	D	F	D	F					F	A
Approach Delay (s)		134.0			289.5					107.6	
Approach LOS		F			F					F	

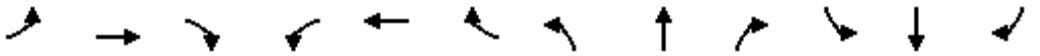
Intersection Summary			
HCM 2000 Control Delay	151.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	96.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	1528	76	133	1516	19	3	0	19	0	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	22	1608	80	140	1596	20	3	0	20	0	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.74			0.61			0.74	0.74	0.61	0.74	0.74	0.74
vC, conflicting volume	1616			1688			2782	3588	844	2754	3618	808
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1137			846			1136	2230	0	1098	2270	50
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			71			96	100	97	100	100	98
cM capacity (veh/h)	453			479			85	21	660	89	20	749

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	22	1072	616	140	1064	552	23	12
Volume Left	22	0	0	140	0	0	3	0
Volume Right	0	0	80	0	0	20	20	12
cSH	453	1700	1700	479	1700	1700	343	749
Volume to Capacity	0.05	0.63	0.36	0.29	0.63	0.32	0.07	0.02
Queue Length 95th (ft)	4	0	0	30	0	0	5	1
Control Delay (s)	13.3	0.0	0.0	15.6	0.0	0.0	16.2	9.9
Lane LOS	B			C			C	A
Approach Delay (s)	0.2			1.2			16.2	9.9
Approach LOS							C	A

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	75.8%	ICU Level of Service	D	
Analysis Period (min)	15			

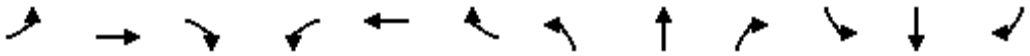


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	943	105	246	1720	81	173	74	229	78	45	14
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85		0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (prot)	1509	3018	1350	1509	2997		1433	1478	1350		1523	
Flt Permitted	0.06	1.00	1.00	0.19	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (perm)	100	3018	1350	300	2997		1433	1478	1350		1523	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	35	993	111	259	1811	85	182	78	241	82	47	15
RTOR Reduction (vph)	0	0	34	0	3	0	0	0	216	0	4	0
Lane Group Flow (vph)	35	993	77	259	1893	0	127	133	25	0	140	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	Over	Split	NA	
Protected Phases		6		5	2		4	4	5	8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)	63.7	63.7	63.7	79.9	79.9		14.0	14.0	13.2		15.1	
Effective Green, g (s)	63.7	63.7	63.7	78.9	79.9		13.5	13.5	12.2		14.6	
Actuated g/C Ratio	0.53	0.53	0.53	0.66	0.67		0.11	0.11	0.10		0.12	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		3.5	3.5	3.0		3.5	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0		4.0	
Lane Grp Cap (vph)	53	1602	716	320	1995		161	166	137		185	
v/s Ratio Prot		0.33		0.08	c0.63		0.09	c0.09	0.02		c0.09	
v/s Ratio Perm	0.35		0.06	0.45								
v/c Ratio	0.66	0.62	0.11	0.81	0.95		0.79	0.80	0.18		0.76	
Uniform Delay, d1	20.3	19.7	14.0	13.6	18.2		51.9	51.9	49.3		51.0	
Progression Factor	1.00	1.00	1.00	1.65	1.48		1.00	1.00	1.00		1.00	
Incremental Delay, d2	49.8	1.8	0.3	4.4	4.3		20.6	22.4	0.2		17.2	
Delay (s)	70.1	21.5	14.3	26.7	31.2		72.5	74.3	49.5		68.2	
Level of Service	E	C	B	C	C		E	E	D		E	
Approach Delay (s)		22.3			30.6			61.9			68.2	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

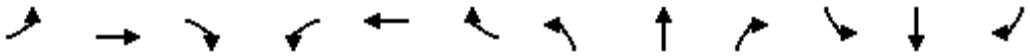
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1239	31	33	1982	98	105
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3007		1509	3018	1443	
Flt Permitted	1.00		0.15	1.00	0.98	
Satd. Flow (perm)	3007		238	3018	1443	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1347	34	36	2154	107	114
RTOR Reduction (vph)	1	0	0	0	33	0
Lane Group Flow (vph)	1380	0	36	2154	188	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	84.9		84.9	84.9	19.1	
Effective Green, g (s)	84.9		84.9	84.9	19.1	
Actuated g/C Ratio	0.71		0.71	0.71	0.16	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2127		168	2135	229	
v/s Ratio Prot	0.46			c0.71	c0.13	
v/s Ratio Perm			0.15			
v/c Ratio	0.65		0.21	1.01	0.82	
Uniform Delay, d1	9.5		6.1	17.5	48.8	
Progression Factor	1.45		1.17	0.98	1.00	
Incremental Delay, d2	1.3		1.4	15.7	20.6	
Delay (s)	15.0		8.5	32.9	69.4	
Level of Service	B		A	C	E	
Approach Delay (s)	15.0			32.5	69.4	
Approach LOS	B			C	E	

Intersection Summary			
HCM 2000 Control Delay	28.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



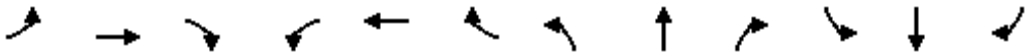
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	8	1047	171	111	1871	16	293	13	194	29	33	15
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	0.88	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1509	3018	1350	1509	3014		1433	1443	2376	1509	1513	
Flt Permitted	0.07	1.00	1.00	0.20	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	104	3018	1350	315	3014		1433	1443	2376	1509	1513	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	8	1102	180	117	1969	17	308	14	204	31	35	16
RTOR Reduction (vph)	0	0	35	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	8	1102	145	117	1986	0	160	162	204	31	36	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6		5	2		4	4	5	3	3	
Permitted Phases	6		6	2					4 6			
Actuated Green, G (s)	79.4	79.4	79.4	88.7	88.7		13.0	13.0	98.7	7.3	7.3	
Effective Green, g (s)	79.4	79.4	79.4	87.7	88.7		13.0	13.0	95.7	6.3	6.3	
Actuated g/C Ratio	0.66	0.66	0.66	0.73	0.74		0.11	0.11	0.80	0.05	0.05	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0	3.0	3.0	3.0	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0	2.0	2.0	
Lane Grp Cap (vph)	68	1996	893	282	2227		155	156	1974	79	79	
v/s Ratio Prot		0.37		0.02	c0.66		0.11	c0.11	0.00	0.02	c0.02	
v/s Ratio Perm	0.08		0.11	0.28					0.08			
v/c Ratio	0.12	0.55	0.16	0.41	0.89		1.03	1.04	0.10	0.39	0.45	
Uniform Delay, d1	7.4	10.8	7.7	6.9	12.0		53.5	53.5	2.7	55.0	55.2	
Progression Factor	0.75	1.52	1.39	0.93	0.92		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.7	0.9	0.3	0.2	4.2		81.1	82.6	0.0	1.2	1.5	
Delay (s)	8.3	17.3	11.0	6.6	15.3		134.6	136.1	2.7	56.2	56.7	
Level of Service	A	B	B	A	B		F	F	A	E	E	
Approach Delay (s)		16.4			14.8			83.9			56.5	
Approach LOS		B			B			F			E	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	96.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



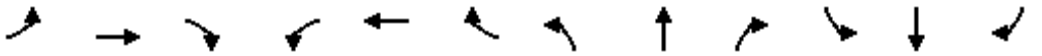
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	980	299	0	1593	11	394	11	0	26	20	35
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00		0.95		0.95	0.95			1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			0.94	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.95			0.98	
Satd. Flow (prot)	1509	3018	1350		3014		1433	1441			1472	
Flt Permitted	0.06	1.00	1.00		1.00		0.95	0.95			0.98	
Satd. Flow (perm)	96	3018	1350		3014		1433	1441			1472	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	12	1032	315	0	1677	12	415	12	0	27	21	37
RTOR Reduction (vph)	0	0	66	0	0	0	0	0	0	0	23	0
Lane Group Flow (vph)	12	1032	249	0	1689	0	212	215	0	0	62	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6						4			
Actuated Green, G (s)	78.8	78.8	78.8		74.2		21.6	21.6			7.6	
Effective Green, g (s)	77.8	78.8	78.8		74.2		21.6	21.6			7.6	
Actuated g/C Ratio	0.65	0.66	0.66		0.62		0.18	0.18			0.06	
Clearance Time (s)	3.0	4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)	1.0	6.0	6.0		6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	69	1981	886		1863		257	259			93	
v/s Ratio Prot	0.00	c0.34			c0.56		0.15	c0.15			c0.04	
v/s Ratio Perm	0.11		0.18									
v/c Ratio	0.17	0.52	0.28		0.91		0.82	0.83			0.66	
Uniform Delay, d1	16.3	10.8	8.7		19.9		47.4	47.4			54.9	
Progression Factor	1.16	1.41	2.25		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.4	0.9	0.7		7.9		18.9	19.7			16.3	
Delay (s)	19.2	16.1	20.2		27.8		66.3	67.1			71.3	
Level of Service	B	B	C		C		E	E			E	
Approach Delay (s)		17.1			27.8			66.7			71.3	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	29.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



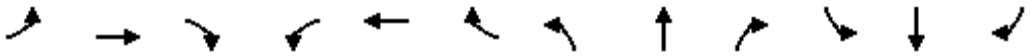
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	43	105	94	138	13	247	499	49	3	428	63
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.93			0.99		1.00	0.99		1.00	0.98	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1454			1547		1509	2977		1509	2960	
Flt Permitted		0.89			0.82		0.43	1.00		0.39	1.00	
Satd. Flow (perm)		1316			1293		688	2977		625	2960	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	46	45	111	99	145	14	260	525	52	3	451	66
RTOR Reduction (vph)	0	64	0	0	3	0	0	17	0	0	26	0
Lane Group Flow (vph)	0	138	0	0	255	0	260	560	0	3	491	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		21.1			21.1		22.3	22.3		22.3	22.3	
Effective Green, g (s)		21.7			21.7		21.3	21.3		21.3	21.3	
Actuated g/C Ratio		0.43			0.43		0.42	0.42		0.42	0.42	
Clearance Time (s)		4.6			4.6		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		4.5			4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		559			550		287	1243		261	1236	
v/s Ratio Prot								0.19			0.17	
v/s Ratio Perm		0.11			c0.20		c0.38			0.00		
v/c Ratio		0.25			0.46		0.91	0.45		0.01	0.40	
Uniform Delay, d1		9.4			10.5		13.9	10.7		8.7	10.4	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.1			2.8		29.8	0.3		0.0	0.2	
Delay (s)		10.5			13.3		43.7	10.9		8.7	10.6	
Level of Service		B			B		D	B		A	B	
Approach Delay (s)		10.5			13.3			21.1			10.6	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM 2000 Control Delay	15.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	173	1581	79	45	457	0	0	290	155
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			0.95	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1509	2996		1509	1588			3018	1350
Flt Permitted				0.95	1.00		0.57	1.00			1.00	1.00
Satd. Flow (perm)				1509	2996		899	1588			3018	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	182	1664	83	47	481	0	0	305	163
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	182	1745	0	47	481	0	0	305	163
Turn Type				custom	NA		custom	NA			NA	Free
Protected Phases				2	2		3	3			1	
Permitted Phases				4	4		6	6				Free
Actuated Green, G (s)				68.4	68.4		54.0	54.0			20.0	160.0
Effective Green, g (s)				66.4	66.4		52.0	52.0			20.0	160.0
Actuated g/C Ratio				0.42	0.42		0.32	0.32			0.12	1.00
Clearance Time (s)				3.0	3.0		3.0	3.0			4.0	
Vehicle Extension (s)				1.0	1.0		1.0	1.0			4.0	
Lane Grp Cap (vph)				626	1243		421	516			377	1350
v/s Ratio Prot				0.09	c0.42		0.02	c0.20			c0.10	
v/s Ratio Perm				0.03	0.17		0.01	0.10				0.12
v/c Ratio				0.29	1.40		0.11	0.93			0.81	0.12
Uniform Delay, d1				31.1	46.8		38.5	52.3			68.1	0.0
Progression Factor				1.00	1.00		0.12	0.23			1.00	1.00
Incremental Delay, d2				1.2	186.5		0.0	3.4			16.9	0.2
Delay (s)				32.3	233.3		4.5	15.4			85.0	0.2
Level of Service				C	F		A	B			F	A
Approach Delay (s)		0.0			214.4			14.4			55.5	
Approach LOS		A			F			B			E	

Intersection Summary			
HCM 2000 Control Delay	152.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	848	62	169	1848	140	135	619	136	46	512	83
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2987		1509	2986		1509	3018	1350	1509	2955	
Flt Permitted	0.08	1.00		0.19	1.00		0.24	1.00	1.00	0.23	1.00	
Satd. Flow (perm)	125	2987		308	2986		388	3018	1350	360	2955	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	104	893	65	178	1945	147	142	652	143	48	539	87
RTOR Reduction (vph)	0	5	0	0	5	0	0	0	102	0	13	0
Lane Group Flow (vph)	104	953	0	178	2087	0	142	652	41	48	613	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	54.9	50.9		63.0	55.0		29.0	29.0	29.0	29.0	29.0	
Effective Green, g (s)	54.9	50.9		62.5	55.0		29.0	29.0	29.0	29.0	29.0	
Actuated g/C Ratio	0.55	0.51		0.62	0.55		0.29	0.29	0.29	0.29	0.29	
Clearance Time (s)	4.0	4.0		3.5	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	1.0	5.0		1.0	5.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	123	1520		289	1642		112	875	391	104	856	
v/s Ratio Prot	0.03	0.32		c0.05	c0.70			0.22			0.21	
v/s Ratio Perm	0.43			0.33			c0.37		0.03	0.13		
v/c Ratio	0.85	0.63		0.62	1.27		1.27	0.75	0.11	0.46	0.72	
Uniform Delay, d1	22.7	17.7		10.9	22.5		35.5	32.2	26.0	29.1	31.8	
Progression Factor	1.46	0.82		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	33.6	1.7		2.7	126.8		173.4	5.7	0.5	14.0	5.1	
Delay (s)	66.8	16.2		13.6	149.3		208.9	37.9	26.6	43.1	36.9	
Level of Service	E	B		B	F		F	D	C	D	D	
Approach Delay (s)		21.2			138.7			62.1			37.4	
Approach LOS		C			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	85.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

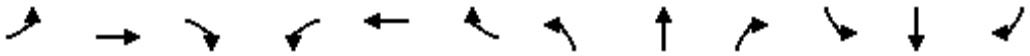
Movement	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT	NWR2
Lane Configurations											
Volume (vph)	117	690	382	34	340	98	30	44	84	463	13
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95					0.95	1.00
Frt	1.00	1.00	0.85	0.85	0.96					1.00	0.86
Flt Protected	0.95	1.00	1.00	1.00	1.00					0.99	1.00
Satd. Flow (prot)	1509	3018	1350	1350	2894					2985	1374
Flt Permitted	0.95	1.00	1.00	1.00	1.00					0.53	1.00
Satd. Flow (perm)	1509	3018	1350	1350	2894					1602	1374
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	123	726	402	36	358	103	32	46	88	487	14
RTOR Reduction (vph)	0	0	0	28	4	0	0	0	0	0	0
Lane Group Flow (vph)	123	726	402	8	489	0	0	0	0	621	14
Turn Type	Perm	NA	Perm	Perm	NA			custom	Prot	NA	Free
Protected Phases		3			6				2	1	
Permitted Phases	3	4	3	3				2		2	Free
Actuated Green, G (s)	35.0	55.0	35.0	35.0	19.0					68.4	160.0
Effective Green, g (s)	34.0	53.0	34.0	34.0	19.0					68.4	160.0
Actuated g/C Ratio	0.21	0.33	0.21	0.21	0.12					0.43	1.00
Clearance Time (s)	3.0	3.0	3.0	3.0	4.0					4.0	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0					4.0	
Lane Grp Cap (vph)	320	1075	286	286	343					857	1374
v/s Ratio Prot		c0.14			c0.17					c0.09	
v/s Ratio Perm	0.08	0.10	c0.30	0.01						c0.22	0.01
v/c Ratio	0.38	0.68	1.41	0.03	1.43					0.72	0.01
Uniform Delay, d1	54.0	46.1	63.0	49.9	70.5					38.0	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00					0.46	1.00
Incremental Delay, d2	0.3	1.3	202.2	0.0	208.3					4.8	0.0
Delay (s)	54.3	47.4	265.2	49.9	278.8					22.3	0.0
Level of Service	D	D	F	D	F					C	A
Approach Delay (s)		116.2			278.8					22.3	
Approach LOS		F			F					C	

Intersection Summary			
HCM 2000 Control Delay	124.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1202	128	186	1988	5	10	0	23	3	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	13	1265	135	196	2093	5	11	0	24	3	0	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.49			0.76			0.61	0.61	0.76	0.61	0.61	0.49
vC, conflicting volume	2098			1400			2802	3847	700	3169	3912	1049
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1166			898			918	2628	0	1518	2734	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			66			89	100	97	91	100	99
cM capacity (veh/h)	293			572			97	9	825	34	8	533

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	13	844	556	196	1395	703	35	9
Volume Left	13	0	0	196	0	0	11	3
Volume Right	0	0	135	0	0	5	24	6
cSH	293	1700	1700	572	1700	1700	253	92
Volume to Capacity	0.04	0.50	0.33	0.34	0.82	0.41	0.14	0.10
Queue Length 95th (ft)	3	0	0	38	0	0	12	8
Control Delay (s)	17.9	0.0	0.0	14.5	0.0	0.0	21.5	48.8
Lane LOS	C			B			C	E
Approach Delay (s)	0.2			1.2			21.5	48.8
Approach LOS							C	E

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)			

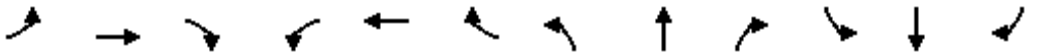


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	1025	57	271	1203	71	178	77	370	143	101	34
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	1.00		1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85		0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (prot)	1509	3018	1350	1509	2992		1433	1479	1350		1523	
Flt Permitted	0.18	1.00	1.00	0.09	1.00		0.95	0.98	1.00		0.97	
Satd. Flow (perm)	281	3018	1350	146	2992		1433	1479	1350		1523	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	14	1079	60	285	1266	75	187	81	389	151	106	36
RTOR Reduction (vph)	0	0	36	0	3	0	0	0	288	0	4	0
Lane Group Flow (vph)	14	1079	24	285	1338	0	133	135	101	0	289	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	Over	Split	NA	
Protected Phases		6		5	2		4	4	5	8	8	
Permitted Phases	6		6	2								
Actuated Green, G (s)	47.9	47.9	47.9	69.9	69.9		14.2	14.2	19.0		24.9	
Effective Green, g (s)	47.9	47.9	47.9	68.9	69.9		13.7	13.7	18.0		24.4	
Actuated g/C Ratio	0.40	0.40	0.40	0.57	0.58		0.11	0.11	0.15		0.20	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		3.5	3.5	3.0		3.5	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0		4.0	
Lane Grp Cap (vph)	112	1204	538	288	1742		163	168	202		309	
v/s Ratio Prot		0.36		c0.15	0.45		c0.09	0.09	0.07		c0.19	
v/s Ratio Perm	0.05		0.02	c0.42								
v/c Ratio	0.12	0.90	0.04	0.99	0.77		0.82	0.80	0.50		0.94	
Uniform Delay, d1	22.8	33.7	22.1	35.9	18.9		51.9	51.8	46.9		47.0	
Progression Factor	1.00	1.00	1.00	1.02	1.31		1.00	1.00	1.00		1.00	
Incremental Delay, d2	2.3	10.5	0.2	38.9	2.1		24.8	22.4	0.7		34.7	
Delay (s)	25.1	44.3	22.2	75.5	26.9		76.7	74.2	47.6		81.7	
Level of Service	C	D	C	E	C		E	E	D		F	
Approach Delay (s)		42.9			35.4			58.9			81.7	
Approach LOS		D			D			E			F	

Intersection Summary			
HCM 2000 Control Delay	45.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

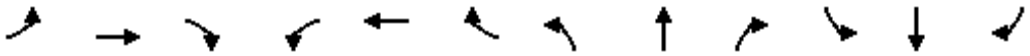
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1560	53	26	1532	104	105
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	0.95		1.00	0.95	1.00	
Frt	1.00		1.00	1.00	0.93	
Flt Protected	1.00		0.95	1.00	0.98	
Satd. Flow (prot)	3003		1509	3018	1445	
Flt Permitted	1.00		0.08	1.00	0.98	
Satd. Flow (perm)	3003		128	3018	1445	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1696	58	28	1665	113	114
RTOR Reduction (vph)	1	0	0	0	31	0
Lane Group Flow (vph)	1753	0	28	1665	196	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Actuated Green, G (s)	84.4		84.4	84.4	19.6	
Effective Green, g (s)	84.4		84.4	84.4	19.6	
Actuated g/C Ratio	0.70		0.70	0.70	0.16	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)	2112		90	2122	236	
v/s Ratio Prot	c0.58			0.55	c0.14	
v/s Ratio Perm			0.22			
v/c Ratio	0.83		0.31	0.78	0.83	
Uniform Delay, d1	12.7		6.8	11.8	48.6	
Progression Factor	1.00		0.99	0.92	1.00	
Incremental Delay, d2	2.3		6.3	2.2	21.3	
Delay (s)	15.0		13.0	13.0	69.9	
Level of Service	B		B	B	E	
Approach Delay (s)	15.0			13.0	69.9	
Approach LOS	B			B	E	

Intersection Summary			
HCM 2000 Control Delay	17.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



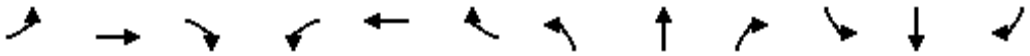
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	1423	136	139	1368	33	321	43	375	25	26	13
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.95	0.95	0.88	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1509	3018	1350	1509	3007		1433	1453	2376	1509	1507	
Flt Permitted	0.15	1.00	1.00	0.09	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	243	3018	1350	142	3007		1433	1453	2376	1509	1507	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	16	1498	143	146	1440	35	338	45	395	26	27	14
RTOR Reduction (vph)	0	0	25	0	1	0	0	0	0	0	13	0
Lane Group Flow (vph)	16	1498	118	146	1474	0	189	194	395	26	28	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Split	NA	custom	Split	NA	
Protected Phases		6		5	2		4	4	5	3	3	
Permitted Phases	6		6	2					4 6			
Actuated Green, G (s)	72.9	72.9	72.9	85.1	85.1		16.9	16.9	99.0	7.0	7.0	
Effective Green, g (s)	72.9	72.9	72.9	84.1	85.1		16.9	16.9	96.0	6.0	6.0	
Actuated g/C Ratio	0.61	0.61	0.61	0.70	0.71		0.14	0.14	0.80	0.05	0.05	
Clearance Time (s)	4.0	4.0	4.0	3.0	4.0		4.0	4.0	3.0	3.0	3.0	
Vehicle Extension (s)	4.5	4.5	4.5	1.0	4.5		2.0	2.0	1.0	2.0	2.0	
Lane Grp Cap (vph)	147	1833	820	192	2132		201	204	1980	75	75	
v/s Ratio Prot		c0.50		0.05	c0.49		0.13	c0.13	0.01	0.02	c0.02	
v/s Ratio Perm	0.07		0.09	0.48					0.15			
v/c Ratio	0.11	0.82	0.14	0.76	0.69		0.94	0.95	0.20	0.35	0.37	
Uniform Delay, d1	9.9	18.4	10.1	18.5	10.0		51.1	51.1	2.9	55.1	55.2	
Progression Factor	0.74	1.28	0.95	1.19	1.01		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9	2.6	0.2	9.8	1.2		46.2	48.6	0.0	1.0	1.1	
Delay (s)	8.3	26.2	9.9	31.8	11.3		97.3	99.8	2.9	56.1	56.3	
Level of Service	A	C	A	C	B		F	F	A	E	E	
Approach Delay (s)		24.6			13.1			50.0			56.2	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	25.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



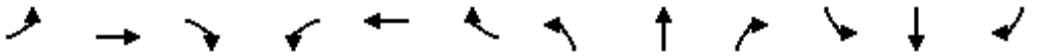
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	1312	544	0	1199	19	336	9	0	15	29	28
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0		4.0	4.0			4.0	
Lane Util. Factor	1.00	0.95	1.00		0.95		0.95	0.95			1.00	
Frt	1.00	1.00	0.85		1.00		1.00	1.00			0.95	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (prot)	1509	3018	1350		3011		1433	1440			1491	
Flt Permitted	0.13	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (perm)	202	3018	1350		3011		1433	1440			1491	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	44	1381	573	0	1262	20	354	9	0	16	31	29
RTOR Reduction (vph)	0	0	84	0	1	0	0	0	0	0	19	0
Lane Group Flow (vph)	44	1381	489	0	1281	0	181	182	0	0	57	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA	Perm	Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6						4			
Actuated Green, G (s)	77.0	77.0	77.0		70.0		22.3	22.3			8.7	
Effective Green, g (s)	76.0	77.0	77.0		70.0		22.3	22.3			8.7	
Actuated g/C Ratio	0.63	0.64	0.64		0.58		0.19	0.19			0.07	
Clearance Time (s)	3.0	4.0	4.0		4.0		4.0	4.0			4.0	
Vehicle Extension (s)	1.0	6.0	6.0		6.0		3.0	3.0			3.0	
Lane Grp Cap (vph)	160	1936	866		1756		266	267			108	
v/s Ratio Prot	0.01	c0.46			0.43		0.13	c0.13			c0.04	
v/s Ratio Perm	0.17		0.36									
v/c Ratio	0.28	0.71	0.56		0.73		0.68	0.68			0.53	
Uniform Delay, d1	12.6	14.2	12.1		18.1		45.5	45.5			53.7	
Progression Factor	1.22	1.36	1.68		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.3	2.2	2.6		2.7		7.0	7.0			5.0	
Delay (s)	15.7	21.6	22.8		20.8		52.5	52.5			58.6	
Level of Service	B	C	C		C		D	D			E	
Approach Delay (s)		21.8			20.8			52.5			58.6	
Approach LOS		C			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



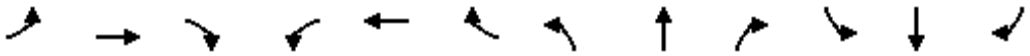
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	405	171	65	43	6	127	607	133	22	394	28
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.97			0.99		1.00	0.97		1.00	0.99	
Flt Protected		0.99			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1522			1534		1509	2936		1509	2988	
Flt Permitted		0.90			0.64		0.47	1.00		0.24	1.00	
Satd. Flow (perm)		1381			1011		743	2936		380	2988	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	169	426	180	68	45	6	134	639	140	23	415	29
RTOR Reduction (vph)	0	18	0	0	3	0	0	42	0	0	12	0
Lane Group Flow (vph)	0	757	0	0	116	0	134	737	0	23	432	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		24.7			24.7		18.7	18.7		18.7	18.7	
Effective Green, g (s)		25.3			25.3		17.7	17.7		17.7	17.7	
Actuated g/C Ratio		0.50			0.50		0.35	0.35		0.35	0.35	
Clearance Time (s)		4.6			4.6		3.0	3.0		3.0	3.0	
Vehicle Extension (s)		4.5			4.5		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		685			501		257	1018		131	1037	
v/s Ratio Prot								c0.25			0.14	
v/s Ratio Perm		c0.55			0.11		0.18			0.06		
v/c Ratio		1.10			0.23		0.52	0.72		0.18	0.42	
Uniform Delay, d1		12.8			7.3		13.3	14.5		11.6	12.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		66.8			1.1		1.9	2.6		0.6	0.3	
Delay (s)		79.6			8.4		15.2	17.1		12.2	13.0	
Level of Service		E			A		B	B		B	B	
Approach Delay (s)		79.6			8.4			16.8			12.9	
Approach LOS		E			A			B			B	

Intersection Summary			
HCM 2000 Control Delay	37.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	51.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	158	1312	66	38	488	0	0	430	155
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	0.95		1.00	1.00			0.95	1.00
Frt				1.00	0.99		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1509	2996		1509	1588			3018	1350
Flt Permitted				0.95	1.00		0.49	1.00			1.00	1.00
Satd. Flow (perm)				1509	2996		779	1588			3018	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	0	0	0	166	1381	69	40	514	0	0	453	163
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	0	166	1448	0	40	514	0	0	453	163
Turn Type				custom	NA		custom	NA			NA	Free
Protected Phases				2	2		3	3			1	
Permitted Phases				4	4		6	6				Free
Actuated Green, G (s)				53.4	53.4		68.0	68.0			21.0	160.0
Effective Green, g (s)				51.4	51.4		66.0	66.0			21.0	160.0
Actuated g/C Ratio				0.32	0.32		0.41	0.41			0.13	1.00
Clearance Time (s)				3.0	3.0		3.0	3.0			4.0	
Vehicle Extension (s)				1.0	1.0		1.0	1.0			4.0	
Lane Grp Cap (vph)				484	962		531	655			396	1350
v/s Ratio Prot				0.07	c0.30		0.02	c0.23			c0.15	
v/s Ratio Perm				0.04	0.18		0.01	0.10				0.12
v/c Ratio				0.34	1.51		0.08	0.78			1.14	0.12
Uniform Delay, d1				41.4	54.3		29.1	40.8			69.5	0.0
Progression Factor				1.00	1.00		0.10	0.27			1.00	1.00
Incremental Delay, d2				1.9	232.8		0.0	0.5			90.6	0.2
Delay (s)				43.3	287.1		3.0	11.5			160.1	0.2
Level of Service				D	F		A	B			F	A
Approach Delay (s)		0.0			262.0			10.9			117.8	
Approach LOS		A			F			B			F	

Intersection Summary			
HCM 2000 Control Delay	180.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	140	1546	138	211	1173	91	164	668	299	94	576	67
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2981		1509	2985		1509	3018	1350	1509	2970	
Flt Permitted	0.09	1.00		0.09	1.00		0.25	1.00	1.00	0.24	1.00	
Satd. Flow (perm)	135	2981		137	2985		400	3018	1350	376	2970	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	147	1627	145	222	1235	96	173	703	315	99	606	71
RTOR Reduction (vph)	0	6	0	0	6	0	0	0	99	0	9	0
Lane Group Flow (vph)	147	1766	0	222	1325	0	173	703	216	99	668	0
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2			6			8		8	4		
Actuated Green, G (s)	54.0	47.0		54.5	47.0		34.0	34.0	34.0	34.0	34.0	
Effective Green, g (s)	54.0	47.0		53.5	47.0		34.0	34.0	34.0	34.0	34.0	
Actuated g/C Ratio	0.54	0.47		0.54	0.47		0.34	0.34	0.34	0.34	0.34	
Clearance Time (s)	4.0	4.0		3.5	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	1.0	5.0		1.0	5.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	169	1401		169	1402		136	1026	459	127	1009	
v/s Ratio Prot	0.06	0.59		c0.09	0.44			0.23			0.22	
v/s Ratio Perm	0.41			c0.61			c0.43		0.16	0.26		
v/c Ratio	0.87	1.26		1.31	0.95		1.27	0.69	0.47	0.78	0.66	
Uniform Delay, d1	21.0	26.5		26.9	25.3		33.0	28.4	25.9	29.6	28.1	
Progression Factor	0.86	0.95		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	33.1	122.9		176.7	14.1		167.6	3.7	3.4	36.6	3.4	
Delay (s)	51.3	148.2		203.7	39.4		200.6	32.1	29.4	66.2	31.5	
Level of Service	D	F		F	D		F	C	C	E	C	
Approach Delay (s)		140.8			62.9			55.9			35.9	
Approach LOS		F			E			E			D	

Intersection Summary			
HCM 2000 Control Delay	85.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	NBT	NBR	NBR2	SBL2	SBL	SBT	NWR2
Lane Configurations											
Volume (vph)	137	973	575	99	351	146	31	109	121	588	44
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0					4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95					0.95	1.00
Frt	1.00	1.00	0.85	0.85	0.95					1.00	0.86
Flt Protected	0.95	1.00	1.00	1.00	1.00					0.99	1.00
Satd. Flow (prot)	1509	3018	1350	1350	2865					2976	1374
Flt Permitted	0.95	1.00	1.00	1.00	1.00					0.56	1.00
Satd. Flow (perm)	1509	3018	1350	1350	2865					1689	1374
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	144	1024	605	104	369	154	33	115	127	619	46
RTOR Reduction (vph)	0	0	0	56	3	0	0	0	0	0	0
Lane Group Flow (vph)	144	1024	605	48	553	0	0	0	0	861	46
Turn Type	Perm	NA	Perm	Perm	NA			custom	Prot	NA	Free
Protected Phases		3			6				2	1	
Permitted Phases	3	4	3	3				2		2	Free
Actuated Green, G (s)	47.0	67.0	47.0	47.0	21.0					54.4	160.0
Effective Green, g (s)	46.0	65.0	46.0	46.0	21.0					54.4	160.0
Actuated g/C Ratio	0.29	0.41	0.29	0.29	0.13					0.34	1.00
Clearance Time (s)	3.0	3.0	3.0	3.0	4.0					4.0	
Vehicle Extension (s)	1.0	1.0	1.0	1.0	3.0					4.0	
Lane Grp Cap (vph)	433	1301	388	388	376					743	1374
v/s Ratio Prot		c0.23			c0.19					c0.15	
v/s Ratio Perm	0.10	0.11	c0.45	0.04						c0.24	0.03
v/c Ratio	0.33	0.79	1.56	0.12	1.47					1.16	0.03
Uniform Delay, d1	44.9	41.5	57.0	42.1	69.5					52.8	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00					0.58	1.00
Incremental Delay, d2	0.2	3.0	264.0	0.1	226.3					82.8	0.0
Delay (s)	45.1	44.4	321.0	42.2	295.8					113.3	0.0
Level of Service	D	D	F	D	F					F	A
Approach Delay (s)		133.5			295.8					113.3	
Approach LOS		F			F					F	

Intersection Summary			
HCM 2000 Control Delay	153.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	19.6
Intersection Capacity Utilization	96.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	21	1528	110	167	1516	19	49	0	65	0	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	22	1608	116	176	1596	20	52	0	68	0	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.73			0.59			0.72	0.72	0.59	0.72	0.72	0.73
vC, conflicting volume	1616			1724			2872	3678	862	2874	3726	808
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1117			827			1165	2285	0	1168	2351	18
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			63			29	100	89	100	100	99
cM capacity (veh/h)	457			470			73	17	637	65	15	777

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	22	1072	652	176	1064	552	120	12
Volume Left	22	0	0	176	0	0	52	0
Volume Right	0	0	116	0	0	20	68	12
cSH	457	1700	1700	470	1700	1700	147	777
Volume to Capacity	0.05	0.63	0.38	0.37	0.63	0.32	0.82	0.01
Queue Length 95th (ft)	4	0	0	43	0	0	131	1
Control Delay (s)	13.3	0.0	0.0	17.2	0.0	0.0	92.3	9.7
Lane LOS	B			C			F	A
Approach Delay (s)	0.2			1.7			92.3	9.7
Approach LOS							F	A

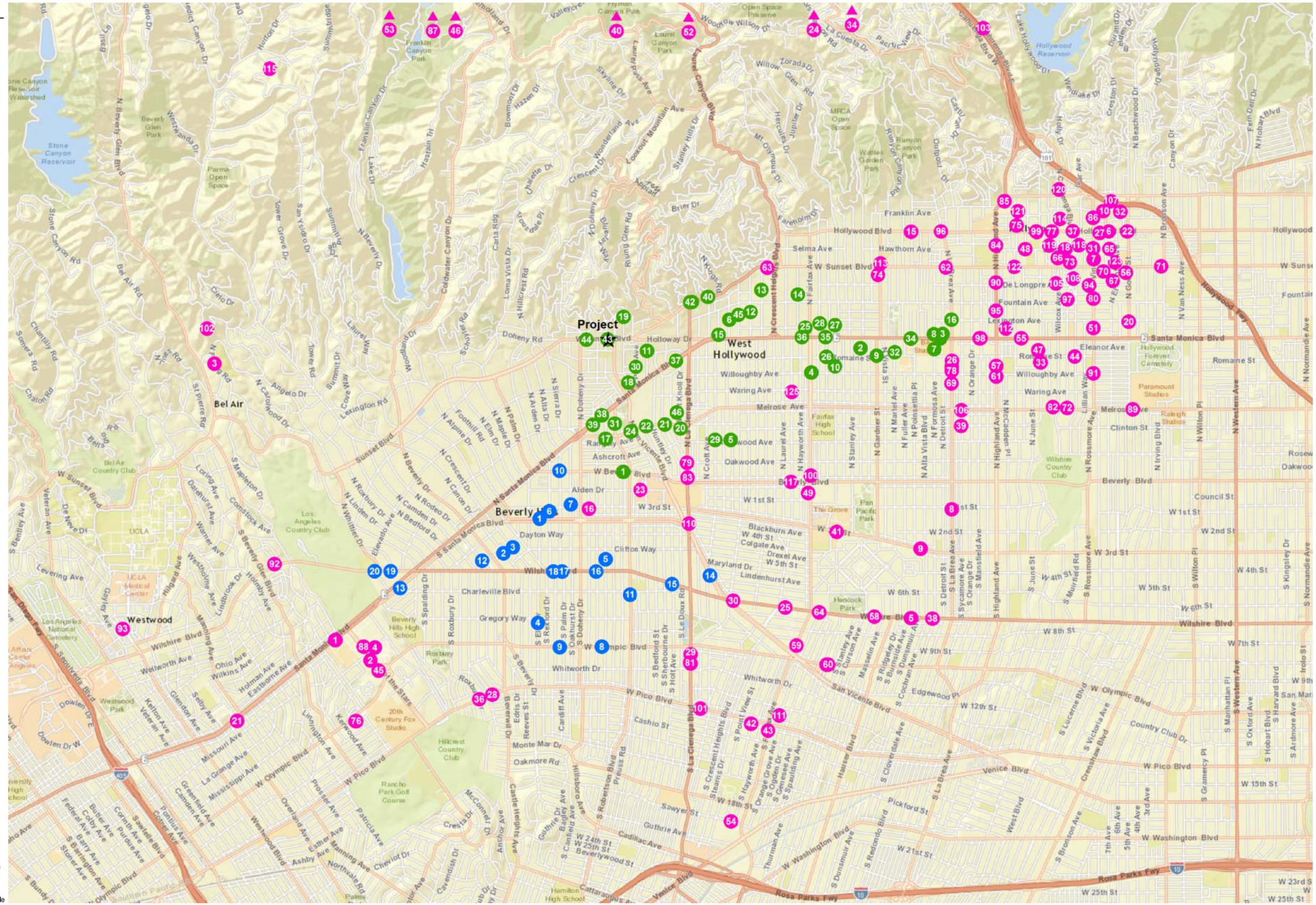
Intersection Summary				
Average Delay	4.0			
Intersection Capacity Utilization	89.0%	ICU Level of Service	E	
Analysis Period (min)	15			

Appendix D

Related Projects

LEGEND

- ★ Project Site
- # City of West Hollywood
- # City of Beverly Hills
- # City of Los Angeles



LOCATIONS OF RELATED PROJECTS

FIGURE D-1

TABLE D-1
RELATED PROJECTS

No	Address	Description
City of West Hollywood [a]		
1.	8816 Beverly Boulevard	45-room hotel, 5,535 sf retail, 7,070 sf restaurant/bar, 1,819 sf outdoor dining & 28 apartment units
2.	1048 Curson Avenue	5 condominium units
3.	1125 Detroit Street	22 apartment units
4.	900 Fairfax Avenue	2 apartment units, 1,145 sf retail & 2,281 sf restaurant
5.	511 Flores Street	9 apartment units
6.	1216 Flores St	14 condominium units
7.	1041 Formosa Avenue	112,790 sf studios/office
8.	1123 Formosa Avenue	5 condominium units
9.	1009 Garnder Avenue	6 condominium units
10.	947 Genesee Avenue	5 condominium units
11.	1003 Hancock Avenue	3 apartment units
12.	1264 Harper Avenue	16 condominium units
13.	1345 Havenhurst Drive	16 condominium units
14.	1342 Hayworth Avenue	16 condominium units
15.	1125 Kings Road	10 condominium units
16.	1201 La Brea Avenue	4,575 sf restaurant
17.	627 La Peer Drive	69-room hotel, 8 condominium units, 2,700 sf restaurant & 1,760 sf retail
18.	829 Larrabee Street	13 apartment units
19.	1223 Larrabee Street	8 condominium units
20.	8551 Melrose Avenue	6,500 sf retail
21.	8583 Melrose Avenue	9,545 sf retail/commercial
22.	8650 Melrose Avenue	14,571 sf retail & 7 apartment units
23.	8711 Melrose Avenue	21,565 sf commercial, 8,997 sf restaurant & 10,355 sf retail
24.	8715 Melrose Avenue	8,997 sf restaurant & 10,355 sf retail
25.	7914 Norton Avenue	8 condominium units
26.	1001 Ogden Drive	5 condominium units
27.	1153 Ogden Drive	6 condominium units
28.	1150 Orange Grove Avenue	7 apartment units
29.	507 Orlando Avenue	9 apartment units
30.	923 Palm Avenue	45 senior housing units
31.	645 Robertson Boulevard	241-room hotel, 33,300 sf restaurant, 18,130 sf retail, 10,325 sf design showroom, 3,780 sf nightclub
32.	1016 Martel Avenue	11 apartment units
33.	7143 Santa Monica Boulevard	166 apartment units & 9,300 sf retail
34.	7302 Santa Monica Boulevard	371 apartment units & 32,000 sf retail
35.	7811 Santa Monica Boulevard	81-room hotel & 79 apartment units
36.	7925-7985 Santa Monica Boulevard	4,365 sf retail, 13,682 sf restaurant & 70,036 sf office
37.	8550 Santa Monica Boulevard	25,000 grocery store, 1,319 sf café, 3,998 sf office, 8,000 sf health/fitness club, 4,000 sf personal service
38.	9001 Santa Monica Boulevard	9,850 sf retail, 9,800 sf restaurant & 42 condominium units
39.	9040-9098 Santa Monica Boulevard	76 condominium units, 82,000 sf retail & 137,000 sf office

TABLE D-1 (CONTINUED)
RELATED PROJECTS

No	Address	Description
40.	8430 Sunset Boulevard	125 condominium units & 35,000 sf commercial
41.	8490-8500 Sunset Boulevard	280-room hotel, 30,000 sf retail, 190 condominium units & 78,500 sf commercial
42.	8497 Sunset Boulevard	11,520 sf office & 9,775 sf restaurant
43.	8930 Sunset Boulevard	165-room hotel, 4 apartment units & 30,000 sf restaurant
44.	9040 Sunset Boulevard	Hotel/Restaurant/Retail & Showroom
45.	1253 Sweetzer Avenue	8 condominium units
46.	605 West Knoll Drive	7,000 sf retail
City of Bevelry Hills [b]		
1.	9265 Burton Way	23 condominium units
2.	257 N Canon Drive	388 seat theater & 14,000 sf retail
3.	250 N Crescent Drive	8 condominium units
4.	309-239 S Elm Drive	30 condominium units
5.	154-168 N La Peer Drive	16 condominium units
6.	325 N Maple Drive	50,000 office
7.	332 N Oakhurst Drive	31 condominium units
8.	8955 Olympic Boulevard	19,800 sf automobile sales
9.	9212 Olympic Boulevard	13,300 sf office, 1,000 sf fast-food restaurant w/ drive-thru & 4,700 sf automobile sales
10.	425 N Palm Drive	20 condominium units
11.	207 S Robertson Boulevard	1,700 sf office
12.	312-314 N Rodeo Drive	3,018 sf shopping center
13.	9908 S Santa Monica Boulevard	27 condominium units
14.	121 San Vicente Boulevard	35,000 sf medical office building
15.	8600 Wilshire Boulevard	21 condominium units & 7,300 sf retail
16.	9000 Wilshire Boulevard	31,700 sf office
17.	9200 Wilshire Boulevard	53 condominium units, 8,400 sf retail, 5,600 sf restaurant
18.	9230 Wilshire Boulevard	150,300 sf automobile sales
19.	9876 Wilshire Boulevard	110 condominium units, 5,000 sf restaurant & 5,000 sf retail
20.	9900 Wilshire Boulevard	231,656 sf retail, 235 high-rise condominium units & 4,200 sf restaurant
City of Los Angeles [c]		
1.	10250 W Santa Monica Boulevard	723,008 sf shopping center
2.	2000 S Avenue of the Stars	825,812 sf mixed-use
3.	700 N Faring Road	790 student school
4.	10131 Constellation Boulevard	483 condominium units
5.	5500 Wilshire Boulevard	175 apartment units
6.	6200 W Hollywood Boulevard	952 apartment units & 190,777 sf retail
7.	1540 N Vine Street	306 apartment units & 68,000 sf retail
8.	101 S La Brea Avenue	118 condominium units, 26,4000 sf retail & 3,000 sf retaurant
9.	5863 W 3rd Street	60 apartment units & 5,350 sf retail
10.	6230 W Yucca Street	85 condominium units & 13,890 sf commercial
11.	10250 W Santa Monica Boulevard	358,881 sf shopping center & 262 condominium units

TABLE D-1 (CONTINUED)
RELATED PROJECTS

No	Address	Description
12.	11331 Ventura Boulevard	62 condominium units
13.	959 N Seward Street	237,568 sf office
14.	6911 W Santa Monica Boulevard	348 apartment units, 450,000 sf office, 8,100 sf retaurant & 10,000 sf retail
15.	7300 W Hollywood Boulevard	Temple expansion
16.	300 S Wetherly Drive	120 condominium units
17.	6608 W Hollywood Boulevard	26,900 sf restaurant/club
18.	6417 W Selma Avenue	85 room hotel & 12,840 restaurant/club
19.	10331 Bellwood Avenue	131 condominium units
20.	1149 N Gower Street	21 apartment units & 36 condominium units
21.	10700 W Santa Monica Boulevard	9,200 sf retal & 35,000 sf office
22.	6100 W Hollywood Boulevard	151 apartment units & 6,200 sf retail
23.	8723 W Alden Drive	100 bed hospital
24.	3704 N Cahuenga Boulevard	2,900 sf gas station w/ convenience store
25.	6245 W Wilshire Bouelvard	4,200 sf bank, 133 apartment units, 4 condominium units & 1,570 sf coffee shop
26.	936 N La Brea Avenue	88,750 sf office & 12,000 sf retail
27.	6225 W Hollywood Boulevard	214,000 sf office
28.	9738 W Pico Boulevard	13,500 sf curtural space
29.	1022 S La cienega Bouelvard	183 bed assisted living & 22 unit skilled nursing
30.	6535 Wilshire Boulevard	21 apartment units, 57,000 sf office & 6,000 sf retail
31.	1601 N Vine Street	121,609 sf office
32.	1800 N Argyle Avenue	225 room hotel
33.	956 N Seward Street	130,000 sf office
34.	555 W Universal Hollywood Drive	1,286,112 sf office, 1,239,456 sf studio, 1,513,644 sf retail & 136,758 sf back lot
35.	4141 Whitsett Avenue	272 senior apartment units, 25-room nursing facility & 25 unit assisted living
36.	9760 W Pico Boulevard	350 student high school & 100 student university
37.	6381 W Hollywood Boulevard	80 room hotel & 15,290 sf restaurant
38.	5410 W Wilshire Boulevard	6,760 sf restaurant & 590 sf retail
39.	7002 W Clinton Street	120 student pre-k & 60 student nursery
40.	11617 Ventura Boulevard	391 apartment units & 5,000 sf retail
41.	6298 W 3rd Street	300 condominium units
42.	1417 S Hi Point Street	77 apartment units
43.	1430 S Fairfax Avenue	55,290 sf supermarket
44.	6300 W Romaine Street	Gym & dance studio
45.	2025 S Avenue of the Stars	293 condominium units, 240 room hotel, 100,000 sf office, 14,800 sf spa, 15,000 sf restaurant & 91,000 sf retail
46.	12548 Ventura Boulevard	62 apartment units & 12,672 sf retail
47.	6601 W Romaine Street	104,155 sf office & 1,970 sf storage
48.	1603 N Cherokee Avenue	66 apartment units
49.	7901 W Beverly Boulevard	71 apartment units & 11,454 sf retail
50.	1824 N Highland Avenue	118 apartment units
51.	1133 N Vine Street	118 room hotel

TABLE D-1 (CONTINUED)
RELATED PROJECTS

No	Address	Description
52.	11331 Ventura Boulevard	62 condominium units
53.	3701 N Coldwater Canyon Avenue	Parking Structure
54.	5930 W Sawyer Street	60 single family homes
55.	6677 W Santa Monica Boulevard	786 apartment units, 4,000 sf restaurant, 5,500 sf coffee shop & 12,700 sf retail
56.	6121 W Sunset Boulevard	200 apartment units, 422,500 sf office, 255,00 sf restaurant, 16,500 sf retail & 15,000 sf health club
57.	927 N Highland Avenue	100 student tutoring center
58.	5757 W Wilshire Boulevard	265,000 sf office
59.	910 S Fairfax Avenue	63 student high school, 141 apartment units & 4,640 sf restaurant/retail
60.	5889 W Olympic Boulevard	49 apartment units & 4,000 sf medical office building
61.	859 N Highland Avenue	806 sf coffee shop
62.	7120 W Sunset Boulevard	44 apartment units & 2,900 sf retaurant
63.	8150 W Sunset Boulevard	111,000 sf retail & 249 apartment units
64.	6067 W Wilshire Boulevard	5,000 visitor museum, 135 employees, 5,000 sf store & 4,000 sf café
65.	1546 N Argyle Avenue	169,463 sf office & 24,200 sf retail
66.	1541 N Wilcox Avenue	225 room hotel
67.	6201 W Sunset Boulevard	731 apartment units, 250 room hotel, 5,000 sf restaurant & 22,000 sf retail
68.	925 N La Brea Avenue	17,000 sf shopping center & 53,000 sf office
69.	904 N La Brea Avenue	169 apartment units & 40,000 sf retail
70.	6230 W Sunset Boulevard	200 apartment units, 32,125 sf office & 4,700 sf retail
71.	5901 W Sunset Boulevard	274,000 office & 26,000 sf retail
72.	707 N Cole Avenue	84 apartment units
73.	1525 N Cahuenga Boulevard	69 room hotel
74.	7510 W Sunset Boulevard	236 apartment units & 30,000 sf shopping center
75.	1718 N Las Palmas Avenue	195 apartment units, 29 condominium units & 985 sf retail
76.	10330 W Bellwood Avenue	24,000 sf medical office building & assisted living
77.	6523 W Hollywood Boulevard	10,402 sf restaurant & 4,074 sf office
78.	915 N La Brea Avenue	33,500 sf supermarket & 179 apartment units
79.	375 N La Cienega Boulevard	125 apartment units & 7,900 sf retail
80.	1313 N vine Street	44,000 sf museum & 35,231 sf storage
81.	1055 S La Cienega Boulevard	789-student private school
82.	712 N Wilcox Avenue	100 apartment units
83.	316 N La Cienega Boulevard	45 apartment units, 800 sf café & 3,680 sf retail
84.	1610 N Highland Avenue	248 apartment units & 14,710 sf retail
85.	1841 N Highland Avenue	100 room business hotel
86.	1740 N Vine Street	461 apartment units, 254 room hotel, 80,000 sf health club, 264,300 sf office, 100,000 sf retail & 25,000 sf restaurant
87.	4141 Whitsett Avenue	240 senior apartments
88.	1950 S Avenue of the Stars	725,830 sf office
89.	5555 W Melrose Avenue	21,000 sf sound stage, 1,900 stage support, 635,500 sf production office, 638,100 sf general office & 64,200 sf retail
90.	1411 N Highland Avenue	76 apartment units
91.	901 N Vine Street	85 apartment units, 4,000 sf restaurant & 4,000 sf retail

TABLE D-1 (CONTINUED)
RELATED PROJECTS

No	Address	Description
92.	888 S Devon Avenue	32 apartment units
93.	1073 S Broxton Avenue	2,328 sf retail
94.	6322 W Delongpre Avenue	250 apartment units, 233,665 sf office, 33,000 sf retail & 7,000 sf restaurant
95.	1233 N Highland Avenue	72 apartment units & 17,830 sf retail
96.	7107 W Hollywood Boulevard	410 apartment units, 5,000 sf retail & 5,000 sf restaurant
97.	1310 N Cole Avenue	375 apartment units & 2,800 sf creative office
98.	6901 W Santa Monica Boulevard	231 apartment units, 5,000 sf restaurant & 10,000 sf retail
99.	6611 W Hollywood Boulevard	167-room hote, 5,400 sf resturant & 10,500 sf retail
100.	320 N Fairfax Avenue	Jewish Family Service
101.	6132 W Pico Boulevard	100 apartment units & 14,000 sf retail
102.	1255 N Angelo Drive	Construction
103.	2864 N Cahuenga Boulevard E	300 apartment units
104.	6421 W Selma Avenue	17,607 sf restaurant
105.	1400 N Cahuenga Boulevard	175-room hotel, 600 sf retail & 5,043 sf restaurant
106.	7000 W Melrose Avenue	40 apartment units & 7,565 sf retail
107.	6220 W Yucca Street	260-room hotel, 191 apartment units & 6,980 sf restaurant
108.	6409 W Sunset Boulevard	275-room hotel & 1,900 sf retail
109.	5891 W Olympic Boulevard	49 apartment units
110.	333 S La Cienega Boulevard	162 apartment units, 27,000 sf supermarket & 3,560 sf restaurant
111.	1329 S Orange Grove Avenue	61 apartment units
112.	1118 N McCadden Place	100 senior housing units, 92 youth housing units, 17,040 sf office & 29,650 sf youth/senior center
113.	1502 N Gardner Street	32,435 sf supermarket
114.	1717 N Wilcox Avenue	140-room hotel & 3,500 sf retail
115.	9712 W Oak Pass Road	110-room hotel, 20 condominium units & 7 residential units
116.	1056 S La Cienega Boulevard	90 apartment units
117.	8001 W Beverly Boulevard	12,685 sf retail & 15,245 sf restaurant
118.	1615 N Cahuenga Boulevard	10,270 sf restaurant
119.	6516 W Selma Avenue	200-room hotel
120.	1921 N Wilcox Avenue	150-room hotel & 3,500 sf restaurant/lounge
121.	1749 N Las Palmas Avenue	38 apartment units
122.	6701 W Sunset Boulevard	Crossroads Hollywood Mixed-Use Project
123.	6200 W Sunset Boulevard	270 apartment units, 2,500 sf restaurant & 7,500 sf hi-turnover restaurant
124.	6901 W Santa Monica Boulevard	231 apartment units, 5,000 sf restaurant & 10,000 sf retail
125.	750 N Edinburgh Avenue	8 single family units

Notes

[a] Source: *City of West Hollywood - Summary of Pending Development Projects,* Updated July 5, 2016.

[b] Source: *City of Beverly Hills Cumulative Projects List,* Last Update May 6, 2016.

[c] Source: *City of Los Angeles Department of Transportation Case Logging and Tracking System,* July 20, 2016.

Appendix E

Trip Generation and Parking Rate Development

The Arts Club London

Members and Guests Flows

	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday				Monday		Tuesday		Wednesday		Thursday				Friday		Saturday		Sunday		Total			Daily Average			
DATE	2/8		2/9		2/10		2/11		2/12		2/13		2/14				2/22		2/23		2/24		2/25 (Peak)				2/26		2/27		2/28								
TIME	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	Persons	% of Peak	In	Out	In	Out	In	Out	In	Out	Persons	% of Peak	In	Out	In	Out	In	Out	In	Out	Persons	In	Out	Persons	% of Peak
7:30 AM	7	0	18	0	26	0	28	0	15	2	0	0	0	0	0	0%	7	0	13	0	22	0	18	0	18	6%	7	0	0	0	0	0	161	2	159	12	0	12	6%
8:00 AM	9	0	31	2	37	7	18	9	20	4	0	0	0	0	0	0%	6	1	16	3	34	6	16	7	27	9%	18	0	0	0	0	0	205	39	325	15	3	24	12%
8:30 AM	9	2	27	4	50	26	19	7	7	15	2	0	0	0	0	0%	6	8	16	13	36	13	25	9	43	14%	16	12	0	0	0	0	213	109	429	15	8	31	15%
9:00 AM	0	8	18	16	20	42	21	17	11	17	2	2	0	0	0	0%	13	7	11	14	38	46	27	15	55	18%	11	19	0	0	0	0	172	203	398	12	15	28	14%
9:30 AM	0	8	17	31	27	35	12	18	10	12	0	0	5	0	5	5%	6	3	10	14	27	24	15	22	48	15%	12	16	8	0	5	0	154	183	369	11	13	26	13%
10:00 AM	0	0	16	26	10	34	21	26	31	11	5	4	3	2	6	6%	8	10	13	15	16	35	22	24	46	15%	28	16	12	4	3	2	188	209	348	13	15	24	12%
10:30 AM	0	0	20	19	14	25	37	15	8	19	10	4	4	0	10	10%	18	1	14	15	15	23	35	17	64	21%	10	16	0	6	4	0	189	160	377	13	11	26	13%
11:00 AM	7	4	14	10	27	13	21	12	29	13	6	0	8	2	16	16%	5	0	16	20	26	15	25	14	75	24%	12	18	16	0	8	8	220	129	468	16	9	33	16%
11:30 AM	9	6	14	18	24	0	30	14	17	19	5	0	8	0	24	24%	0	0	14	12	23	11	42	15	102	33%	30	23	14	6	8	8	238	132	574	17	9	41	20%
12:00 PM	30	7	33	16	57	27	47	26	45	19	12	10	4	3	25	25%	44	22	33	16	45	32	54	32	124	40%	42	26	6	0	4	3	456	239	791	33	17	57	28%
12:30 PM	47	15	70	13	61	21	46	14	54	40	20	9	5	8	22	22%	35	12	40	17	36	32	56	14	166	54%	58	36	11	4	5	8	544	243	1092	39	17	79	39%
1:00 PM	35	10	54	20	38	15	52	20	30	25	18	4	32	12	42	42%	25	15	36	24	45	11	48	26	188	61%	36	22	9	12	32	12	490	228	1354	35	16	98	49%
1:30 PM	31	22	27	25	34	36	47	42	12	23	8	4	25	5	62	63%	30	16	28	22	46	30	52	42	198	64%	18	27	27	10	25	5	410	309	1455	29	22	105	52%
2:00 PM	13	22	26	43	28	61	13	34	24	18	18	15	35	14	83	84%	22	45	25	31	28	53	15	35	178	57%	24	18	23	5	35	14	329	408	1376	24	29	100	50%
2:30 PM	8	14	24	35	38	53	14	33	21	30	20	20	12	2	93	94%	19	24	21	31	43	55	20	34	164	53%	23	30	23	15	12	2	298	378	1296	21	27	94	47%
3:00 PM	8	24	28	34	26	25	33	48	20	33	24	15	0	16	77	78%	21	25	28	28	27	29	31	46	149	48%	22	39	14	16	0	16	282	394	1184	20	28	86	43%
3:30 PM	12	26	20	34	35	52	35	41	25	38	16	18	0	7	70	71%	16	19	20	30	31	47	28	42	135	44%	27	46	0	18	0	7	265	425	1024	19	30	75	37%
4:00 PM	8	28	49	40	33	30	25	23	13	22	24	20	9	0	79	80%	18	24	27	22	35	32	26	35	126	41%	15	24	1	15	9	0	292	315	1001	21	23	73	36%
4:30 PM	19	8	36	35	56	32	21	22	12	12	14	21	6	4	81	82%	18	29	36	26	48	34	27	12	141	45%	10	15	8	32	6	6	317	288	1030	23	21	75	37%
5:00 PM	22	20	36	39	50	34	23	21	17	10	12	2	0	8	73	74%	35	18	23	18	52	30	27	21	147	47%	16	8	22	15	0	0	335	244	1121	24	17	82	41%
5:30 PM	23	19	26	36	39	54	67	39	22	19	16	22	7	6	74	75%	23	15	27	26	41	48	48	37	158	51%	28	17	16	12	7	6	390	356	1155	28	25	85	42%
6:00 PM	51	16	26	22	50	51	20	18	22	14	24	4	7	6	75	76%	29	16	25	22	47	48	36	16	178	57%	22	12	14	22	7	0	380	267	1268	27	19	93	46%
6:30 PM	43	15	55	30	54	25	29	17	42	12	37	9	12	8	79	80%	22	20	35	15	55	27	31	22	187	60%	40	31	18	15	12	0	485	246	1507	35	18	110	55%
7:00 PM	36	23	54	33	44	28	60	16	47	36	30	3	14	14	79	80%	49	20	41	25	38	33	55	22	220	71%	38	33	19	22	14	0	539	308	1738	38	22	126	63%
7:30 PM	23	27	50	14	52	28	55	40	53	15	26	18	14	4	89	90%	53	36	42	26	48	17	67	45	242	78%	48	18	44	13	14	4	589	305	2022	42	22	146	73%
8:00 PM	22	20	55	31	35	18	56	23	44	23	42	9	20	10	99	100%	14	19	40	27	29	22	48	26	264	85%	48	23	62	20	20	6	535	277	2280	38	20	164	82%
8:30 PM	17	22	18	27	41	31	46	12	57	12	104	15	5	14	90	91%	11	14	38	22	43	23	44	38	270	87%	65	4	70	8	5	8	564	250	2594	40	18	186	93%
9:00 PM	36	40	42	34	29	25	58	17	85	42	38	41	0	18	72	73%	13	20	41	26	31	27	62	22	310	100%	78	29	65	11	7	31	585	383	2796	42	27	201	100%
9:30 PM	25	24	11	36	29	47	25	48	39	41	47	23	0	8	64	65%	14	13	26	30	31	46	36	42	304	98%	46	37	72	20	0	18	401	433	2764	29	31	199	99%
10:00 PM	5	31	10	39	7	42	27	68	36	42	59	37	0	14	50	51%	7	47	20	38	10	48	29	53	280	90%	40	49	52	15	0	16	302	539	2527	22	38	183	91%
10:30 PM	11	17	14	71	26	52	30	34	30	53	57	50	0	26	24	24%	0	24	16	41	24	58	28	42	266	86%	30	45	50	36	0	14	316	563	2280	23	40	166	83%
11:00 PM	10	35	9	27	64	53	29	53	71	69	34	34	0	10	14	14%	6	36	22	42	58	47	25	62	229	74%	65	67	47	49	0	22	440	606	2114	31	43	154	77%
11:30 PM	4	15	0	38	22	28	37	63	37	39	43	71	0	14	0	0%	0	18	12	31	22	22	37	56	210	68%	40	37	18	31	0	26	272	489	1897	19	35	138	69%
12:00 AM	1	39	0	21	17	42	12	43	20	68	50	76	0	0	0	0%	0	16	0	32	15	42	22	49	183	59%	22	72	21	72	0	0	180	572	1505	13	41	110	55%
12:30 AM	0	6	0	9	6	28	6	47	35	62	15	96	0	0	0	0%	0	0	6	32	6	28	22	53	152	49%	33	66	53	130	0	0	182	557	1130	13	40	83	41%
1:00 AM	0	8	0	12	0	26	17	47	31	55	6	64	0	0	0	0%	0	0	0	16	0	19	17	54	115	37%	36	55	12	95	0	0	119	451	798	9	32	60	30%
1:30 AM	0	0	0	8	8	27	18	37	7	42	8	48	0	0	0	0%	0	0	0	8	6	23	22	45	92	30%	9	34	9	53	0	0	87	325	560	6	23	43	21%
2:00 AM	0	0	0	0	0	24	0	63	15	54	6	54	0	0	0	0%	0	0	0	0	0	18	10	63	39	13%	11	56	18	24	0	0	60	356	264	4	25	22	11%
2:30 AM	0	0	0	0	0	17	0	28	0	34	0	36	0	0	0	0%	0	0	0	0	0	23	0	39	0	0%	0	38	0	48	0	0	0	263	1	0	19	3	1%
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0	0	0	0	0%	0	0	0	0	0	0	0	0	1	0	0	3	1%
	581	581	948	948	1214	1214	1155	1155	1114	1114	858	858	235	235			593	593	830	830	1177	1177	1248	1248			1134	1134	854	854	242	242	12183	12183		870	870	870	

8:00PM - 10:30PM
>80% Utilization
Peak Day

8:00PM - 10:30PM
>80% Occupancy
Average Day

SUMMARY OF ARTS CLUB STAFFING DATA [1]

Time	WEHO Employee Data			London Employee Data		
	Employee In	Employee Out	Total Emps On-Site [2]	Employee In	Employee Out	Total Emps On-Site [2]
6:30 AM	32	9	23	18	7	11
7:00 AM	22	6	39	12	4	19
7:30 AM	14	0	53	0	0	19
8:00 AM	27	6	74	12	1	30
8:30 AM	4	0	78	3	0	33
9:00 AM	14	0	92	8	0	41
9:30 AM	2	0	94	0	0	41
10:00 AM	21	0	115	12	0	53
10:30 AM	8	0	123	0	0	53
11:00 AM	29	5	147	15	4	64
11:30 AM	3	1	149	0	0	64
12:00 PM	6	2	153	6	2	68
12:30 PM	0	0	153	0	0	68
1:00 PM	0	0	153	0	0	68
1:30 PM	0	0	153	0	0	68
2:00 PM	1	3	151	0	0	68
2:30 PM	7	3	155	0	0	68
3:00 PM	4	12	147	0	6	62
3:30 PM	14	14	147	12	5	69
4:00 PM	20	30	137	16	15	70
4:30 PM	4	1	140	0	1	69
5:00 PM	19	7	152	10	0	79
5:30 PM	20	20	152	10	10	79
6:00 PM	26	19	159	17	13	83
6:30 PM	7	9	157	3	2	84
7:00 PM	9	4	**162**	**6**	**4**	**86**
7:30 PM	0	1	161	0	1	85
8:00 PM	0	0	161	0	0	85
8:30 PM	0	0	161	0	0	85
9:00 PM	0	0	161	0	0	85
9:30 PM	0	0	161	0	0	85
10:00 PM	0	0	161	0	0	85
10:30 PM	0	12	149	0	4	81
11:00 PM	0	6	143	0	4	77
11:30 PM	5	72	76	5	43	39
12:00 AM	8	36	48	4	17	26
12:30 AM	0	16	32	0	8	18
1:00 AM	0	3	29	0	3	15
1:30 AM	0	0	29	0	0	15
2:00 AM	0	22	7	0	10	5
2:30 AM	0	3	4	0	2	3
3:00 AM	0	4	0	0	3	0

[1] Employee data provided by representatives of the Arts Club London facility.

[2] Total employees on-site determined on 30-minute increments by subtracting exits from entries on a cumulative basis.

DEVELOPMENT SUMMARY - EMPIRICAL TRIP GENERATION RATE

London Site
Total London Arts Club Membership = 6938 members
Total Square Feet = 32912 sf *(includes all FOH & BOH)*

Person Trips

	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Avg Weekday Peak Person Trips - Members	1984	42	15	57	62	57	119

Assumuptions
Member AVR = 1.4
Member Transit Reduction = 0%

Vehicle Trips

	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Avg Weekday Peak Vehicle Trips - Members	1417	30	11	41	44	41	85

Arts Club Member/Guests Trip Gen Rates

Approach	Size	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Member Based	per member	0.204	73%	27%	0.006	52%	48%	0.012
Square Footage Based	per 1,000 sf	43.05	73%	27%	1.25	52%	48%	2.58

Double Check

		Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Member Based	6938 members	1415	31	11	42	43	40	83
Square Footage Based	32912 sf	1417	30	11	41	44	41	85

West Hollywood Site
Total WeHo Arts Club Membership = 7000 member cap
Total Daily Employees = 326 employees
Total Square Feet (members-only uses) = 61243 sf *(gross floor area-TBD)*

Person Trips

	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Employees	652	36	6	42	39	27	66

Assumuptions
Employee AVR = 1.0
Employee Transit Reduction = 0%

Vehicle Trips

	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Employees	652	36	6	42	39	27	66

Arts Club Employees Trip Gen Rates

		Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Employees	per member	0.093	0.86	0.14	0.006	0.59	0.41	0.009
Employees	per 1,000 sf	10.646	0.86	0.14	0.686	0.59	0.41	1.078

Double Check

		Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
Member Based	326 members	30	2	0	2	2	1	3
Square Footage Based	61243 sf	652	36	6	42	39	27	66

DEVELOPMENT SUMMARY - EMPIRICAL PARKING RATE

London

Total London Arts Club Membership =		**6938**	**members**	
Total Square Feet =		**32912**	**sf**	
Total Daily Employees =		**169**	**employees**	
Total Peak Parking Rate =	Weekday	0.031	per member	215
		6.502	per 1,000 sf	214
	Weekend	0.044	per member	305
		9.206	per 1,000 sf	303
Member Peak Parking Rate =	Weekday	0.019	per member	132
		3.92	per 1,000 sf	129
	Weekend	0.032	per member	222
		6.745	per 1,000 sf	222
Employee Peak Parking Rate =		0.012	per member	83
		2.583	per 1,000 sf	85

Peak =	**129**	**Peak =**	**222**	**Peak =**	**85**	**Peak =**	**214**	**Peak =**	**303**

	Member Parking Demand				**Employee Parking Demand**		**Total Parking Demand**			
	Weekday		**Weekend**				**Weekday**		**Weekend**	
Time	**Percent**	**Demand**	**Percent**	**Demand**	**Percent**	**Demand**	**Percent**	**Demand**	**Percent**	**Demand**
6:00	0%	0	0%	0	13%	11	5%	11	4%	11
7:00	0%	0	0%	0	22%	19	9%	19	6%	19
8:00	15%	19	1%	1	39%	33	24%	52	11%	34
9:00	11%	14	2%	4	48%	41	26%	55	15%	45
10:00	11%	14	3%	7	62%	53	31%	67	20%	60
11:00	19%	24	9%	20	75%	64	41%	88	28%	84
12:00	46%	59	13%	29	80%	68	59%	127	32%	97
13:00	60%	77	19%	41	80%	68	68%	145	36%	109
14:00	46%	59	23%	51	80%	68	59%	127	39%	119
15:00	34%	44	21%	46	81%	69	53%	113	38%	115
16:00	35%	45	14%	31	81%	69	53%	114	33%	100
17:00	38%	49	13%	29	93%	79	60%	128	36%	108
18:00	52%	67	20%	45	99%	84	71%	151	43%	129
19:00	75%	97	31%	68	100%	85	85%	182	51%	153
20:00	92%	119	67%	149	100%	85	95%	204	77%	234
21:00	100%	129	87%	194	100%	85	100%	214	92%	279
22:00	72%	93	100%	222	95%	81	81%	174	100%	303
23:00	57%	74	93%	206	46%	39	53%	113	81%	245
0:00	30%	39	55%	123	21%	18	27%	57	47%	141
1:00	11%	14	19%	43	18%	15	14%	29	19%	58
2:00	0%	0	0%	0	4%	3	1%	3	1%	3
3:00	0%	0	0%	0	0%	0	0%	0	0%	0
4:00	0%	0	0%	0	0%	0	0%	0	0%	0
5:00	0%	0	0%	0	0%	0	0%	0	0%	0

West Hollywood

Total WeHo Arts Club Membership =	**7000**	**member cap**	
Total Square Feet (members-only uses) =	**61243**	**sf**	*(gross floor area-TBD)*
Total Daily Employees =	**326**	**employees**	

Per Member Rate

Member Peak Parking Demand =	Weekday	133	Based on Arts Club London Data	
	Weekend	224		
Employee Peak Parking Rate =		0.023	per member	161
		2.645	per 1,000 sf	162

Peak =	**133**	**Peak =**	**224**	**Peak =**	**162**	**Peak =**	**295**	**Peak =**	**378**

	Member Parking Demand				**Employee Parking Demand**		**Total Parking Demand**			
	Weekday		**Weekend**				**Weekday**		**Weekend**	
Time	**Percent**	**Demand**	**Percent**	**Demand**	**Percent**	**Demand**	**Percent**	**Demand**	**Percent**	**Demand**
6:00	0%	0	0%	0	13%	21	7%	21	6%	21
7:00	0%	0	0%	0	22%	36	12%	36	10%	36
8:00	15%	20	1%	1	39%	63	28%	83	17%	64
9:00	11%	14	2%	4	48%	78	31%	92	22%	82
10:00	11%	14	3%	7	62%	101	39%	115	29%	108
11:00	19%	25	9%	20	75%	122	50%	147	38%	142
12:00	46%	61	13%	29	80%	130	65%	191	42%	159
13:00	60%	79	19%	41	80%	130	71%	209	45%	171
14:00	46%	61	23%	52	80%	130	65%	191	48%	182
15:00	34%	45	21%	46	81%	132	60%	177	47%	178
16:00	35%	46	14%	31	81%	132	60%	178	43%	163
17:00	38%	51	13%	29	93%	150	68%	201	47%	179
18:00	52%	69	20%	45	99%	160	78%	229	54%	205
19:00	75%	100	31%	69	100%	162	89%	262	61%	231
20:00	92%	123	67%	150	100%	162	97%	285	83%	312
21:00	100%	133	87%	196	100%	162	100%	295	95%	358
22:00	72%	96	100%	224	95%	154	85%	250	100%	378
23:00	57%	76	93%	208	46%	74	51%	150	75%	282
0:00	30%	40	55%	124	21%	34	25%	74	42%	158
1:00	11%	14	19%	43	18%	29	15%	43	19%	72
2:00	0%	0	0%	0	4%	6	2%	6	2%	6
3:00	0%	0	0%	0	0%	0	0%	0	0%	0
4:00	0%	0	0%	0	0%	0	0%	0	0%	0
5:00	0%	0	0%	0	0%	0	0%	0	0%	0

Appendix F

Construction Level of Service Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	1042	6	19	1827	5	0	0	13	3	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	13	1097	6	20	1923	5	0	0	14	3	0	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.64			0.23			0.41	0.41	0.23	0.41	0.41	0.64
vC, conflicting volume	1928			1103			2133	3094	1100	3102	3094	964
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1338			0			0	2141	0	2161	2143	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			95			100	100	95	67	100	99
cM capacity (veh/h)	330			374			385	18	250	10	18	699

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	13	1103	20	1282	646	14	9
Volume Left	13	0	20	0	0	0	3
Volume Right	0	6	0	0	5	14	6
cSH	330	1700	374	1700	1700	250	28
Volume to Capacity	0.04	0.65	0.05	0.75	0.38	0.05	0.34
Queue Length 95th (ft)	3	0	4	0	0	4	26
Control Delay (s)	16.4	0.0	15.2	0.0	0.0	20.2	189.7
Lane LOS	C		C			C	F
Approach Delay (s)	0.2		0.2			20.2	189.7
Approach LOS						C	F

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	1292	6	19	1333	18	3	0	18	0	0	11
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	21	1360	6	20	1403	19	3	0	19	0	0	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		331			329							
pX, platoon unblocked	0.82			0.24			0.32	0.32	0.24	0.32	0.32	0.82
vC, conflicting volume	1422			1366			2158	2867	1363	2874	2861	711
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1079			932			1465	3648	919	3668	3629	213
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	96			88			87	100	71	100	100	98
cM capacity (veh/h)	527			172			25	1	64	0	1	650

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	21	1366	20	935	487	22	12
Volume Left	21	0	20	0	0	3	0
Volume Right	0	6	0	0	19	19	12
cSH	527	1700	172	1700	1700	53	650
Volume to Capacity	0.04	0.80	0.12	0.55	0.29	0.42	0.02
Queue Length 95th (ft)	3	0	10	0	0	39	1
Control Delay (s)	12.1	0.0	28.7	0.0	0.0	115.7	10.6
Lane LOS	B		D			F	B
Approach Delay (s)	0.2		0.4			115.7	10.6
Approach LOS						F	B

Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	91.5%	ICU Level of Service	F	
Analysis Period (min)	15			