Appendix G

Traffic Impact Study

TRANSPORTATION ANALYSIS REPORT
8555 SANTA MONICA BOULEVARD
MIXED-USE PROJECT

MAY 2017

PREPARED FOR

RINCON CONSULTANTS, INC.

PREPARED BY

FEHR & PEERS

TABLE OF CONTENTS

APPENDICES

Appendix A: Intersection Lane Configurations

Appendix B: Traffic Counts

Appendix C: Level of Service Worksheets

Appendix D: Signal Warrant Analysis

Appendix E: Site Plan Review

Appendix F: Related Projects

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

This report documents the assumptions, methodologies, and findings of a study conducted by Fehr & Peers to evaluate the potential traffic impacts for the proposed mixed-use development located at 8555 Santa Monica Boulevard on the northwest corner of Santa Monica Boulevard & West Knoll Drive in West Hollywood, California.

PROJECT DESCRIPTION

The project consists of eight contiguous parcels and proposes to combine the lots into a single development. The site occupies approximately one third of the block face along Santa Monica Boulevard and is generally bordered by West Knoll Drive to the east and north, adjacent buildings to the west (Ramada Plaza and Wells Fargo), and Santa Monica Boulevard to the south. Figure 1 illustrates the location of the project site in relation to the surrounding street system, the study intersections and street segments.

The proposed project involves the construction of a five-story commercial/residential mixed-use development containing 97 multi-family dwelling units, 2,820 square feet (sf) of ground floor restaurant space, 15,678 sf of ground floor retail space, 6,079 sf of creative office space, a 3,718 sf hair salon, and 12 live/work units. Parking is provided in a 350-space structure that will include a three-level parking garage including one subterranean parking level. Retail uses are proposed on the first floor and office and live/work units are located on the second floor. Residential uses are proposed on the 3rd, 4th, and 5th floors.

Access to the project site would be provided by one driveway on Santa Monica Boulevard and one driveway on West Knoll Drive. The Santa Monica Boulevard driveway will serve as the primary commercial entrance and would allow right and left-turns into the project site, and right-turns only out of the project site. The driveway on West Knoll Drive would provide residential access and would allow left- and right-turn ingress, but would be restricted to right-out egress only due to the raised median restricting left-turn egress from the Santa Monica Boulevard (additional detail regarding future changes to the street network is available in Chapter 3). Residential access would also be provided from the Santa Monica Boulevard driveway.

The demolition of existing land uses is required with the proposed project. Existing land uses include:

- Three single-family units
- 2,475 sf of high-turnover restaurant
- 10,426 sf of specialty retail
- 4,058 square feet of health club
- 4,211 sf of office
- 6,218 sf of hair salon

Figure 2 illustrates the ground level site plan of the proposed development.

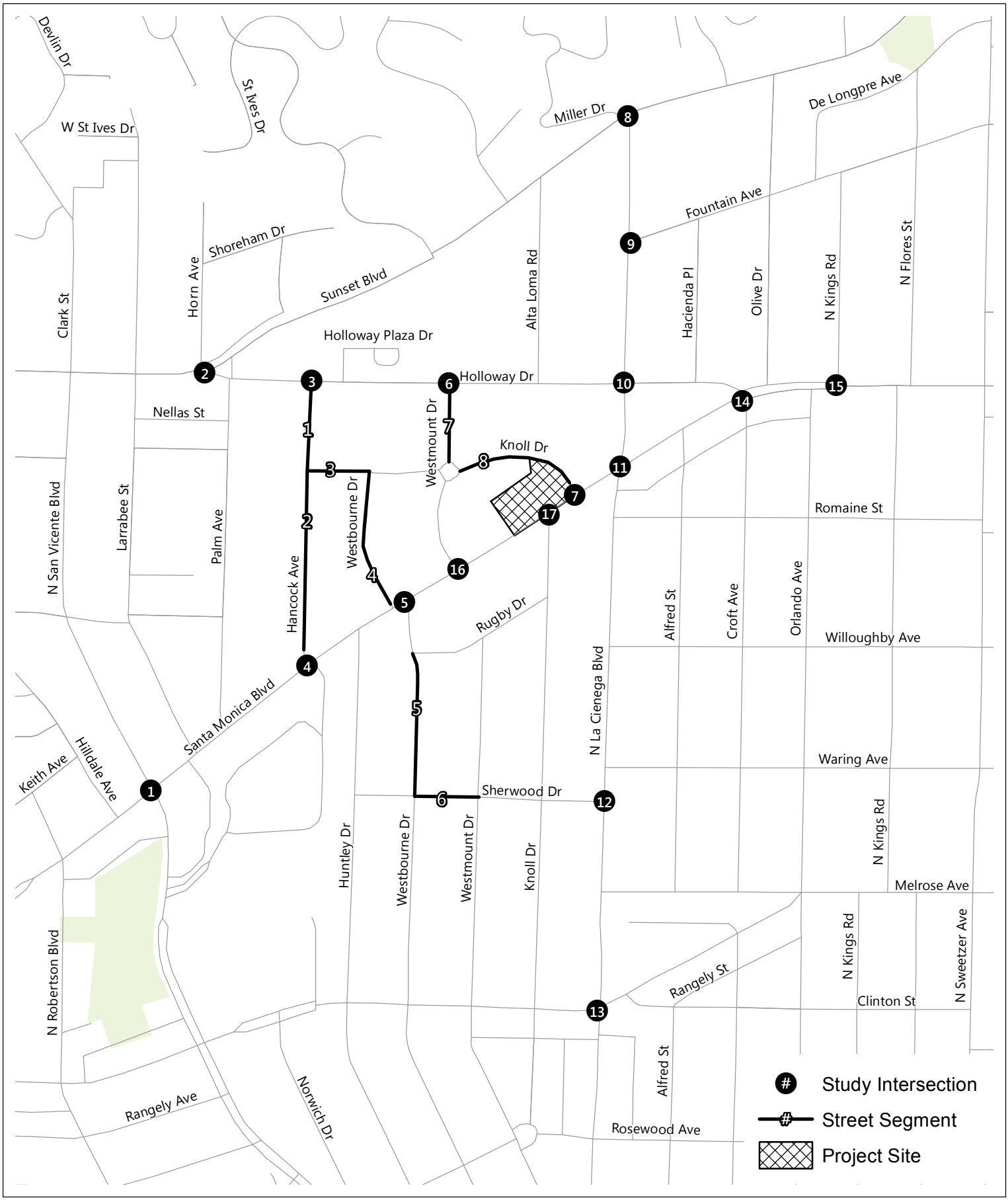

Figure 1
Project Area

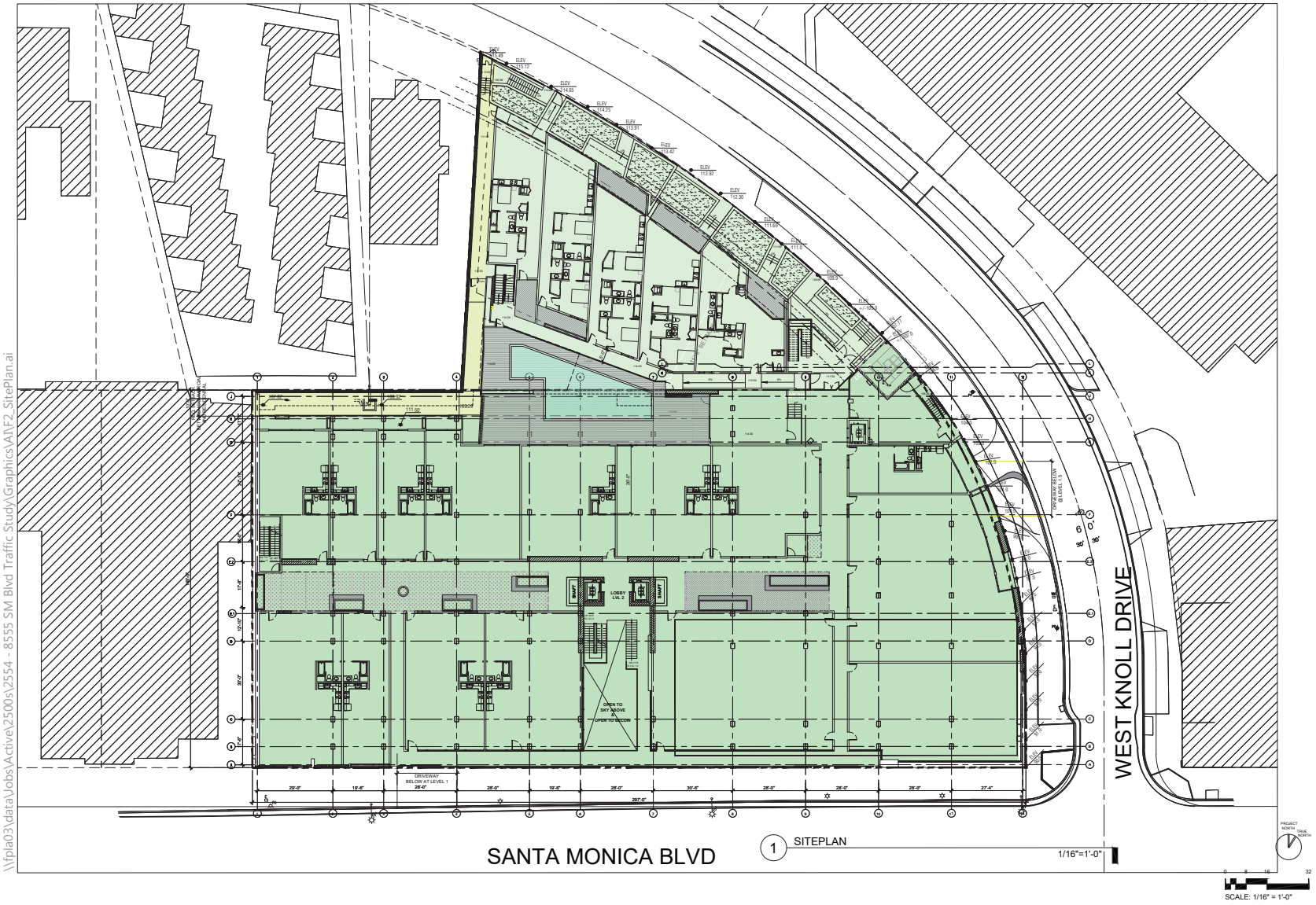

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Figure 2

Site Plan

STUDY SCOPE

The scope of work for this study was developed in conjunction with City of West Hollywood staff. The base assumptions and technical methodologies and geographic coverage were identified with city staff as part of the study approach. The study, which analyzes potential project-generated traffic impacts on the adjacent street system, anticipates that the project would be completed by 2019. The analysis of future year traffic forecasts was based on projected conditions in 2019 both with and without the addition of the project traffic. The following traffic scenarios have been developed and analyzed as part of this study:

- Existing (2016) Conditions – The analysis of existing traffic conditions was intended to provide a basis for the remainder of the study. The existing conditions analysis included a description of the street system serving the site, current traffic volumes, and an assessment of the operating conditions at these locations.

- Existing (2016) plus Project Conditions – This traffic scenario includes the proposed project, provides projected traffic volumes, and an assessment of operating conditions under existing conditions with the addition of project-generated traffic. The impacts of the proposed project on existing traffic operating conditions can then be identified.

- Cumulative Base (2019) Conditions – Future traffic conditions without the proposed project were developed for the year 2019. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the project site by the year 2019.

- Cumulative (2019) plus Project Conditions – This traffic scenario provided projected traffic volumes and an assessment of operating conditions under future conditions with the addition of project-generated traffic. The impacts of the proposed project on future traffic operating conditions could then be identified.

Seventeen intersections were identified for analysis in consultation with West Hollywood staff. All the study intersections are located within the City of West Hollywood with the exception of La Cienega Boulevard & Sherwood Avenue, which is fully within the City of Los Angeles's jurisdiction.

1. San Vicente Boulevard & Santa Monica Boulevard
2. Horn Avenue/Holloway Drive & Sunset Boulevard
3. Hancock Avenue & Holloway Drive
4. Hancock Avenue & Santa Monica Boulevard
5. Westbourne Drive & Santa Monica Boulevard
6. Westmount Drive & Holloway Drive
7. West Knoll Drive & Santa Monica Boulevard
8. Miller Drive/La Cienega Boulevard & Sunset Boulevard

9. La Cienega Boulevard & Fountain Avenue
10. La Cienega Boulevard & Holloway Drive
11. La Cienega Boulevard & Santa Monica Boulevard
12. La Cienega Boulevard & Sherwood Drive (City of Los Angeles)
13. La Cienega Boulevard & Melrose Avenue
14. Holloway Drive/Croft Avenue & Santa Monica Boulevard
15. Kings Road & Santa Monica Boulevard
16. Westmount Drive & Santa Monica Boulevard
17. West Knoll Drive & Santa Monica Boulevard

Of the 17 study intersections, 10 operate under traffic signal control while the seven remaining intersections of Hancock Avenue & Holloway Drive, Hancock Avenue & Santa Monica Boulevard, Westmount Drive & Holloway Drive, West Knoll Drive & Santa Monica Boulevard, La Cienega Boulevard & Sherwood Drive, Westmount Drive & Santa Monica Boulevard, and West Knoll Drive & Santa Monica Boulevard are stop-controlled.

Eight street segments were also selected for analysis:

1. West Knoll Drive between Hancock Avenue and Westbourne Drive
2. West Knoll Drive between Westmount Drive and Santa Monica Boulevard
3. Westmount Drive between Holloway Drive and West Knoll Drive
4. Westbourne Drive between West Knoll Drive and Santa Monica Boulevard
5. Westbourne Drive between Rugby Drive and Sherwood Drive
6. Sherwood Drive between Westbourne Drive and Westmount Drive
7. Hancock Avenue between Holloway Drive and West Knoll Drive
8. Hancock Avenue between West Knoll Drive and Santa Monica Boulevard

The intersection lane configurations are provided in Appendix A.

ORGANIZATION OF REPORT

This report is divided into nine chapters, including this introduction. Chapter 2 describes the existing circulation system, traffic volumes, and traffic conditions in the study area. The methodologies used to forecast future traffic volumes are described and applied in Chapter 3. Chapter 4 presents an assessment of potential traffic impacts for the existing plus project and cumulative plus project scenarios. Alternative transportation impacts are addressed in Chapter 5. Chapter 6 presents the regional Congestion Management Program (CMP) analysis. Issues regarding on-site parking and site access are evaluated in Chapter 7. Chapter 8 describes construction impacts and Chapter 9 presents the study conclusions. Details of the technical analysis are included in the appendices.

2. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study included an inventory of the street system, traffic volumes on these facilities and operating conditions at key intersections.

EXISTING STREET SYSTEM

As discussed, the study intersections were determined in consultation with City of West Hollywood staff. The study area for this analysis is generally bordered by Sunset Boulevard to the north, Kings Road to the east, Melrose Avenue to the south, and San Vicente Boulevard to the west. Primary regional access to the study area is provided by Santa Monica Boulevard, which runs east-west through the study area and the Hollywood Freeway (US 101), which generally runs northwest-southeast approximately two miles northeast of the project site. Access to the US 101 is provided at the Highland Avenue interchange.

Surface street north-south regional project access is provided by San Vicente Boulevard and La Cienega Boulevard; east-west regional access is provided by Sunset Boulevard and Santa Monica Boulevard. Localized access is provided by Fountain Avenue, Holloway Drive, Westbourne Drive, and West Knoll Drive.

The following is a brief description of the streets that serve the site:

- San Vicente Boulevard – San Vicente Boulevard is a north-south arterial south of Santa Monica Boulevard and a collector between Santa Monica Boulevard and Sunset Boulevard west of the project site. It provides two lanes in each direction during the peak hours. Parking is generally allowed on both sides of the street near the study area, with some segments including diagonal parking south of Santa Monica Boulevard. The posted speed limit is 35 miles per hour (mph).

- La Cienega Boulevard – La Cienega Boulevard a north-south arterial south of Santa Monica Boulevard and a collector between Santa Monica Boulevard and Sunset Boulevard east of the project site. It provides four travel lanes with two lanes in each direction. La Cienega also provides regional access with a connection to the I-10 ramps, south of the study area. Parking is generally allowed on both sides of the street in the project vicinity. The posted speed limit is 35 mph.

- Santa Monica Boulevard – Santa Monica Boulevard is an east-west arterial. In the project area, it provides four travel lanes with two lanes in each direction. Parking is available but limited in the study area. The posted speed limit is 30 mph.

- Sunset Boulevard – Sunset Boulevard is an east-west arterial that provides four travel lanes during the peak periods, with two lanes in each direction. Parking is prohibited during the AM and PM peak periods and limited between the peak periods. The posted speed limit is 35 mph.

- Fountain Avenue – Fountain Avenue is an east-west collector. Four travel lanes are provided East of La Cienega Boulevard during the PM peak period in the study area. Parking is generally allowed in the study area between 7:00 AM and 4:00 PM without a permit. The posted speed limit is 35 mph.

- Holloway Drive – Holloway Drive is an east-west collector street north of the project site. Two travel lanes are provided on the undivided roadway; parking is available on the street. The speed limit is 25 mph.

- Westbourne Drive – Westbourne Drive is a north-south local street to the west of the project site. Two travel lanes are provided on the undivided roadway; parking is available on the street. The speed limit is 25 mph.

- West Knoll Drive – West Knoll Drive is a north-south local street to the east of the project site. Two travel lanes are provided on the undivided roadway; parking is available on the street. The speed limit is 25 mph.

EXISTING TRANSIT SERVICE

The Los Angeles County Metropolitan Transportation Authority (Metro) and City of West Hollywood CityLine system provide existing public transit service in the vicinity of the proposed project. A number of bus routes serve the surrounding area, including municipal bus lines, Metro local service to and from downtown Los Angeles, east-west local services to other areas, north-south local service to other areas, limited service in the peak hours, and Metro Rapid service. The transit lines serving the study area are described below.

Metro Bus Lines

- Metro Lines 2 and 302 – Line 2 is a local service that runs along Sunset Boulevard between downtown Los Angeles and Pacific Palisades. Line 302 is a limited-stop service line that provides service during the weekday peak hours. In the AM peak hour, the lines operate with average seven-minute headways in the eastbound direction and average five-minute headways in the westbound direction. In the PM peak hour, the lines operate at average six-minute headways.

- Metro Lines 4 and 704 – Line 4 is a local east-west line that travels from Santa Monica to downtown Los Angeles. Line 704 is a Metro Rapid line that provides limited-stop service along the same route. Line 4 and Line 704 provide service to Echo Park, Silver Lake, Hollywood, West Hollywood, Beverly Hills, Century City, Westwood and Santa Monica. Lines 4 and 704 both travel along Santa Monica Boulevard in the study area. In the AM peak hour, Metro Line 4 and 704 operate at six-minute headways. In the PM peak hour, the lines operate at 10-minute headways.

- Metro Line 10 – Line 10 is a local east-west line that travels from West Los Angeles to Downtown Los Angeles via Temple Street and Melrose Avenue. Line 10 travels along Melrose Avenue in the study area. The lines operate at average 10-minute headways in the AM and PM peak hours.

- Metro Lines 30 and 330 – Line 30 is a local east-west line that travels from Mid-City to east Los Angeles. Line 330 is a Metro line that provides limited-stop service from West Hollywood to east Los Angeles. Line 30 and Line 330 provide service to Mid-city, downtown Los Angeles, Boyle Heights, and east Los Angeles, with Line 330 also serving West Hollywood and Beverly Hills. Lines 30 and 330 both travel along San Vicente Boulevard in the study area. In the AM peak hour, Metro Line 30 operates at six-minute headways and Line 330 operates with 30-minute headways. In the

PM peak hour, Line 30 operates at seven-minute headways and Line 330 operates with 30-minute headways.

- Metro Lines 105 and 705 – Line 105 is a local southeast-northwest line that travels from West Hollywood to Vernon. Line 705 is a Metro Rapid line that provides limited-stop service along the same route. Line 105 and Line 705 provide service to West Hollywood, Beverly Hills, Baldwin Hills, Liemert Park, Exposition Park, and Vernon. Lines 105 and 705 both travel along La Cienega Boulevard in the study area. In the AM peak hour, Metro Line 105 and 705 operate at 10-minute headways. In the PM peak hour, the lines operate at 20-minute headways.

West Hollywood CityLine

- Blue Route – The West Hollywood CityLine Blue Route provides local circulation service to the City of West Hollywood, linking the east and west communities while primarily traveling on Santa Monica Boulevard. Near the project site, the Blue Route stops include Santa Monica Boulevard & La Cienega Boulevard, Santa Monica Boulevard & West Knoll Drive, and Santa Monica Boulevard & Hancock Avenue. Route A operates at 35- to 70-minute headways during the day.

- Orange Route – The West Hollywood CityLine Orange Route provides local circulation service to the City of West Hollywood, linking the east and west communities to Plummer Park while primarily traveling on Santa Monica Boulevard. Near the project site, the Orange Route stops include Santa Monica Boulevard & Westbourne Drive and Santa Monica Boulevard & La Cienega Boulevard. The Orange Route operates at 35- to 70-minute headways during the day.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

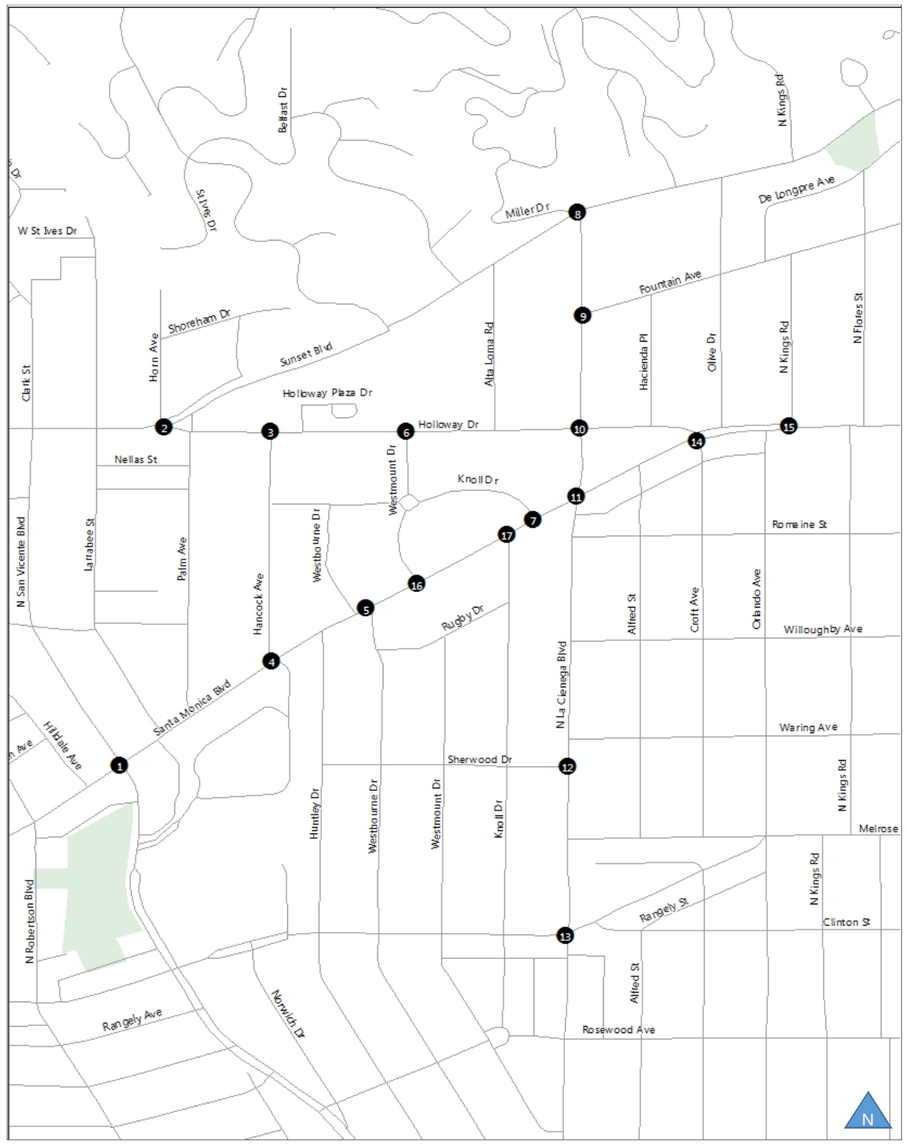
The following sections discuss the methodology used to analyze the intersection traffic conditions and present the intersection peak hour traffic volumes and the resulting level of service (LOS) at each of the study intersections under existing conditions.

Existing Traffic Volumes – Intersections

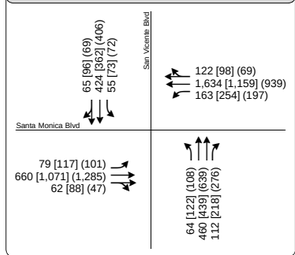
Weekday AM, midday (MD), and PM peak hour traffic counts were collected in January 2016 at all study intersections. Figure 3 shows the existing intersection volumes for the AM, MD, and PM peak hours. Traffic counts are provided in Appendix B.

Existing Traffic Volumes – Segments

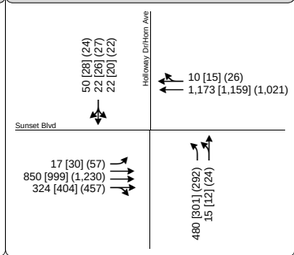
Daily traffic counts were collected primarily in January 2016 for six study segments. Daily traffic counts at Sherwood Drive between Westbourne Drive and West Knoll Drive and Westmount Drive between Holloway Drive and West Knoll Drive were collected in February 2016.



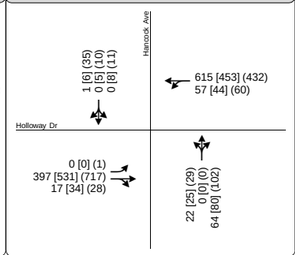
1. San Vicente Blvd/Santa Monica Blvd



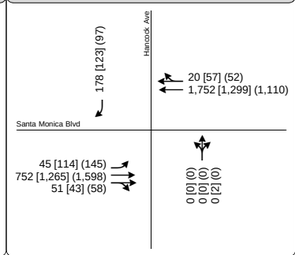
2. Holloway Dr/Horn Ave/Sunset Blvd



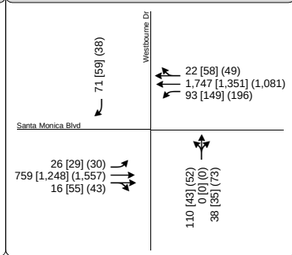
3. Hancock Ave/Holloway Dr



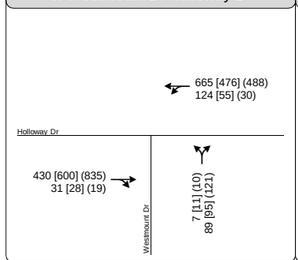
4. Hancock Ave/Santa Monica Blvd



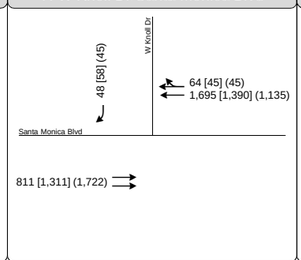
5. Westbourne Dr/Santa Monica Blvd



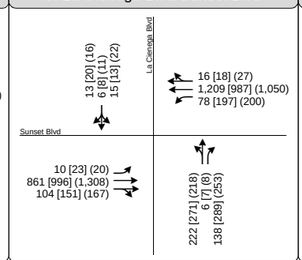
6. Westmount Dr/Holloway Dr



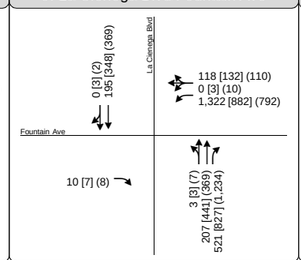
7. W Knoll Dr/Santa Monica Blvd



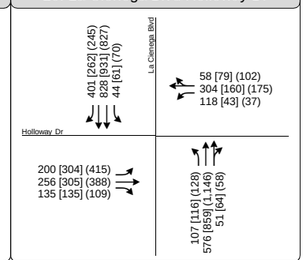
8. La Cienega Blvd/Sunset Blvd



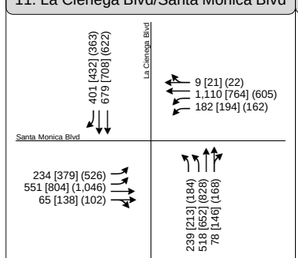
9. La Cienega Blvd/Fountain Ave



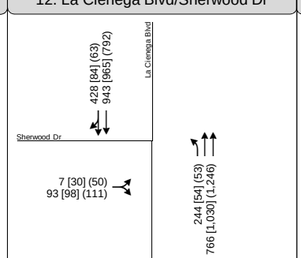
10. La Cienega Blvd/Holloway Dr



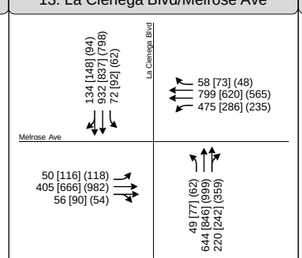
11. La Cienega Blvd/Santa Monica Blvd



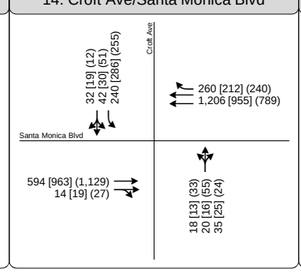
12. La Cienega Blvd/Sherwood Dr



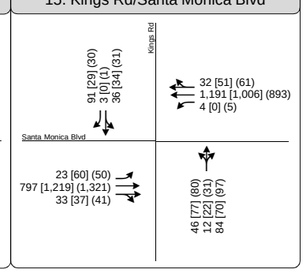
13. La Cienega Blvd/Melrose Ave



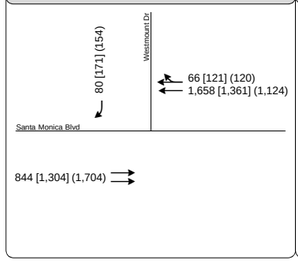
14. Croft Ave/Santa Monica Blvd



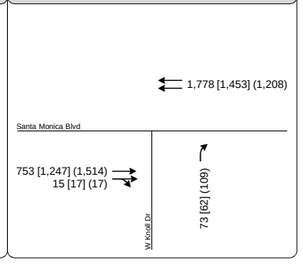
15. Kings Rd/Santa Monica Blvd



16. Westmount Dr/Santa Monica Blvd



17. W Knoll Dr /Santa Monica Blvd



AM [MD] (PM)

Figure 3
Peak Hour Traffic Volumes and Lane Configurations
Existing (2016) Conditions

Level of Service Methodology

LOS is a qualitative measure used to describe the traffic flow conditions, ranging from excellent (LOS A) to overloaded (LOS F) conditions. A variety of methodologies are available to analyze LOS depending on the type of intersection control. In accordance with policies established by the City of West Hollywood, the "Operational Analysis" method from the Highway Capacity Manual (HCM) was used to perform signalized intersection LOS analysis at all signalized and unsignalized study intersections, including those partially or wholly within the City of Los Angeles.

The HCM operational method determines two key operating characteristics of signalized intersections. The first characteristic is the average stopped delay experienced per vehicle. The second is the volume-to-capacity (V/C) ratio at intersections based on the amount of traffic traveling through the intersection, the lane geometries, and other factors affecting capacity such as on-street parking and pedestrian volumes at crosswalks. These characteristics are used to evaluate the operation of each signalized intersection, which is described generally in terms of level of service and expressed in terms of seconds of delay.

For the seven minor-approach stop-controlled intersections analyzed in this study, the worst approach delay has been reported based on the HCM stop-controlled methodology.

The intersection in the City of Los Angeles was analyzed per the requirements in *Traffic Study Policies and Procedures* (LADOT, August 2014). For the purposes of this analysis, the City of Los Angeles stop-controlled intersections were also analyzed using the HCM-Unsignalized methodology as a reference. The stop-controlled intersection was also analyzed with signal warrants; therefore, a LOS is provided for informational purposes. This analysis standard was applied to the stop-controlled intersection in the City of Los Angeles under AM and PM peak hour conditions.

Level of service definitions for signalized and unsignalized intersections can be found in Tables 1A and 1B, respectively.

Existing Levels of Service

The traffic volumes presented in Figure 3 were analyzed using the HCM methodology to determine current operating conditions at the 17 study intersections. Table 2 summarizes the existing weekday AM, midday, and PM peak hour delay and the corresponding LOS for each of the study intersections.

Of the 17 analyzed intersections, nine are currently operating at LOS E or F during one or more peak periods, including:

3. Hancock Avenue & Holloway Drive (PM peak hour)
4. Hancock Avenue & Santa Monica Boulevard (AM peak hour)
5. Westbourne Drive & Santa Monica Boulevard (PM peak hour)
8. La Cienega Boulevard & Sunset Boulevard (AM, MD, and PM peak hours)
9. La Cienega Boulevard & Fountain Avenue (AM peak hour)
10. La Cienega Boulevard & Holloway Drive (PM peak hour)

11. La Cienega Boulevard & Santa Monica Boulevard (AM, MD, and PM peak hours)
12. La Cienega Boulevard & Sherwood Drive (AM peak hour)
13. La Cienega Boulevard & Melrose Avenue (PM peak hour)

TABLE 1A
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS
WEST HOLLYWOOD AND LOS ANGELES

Level of Service	Average Stopped Delay per Vehicle (seconds)	Definition
A	≤10	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>10 and ≤20	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	>20 and ≤35	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>35 and ≤55	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 and ≤80	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>80	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,* Transportation Research Board, 2000.

TABLE 1B

LEVEL OF SERVICE DEFINITIONS FOR

STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

Source: *Highway Capacity Manual, Special Report 209,*
Transportation Research Board, 2000.

TABLE 2
EXISTING INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Jurisdiction	Peak Hour	Existing (Year 2016)	
			V/C or Delay	LOS
1. San Vicente Blvd & Santa Monica Blvd	WH	AM	33	C
		Midday	28	C
		PM	35	C
2. Horn Ave/Holloway Dr & Sunset Bl	WH	AM	31	C
		Midday	22	C
		PM	22	C
3. Hancock Ave & Holloway Dr [a]	WH	AM	19	C
		Midday	26	D
		PM	48	E
4. Hancock Ave & Santa Monica Blvd [b]	WH	AM	39	E
		Midday	20	C
		PM	16	C
5. Westbourne Dr & Santa Monica Blvd	WH	AM	18	B
		Midday	46	D
		PM	97	F
6. Westmount Dr & Holloway Dr [b]	WH	AM	15	B
		Midday	18	C
		PM	25	D
7. West Knoll Dr & Santa Monica Blvd [b]	WH	AM	10	B
		Midday	10	B
		PM	10	B
8. La Cienega Blvd & Sunset Blvd	WH	AM	62	E
		Midday	97	F
		PM	166	F
9. La Cienega Blvd & Fountain Ave	WH	AM	57	E
		Midday	32	C
		PM	20	B
10. La Cienega Blvd & Holloway Dr	WH	AM	35	C
		Midday	36	D
		PM	64	E
11. La Cienega Blvd & Santa Monica Blvd	WH	AM	66	E
		Midday	73	E
		PM	78	E
12. La Cienega Blvd & Sherwood Dr [b]	LA	AM	50	F
		PM	34	D
13. La Cienega Blvd & Melrose Ave	WH	AM	53	D
		Midday	38	D
		PM	67	E
14. Croft Ave & Santa Monica Blvd	WH	AM	19	B
		Midday	16	B
		PM	18	B
15. Kings Rd & Santa Monica Blvd	WH	AM	10	A
		Midday	12	B
		PM	13	B
16. Westmount Dr & Santa Monica Blvd [b]	WH	AM	14	B
		Midday	17	B
		PM	14	B
17. West Knoll Dr & Santa Monica Blvd [b]	WH	AM	9	A
		Midday	11	B
		PM	12	B

Notes:

LA Los Angeles

WH West Hollywood

** Indicates oversaturated conditions. Delay could not be calculated.

[a] Intersection is a two-way stop. Average vehicular delay reported for worst case approach.

[b] The minor approach is stop controlled. Average vehicular delay reported for worst case approach.

The City of Los Angeles intersection, La Cienega Boulevard & Sherwood Drive, is currently operating at LOS F during the AM peak period and LOS D during the PM peak period. La Cienega Boulevard & Sherwood Drive is a stop-controlled intersection that currently satisfies the peak hour, four-hour, and interruption of continuous traffic signal warrants.

Appendix C contains the LOS calculation worksheets. Appendix D contains the signal warrant analysis.

3. FUTURE (YEAR 2019) TRAFFIC PROJECTIONS

PROJECT TRAFFIC VOLUMES

The development of traffic generation estimates for the proposed project involves the use of a three-step process similar to the process described below for cumulative projects.

Trip Credits

Two categories of trip credits (internal capture/transit/walk and pass-by reductions) were considered for application to the trip generation estimates; however, based on the intensity and mix of land uses and discussions with City staff, no trip credits were applied in an effort to provide a conservative analysis.

Trip Credit from the Removal of Existing Land Uses

The project site currently contains the following land uses:

- Three single-family units
- 2,475 sf of high-turnover restaurant
- 10,426 sf of specialty retail
- 4,060 square feet of health club
- 4,211 sf of office
- 6,218 sf of hair salon

The land uses are active and completion of the proposed project would require their removal. The removal of these existing trips from the street network would result in a trip credit for the proposed project. The trip credits and rates discussed above were applied to the existing on-site land use and are summarized in Table 3. During the weekday, this results in a trip credit of 1,088 daily trips, including 57 AM, 127 midday, and 84 PM peak hour trips for the existing uses to be removed.

Project Traffic Generation

The trip rates from *Trip Generation* 9th *Edition* were used to estimate the number of trips generated by the proposed project. No trip credits were applied other than those for the existing land uses.

Table 3 provides a summary of the proposed project trip generation. Before the existing land use credit, the project is estimated to generate 1,897 weekday trips, including 108 AM, 216 midday, and 150 PM peak hour trips.

With the existing land use credit, the project is estimated to generate a net increase of 809 daily trips; 51 AM peak hour trips (11 inbound, 40 outbound); 89 midday peak hour trips (30 inbound, 59 outbound), and 66 PM peak hour trips (42 inbound, 24 outbound).

Project Traffic Distribution

The geographic distribution of trips generated by the proposed project is dependent on the locations of employment and commercial centers to which residents of the residential component of the project would be drawn, the locations of population centers from which employees of the project commercial uses would be drawn, characteristics of the street system serving the site, and the level of accessibility of the routes to and from the proposed project site. The general distribution pattern for this study was developed consistent with previous studies. Figure 4 shows the regional trip distribution for the proposed project.

The following is the regional trip distribution applied in the analysis of the project:

- 17% to/from the north
- 28% to/from the south
- 24% to/from the east
- 31% to/from the west

Project Traffic Assignment

The trip generation estimates summarized in Table 3 and the distribution patterns illustrated in Figure 4 was used to assign the project-generated traffic to the local and regional street system. Figure 5A illustrates the proposed project-generated peak hour traffic volumes at the 17 analyzed intersections during typical the weekday AM, midday, and PM peak hours for existing with project conditions. As discussed on page 24, several future baseline improvements affect the project traffic assignment under future conditions via proposed modifications to the median on Santa Monica Boulevard and at the intersections of Westbourne Drive & Santa Monica Boulevard and West Knoll Drive & Santa Monica Boulevard. Reflecting changes in future lane configurations under the proposed improvements, Figure 5B illustrates the proposed project-generated peak hour traffic volumes at the 17 analyzed intersections during typical the weekday AM, midday, and PM peak hours for future with project conditions.

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

The project traffic estimated under the aforementioned section was added to the existing (Year 2019) traffic volumes to estimate existing plus project traffic volumes. Figure 6 shows turning movement traffic volumes for the existing plus project scenario.

TABLE 3
8555 SANTA MONICA BOULEVARD PROJECT
PROPOSED PROJECT TRIP GENERATION ESTIMATES

Trip Generation Rates [a]												
Land Use	ITE#	Rate	Daily	AM Peak Hour			MD Peak Hour [b]			PM Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Apartment	220	per dwelling unit	6.65	20%	80%	0.51	29%	71%	0.55	65%	35%	0.62
Single-Family Detached House	210	per dwelling unit	9.52	25%	75%	0.75	26%	74%	0.77	63%	37%	1.00
Condominium	230	per dwelling unit	5.81	17%	83%	0.44	19%	81%	0.44	67%	33%	0.52
Health/Fitness Club	492	per 1,000 square feet	32.93	50%	50%	1.41	47%	53%	1.43	57%	43%	3.53
Office [c]	710	per 1,000 square feet	11.03	88%	12%	1.56	88%	12%	1.56	17%	83%	1.49
Specialty Retail [d]	826	per 1,000 square feet	44.32	62%	38%	0.70	48%	52%	6.84	44%	56%	2.71
Hair Salon [e]	918	per 1,000 square feet	16.47	100%	0%	1.21	100%	0%	1.21	17%	83%	1.45
High-Turnover Restaurant	932	per 1,000 square feet	127.15	55%	45%	10.81	53%	47%	13.33	60%	40%	9.85

Trip Generation Estimates												
Land Use	ITE#	Size	Weekday Daily	AM Peak Hour			MD Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Proposed Project												
Apartments	220	97 du	645	10	39	49	15	38	53	39	21	60
Live/Work [f]	230	12 units	70	1	4	5	1	4	5	4	2	6
Office	710	6.08 ksf	67	8	1	9	8	1	9	2	7	9
Specialty Retail	826	15.68 ksf	695	7	4	11	51	56	107	18	24	42
High-Turnover Restaurant	932	2.82 ksf	359	17	13	30	20	18	38	17	11	28
Hair Salon	918	3.72 ksf	61	4	0	4	4	0	4	1	4	5
SUBTOTAL			1,897	47	61	108	99	117	216	81	69	150
Existing Uses (to be removed)												
Single-Family Detached House	210	3 du	29	0	2	2	1	1	2	2	1	3
Health/Fitness Club	492	4.06 ksf	134	3	3	6	3	3	6	8	6	14
Office	710	4.21 ksf	46	6	1	7	6	1	7	1	5	6
Specialty Retail	826	10.43 ksf	462	4	3	7	34	37	71	12	16	28
Hair Salon	918	6.22 ksf	102	8	0	8	8	0	8	2	7	9
High-Turnover Restaurant	932	2.48 ksf	315	15	12	27	17	16	33	14	10	24
SUBTOTAL			1,088	36	21	57	69	58	127	39	45	84
NET NEW TRIPS			**809**	**11**	**40**	**51**	**30**	**59**	**89**	**42**	**24**	**66**

Notes:
[a] Source: ITE Trip Generation Manual, 9th Edition, 2012
[b] Weekday midday peak hour trip rate was assumed to be the AM peak hour of generator
[c] The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 710
[d] AM rate was derived from the proportional relationship of PM rates between ITE 814 and Shopping Center (ITE 820) and applied to ITE 820 AM rat
[e] As no daily rate is provided for ITE 918, the daily rate was derived from the proportional relationship between peak hour trip rates for ITE 918 and ITE 932. The AM peak hour generator is equivalent t
the AM peak hour of adjacent street traffic for ITE 918.
[f] Condominium trip generation is used for live/work space; there are 12 units total in the proposed project

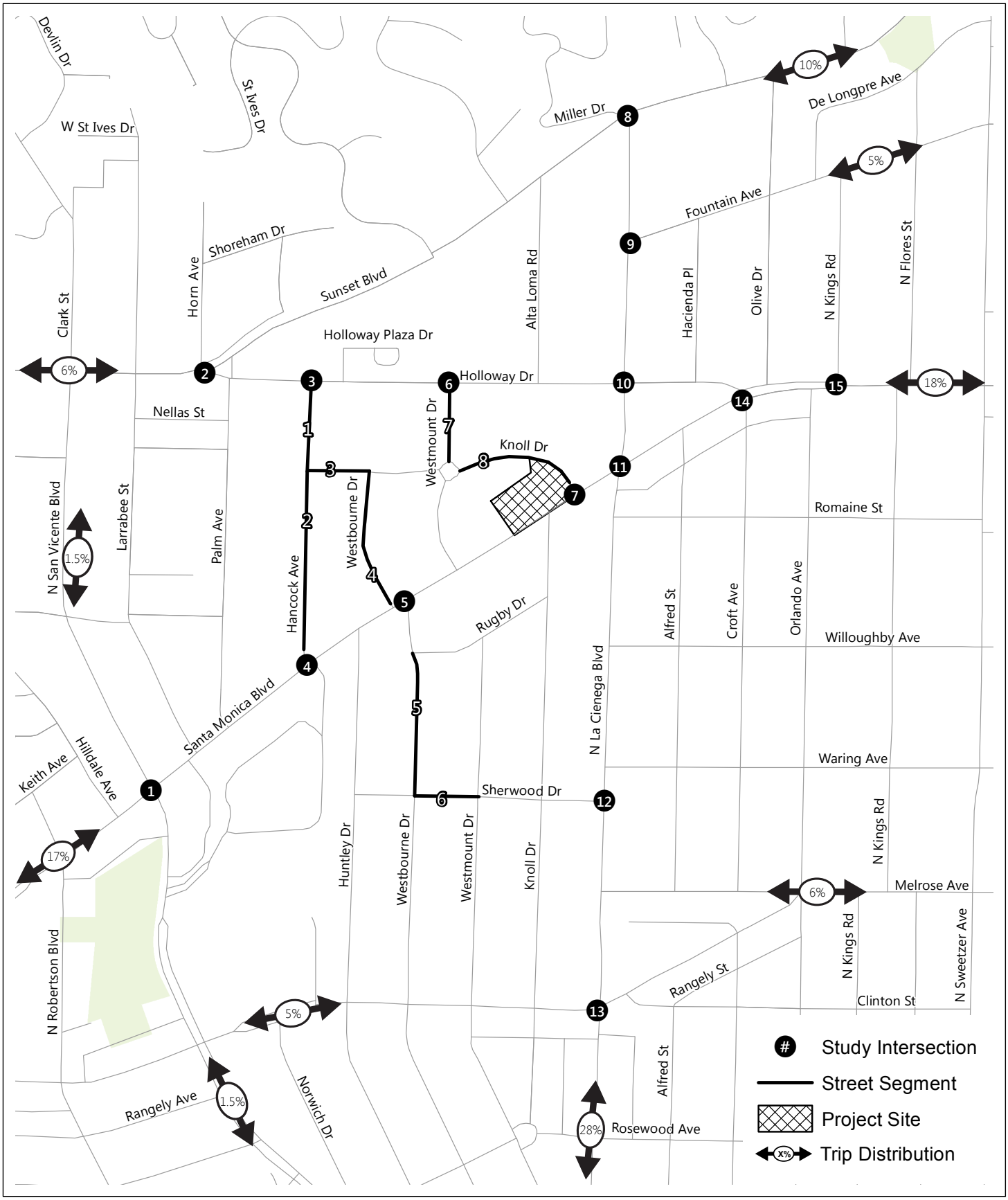
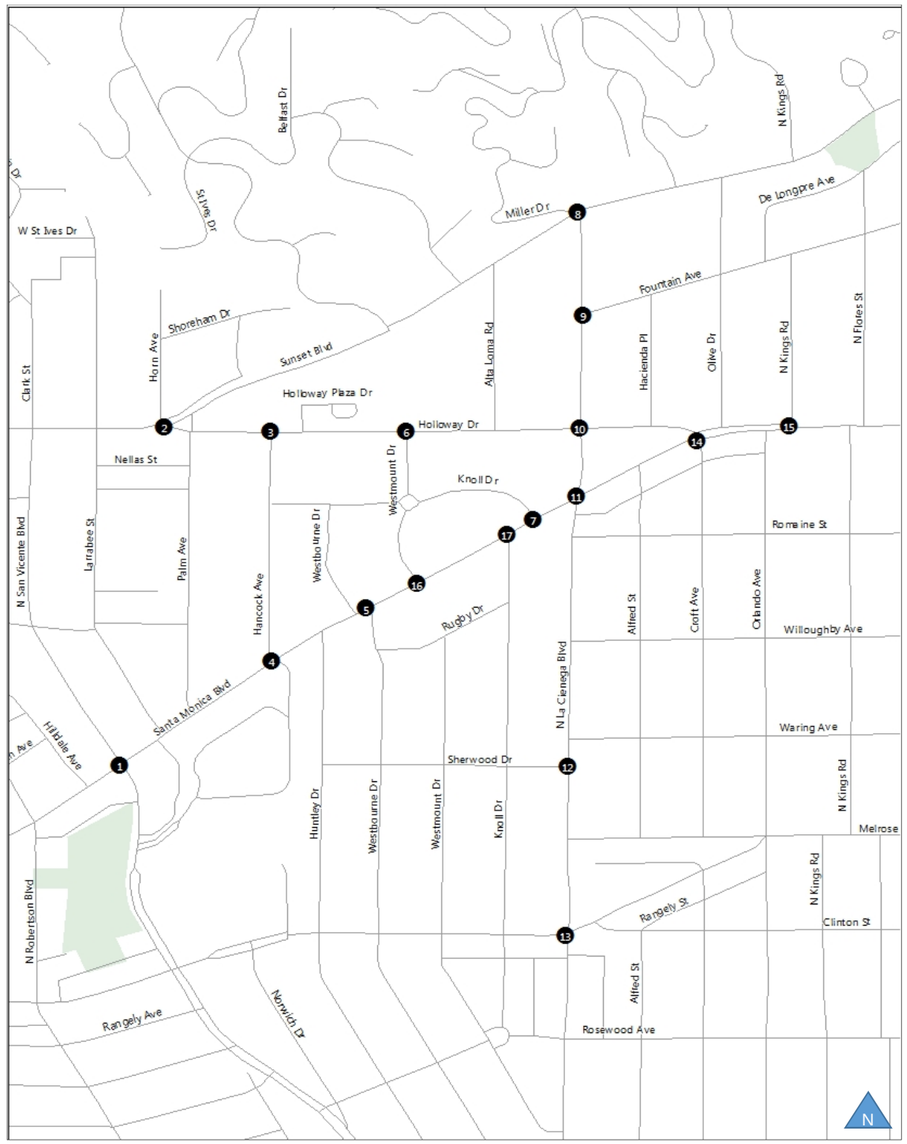
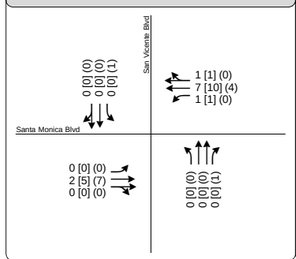


Figure 4

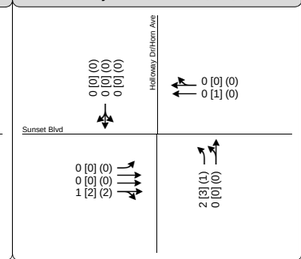
Trip Distribution



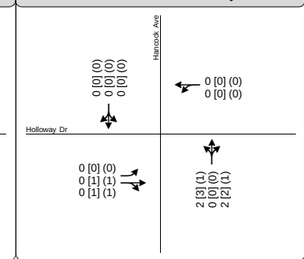
1. San Vicente Blvd/Santa Monica Blvd



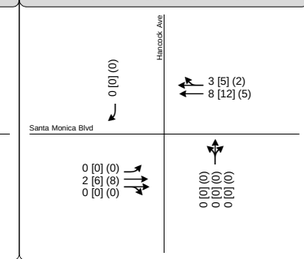
2. Holloway Dr/Horn Ave/Sunset Blvd



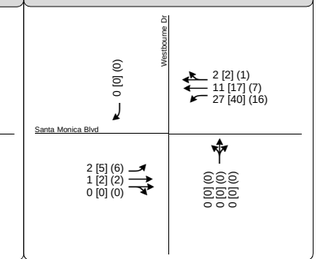
3. Hancock Ave/Holloway Dr



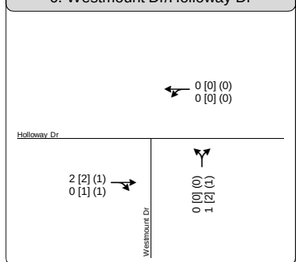
4. Hancock Ave/Santa Monica Blvd



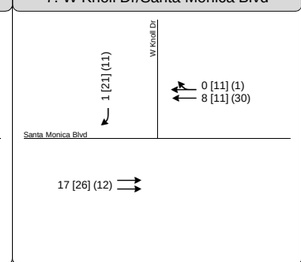
5. Westbourne Dr/Santa Monica Blvd



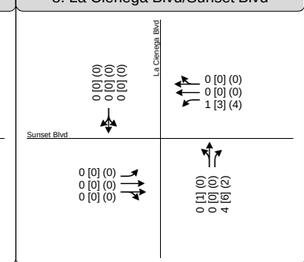
6. Westmount Dr/Holloway Dr



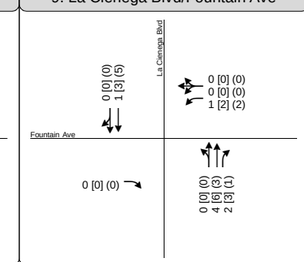
7. W Knoll Dr/Santa Monica Blvd



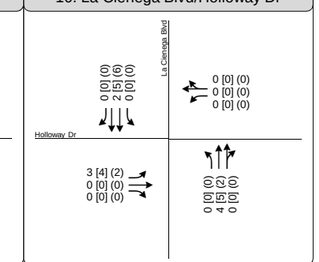
8. La Cienega Blvd/Sunset Blvd



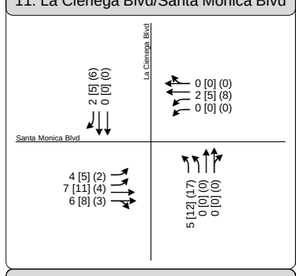
9. La Cienega Blvd/Fountain Ave



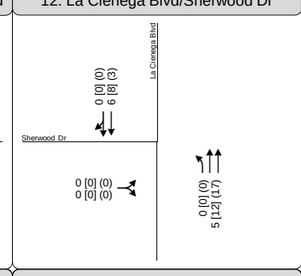
10. La Cienega Blvd/Holloway Dr



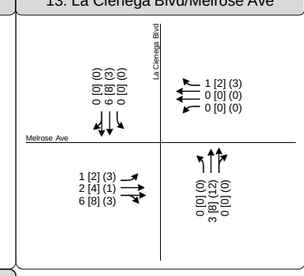
11. La Cienega Blvd/Santa Monica Blvd



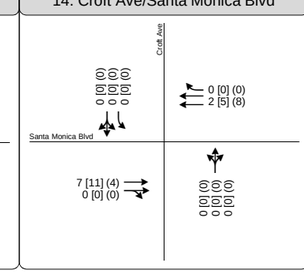
12. La Cienega Blvd/Sherwood Dr



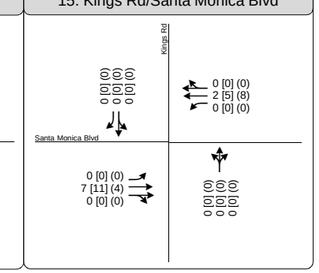
13. La Cienega Blvd/Melrose Ave



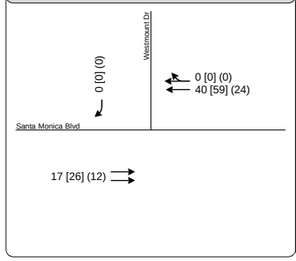
14. Croft Ave/Santa Monica Blvd



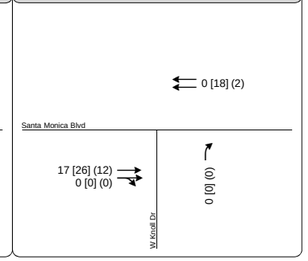
15. Kings Rd/Santa Monica Blvd



16. Westmount Dr/Santa Monica Blvd

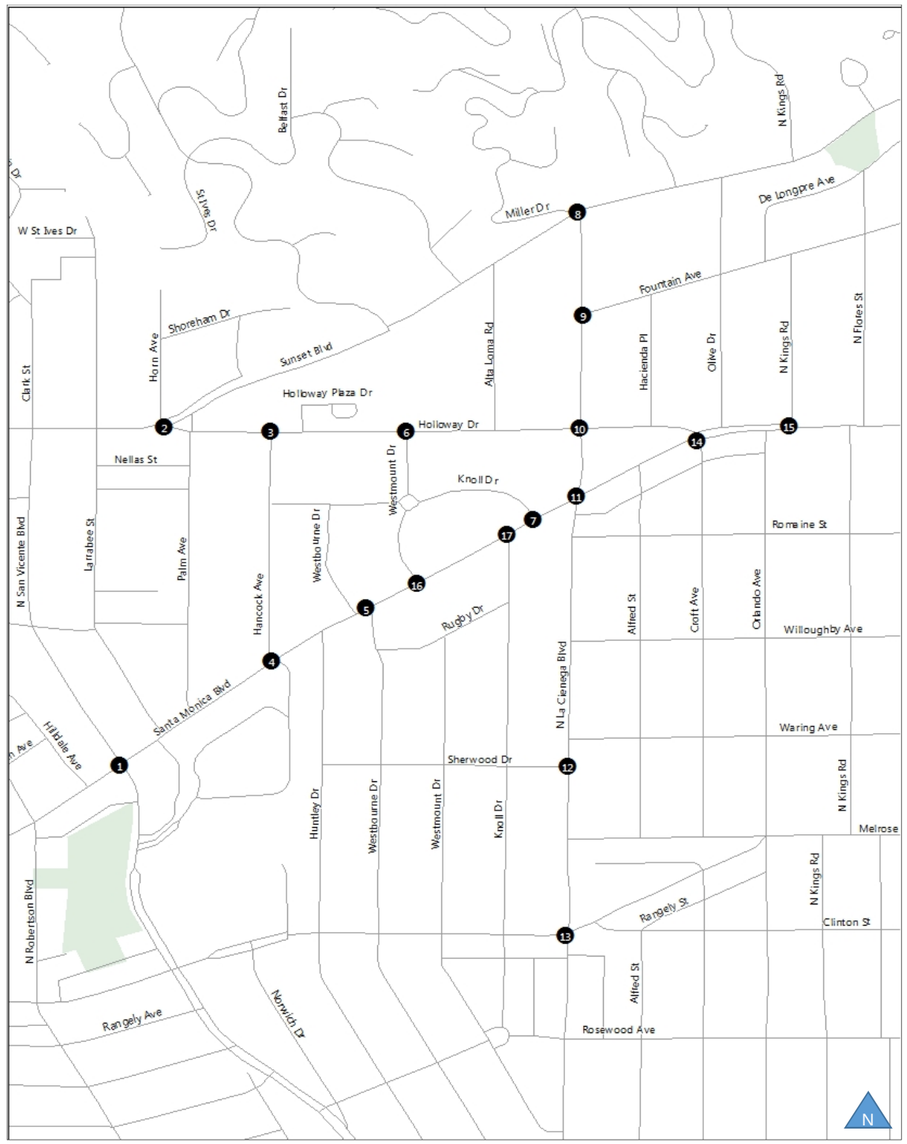


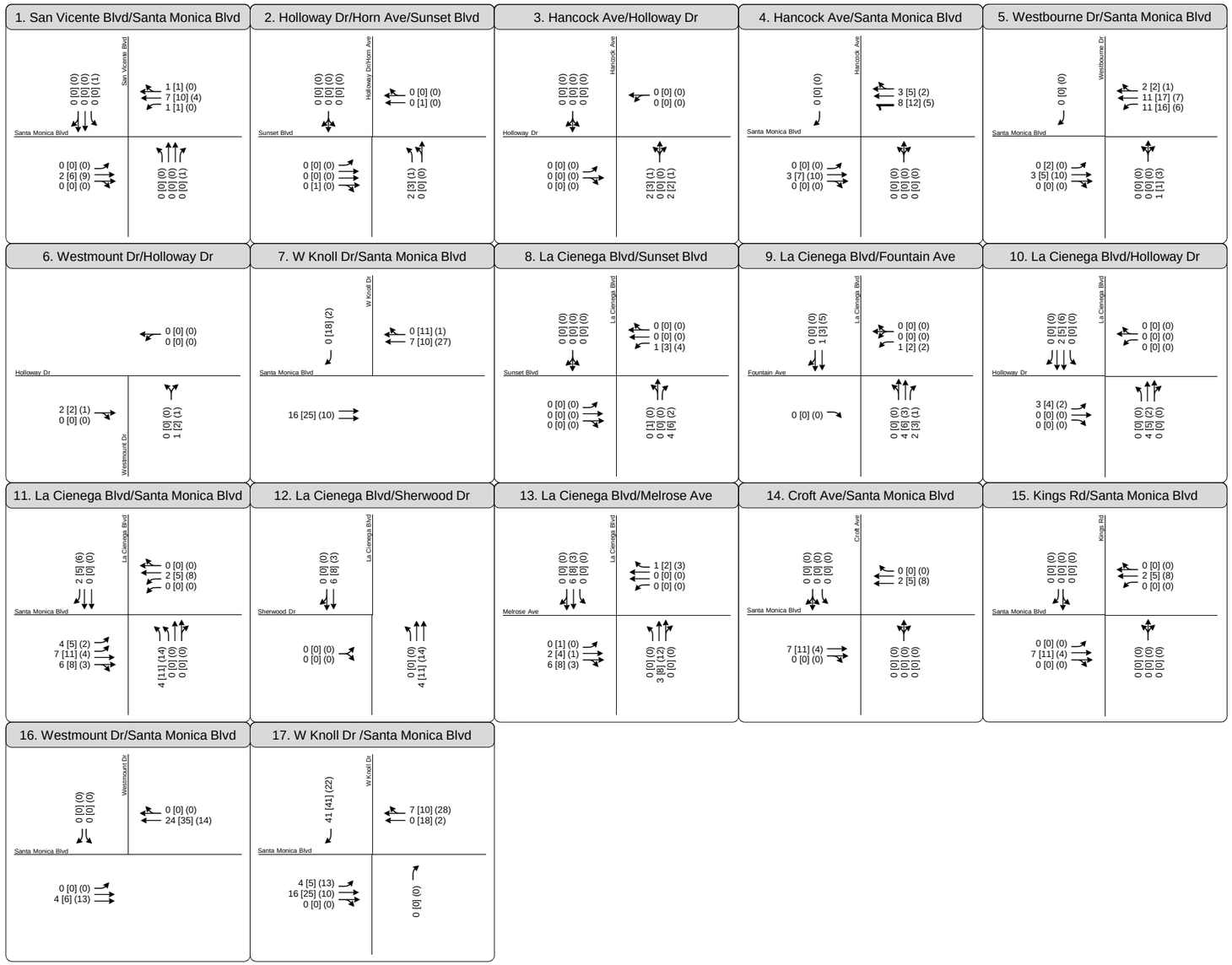
17. W Knoll Dr /Santa Monica Blvd



AM [MD] (PM)

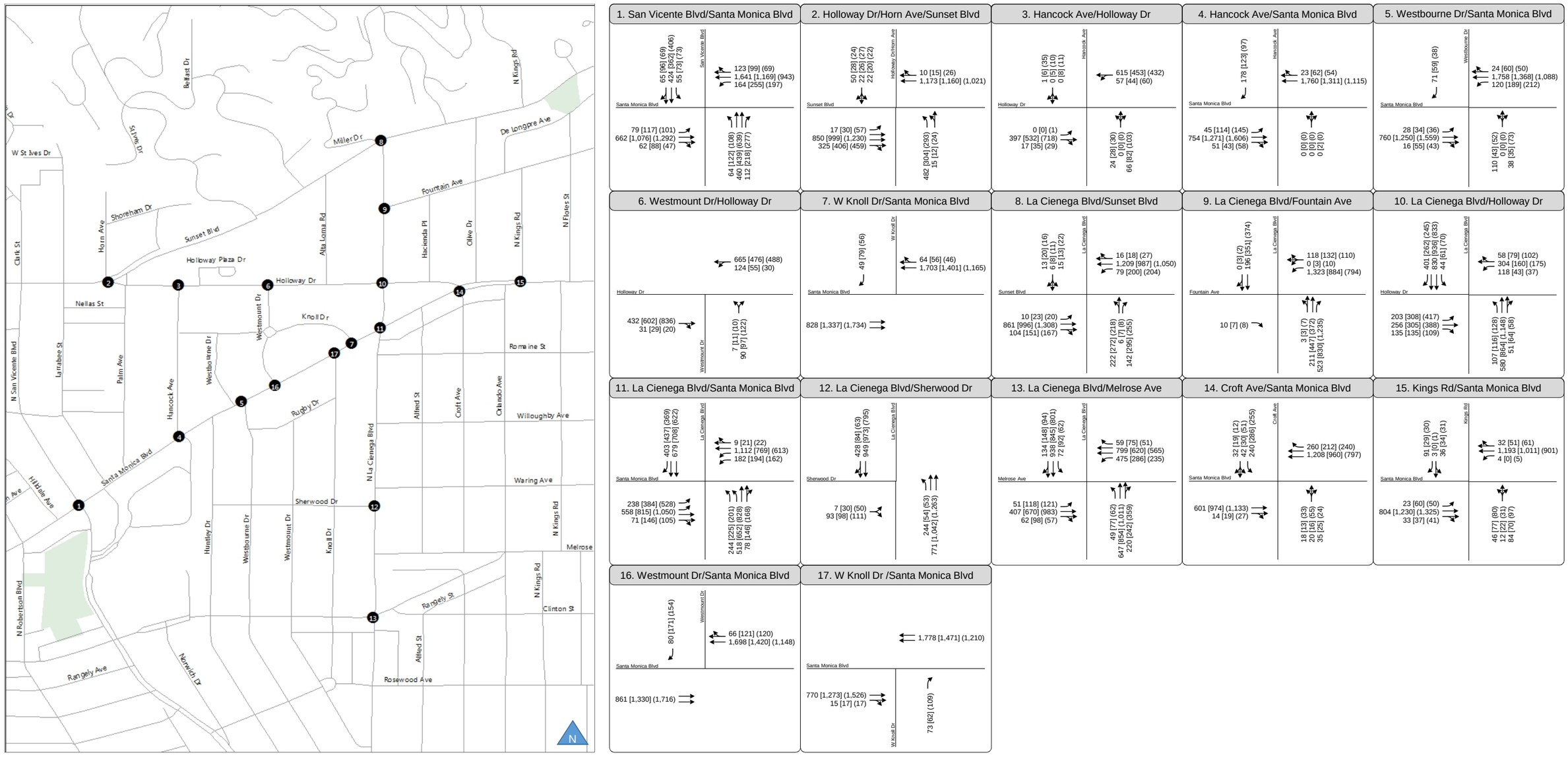
Figure 5A
Peak Hour Traffic Volumes and Lane Configurations
Project Only (2016) - Existing





AM [MD] (PM)

Figure 5B
Peak Hour Traffic Volumes and Lane Configurations
Project Only (2019) - Future



AM [MD] (PM)

Figure 6
Peak Hour Traffic Volumes and Lane Configurations
Existing Plus Project (2016) Conditions

FUTURE TRAFFIC CONDITIONS

To evaluate the potential impacts of the proposed project on future (Year 2019) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with project traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the project. These forecasts included traffic increases as a result of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the project (related projects). These projected traffic volumes, identified herein as the cumulative base conditions, represent the future study year conditions without the proposed project. The traffic generated by the proposed project was then estimated and assigned to the surrounding street system. The project traffic was added to the cumulative base to form the cumulative plus project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the project itself.

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

FUTURE TRANSPORTATION IMPROVEMENTS

Transportation network improvements are planned along Santa Monica Boulevard at the intersections of Westmount Drive & Santa Monica Boulevard and West Knoll Drive (south leg) & Santa Monica Boulevard by the build-out year (2019) and are included in the cumulative base traffic network, per discussions with City staff. These improvements also include a modification to the median between these two intersections. Under existing conditions, both locations operate as unsignalized minor approach stop-controlled intersections. The planned improvements are described below:

- Westmount Drive & Santa Monica Boulevard - This unsignalized intersection T-intersection, allowing only right-turns in and out of Westmount Drive, will be signalized and the median will be modified to allow left-turns in and out of Westmount Drive. These modifications will result in the addition of an eastbound left-turn lane and the other lane configurations will remain the same.

- West Knoll Drive (south leg) & Santa Monica Boulevard – This location has off-set approaches for West Knoll Drive. The intersection of Santa Monica Boulevard and the south leg of West Knoll Drive is currently unsignalized and allows only right-turns in and out of West Knoll Drive. This intersection will be signalized and will allow for eastbound left-turns into the proposed project at 8555 Santa Monica Boulevard (a left-turn out of the project site driveway will not be allowed). These modifications will result in the addition of an eastbound left-turn lane, the project driveway, and the other lane configurations will remain the same.

- Santa Monica Boulevard Median between Westmount Drive and West Knoll Drive – The median along this segment of Santa Monica Boulevard provides an unsignalized eastbound left-turn into the Ramada Hotel driveway. Under future conditions, this median will be modified to provide an unsignalized westbound left-turn lane that will allow access into the parking structure immediately east of 24-Hour Fitness (a left-turn out of this parking structure driveway will not be allowed).

CUMULATIVE BASE TRAFFIC PROJECTIONS

The cumulative base traffic projections reflect growth in traffic over existing conditions from two sources. The first source is the ambient growth in traffic. Ambient growth reflects increases in traffic as a result of regional growth and development. The second source is growth due to traffic generated by specific projects in or near the study area. The methods and assumptions used to develop cumulative base traffic projections are described in more detail below.

Areawide Traffic Growth

Existing traffic is expected to increase between year 2016 and year 2019 as a result of general areawide and regional growth and development. Based on historical trends and in consultation with City of West Hollywood staff, an ambient growth factor of 1% per year was used to adjust the existing year 2016 traffic volumes to reflect the effects of regional growth and development by the year 2019. The result was a total adjustment of 4% applied from 2016 to 2019.

Cumulative Project Traffic Generation and Assignment

Cumulative base traffic forecasts include the effects of specific projects, called related projects, expected to be implemented in the vicinity of the study area prior to the buildout date of the proposed project. The list of related projects was obtained from the City of West Hollywood, LADOT, the City of Beverly Hills, and other traffic studies conducted in the vicinity of the proposed project. A total of 73 related projects were identified, and details are provided in Appendix F.

Trip generation estimates for the related projects were calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012). Appendix F shows that the 73 related projects would generate a combined approximate total of 95,953 daily trips. The estimated trip generation for these related projects total approximately 5,205 trips during the weekday AM peak hour, 7,695 trips during the weekday midday peak hour, and 7,663 trips during the weekday PM peak hour. Some of these projections are conservative in that they do not account for the existing uses to be removed or the use of alternative travel modes (transit, walk, etc.). Figure 7 illustrates the locations of the related projects.

Using the trip generation estimates and trip distribution patterns dependent on the type and density of the proposed land use, the geographic distribution of population from which the employees and potential patrons of proposed commercial projects could be drawn, the geographic distribution of employment and activity centers to which residents of proposed residential projects could be attracted, and the location of the projects in relation to the surrounding street system, traffic expected to be generated by the identified related projects was assigned to the street network. These related project traffic volumes were then added to the existing traffic volumes after the adjustment for areawide growth to represent cumulative base conditions (i.e., future conditions without the proposed project). Figure 8 illustrates the projected cumulative base traffic conditions for the weekday peak hours in 2019.

CUMULATIVE PLUS PROJECT TRAFFIC PROJECTIONS

The project-generated traffic volumes shown in Figure 5B were added to the cumulative base traffic projections shown in Figure 8. Figure 9 illustrates the resulting projected cumulative plus project AM,

midday, and PM peak hour traffic volumes. These volumes represent projected future weekday peak hour traffic conditions with the completion of the proposed project.

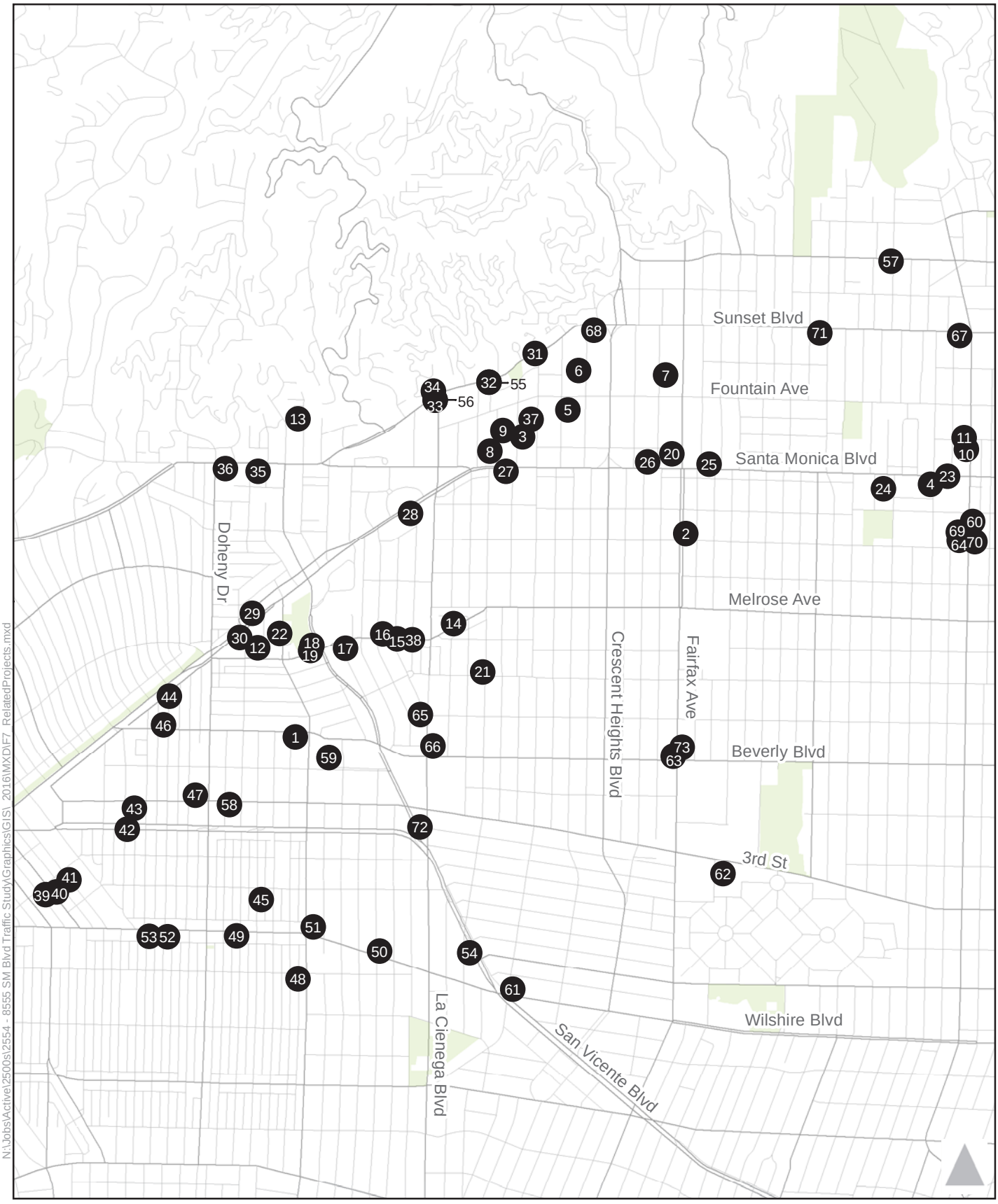


Figure 7

Related Projects

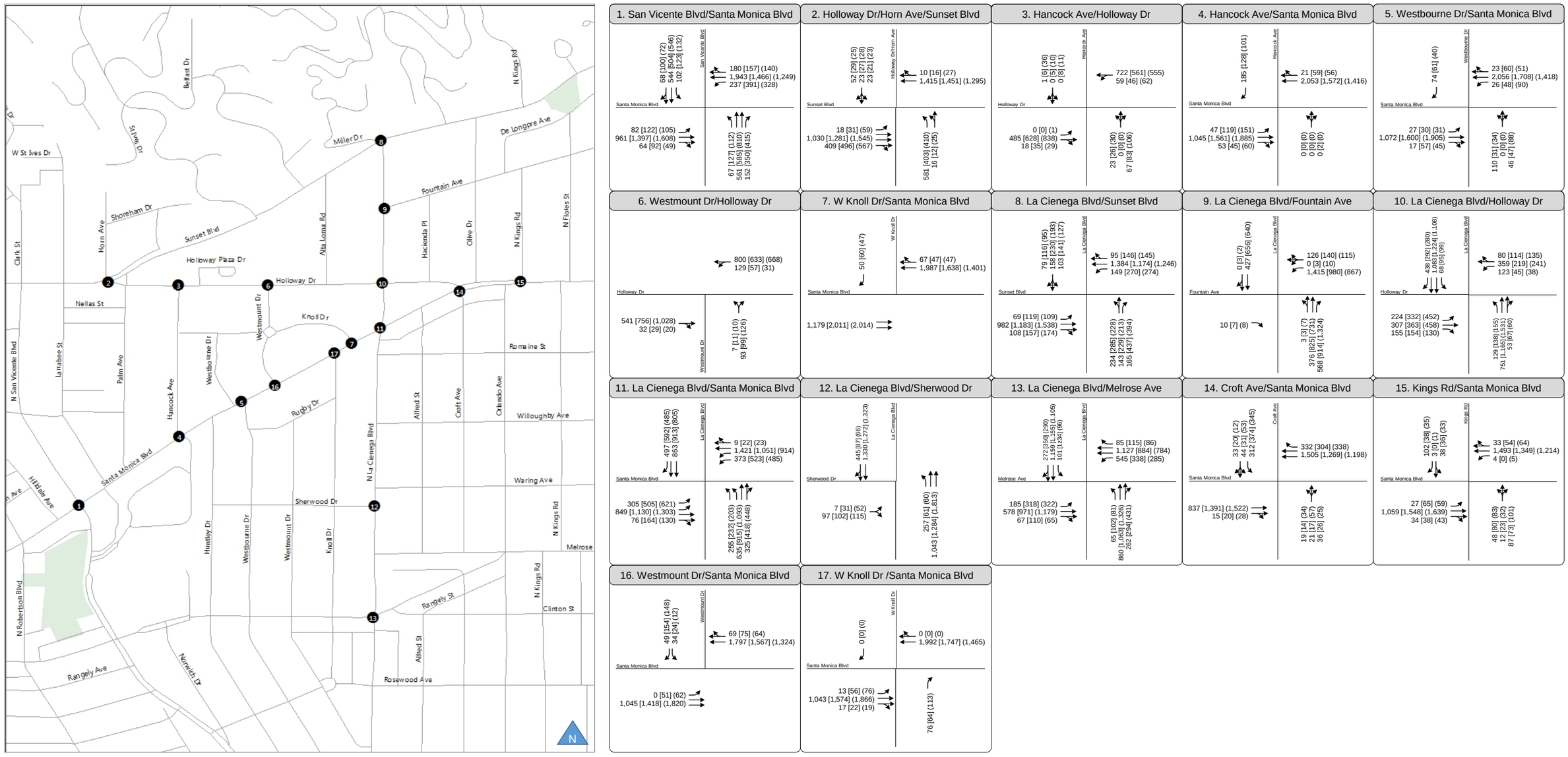
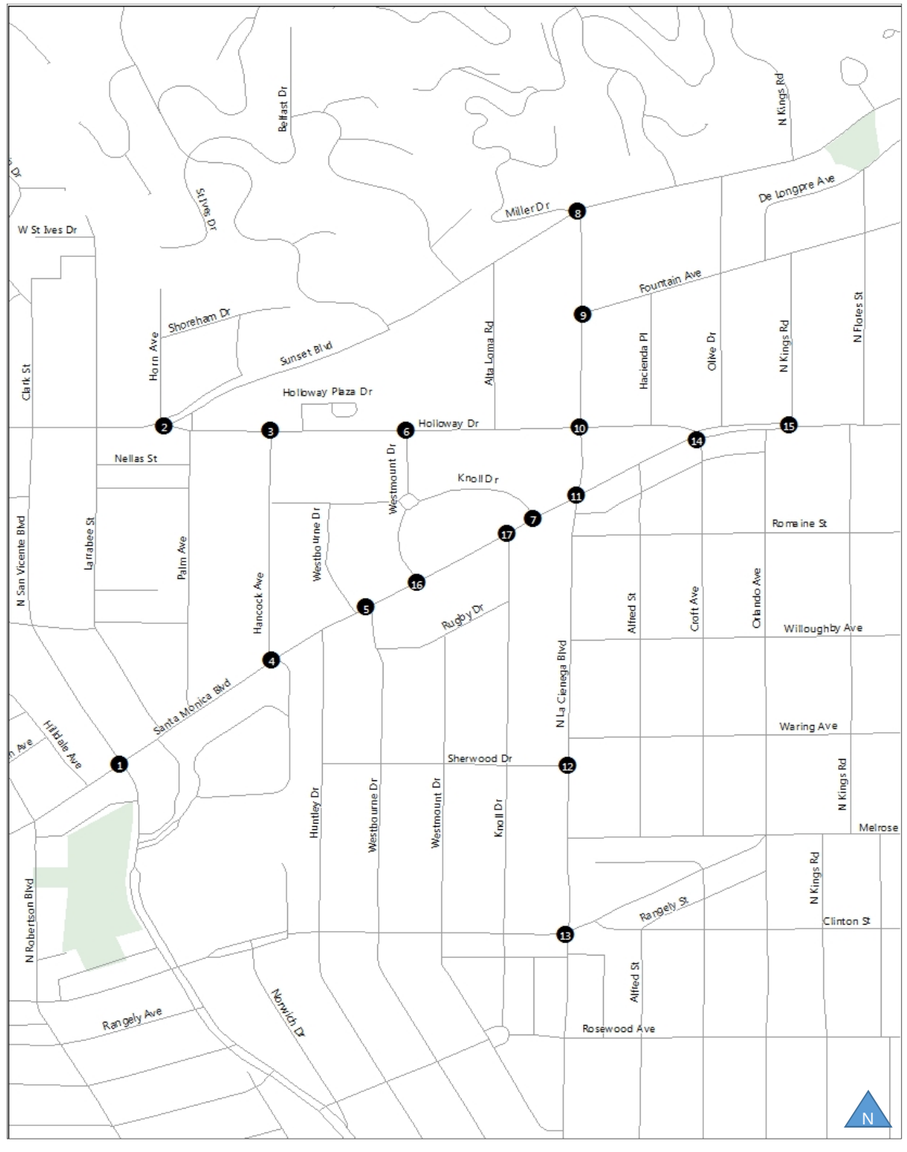


Figure 8
Peak Hour Traffic Volumes and Lane Configurations
Cumulative (2019) Conditions



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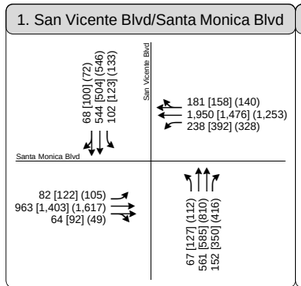
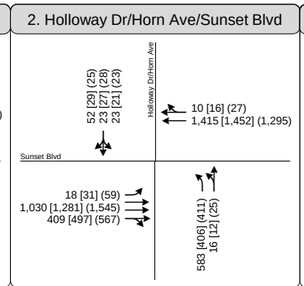
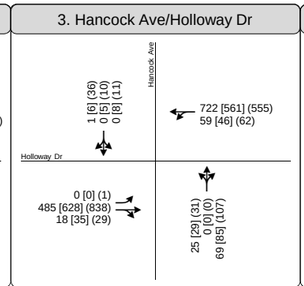


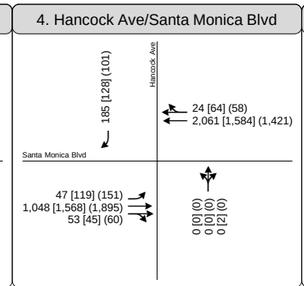
2. Holloway Dr/Horn Ave/Sunset Blvd



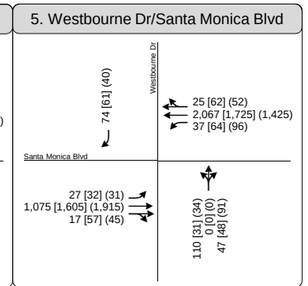
3. Hancock Ave/Holloway Dr



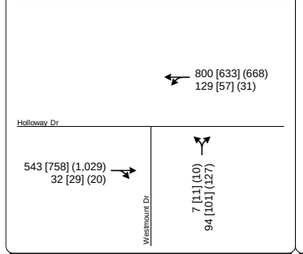
4. Hancock Ave/Santa Monica Blvd



5. Westbourne Dr/Santa Monica Blvd



6. Westmount Dr/Holloway Dr



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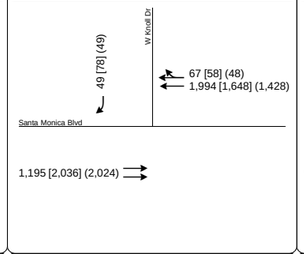
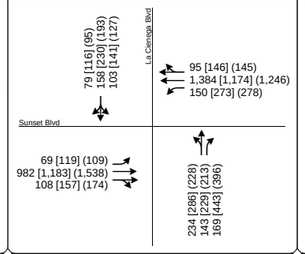
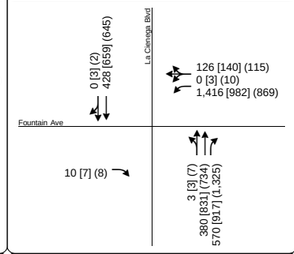


8. La Cienega Blvd/Sunset Blvd



9. La Cienega Blvd/Fountain Ave



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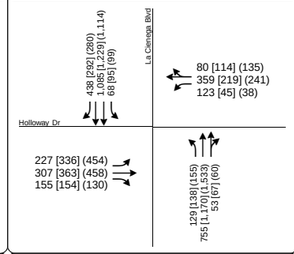

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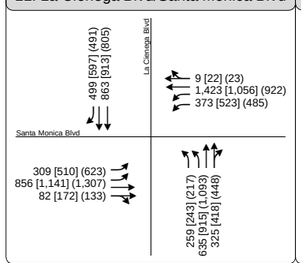
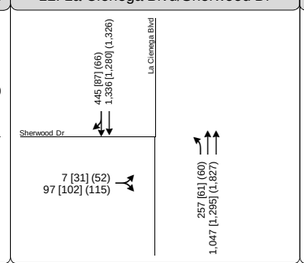
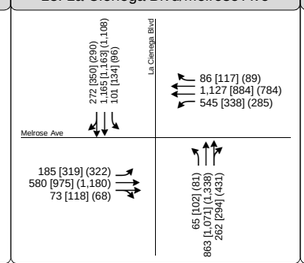


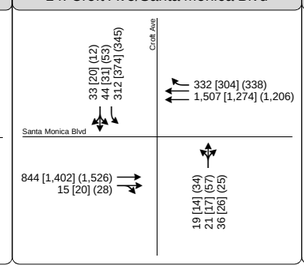
12. La Cienega Blvd/Sherwood Dr



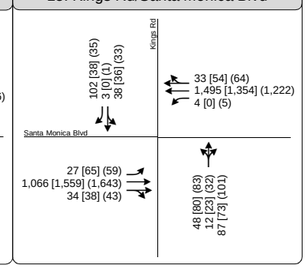
13. La Cienega Blvd/Melrose Ave



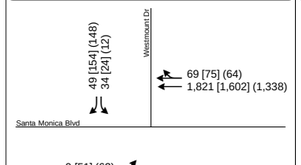
14. Croft Ave/Santa Monica Blvd



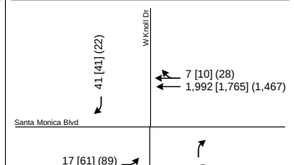
15. Kings Rd/Santa Monica Blvd



16. Westmount Dr/Santa Monica Blvd



17. W Knoll Dr /Santa Monica Blvd



AM [MD] (PM)

Figure 9
Peak Hour Traffic Volumes and Lane Configurations
Cumulative Plus Project (2019) Conditions

4. TRAFFIC IMPACT ANALYSIS

The traffic impact analysis compares the projected levels of service at each study intersection under the cumulative base and cumulative plus project conditions to estimate the incremental increase in delay caused by the proposed project. This provides the information needed to assess the potential impact of the project using the significance criteria established by the City of West Hollywood and the City of Los Angeles.

INTERSECTION SIGNIFICANT IMPACT CRITERIA

The intersections selected for analysis span the jurisdictions of West Hollywood and Los Angeles; the following summarizes the significant traffic impact criteria established by each jurisdiction.

City of West Hollywood

The intersection threshold criteria used to determine if a project has an adverse significant traffic impact at signalized or unsignalized intersections in the City of West Hollywood are as follows:

- Signalized intersections formed by two commercial corridors are significantly impacted if:
    - The addition of project traffic results in a LOS D and in an increase in delay of 12 seconds or greater, or
    - The addition of project traffic results in a LOS E or F and an increase in delay of eight seconds or greater.
- All other signalized and/or four-way stop intersections are significantly impacted if:
    - The addition of project traffic results in a LOS D and in an increase in delay of eight seconds or greater, or
    - The addition of project traffic results in a LOS E or F and an increase in delay of five seconds or greater.
- Unsignalized one-way or two-way stop intersections are significantly impacted if:
    - The addition of project traffic results in a LOS D, E or F and in an increase in delay of five seconds or greater.

City of Los Angeles

Per LADOT policy (*Traffic Study Policies and Procedures*), stop-controlled intersections in Los Angeles are solely analyzed to determine the need for installation of a traffic signal or other traffic control device. The policy is as follows:

> In reviewing unsignalized intersections, only intersections that are adjacent to the project or that are expected to be integral to the project's site access and circulation plan should be identified as study intersections. For these intersections, the overall intersection delay should be measured

pursuant to procedures accepted by LADOT during the scoping process. If, based on the estimated delay, the resultant LOS is E or F in the "future with project" scenario, then the intersection should be evaluated for the potential installation of a new traffic signal. The study shall include a traffic signal warrant analysis prepared pursuant to Section 353 of LADOT's Manual of Policies and Procedures and submitted to DOT for review and approval. Unsignalized intersections shall only be evaluated to determine the need for the installation of a traffic signal or other traffic control device, but will not be included in the impact analysis.

These criteria were applied to the locations located in the respective jurisdictions.

EXISTING PLUS PROJECT TRAFFIC LEVEL OF SERVICE

The existing plus project peak hour traffic volumes illustrated in Figure 6 were analyzed to determine the projected existing (year 2016) operating conditions with the completion of the proposed project. Table 4 summarizes these results. As shown in Table 4, nine of the 17 study intersections are projected to operate at LOS E or F during one or more of the analyzed peak hours with the addition of project traffic. Detailed LOS worksheets are presented in Appendix C. The intersections projected to operate at poor levels of service are:

3. Hancock Avenue & Holloway Drive (PM peak hour)
4. Hancock Avenue & Santa Monica Boulevard (AM peak hour)
5. Westbourne Drive & Santa Monica Boulevard (PM peak hour)
8. La Cienega Boulevard & Sunset Boulevard (AM, MD, and PM peak hours)
9. La Cienega Boulevard & Fountain Avenue (AM peak hour)
10. La Cienega Boulevard & Holloway Drive (PM peak hour)
11. La Cienega Boulevard & Santa Monica Boulevard (AM, MD, and PM peak hours)
12. La Cienega Boulevard & Sherwood Drive (AM peak hour)
13. La Cienega Boulevard & Melrose Avenue (PM peak hour)

The remaining seven intersections are projected to operate at LOS D or better during all analyzed peak hours.

CUMULATIVE PLUS PROJECT IMPACT ANALYSIS

Cumulative Base Intersection Traffic Conditions

The cumulative base peak hour traffic volumes illustrated in Figure 8 were analyzed to determine delay and corresponding LOS for each of the analyzed intersections under year 2019 future conditions without the proposed project, taking into account ambient growth and related projects. Table 5 summarizes these results. Detailed LOS worksheets are presented in Appendix C.

TABLE 4
EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Existing (Year 2016)		With Project (Year 2016)			
		V/C or Delay	LOS	Delay	LOS	Change in Delay	Impact?
1. San Vicente Blvd & Santa Monica Blvd	**AM**	33	C	34	C	1	No
	Midday	28	C	28	C	0	No
	PM	35	C	35	C	0	No
2. Horn Ave/Holloway Dr & Sunset Bl	**AM**	31	C	31	C	0	No
	Midday	22	C	22	C	0	No
	PM	22	C	22	C	0	No
3. Hancock Ave & Holloway Dr [a]	**AM**	19	C	19	C	0	No
	Midday	26	D	26	D	0	No
	PM	48	E	50	E	2	No
4. Hancock Ave & Santa Monica Blvd [b]	**AM**	39	E	40	E	1	No
	Midday	20	C	20	C	0	No
	PM	16	C	16	C	0	No
5. Westbourne Dr & Santa Monica Blvd	**AM**	18	B	18	B	0	No
	Midday	46	D	47	D	1	No
	PM	97	F	97	F	0	No
6. Westmount Dr & Holloway Dr [b]	**AM**	15	B	15	B	0	No
	Midday	18	C	18	C	0	No
	PM	25	C	25	C	0	No
7. West Knoll Dr & Santa Monica Blvd [b]	**AM**	10	A	10	A	0	No
	Midday	10	A	11	B	1	No
	PM	10	A	10	A	0	No
8. La Cienega Blvd & Sunset Blvd	**AM**	62	E	62	E	0	No
	Midday	97	F	98	F	1	No
	PM	166	F	168	F	2	No
9. La Cienega Blvd & Fountain Ave	**AM**	57	E	57	E	0	No
	Midday	32	C	32	C	0	No
	PM	20	B	20	B	0	No
10. La Cienega Blvd & Holloway Dr	**AM**	35	C	35	C	0	No
	Midday	36	D	37	D	1	No
	PM	64	E	65	E	1	No
11. La Cienega Blvd & Santa Monica Blvd	**AM**	66	E	67	E	1	No
	Midday	73	E	77	E	4	No
	PM	78	E	80	E	2	No
12. La Cienega Blvd & Sherwood Dr [b]	**AM**	50	E	52	F	2	No
	PM	34	D	35	D	1	No
13. La Cienega Blvd & Melrose Ave	**AM**	53	D	53	D	0	No
	Midday	38	D	38	D	0	No
	PM	67	E	68	E	1	No
14. Croft Ave & Santa Monica Blvd	**AM**	19	B	19	B	0	No
	Midday	16	B	16	B	0	No
	PM	18	B	18	B	0	No
15. Kings Rd & Santa Monica Blvd	**AM**	10	A	10	A	0	No
	Midday	12	B	12	B	0	No
	PM	13	B	13	B	0	No
16. Westmount Dr & Santa Monica Blvd [b]	**AM**	14	B	15	B	1	No
	Midday	17	B	17	B	0	No
	PM	14	B	14	B	0	No
17. West Knoll Dr & Santa Monica Blvd [b]	**AM**	9	A	10	A	1	No
	Midday	11	B	11	B	0	No
	PM	12	B	12	B	0	No

Notes:

LA Los Angeles
WH West Hollywood
** Indicates oversaturated conditions. Delay could not be calculated.
[a] Intersection is a two-way stop. Average vehicular delay reported for worst case approach.
[b] The minor approach is stop controlled. Average vehicular delay reported for worst case approach.

Under year 2019 cumulative base conditions, Table 5 shows that seven of the 17 analyzed intersections are projected to operate at LOS D or better during the AM, midday, and PM peak hours. The 10 intersections projected to operate at LOS E or F during one or more of the analyzed peak hours are:

1. San Vicente Boulevard & Santa Monica Boulevard (AM, MD, and PM peak hours)
3. Hancock Avenue & Holloway Drive (PM peak hour)
4. Hancock Avenue & Santa Monica Boulevard (AM peak hour)
5. Westbourne Drive & Santa Monica Boulevard (PM peak hour)
8. La Cienega Boulevard & Sunset Boulevard (AM, MD, and PM peak hours)
9. La Cienega Boulevard & Fountain Avenue (AM peak hour)
10. La Cienega Boulevard & Holloway Drive (MD and PM peak hours)
11. La Cienega Boulevard & Santa Monica Boulevard (AM, MD, and PM peak hours)
12. La Cienega Boulevard & Sherwood Drive (AM and PM peak hours)
13. La Cienega Boulevard & Melrose Avenue (AM, MD, and PM peak hours)

The stop-controlled intersection at La Cienega Boulevard & Sherwood Drive is expected to meet signal warrants under year 2019 cumulative base conditions per LADOT policy described above. This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in Manual on Uniform Traffic Control Devices (Federal Highway Administration, 2003) and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. The responsible state or local agency should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization. La Cienega Boulevard & Sherwood Drive meets peak hour volume, four-hour volume, and interruption of continuous traffic warrants. The signal warrant analysis can be found in Appendix D.

Cumulative plus Project Intersection Traffic Conditions

The cumulative plus project peak hour traffic volumes illustrated in Figure 9 were analyzed to determine the projected year 2019 future operating conditions with the completion of the proposed project. Table 5 summarizes these results. As shown in Table 5, 10 of the 17 analyzed intersections are projected to operate at LOS E or F during one or more of the analyzed peak hours with the addition of project traffic. Detailed LOS worksheets are presented in Appendix C. The intersections projected to operate at poor levels of service:

TABLE 5
FUTURE INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Jurisdiction	Peak Hour	Cumulative Base (2019)		With Project (2019)			
			V/C or Delay	LOS	Delay	LOS	Change in Delay	Impact?
1. San Vicente Blvd & Santa Monica Blvd	WH	AM	76	E	77	E	1	No
		Midday	74	E	74	E	0	No
		PM	92	F	93	F	1	No
2. Horn Ave/Holloway Dr & Sunset Bl	WH	AM	42	D	42	D	0	No
		Midday	27	C	27	C	0	No
		PM	28	C	28	C	0	No
3. Hancock Ave & Holloway Dr [a]	WH	AM	27	C	29	C	2	No
		Midday	37	D	38	D	1	No
		PM	163	F	173	F	10	Yes
4. Hancock Ave & Santa Monica Blvd [b]	WH	AM	74	F	76	F	2	No
		Midday	27	D	28	D	1	No
		PM	20	C	20	C	0	No
5. Westbourne Dr & Santa Monica Blvd	WH	AM	38	D	42	D	4	No
		Midday	29	C	30	C	1	No
		PM	58	E	59	E	1	No
6. Westmount Dr & Holloway Dr [b]	WH	AM	21	C	21	C	0	No
		Midday	28	C	28	C	0	No
		PM	49	D	49	D	0	No
7. West Knoll Dr & Santa Monica Blvd [b]	WH	AM	12	B	12	B	0	No
		Midday	10	A	11	B	1	No
		PM	10	A	10	A	0	No
8. La Cienega Blvd & Sunset Blvd	WH	AM	156	F	156	F	0	No
		Midday	243	F	244	F	1	No
		PM	281	F	283	F	2	No
9. La Cienega Blvd & Fountain Ave	WH	AM	69	E	69	E	0	No
		Midday	40	D	40	D	0	No
		PM	46	D	46	D	0	No
10. La Cienega Blvd & Holloway Dr	WH	AM	44	D	45	D	1	No
		Midday	56	E	57	E	1	No
		PM	119	F	120	F	1	No
11. La Cienega Blvd & Santa Monica Blvd	WH	AM	113	F	114	F	1	No
		Midday	159	F	166	F	7	No
		PM	165	F	167	F	2	No
12. La Cienega Blvd & Sherwood Dr [b]	LA	AM	*	*	*	*	[c]	
		PM	*	*	*	*		
13. La Cienega Blvd & Melrose Ave	WH	AM	129	F	130	F	1	No
		Midday	141	F	144	F	3	No
		PM	171	F	173	F	2	No
14. Croft Ave & Santa Monica Blvd	WH	AM	26	C	26	C	0	No
		Midday	23	C	23	C	0	No
		PM	27	C	28	C	1	No
15. Kings Rd & Santa Monica Blvd	WH	AM	9	A	9	A	0	No
		Midday	11	B	11	B	0	No
		PM	13	B	13	B	0	No
16. Westmount Dr & Santa Monica Blvd	WH	AM	12	B	12	B	0	No
		Midday	12	B	12	B	0	No
		PM	10	A	10	A	0	No
17. West Knoll Dr & Santa Monica Blvd	WH	AM	11	B	11	B	0	No
		Midday	5	A	6	A	1	No
		PM	11	B	11	B	0	No

Notes:

LA Los Angeles
WH West Hollywood

** Indicates oversaturated conditions. Delay could not be calculated.

[a] Intersection is a two-way stop. Average vehicular delay reported for worst case approach.

[b] The minor approach is stop controlled. Average vehicular delay reported for worst case approach.

[c] This intersection is located in the City of Los Angeles. A signal warrant analysis was conducted per City of Los Angeles *Traffic Study Policies and Procedures* (LADOT, May 2009). The intersection was analyzed using the HCM-Unsignalized methodology for reference purposes only; no project-related impacts can be ascribed.

1. San Vicente Boulevard & Santa Monica Boulevard (AM, MD, and PM peak hours)
3. Hancock Avenue & Holloway Drive (PM peak hour)
4. Hancock Avenue & Santa Monica Boulevard (AM peak hour)
5. Westbourne Drive & Santa Monica Boulevard (PM peak hour)
8. La Cienega Boulevard & Sunset Boulevard (AM, MD, and PM peak hours)
9. La Cienega Boulevard & Fountain Avenue (AM peak hour)
10. La Cienega Boulevard & Holloway Drive (MD and PM peak hours)
11. La Cienega Boulevard & Santa Monica Boulevard (AM, MD, and PM peak hours)
12. La Cienega Boulevard & Sherwood Drive (AM and PM peak hours)
13. La Cienega Boulevard & Melrose Avenue (AM, MD, and PM peak hours)

The unsignalized intersection at La Cienega Boulevard & Sherwood Drive identified as meeting signal warrants under the cumulative base traffic conditions would continue to do so under the cumulative plus project conditions. This analysis is intended to examine the general correlation between the planned level of future development and the need to install new traffic signals. It estimates future development-generated traffic compared against a sub-set of the standard traffic signal warrants recommended in *Manual on Uniform Traffic Control Devices* and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured, rather than forecast, traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely upon the warrants, since the installation of signals can lead to certain types of collisions. The responsible state or local agency should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization. La Cienega Boulevard & Sherwood Drive meets peak hour volume, four-hour volume, and interruption of continuous traffic warrants. The signal warrant analysis can be found in Appendix D.

PROJECT IMPACTS

Existing (2016) plus Project Conditions

Using the City of West Hollywood's criteria for determining the significance of the project impacts, it was determined that the project would not result in significant impacts under existing plus project conditions.

Cumulative (2019) plus Project Conditions

Using the City of West Hollywood's criteria for determining the significance of the project impacts, the project is expected to significantly impact one study intersection due to delay increases associated with the project that exceeds the City's established criteria under future plus project conditions:

3. Hancock Avenue & Holloway Drive (PM peak hour)

MITIGATION PROGRAM

As indicated in the intersection impact analysis, one intersection, Hancock Avenue & Holloway Drive, is identified as significantly impacted. Developing a mitigation program for the project includes consideration of measures to increase the capacity and/or efficiency of the roadway system at impacted locations. Opportunities for physical mitigation measures such as restriping of intersection approaches to add turn lanes and improving traffic control devices were investigated. The emphasis was to identify physical and/or operational improvements that could be implemented.

Based on City of West Hollywood significance criteria, in order for an impact to be considered less than significant at this location, the Project could increase the delay by up to five seconds. The cumulative plus project condition for 2019 during the PM peak hour results in an increase of 10 seconds of delay at this location. Several mitigation measures were considered such as modifications to intersection traffic control or restriping of the approaches to provide turn-lanes. These potential mitigation measures were either ineffective in reducing the impact to a level below significance or were determined to be infeasible based on the constrained right-of-way that precludes widening or the addition of vehicular capacity at this location. The City of West Hollywood and project applicant are reviewing options for traffic calming measures near this intersection that minimize speeding and cut-through traffic in this area. However, significant impacts are expected to remain.

STREET SEGMENT IMPACT ANALYSIS

A street segment impact analysis was performed to assess the impacts along adjacent neighborhood streets under typical weekday conditions. In consultation with City of West Hollywood staff, eight segments were identified for analysis. The segments selected are located in the City of West Hollywood, as follows:

1. West Knoll Drive between Hancock Avenue and Westbourne Drive
2. West Knoll Drive between Westmount Drive and Santa Monica Boulevard
3. Westmount Drive between Holloway Drive and West Knoll Drive
4. Westbourne Drive between West Knoll Drive and Santa Monica Boulevard
5. Westbourne Drive between Rugby Drive and Sherwood Drive
6. Sherwood Drive between Westbourne Drive and Westmount Drive
7. Hancock Avenue between Holloway Drive and West Knoll Drive
8. Hancock Avenue between West Knoll Drive and Santa Monica Boulevard

As discussed in Chapter 2, 24-hour (daily) segment volumes data was used to perform this analysis.

STREET SEGMENT IMPACT CRITERIA

The street segments were analyzed using the City of West Hollywood's impact criteria. These criteria are summarized below.

West Hollywood

The street segment impact criteria used by the City of West Hollywood defines an adverse significant traffic impact as:

- An average daily traffic (ADT) of 2,000 vehicles or less and a project-related ADT increase of 12% or greater; or
- An ADT between 2,000 to 3,000 vehicles and a project-related ADT increase of 10% or greater; or
- An ADT between 3,000 to 6,750 vehicles and a project-related ADT increase of 8% or greater; or
- An ADT of more than 6,750 vehicles and a project-related ADT increase of 6.25% or more.

EXISTING PLUS PROJECT STREET SEGMENT TRAFFIC PROJECTIONS

The traffic volumes used to perform the existing street segment analysis were collected January 2016. Project traffic volumes were added to the existing volumes to develop the existing plus project volumes. The segment volumes for the existing with project scenario were calculated using the trip distribution shown in Figure 4. Table 6 summarizes the weekday ADT volumes used for this analysis.

CUMULATIVE PLUS PROJECT STREET SEGMENT TRAFFIC PROJECTIONS

The traffic volumes used to perform the future street segment analysis were developed from the existing street segment counts. The existing volumes were factored to year 2019 (from 2016) levels and the daily traffic expected to be generated by the cumulative projects was added to the cumulative base conditions. Project traffic volumes were added to the cumulative base volumes to develop the cumulative plus project volumes. The segment volumes for the future with project scenario were calculated using the trip distribution shown in Figure 4. Table 7 summarizes the weekday ADT volumes used for this analysis.

Analysis of Impacts

The street segments in West Hollywood were analyzed using the criteria described above. The percentage increase in weekday ADT on the selected segments ranges from 0% to 10%. According to the segment impact criteria, it was determined that the project would not result in significant impacts under existing with project and future with project conditions.

TABLE 6
EXISTING PLUS PROJECT WEEKDAY ROADWAY SEGMENT IMPACT ANALYSIS

Segment	Existing Daily Count (2016)	Proposed Project			
		Project Only Daily Traffic	Existing plus Project (2016)	% Increase	Significant Impact?
1. Hancock Avenue between Holloway Drive and West Knoll Drive	2,512	68	2,580	2.7%	NO
2. Hancock Avenue between West Knoll Drive and Santa Monica Boulevard	2,962	34	2,996	1.2%	NO
3. West Knoll Drive between Hancock Avenue and Westbourne Drive	1,258	34	1,292	2.7%	NO
4. Westbourne Drive between West Knoll Drive and Santa Monica Boulevard	1,484	111	1,595	7.5%	NO
5. Westbourne Drive between Rugby Drive and Sherwood Drive	1,980	107	2,087	5.4%	NO
6. Sherwood Drive between Westbourne Drive and Westmount Drive	2,925	0	2,925	0.0%	NO
7. Westmount Drive between Holloway Drive and West Knoll Drive	2,480	26	2,506	1.0%	NO
8. West Knoll Drive between Westmount Drive and Santa Monica Boulevard	1,306	119	1,425	9.1%	NO

Notes:

Impact criteria based on City of West Hollywood *Traffic Study Thresholds,* (October, 2009).

TABLE 7
FUTURE WITH PROJECT WEEKDAY ROADWAY SEGMENT IMPACT ANALYSIS

Segment	Jurisdiction	Existing Daily Count (2016)	Cumulative Base Daily Traffic	Proposed Project			
				Project Only ADT	Cumulative plus Project (2020)	% Increase	Significant Impact?
1. Hancock Avenue between Holloway Drive and West Knoll Drive	WH	2,512	2,624	68	2,692	2.6%	NO
2. Hancock Avenue between West Knoll Drive and Santa Monica Boulevard	WH	2,962	3,082	34	3,116	1.1%	NO
3. West Knoll Drive between Hancock Avenue and Westbourne Drive	WH	1,258	1,319	34	1,353	2.6%	NO
4. Westbourne Drive between West Knoll Drive and Santa Monica Boulevard	WH	1,484	1,562	111	1,673	7.1%	NO
5. Westbourne Drive between Rugby Drive and Sherwood Drive	LA	1,980	2,060	107	2,167	5.2%	NO
6. Sherwood Drive between Westbourne Drive and Westmount Drive	LA	2,925	3,044	0	3,044	0.0%	NO
7. Westmount Drive between Holloway Drive and West Knoll Drive	WH	2,480	2,629	26	2,654	1.0%	NO
8. West Knoll Drive between Westmount Drive and Santa Monica Boulevard	LA	1,306	1,367	119	1,486	8.7%	NO

Notes:

Impact criteria based on City of West Hollywood *Traffic Study Thresholds,* (October, 2009).

5. ALTERNATIVE TRANSPORTATION MODE IMPACTS

This section reviews the impacts of the project on the bicycle and pedestrian facilities in the study area. Potential impacts may include disruptions to existing facilities, interference with planned facilities, and conflicts with adopted plans, guidelines, policies, or standards.

SIGNIFICANCE CRITERIA

A project impact would be considered significant if:

- The project disrupts existing facilities
- The project interferes with planned facilities
- The project conflicts or creates inconsistencies with adopted guidelines, plans, policies, or standards

BICYCLE FACILITY IMPACTS

The existing bicycle network in the study area consists of Class II facilities (designated bicycle lane, noted by striping and signage) on San Vicente Boulevard between Santa Monica Boulevard and Beverly Boulevard and on Santa Monica Boulevard between North Almont Drive and North Flores Street. Also present are Class III facilities (shared roadway, noted by signage) on San Vicente Boulevard between Santa Monica Boulevard and Sunset Boulevard and on Melrose Avenue between Santa Monica Boulevard and North Croft Avenue. There is bicycle activity in the study area including streets that do not have designated bicycle facilities such as those described above.

Disruptions to Existing Facilities

There is an existing bicycle lane on Santa Monica Boulevard immediately south of the project site. The proposed project would not modify the bicycle lane on Santa Monica Boulevard or alter access to the existing facility. Therefore, the project impact is less than significant and no mitigation is required.

PEDESTRIAN FACILITY IMPACTS

The pedestrian network in the study area consists of crosswalks, pedestrian crossings, and sidewalks. Sidewalks are available on all streets bordering the project site and all study intersections have a crosswalk on at least one approach, with the exception of Westmount Drive & Holloway Drive and La Cienega Boulevard & Sherwood Drive. Additionally, several of the stop-controlled intersections and mid-block locations in the study area have marked pedestrian crossings with high visibility signage and/or crosswalk markings. The planned improvements on Santa Monica Boulevard will result in the signalization of two crosswalks that are currently uncontrolled on Santa Monica Boulevard.

TRANSIT FACILITY IMPACTS

The transit facilities in the study area consist of bus stops with benches and shelters. Bus stops are available along the project frontage on Santa Monica Boulevard.

The project frontage along Santa Monica Boulevard is not expected to interfere with the existing bus stops, which are located on frontages of nearby properties. Therefore, the project impact is less than significant and no mitigation is required.

6. CONGESTION MANAGEMENT PROGRAM ANALYSIS

This section presents an analysis of potential impacts on the regional transportation system. This analysis was conducted in accordance with the procedures outlined in *2010 Congestion Management Program for Los Angeles County* (Metro, July 2010). The CMP requires that, when an environmental impact report is prepared for a project, traffic impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities.

REGIONAL TRAFFIC IMPACT ANALYSIS

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM peak hours.

Significant Traffic Impact Criteria

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the following threshold is exceeded:

- The proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥0.02), causing LOS F (V/C > 1.00)
- If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C ≥ 0.02).

Arterial Monitoring Stations

The CMP arterial monitoring intersection nearest to the project site is the intersection of La Cienega Boulevard & Santa Monica Boulevard. Another CMP arterial monitoring station is on Santa Monica Boulevard at Doheny Drive. In accordance with the project trip generation estimates previously presented and a review of the project traffic volumes shown in Figure 5, the proposed project would add fewer than 50 trips to La Cienega Boulevard & Santa Monica Boulevard. The project would increase traffic by 46 trips in the mid-day peak hour (which is the CMP analysis hour with the greatest proposed project trip generation). Since the project adds fewer than 50 trips at La Cienega Boulevard & Santa Monica Boulevard, no arterial intersection CMP analysis is required.

FREEWAYS

The project site is approximately four miles west and 4.25 miles south of US 101. The CMP freeway monitoring station closest to the project site is the US 101 south of Santa Monica Boulevard. An additional Caltrans monitoring station near the project site on US 101 is at Cold Water Canyon Avenue. An analysis was conducted of potential impacts at these monitoring stations on the US 101. Based on the trip generation estimates shown in Table 3 and trip distribution presented in Figure 4, the project is projected to result in a net increase of less than 20 peak hour trips on US-101 southbound and less than 10 peak hour trips on US-101 northbound during the AM, MD, or PM peak hours to the segments identified as CMP monitoring stations. This is based on an assumption that project trips distributed on Santa Monica Boulevard are also trips on the US 101 south of the project site, and that project trips distributed on Sunset Boulevard are trips on the US 101 north of the project site. Based on this conservative analysis, the proposed project is not expected to add more than 150 vehicles to the CMP mainline freeway monitoring locations during either peak hour; therefore, a CMP freeway analysis is not required.

7. PARKING, SITE ACCESS AND CIRCULATION

The parking system was analyzed by comparing the available supply to the applicable code requirements specified by the City of West Hollywood. Issues relating to the projects proposed site access and internal circulation design were also evaluated using standard guides for the types of vehicles expected to use these facilities.

The proposed mixed-use development contains 97 multi-family dwelling units, 2,820 sf of ground floor restaurant space, 15,678 sf of ground floor retail space, 6,079 sf of office, 12 live/work units, and a 3,718 sf hair salon.

PARKING CODE ANALYSIS

Section 19.28.040 of the City of West Hollywood Municipal Code (WHMC) provides the minimum off-street parking requirements of new developments. The WHMC indicated the following requirements:

Residential one bedroom	- 1 space per dwelling unit
Residential two bedrooms	- 2 spaces per dwelling unit
Quality restaurant space	- 9 spaces per 1,000 sf
Office space	- 3.5 spaces per 1,000 sf for the first 25,000 sf
General retail stores	- 3.5 spaces per 1,000 sf
Personal Services	- 3.5 spaces per 1,000 sf

Section 19.22.050 of the WHMC establishes a parking requirement of one space per dwelling unit for residential one-bedroom apartments and two spaces per dwelling unit for residential two-bedroom and three-bedroom apartments.

As shown in Table 8, the total parking requirement for the project would be 330 spaces including 154 spaces for residents and 176 spaces for commercial uses.

The site plans indicate that 337 spaces would be provided for the project. This supply would exceed the City requirement of 330 spaces.

BICYCLE PARKING CODE ANALYSIS

Section 19.28.150 of the WHMC provides the minimum bicycle parking requirements of new developments. The WHMC indicated the following requirements:

Residential	- 1 space per 4 dwelling units
Non-Residential	- 1 employee space per 7,500 sf
Non-Residential	- 1 visitor space per 10,000 sf

TABLE 8
PARKING REQUIREMENT ESTIMATES

Parking Ratio	
Land Use	**Ratio**
Residential Dwelling Unit - 1 Bedroom	1.00 per DU
Residential Dwelling Unit - 2 Bedroom	2.00 per DU
Restaurant (High-Turnover Sit-Down)	9.00 per ksf
Office	3.50 per ksf
Live/Work Spaces	3.50 per ksf
General Retail	3.50 per ksf
Hair Salon (Personal Services)	3.50 per ksf

Parking Requirements per Code		
Land Use	**Size**	**Required Spaces**
Apartment - 1 Bedroom	40 DU	40
Apartment - 2 or 3 Bedroom	57 DU	114
Live/Work	16.673 ksf	59
Quality Restaurant	2.820 ksf	26
Office	6.079 ksf	22
General Retail	15.679 ksf	55
Hair Salon (Personal Services)	3.720 ksf	14
TOTAL SPACES REQUIRED		**330**
TOTAL SPACES PROVIDED		**337**
TOTAL ADDITIONAL SPACES NEEDED		**0**

Notes:

Source: West Hollywood Municipal Code Sec 19.28.040, Tables 3-6 & Sec 19.22.050, Updated February 16, 2007

As shown in Table 9, the total bicycle parking requirement for the project would be 34 spaces, including 24 spaces for residents and 10 spaces for commercial uses.

Section 19.28.150 of the WHMC requires two shower facility for non-residential spaces between 25,000 and 124,999 sf and one clothes locker per employee bicycle parking space required. The non-residential portion of the project would require six clothing lockers to be made available.

The site plans indicate that 35 bicycle parking spaces would be provided for the project across all three levels of the parking garage. This supply meets City requirements for bicycle parking space. The plans do not clearly identify two designated areas that will provide the minimum requirements of two shower spaces and six clothing lockers and staff should work with the applicant to confirm the provision of required facilities, based on the proposed project, and that applicable ADA access requirements are met.

SITE ACCESS

Parking for the Project would be provided on one subterranean level, the ground floor level, and a mezzanine level. The ground and subterranean levels would serve retail and residential uses, while the mezzanine level would accommodate residential parking only. As shown in Appendix E, the driveway on Santa Monica Boulevard will provide commercial and residential site access, while the driveway on West Knoll Drive will provide residential site access only. The driveways would serve both inbound and outbound traffic. The Santa Monica Boulevard driveway will only allow right turns in and right turns out. The West Knoll Drive driveway will allow left and right turns into the project site and right turns out, providing access to residential parking on the mezzanine level only.

SITE CIRCULATION

Driveways

WHMC Section 19.28.130 indicates that residential driveways may be a maximum width of 24 feet. The Santa Monica Boulevard driveway will be 24 feet wide. The driveway on West Knoll Drive is shown to be just over 25 feet wide.

Under WHMC Section 19.28.130, multi-family residential corner uses are entitled to have two driveways. Non-residential uses require approval from the City Engineer for two project driveways. City staff should closely review and consider this during the plan check review process.

Drive Aisles and Access Ramps

Inside the parking structure, the drive aisle widths vary from 24 to 28 feet, with two-way operation; the ramps providing access between the parking levels are 26 feet wide. Appendix E shows parking level floor plans.

TABLE 9
BICYCLE PARKING REQUIREMENT ESTIMATES

Parking Ratio		
Land Use	**Ratio**	**Category**
Residential Dwelling Unit	0.25 per DU	
Commercial	0.13 per ksf	Employee Parking
Commercial	0.10 per ksf	Visitor Parking
Commercial	2.00 per 25 - 124.999 ksf	Bicycle Showers
Commercial	1.00 per employee bicycle space	Bicycle Lockers

Parking Requirements per Code		
Land Use	**Size**	**Required Spaces**
Apartment & Live/Work Units	97 DU	24
Non-residential	44.971 ksf	6 (Employee) 4 (Visitor)
	TOTAL SPACES REQUIRED	**34**
	TOTAL SPACES PROVIDED	**35**
	TOTAL ADDITIONAL SPACES NEEDED	**0**
Bicycle Showers	44.971 ksf	2
	TOTAL SPACES REQUIRED	**2**
	TOTAL SPACES PROVIDED	**2**
	TOTAL ADDITIONAL SPACES NEEDED	**0**
Bicycle Clothing Lockers	6 spaces	6
	TOTAL SPACES REQUIRED	**6**
	TOTAL SPACES PROVIDED	**6**
	TOTAL ADDITIONAL SPACES NEEDED	**0**

Notes:

Source: West Hollywood Municipal Code, Sec 19.28.150, Updated February 16, 2007.

In relation to circulation on an individual parking level, the drive aisle widths meet the minimum recommended width for two-way operation. In relation to circulation between parking levels, the ramps meet the recommended width for two-way operation of a ramp between floors.

Most of the proposed parking spaces are 8½ or 9 wide, with some at 8 feet wide, by 18 feet in length (most spaces appear to meet the minimum length of 18 feet for standard spaces, but this is not clearly identified on the site plans), compliant with WHMC 19.28.090. There are a number of parking spaces labeled as "modified full" parking spaces that appear to be sixteen feet and two inches in length, which does not meet the codes minimum parking space length. Thirty-six of the proposed parking spaces are compact parking spaces, which can have a reduced minimum length of fifteen feet. To discourage traffic from passing too closely to the parked cars and support columns, yellow pavement markings out from the columns should delineate parking from the travel lanes. The placement of support columns in the parking structure is such that they would allow for the visibility and maneuverability around turns and the accessibility into and out of parking spaces. City staff should closely review and consider these issues during the plan check review process.

Ramp and Parking Area Slopes

Section 19.28.110 of the WHMC requires ramps with greater than a 10% grade to have a transition at the top and bottom of the ramp. The project ramps are designed to have a 20% grade with 8-foot, 10% grade transition at the top only. The ramp design meets design guidelines.

According the code, the parking area slopes shall not exceed 5%. The ground floor of the design meets the guidelines established in section 19.28.110 of the WHMC. Design plans for other parking levels do not include proposed slopes. City staff should closely review and consider these issues during the plan check review process.

Loading Docks/Areas

The loading area, serving all uses on the project site, would be accessed from Santa Monica Boulevard. Trucks would enter the Santa Monica Boulevard driveway and then reverse into the loading following a motion shown in Appendix E.

Based on the current design, the loading driveway turning radius and layout may require minor modifications to accommodate a delivery truck. A test was performed that determined a 30-foot single unit truck found in A *Policy on Geometric Design of Highways and Streets 2004* was able to enter and exit the loading area after traveling very closely to the raised median and walls; requiring inbound and outbound trucks to make wide turns for ingress and egress that require partially crossing over into the adjacent lane of traffic for some portion of their turn in and out of the Santa Monica Boulevard driveway. Drawings showing the truck entering and exiting the site are provided in Appendix E. City staff should closely review and consider these issues during the plan check review process.

Bicycle Parking Access

Commercial and employee bicycle parking is provided on the ground and subterranean parking levels. As presented in Table 9, the guidelines established in section 19.28.150 of the WHMC require the Project to provide a total of 10 commercial bicycle parking spaces. The project provides five commercial spaces on

the ground level and six commercial parking spaces on the subterranean level. Commercial parking spaces are required to be conveniently located and generally within proximity to the main entrance of the structure. The employee bicycle parking spaces provided on the subterranean parking level may not meet City guidelines. Additionally, the subterranean bicycle parking spaces are located immediately adjacent to vehicle parking spaces, with no divider or open space as required by WHMC 19.28.150.

A total of 24 residential bicycle parking spaces are provided on the mezzanine parking level, meeting the supply required by WHMC 19.28.150.

8. Project Alternatives

In addition to the No Project Alternative, four action alternatives to the Proposed Project were evaluated to determine their potential impacts on the surrounding transportation system as compared to the Proposed Project. Trip generation for each of the alternatives was estimated and compared with that of the Proposed Project. The action alternatives to the Proposed Project are described below.

Alternative 1: No Project

Under the No Project Alternative, the Project would not occur.

Alternative 2: Existing Zoning

This alternative would provide approximately 84,262 sf of mixed-use development that would include 18,498 sf of retail (including 17,444 sf of specialty retail and 1,054 sf of high-turnover restaurant), 46,002 sf of office, and 16,800 sf of residential (14 apartment units). Site access under this alternative would be the same as that of the proposed project.

Alternative 3: Reduced Density

This alternative would provide approximately 105,344 sf of mixed-use development that would include 17,320 sf of retail (including 14,500 sf of specialty retail and 2,820 sf of high-turnover restaurant), 30,000 sf of office, 54,122 sf of residential (34 apartment units and 10 live/work units). Site access under this alternative would be the same as that of the proposed project.

Alternative 4: Boutique Hotel

This alternative would provide approximately 84,262 sf of mixed-use development that would include 14,820 sf of retail (including 3,678 sf of specialty retail and 14,820 sf of high-turnover restaurant), 16,800 sf of apartments (14 units), and a 78 room 42,900 sf hotel. Site access under this alternative would be the same as that of the proposed project.

Alternative 5: No Subterranean Parking

This alternative would provide approximately 143,879 sf of mixed-use development that would include 22,216 sf of retail (including 15,678 sf of specialty retail, 2,820 sf of high-turnover restaurant, and 3,718 sf of hair salon), 6,079 sf of office, and 90,819 sf of residential (97 apartment units and 12 live/work units). Site access under this alternative would be the same as that of the proposed project.

Alternative 6: Reduced Density on R4 Lots

This alternative would provide approximately 139,520 sf of mixed-use development that would include 22,141 sf of retail (including 13,550 sf of specialty retail, 4,948 sf of high-turnover restaurant, and 3,643 sf of hair salon), 6,856 sf of office, and 102,090 sf of residential (95 apartment units and 15 live/work units). Site access under this alternative differs from that of the proposed project. This alternative would allow

full access for the driveway on West Knoll Drive, which would only serve residential project trips (this alternative reflects the same access scheme as Alternative 6).

Alternative 7: Modified Project

This alternative would provide approximately 143,809 sf of mixed-use development that would include 22,107 sf of retail (including 15,564 sf of specialty retail, 2,810 sf of high-turnover restaurant, and 3,643 sf of hair salon), 6,856 sf of office, and 106,410 sf of residential (97 apartment units and 15 live/work units). This alternative would allow full access for the driveway on West Knoll Drive, which would only serve residential project trips. Site access under this alternative differs from that of the proposed project, which would not allow left-turns from the West Knoll Drive driveway onto West Knoll Drive.

ESTIMATED TRIP GENERATION FOR PROJECT ALTERNATIVES

The potential trip generation of each of the alternatives was estimated using the same methodology that was used for the proposed project. The resulting trip generation estimates for each alternative are shown in Tables 10 to 15. Table 16 compares trips generated by the proposed project with Alternatives 1 through 5. The trip generation comparison does not include Alternatives 6 or 7 because a full peak hour intersection analysis was completed for those alternatives to identify the potential for significant impacts. The estimated trip generation of each alternative is summarized below.

TABLE 10
8555 SANTA MONICA BOULEVARD PROJECT
ALTERNATIVE 2 EXISTING ZONING
TRIP GENERATION ESTIMATES

Trip Generation Rates [a]												
Land Use	ITE#	Rate	Daily	AM Peak Hour			MD Peak Hour [b]			PM Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Detached House	210	per dwelling unit	9.52	0.25	0.75	0.75	0.26	0.74	0.77	0.63	0.37	1
Apartment	220	per dwelling unit	6.65	20%	80%	0.51	29%	71%	0.55	65%	35%	0.62
Single-Family Detached House	210	per dwelling unit	9.52	25%	75%	0.75	26%	74%	0.77	63%	37%	1.00
Condominium	230	per dwelling unit	5.81	17%	83%	0.44	19%	81%	0.44	67%	33%	0.52
Health/Fitness Club	492	per 1,000 square feet	32.93	50%	50%	1.41	47%	53%	1.43	57%	43%	3.53
Office [c]	710	per 1,000 square feet	11.03	88%	12%	1.56	88%	12%	1.56	17%	83%	1.49
Specialty Retail [d]	826	per 1,000 square feet	44.32	62%	38%	0.70	48%	52%	6.84	44%	56%	2.71
Hair Salon [e]	918	per 1,000 square feet	16.47	100%	0%	1.21	100%	0%	1.21	17%	83%	1.45
High-Turnover Restaurant	932	per 1,000 square feet	127.15	55%	45%	10.81	53%	47%	13.33	60%	40%	9.85

Trip Generation Estimates												
Land Use	ITE#	Size	Weekday	AM Peak Hour			MD Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total	In	Out	Total
Proposed Project												
Apartments	220	14 du	93	1	6	7	2	6	8	6	3	9
Office	710	46.002 ksf	507	63	9	72	63	9	72	12	57	69
Specialty Retail	826	17.444 ksf	773	7	5	12	57	62	119	21	26	47
High-Turnover Restaurant	932	1.054 ksf	134	6	5	11	7	7	14	6	4	10
SUBTOTAL			1,507	77	25	102	129	84	213	45	90	135
Existing Uses (to be removed)												
Single-Family Detached House	210	3 du	29	0	2	2	1	1	2	2	1	3
Health/Fitness Club	492	4.058 ksf	134	3	3	6	3	3	6	8	6	14
Office	710	4.211 ksf	46	6	1	7	6	1	7	1	5	6
Specialty Retail	826	10.426 ksf	462	4	3	7	34	37	71	12	16	28
Hair Salon	918	6.218 ksf	102	8	0	8	8	0	8	2	7	9
High-Turnover Restaurant	932	2.475 ksf	315	15	12	27	17	16	33	14	10	24
SUBTOTAL			1,088	36	21	57	69	58	127	39	45	84
NET NEW TRIPS			**419**	**41**	**4**	**45**	**60**	**26**	**86**	**6**	**45**	**51**

Notes:
[a] Source: ITE Trip Generation Manual, 9th Edition, 2012.
[b] Weekday midday peak hour trip rate was assumed to be the AM peak hour of generator.
[c] The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 710.
[d] AM rate was derived from the proportional relationship of PM rates between ITE 814 and Shopping Center (ITE 820) and applied to ITE 820 AM rate.
[e] As no daily rate is provided for ITE 918, the daily rate was derived from the proportional relationship between peak hour trip rates for ITE 918 and ITE 932. The AM peak hour generator is equivalent
[f] Condominium trip generation is used for live/work space; there are 12 units total in the proposed project.

TABLE 11
8555 SANTA MONICA BOULEVARD PROJECT
ALTERNATIVE 3 REDUCED DENSITY
TRIP GENERATION ESTIMATES

Trip Generation Rates [a]												
Land Use	ITE#	Rate	Daily	AM Peak Hour			MD Peak Hour [b]			PM Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Detached House	210	per dwelling unit	9.52	0.25	0.75	0.75	0.26	0.74	0.77	0.63	0.37	1
Apartment	220	per dwelling unit	6.65	20%	80%	0.51	29%	71%	0.55	65%	35%	0.62
Single-Family Detached House	210	per dwelling unit	9.52	25%	75%	0.75	26%	74%	0.77	63%	37%	1.00
Condominium	230	per dwelling unit	5.81	17%	83%	0.44	19%	81%	0.44	67%	33%	0.52
Health/Fitness Club	492	per 1,000 square feet	32.93	50%	50%	1.41	47%	53%	1.43	57%	43%	3.53
Office [c]	710	per 1,000 square feet	11.03	88%	12%	1.56	88%	12%	1.56	17%	83%	1.49
Specialty Retail [d]	826	per 1,000 square feet	44.32	62%	38%	0.70	48%	52%	6.84	44%	56%	2.71
Hair Salon [e]	918	per 1,000 square feet	16.47	100%	0%	1.21	100%	0%	1.21	17%	83%	1.45
High-Turnover Restaurant	932	per 1,000 square feet	127.15	55%	45%	10.81	53%	47%	13.33	60%	40%	9.85

Trip Generation Estimates												
Land Use	ITE#	Size	Weekday	AM Peak Hour			MD Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total	In	Out	Total
Proposed Project												
Apartments	220	34 du	226	3	14	17	6	13	19	14	7	21
Live/Work [f]	230	10 units	58	1	3	4	1	3	4	3	2	5
Office	710	30.000 ksf	331	41	6	47	41	6	47	8	37	45
Specialty Retail	826	14.500 ksf	643	6	4	10	48	51	99	17	22	39
High-Turnover Restaurant	932	2.820 ksf	359	17	13	30	20	18	38	17	11	28
SUBTOTAL			1,617	68	40	108	116	91	207	59	79	138
Existing Uses (to be removed)												
Single-Family Detached House	210	3 du	29	0	2	2	1	1	2	2	1	3
Health/Fitness Club	492	4.06 ksf	134	3	3	6	3	3	6	8	6	14
Office	710	4.21 ksf	46	6	1	7	6	1	7	1	5	6
Specialty Retail	826	10.43 ksf	462	4	3	7	34	37	71	12	16	28
Hair Salon	918	6.22 ksf	102	8	0	8	8	0	8	2	7	9
High-Turnover Restaurant	932	2.48 ksf	315	15	12	27	17	16	33	14	10	24
SUBTOTAL			1,088	36	21	57	69	58	127	39	45	84
NET NEW TRIPS			**529**	**32**	**19**	**51**	**47**	**33**	**80**	**20**	**34**	**54**

Notes:
[a] Source: ITE Trip Generation Manual, 9th Edition, 2012.
[b] Weekday midday peak hour trip rate was assumed to be the AM peak hour of generator.
[c] The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 710.
[d] AM rate was derived from the proportional relationship of PM rates between ITE 814 and Shopping Center (ITE 820) and applied to ITE 820 AM rate.
[e] As no daily rate is provided for ITE 918, the daily rate was derived from the proportional relationship between peak hour trip rates for ITE 918 and ITE 932. The AM peak hour generator is equivalent
[f] Condominium trip generation is used for live/work space; there are 12 units total in the proposed project.

TABLE 12
8555 SANTA MONICA BOULEVARD PROJECT
ALTERNATIVE 4 BOUTIQUE HOTEL
TRIP GENERATION ESTIMATES

Trip Generation Rates [a]

Land Use	ITE#	Rate	Daily	AM Peak Hour			MD Peak Hour [b]			PM Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Detached House	210	per dwelling unit	9.52	0.25	0.75	0.75	0.26	0.74	0.77	0.63	0.37	1
Hotel	310	occupied rooms	8.92	58%	42%	0.67	55%	45%	0.64	49%	51%	0.70
Apartment	220	per dwelling unit	6.65	20%	80%	0.51	29%	71%	0.55	65%	35%	0.62
Single-Family Detached House	210	per dwelling unit	9.52	25%	75%	0.75	26%	74%	0.77	63%	37%	1.00
Health/Fitness Club	492	per 1,000 square feet	32.93	50%	50%	1.41	47%	53%	1.43	57%	43%	3.53
Office [c]	710	per 1,000 square feet	11.03	88%	12%	1.56	88%	12%	1.56	17%	83%	1.49
Specialty Retail [d]	826	per 1,000 square feet	44.32	62%	38%	0.70	48%	52%	6.84	44%	56%	2.71
High-Turnover Restaurant	932	per 1,000 square feet	127.15	55%	45%	10.81	53%	47%	13.33	60%	40%	9.85

Trip Generation Estimates

Land Use	ITE#	Size	Weekday Daily	AM Peak Hour			MD Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Proposed Project												
Hotel	310	78 rooms	696	30	22	52	27	23	50	27	28	55
Apartments	220	14 du	93	1	6	7	2	6	8	6	3	9
Specialty Retail	826	3.678 ksf	163	2	1	3	12	13	25	4	6	10
High-Turnover Restaurant	932	14.820 ksf	1,884	88	72	160	105	93	198	88	58	146
SUBTOTAL			2,836	121	101	222	146	135	281	125	95	220
Existing Uses (to be removed)												
Single-Family Detached House	210	3 du	29	0	2	2	1	1	2	2	1	3
Health/Fitness Club	492	4.06 ksf	134	3	3	6	3	3	6	8	6	14
Office	710	4.21 ksf	46	6	1	7	6	1	7	1	5	6
Specialty Retail	826	10.43 ksf	462	4	3	7	34	37	71	12	16	28
Hair Salon	918	6.22 ksf	0	0	0	0	0	0	0	0	0	0
High-Turnover Restaurant	932	2.48 ksf	315	15	12	27	17	16	33	14	10	24
SUBTOTAL			986	28	21	49	61	58	119	37	38	75
NET NEW TRIPS			**1,850**	**93**	**80**	**173**	**85**	**77**	**162**	**88**	**57**	**145**

Notes:
[a] Source: ITE Trip Generation Manual, 9th Edition, 2012.
[b] Weekday midday peak hour trip rate was assumed to be the AM peak hour of generator.
[c] The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 710.
[d] AM rate was derived from the proportional relationship of PM rates between ITE 814 and Shopping Center (ITE 820) and applied to ITE 820 AM rate.
[e] As no daily rate is provided for ITE 918, the daily rate was derived from the proportional relationship between peak hour trip rates for ITE 918 and ITE 932. The AM peak hour generator is equivalent
[f] Condominium trip generation is used for live/work space; there are 12 units total in the proposed project.

TABLE 13
8555 SANTA MONICA BOULEVARD PROJECT
ALTERNATIVE 5 NO SUBTERRANEAN PARKING
TRIP GENERATION ESTIMATES

Trip Generation Rates [a]												
Land Use	ITE#	Rate	Daily	AM Peak Hour			MD Peak Hour [b]			PM Peak Hour		
				In	Out	Total	In	Out	Total	In	Out	Total
Single-Family Detached House	210	per dwelling unit	9.52	0.25	0.75	0.75	0.26	0.74	0.77	0.63	0.37	1
Apartment	220	per dwelling unit	6.65	20%	80%	0.51	29%	71%	0.55	65%	35%	0.62
Single-Family Detached House	210	per dwelling unit	9.52	25%	75%	0.75	26%	74%	0.77	63%	37%	1.00
Condominium	230	per dwelling unit	5.81	17%	83%	0.44	19%	81%	0.44	67%	33%	0.52
Health/Fitness Club	492	per 1,000 square feet	32.93	50%	50%	1.41	47%	53%	1.43	57%	43%	3.53
Office [c]	710	per 1,000 square feet	11.03	88%	12%	1.56	88%	12%	1.56	17%	83%	1.49
Specialty Retail [d]	826	per 1,000 square feet	44.32	62%	38%	0.70	48%	52%	6.84	44%	56%	2.71
Hair Salon [e]	918	per 1,000 square feet	16.47	100%	0%	1.21	100%	0%	1.21	17%	83%	1.45
High-Turnover Restaurant	932	per 1,000 square feet	127.15	55%	45%	10.81	53%	47%	13.33	60%	40%	9.85

Trip Generation Estimates												
Land Use	ITE#	Size	Weekday	AM Peak Hour			MD Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total	In	Out	Total
Proposed Project												
Apartments	220	97 du	645	10	39	49	15	38	53	39	21	60
Live/Work [f]	230	12 units	70	1	4	5	1	4	5	4	2	6
Office	710	6.079 ksf	67	8	1	9	8	1	9	2	7	9
Specialty Retail	826	15.678 ksf	695	7	4	11	51	56	107	18	24	42
High-Turnover Restaurant	932	2.820 ksf	359	17	13	30	20	18	38	17	11	28
Hair Salon	918	3.718 ksf	61	4	0	4	4	0	4	1	4	5
SUBTOTAL			1,897	47	61	108	99	117	216	81	69	150
Existing Uses (to be removed)												
Single-Family Detached House	210	3 du	29	0	2	2	1	1	2	2	1	3
Health/Fitness Club	492	4.06 ksf	134	3	3	6	3	3	6	8	6	14
Office	710	4.21 ksf	46	6	1	7	6	1	7	1	5	6
Specialty Retail	826	10.43 ksf	462	4	3	7	34	37	71	12	16	28
Hair Salon	918	6.22 ksf	102	8	0	8	8	0	8	2	7	9
High-Turnover Restaurant	932	2.48 ksf	315	15	12	27	17	16	33	14	10	24
SUBTOTAL			1,088	36	21	57	69	58	127	39	45	84
NET NEW TRIPS			**809**	**11**	**40**	**51**	**30**	**59**	**89**	**42**	**24**	**66**

Notes:
[a] Source: ITE Trip Generation Manual, 9th Edition, 2012.
[b] Weekday midday peak hour trip rate was assumed to be the AM peak hour of generator.
[c] The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 710.
[d] AM rate was derived from the proportional relationship of PM rates between ITE 814 and Shopping Center (ITE 820) and applied to ITE 820 AM rate.
[e] As no daily rate is provided for ITE 918, the daily rate was derived from the proportional relationship between peak hour trip rates for ITE 918 and ITE 932. The AM peak hour generator is equivalent
[f] Condominium trip generation is used for live/work space; there are 12 units total in the proposed project.

TABLE 14
8555 SANTA MONICA BOULEVARD PROJECT
ALTERNATIVE 6 REDUCED DENSITY ON R4 LOTS
TRIP GENERATION ESTIMATES

Trip Generation Rates [a]												
Land Use	**ITE#**	**Rate**	**Daily**	**AM Peak Hour**			**MD Peak Hour [b]**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Single-Family Detached House	210	per dwelling unit	9.52	0.25	0.75	0.75	0.26	0.74	0.77	0.63	0.37	1
Apartment	220	per dwelling unit	6.65	20%	80%	0.51	29%	71%	0.55	65%	35%	0.62
Single-Family Detached House	210	per dwelling unit	9.52	25%	75%	0.75	26%	74%	0.77	63%	37%	1.00
Condominium	230	per dwelling unit	5.81	17%	83%	0.44	19%	81%	0.44	67%	33%	0.52
Health/Fitness Club	492	per 1,000 square feet	32.93	50%	50%	1.41	47%	53%	1.43	57%	43%	3.53
Office [c]	710	per 1,000 square feet	11.03	88%	12%	1.56	88%	12%	1.56	17%	83%	1.49
Specialty Retail [d]	826	per 1,000 square feet	44.32	62%	38%	0.70	48%	52%	6.84	44%	56%	2.71
Hair Salon [e]	918	per 1,000 square feet	16.47	100%	0%	1.21	100%	0%	1.21	17%	83%	1.45
High-Turnover Restaurant	932	per 1,000 square feet	127.15	55%	45%	10.81	53%	47%	13.33	60%	40%	9.85

Trip Generation Estimates												
Land Use	**ITE#**	**Size**	**Weekday Daily**	**AM Peak Hour**			**MD Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Proposed Project												
Apartments	220	95 du	632	10	38	48	15	37	52	38	21	59
Live/Work [f]	230	15 units	87	1	6	7	1	6	7	5	3	8
Office	710	6.86 ksf	76	10	1	11	10	1	11	2	8	10
Specialty Retail	826	13.55 ksf	601	6	3	9	45	48	93	16	21	37
High-Turnover Restaurant	932	4.95 ksf	629	29	24	53	35	31	66	29	20	49
Hair Salon	918	3.64 ksf	60	4	0	4	4	0	4	1	4	5
SUBTOTAL			2,085	60	72	132	110	123	233	91	77	168
Existing Uses (to be removed)												
Single-Family Detached House	210	3 du	29	0	2	2	1	1	2	2	1	3
Health/Fitness Club	492	4.06 ksf	134	3	3	6	3	3	6	8	6	14
Office	710	4.21 ksf	46	6	1	7	6	1	7	1	5	6
Specialty Retail	826	10.43 ksf	462	4	3	7	34	37	71	12	16	28
Hair Salon	918	6.22 ksf	102	8	0	8	8	0	8	2	7	9
High-Turnover Restaurant	932	2.48 ksf	315	15	12	27	17	16	33	14	10	24
SUBTOTAL			1,088	36	21	57	69	58	127	39	45	84
NET NEW TRIPS			**997**	**24**	**51**	**75**	**41**	**65**	**106**	**52**	**32**	**84**

Notes:
[a] Source: ITE Trip Generation Manual, 9th Edition, 2012.
[b] Weekday midday peak hour trip rate was assumed to be the AM peak hour of generator.
[c] The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 710.
[d] AM rate was derived from the proportional relationship of PM rates between ITE 814 and Shopping Center (ITE 820) and applied to ITE 820 AM rate.
[e] As no daily rate is provided for ITE 918, the daily rate was derived from the proportional relationship between peak hour trip rates for ITE 918 and ITE 932. The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 918.
[f] Condominium trip generation is used for live/work space; there are 12 units total in the proposed project.

TABLE 15
8555 SANTA MONICA BOULEVARD PROJECT
ALTERNATIVE 7 MODIFID PROJECT
TRIP GENERATION ESTIMATES

Trip Generation Rates [a]												
Land Use	**ITE#**	**Rate**	**Daily**	**AM Peak Hour**			**MD Peak Hour [b]**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Apartment	220	per dwelling unit	6.65	20%	80%	0.51	29%	71%	0.55	65%	35%	0.62
Single-Family Detached House	210	per dwelling unit	9.52	25%	75%	0.75	26%	74%	0.77	63%	37%	1.00
Condominium	230	per dwelling unit	5.81	17%	83%	0.44	19%	81%	0.44	67%	33%	0.52
Health/Fitness Club	492	per 1,000 square feet	32.93	50%	50%	1.41	47%	53%	1.43	57%	43%	3.53
Office [c]	710	per 1,000 square feet	11.03	88%	12%	1.56	88%	12%	1.56	17%	83%	1.49
Specialty Retail [d]	826	per 1,000 square feet	44.32	62%	38%	0.70	48%	52%	6.84	44%	56%	2.71
Hair Salon [e]	918	per 1,000 square feet	16.47	100%	0%	1.21	100%	0%	1.21	17%	83%	1.45
High-Turnover Restaurant	932	per 1,000 square feet	127.15	55%	45%	10.81	53%	47%	13.33	60%	40%	9.85

Trip Generation Estimates												
Land Use	**ITE#**	**Size**	**Weekday Daily**	**AM Peak Hour**			**MD Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Proposed Project												
Apartments	220	97 du	645	10	39	49	15	38	53	39	21	60
Live/Work [f]	230	15 units	87	1	6	7	1	6	7	5	3	8
Office	710	6.86 ksf	76	10	1	11	10	1	11	2	8	10
Specialty Retail	826	15.65 ksf	694	7	4	11	51	56	107	18	24	42
High-Turnover Restaurant	932	2.81 ksf	357	17	13	30	20	17	37	17	11	28
Hair Salon	918	3.64 ksf	60	4	0	4	4	0	4	1	4	5
SUBTOTAL			1,919	49	63	112	101	118	219	82	71	153
Existing Uses (to be removed)												
Single-Family Detached House	210	3 du	29	0	2	2	1	1	2	2	1	3
Health/Fitness Club	492	4.06 ksf	134	3	3	6	3	3	6	8	6	14
Office	710	4.21 ksf	46	6	1	7	6	1	7	1	5	6
Specialty Retail	826	10.43 ksf	462	4	3	7	34	37	71	12	16	28
Hair Salon	918	6.22 ksf	102	8	0	8	8	0	8	2	7	9
High-Turnover Restaurant	932	2.48 ksf	315	15	12	27	17	16	33	14	10	24
SUBTOTAL			1,088	36	21	57	69	58	127	39	45	84
NET NEW TRIPS			**831**	**13**	**42**	**55**	**32**	**60**	**92**	**43**	**26**	**69**

Notes:
[a] Source: ITE Trip Generation Manual, 9th Edition, 2012.
[b] Weekday midday peak hour trip rate was assumed to be the AM peak hour of generator.
[c] The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 710.
[d] AM rate was derived from the proportional relationship of PM rates between ITE 814 and Shopping Center (ITE 820) and applied to ITE 820 AM rate.
[e] As no daily rate is provided for ITE 918, the daily rate was derived from the proportional relationship between peak hour trip rates for ITE 918 and ITE 932. The AM peak hour generator is equivalent to the AM peak hour of adjacent street traffic for ITE 918.
[f] Condominium trip generation is used for live/work space; there are 12 units total in the proposed project.

TABLE 16
8555 SANTA MONICA BOULEVARD PROJECT
ALTERNATIVE 4 BOUTIQUE HOTEL
TRIP GENERATION ESTIMATES

Trip Generation Estimates											
PROJECT ALTERNATIVE	**Size**	**Daily**	**AM Peak Hour**			**MD Peak Hour**			**PM Peak Hour**		
			In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Proposed Project	143,879 square feet	809	11	40	51	30	59	89	42	24	66
1. No Project	0 square feet	0	0	0	0	0	0	0	0	0	0
% Change from Proposed		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2. Existing Zoning	84,262 sqaure feet	419	41	4	45	60	26	86	6	45	51
% Change from Proposed		48%	73%	90%	12%	50%	56%	3%	86%	47%	23%
3. Reduced Density	105,344 square foot	592	34	19	53	51	38	89	21	37	58
% Change from Proposed		-27%	68%	-53%	4%	41%	-36%	0%	-50%	35%	-12%
4. Boutique Hotel	84,262 square feet	1850	93	80	173	85	77	162	88	57	145
% Change from Proposed		56%	88%	50%	71%	65%	23%	45%	52%	58%	54%
5. No Subterranean Parking	143,879 square feet	809	11	40	51	30	59	89	42	24	66
% Change from Proposed		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

- Alternative 1: No Project. Under this alternative, the project would not be constructed, and there would be no new trips generated to or from the project site. Existing uses would continue to generate trips.

- Alternative 2: Existing Zoning. The trip generation for Alternative 2 would be less than that of the proposed project during each of the analyzed peak hours and would not be anticipated to result in any additional impacts. As shown in Table 10, this alternative is expected to generate a net increase of approximately 419 daily trips, 45 trips during the AM peak hour, 51 trips in the PM peak hour, and 86 trips in the weekend midday peak hour.

- Alternative 3: Reduced Density. The trip generation for Alternative 3 would be less than that of the proposed project during each of the analyzed peak hours and would not be anticipated to result in any additional impacts. As shown in Table 11, this alternative is expected to generate a net increase of approximately 529 daily trips, 51 trips during the AM peak hour, 54 trips in the PM peak hour, and 80 trips in the weekend midday peak hour.

- Alternative 4: Boutique Hotel. The trip generation for Alternative 4 would be greater than that of the proposed project during each of the analyzed peak hours. As shown in Table 12, this alternative is expected to generate a net increase of approximately 1,850 daily trips, 173 trips during the AM peak hour, 145 trips in the PM peak hour, and 162 trips in the weekend midday peak hour.

- Alternative 5: No Subterranean Parking. The trip generation for Alternative 5 would be equal to that of the proposed project during each of the analyzed peak hours and would not be anticipated to result in any additional impacts. As shown in Table 13, this alternative is expected to generate a net increase of approximately 809 daily trips, 51 trips during the AM peak hour, 66 trips in the PM peak hour, and 89 trips in the weekend midday peak hour.

- Alternative 6: Reduced Density on R4 Lots. The trip generation for Alternative 6 would be greater than that of the proposed project during each of the analyzed peak hours. As shown in Table 14, this alternative is expected to generate a net increase of approximately 997 daily trips, 75 trips during the AM peak hour, 84 trips in the PM peak hour, and 106 trips in the weekend midday peak hour.

- Alternative 7: Modified Project. The trip generation for Alternative 7 would be similar to that of the proposed project during each of the analyzed peak hours and would not be anticipated to result in any additional impacts. As shown in Table 15, this alternative is expected to generate a net increase of approximately 831 daily trips, 55 trips during the AM peak hour, 69 trips in the PM peak hour, and 92 trips in the weekend midday peak hour.

POTENTIAL TRAFFIC IMPACTS OF PROJECT ALTERNATIVES

Based on the projected trip generation of the proposed alternatives and a review of the incremental changes in delay and V/C under the proposed project, the following general conclusions can be made with regard to anticipated traffic impacts (as shown in Table 16):

- Alternative 1: No Project. By definition, no traffic impacts would occur under this alternative, as no new development and associated vehicle trips would occur on the project site.

- Alternative 2: Existing Zoning. The estimated trip generation of Alternative 2 would be lower than that of the project in each of the analyzed peak hours. Based on the existing congested conditions at the significantly-impacted intersections, it is expected that the significant impact at the intersection of Hancock Avenue & Holloway Drive (PM peak hour) under the future year (Year 2019) would remain.

- Alternative 3: Reduced Density. The estimated trip generation of Alternative 3 would be slightly higher in the AM peak hour, remain the same in the midday peak hour, and lower in the PM peak hour when compared to that of the project. Based on the existing congested conditions at the significantly-impacted intersections, it is expected that the significant impact at the intersection of Hancock Avenue & Holloway Drive (PM peak hour) under the future year (Year 2019) would remain.

- Alternative 4: Boutique Hotel. The estimated trip generation of Alternative 4 would be greater than that of the project in each of the analyzed peak hours. Based on the existing congested conditions at the significantly-impacted intersections, it is expected that the significant impact at the intersection of Hancock Avenue & Holloway Drive (PM peak hour) under the future year (Year 2019) would remain.

- Alternative 5: No Subterranean Parking. The estimated trip generation of Alternative 5 would be the same as that of the project in each of the analyzed peak hours. Based on the existing congested conditions at the significantly-impacted intersections and because trip generation estimates do not change in this alternative, it is expected that the significant impact at the intersection of Hancock Avenue & Holloway Drive (PM peak hour) under the future year (Year 2019) would remain.

- Alternative 6: Reduced Density on R4 Lots. The estimated trip generation of Alternative 6 would be greater than that of the project in each of the analyzed peak hours. Based on the increased trip generation and differing access scheme, potential impacts for this alternative were fully evaluated with a future and existing with and without project intersection analysis of all peak hours. This analysis found that with the revised access scheme this alternative would not result in any significant intersection or segment impacts. These results are displayed in Tables 17 and 18.

- Alternative 7: Modified Project. The estimated trip generation of Alternative 7 would be similar to that of the project in each of the analyzed peak hours. While this project has the similar trip generation due to the land uses and land use quantities of the proposed project, it allows for a different access scheme that results in a revised project assignment on the local street network. The potential impacts for this alternative were fully evaluated with a future and existing with and without project intersection analysis of all peak hours. This analysis found that with the revised access scheme this alternative would not result in any significant intersection or segment impacts. These results are displayed in Tables 19 and 20.

TABLE 17
ALTERNATIVE 6
EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Existing (Year 2016)		With Alt. 6 (Full Access on W Knoll Dwy) (Year 2016)			
		V/C or Delay	LOS	Delay	LOS	Change in Delay	Impact?
1. San Vicente Blvd & Santa Monica Blvd	**AM**	33	C	34	C	1	No
	Midday	28	C	28	C	0	No
	PM	35	C	35	C	0	No
2. Horn Ave/Holloway Dr & Sunset Bl	**AM**	31	C	31	C	0	No
	Midday	22	C	22	C	0	No
	PM	22	C	22	C	0	No
3. Hancock Ave & Holloway Dr [a]	**AM**	19	C	19	C	0	No
	Midday	26	D	26	D	0	No
	PM	48	E	49	E	1	No
4. Hancock Ave & Santa Monica Blvd [b]	**AM**	39	E	40	E	1	No
	Midday	20	C	20	C	0	No
	PM	16	C	16	C	0	No
5. Westbourne Dr & Santa Monica Blvd	**AM**	18	B	19	B	1	No
	Midday	46	D	46	D	0	No
	PM	97	F	97	F	0	No
6. Westmount Dr & Holloway Dr [b]	**AM**	15	B	16	C	1	No
	Midday	18	C	19	C	1	No
	PM	25	C	26	D	1	No
7. West Knoll Dr & Santa Monica Blvd [b]	**AM**	10	A	11	B	1	No
	Midday	10	A	11	B	1	No
	PM	10	A	11	B	1	No
8. La Cienega Blvd & Sunset Blvd	**AM**	62	E	62	E	0	No
	Midday	97	F	99	F	2	No
	PM	166	F	168	F	2	No
9. La Cienega Blvd & Fountain Ave	**AM**	57	E	57	E	0	No
	Midday	32	C	32	C	0	No
	PM	20	B	20	B	0	No
10. La Cienega Blvd & Holloway Dr	**AM**	35	C	35	C	0	No
	Midday	36	D	37	D	1	No
	PM	64	E	65	E	1	No
11. La Cienega Blvd & Santa Monica Blvd	**AM**	66	E	68	E	2	No
	Midday	55	D	59	E	4	No
	PM	78	E	80	E	2	No
12. La Cienega Blvd & Sherwood Dr [b]	**AM**	50	E	52	F	2	No
	PM	34	D	35	D	1	No
13. La Cienega Blvd & Melrose Ave	**AM**	53	D	53	D	0	No
	Midday	38	D	39	D	1	No
	PM	67	E	69	E	2	No
14. Croft Ave & Santa Monica Blvd	**AM**	19	B	19	B	0	No
	Midday	16	B	16	B	0	No
	PM	18	B	18	B	0	No
15. Kings Rd & Santa Monica Blvd	**AM**	10	A	10	A	0	No
	Midday	12	B	12	B	0	No
	PM	13	B	13	B	0	No
16. Westmount Dr & Santa Monica Blvd [b]	**AM**	10	A	11	B	1	No
	Midday	13	B	14	B	1	No
	PM	13	B	14	B	1	No
17. West Knoll Dr & Santa Monica Blvd [b]	**AM**	9	A	10	A	1	No
	Midday	11	B	11	B	0	No
	PM	12	B	12	B	0	No

Notes:

LA Los Angeles
WH West Hollywood
** Indicates oversaturated conditions. Delay could not be calculated.
[a] Intersection is a two-way stop. Average vehicular delay reported for worst case approach.
[b] The minor approach is stop controlled. Average vehicular delay reported for worst case approach.

TABLE 18
ALTERNATIVE 6
FUTURE PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Jurisdiction	Peak Hour	Cumulative Base (2019)		With Alt. 6 (Full Access on W Knoll Dwy) (2019)			
			V/C or Delay	LOS	Delay	LOS	Change in Delay	Impact?
1. San Vicente Blvd & Santa Monica Blvd	WH	AM	76	E	78	E	2	No
		Midday	74	E	74	E	0	No
		PM	92	F	93	F	1	No
2. Horn Ave/Holloway Dr & Sunset Bl	WH	AM	40	D	41	D	1	No
		Midday	27	C	27	C	0	No
		PM	27	C	27	C	0	No
3. Hancock Ave & Holloway Dr [a]	WH	AM	27	C	27	C	0	No
		Midday	37	D	38	D	1	No
		PM	163	F	166	F	3	No
4. Hancock Ave & Santa Monica Blvd [b]	WH	AM	74	F	77	F	3	No
		Midday	27	D	27	D	0	No
		PM	20	C	20	C	0	No
5. Westbourne Dr & Santa Monica Blvd	WH	AM	34	C	38	D	4	No
		Midday	28	C	29	C	1	No
		PM	58	E	59	E	1	No
6. Westmount Dr & Holloway Dr [b]	WH	AM	21	C	22	C	1	No
		Midday	28	C	29	C	1	No
		PM	49	D	53	D	4	No
7. West Knoll Dr & Santa Monica Blvd [b]	WH	AM	11	B	11	B	0	No
		Midday	10	A	11	B	1	No
		PM	10	A	10	A	0	No
8. La Cienega Blvd & Sunset Blvd	WH	AM	156	F	156	F	0	No
		Midday	243	F	244	F	1	No
		PM	281	F	283	F	2	No
9. La Cienega Blvd & Fountain Ave	WH	AM	69	E	69	E	0	No
		Midday	40	D	40	D	0	No
		PM	46	D	46	D	0	No
10. La Cienega Blvd & Holloway Dr	WH	AM	42	D	43	D	1	No
		Midday	56	E	56	E	0	No
		PM	118	F	119	F	1	No
11. La Cienega Blvd & Santa Monica Blvd	WH	AM	113	F	115	F	2	No
		Midday	150	F	154	F	4	No
		PM	165	F	168	F	3	No
12. La Cienega Blvd & Sherwood Dr [b]	LA	AM	*	*	*	*	[c]	
		PM	*	*	*	*		
13. La Cienega Blvd & Melrose Ave	WH	AM	129	F	131	F	2	No
		Midday	141	F	144	F	3	No
		PM	171	F	174	F	3	No
14. Croft Ave & Santa Monica Blvd	WH	AM	26	C	26	C	0	No
		Midday	22	C	22	C	0	No
		PM	25	C	25	C	0	No
15. Kings Rd & Santa Monica Blvd	WH	AM	9	A	9	A	0	No
		Midday	11	B	11	B	0	No
		PM	13	B	13	B	0	No
16. Westmount Dr & Santa Monica Blvd	WH	AM	18	B	20	B	2	No
		Midday	12	B	14	B	2	No
		PM	10	A	10	A	0	No
17. West Knoll Dr & Santa Monica Blvd	WH	AM	11	B	12	B	1	No
		Midday	5	A	6	A	1	No
		PM	9	A	9	A	0	No

Notes:

LA Los Angeles
WH West Hollywood
** Indicates oversaturated conditions. Delay could not be calculated.
[a] Intersection is a two-way stop. Average vehicular delay reported for worst case approach.
[b] The minor approach is stop controlled. Average vehicular delay reported for worst case approach.
[c] This intersection is located in the City of Los Angeles. A signal warrant analysis was conducted per City of Los Angeles *Traffic Study Policies and Procedures* (LADOT, May 2009). The intersection was analyzed using the HCM-Unsignalized methodology for reference purposes only; no project-related impacts can be ascribed.

TABLE 19
ALTERNATIVE 7
EXISTING PLUS PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Existing (Year 2016)		With Alt. 7 (Full Access on W Knoll Dwy) (Year 2016)			
		V/C or Delay	LOS	Delay	LOS	Change in Delay	Impact?
1. San Vicente Blvd &	**AM**	33	C	34	C	1	No
Santa Monica Blvd	**Midday**	28	C	28	C	0	No
	PM	35	C	35	C	0	No
2. Horn Ave/Holloway Dr &	**AM**	31	C	31	C	0	No
Sunset Bl	**Midday**	22	C	22	C	0	No
	PM	22	C	22	C	0	No
3. Hancock Ave &	**AM**	19	C	19	C	0	No
Holloway Dr [a]	**Midday**	26	D	26	D	0	No
	PM	48	E	49	E	1	No
4. Hancock Ave &	**AM**	39	E	40	E	1	No
Santa Monica Blvd [b]	**Midday**	20	C	20	C	0	No
	PM	16	C	16	C	0	No
5. Westbourne Dr &	**AM**	18	B	18	B	0	No
Santa Monica Blvd	**Midday**	46	D	47	D	1	No
	PM	97	F	96	F	-1	No
6. Westmount Dr &	**AM**	15	B	16	C	1	No
Holloway Dr [b]	**Midday**	18	C	19	C	1	No
	PM	25	C	26	D	1	No
7. West Knoll Dr &	**AM**	10	A	11	B	1	No
Santa Monica Blvd [b]	**Midday**	10	A	11	B	1	No
	PM	10	A	10	A	0	No
8. La Cienega Blvd &	**AM**	62	E	62	E	0	No
Sunset Blvd	**Midday**	97	F	98	F	1	No
	PM	166	F	168	F	2	No
9. La Cienega Blvd &	**AM**	57	E	57	E	0	No
Fountain Ave	**Midday**	32	C	32	C	0	No
	PM	20	B	20	B	0	No
10. La Cienega Blvd &	**AM**	35	C	35	C	0	No
Holloway Dr	**Midday**	36	D	37	D	1	No
	PM	64	E	65	E	1	No
11. La Cienega Blvd &	**AM**	66	E	67	E	1	No
Santa Monica Blvd	**Midday**	55	D	58	E	3	No
	PM	78	E	80	E	2	No
12. La Cienega Blvd &	**AM**	50	E	52	F	2	No
Sherwood Dr [b]	**PM**	34	D	35	D	1	No
13. La Cienega Blvd &	**AM**	53	D	53	D	0	No
Melrose Ave	**Midday**	38	D	38	D	0	No
	PM	67	E	69	E	2	No
14. Croft Ave &	**AM**	19	B	19	B	0	No
Santa Monica Blvd	**Midday**	16	B	16	B	0	No
	PM	18	B	18	B	0	No
15. Kings Rd &	**AM**	10	A	10	A	0	No
Santa Monica Blvd	**Midday**	12	B	12	B	0	No
	PM	13	B	13	B	0	No
16. Westmount Dr &	**AM**	10	A	11	B	1	No
Santa Monica Blvd [b]	**Midday**	13	B	14	B	1	No
	PM	13	B	14	B	1	No
17. West Knoll Dr &	**AM**	9	A	10	A	1	No
Santa Monica Blvd [b]	**Midday**	11	B	11	B	0	No
	PM	12	B	12	B	0	No

Notes:

LA Los Angeles
WH West Hollywood
** Indicates oversaturated conditions. Delay could not be calculated.
[a] Intersection is a two-way stop. Average vehicular delay reported for worst case approach.
[b] The minor approach is stop controlled. Average vehicular delay reported for worst case approach.

TABLE 20
ALTERNATIVE 7
FUTURE PROJECT INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Jurisdiction	Peak Hour	Cumulative Base (2019)		With Alt. 7 (Full Access on W Knoll Dwy) (2019)			
			V/C or Delay	LOS	Delay	LOS	Change in Delay	Impact?
1. San Vicente Blvd & Santa Monica Blvd	WH	AM	76	E	77	E	1	No
		Midday	74	E	74	E	0	No
		PM	92	F	93	F	1	No
2. Horn Ave/Holloway Dr & Sunset Bl	WH	AM	40	D	41	D	1	No
		Midday	27	C	27	C	0	No
		PM	27	C	27	C	0	No
3. Hancock Ave & Holloway Dr [a]	WH	AM	27	C	27	C	0	No
		Midday	37	D	38	D	1	No
		PM	163	F	167	F	4	No
4. Hancock Ave & Santa Monica Blvd [b]	WH	AM	74	F	76	F	2	No
		Midday	27	D	27	D	0	No
		PM	20	C	20	C	0	No
5. Westbourne Dr & Santa Monica Blvd	WH	AM	34	C	37	D	3	No
		Midday	28	C	29	C	1	No
		PM	58	E	59	E	1	No
6. Westmount Dr & Holloway Dr [b]	WH	AM	21	C	23	C	2	No
		Midday	28	C	30	C	2	No
		PM	49	D	52	D	3	No
7. West Knoll Dr & Santa Monica Blvd [b]	WH	AM	11	B	11	B	0	No
		Midday	10	A	11	B	1	No
		PM	10	A	10	A	0	No
8. La Cienega Blvd & Sunset Blvd	WH	AM	156	F	156	F	0	No
		Midday	243	F	244	F	1	No
		PM	281	F	283	F	2	No
9. La Cienega Blvd & Fountain Ave	WH	AM	69	E	69	E	0	No
		Midday	40	D	40	D	0	No
		PM	46	D	46	D	0	No
10. La Cienega Blvd & Holloway Dr	WH	AM	42	D	43	D	1	No
		Midday	56	E	57	E	1	No
		PM	118	F	119	F	1	No
11. La Cienega Blvd & Santa Monica Blvd	WH	AM	113	F	114	F	1	No
		Midday	150	F	154	F	4	No
		PM	165	F	167	F	2	No
12. La Cienega Blvd & Sherwood Dr [b]	LA	AM	*	*	*	*	[c]	
		PM	*	*	*	*		
13. La Cienega Blvd & Melrose Ave	WH	AM	129	F	130	F	1	No
		Midday	141	F	144	F	3	No
		PM	171	F	174	F	3	No
14. Croft Ave & Santa Monica Blvd	WH	AM	26	C	26	C	0	No
		Midday	22	C	22	C	0	No
		PM	25	C	25	C	0	No
15. Kings Rd & Santa Monica Blvd	WH	AM	9	A	9	A	0	No
		Midday	11	B	11	B	0	No
		PM	13	B	13	B	0	No
16. Westmount Dr & Santa Monica Blvd	WH	AM	18	B	19	B	1	No
		Midday	12	B	14	B	2	No
		PM	10	A	10	A	0	No
17. West Knoll Dr & Santa Monica Blvd	WH	AM	11	B	12	B	1	No
		Midday	5	A	6	A	1	No
		PM	9	A	9	A	0	No

Notes:

LA Los Angeles
WH West Hollywood
** Indicates oversaturated conditions. Delay could not be calculated.
[a] Intersection is a two-way stop. Average vehicular delay reported for worst case approach.
[b] The minor approach is stop controlled. Average vehicular delay reported for worst case approach.
[c] This intersection is located in the City of Los Angeles. A signal warrant analysis was conducted per City of Los Angeles *Traffic Study Policies and Procedures* (LADOT, May 2009). The intersection was analyzed using the HCM-Unsignalized methodology for reference purposes only; no project-related impacts can be ascribed

9. CONSTRUCTION IMPACTS

Short-term adverse traffic and parking impacts could occur in the project vicinity during construction of the project. Additional trips generated by the truck deliveries and construction employees could affect traffic flow in the study area; construction activity could impact traffic along Santa Monica Boulevard and West Knoll Drive; pedestrian traffic flow near the project site could be altered as a result of construction; and the availability of parking, especially on-street parking in the study area, could be impacted if on-site parking for construction employees were not provided.

CONSTRUCTION MITIGATION PLAN

The developer must comply with the standard City of West Hollywood development permit conditions relating to construction activities:

> Grading and other construction activities shall be limited to the hours of 8:00 AM to 7:00 PM, Monday through Friday, and shall be limited to interior construction during the same hours on Saturday. No construction activity shall be permitted on Sundays and City or national holidays. The use of heavy equipment shall be restricted to the hours of 8:00 AM to 7:00 PM, Monday through Friday. Trucks and other heavy equipment and vehicles shall not arrive before 8:00 AM. Employees for the project shall not arrive at the site prior to 7:45 AM on any working day. All construction equipment and materials shall be stored on site.

To minimize construction impacts, City policy and procedure requires that the developer submit a Construction Mitigation Plan to the City for review as part of the project approval process. The elements of the proposed plan are described below.

Staging Area

The staging area for construction will be determined in consultation with the project applicant and City staff.

Haul Route

Locally, the following haul routes are available for construction truck trips:

- East on Santa Monica Boulevard to US-101
- South on La Cienega Boulevard to I-10
- West on Santa Monica Boulevard to I-405

Employee Parking

The developer must ensure that construction period employees can either park on-site or at an off-site location. Off-site parking in the adjacent residential neighborhoods is strictly prohibited.

Pedestrian Safety

If sidewalks are to be closed during construction, pedestrians would need to be advised of the closure with signage. It may also be necessary for the applicant to provide a protected walkway, approved by the City.

10. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze the potential traffic impacts of the proposed mixed-use development including commercial and multi-family residential uses. The following summarizes the findings of this analysis:

- The proposed development is a mixed-use complex containing 97 residential units and 12 live/work units above 15,678 sf of ground floor retail space, 2,820 sf of ground floor restaurant space, 6,079 sf of office space, 3,718 sf of hair salon, and a 350-space garage spanning three levels.
- Seventeen intersections and eight street segments within the cities of West Hollywood and Los Angeles were analyzed for this project. Nine of the analyzed intersections operate at LOS E or F during any of the peak hours under existing conditions.
- The proposed project is expected to generate a net increase of approximately 809 daily trips, 51 trips during the AM peak hour, 89 trips during the midday peak hour, and 66 trips during the PM peak hour.
- Analysis of existing plus project conditions indicates that nine intersections are projected to operate at LOS E or F during the analyzed peak hours.
- No intersections or neighborhood street segment would be significantly impacted by project-related trips under existing plus project conditions.
- The 2019 cumulative base conditions include ambient growth and 73 related projects. The analysis of cumulative base conditions indicates that 10 intersections are projected to operate at LOS E or F during both analyzed peak hours; the remaining intersections are projected to operate at LOS D or better during analyzed peak hours.
- Analysis of projected year 2019 cumulative plus project conditions indicates that 10 intersections are projected to operate at LOS E or F during the analyzed peak hours.
- The intersection of Hancock Avenue & Holloway Drive will be significantly impacted by project-related trips under future plus project conditions. Various mitigation measures were considered for the intersection of Hancock Avenue & Holloway Drive; however, impacts at this location would remain significant and unavoidable. No intersections or neighborhood street segment would be significantly impacted by project-related trips under future plus project conditions.
- According to the WHMC, the parking requirement for the proposed project is 330 spaces with 213 for residents (including Live/Work residents) and 117 for commercial guests. The proposed project would provide 337 spaces in a three level structure.
- According to the WHMC, the bicycle parking requirement for the proposed project is 34 spaces with 24 for residents and 10 for employees and guests. The proposed project would provide 35 spaces in the parking structure, two shower facilities, and six clothing lockers.

- Analysis of potential impacts on the regional transportation system conducted in accordance with CMP requirements determined that the project would not generate sufficient trips to have a significant impact on the CMP arterial highway network or on the mainline freeway system.
- Site access and circulation review indicates that there are two driveways to the project site, inbound/outbound residential and commercial driveways on Santa Monica Boulevard and West Knoll Drive.
- The potential for short-term adverse impacts related to construction traffic was examined. There could be impacts caused by lane and sidewalk closures and the loss of parking. The project applicant is required to develop, for approval, a construction staging and Traffic Management Plan outlining specific mitigation measures for potential construction impacts.

REFERENCES

2010 Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, July 2004.

City of West Hollywood Municipal Code, City of West Hollywood, April 2009.

Highway Capacity Manual, Transportation Research Board, 2000.

Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration, 2003.

Metro Bicycle Transportation Strategic Plan, Metro.

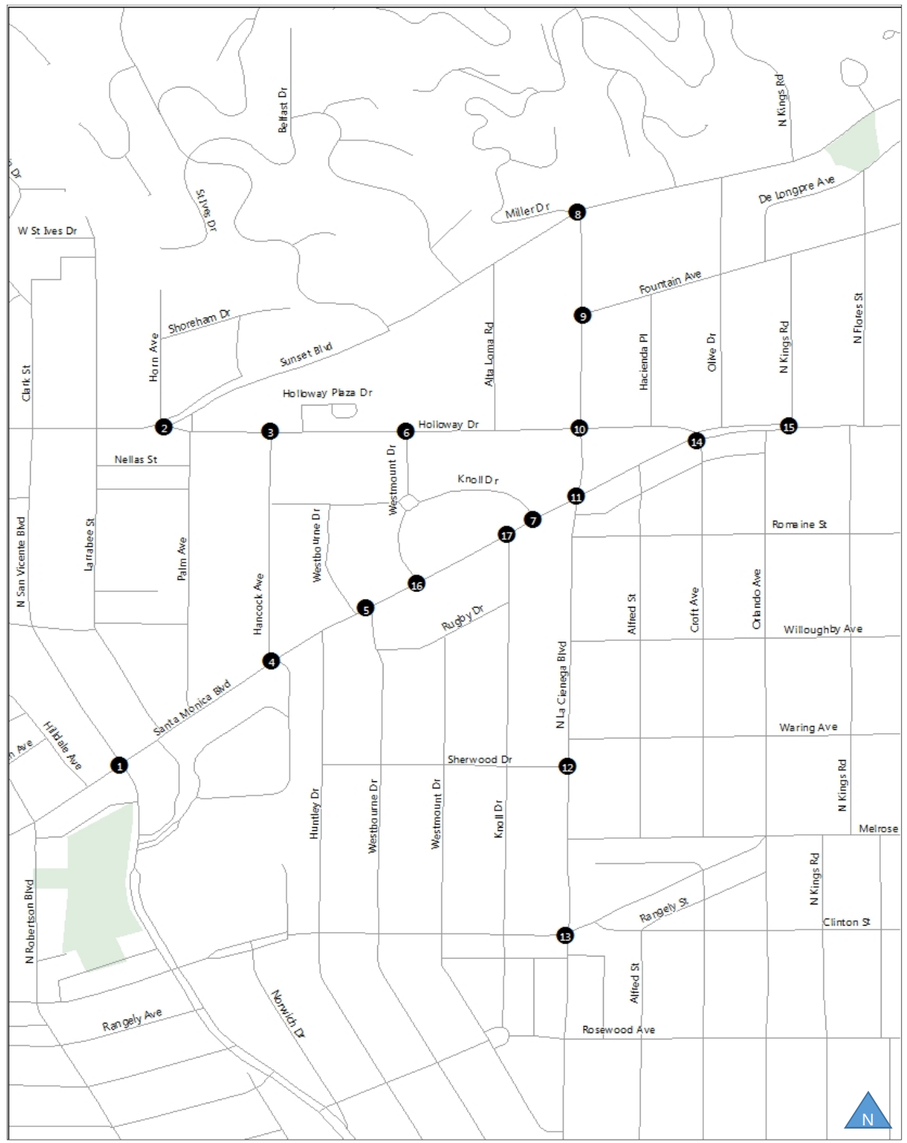
Traffic Study Policies and Procedures, Los Angeles Department of Transportation, May 2009.

Transportation Research Circular Number 212, Interim Materials on Highway Capacity, Transportation Research Board, 1980.

Trip Generation, 8th Edition, Institute of Transportation Engineers, 2008.

West Hollywood Bicycle and Pedestrian Mobility Plan, City of West Hollywood, 2003.

APPENDIX A:
INTERSECTION LANE CONFIGURATIONS



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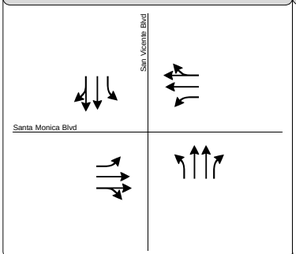
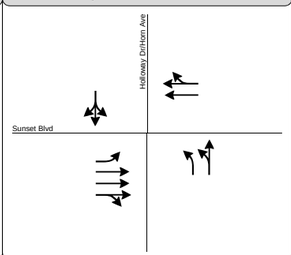
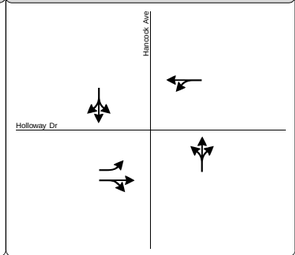


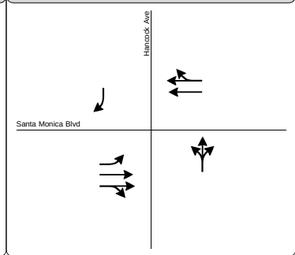
2. Holloway Dr/Horn Ave/Sunset Blvd



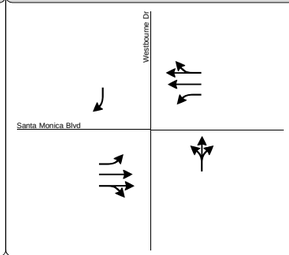
3. Hancock Ave/Holloway Dr



4. Hancock Ave/Santa Monica Blvd



5. Westbourne Dr/Santa Monica Blvd



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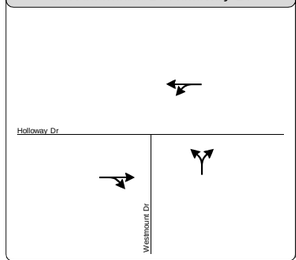

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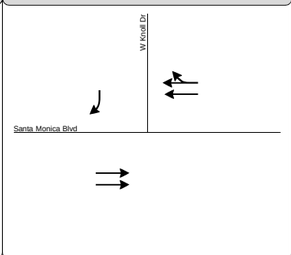

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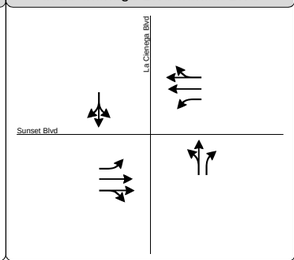
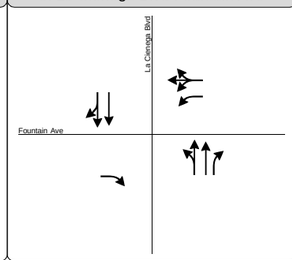


9. La Cienega Blvd/Fountain Ave



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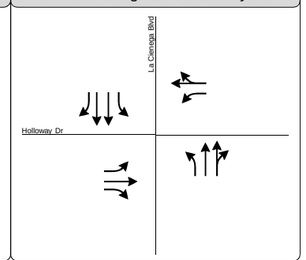

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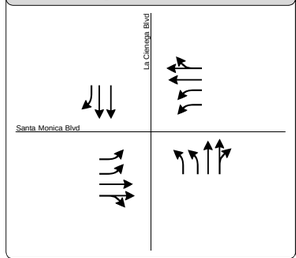
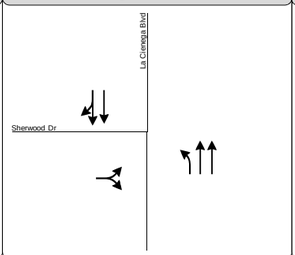
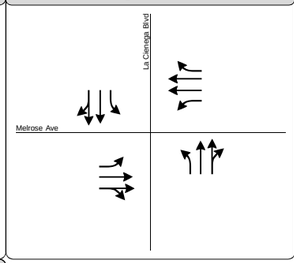


12. La Cienega Blvd/Sherwood Dr



13. La Cienega Blvd/Melrose Ave



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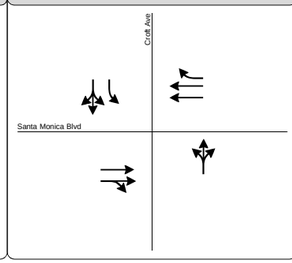

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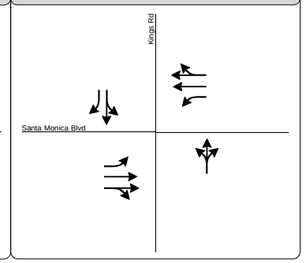
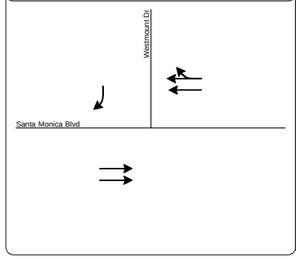


16. Westmount Dr/Santa Monica Blvd



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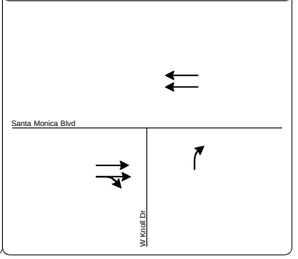

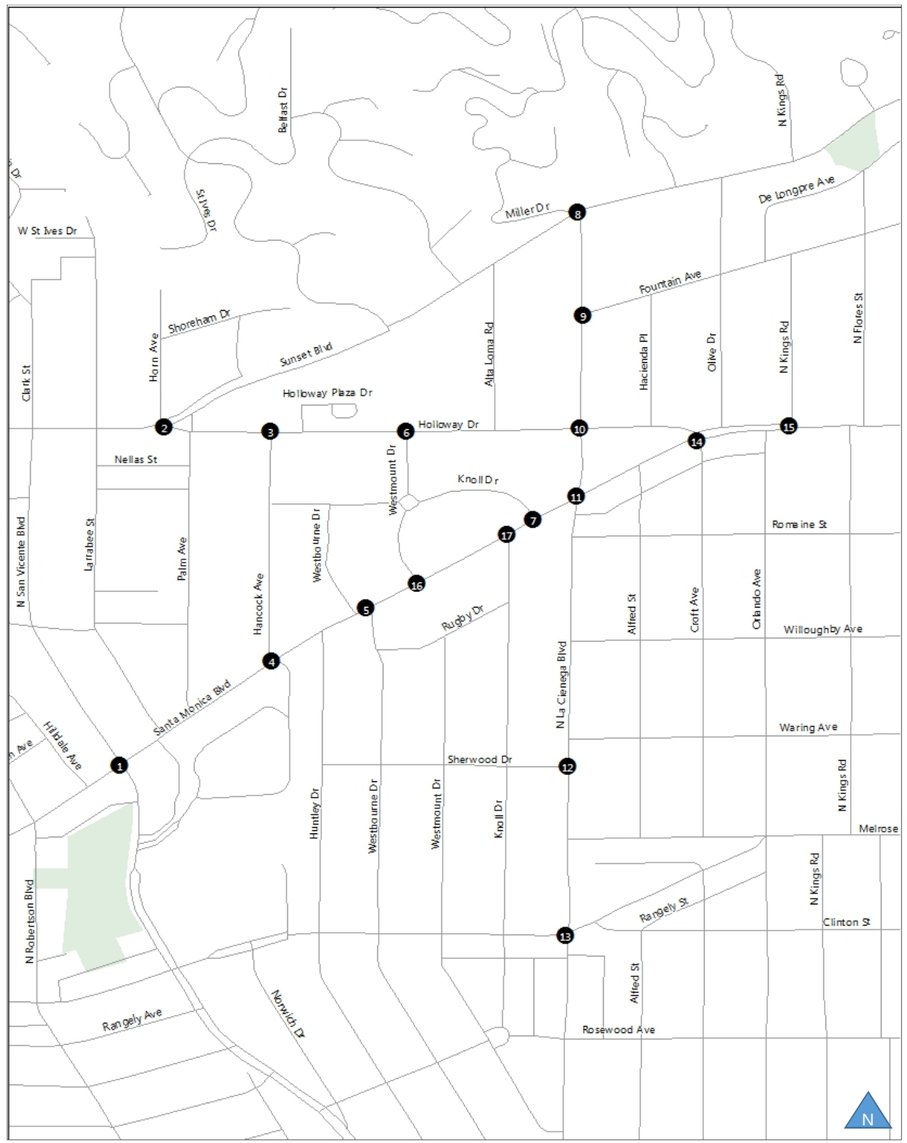

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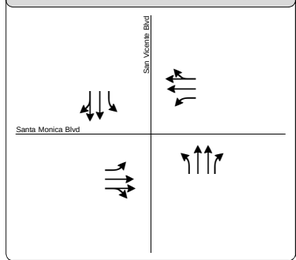
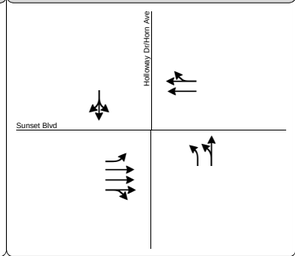
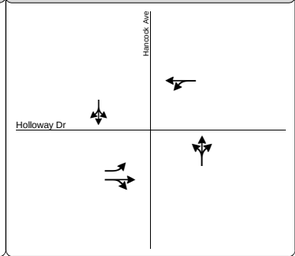


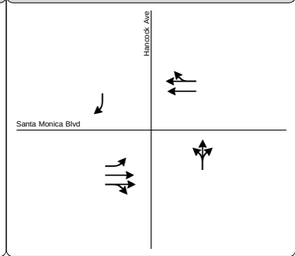
2. Holloway Dr/Horn Ave/Sunset Blvd



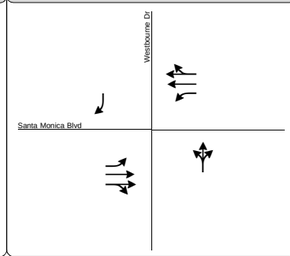
3. Hancock Ave/Holloway Dr



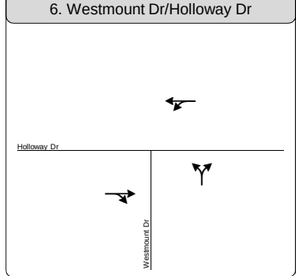
4. Hancock Ave/Santa Monica Blvd



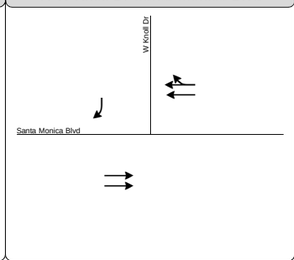
5. Westbourne Dr/Santa Monica Blvd



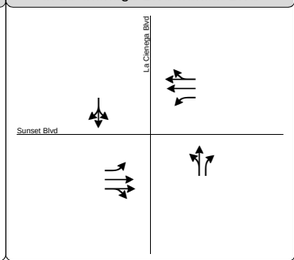
6. Westmount Dr/Holloway Dr



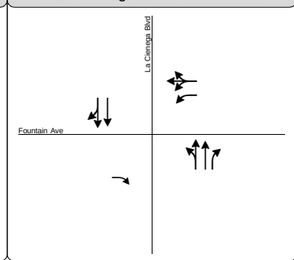
7. W Knoll Dr/Santa Monica Blvd



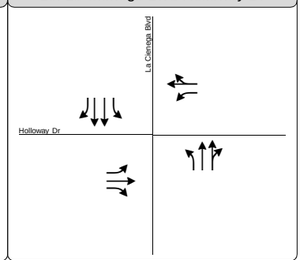
8. La Cienega Blvd/Sunset Blvd



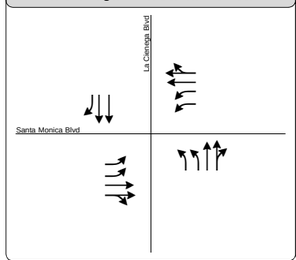
9. La Cienega Blvd/Fountain Ave



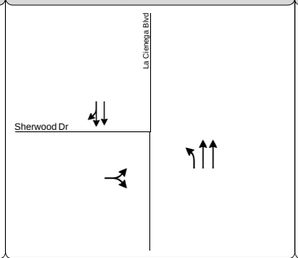
10. La Cienega Blvd/Holloway Dr



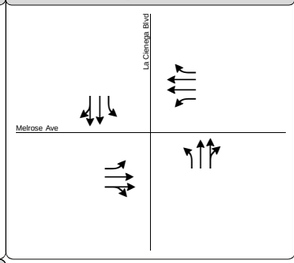
11. La Cienega Blvd/Santa Monica Blvd



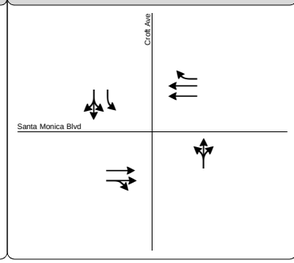
12. La Cienega Blvd/Sherwood Dr



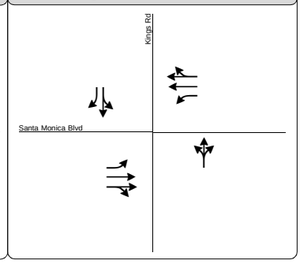
13. La Cienega Blvd/Melrose Ave



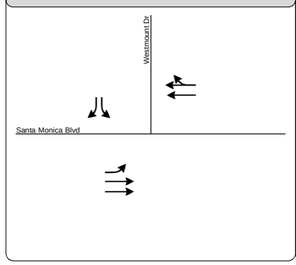
14. Croft Ave/Santa Monica Blvd



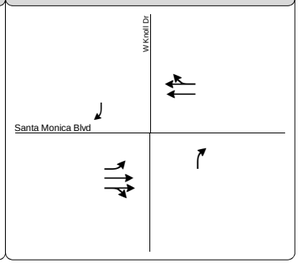
15. Kings Rd/Santa Monica Blvd



16. Westmount Dr/Santa Monica Blvd



17. W Knoll Dr /Santa Monica Blvd



AM [MD] (PM)

APPENDIX B:
TRAFFIC COUNTS

ITM Peak Hour Summary

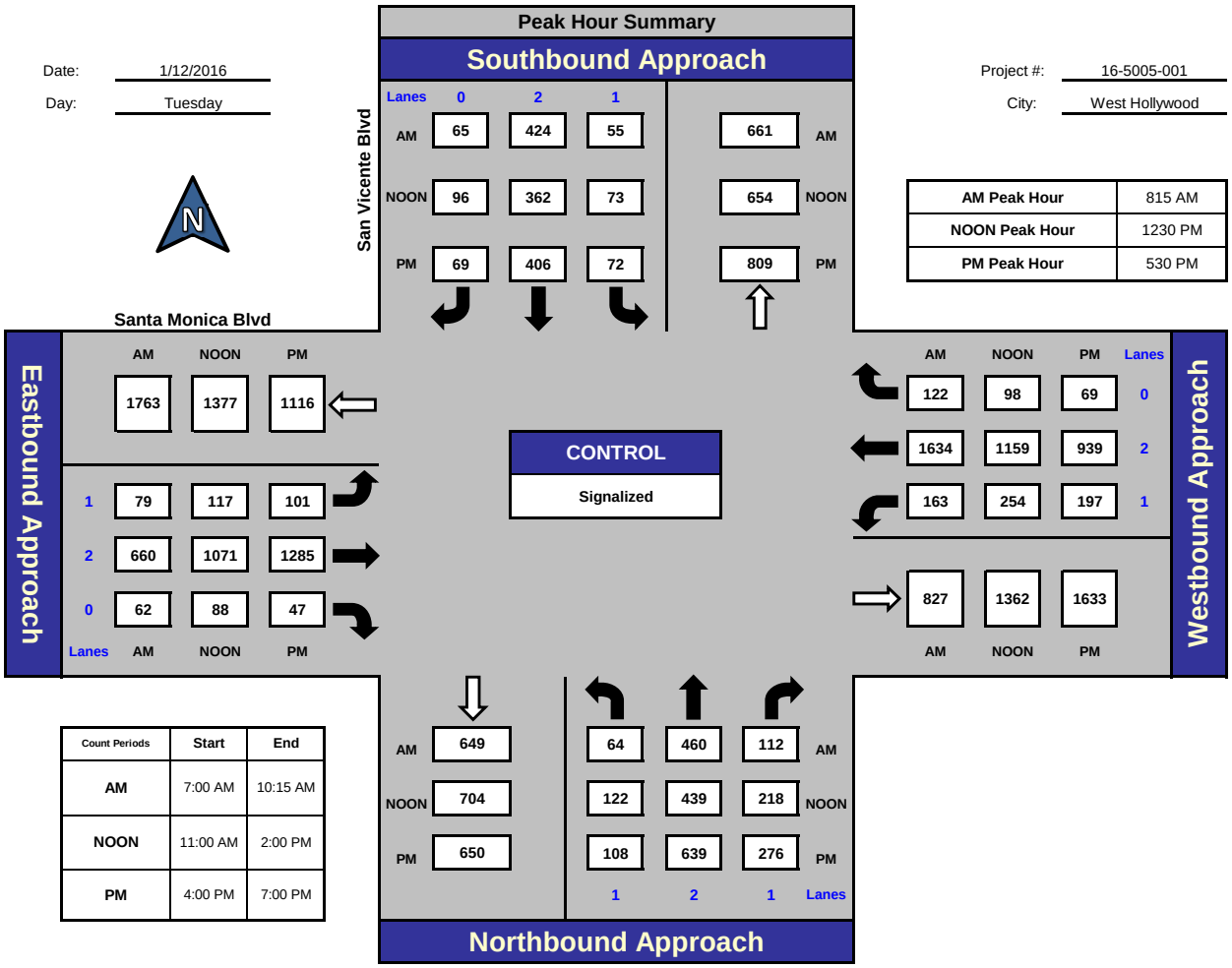
Prepared by:

National Data & Surveying Services

San Vicente Blvd and Santa Monica Blvd , West Hollywood

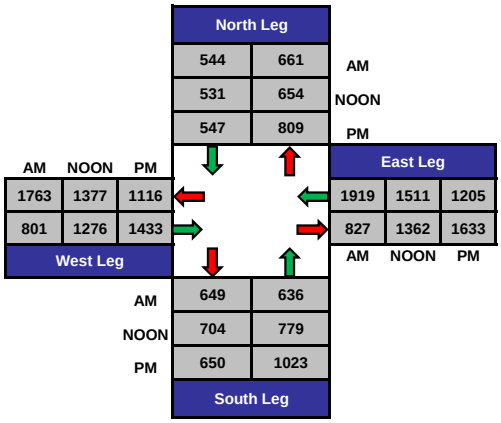
Date: 1/12/2016
Day: Tuesday
Project #: 16-5005-001
City: West Hollywood

AM Peak Hour	815 AM
NOON Peak Hour	1230 PM
PM Peak Hour	530 PM

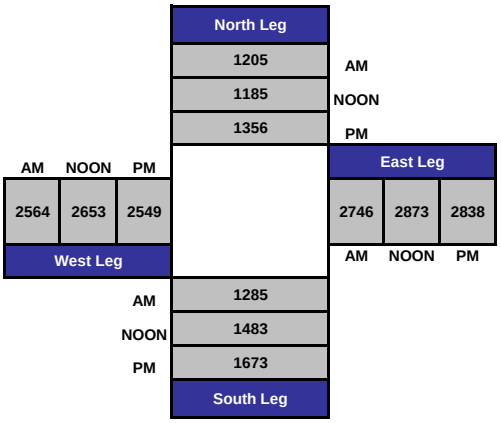


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

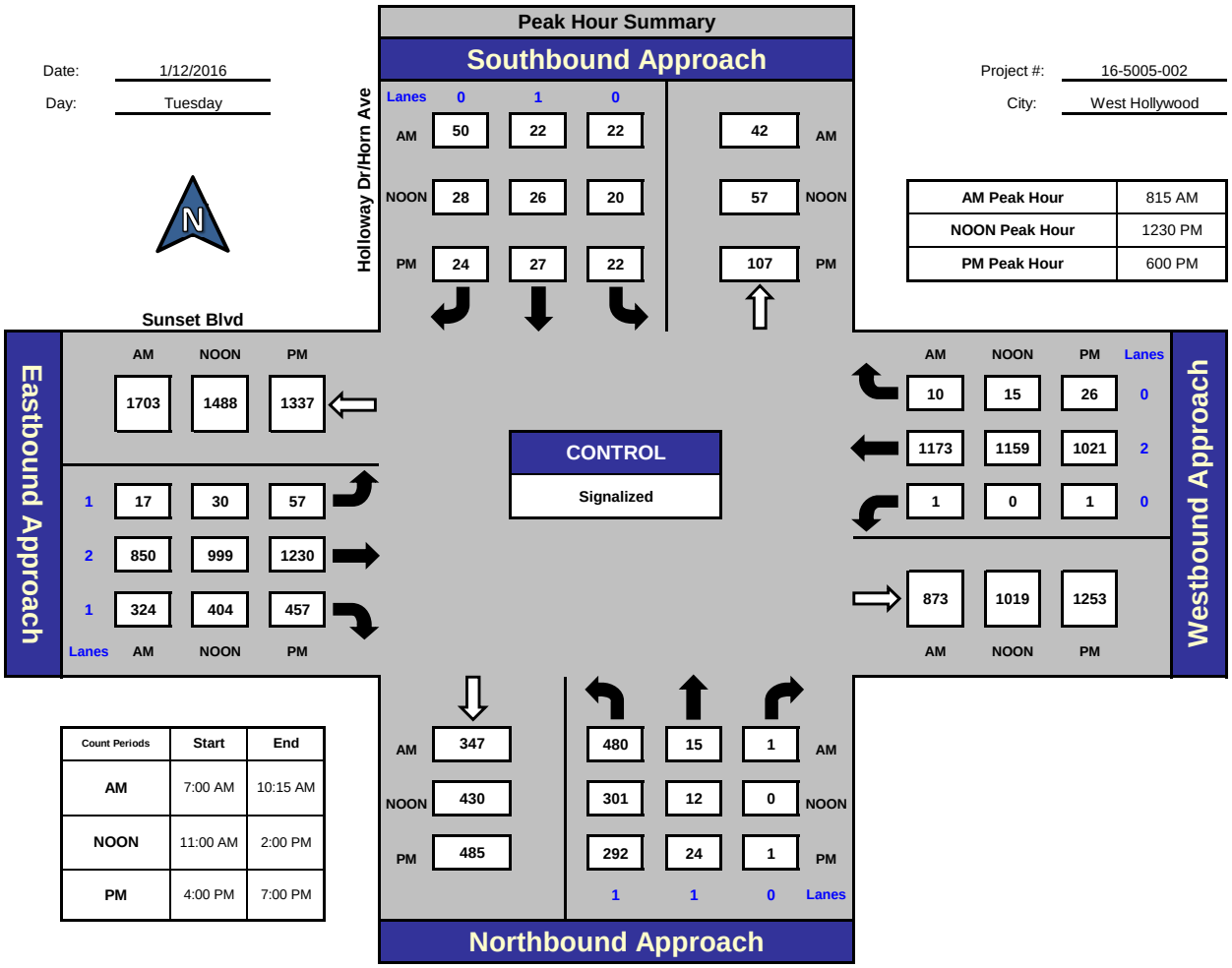
National Data & Surveying Services

Holloway Dr/Horn Ave and Sunset Blvd , West Hollywood

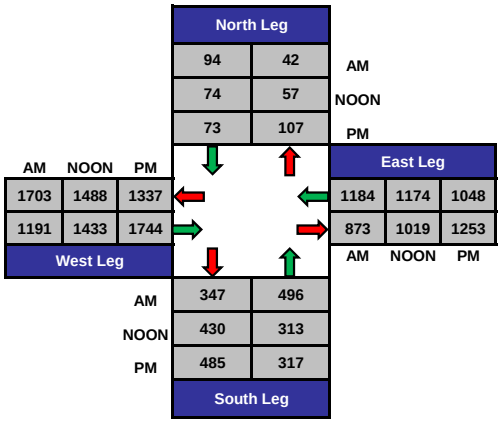
Date: 1/12/2016
Day: Tuesday

Project #: 16-5005-002
City: West Hollywood

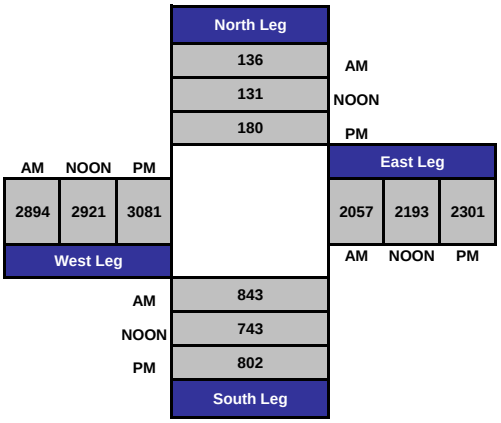
AM Peak Hour	815 AM
NOON Peak Hour	1230 PM
PM Peak Hour	600 PM



Total Ins & Outs



Total Volume Per Leg



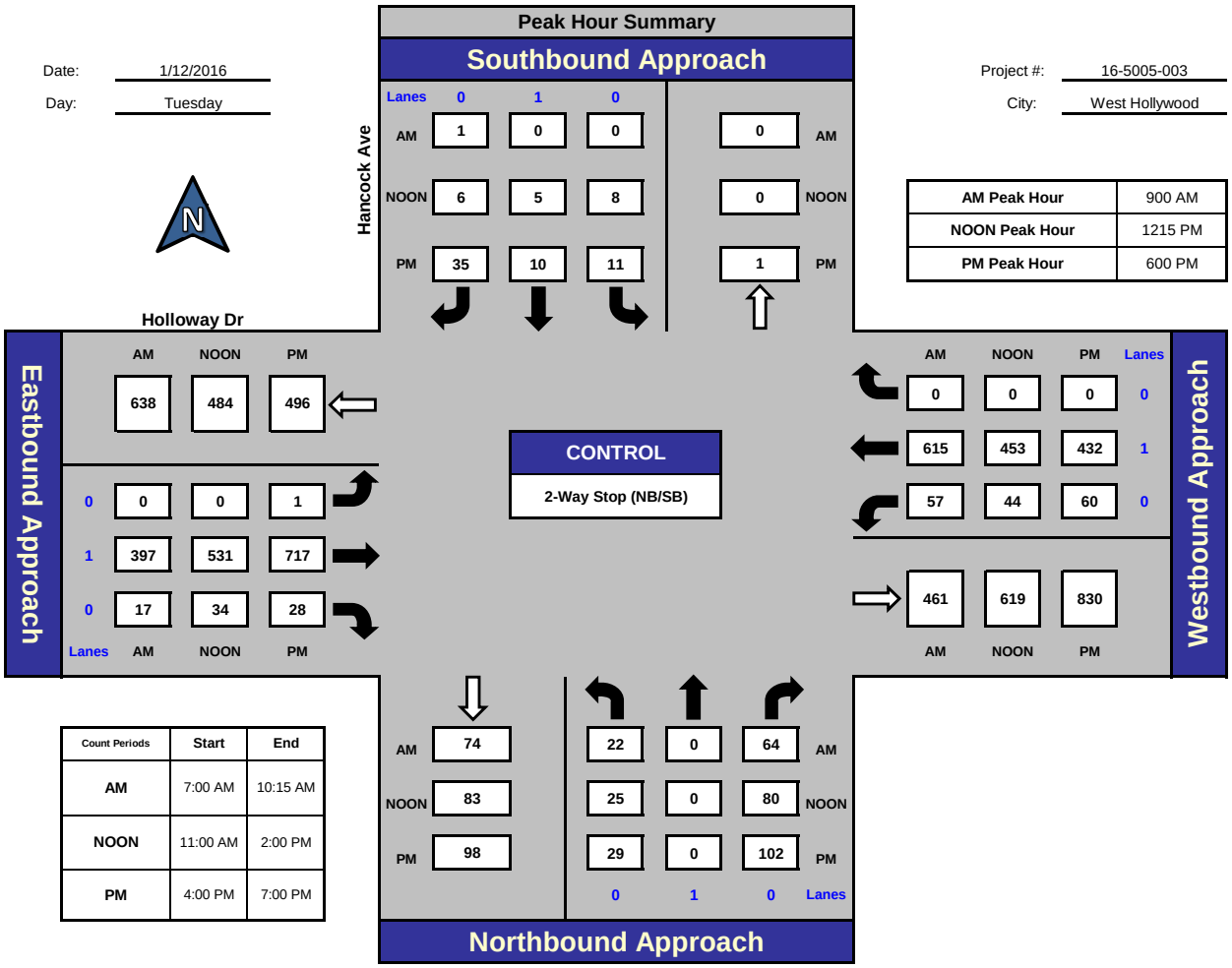
ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Hancock Ave and Holloway Dr , West Hollywood

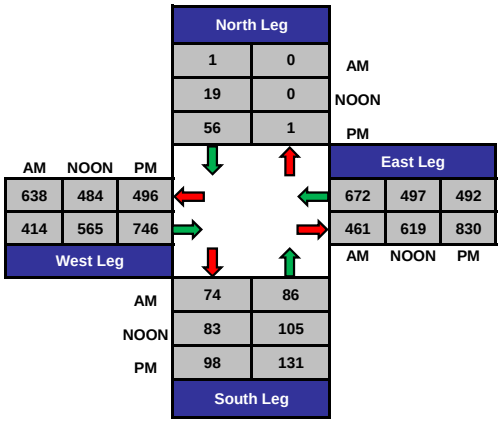
Date: 1/12/2016
Day: Tuesday
Project #: 16-5005-003
City: West Hollywood



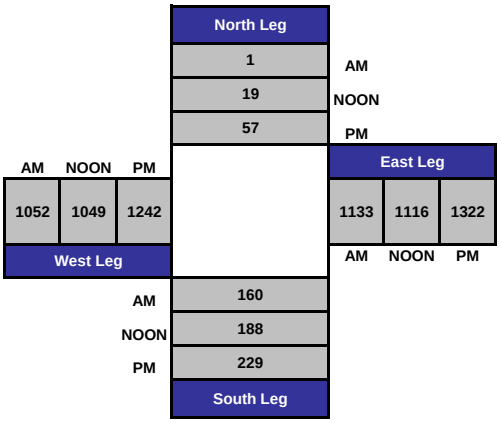
AM Peak Hour	900 AM
NOON Peak Hour	1215 PM
PM Peak Hour	600 PM

Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

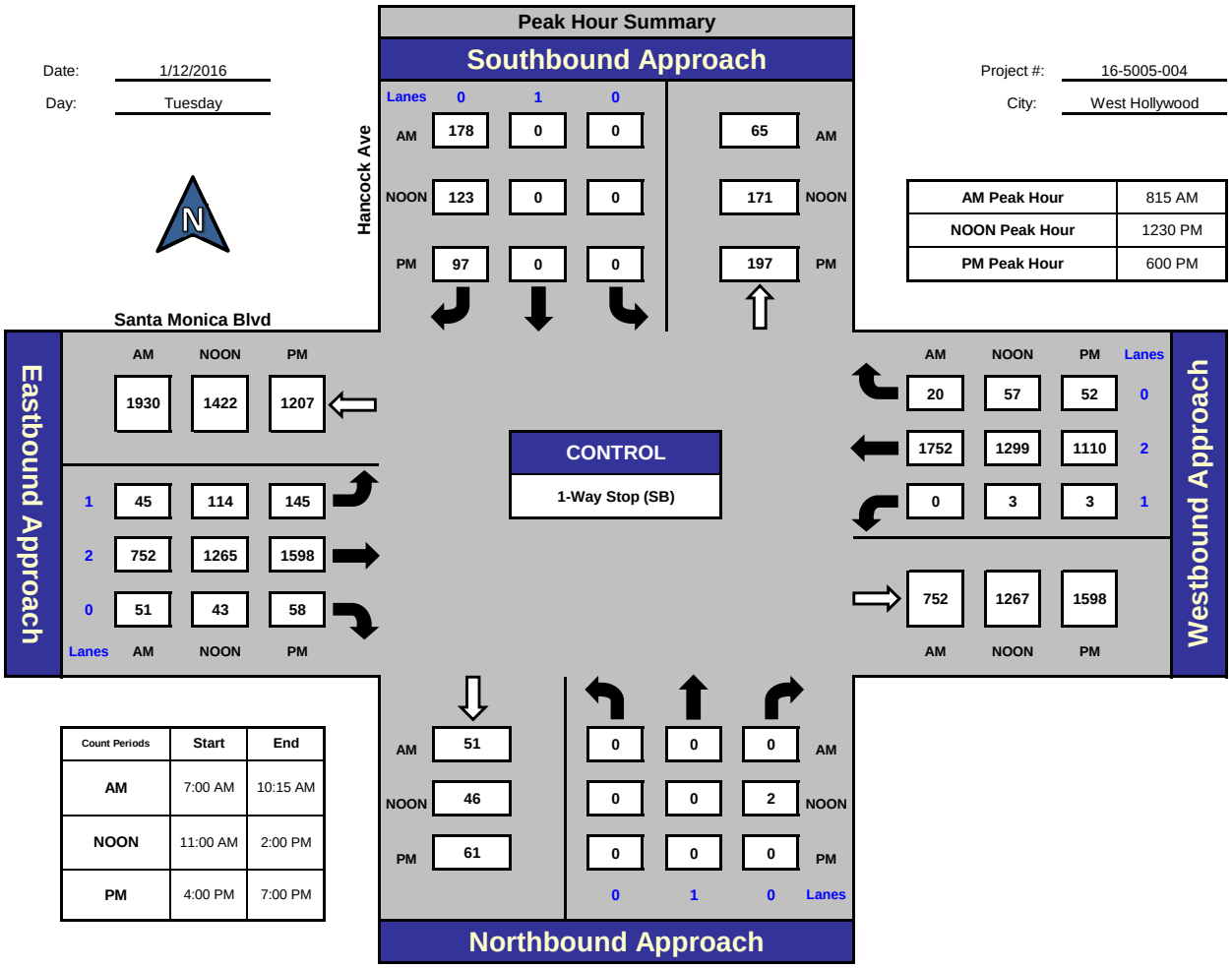
National Data & Surveying Services

Hancock Ave and Santa Monica Blvd , West Hollywood

Date: 1/12/2016
Day: Tuesday

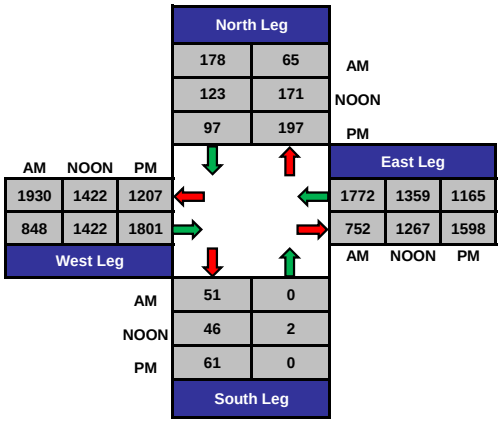
Project #: 16-5005-004
City: West Hollywood

AM Peak Hour	815 AM
NOON Peak Hour	1230 PM
PM Peak Hour	600 PM

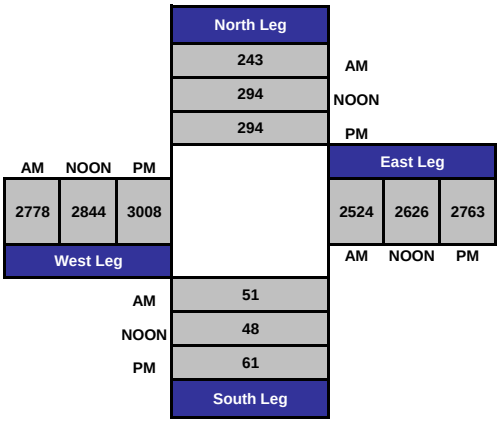


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

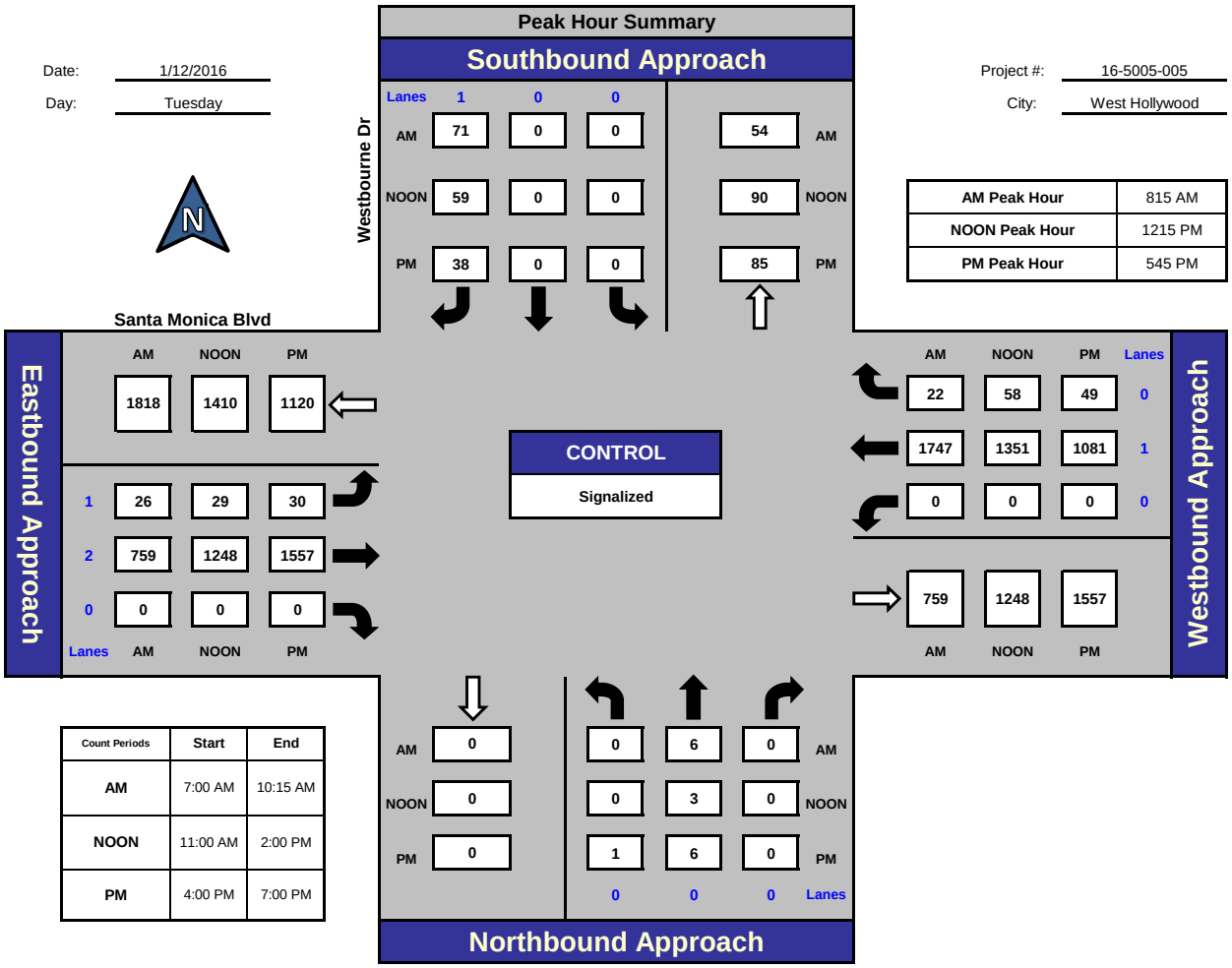
National Data & Surveying Services

Westbourne Dr and Santa Monica Blvd , West Hollywood

Date: 1/12/2016
Day: Tuesday

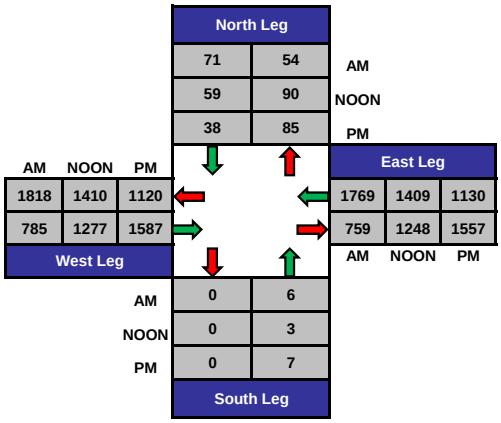
Project #: 16-5005-005
City: West Hollywood

AM Peak Hour	815 AM
NOON Peak Hour	1215 PM
PM Peak Hour	545 PM

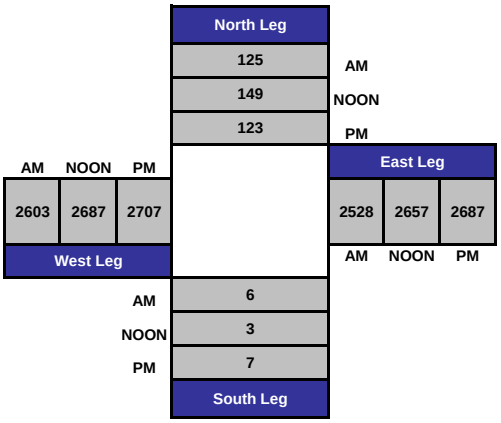


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

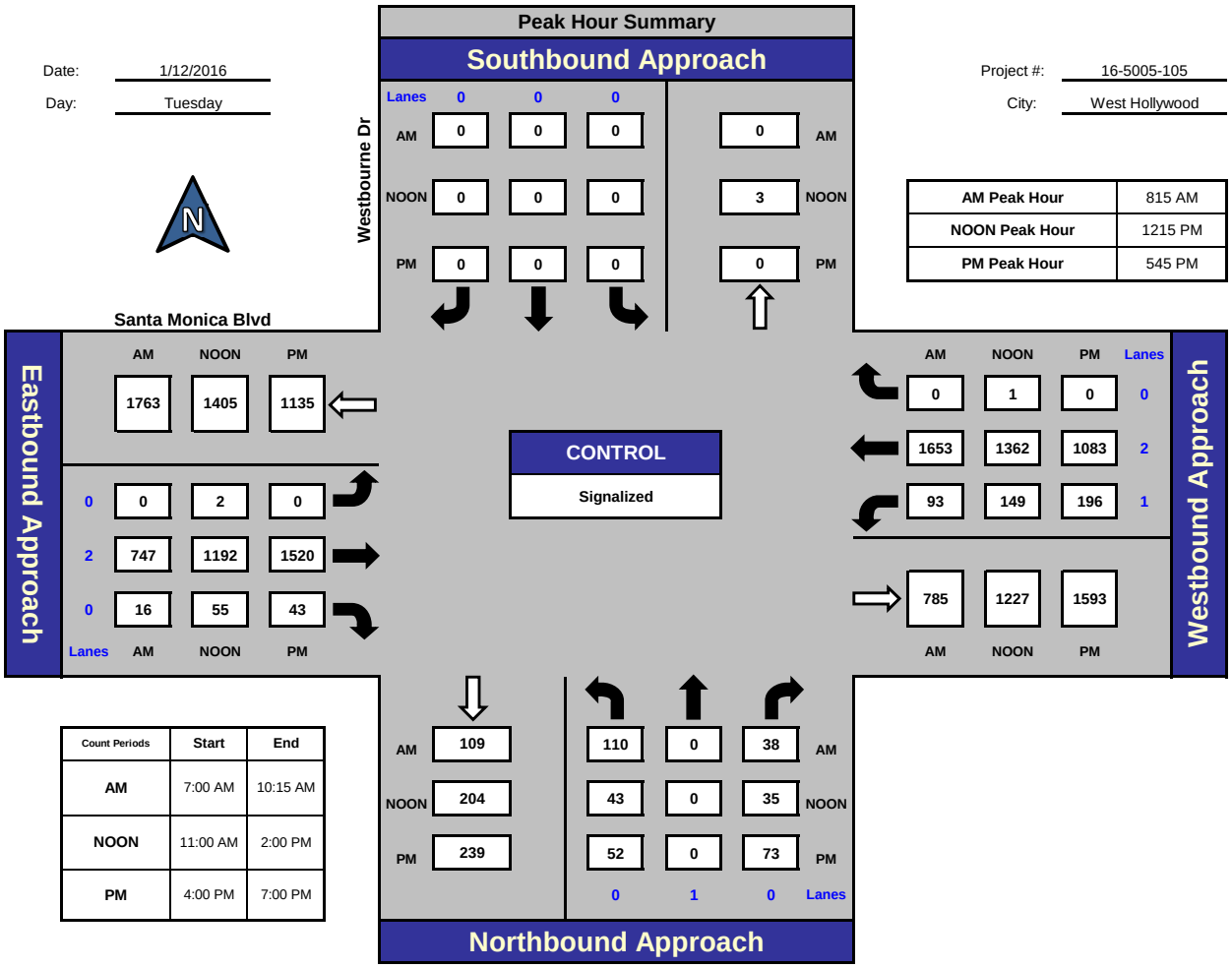
Prepared by:

National Data & Surveying Services

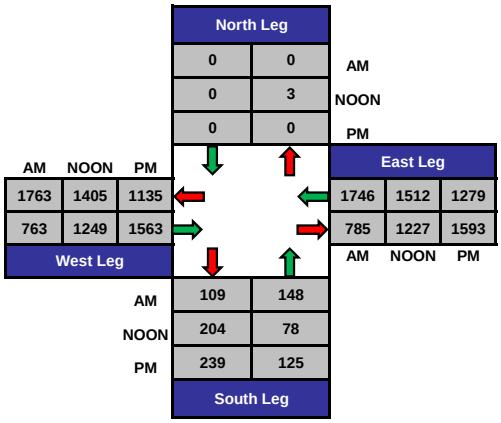
Westbourne Dr and Santa Monica Blvd , West Hollywood

Date: 1/12/2016
Day: Tuesday
Project #: 16-5005-105
City: West Hollywood

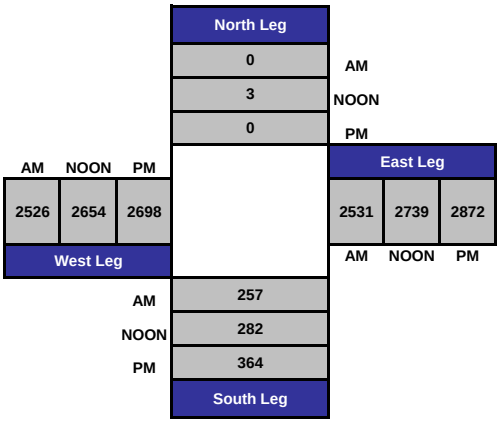
AM Peak Hour	815 AM
NOON Peak Hour	1215 PM
PM Peak Hour	545 PM



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

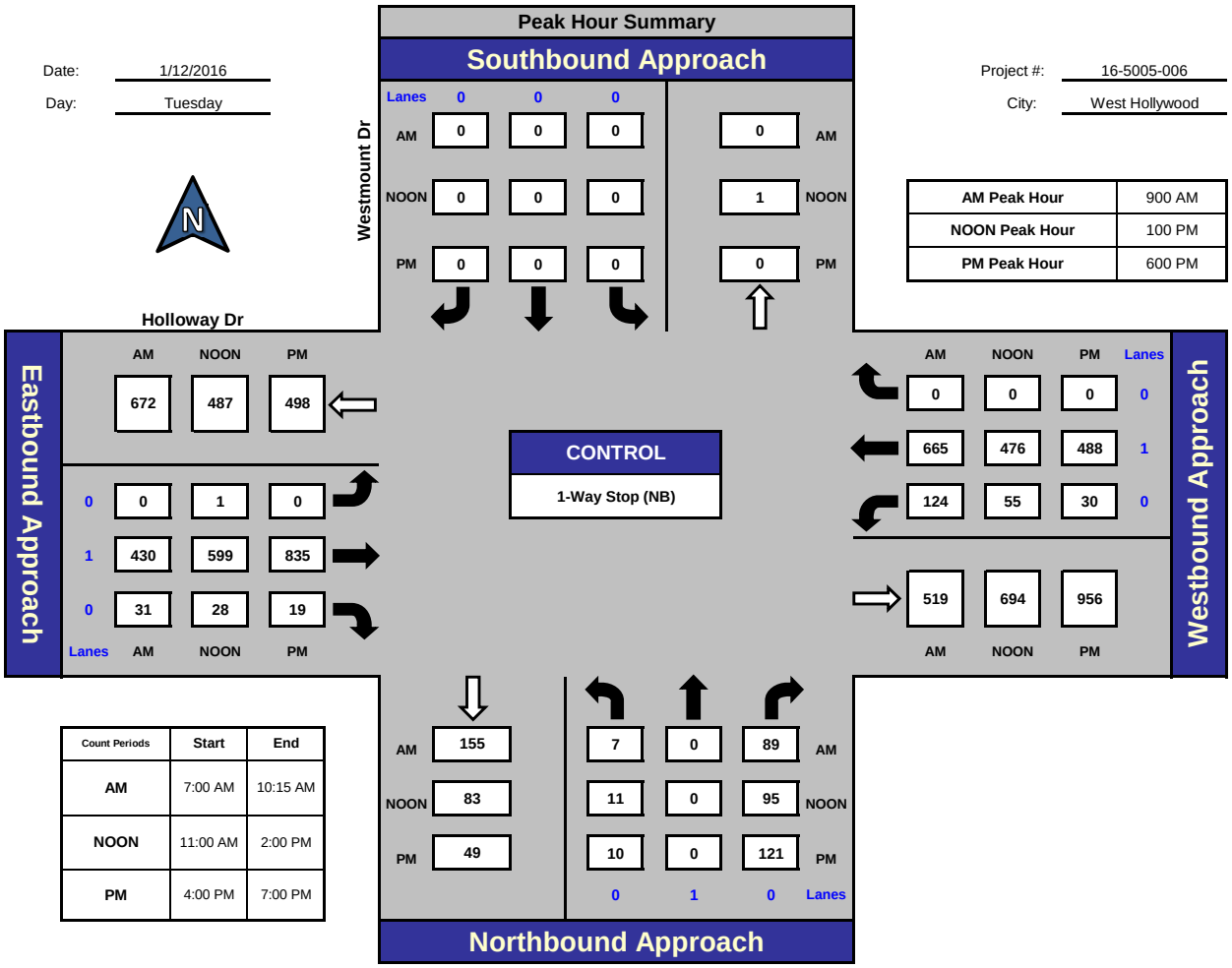
National Data & Surveying Services

Westmount Dr and Holloway Dr , West Hollywood

Date: 1/12/2016
Day: Tuesday

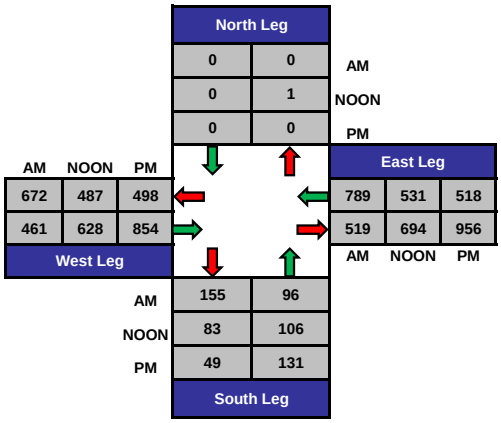
Project #: 16-5005-006
City: West Hollywood

AM Peak Hour	900 AM
NOON Peak Hour	100 PM
PM Peak Hour	600 PM

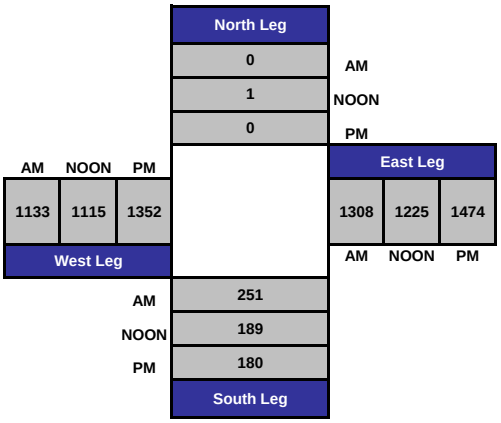


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Knoll Dr and Santa Monica Blvd , West Hollywood

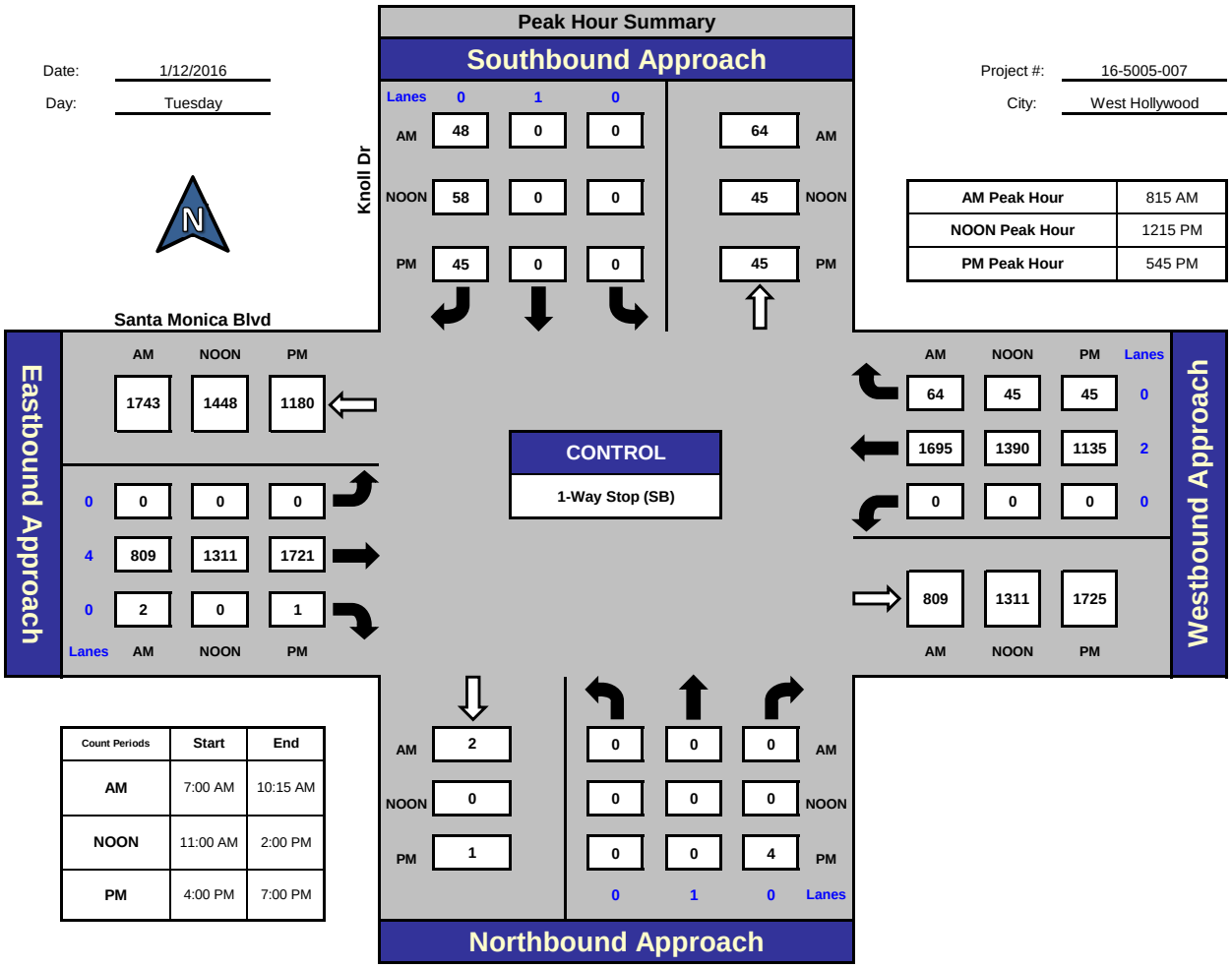
Date: 1/12/2016

Day: Tuesday

Project #: 16-5005-007

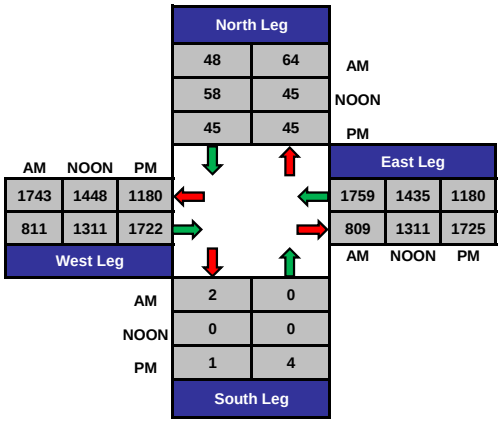
City: West Hollywood

AM Peak Hour	815 AM
NOON Peak Hour	1215 PM
PM Peak Hour	545 PM



Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



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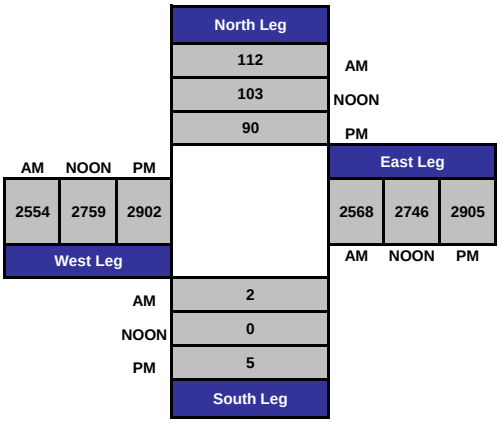


ITM Peak Hour Summary

Prepared by:

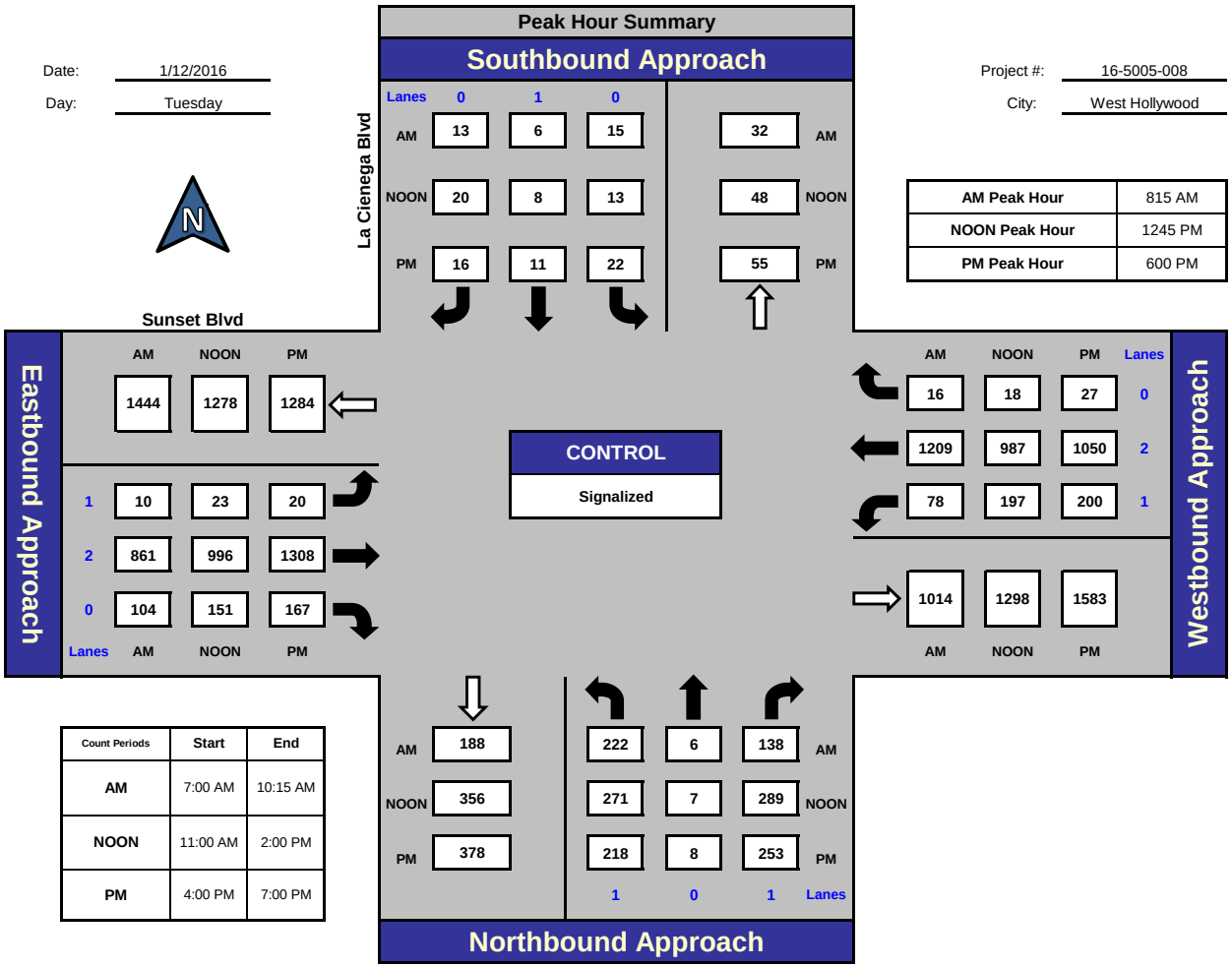
National Data & Surveying Services

La Cienega Blvd and Sunset Blvd , West Hollywood

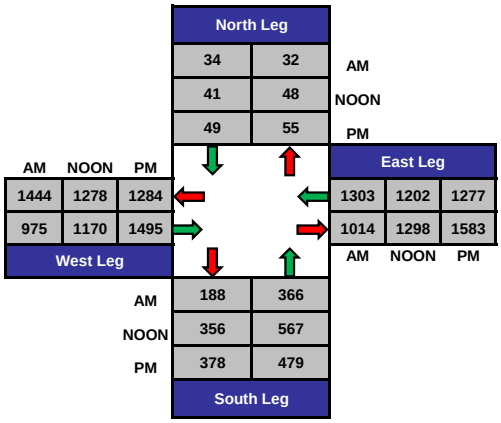
Date: 1/12/2016
Day: Tuesday

Project #: 16-5005-008
City: West Hollywood

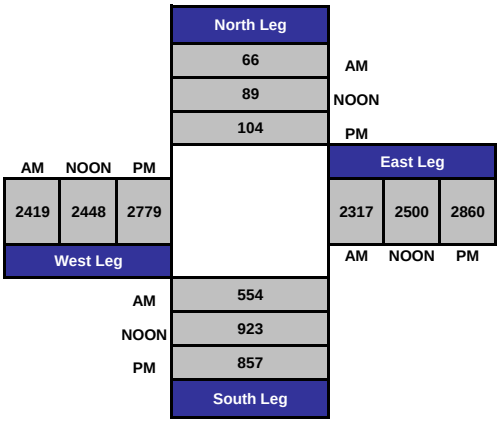
AM Peak Hour	815 AM
NOON Peak Hour	1245 PM
PM Peak Hour	600 PM



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

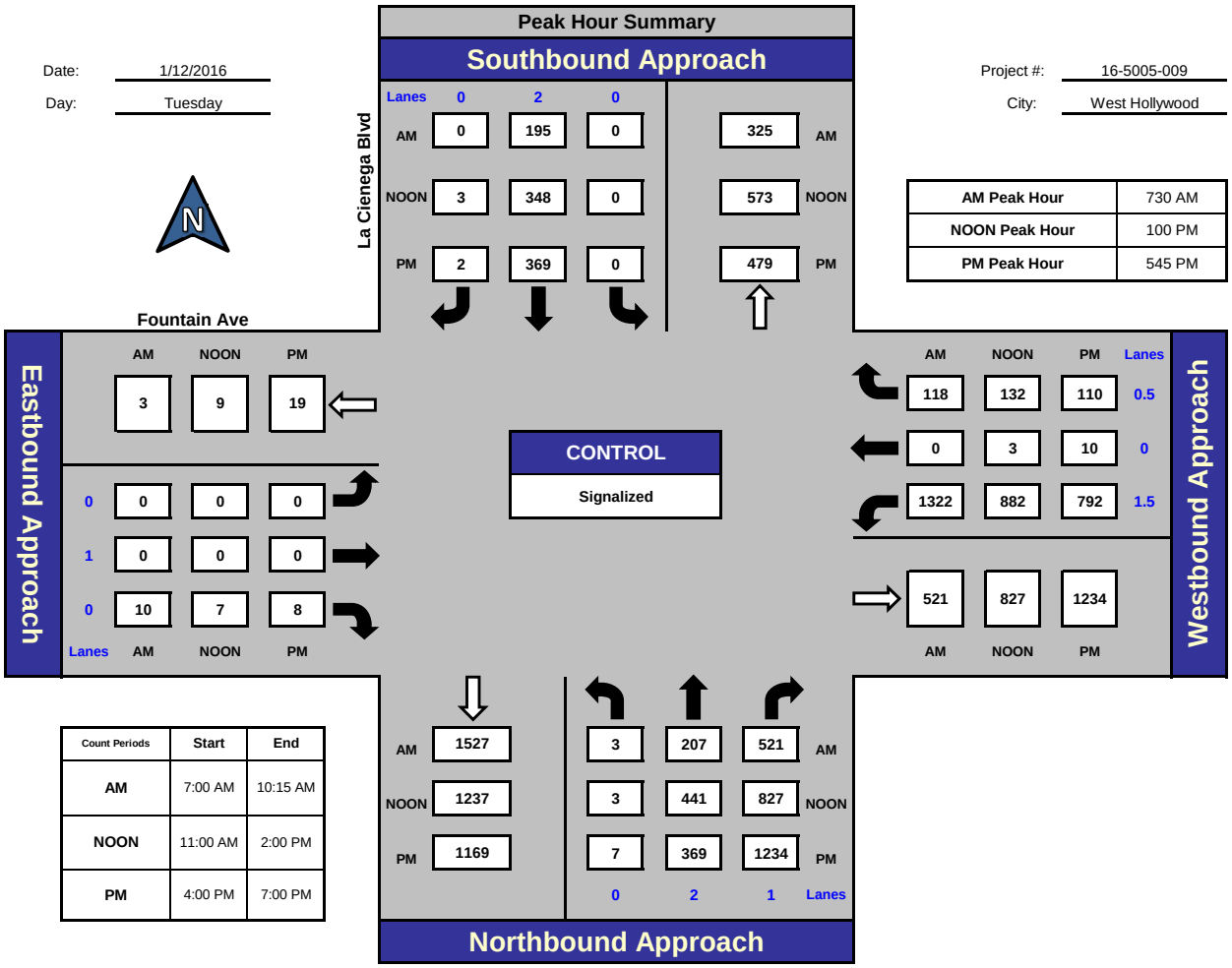
National Data & Surveying Services

La Cienega Blvd and Fountain Ave , West Hollywood

Date: 1/12/2016
Day: Tuesday

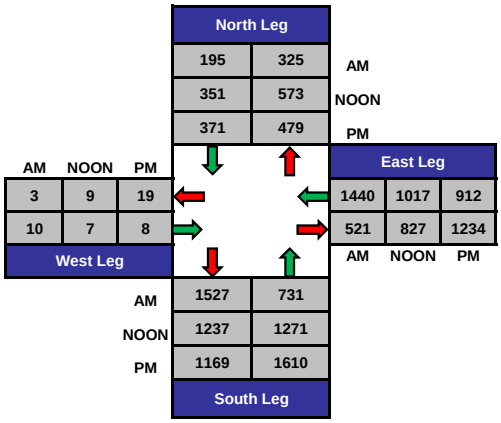
Project #: 16-5005-009
City: West Hollywood

AM Peak Hour	730 AM
NOON Peak Hour	100 PM
PM Peak Hour	545 PM

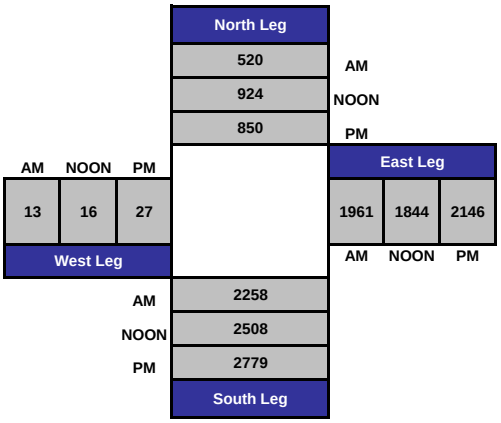


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

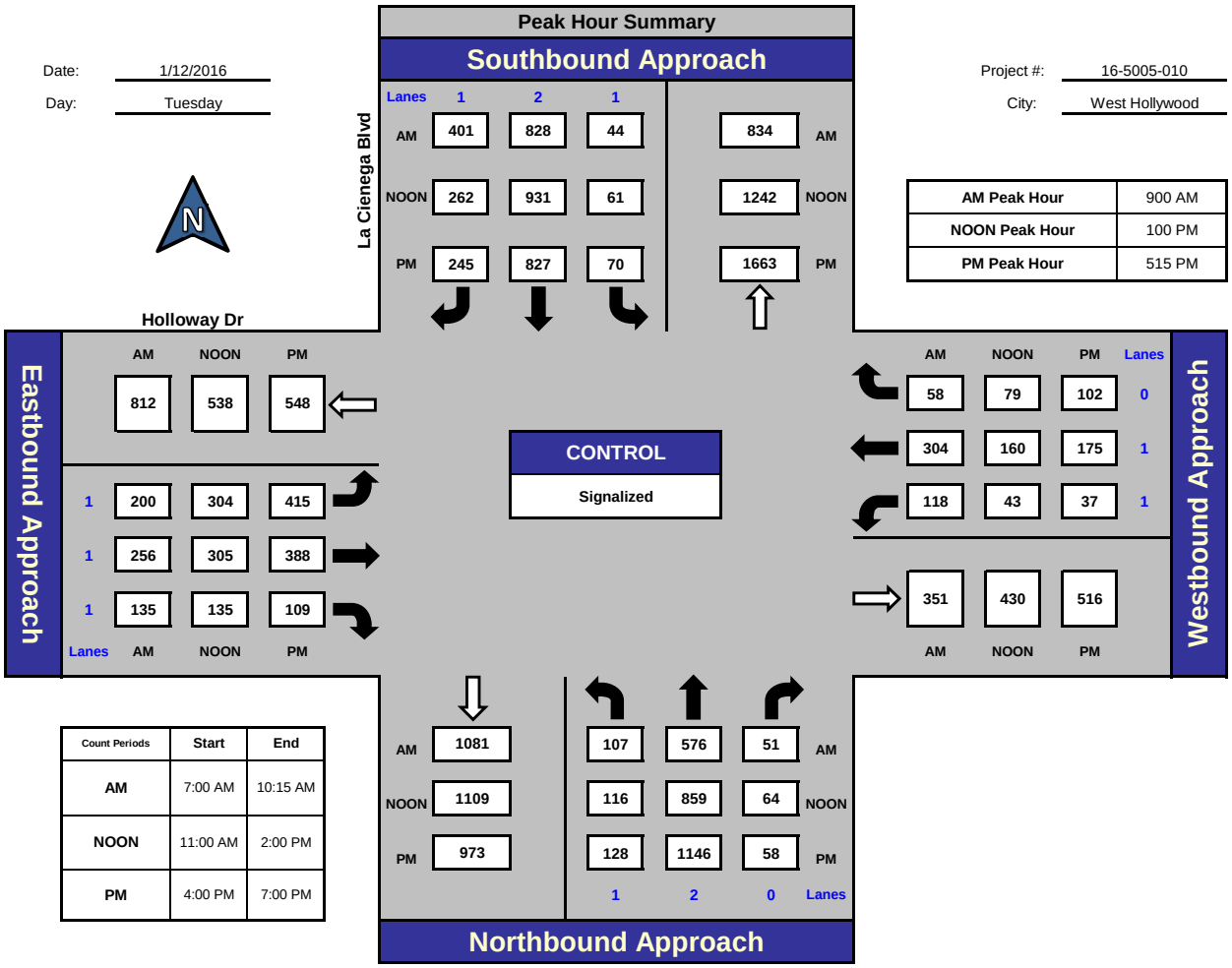
National Data & Surveying Services

La Cienega Blvd and Holloway Dr , West Hollywood

Date: 1/12/2016
Day: Tuesday

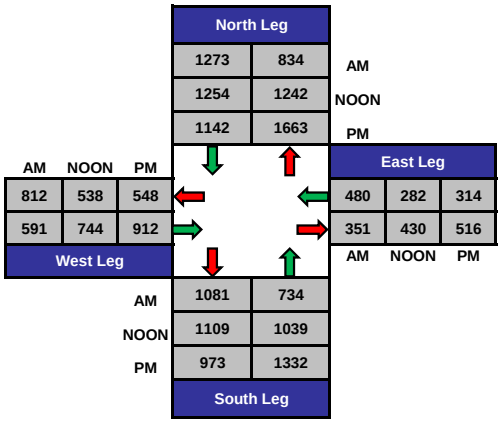
Project #: 16-5005-010
City: West Hollywood

AM Peak Hour	900 AM
NOON Peak Hour	100 PM
PM Peak Hour	515 PM

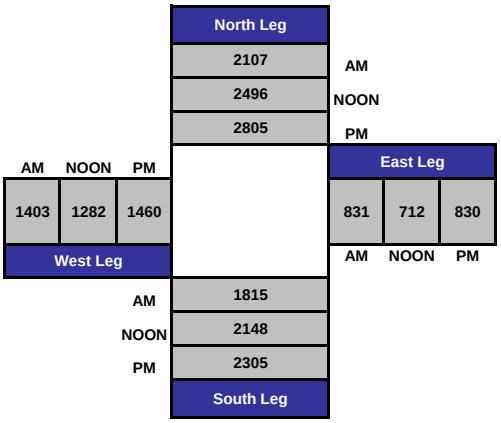


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

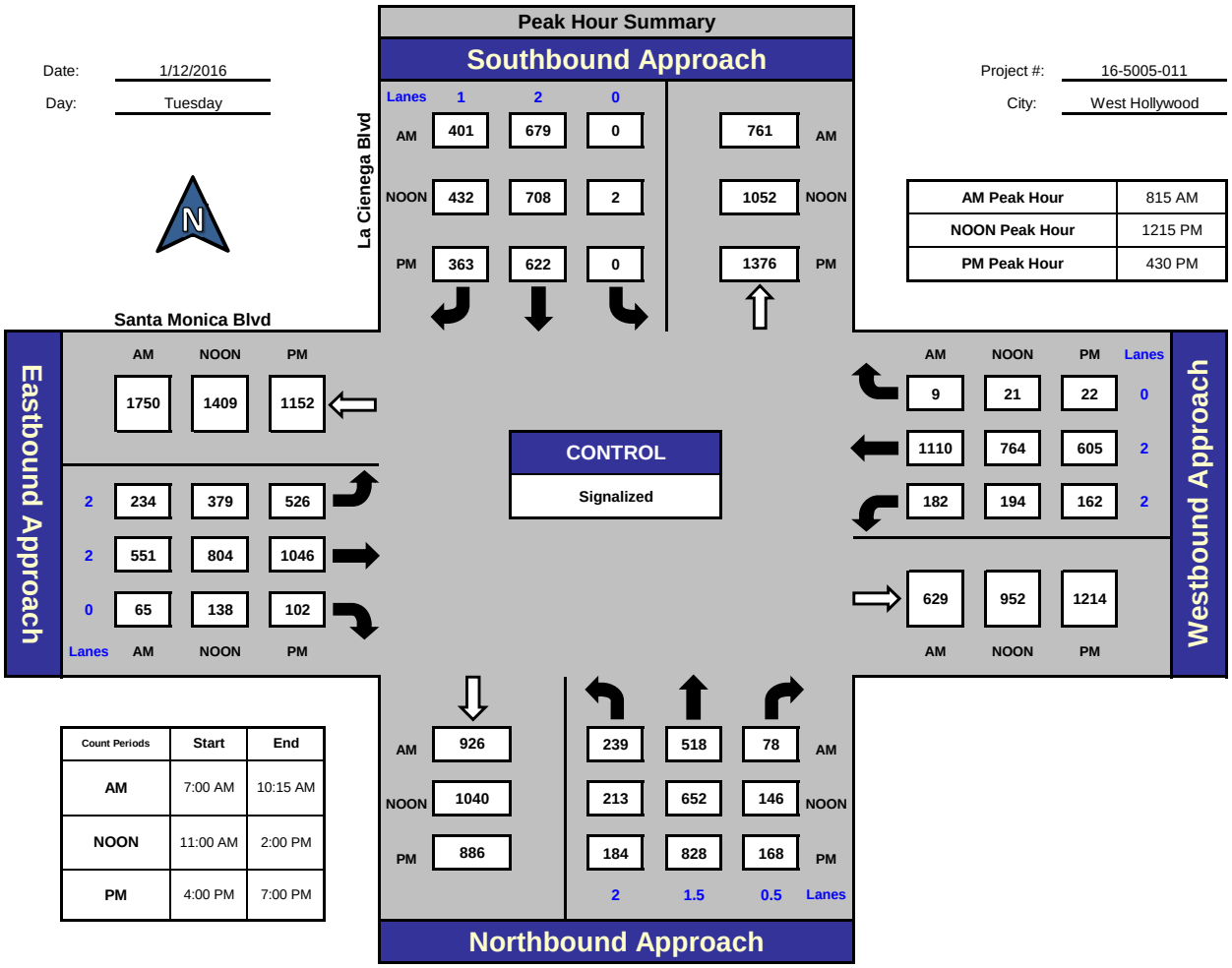
Prepared by:

National Data & Surveying Services

La Cienega Blvd and Santa Monica Blvd , West Hollywood

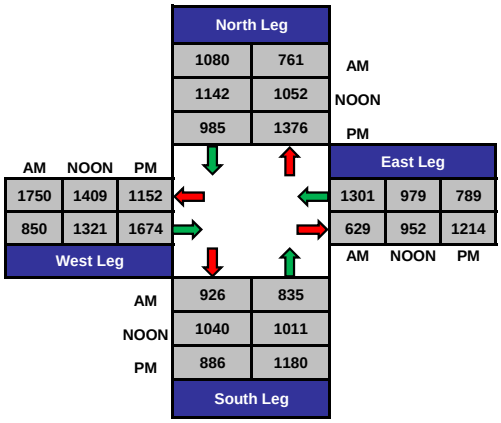
Date: 1/12/2016
Day: Tuesday
Project #: 16-5005-011
City: West Hollywood

AM Peak Hour	815 AM
NOON Peak Hour	1215 PM
PM Peak Hour	430 PM

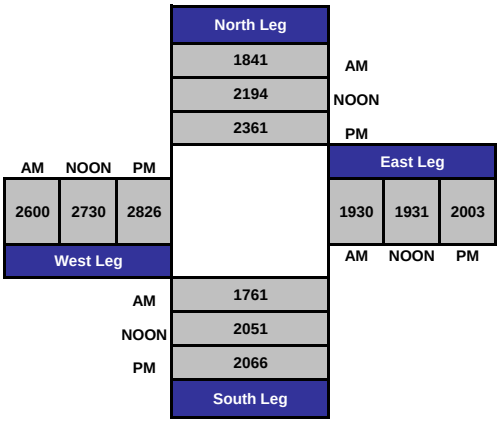


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

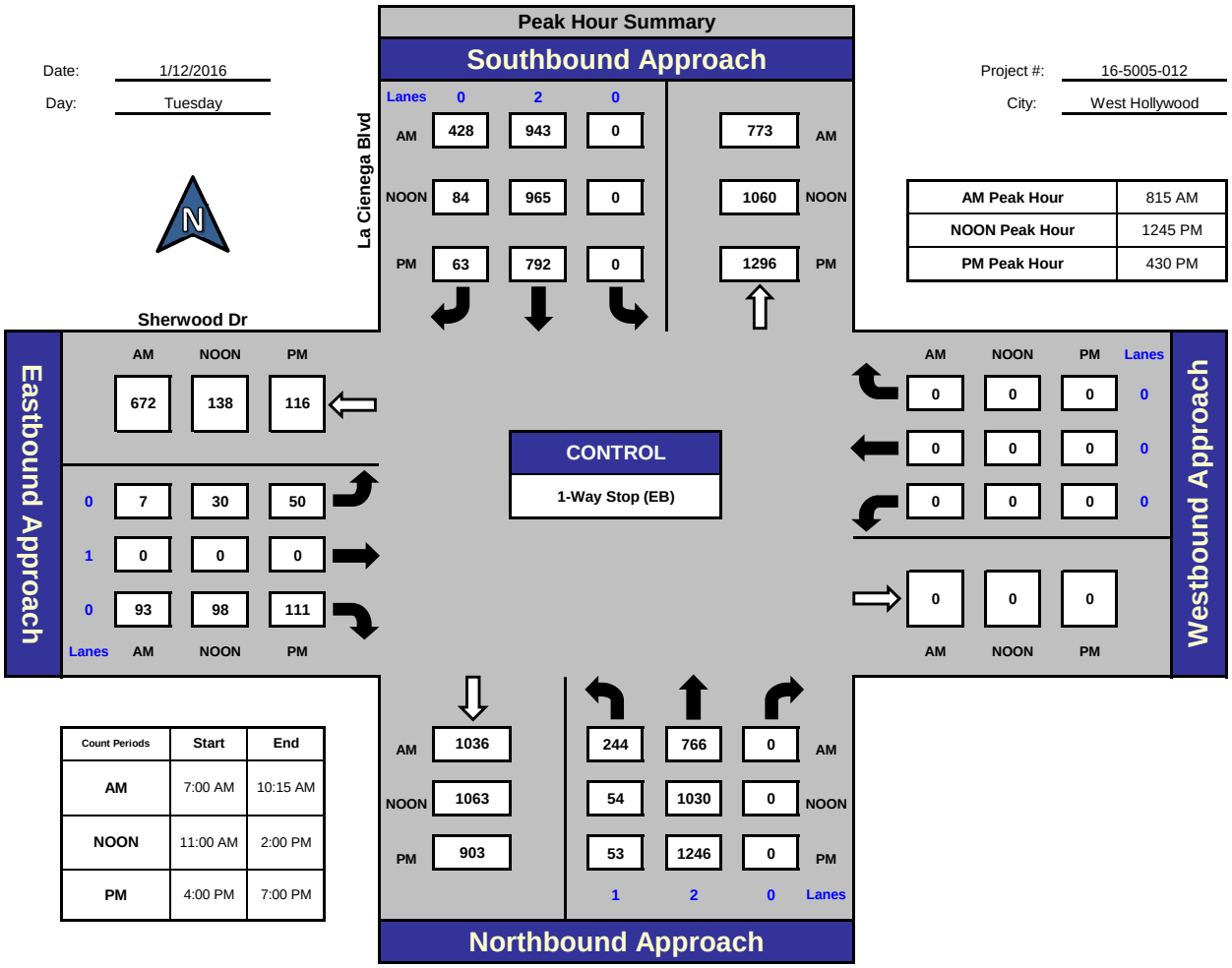
National Data & Surveying Services

La Cienega Blvd and Sherwood Dr , West Hollywood

Date: 1/12/2016
Day: Tuesday

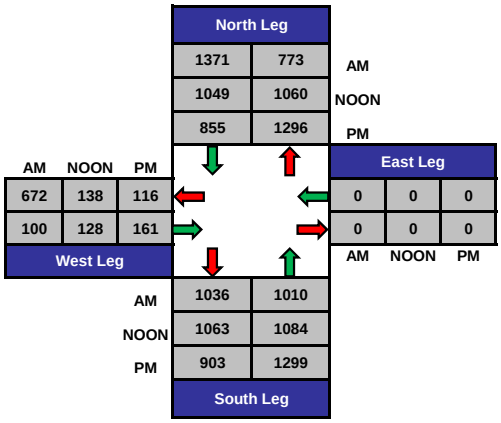
Project #: 16-5005-012
City: West Hollywood

AM Peak Hour	815 AM
NOON Peak Hour	1245 PM
PM Peak Hour	430 PM

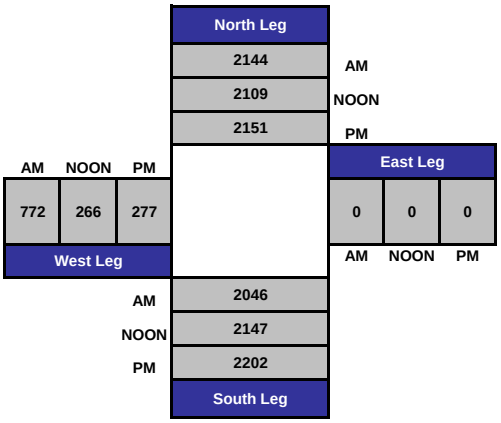


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

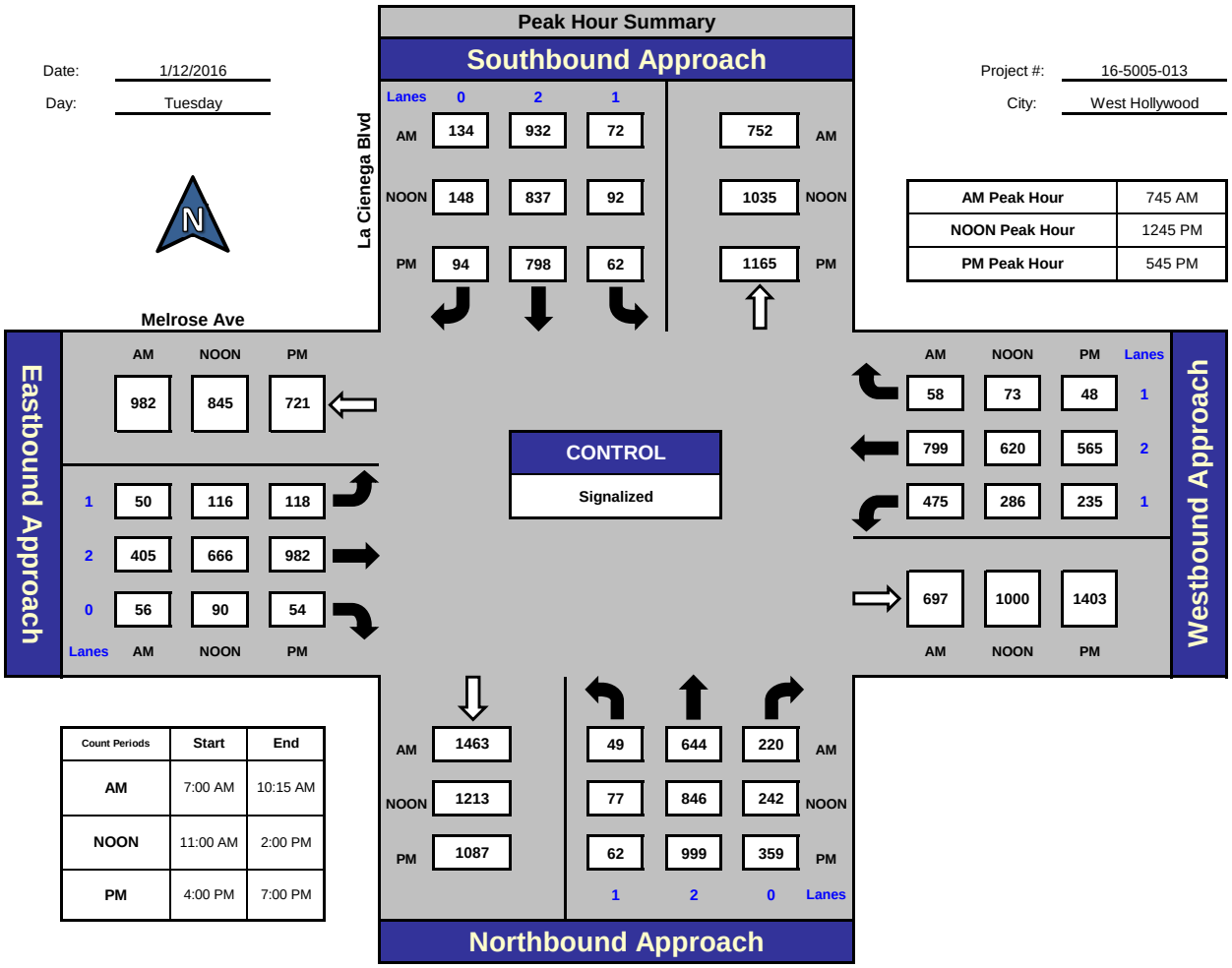
National Data & Surveying Services

La Cienega Blvd and Melrose Ave , West Hollywood

Date: 1/12/2016
Day: Tuesday

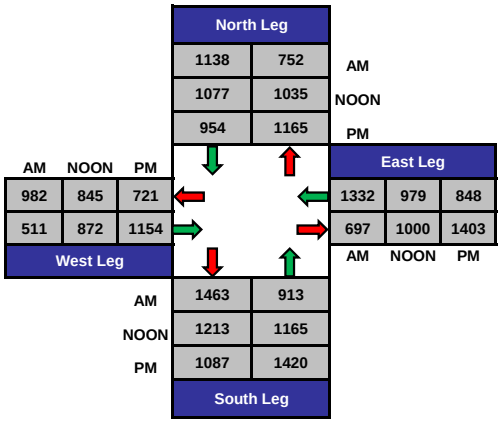
Project #: 16-5005-013
City: West Hollywood

AM Peak Hour	745 AM
NOON Peak Hour	1245 PM
PM Peak Hour	545 PM

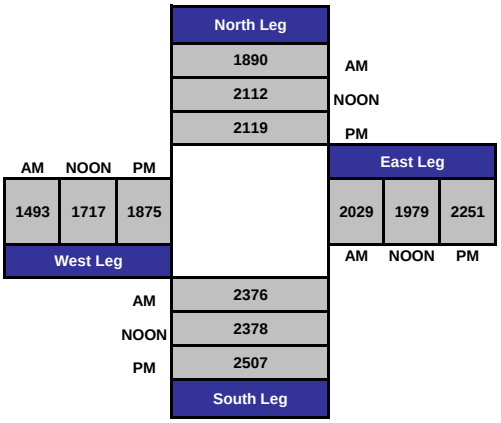


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

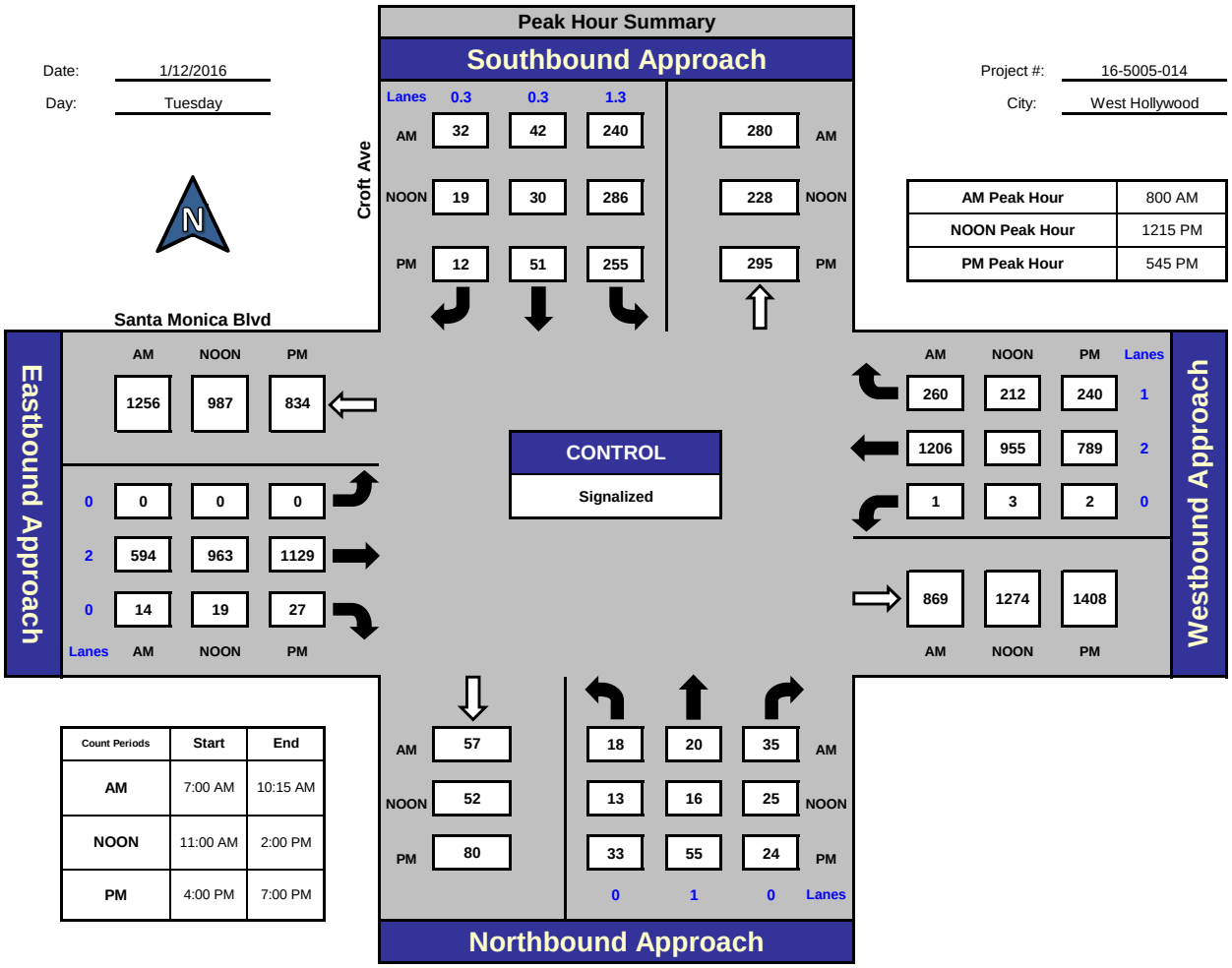
National Data & Surveying Services

Croft Ave and Santa Monica Blvd , West Hollywood

Date: 1/12/2016
Day: Tuesday

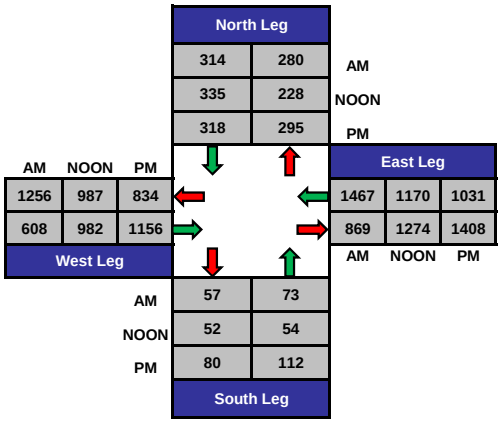
Project #: 16-5005-014
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	1215 PM
PM Peak Hour	545 PM

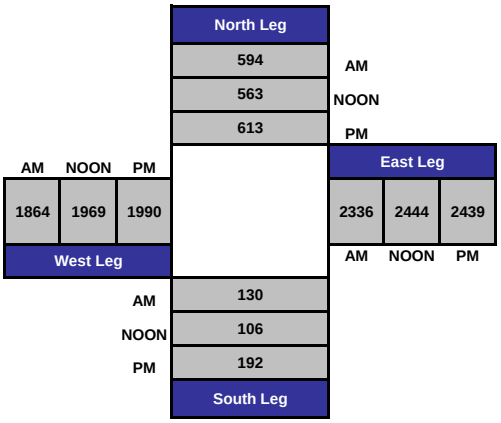


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

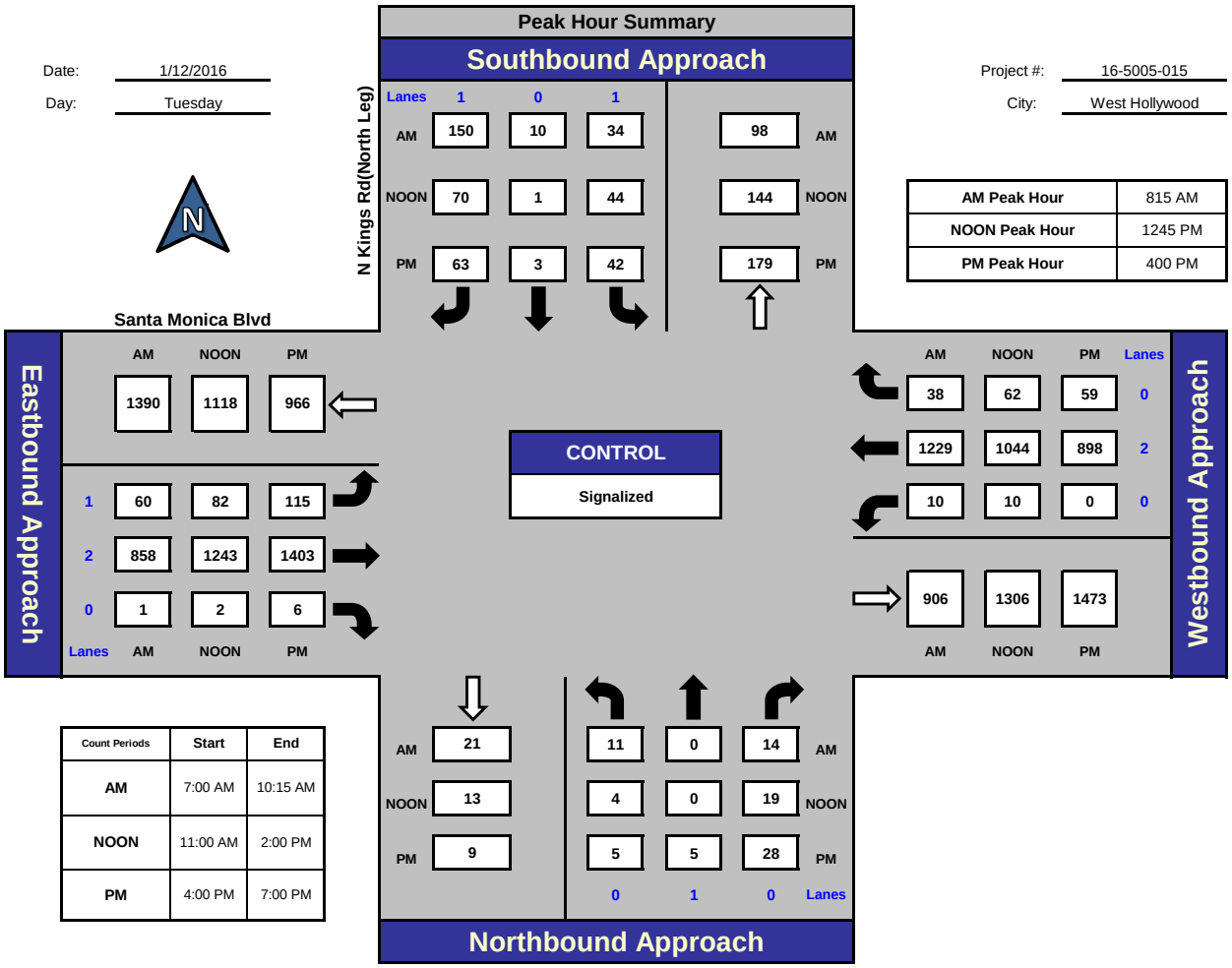
Prepared by:

National Data & Surveying Services

N Kings Rd(North Leg) and Santa Monica Blvd , West Hollywood

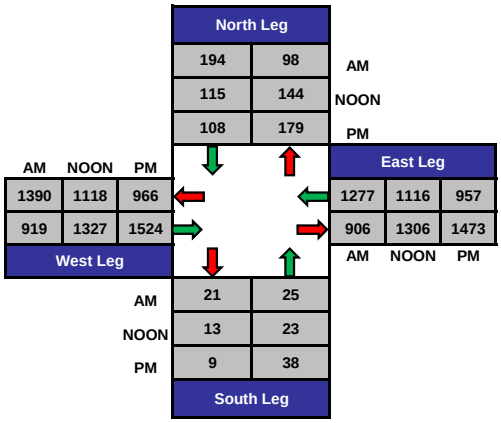
Date: 1/12/2016
Day: Tuesday
Project #: 16-5005-015
City: West Hollywood

AM Peak Hour	815 AM
NOON Peak Hour	1245 PM
PM Peak Hour	400 PM

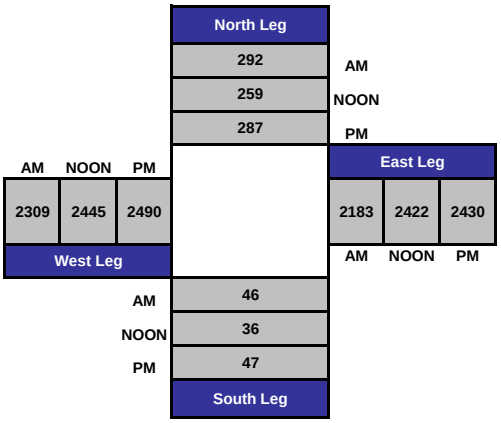


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Westmount Dr and Santa Monica Blvd , West Hollywood

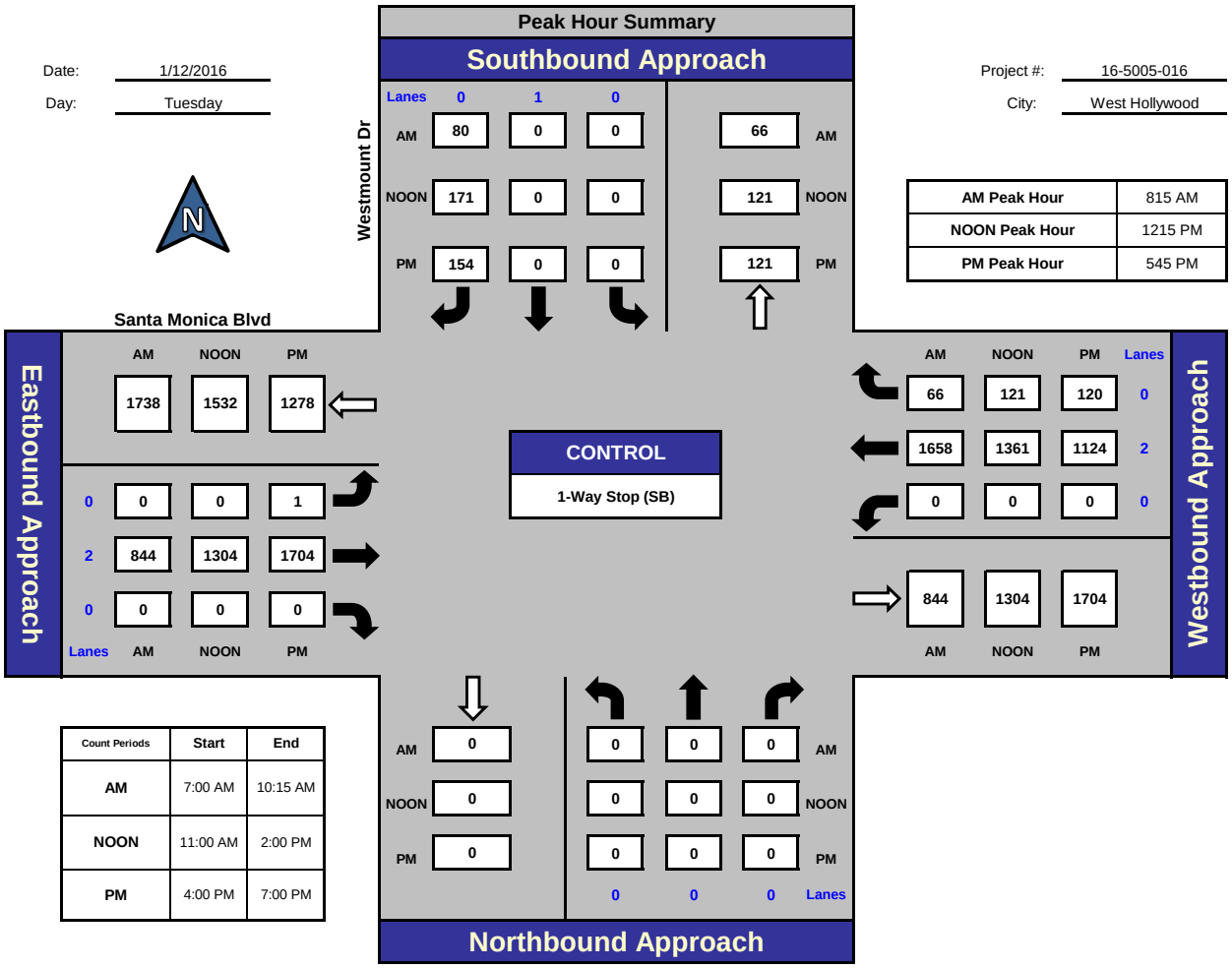
Date: 1/12/2016

Day: Tuesday

Project #: 16-5005-016

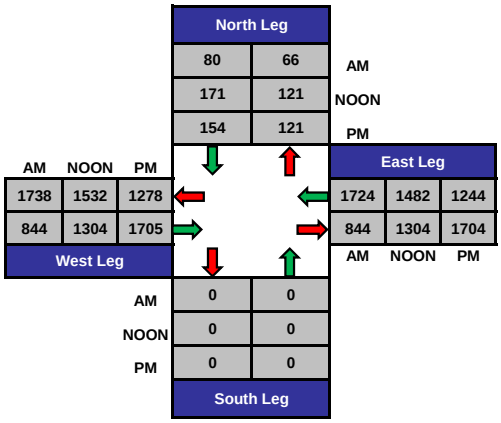
City: West Hollywood

AM Peak Hour	815 AM
NOON Peak Hour	1215 PM
PM Peak Hour	545 PM

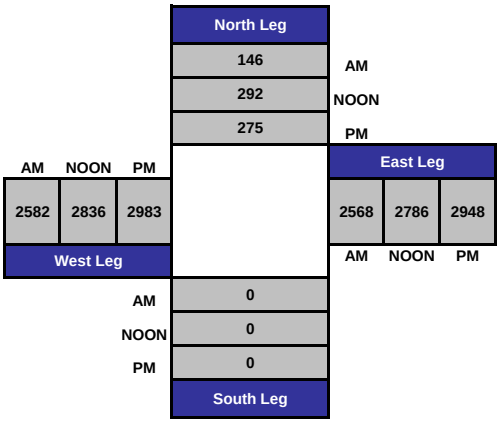


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

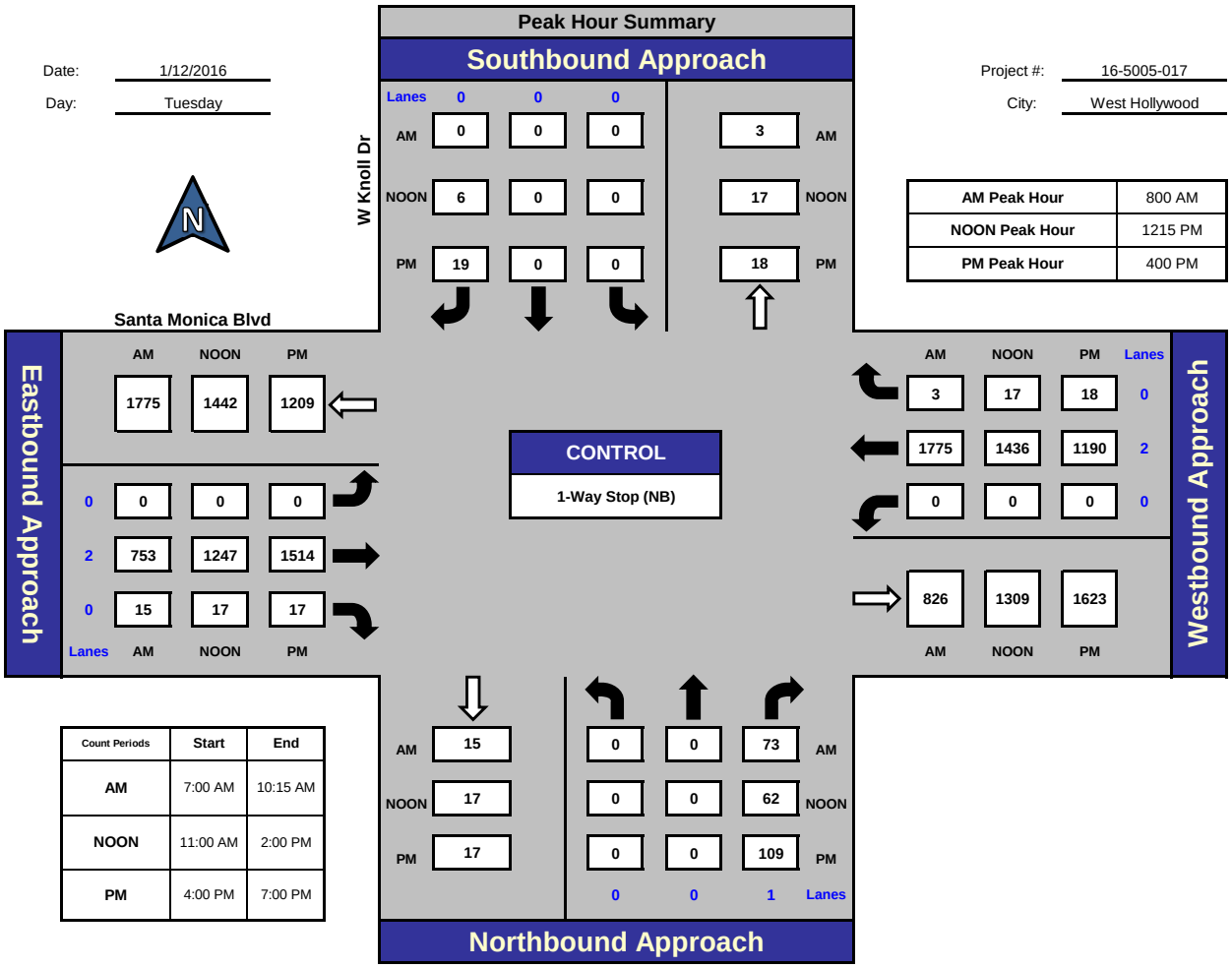
Prepared by:

National Data & Surveying Services

W Knoll Dr and Santa Monica Blvd , West Hollywood

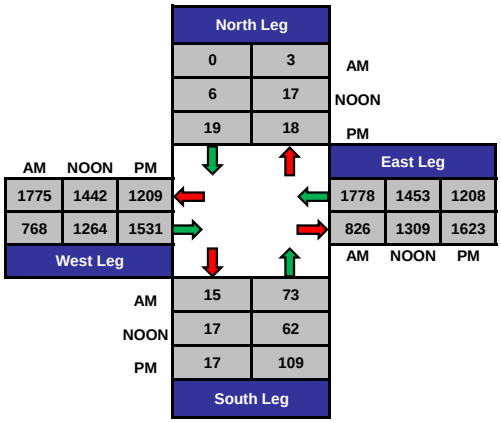
Date: 1/12/2016
Day: Tuesday
Project #: 16-5005-017
City: West Hollywood

AM Peak Hour	800 AM
NOON Peak Hour	1215 PM
PM Peak Hour	400 PM

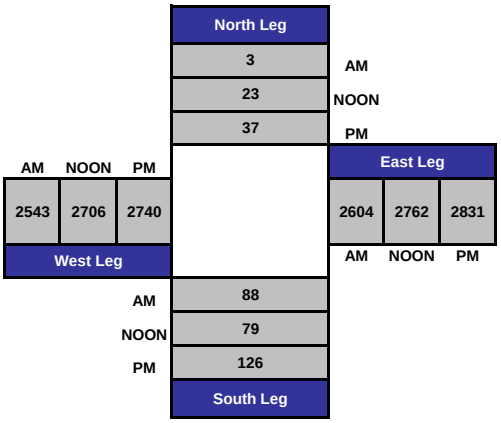


Count Periods	Start	End
AM	7:00 AM	10:15 AM
NOON	11:00 AM	2:00 PM
PM	4:00 PM	7:00 PM

Total Ins & Outs



Total Volume Per Leg



Prepared by NDS/ATD

VOLUME

Hancock Ave Bet. Holloway Dr & W Knoll Dr

Day: Thursday
Date: 1/14/2016

City: West Hollywood
Project #: CA16_5006_005

DAILY TOTALS	NB	SB	EB	WB	Total
	1,387	1,125	0	0	2,512

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	4		4				8		12:00	24		17				41	
00:15	4		3				7		12:15	21		19				40	
00:30	4		2				6		12:30	25		18				43	
00:45	4	16	4	13			8	29	12:45	25	95	21	75			46	170
01:00	3		2				5		13:00	17		12				29	
01:15	5		0				5		13:15	25		18				43	
01:30	3		1				4		13:30	19		21				40	
01:45	7	18	3	6			10	24	13:45	22	83	19	70			41	153
02:00	4		3				7		14:00	24		21				45	
02:15	4		0				4		14:15	20		12				32	
02:30	6		0				6		14:30	20		22				42	
02:45	0	14	0	3			0	17	14:45	17	81	22	77			39	158
03:00	2		1				3		15:00	25		12				37	
03:15	5		0				5		15:15	27		9				36	
03:30	1		0				1		15:30	19		10				29	
03:45	1	9	1	2			2	11	15:45	25	96	16	47			41	143
04:00	0		0				0		16:00	34		13				47	
04:15	1		0				1		16:15	23		18				41	
04:30	0		2				2		16:30	18		24				42	
04:45	1	2	0	2			1	4	16:45	36	111	20	75			56	186
05:00	2		0				2		17:00	36		16				52	
05:15	2		2				4		17:15	23		8				31	
05:30	1		2				3		17:30	20		27				47	
05:45	1	6	2	6			3	12	17:45	25	104	12	63			37	167
06:00	2		6				8		18:00	22		16				38	
06:15	1		6				7		18:15	25		16				41	
06:30	8		6				14		18:30	27		22				49	
06:45	7	18	8	26			15	44	18:45	20	94	24	78			44	172
07:00	8		10				18		19:00	28		20				48	
07:15	10		15				25		19:15	24		22				46	
07:30	13		14				27		19:30	21		18				39	
07:45	23	54	19	58			42	112	19:45	32	105	7	67			39	172
08:00	15		21				36		20:00	33		20				53	
08:15	12		9				21		20:15	34		14				48	
08:30	20		19				39		20:30	19		12				31	
08:45	8	55	11	60			19	115	20:45	18	104	12	58			30	162
09:00	15		16				31		21:00	16		14				30	
09:15	19		30				49		21:15	14		8				22	
09:30	17		14				31		21:30	12		8				20	
09:45	15	66	18	78			33	144	21:45	12	54	6	36			18	90
10:00	16		21				37		22:00	16		11				27	
10:15	11		17				28		22:15	12		10				22	
10:30	21		18				39		22:30	14		10				24	
10:45	13	61	24	80			37	141	22:45	8	50	10	41			18	91
11:00	12		24				36		23:00	9		6				15	
11:15	18		15				33		23:15	3		5				8	
11:30	15		20				35		23:30	7		8				15	
11:45	20	65	23	82			43	147	23:45	7	26	3	22			10	48
TOTALS		384		416				800	TOTALS		1003		709				1712
SPLIT %		48.0%		52.0%				31.8%	SPLIT %		58.6%		41.4%				68.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	1,387	1,125	0	0	2,512

AM Peak Hour	11:45	09:15			11:45	PM Peak Hour	19:30	18:30			16:15
AM Pk Volume	90	83			167	PM Pk Volume	120	88			191
Pk Hr Factor	0.900	0.692			0.971	Pk Hr Factor	0.882	0.917			0.853
7 - 9 Volume	109	118	0	0	227	4 - 6 Volume	215	138	0	0	353
7 - 9 Peak Hour	07:45	07:15			07:45	4 - 6 Peak Hour	16:45	16:15			16:15
7 - 9 Pk Volume	70	69	0	0	138	4 - 6 Pk Volume	115	78	0	0	191
Pk Hr Factor	0.761	0.821	0.000	0.000	0.821	Pk Hr Factor	0.799	0.813	0.000	0.000	0.853

Prepared by NDS/ATD

VOLUME

Hancock Ave Bet. W Knoll Dr & Santa Monica Blvd

Day: Thursday
Date: 1/14/2016

City: West Hollywood
Project #: CA16_5006_006

DAILY TOTALS	NB	SB	EB	WB	Total
	1,512	1,450	0	0	2,962

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	4		4				8		12:00	28		18				46	
00:15	2		2				4		12:15	22		23				45	
00:30	5		3				8		12:30	18		10				28	
00:45	7	18	1	10			8	28	12:45	23	91	21	72			44	163
01:00	3		3				6		13:00	21		14				35	
01:15	5		0				5		13:15	25		23				48	
01:30	8		1				9		13:30	27		21				48	
01:45	7	23	2	6			9	29	13:45	23	96	18	76			41	172
02:00	2		3				5		14:00	18		17				35	
02:15	2		0				2		14:15	27		20				47	
02:30	7		0				7		14:30	17		23				40	
02:45	1	12	0	3			1	15	14:45	22	84	17	77			39	161
03:00	1		1				2		15:00	25		17				42	
03:15	2		0				2		15:15	35		16				51	
03:30	1		1				2		15:30	21		19				40	
03:45	1	5	0	2			1	7	15:45	25	106	20	72			45	178
04:00	0		0				0		16:00	39		22				61	
04:15	0		0				0		16:15	22		17				39	
04:30	1		2				3		16:30	23		21				44	
04:45	1	2	1	3			2	5	16:45	32	116	15	75			47	191
05:00	1		0				1		17:00	39		22				61	
05:15	3		3				6		17:15	25		13				38	
05:30	1		1				2		17:30	35		25				60	
05:45	2	7	7	11			9	18	17:45	30	129	12	72			42	201
06:00	2		5				7		18:00	31		23				54	
06:15	2		10				12		18:15	33		21				54	
06:30	8		10				18		18:30	40		18				58	
06:45	7	19	16	41			23	60	18:45	29	133	19	81			48	214
07:00	6		11				17		19:00	31		19				50	
07:15	6		19				25		19:15	35		19				54	
07:30	9		26				35		19:30	29		18				47	
07:45	12	33	40	96			52	129	19:45	37	132	11	67			48	199
08:00	16		49				65		20:00	37		16				53	
08:15	11		46				57		20:15	36		9				45	
08:30	13		61				74		20:30	32		11				43	
08:45	11	51	44	200			55	251	20:45	18	123	14	50			32	173
09:00	11		48				59		21:00	22		12				34	
09:15	13		50				63		21:15	18		5				23	
09:30	10		31				41		21:30	13		9				22	
09:45	16	50	33	162			49	212	21:45	19	72	6	32			25	104
10:00	16		31				47		22:00	18		9				27	
10:15	16		26				42		22:15	18		10				28	
10:30	19		23				42		22:30	13		9				22	
10:45	16	67	20	100			36	167	22:45	7	56	7	35			14	91
11:00	13		31				44		23:00	14		6				20	
11:15	13		14				27		23:15	3		7				10	
11:30	11		15				26		23:30	8		6				14	
11:45	19	56	26	86			45	142	23:45	6	31	2	21			8	52
TOTALS		343		720				**1063**	**TOTALS**		1169		730				**1899**
SPLIT %		32.3%		67.7%				**35.9%**	**SPLIT %**		61.6%		38.4%				**64.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,512	1,450	0	0	2,962

AM Peak Hour	11:45	08:30					**08:00**		**PM Peak Hour**	19:45	17:30					**18:00**		
AM Pk Volume	87	203					**251**		**PM Pk Volume**	142	81					**214**		
Pk Hr Factor	0.777	0.832					**0.848**		**Pk Hr Factor**	0.959	0.810					**0.922**		
7 - 9 Volume	84	296	0	0			**380**		**4 - 6 Volume**	245	147	0	0			**392**		
7 - 9 Peak Hour	07:45	08:00					**08:00**		**4 - 6 Peak Hour**	16:45	16:00					**16:45**		
7 - 9 Pk Volume	52	200	0	0			**251**		**4 - 6 Pk Volume**	131	75	0	0			**206**		
Pk Hr Factor	0.813	0.820	0.000	0.000			**0.848**		**Pk Hr Factor**	0.840	0.852	0.000	0.000			**0.844**		

Prepared by NDS/ATD

VOLUME

W Knoll Dr Bet. Hancock Ave & Westbourne Dr

Day: Thursday
Date: 1/14/2016

City: West Hollywood
Project #: CA16_5006_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	605	653	1,258

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		2		4		12:00			10		13		23	
00:15			1		1		2		12:15			7		11		18	
00:30			0		0		0		12:30			11		12		23	
00:45			6	9	0	3	6	12	12:45			9	37	14	50	23	87
01:00			0		0		0		13:00			11		7		18	
01:15			0		1		1		13:15			12		11		23	
01:30			1		0		1		13:30			7		4		11	
01:45			2	3	1	2	3	5	13:45			11	41	5	27	16	68
02:00			0		1		1		14:00			8		12		20	
02:15			0		0		0		14:15			11		7		18	
02:30			1		0		1		14:30			5		6		11	
02:45			0	1	0	1	0	2	14:45			13	37	9	34	22	71
03:00			0		1		1		15:00			10		7		17	
03:15			0		3		3		15:15			16		4		20	
03:30			1		0		1		15:30			10		5		15	
03:45			1	2	0	4	1	6	15:45			7	43	7	23	14	66
04:00			0		0		0		16:00			10		10		20	
04:15			0		1		1		16:15			14		7		21	
04:30			0		1		1		16:30			14		5		19	
04:45			0		0	2	0	2	16:45			17	55	6	28	23	83
05:00			0		1		1		17:00			13		10		23	
05:15			1		1		2		17:15			11		12		23	
05:30			1		0		1		17:30			22		5		27	
05:45			1	3	2	4	3	7	17:45			12	58	5	32	17	90
06:00			0		1		1		18:00			10		8		18	
06:15			2		1		3		18:15			14		6		20	
06:30			0		3		3		18:30			28		6		34	
06:45			3	5	5	10	8	15	18:45			12	64	6	26	18	90
07:00			4		5		9		19:00			10		4		14	
07:15			2		6		8		19:15			22		8		30	
07:30			3		9		12		19:30			15		5		20	
07:45			4	13	24	44	28	57	19:45			10	57	3	20	13	77
08:00			7		25		32		20:00			12		4		16	
08:15			7		35		42		20:15			9		6		15	
08:30			7		43		50		20:30			11		4		15	
08:45			8	29	35	138	43	167	20:45			4	36	6	20	10	56
09:00			2		33		35		21:00			7		1		8	
09:15			6		31		37		21:15			2		2		4	
09:30			3		23		26		21:30			2		1		3	
09:45			6	17	17	104	23	121	21:45			6	17	2	6	8	23
10:00			8		15		23		22:00			4		3		7	
10:15			8		12		20		22:15			7		3		10	
10:30			9		7		16		22:30			3		4		7	
10:45			5	30	1	35	6	65	22:45			2	16	0	10	2	26
11:00			5		7		12		23:00			6		4		10	
11:15			5		5		10		23:15			0		0		0	
11:30			3		3		6		23:30			1		2		3	
11:45			11	24	9	24	20	48	23:45			1	8	0	6	1	14
TOTALS				136		371		**507**	**TOTALS**				469		282		**751**
SPLIT %				26.8%		73.2%		**40.3%**	**SPLIT %**				62.5%		37.5%		**59.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	605	653	1,258

AM Peak Hour			11:45	08:15	**08:15**	**PM Peak Hour**			18:30	12:00	**16:45**
AM Pk Volume			39	146	**170**	**PM Pk Volume**			72	50	**96**
Pk Hr Factor			0.886	0.849	**0.850**	**Pk Hr Factor**			0.643	0.893	**0.889**
7 - 9 Volume	0	0	42	182	**224**	**4 - 6 Volume**	0	0	113	60	**173**
7 - 9 Peak Hour			08:00	08:00	**08:00**	**4 - 6 Peak Hour**			16:45	16:30	**16:45**
7 - 9 Pk Volume	0	0	29	138	**167**	**4 - 6 Pk Volume**	0	0	63	33	**96**
Pk Hr Factor	0.000	0.000	0.906	0.802	**0.835**	**Pk Hr Factor**	0.000	0.000	0.716	0.688	**0.889**

Prepared by NDS/ATD

VOLUME

Westbourne Dr Bet. W Knoll Dr & Santa Monica Blvd

Day: Thursday
Date: 1/14/2016

City: West Hollywood
Project #: CA16_5006_004

DAILY TOTALS	NB	SB	EB	WB	Total
	874	610	0	0	1,484

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		0				0		12:00	20		10				30	
00:15	1		2				3		12:15	20		13				33	
00:30	0		0				0		12:30	23		7				30	
00:45	0	1	3	5			3	6	12:45	18	81	10	40			28	121
01:00	1		0				1		13:00	15		14				29	
01:15	2		0				2		13:15	21		12				33	
01:30	1		2				3		13:30	12		12				24	
01:45	3	7	1	3			4	10	13:45	20	68	10	48			30	116
02:00	0		1				1		14:00	22		6				28	
02:15	1		0				1		14:15	14		15				29	
02:30	0		0				0		14:30	18		7				25	
02:45	0	1	0	1			0	2	14:45	16	70	14	42			30	112
03:00	0		0				0		15:00	18		6				24	
03:15	4		0				4		15:15	10		12				22	
03:30	0		1				1		15:30	16		11				27	
03:45	0	4	0	1			0	5	15:45	14	58	4	33			18	91
04:00	0		0				0		16:00	14		6				20	
04:15	2		0				2		16:15	15		5				20	
04:30	1		0				1		16:30	7		8				15	
04:45	0	3	1	1			1	4	16:45	22	58	7	26			29	84
05:00	1		0				1		17:00	19		5				24	
05:15	0		1				1		17:15	20		3				23	
05:30	1		0				1		17:30	14		13				27	
05:45	2	4	1	2			3	6	17:45	18	71	7	28			25	99
06:00	3		4				7		18:00	19		4				23	
06:15	2		2				4		18:15	15		5				20	
06:30	4		3				7		18:30	20		16				36	
06:45	5	14	3	12			8	26	18:45	17	71	9	34			26	105
07:00	9		4				13		19:00	20		7				27	
07:15	5		2				7		19:15	19		12				31	
07:30	5		5				10		19:30	12		6				18	
07:45	8	27	8	19			16	46	19:45	17	68	5	30			22	98
08:00	8		12				20		20:00	16		17				33	
08:15	6		15				21		20:15	15		2				17	
08:30	13		15				28		20:30	8		5				13	
08:45	6	33	33	75			39	108	20:45	13	52	8	32			21	84
09:00	9		19				28		21:00	12		3				15	
09:15	12		16				28		21:15	6		4				10	
09:30	11		17				28		21:30	9		5				14	
09:45	4	36	12	64			16	100	21:45	7	34	1	13			8	47
10:00	8		12				20		22:00	7		4				11	
10:15	14		8				22		22:15	7		4				11	
10:30	5		15				20		22:30	5		5				10	
10:45	6	33	12	47			18	80	22:45	2	21	2	15			4	36
11:00	6		6				12		23:00	4		4				8	
11:15	9		9				18		23:15	4		4				8	
11:30	13		8				21		23:30	3		1				4	
11:45	13	41	7	30			20	71	23:45	7	18	0	9			7	27
TOTALS		204		260				464	TOTALS		670		350				1020
SPLIT %		44.0%		56.0%				31.3%	SPLIT %		65.7%		34.3%				68.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	874	610	0	0	1,484

AM Peak Hour	11:45	08:45				08:30	PM Peak Hour	12:00	12:45				12:00
AM Pk Volume	76	85				123	PM Pk Volume	81	48				121
Pk Hr Factor	0.826	0.644				0.788	Pk Hr Factor	0.880	0.857				0.917
7 - 9 Volume	60	94	0	0		154	4 - 6 Volume	129	54	0	0		183
7 - 9 Peak Hour	07:45	08:00				08:00	4 - 6 Peak Hour	16:45	16:45				16:45
7 - 9 Pk Volume	35	75	0	0		108	4 - 6 Pk Volume	75	28	0	0		103
Pk Hr Factor	0.673	0.568	0.000	0.000		0.692	Pk Hr Factor	0.852	0.538	0.000	0.000		0.888

Prepared by NDS/ATD

VOLUME

Westbourne Dr Bet. Rugby Dr & Sherwood Dr

Day: Thursday
Date: 3/3/2016

City: West Hollywood
Project #: CA16_5122_001

DAILY TOTALS	NB	SB	EB	WB	Total
	944	1,036	0	0	1,980

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		3				6		12:00	14		19				33	
00:15	3		3				6		12:15	12		12				24	
00:30	3		3				6		12:30	8		17				25	
00:45	0	9	0	9			0	18	12:45	10	44	20	68			30	112
01:00	0		1				1		13:00	11		17				28	
01:15	1		2				3		13:15	14		20				34	
01:30	1		1				2		13:30	19		27				46	
01:45	1	3	2	6			3	9	13:45	12	56	10	74			22	130
02:00	1		0				1		14:00	18		23				41	
02:15	1		1				2		14:15	13		25				38	
02:30	0		2				2		14:30	16		17				33	
02:45	1	3	1	4			2	7	14:45	12	59	11	76			23	135
03:00	0		0				0		15:00	13		15				28	
03:15	1		1				2		15:15	9		22				31	
03:30	0		0				0		15:30	13		19				32	
03:45	0	1	0	1			0	2	15:45	14	49	16	72			30	121
04:00	0		0				0		16:00	7		10				17	
04:15	0		0				0		16:15	12		14				26	
04:30	0		2				2		16:30	12		11				23	
04:45	1	1	0	2			1	3	16:45	13	44	11	46			24	90
05:00	1		3				4		17:00	18		23				41	
05:15	4		1				5		17:15	19		20				39	
05:30	1		0				1		17:30	16		15				31	
05:45	7	13	3	7			10	20	17:45	16	69	14	72			30	141
06:00	6		3				9		18:00	19		19				38	
06:15	5		3				8		18:15	21		19				40	
06:30	11		1				12		18:30	29		16				45	
06:45	9	31	4	11			13	42	18:45	24	93	16	70			40	163
07:00	9		4				13		19:00	19		16				35	
07:15	11		9				20		19:15	15		22				37	
07:30	7		4				11		19:30	19		17				36	
07:45	15	42	14	31			29	73	19:45	11	64	23	78			34	142
08:00	14		10				24		20:00	9		27				36	
08:15	21		8				29		20:15	7		19				26	
08:30	23		8				31		20:30	8		11				19	
08:45	20	78	13	39			33	117	20:45	12	36	20	77			32	113
09:00	23		8				31		21:00	11		12				23	
09:15	19		18				37		21:15	5		14				19	
09:30	16		15				31		21:30	4		9				13	
09:45	17	75	9	50			26	125	21:45	6	26	12	47			18	73
10:00	11		16				27		22:00	2		11				13	
10:15	18		10				28		22:15	7		10				17	
10:30	7		13				20		22:30	11		8				19	
10:45	17	53	25	64			42	117	22:45	2	22	4	33			6	55
11:00	13		16				29		23:00	4		7				11	
11:15	16		29				45		23:15	2		6				8	
11:30	19		13				32		23:30	3		3				6	
11:45	15	63	22	80			37	143	23:45	1	10	3	19			4	29
TOTALS		372		304				676	TOTALS		572		732				1304
SPLIT %		55.0%		45.0%				34.1%	SPLIT %		43.9%		56.1%				65.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	944	1,036	0	0	1,980

AM Peak Hour	08:15	10:30			10:45	PM Peak Hour	18:00	19:15			18:00
AM Pk Volume	87	83			148	PM Pk Volume	93	89			163
Pk Hr Factor	0.946	0.716			0.822	Pk Hr Factor	0.802	0.824			0.906
7 - 9 Volume	120	70	0	0	190	4 - 6 Volume	113	118	0	0	231
7 - 9 Peak Hour	08:00	07:45			08:00	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	78	40	0	0	117	4 - 6 Pk Volume	69	72	0	0	141
Pk Hr Factor	0.848	0.714	0.000	0.000	0.886	Pk Hr Factor	0.908	0.783	0.000	0.000	0.860

Prepared by NDS/ATD

VOLUME

Sherwood Dr Bet. Westbourne Dr & Westmount Dr

Day: Thursday
Date: 2/25/2016

City: West Hollywood
Project #: CA16_5103_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,289	1,636	2,925

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		2		3		12:00			10		25		35	
00:15			3		2		5		12:15			25		13		38	
00:30			2		1		3		12:30			20		15		35	
00:45			0	6	0	5	0	11	12:45			13	68	10	63	23	131
01:00			2		1		3		13:00			26		17		43	
01:15			1		1		2		13:15			16		18		34	
01:30			0		2		2		13:30			12		19		31	
01:45			1	4	0	4	1	8	13:45			16	70	17	71	33	141
02:00			0		0		0		14:00			30		26		56	
02:15			0		1		1		14:15			27		13		40	
02:30			0		0		0		14:30			16		11		27	
02:45			0		1	2	1	2	14:45			15	88	16	66	31	154
03:00			1		0		1		15:00			22		12		34	
03:15			0		0		0		15:15			25		10		35	
03:30			0		1		1		15:30			34		9		43	
03:45			0	1	0	1	0	2	15:45			15	96	15	46	30	142
04:00			3		0		3		16:00			22		14		36	
04:15			0		0		0		16:15			38		15		53	
04:30			0		0		0		16:30			30		12		42	
04:45			0	3	2	2	2	5	16:45			27	117	7	48	34	165
05:00			1		0		1		17:00			35		17		52	
05:15			1		0		1		17:15			25		24		49	
05:30			1		3		4		17:30			54		13		67	
05:45			0	3	7	10	7	13	17:45			45	159	8	62	53	221
06:00			2		4		6		18:00			41		13		54	
06:15			3		8		11		18:15			47		14		61	
06:30			2		8		10		18:30			44		10		54	
06:45			4	11	12	32	16	43	18:45			35	167	11	48	46	215
07:00			7		10		17		19:00			33		14		47	
07:15			9		17		26		19:15			36		11		47	
07:30			3		32		35		19:30			41		6		47	
07:45			4	23	52	111	56	134	19:45			39	149	14	45	53	194
08:00			7		69		76		20:00			27		14		41	
08:15			0		88		88		20:15			20		12		32	
08:30			4		113		117		20:30			15		8		23	
08:45			2	13	146	416	148	429	20:45			21	83	16	50	37	133
09:00			4		130		134		21:00			11		6		17	
09:15			7		93		100		21:15			17		10		27	
09:30			8		74		82		21:30			9		6		15	
09:45			12	31	43	340	55	371	21:45			13	50	7	29	20	79
10:00			14		39		53		22:00			14		4		18	
10:15			9		18		27		22:15			5		4		9	
10:30			19		17		36		22:30			8		5		13	
10:45			12	54	19	93	31	147	22:45			6	33	2	15	8	48
11:00			11		18		29		23:00			3		8		11	
11:15			14		13		27		23:15			8		3		11	
11:30			11		13		24		23:30			2		4		6	
11:45			10	46	16	60	26	106	23:45			1	14	2	17	3	31
TOTALS				195		1076		**1271**	**TOTALS**				1094		560		**1654**
SPLIT %				15.3%		84.7%		**43.5%**	**SPLIT %**				66.1%		33.9%		**56.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,289	1,636	2,925

AM Peak Hour			11:45	08:30	**08:30**	**PM Peak Hour**			17:30	13:15	**17:30**
AM Pk Volume			65	482	**499**	**PM Pk Volume**			187	80	**235**
Pk Hr Factor			0.650	0.825	**0.843**	**Pk Hr Factor**			0.866	0.769	**0.877**
7 - 9 Volume	0	0	36	527	**563**	**4 - 6 Volume**	0	0	276	110	**386**
7 - 9 Peak Hour			07:00	08:00	**08:00**	**4 - 6 Peak Hour**			17:00	17:00	**17:00**
7 - 9 Pk Volume	0	0	23	416	**429**	**4 - 6 Pk Volume**	0	0	159	62	**221**
Pk Hr Factor	0.000	0.000	0.639	0.712	**0.725**	**Pk Hr Factor**	0.000	0.000	0.736	0.646	**0.825**

Prepared by NDS/ATD

VOLUME

Westmount Dr Bet. Holloway Dr & W Knoll Dr

Day: Thursday
Date: 2/25/2016

City: West Hollywood
Project #: CA16_5103_002

DAILY TOTALS	NB	SB	EB	WB	Total
	1,275	1,205	0	0	2,480

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	7		4				11		12:00	22		13				35	
00:15	2		9				11		12:15	15		19				34	
00:30	2		3				5		12:30	27		13				40	
00:45	1	12	2	18			3	30	12:45	20	84	15	60			35	144
01:00	4		2				6		13:00	24		19				43	
01:15	3		3				6		13:15	23		29				52	
01:30	7		3				10		13:30	29		13				42	
01:45	4	18	0	8			4	26	13:45	23	99	6	67			29	166
02:00	2		2				4		14:00	26		27				53	
02:15	1		1				2		14:15	14		21				35	
02:30	2		2				4		14:30	19		12				31	
02:45	0	5	0	5			0	10	14:45	20	79	11	71			31	150
03:00	1		1				2		15:00	21		16				37	
03:15	3		1				4		15:15	21		19				40	
03:30	3		2				5		15:30	16		14				30	
03:45	1	8	1	5			2	13	15:45	21	79	22	71			43	150
04:00	1		1				2		16:00	22		9				31	
04:15	0		0				0		16:15	25		9				34	
04:30	3		3				6		16:30	26		12				38	
04:45	2	6	1	5			3	11	16:45	18	91	10	40			28	131
05:00	1		2				3		17:00	31		10				41	
05:15	1		1				2		17:15	25		7				32	
05:30	4		4				8		17:30	26		15				41	
05:45	0	6	2	9			2	15	17:45	28	110	10	42			38	152
06:00	7		4				11		18:00	29		12				41	
06:15	3		6				9		18:15	21		13				34	
06:30	10		4				14		18:30	24		11				35	
06:45	13	33	4	18			17	51	18:45	24	98	9	45			33	143
07:00	11		16				27		19:00	22		12				34	
07:15	8		9				17		19:15	20		6				26	
07:30	10		23				33		19:30	27		13				40	
07:45	13	42	44	92			57	134	19:45	23	92	15	46			38	138
08:00	15		34				49		20:00	22		19				41	
08:15	14		35				49		20:15	23		16				39	
08:30	20		33				53		20:30	19		8				27	
08:45	18	67	50	152			68	219	20:45	14	78	10	53			24	131
09:00	10		37				47		21:00	13		12				25	
09:15	9		54				63		21:15	8		13				21	
09:30	7		24				31		21:30	11		7				18	
09:45	10	36	27	142			37	178	21:45	10	42	10	42			20	84
10:00	5		26				31		22:00	11		15				26	
10:15	12		20				32		22:15	11		9				20	
10:30	13		14				27		22:30	8		11				19	
10:45	14	44	18	78			32	122	22:45	13	43	9	44			22	87
11:00	14		25				39		23:00	12		3				15	
11:15	14		15				29		23:15	8		10				18	
11:30	19		14				33		23:30	11		7				18	
11:45	21	68	16	70			37	138	23:45	4	35	2	22			6	57
TOTALS		345		602				947	TOTALS		930		603				1533
SPLIT %		36.4%		63.6%				38.2%	SPLIT %		60.7%		39.3%				61.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	1,275	1,205	0	0	2,480

AM Peak Hour	11:45	08:30			08:30	PM Peak Hour	17:00	12:30			13:15
AM Pk Volume	85	174			231	PM Pk Volume	110	76			176
Pk Hr Factor	0.787	0.806			0.849	Pk Hr Factor	0.887	0.655			0.830
7 - 9 Volume	109	244	0	0	353	4 - 6 Volume	201	82	0	0	283
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	17:00	16:45			17:00
7 - 9 Pk Volume	67	152	0	0	219	4 - 6 Pk Volume	110	42	0	0	152
Pk Hr Factor	0.838	0.760	0.000	0.000	0.805	Pk Hr Factor	0.887	0.700	0.000	0.000	0.927

Prepared by NDS/ATD

VOLUME

W Knoll Dr Bet. Westmount Dr & Santa Monica Blvd

Day: Thursday
Date: 1/14/2016

City: West Hollywood
Project #: CA16_5006_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	648	658	1,306

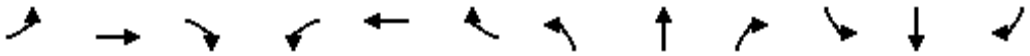
AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		2		3		12:00			13		8		21	
00:15			0		0		0		12:15			13		9		22	
00:30			2		0		2		12:30			19		3		22	
00:45			3	6	4	6	7	12	12:45			17	62	10	30	27	92
01:00			2		1		3		13:00			6		13		19	
01:15			3		1		4		13:15			8		12		20	
01:30			1		0		1		13:30			13		16		29	
01:45			0	6	0	2	0	8	13:45			15	42	11	52	26	94
02:00			0		3		3		14:00			10		10		20	
02:15			1		2		3		14:15			14		9		23	
02:30			1		0		1		14:30			14		9		23	
02:45			0	2	0	5	0	7	14:45			10	48	9	37	19	85
03:00			0		0		0		15:00			10		15		25	
03:15			1		1		2		15:15			6		4		10	
03:30			1		0		1		15:30			13		4		17	
03:45			2	4	0	1	2	5	15:45			14	43	8	31	22	74
04:00			0		0		0		16:00			13		10		23	
04:15			2		1		3		16:15			12		10		22	
04:30			0		0		0		16:30			10		8		18	
04:45			0	2	1	2	1	4	16:45			11	46	10	38	21	84
05:00			2		3		5		17:00			15		14		29	
05:15			0		2		2		17:15			10		18		28	
05:30			2		1		3		17:30			15		8		23	
05:45			2	6	0	6	2	12	17:45			11	51	10	50	21	101
06:00			2		0		2		18:00			6		7		13	
06:15			2		4		6		18:15			12		5		17	
06:30			4		0		4		18:30			6		13		19	
06:45			0	8	3	7	3	15	18:45			12	36	15	40	27	76
07:00			5		5		10		19:00			10		12		22	
07:15			5		9		14		19:15			13		14		27	
07:30			7		7		14		19:30			15		9		24	
07:45			2	19	14	35	16	54	19:45			8	46	11	46	19	92
08:00			10		15		25		20:00			7		6		13	
08:15			8		10		18		20:15			4		13		17	
08:30			6		11		17		20:30			7		10		17	
08:45			14	38	10	46	24	84	20:45			4	22	7	36	11	58
09:00			10		22		32		21:00			6		9		15	
09:15			16		13		29		21:15			8		4		12	
09:30			8		9		17		21:30			4		2		6	
09:45			8	42	12	56	20	98	21:45			4	22	4	19	8	41
10:00			8		16		24		22:00			1		4		5	
10:15			7		14		21		22:15			4		4		8	
10:30			15		7		22		22:30			2		5		7	
10:45			11	41	10	47	21	88	22:45			1	8	7	20	8	28
11:00			6		6		12		23:00			0		5		5	
11:15			9		8		17		23:15			2		6		8	
11:30			9		8		17		23:30			3		3		6	
11:45			15	39	6	28	21	67	23:45			4	9	4	18	8	27
TOTALS				213		241		**454**	**TOTALS**				435		417		**852**
SPLIT %				46.9%		53.1%		**34.8%**	**SPLIT %**				51.1%		48.9%		**65.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	648	658	1,306

AM Peak Hour			11:45	08:30	**08:30**	**PM Peak Hour**			12:00	18:30	**16:45**
AM Pk Volume			60	56	**102**	**PM Pk Volume**			62	54	**101**
Pk Hr Factor			0.789	0.636	**0.797**	**Pk Hr Factor**			0.816	0.900	**0.871**
7 - 9 Volume	0	0	57	81	**138**	**4 - 6 Volume**	0	0	97	88	**185**
7 - 9 Peak Hour			08:00	07:45	**08:00**	**4 - 6 Peak Hour**			16:45	16:30	**16:45**
7 - 9 Pk Volume	0	0	38	50	**84**	**4 - 6 Pk Volume**	0	0	51	50	**101**
Pk Hr Factor	0.000	0.000	0.679	0.833	**0.840**	**Pk Hr Factor**	0.000	0.000	0.850	0.694	**0.871**

APPENDIX C:
LEVEL OF SERVICE WORKSHEETS

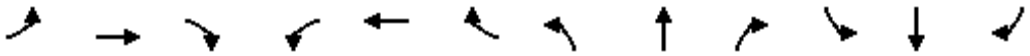
EXISTING CONDITIONS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	660	62	163	1634	122	64	460	112	55	424	65
Future Volume (vph)	79	660	62	163	1634	122	64	460	112	55	424	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	2979		1509	2986		1509	3018	1350	1509	2957	
Flt Permitted	0.07	1.00		0.31	1.00		0.28	1.00	1.00	0.31	1.00	
Satd. Flow (perm)	109	2979		486	2986		441	3018	1350	485	2957	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	81	680	64	168	1685	126	66	474	115	57	437	67
RTOR Reduction (vph)	0	6	0	0	5	0	0	0	89	0	12	0
Lane Group Flow (vph)	81	738	0	168	1806	0	66	474	26	57	492	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)	62.4	58.1		68.1	60.7		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	62.4	58.1		67.1	60.7		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.62	0.58		0.67	0.61		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)	128	1730		396	1812		101	694	310	111	680	
v/s Ratio Prot	c0.03	0.25		c0.03	c0.60			0.16			c0.17	
v/s Ratio Perm	0.37			0.25			0.15		0.02	0.12		
v/c Ratio	0.63	0.43		0.42	1.00		0.65	0.68	0.09	0.51	0.72	
Uniform Delay, d1	17.1	11.7		6.8	19.5		34.9	35.2	30.2	33.6	35.6	
Progression Factor	1.50	0.74		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.7	0.7		0.3	20.4		28.4	5.4	0.5	16.0	6.6	
Delay (s)	32.3	9.4		7.1	39.9		63.3	40.6	30.8	49.6	42.1	
Level of Service	C	A		A	D		E	D	C	D	D	
Approach Delay (s)		11.6			37.1			41.1			42.9	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	33.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.2%	ICU Level of Service	F
Analysis Period (min)	15		

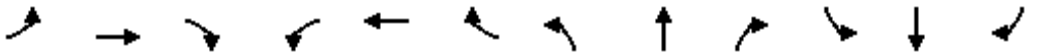
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	850	324	1	1173	10	480	15	1	22	22	50
Future Volume (vph)	17	850	324	1	1173	10	480	15	1	22	22	50
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			0.93	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3014		1433	1441			1457	
Flt Permitted	0.14	1.00	1.00		0.95		0.95	0.96			0.99	
Satd. Flow (perm)	221	3018	1350		2877		1433	1441			1457	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	18	904	345	1	1248	11	511	16	1	23	23	53
RTOR Reduction (vph)	0	0	84	0	0	0	0	0	0	0	34	0
Lane Group Flow (vph)	18	904	261	0	1260	0	271	257	0	0	65	0
Turn Type	pm+pt	NA	Perm	Perm	NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6	2								
Actuated Green, G (s)	77.0	77.0	77.0		72.2		24.9	24.9			6.1	
Effective Green, g (s)	76.0	77.0	77.0		72.2		24.9	24.9			6.1	
Actuated g/C Ratio	0.63	0.64	0.64		0.60		0.21	0.21			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)	148	1936	866		1730		297	299			74	
v/s Ratio Prot	0.00	c0.30					c0.19	0.18			c0.04	
v/s Ratio Perm	0.08		0.19		c0.44							
v/c Ratio	0.12	0.47	0.30		0.73		0.91	0.86			0.88	
Uniform Delay, d1	11.6	11.0	9.5		16.9		46.5	45.9			56.6	
Progression Factor	1.36	1.45	2.33		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	0.7	0.8		2.7		30.5	21.0			63.6	
Delay (s)	15.9	16.6	23.1		19.7		77.0	66.9			120.2	
Level of Service	B	B	C		B		E	E			F	
Approach Delay (s)		18.4			19.7			72.1			120.2	
Approach LOS		B			B			E			F	

Intersection Summary			
HCM 2000 Control Delay	31.1	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	78.3%	ICU Level of Service	D
Analysis Period (min)	15		

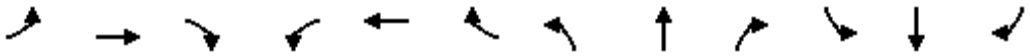
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	26	759	16	93	1747	22	110	0	38	0	0	71
Future Volume (vph)	26	759	16	93	1747	22	110	0	38	0	0	71
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	0.95			1.00				1.00
Frt	1.00	1.00		1.00	1.00			0.97				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.96				1.00
Satd. Flow (prot)	1509	3009		1509	3012			1478				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.96				1.00
Satd. Flow (perm)	1509	3009		1509	3012			1478				1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	27	782	16	96	1801	23	113	0	39	0	0	73
RTOR Reduction (vph)	0	1	0	0	1	0	0	88	0	0	0	66
Lane Group Flow (vph)	27	797	0	96	1823	0	0	64	0	0	0	7
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	10.1	41.1		33.1	68.1			9.8				10.1
Effective Green, g (s)	10.1	41.1		33.1	68.1			9.8				10.1
Actuated g/C Ratio	0.10	0.41		0.33	0.68			0.10				0.10
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	152	1236		499	2051			144				138
v/s Ratio Prot	0.02	0.26		c0.06	c0.61							0.01
v/s Ratio Perm								0.04				
v/c Ratio	0.18	0.64		0.19	0.89			0.44				0.05
Uniform Delay, d1	41.1	23.6		23.9	12.9			42.5				40.6
Progression Factor	1.00	1.00		1.43	0.50			1.00				1.00
Incremental Delay, d2	0.6	2.6		0.1	2.8			2.2				0.2
Delay (s)	41.7	26.2		34.3	9.3			44.7				40.8
Level of Service	D	C		C	A			D				D
Approach Delay (s)		26.7			10.5			44.7			40.8	
Approach LOS		C			B			D			D	

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)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		

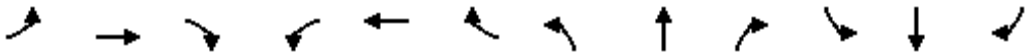
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	861	104	78	1209	16	222	6	138	15	6	13
Future Volume (vph)	10	861	104	78	1209	16	222	6	138	15	6	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	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1509	2969		1509	3012			1514	1350		1472	
Flt Permitted	0.15	1.00		0.14	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	244	2969		219	3012			1514	1350		1472	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	926	112	84	1300	17	239	6	148	16	6	14
RTOR Reduction (vph)	0	9	0	0	1	0	0	0	118	0	12	0
Lane Group Flow (vph)	11	1029	0	84	1316	0	0	245	30	0	24	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1007		102	1218			308	274		249	
v/s Ratio Prot		0.35		0.01	c0.44			c0.16	0.00		c0.02	
v/s Ratio Perm	0.05			0.31					0.02			
v/c Ratio	0.13	1.02		0.82	1.08			0.80	0.11		0.10	
Uniform Delay, d1	17.5	25.3		28.1	22.8			29.0	24.8		26.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.7	33.9		37.7	50.6			13.9	0.1		0.8	
Delay (s)	18.3	59.2		65.9	73.4			42.9	24.9		27.6	
Level of Service	B	E		E	E			D	C		C	
Approach Delay (s)		58.8			72.9			36.1			27.6	
Approach LOS		E			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	62.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

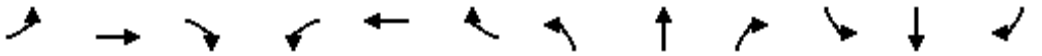
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	10	1322	0	118	3	207	521	0	195	0
Future Volume (vph)	0	0	10	1322	0	118	3	207	521	0	195	0
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.98			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1412			3016	1350		3018	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1412			2875	1350		3018	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	1437	0	128	3	225	566	0	212	0
RTOR Reduction (vph)	0	0	6	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	6	790	764	0	0	228	566	0	212	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			50.0	50.0	50.0			41.0	100.0		41.0	
Effective Green, g (s)			50.0	50.0	50.0			42.0	100.0		42.0	
Actuated g/C Ratio			0.50	0.50	0.50			0.42	1.00		0.42	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			687	716	706			1207	1350		1267	
v/s Ratio Prot				c0.55	0.54						0.07	
v/s Ratio Perm			0.00					0.08	c0.42			
v/c Ratio			0.01	1.10	1.08			0.19	0.42		0.17	
Uniform Delay, d1			12.6	25.0	25.0			18.3	0.0		18.1	
Progression Factor			1.00	1.00	1.00			1.49	1.00		1.00	
Incremental Delay, d2			0.0	65.6	58.3			0.3	0.8		0.3	
Delay (s)			12.6	90.6	83.3			27.5	0.8		18.4	
Level of Service			B	F	F			C	A		B	
Approach Delay (s)		12.6			86.9			8.5			18.4	
Approach LOS		B			F			A			B	

Intersection Summary			
HCM 2000 Control Delay	56.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

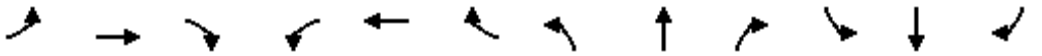
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	256	135	118	304	58	107	576	51	44	828	401
Future Volume (vph)	200	256	135	118	304	58	107	576	51	44	828	401
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1550		1509	2981		1509	3018	1350
Flt Permitted	0.21	1.00	1.00	0.47	1.00		0.20	1.00		0.36	1.00	1.00
Satd. Flow (perm)	330	1588	1350	742	1550		311	2981		569	3018	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	204	261	138	120	310	59	109	588	52	45	845	409
RTOR Reduction (vph)	0	0	98	0	7	0	0	6	0	0	0	128
Lane Group Flow (vph)	204	261	40	120	362	0	109	634	0	45	845	281
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	38.6	28.8	28.8	34.5	27.0		51.7	45.2		45.8	42.3	42.3
Effective Green, g (s)	36.6	29.3	29.3	32.5	27.0		50.1	45.7		43.8	42.3	42.3
Actuated g/C Ratio	0.37	0.29	0.29	0.32	0.27		0.50	0.46		0.44	0.42	0.42
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	224	465	395	291	418		226	1362		272	1276	571
v/s Ratio Prot	c0.08	0.16		0.03	0.23		c0.03	0.21		0.00	c0.28	
v/s Ratio Perm	c0.25		0.03	0.11			0.21			0.07		0.21
v/c Ratio	0.91	0.56	0.10	0.41	0.87		0.48	0.47		0.17	0.66	0.49
Uniform Delay, d1	26.8	29.9	25.8	24.9	34.8		15.5	18.7		16.4	23.1	21.0
Progression Factor	0.92	0.90	1.26	1.16	1.15		0.51	0.51		1.73	1.61	2.33
Incremental Delay, d2	35.5	1.5	0.1	0.3	15.6		0.5	0.9		0.0	0.8	0.9
Delay (s)	60.2	28.3	32.5	29.2	55.4		8.4	10.4		28.5	38.0	49.8
Level of Service	E	C	C	C	E		A	B		C	D	D
Approach Delay (s)		40.1			49.0			10.1			41.4	
Approach LOS		D			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	34.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	83.0%	ICU Level of Service	E
Analysis Period (min)	15		

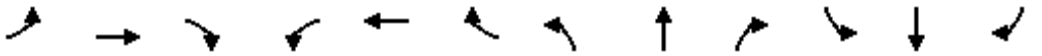
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	234	551	65	182	1110	9	239	518	78	0	679	401
Future Volume (vph)	234	551	65	182	1110	9	239	518	78	0	679	401
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2970		2927	3014		2927	2958			3018	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	2927	2970		2927	3014		2927	2958			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)	246	580	68	192	1168	9	252	545	82	0	715	422
RTOR Reduction (vph)	0	8	0	0	1	0	0	12	0	0	0	133
Lane Group Flow (vph)	246	640	0	192	1176	0	252	615	0	0	715	289
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	9.9	34.2		10.0	34.3		6.0	42.3			31.3	31.3
Effective Green, g (s)	9.9	34.7		10.0	34.8		7.0	43.3			32.3	32.3
Actuated g/C Ratio	0.10	0.35		0.10	0.35		0.07	0.43			0.32	0.32
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	289	1030		292	1048		204	1280			974	436
v/s Ratio Prot	c0.08	0.22		0.07	c0.39		c0.09	0.21			c0.24	
v/s Ratio Perm												0.21
v/c Ratio	0.85	0.62		0.66	1.12		1.24	0.48			0.73	0.66
Uniform Delay, d1	44.3	27.2		43.4	32.6		46.5	20.3			30.0	29.2
Progression Factor	0.63	0.91		1.13	1.06		1.00	1.00			1.57	2.20
Incremental Delay, d2	17.8	2.4		3.2	65.5		140.7	0.4			2.6	3.5
Delay (s)	45.6	27.3		52.2	99.9		187.2	20.7			49.7	67.6
Level of Service	D	C		D	F		F	C			D	E
Approach Delay (s)		32.3			93.2			68.4			56.4	
Approach LOS		C			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	65.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		

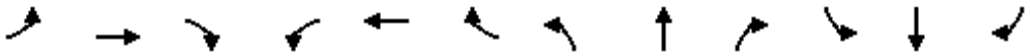
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	405	56	475	799	58	49	644	220	72	932	134
Future Volume (vph)	50	405	56	475	799	58	49	644	220	72	932	134
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2962		1509	3018	1350	1509	2902		1509	2961	
Flt Permitted	0.33	1.00		0.29	1.00	1.00	0.12	1.00		0.20	1.00	
Satd. Flow (perm)	528	2962		463	3018	1350	191	2902		316	2961	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	53	431	60	505	850	62	52	685	234	77	991	143
RTOR Reduction (vph)	0	12	0	0	0	33	0	37	0	0	13	0
Lane Group Flow (vph)	53	479	0	505	850	29	52	882	0	77	1121	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	152	855		345	1408	630	84	1289		140	1316	
v/s Ratio Prot		0.16		c0.20	0.28			0.30			c0.38	
v/s Ratio Perm	0.10			c0.45		0.02	0.27			0.24		
v/c Ratio	0.35	0.56		1.46	0.60	0.05	0.62	0.68		0.55	0.85	
Uniform Delay, d1	25.3	27.1		21.6	17.8	13.1	19.2	20.0		18.4	22.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.2	2.6		224.0	1.9	0.1	29.7	3.0		14.7	7.1	
Delay (s)	31.5	29.8		245.6	19.7	13.2	48.8	22.9		33.0	29.5	
Level of Service	C	C		F	B	B	D	C		C	C	
Approach Delay (s)		30.0			100.0			24.3			29.7	
Approach LOS		C			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	52.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		

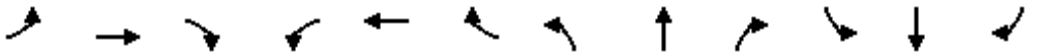
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	594	14	1	1206	260	18	20	35	240	42	32
Future Volume (vph)	0	594	14	1	1206	260	18	20	35	240	42	32
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.93		1.00	0.97	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3007			3018	1350		1466		1433	1425	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3007			2881	1350		1466		1433	1425	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	606	14	1	1231	265	18	20	36	245	43	33
RTOR Reduction (vph)	0	1	0	0	0	58	0	34	0	0	9	0
Lane Group Flow (vph)	0	619	0	0	1232	207	0	40	0	154	158	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		62.8			62.8	19.2		6.0		19.2	19.2	
Effective Green, g (s)		62.8			62.8	19.2		6.0		19.2	19.2	
Actuated g/C Ratio		0.63			0.63	0.19		0.06		0.19	0.19	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1888			1809	259		87		275	273	
v/s Ratio Prot		0.21				c0.15		c0.03		0.11	0.11	
v/s Ratio Perm					c0.43							
v/c Ratio		0.33			0.68	0.80		0.46		0.56	0.58	
Uniform Delay, d1		8.7			12.1	38.6		45.4		36.6	36.7	
Progression Factor		0.28			1.00	1.00		1.00		0.76	0.74	
Incremental Delay, d2		0.4			2.1	16.5		3.8		2.8	3.2	
Delay (s)		2.8			14.2	55.0		49.3		30.5	30.5	
Level of Service		A			B	E		D		C	C	
Approach Delay (s)		2.8			21.4			49.3			30.5	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

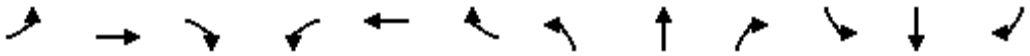
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	797	33	4	1191	32	46	12	84	36	3	91
Future Volume (vph)	23	797	33	4	1191	32	46	12	84	36	3	91
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			1.00			1.00	1.00
Frt	1.00	0.99		1.00	1.00			0.92			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.96	1.00
Satd. Flow (prot)	1509	3000		1509	3006			1439			1518	1350
Flt Permitted	0.17	1.00		0.32	1.00			0.88			0.54	1.00
Satd. Flow (perm)	270	3000		511	3006			1286			863	1350
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	24	848	35	4	1267	34	49	13	89	38	3	97
RTOR Reduction (vph)	0	2	0	0	1	0	0	57	0	0	0	85
Lane Group Flow (vph)	24	881	0	4	1300	0	0	94	0	0	41	12
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	79.6	79.6		74.9	74.9			12.4			12.4	12.4
Effective Green, g (s)	78.6	79.6		74.9	74.9			12.4			12.4	12.4
Actuated g/C Ratio	0.79	0.80		0.75	0.75			0.12			0.12	0.12
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	220	2388		382	2251			159			107	167
v/s Ratio Prot	0.00	c0.29			c0.43							
v/s Ratio Perm	0.08			0.01				c0.07			0.05	0.01
v/c Ratio	0.11	0.37		0.01	0.58			0.59			0.38	0.07
Uniform Delay, d1	3.6	2.9		3.2	5.6			41.4			40.3	38.7
Progression Factor	1.00	1.00		1.08	1.02			1.00			1.00	1.00
Incremental Delay, d2	0.1	0.4		0.0	0.7			5.8			2.3	0.2
Delay (s)	3.7	3.4		3.5	6.4			47.2			42.6	38.9
Level of Service	A	A		A	A			D			D	D
Approach Delay (s)		3.4			6.4			47.2			40.0	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.2%	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												
Traffic Volume (veh/h)	0	397	17	57	615	0	22	0	64	0	0	1
Future Volume (Veh/h)	0	397	17	57	615	0	22	0	64	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	409	18	59	634	0	23	0	66	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		513			1070							
pX, platoon unblocked	0.89						0.89	0.89		0.89	0.89	0.89
vC, conflicting volume	634			427			1171	1170	418	1236	1179	634
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	531			427			1132	1131	418	1205	1141	531
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			95			85	100	90	100	100	100
cM capacity (veh/h)	926			1132			154	172	635	124	170	490

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	427	693	89	1
Volume Left	0	59	23	0
Volume Right	18	0	66	1
cSH	1700	1132	352	490
Volume to Capacity	0.25	0.05	0.25	0.00
Queue Length 95th (ft)	0	4	25	0
Control Delay (s)	0.0	1.3	18.7	12.4
Lane LOS		A	C	B
Approach Delay (s)	0.0	1.3	18.7	12.4
Approach LOS			C	B

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	90.1%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	45	752	51	0	0	1752	20	0	0	0	0	0
Future Volume (Veh/h)	45	752	51	0	0	1752	20	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop
Grade		0%				0%			0%			0%
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	46	767	52	0	0	1788	20	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1808			0	819			1961	2693	410	2274	2709
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1808			0	819			1961	2693	410	2274	2709
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	86			0	100			100	100	100	100	100
cM capacity (veh/h)	336			0	805			12	18	591	20	18

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	46	511	308	1192	616	0	182
Volume Left	46	0	0	0	0	0	0
Volume Right	0	0	52	0	20	0	182
cSH	336	1700	1700	1700	1700	1700	280
Volume to Capacity	0.14	0.30	0.18	0.70	0.36	0.00	0.65
Queue Length 95th (ft)	12	0	0	0	0	0	104
Control Delay (s)	17.4	0.0	0.0	0.0	0.0	0.0	39.0
Lane LOS	C						E
Approach Delay (s)	0.9			0.0			39.0
Approach LOS							E

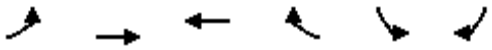
Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	77.1%	ICU Level of Service		D
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	178
Future Volume (Veh/h)	178
Sign Control	
Grade	
Peak Hour Factor	0.98
Hourly flow rate (vph)	182
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	904
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	904
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	35
cM capacity (veh/h)	280
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	430	31	124	665	7	89
Future Volume (Veh/h)	430	31	124	665	7	89
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	443	32	128	686	7	92
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.78	
vC, conflicting volume			475		1401	459
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			475		1373	459
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			88		94	85
cM capacity (veh/h)			1087		110	602

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	475	814	99
Volume Left	0	128	7
Volume Right	32	0	92
cSH	1700	1087	458
Volume to Capacity	0.28	0.12	0.22
Queue Length 95th (ft)	0	10	20
Control Delay (s)	0.0	2.8	15.0
Lane LOS		A	C
Approach Delay (s)	0.0	2.8	15.0
Approach LOS			C

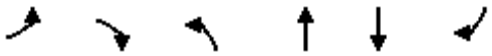
Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	811	1695	64	0	48
Future Volume (Veh/h)	0	811	1695	64	0	48
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	863	1803	68	0	51
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		841	432			
pX, platoon unblocked	0.67				0.81	0.67
vC, conflicting volume	1871				2700	936
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1321				1584	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	93
cM capacity (veh/h)	349				81	729

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	863	1202	669	51
Volume Left	0	0	0	0
Volume Right	0	0	68	51
cSH	1700	1700	1700	729
Volume to Capacity	0.51	0.71	0.39	0.07
Queue Length 95th (ft)	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	10.3
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.3
Approach LOS				B

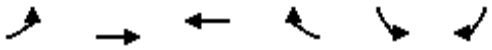
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	93	244	766	943	428
Future Volume (Veh/h)	7	93	244	766	943	428
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	7	96	252	790	972	441
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked						
vC, conflicting volume	2092	706	1413			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2092	706	1413			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	67	75	47			
cM capacity (veh/h)	21	378	478			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	103	252	395	395	648	765
Volume Left	7	252	0	0	0	0
Volume Right	96	0	0	0	0	441
cSH	177	478	1700	1700	1700	1700
Volume to Capacity	0.58	0.53	0.23	0.23	0.38	0.45
Queue Length 95th (ft)	78	75	0	0	0	0
Control Delay (s)	50.3	20.6	0.0	0.0	0.0	0.0
Lane LOS	F	C				
Approach Delay (s)	50.3	5.0			0.0	
Approach LOS	F					

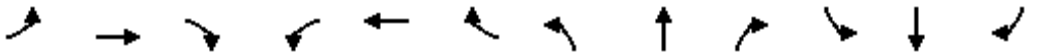
Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	844	1658	66	0	80
Future Volume (Veh/h)	0	844	1658	66	0	80
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	888	1745	69	0	84
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		325	948			
pX, platoon unblocked	0.97				0.81	0.97
vC, conflicting volume	1814				2224	616
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1740				1849	510
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	83
cM capacity (veh/h)	348				54	495

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	444	444	698	698	418	84
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	69	84
cSH	1700	1700	1700	1700	1700	495
Volume to Capacity	0.26	0.26	0.41	0.41	0.25	0.17
Queue Length 95th (ft)	0	0	0	0	0	15
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	13.7
Lane LOS						B
Approach Delay (s)	0.0		0.0			13.7
Approach LOS						B

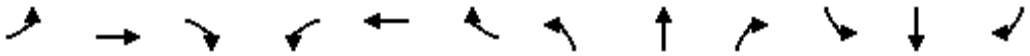
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	51.8%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	753	15	0	1778	0	0	0	73	0	0	0
Future Volume (Veh/h)	0	753	15	0	1778	0	0	0	73	0	0	0
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)	0	793	16	0	1872	0	0	0	77	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		735			538							
pX, platoon unblocked	0.68			0.83			0.76	0.76	0.83	0.76	0.76	0.68
vC, conflicting volume	1872			809			1737	2673	404	2346	2681	936
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1333			371			351	1583	0	1152	1593	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 %	100			100			100	100	91	100	100	100
cM capacity (veh/h)	347			987			440	82	904	106	81	734

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	529	280	936	936	77	0
Volume Left	0	0	0	0	0	0
Volume Right	0	16	0	0	77	0
cSH	1700	1700	1700	1700	904	1700
Volume to Capacity	0.31	0.16	0.55	0.55	0.09	0.00
Queue Length 95th (ft)	0	0	0	0	7	0
Control Delay (s)	0.0	0.0	0.0	0.0	9.4	0.0
Lane LOS					A	A
Approach Delay (s)	0.0		0.0		9.4	0.0
Approach LOS					A	A

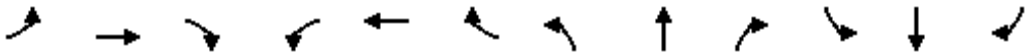
Intersection Summary				
Average Delay	0.3			
Intersection Capacity Utilization	61.0%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	1071	88	254	1159	98	122	439	218	73	362	96
Future Volume (vph)	117	1071	88	254	1159	98	122	439	218	73	362	96
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	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2983		1509	2982		1509	3018	1350	1509	2923	
Flt Permitted	0.16	1.00		0.14	1.00		0.32	1.00	1.00	0.33	1.00	
Satd. Flow (perm)	256	2983		222	2982		501	3018	1350	532	2923	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	118	1082	89	257	1171	99	123	443	220	74	366	97
RTOR Reduction (vph)	0	6	0	0	6	0	0	0	169	0	24	0
Lane Group Flow (vph)	118	1165	0	257	1264	0	123	443	51	74	439	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)	59.2	53.7		69.0	59.5		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	59.2	53.7		68.5	59.5		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.59	0.54		0.68	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)	220	1601		297	1774		115	694	310	122	672	
v/s Ratio Prot	0.03	0.39		c0.10	0.42			0.15			0.15	
v/s Ratio Perm	0.29			c0.49			c0.25		0.04	0.14		
v/c Ratio	0.54	0.73		0.87	0.71		1.07	0.64	0.16	0.61	0.65	
Uniform Delay, d1	10.5	17.6		17.2	14.2		38.5	34.7	30.8	34.5	34.9	
Progression Factor	1.16	0.78		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	2.9		21.5	2.5		103.8	4.5	1.1	20.4	4.9	
Delay (s)	13.4	16.5		38.7	16.7		142.3	39.2	31.9	54.8	39.8	
Level of Service	B	B		D	B		F	D	C	D	D	
Approach Delay (s)		16.2			20.4			53.3			41.9	
Approach LOS		B			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	28.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.1%	ICU Level of Service	F
Analysis Period (min)	15		

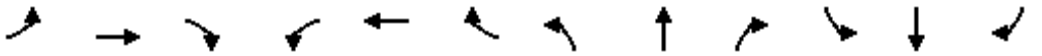
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	999	404	0	1159	15	301	12	0	20	26	28
Future Volume (vph)	30	999	404	0	1159	15	301	12	0	20	26	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	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3012		1433	1442			1487	
Flt Permitted	0.16	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (perm)	247	3018	1350		3012		1433	1442			1487	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	31	1030	416	0	1195	15	310	12	0	21	27	29
RTOR Reduction (vph)	0	0	84	0	1	0	0	0	0	0	18	0
Lane Group Flow (vph)	31	1030	332	0	1209	0	164	158	0	0	59	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6									
Actuated Green, G (s)	79.7	79.7	79.7		73.8		18.9	18.9			9.4	
Effective Green, g (s)	78.7	79.7	79.7		73.8		18.9	18.9			9.4	
Actuated g/C Ratio	0.66	0.66	0.66		0.61		0.16	0.16			0.08	
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)	181	2004	896		1852		225	227			116	
v/s Ratio Prot	0.00	c0.34			c0.40		c0.11	0.11			c0.04	
v/s Ratio Perm	0.11		0.25									
v/c Ratio	0.17	0.51	0.37		0.65		0.73	0.70			0.51	
Uniform Delay, d1	10.2	10.3	9.0		14.9		48.1	47.8			53.1	
Progression Factor	1.34	1.39	1.96		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	0.9	1.1		1.8		11.2	8.9			3.8	
Delay (s)	13.7	15.2	18.6		16.7		59.3	56.8			56.9	
Level of Service	B	B	B		B		E	E			E	
Approach Delay (s)		16.1			16.7			58.1			56.9	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		

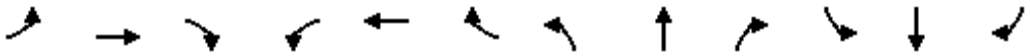
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1248	55	149	1351	58	43	0	35	0	0	59
Future Volume (vph)	29	1248	55	149	1351	58	43	0	35	0	0	59
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	0.95			1.00				1.00
Frt	1.00	0.99		1.00	0.99			0.94				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.97				1.00
Satd. Flow (prot)	1509	2998		1509	2999			1452				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.97				1.00
Satd. Flow (perm)	1509	2998		1509	2999			1452				1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	30	1287	57	154	1393	60	44	0	36	0	0	61
RTOR Reduction (vph)	0	3	0	0	2	0	0	76	0	0	0	54
Lane Group Flow (vph)	30	1341	0	154	1451	0	0	4	0	0	0	7
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	11.7	40.2		38.5	71.0			5.3				11.7
Effective Green, g (s)	11.7	40.2		38.5	71.0			5.3				11.7
Actuated g/C Ratio	0.12	0.40		0.38	0.71			0.05				0.12
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	176	1205		580	2129			76				160
v/s Ratio Prot	0.02	c0.45		c0.10	c0.48							0.01
v/s Ratio Perm								0.00				
v/c Ratio	0.17	1.11		0.27	0.68			0.06				0.04
Uniform Delay, d1	39.8	29.9		21.1	8.1			45.0				39.2
Progression Factor	1.00	1.00		1.32	0.54			1.00				1.00
Incremental Delay, d2	0.5	62.7		0.2	1.4			0.3				0.1
Delay (s)	40.2	92.6		28.1	5.8			45.3				39.3
Level of Service	D	F		C	A			D				D
Approach Delay (s)		91.5			7.9			45.3			39.3	
Approach LOS		F			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	46.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

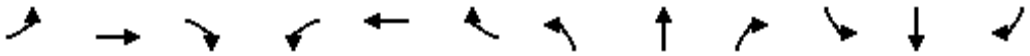
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	996	151	197	987	18	271	7	289	13	8	20
Future Volume (vph)	23	996	151	197	987	18	271	7	289	13	8	20
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			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	1.00			1.00	0.85		0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1509	2958		1509	3009			1514	1350		1460	
Flt Permitted	0.16	1.00		0.14	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	249	2958		219	3009			1514	1350		1460	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	24	1038	157	205	1028	19	282	7	301	14	8	21
RTOR Reduction (vph)	0	12	0	0	1	0	0	0	240	0	17	0
Lane Group Flow (vph)	24	1183	0	205	1046	0	0	289	61	0	26	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	84	1004		102	1217			308	274		247	
v/s Ratio Prot		0.40		c0.03	0.35			c0.19	0.00		c0.02	
v/s Ratio Perm	0.10			c0.76					0.04			
v/c Ratio	0.29	1.18		2.01	0.86			0.94	0.22		0.10	
Uniform Delay, d1	18.5	25.3		31.0	20.8			30.0	25.4		26.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.9	90.8		487.2	6.2			35.3	0.2		0.8	
Delay (s)	20.4	116.1		518.1	27.1			65.3	25.6		27.7	
Level of Service	C	F		F	C			E	C		C	
Approach Delay (s)		114.2			107.5			45.1			27.7	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM 2000 Control Delay	97.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.42		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

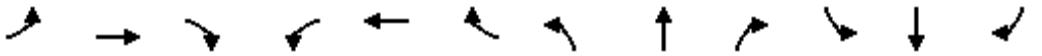
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	7	882	3	132	3	441	827	0	348	3
Future Volume (vph)	0	0	7	882	3	132	3	441	827	0	348	3
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.96			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1400			3017	1350		3014	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1400			2877	1350		3014	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	7	909	3	136	3	455	853	0	359	3
RTOR Reduction (vph)	0	0	4	0	12	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	3	500	536	0	0	458	853	0	362	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			37.0	37.0	37.0			54.0	100.0		54.0	
Effective Green, g (s)			37.0	37.0	37.0			55.0	100.0		55.0	
Actuated g/C Ratio			0.37	0.37	0.37			0.55	1.00		0.55	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			508	530	518			1582	1350		1657	
v/s Ratio Prot				0.35	c0.38						0.12	
v/s Ratio Perm			0.00					0.16	c0.63			
v/c Ratio			0.01	0.94	1.03			0.29	0.63		0.22	
Uniform Delay, d1			19.9	30.5	31.5			12.0	0.0		11.5	
Progression Factor			1.00	1.00	1.00			1.34	1.00		1.00	
Incremental Delay, d2			0.0	27.3	48.8			0.3	1.5		0.3	
Delay (s)			19.9	57.8	80.3			16.5	1.5		11.8	
Level of Service			B	E	F			B	A		B	
Approach Delay (s)		19.9			69.6			6.7			11.8	
Approach LOS		B			E			A			B	

Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

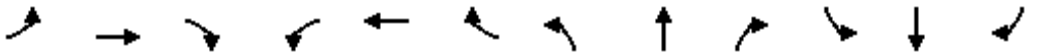
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	304	305	135	43	160	79	116	859	64	61	931	262
Future Volume (vph)	304	305	135	43	160	79	116	859	64	61	931	262
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1510		1509	2986		1509	3018	1350
Flt Permitted	0.32	1.00	1.00	0.47	1.00		0.17	1.00		0.20	1.00	1.00
Satd. Flow (perm)	503	1588	1350	754	1510		268	2986		324	3018	1350
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	313	314	139	44	165	81	120	886	66	63	960	270
RTOR Reduction (vph)	0	0	81	0	20	0	0	5	0	0	0	71
Lane Group Flow (vph)	313	314	58	44	226	0	120	947	0	63	960	199
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	36.5	29.6	29.6	26.9	23.0		53.8	46.7		49.7	44.9	44.9
Effective Green, g (s)	35.5	30.1	30.1	24.9	23.0		51.8	47.2		47.7	44.9	44.9
Actuated g/C Ratio	0.36	0.30	0.30	0.25	0.23		0.52	0.47		0.48	0.45	0.45
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	279	477	406	209	347		214	1409		199	1355	606
v/s Ratio Prot	c0.11	0.20		0.01	0.15		c0.03	0.32		0.01	c0.32	
v/s Ratio Perm	c0.29		0.04	0.05			0.26			0.14		0.15
v/c Ratio	1.12	0.66	0.14	0.21	0.65		0.56	0.67		0.32	0.71	0.33
Uniform Delay, d1	30.4	30.5	25.5	29.1	34.9		15.2	20.4		15.4	22.3	17.8
Progression Factor	0.93	0.92	0.83	1.13	1.17		0.81	0.49		1.82	1.65	2.28
Incremental Delay, d2	90.1	3.2	0.2	0.2	3.4		0.2	0.2		0.2	2.0	0.9
Delay (s)	118.3	31.3	21.4	32.9	44.2		12.6	10.2		28.3	38.8	41.5
Level of Service	F	C	C	C	D		B	B		C	D	D
Approach Delay (s)		65.1			42.5			10.5			38.9	
Approach LOS		E			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	36.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		

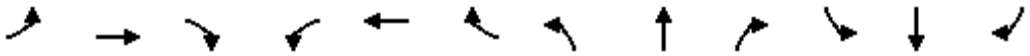
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	379	804	138	194	764	21	213	652	146	2	708	432
Future Volume (vph)	379	804	138	194	764	21	213	652	146	2	708	432
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2951		2927	3006		2927	2935			3017	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (perm)	2927	2951		2927	3006		2927	2935			2877	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	387	820	141	198	780	21	217	665	149	2	722	441
RTOR Reduction (vph)	0	13	0	0	2	0	0	19	0	0	0	148
Lane Group Flow (vph)	387	948	0	198	799	0	217	795	0	0	724	293
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	7.5	31.3		10.2	34.0		6.0	45.0			34.0	34.0
Effective Green, g (s)	7.5	31.8		10.2	34.5		7.0	46.0			35.0	35.0
Actuated g/C Ratio	0.08	0.32		0.10	0.34		0.07	0.46			0.35	0.35
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	219	938		298	1037		204	1350			1006	472
v/s Ratio Prot	c0.13	c0.32		0.07	c0.27		c0.07	0.27				
v/s Ratio Perm											c0.25	0.22
v/c Ratio	1.77	1.01		0.66	0.77		1.06	0.59			0.72	0.62
Uniform Delay, d1	46.2	34.1		43.3	29.2		46.5	20.0			28.2	27.0
Progression Factor	0.86	0.81		1.23	1.00		1.00	1.00			1.31	2.09
Incremental Delay, d2	350.4	18.2		3.6	4.7		80.9	0.8			2.1	2.3
Delay (s)	390.3	45.7		56.7	33.9		127.4	20.8			39.2	58.8
Level of Service	F	D		E	C		F	C			D	E
Approach Delay (s)		144.6			38.4			43.2			46.6	
Approach LOS		F			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	73.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.2%	ICU Level of Service	G
Analysis Period (min)	15		

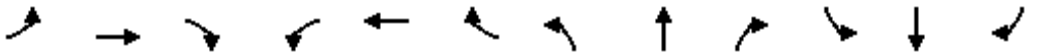
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	116	666	90	286	620	73	77	846	242	92	837	148
Future Volume (vph)	116	666	90	286	620	73	77	846	242	92	837	148
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2964		1509	3018	1350	1509	2917		1509	2949	
Flt Permitted	0.41	1.00		0.14	1.00	1.00	0.16	1.00		0.12	1.00	
Satd. Flow (perm)	650	2964		227	3018	1350	256	2917		198	2949	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	120	687	93	295	639	75	79	872	249	95	863	153
RTOR Reduction (vph)	0	11	0	0	0	40	0	29	0	0	16	0
Lane Group Flow (vph)	120	769	0	295	639	35	79	1092	0	95	1000	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	187	856		271	1408	630	113	1296		88	1310	
v/s Ratio Prot		0.26		c0.14	0.21			0.37			0.34	
v/s Ratio Perm	0.18			c0.34		0.03	0.31			c0.48		
v/c Ratio	0.64	0.90		1.09	0.45	0.06	0.70	0.84		1.08	0.76	
Uniform Delay, d1	27.9	30.7		23.2	16.2	13.1	20.1	22.2		25.0	21.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.7	14.1		80.3	1.1	0.2	30.3	6.8		119.2	4.3	
Delay (s)	43.6	44.9		103.6	17.3	13.3	50.4	29.0		144.2	25.3	
Level of Service	D	D		F	B	B	D	C		F	C	
Approach Delay (s)		44.7			42.2			30.4			35.4	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	37.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		

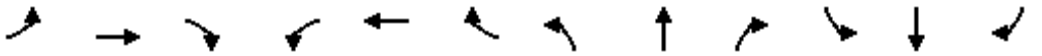
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	963	19	3	955	212	13	16	25	286	30	19
Future Volume (vph)	0	963	19	3	955	212	13	16	25	286	30	19
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.94		1.00	0.98	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3009			3017	1350		1471		1433	1432	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3009			2876	1350		1471		1433	1432	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1024	20	3	1016	226	14	17	27	304	32	20
RTOR Reduction (vph)	0	1	0	0	0	60	0	25	0	0	5	0
Lane Group Flow (vph)	0	1043	0	0	1019	166	0	33	0	192	159	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		63.5			63.5	18.6		5.9		18.6	18.6	
Effective Green, g (s)		63.5			63.5	18.6		5.9		18.6	18.6	
Actuated g/C Ratio		0.64			0.64	0.19		0.06		0.19	0.19	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1910			1826	251		86		266	266	
v/s Ratio Prot		0.35				0.12		c0.02		c0.13	0.11	
v/s Ratio Perm					c0.35							
v/c Ratio		0.55			0.56	0.66		0.38		0.72	0.60	
Uniform Delay, d1		10.2			10.3	37.8		45.3		38.3	37.3	
Progression Factor		0.39			1.00	1.00		1.00		0.81	0.80	
Incremental Delay, d2		0.5			1.2	7.0		2.8		8.3	3.5	
Delay (s)		4.4			11.6	44.8		48.1		39.4	33.2	
Level of Service		A			B	D		D		D	C	
Approach Delay (s)		4.4			17.6			48.1			36.6	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	15.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.6%	ICU Level of Service	B
Analysis Period (min)	15		

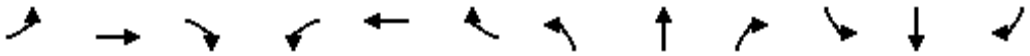
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	1219	37	0	1006	51	77	22	70	34	0	29
Future Volume (vph)	60	1219	37	0	1006	51	77	22	70	34	0	29
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			0.95			1.00			1.00	1.00
Frt	1.00	1.00			0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.95	1.00
Satd. Flow (prot)	1509	3004			2996			1466			1509	1350
Flt Permitted	0.20	1.00			1.00			0.84			0.55	1.00
Satd. Flow (perm)	312	3004			2996			1254			879	1350
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	64	1297	39	0	1070	54	82	23	74	36	0	31
RTOR Reduction (vph)	0	2	0	0	3	0	0	26	0	0	0	26
Lane Group Flow (vph)	64	1334	0	0	1121	0	0	153	0	0	36	5
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	74.7	74.7			67.7			17.3			17.3	17.3
Effective Green, g (s)	73.7	74.7			67.7			17.3			17.3	17.3
Actuated g/C Ratio	0.74	0.75			0.68			0.17			0.17	0.17
Clearance Time (s)	3.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0			5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	265	2243			2028			216			152	233
v/s Ratio Prot	0.01	c0.44			0.37							
v/s Ratio Perm	0.17							c0.12			0.04	0.00
v/c Ratio	0.24	0.59			0.55			0.71			0.24	0.02
Uniform Delay, d1	5.1	5.8			8.3			39.0			35.7	34.3
Progression Factor	1.00	1.00			1.14			1.00			1.00	1.00
Incremental Delay, d2	0.2	1.2			0.7			10.1			0.8	0.0
Delay (s)	5.3	6.9			10.2			49.0			36.5	34.4
Level of Service	A	A			B			D			D	C
Approach Delay (s)		6.9			10.2			49.0			35.5	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.2%	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												
Traffic Volume (veh/h)	0	531	34	44	453	0	25	0	80	8	5	6
Future Volume (Veh/h)	0	531	34	44	453	0	25	0	80	8	5	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	553	35	46	472	0	26	0	83	8	5	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)		513			1070							
pX, platoon unblocked												
vC, conflicting volume	472			588			1143	1134	570	1218	1152	472
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	472			588			1143	1134	570	1218	1152	472
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			95			84	100	84	94	97	99
cM capacity (veh/h)	1090			987			166	193	521	128	188	592

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	588	518	109	19
Volume Left	0	46	26	8
Volume Right	35	0	83	6
cSH	1700	987	345	191
Volume to Capacity	0.35	0.05	0.32	0.10
Queue Length 95th (ft)	0	4	33	8
Control Delay (s)	0.0	1.3	20.2	25.9
Lane LOS		A	C	D
Approach Delay (s)	0.0	1.3	20.2	25.9
Approach LOS			C	D

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	114	1265	43	0	3	1299	57	0	0	2	0	0
Future Volume (Veh/h)	114	1265	43	0	3	1299	57	0	0	2	0	0
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)	120	1332	45	0	3	1367	60	0	0	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1427			0	1377			2413	3028	688	2311	3020
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1427			0	1377			2413	3028	688	2311	3020
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	75			0	99			100	100	99	100	100
cM capacity (veh/h)	473			0	494			9	9	388	16	10

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	120	888	489	686	744	0	129
Volume Left	120	0	0	3	0	0	0
Volume Right	0	0	45	0	60	0	129
cSH	473	1700	1700	494	1700	1700	374
Volume to Capacity	0.25	0.52	0.29	0.01	0.44	0.00	0.34
Queue Length 95th (ft)	25	0	0	0	0	0	38
Control Delay (s)	15.2	0.0	0.0	0.2	0.0	0.0	19.6
Lane LOS	C			A			C
Approach Delay (s)	1.2			0.1			19.6
Approach LOS							C

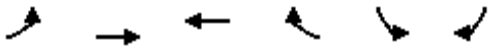
Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	Err%	ICU Level of Service		H
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	123
Future Volume (Veh/h)	123
Sign Control	
Grade	
Peak Hour Factor	0.95
Hourly flow rate (vph)	129
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	714
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	714
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	66
cM capacity (veh/h)	374
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	600	28	55	476	11	95
Future Volume (Veh/h)	600	28	55	476	11	95
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	638	30	59	506	12	101
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.88	
vC, conflicting volume			668		1277	653
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			668		1245	653
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		92	78
cM capacity (veh/h)			922		157	467

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	668	565	113
Volume Left	0	59	12
Volume Right	30	0	101
cSH	1700	922	386
Volume to Capacity	0.39	0.06	0.29
Queue Length 95th (ft)	0	5	30
Control Delay (s)	0.0	1.7	18.1
Lane LOS		A	C
Approach Delay (s)	0.0	1.7	18.1
Approach LOS			C

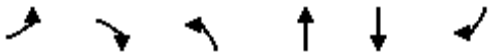
Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	89.6%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1311	1390	45	0	58
Future Volume (Veh/h)	0	1311	1390	45	0	58
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	1338	1418	46	0	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		841	432			
pX, platoon unblocked	0.78				0.67	0.78
vC, conflicting volume	1464				2779	732
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1030				2175	91
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	92
cM capacity (veh/h)	523				27	739

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	1338	945	519	59
Volume Left	0	0	0	0
Volume Right	0	0	46	59
cSH	1700	1700	1700	739
Volume to Capacity	0.79	0.56	0.31	0.08
Queue Length 95th (ft)	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	10.3
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.3
Approach LOS				B

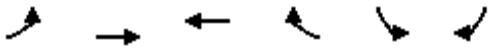
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	98	54	1030	965	84
Future Volume (Veh/h)	30	98	54	1030	965	84
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	32	103	57	1084	1016	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked	0.84					
vC, conflicting volume	1716	552	1104			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1465	552	1104			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	65	78	91			
cM capacity (veh/h)	90	477	628			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	135	57	542	542	677	427
Volume Left	32	57	0	0	0	0
Volume Right	103	0	0	0	0	88
cSH	237	628	1700	1700	1700	1700
Volume to Capacity	0.57	0.09	0.32	0.32	0.40	0.25
Queue Length 95th (ft)	79	7	0	0	0	0
Control Delay (s)	38.5	11.3	0.0	0.0	0.0	0.0
Lane LOS	E	B				
Approach Delay (s)	38.5	0.6			0.0	
Approach LOS	E					

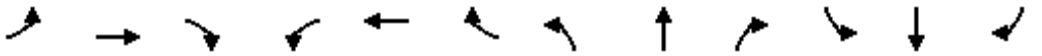
Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1304	1361	121	0	171
Future Volume (Veh/h)	0	1304	1361	121	0	171
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1373	1433	127	0	180
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		325	948			
pX, platoon unblocked					0.61	
vC, conflicting volume	1560				2183	541
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1560				1671	541
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	63
cM capacity (veh/h)	420				53	485

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	686	686	573	573	414	180
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	127	180
cSH	1700	1700	1700	1700	1700	485
Volume to Capacity	0.40	0.40	0.34	0.34	0.24	0.37
Queue Length 95th (ft)	0	0	0	0	0	42
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	16.7
Lane LOS						C
Approach Delay (s)	0.0		0.0			16.7
Approach LOS						C

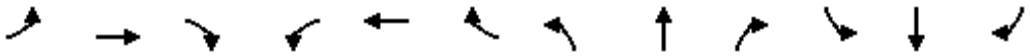
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	53.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1247	17	0	1453	0	0	0	62	0	0	0
Future Volume (Veh/h)	0	1247	17	0	1453	0	0	0	62	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	1286	18	0	1498	0	0	0	64	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		735			538							
pX, platoon unblocked	0.79			0.63			0.74	0.74	0.63	0.74	0.74	0.79
vC, conflicting volume	1498			1304			2044	2793	652	2205	2802	749
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1094			314			409	1425	0	628	1437	143
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 %	100			100			100	100	91	100	100	100
cM capacity (veh/h)	499			785			388	99	685	246	97	692

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	857	447	749	749	64	0
Volume Left	0	0	0	0	0	0
Volume Right	0	18	0	0	64	0
cSH	1700	1700	1700	1700	685	1700
Volume to Capacity	0.50	0.26	0.44	0.44	0.09	0.00
Queue Length 95th (ft)	0	0	0	0	8	0
Control Delay (s)	0.0	0.0	0.0	0.0	10.8	0.0
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		10.8	0.0
Approach LOS					B	A

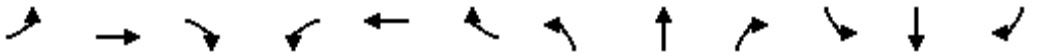
Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	52.2%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	1285	47	197	939	69	108	639	276	72	406	69
Future Volume (vph)	101	1285	47	197	939	69	108	639	276	72	406	69
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	3002		1509	2987		1509	3018	1350	1509	2952	
Flt Permitted	0.24	1.00		0.10	1.00		0.30	1.00	1.00	0.17	1.00	
Satd. Flow (perm)	386	3002		153	2987		470	3018	1350	276	2952	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	103	1311	48	201	958	70	110	652	282	73	414	70
RTOR Reduction (vph)	0	2	0	0	5	0	0	0	159	0	14	0
Lane Group Flow (vph)	103	1357	0	201	1023	0	110	652	123	73	470	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)	59.0	54.5		69.0	60.5		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	59.0	54.5		68.5	60.5		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.59	0.54		0.68	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)	278	1636		247	1807		108	694	310	63	678	
v/s Ratio Prot	0.02	0.45		c0.09	0.34			0.22			0.16	
v/s Ratio Perm	0.20			c0.47			0.23		0.09	c0.26		
v/c Ratio	0.37	0.83		0.81	0.57		1.02	0.94	0.40	1.16	0.69	
Uniform Delay, d1	9.3	18.9		21.5	11.9		38.5	37.8	32.6	38.5	35.3	
Progression Factor	0.86	0.82		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	4.9		17.4	1.3		91.7	22.2	3.7	162.9	5.8	
Delay (s)	8.3	20.5		38.9	13.2		130.2	60.0	36.4	201.4	41.0	
Level of Service	A	C		D	B		F	E	D	F	D	
Approach Delay (s)		19.6			17.4			61.0			62.1	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	34.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.3%	ICU Level of Service	F
Analysis Period (min)	15		

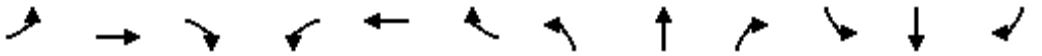
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	1230	457	1	1021	26	292	24	1	22	27	24
Future Volume (vph)	57	1230	457	1	1021	26	292	24	1	22	27	24
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			0.96	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3006		1433	1446			1496	
Flt Permitted	0.19	1.00	1.00		0.95		0.95	0.96			0.99	
Satd. Flow (perm)	302	3018	1350		2869		1433	1446			1496	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	58	1255	466	1	1042	27	298	24	1	22	28	24
RTOR Reduction (vph)	0	0	77	0	1	0	0	0	0	0	14	0
Lane Group Flow (vph)	58	1255	389	0	1069	0	158	165	0	0	60	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6									
Actuated Green, G (s)	79.7	79.7	79.7		72.2		18.9	18.9			9.4	
Effective Green, g (s)	78.7	79.7	79.7		72.2		18.9	18.9			9.4	
Actuated g/C Ratio	0.66	0.66	0.66		0.60		0.16	0.16			0.08	
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)	233	2004	896		1726		225	227			117	
v/s Ratio Prot	0.01	c0.42					0.11	c0.11			c0.04	
v/s Ratio Perm	0.16		0.29		0.37							
v/c Ratio	0.25	0.63	0.43		9.00dr		0.70	0.73			0.51	
Uniform Delay, d1	9.7	11.6	9.5		15.2		47.9	48.1			53.1	
Progression Factor	1.29	1.31	1.62		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.2	1.4	1.4		1.7		9.5	11.0			3.8	
Delay (s)	12.7	16.6	16.9		16.9		57.4	59.1			56.9	
Level of Service	B	B	B		B		E	E			E	
Approach Delay (s)		16.6			16.9			58.3			56.9	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	21.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	82.1%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	1557	43	196	1081	49	52	0	73	0	0	38
Future Volume (vph)	30	1557	43	196	1081	49	52	0	73	0	0	38
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	0.95			1.00				1.00
Frt	1.00	1.00		1.00	0.99			0.92				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.98				1.00
Satd. Flow (prot)	1509	3006		1509	2998			1433				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.98				1.00
Satd. Flow (perm)	1509	3006		1509	2998			1433				1374
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	30	1573	43	198	1092	49	53	0	74	0	0	38
RTOR Reduction (vph)	0	2	0	0	2	0	0	90	0	0	0	33
Lane Group Flow (vph)	30	1614	0	198	1139	0	0	37	0	0	0	5
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	13.1	41.0		34.5	66.4			8.5				13.1
Effective Green, g (s)	13.1	41.0		34.5	66.4			8.5				13.1
Actuated g/C Ratio	0.13	0.41		0.34	0.66			0.08				0.13
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	197	1232		520	1990			121				179
v/s Ratio Prot	0.02	c0.54		c0.13	c0.38							0.00
v/s Ratio Perm								0.03				
v/c Ratio	0.15	1.31		0.38	0.57			0.31				0.03
Uniform Delay, d1	38.5	29.5		24.7	9.1			43.0				37.9
Progression Factor	1.00	1.00		1.20	0.55			1.00				1.00
Incremental Delay, d2	0.4	145.5		0.4	1.1			1.5				0.1
Delay (s)	38.9	175.0		30.1	6.1			44.4				38.0
Level of Service	D	F		C	A			D				D
Approach Delay (s)		172.6			9.6			44.4			38.0	
Approach LOS		F			A			D			D	

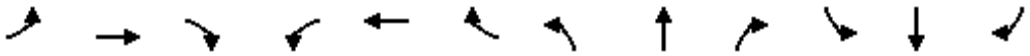
Intersection Summary			
HCM 2000 Control Delay	96.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	1308	167	200	1050	27	218	8	253	22	11	16
Future Volume (vph)	20	1308	167	200	1050	27	218	8	253	22	11	16
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			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1509	2966		1509	3006			1515	1350		1483	
Flt Permitted	0.15	1.00		0.14	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	244	2966		219	3006			1515	1350		1483	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	21	1362	174	208	1094	28	227	8	264	23	11	17
RTOR Reduction (vph)	0	10	0	0	2	0	0	0	210	0	14	0
Lane Group Flow (vph)	21	1527	0	208	1120	0	0	235	54	0	37	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1006		102	1216			308	274		251	
v/s Ratio Prot		0.51		c0.03	0.37			c0.16	0.00		c0.02	
v/s Ratio Perm	0.09			c0.77					0.04			
v/c Ratio	0.26	1.52		2.04	0.92			0.76	0.20		0.15	
Uniform Delay, d1	18.3	25.3		31.0	21.6			28.8	25.3		27.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.7	238.2		500.0	11.4			11.3	0.1		1.2	
Delay (s)	20.0	263.5		531.0	33.1			40.1	25.4		28.3	
Level of Service	B	F		F	C			D	C		C	
Approach Delay (s)		260.2			110.9			32.3			28.3	
Approach LOS		F			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	166.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.40		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	93.0%	ICU Level of Service	F
Analysis Period (min)	15		

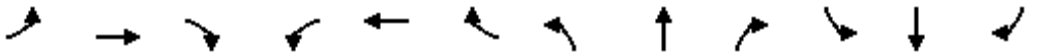
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	8	792	10	110	7	369	1234	0	369	2
Future Volume (vph)	0	0	8	792	10	110	7	369	1234	0	369	2
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.97			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1404			3015	1350		3015	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1404			2862	1350		3015	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	8	816	10	113	7	380	1272	0	380	2
RTOR Reduction (vph)	0	0	5	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	3	449	479	0	0	387	1272	0	382	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			37.0	37.0	37.0			54.0	100.0		54.0	
Effective Green, g (s)			37.0	37.0	37.0			55.0	100.0		55.0	
Actuated g/C Ratio			0.37	0.37	0.37			0.55	1.00		0.55	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			508	530	519			1574	1350		1658	
v/s Ratio Prot				0.31	0.34						0.13	
v/s Ratio Perm			0.00					0.14	c0.94			
v/c Ratio			0.01	0.85	0.92			0.25	0.94		0.23	
Uniform Delay, d1			19.9	28.9	30.1			11.7	0.0		11.6	
Progression Factor			1.00	1.00	1.00			1.47	1.00		1.00	
Incremental Delay, d2			0.0	15.4	22.2			0.0	1.8		0.3	
Delay (s)			19.9	44.3	52.3			17.3	1.8		11.9	
Level of Service			B	D	D			B	A		B	
Approach Delay (s)		19.9			48.5			5.4			11.9	
Approach LOS		B			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	19.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

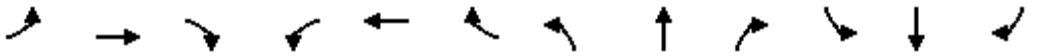
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	415	388	109	37	175	102	128	1146	58	70	827	245
Future Volume (vph)	415	388	109	37	175	102	128	1146	58	70	827	245
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1501		1509	2996		1509	3018	1350
Flt Permitted	0.30	1.00	1.00	0.30	1.00		0.22	1.00		0.11	1.00	1.00
Satd. Flow (perm)	476	1588	1350	482	1501		352	2996		170	3018	1350
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	419	392	110	37	177	103	129	1158	59	71	835	247
RTOR Reduction (vph)	0	0	57	0	23	0	0	3	0	0	0	75
Lane Group Flow (vph)	419	392	53	37	257	0	129	1214	0	71	835	172
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	36.5	29.9	29.9	29.1	25.5		53.3	46.3		50.2	45.0	45.0
Effective Green, g (s)	35.5	30.4	30.4	27.1	25.5		51.3	46.8		48.2	45.0	45.0
Actuated g/C Ratio	0.36	0.30	0.30	0.27	0.26		0.51	0.47		0.48	0.45	0.45
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	246	482	410	157	382		249	1402		138	1358	607
v/s Ratio Prot	c0.13	0.25		0.01	0.17		c0.03	c0.41		0.02	0.28	
v/s Ratio Perm	c0.48		0.04	0.06			0.23			0.23		0.13
v/c Ratio	1.70	0.81	0.13	0.24	0.67		0.52	0.87		0.51	0.61	0.28
Uniform Delay, d1	31.5	32.2	25.2	27.8	33.5		14.6	23.8		17.5	20.9	17.3
Progression Factor	0.94	0.94	0.83	1.31	1.30		0.57	0.42		1.81	1.57	2.23
Incremental Delay, d2	333.1	10.0	0.1	0.2	3.2		0.1	0.7		1.0	1.5	0.9
Delay (s)	362.6	40.2	21.1	36.5	46.6		8.4	10.6		32.8	34.3	39.5
Level of Service	F	D	C	D	D		A	B		C	C	D
Approach Delay (s)		184.6			45.4			10.4			35.3	
Approach LOS		F			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	64.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		

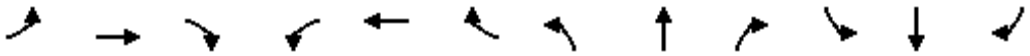
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	526	1046	102	162	605	22	184	828	168	0	622	363
Future Volume (vph)	526	1046	102	162	605	22	184	828	168	0	622	363
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2977		2927	3002		2927	2941			3018	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	2927	2977		2927	3002		2927	2941			3018	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	537	1067	104	165	617	22	188	845	171	0	635	370
RTOR Reduction (vph)	0	6	0	0	3	0	0	18	0	0	0	181
Lane Group Flow (vph)	537	1165	0	165	636	0	188	998	0	0	635	189
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	11.6	36.5		9.1	34.0		6.0	40.9			29.9	29.9
Effective Green, g (s)	11.6	37.0		9.1	34.5		7.0	41.9			30.9	30.9
Actuated g/C Ratio	0.12	0.37		0.09	0.34		0.07	0.42			0.31	0.31
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	339	1101		266	1035		204	1232			932	417
v/s Ratio Prot	c0.18	c0.39		0.06	0.21		0.06	c0.34			0.21	
v/s Ratio Perm												0.14
v/c Ratio	1.58	1.06		0.62	0.61		0.92	0.81			0.68	0.45
Uniform Delay, d1	44.2	31.5		43.8	27.2		46.2	25.6			30.2	27.8
Progression Factor	0.89	0.79		1.15	0.89		1.00	1.00			1.65	3.46
Incremental Delay, d2	264.1	28.5		2.9	2.5		41.0	4.4			1.9	0.9
Delay (s)	303.4	53.4		53.2	26.6		87.3	29.9			51.7	96.9
Level of Service	F	D		D	C		F	C			D	F
Approach Delay (s)		132.0			32.0			38.9			68.4	
Approach LOS		F			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	77.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		

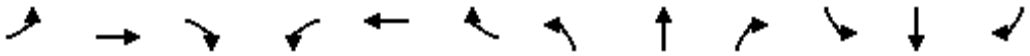
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	982	54	235	565	48	62	999	359	62	798	94
Future Volume (vph)	118	982	54	235	565	48	62	999	359	62	798	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	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2994		1509	3018	1350	1509	2898		1509	2970	
Flt Permitted	0.43	1.00		0.14	1.00	1.00	0.20	1.00		0.10	1.00	
Satd. Flow (perm)	687	2994		225	3018	1350	315	2898		159	2970	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	122	1012	56	242	582	49	64	1030	370	64	823	97
RTOR Reduction (vph)	0	4	0	0	0	26	0	41	0	0	10	0
Lane Group Flow (vph)	122	1064	0	242	582	23	64	1359	0	64	910	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.2	25.2		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.2	26.2		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	199	871		268	1408	630	140	1288		70	1320	
v/s Ratio Prot		c0.36		c0.12	0.19			c0.47			0.31	
v/s Ratio Perm	0.18			0.28		0.02	0.20			0.40		
v/c Ratio	0.61	1.22		0.90	0.41	0.04	0.46	1.06		0.91	0.69	
Uniform Delay, d1	27.5	31.9		21.7	15.9	13.0	17.4	25.0		23.4	20.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.3	109.9		30.8	0.9	0.1	10.4	41.1		85.4	3.0	
Delay (s)	40.8	141.8		52.5	16.8	13.1	27.8	66.1		108.8	23.0	
Level of Service	D	F		D	B	B	C	E		F	C	
Approach Delay (s)		131.5			26.5			64.4			28.6	
Approach LOS		F			C			E			C	

Intersection Summary			
HCM 2000 Control Delay	66.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.6%	ICU Level of Service	H
Analysis Period (min)	15		

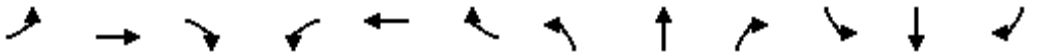
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1129	27	2	789	240	33	55	24	255	51	12
Future Volume (vph)	0	1129	27	2	789	240	33	55	24	255	51	12
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.97		1.00	0.99	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3007			3017	1350		1520		1433	1448	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3007			2877	1350		1520		1433	1448	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1152	28	2	805	245	34	56	24	260	52	12
RTOR Reduction (vph)	0	2	0	0	0	83	0	9	0	0	3	0
Lane Group Flow (vph)	0	1178	0	0	807	162	0	105	0	164	157	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		62.4			62.4	17.6		8.0		17.6	17.6	
Effective Green, g (s)		62.4			62.4	17.6		8.0		17.6	17.6	
Actuated g/C Ratio		0.62			0.62	0.18		0.08		0.18	0.18	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1876			1795	237		121		252	254	
v/s Ratio Prot		c0.39				c0.12		c0.07		0.11	0.11	
v/s Ratio Perm					0.28							
v/c Ratio		0.63			0.45	0.68		0.87		0.65	0.62	
Uniform Delay, d1		11.6			9.8	38.6		45.5		38.3	38.1	
Progression Factor		0.46			1.00	1.00		1.00		0.77	0.76	
Incremental Delay, d2		0.1			0.8	8.5		43.4		4.5	3.5	
Delay (s)		5.5			10.6	47.1		88.9		33.9	32.4	
Level of Service		A			B	D		F		C	C	
Approach Delay (s)		5.5			19.1			88.9			33.2	
Approach LOS		A			B			F			C	

Intersection Summary			
HCM 2000 Control Delay	17.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		

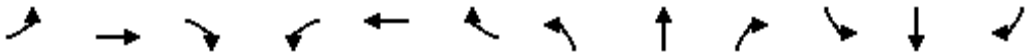
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	1321	41	5	893	61	80	31	97	31	1	30
Future Volume (vph)	50	1321	41	5	893	61	80	31	97	31	1	30
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			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.95	1.00
Satd. Flow (prot)	1509	3004		1509	2989			1460			1515	1350
Flt Permitted	0.24	1.00		0.17	1.00			0.86			0.63	1.00
Satd. Flow (perm)	375	3004		270	2989			1283			1005	1350
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	52	1362	42	5	921	63	82	32	100	32	1	31
RTOR Reduction (vph)	0	2	0	0	4	0	0	32	0	0	0	25
Lane Group Flow (vph)	52	1402	0	5	980	0	0	182	0	0	33	6
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	73.9	73.9		67.1	67.1			18.1			18.1	18.1
Effective Green, g (s)	72.9	73.9		67.1	67.1			18.1			18.1	18.1
Actuated g/C Ratio	0.73	0.74		0.67	0.67			0.18			0.18	0.18
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	305	2219		181	2005			232			181	244
v/s Ratio Prot	0.00	c0.47			0.33							
v/s Ratio Perm	0.12			0.02				c0.14			0.03	0.00
v/c Ratio	0.17	0.63		0.03	0.49			0.78			0.18	0.02
Uniform Delay, d1	4.8	6.4		5.5	8.1			39.1			34.7	33.7
Progression Factor	1.00	1.00		1.01	1.04			1.00			1.00	1.00
Incremental Delay, d2	0.1	1.4		0.2	0.6			15.8			0.5	0.0
Delay (s)	4.9	7.8		5.7	9.0			54.9			35.2	33.7
Level of Service	A	A		A	A			D			D	C
Approach Delay (s)		7.7			8.9			54.9			34.5	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.1%	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												
Traffic Volume (veh/h)	1	717	28	60	432	0	29	0	102	11	10	35
Future Volume (Veh/h)	1	717	28	60	432	0	29	0	102	11	10	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	1	788	31	66	475	0	32	0	112	12	11	38
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		513			1070							
pX, platoon unblocked												
vC, conflicting volume	475			819			1456	1412	804	1524	1428	475
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	475			819			1456	1412	804	1524	1428	475
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			92			64	100	71	81	91	94
cM capacity (veh/h)	1087			810			88	127	383	64	124	590

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	820	541	144	61
Volume Left	1	66	32	12
Volume Right	31	0	112	38
cSH	1087	810	220	179
Volume to Capacity	0.00	0.08	0.66	0.34
Queue Length 95th (ft)	0	7	100	35
Control Delay (s)	0.0	2.2	48.0	35.2
Lane LOS	A	A	E	E
Approach Delay (s)	0.0	2.2	48.0	35.2
Approach LOS			E	E

Intersection Summary			
Average Delay	6.5		
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	145	1598	58	0	3	1110	52	0	0	0	0	0
Future Volume (Veh/h)	145	1598	58	0	3	1110	52	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop
Grade		0%				0%			0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	151	1665	60	0	3	1156	54	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1210			0	1725			2682	3213	862	2324	3216
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1210			0	1725			2682	3213	862	2324	3216
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	74			0	99			100	100	100	100	100
cM capacity (veh/h)	572			0	362			6	7	298	16	7

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	151	1110	615	581	632	0	101
Volume Left	151	0	0	3	0	0	0
Volume Right	0	0	60	0	54	0	101
cSH	572	1700	1700	362	1700	1700	441
Volume to Capacity	0.26	0.65	0.36	0.01	0.37	0.00	0.23
Queue Length 95th (ft)	26	0	0	1	0	0	22
Control Delay (s)	13.5	0.0	0.0	0.3	0.0	0.0	15.6
Lane LOS	B			A			C
Approach Delay (s)	1.1			0.1			15.6
Approach LOS							C

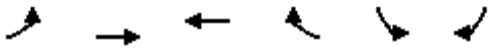
Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	98.7%	ICU Level of Service		F
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	97
Future Volume (Veh/h)	97
Sign Control	
Grade	
Peak Hour Factor	0.96
Hourly flow rate (vph)	101
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	605
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	605
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	77
cM capacity (veh/h)	441
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	835	19	30	488	10	121
Future Volume (Veh/h)	835	19	30	488	10	121
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	861	20	31	503	10	125
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.89	
vC, conflicting volume			881		1436	871
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			881		1428	871
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		92	64
cM capacity (veh/h)			767		127	350

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	881	534	135
Volume Left	0	31	10
Volume Right	20	0	125
cSH	1700	767	310
Volume to Capacity	0.52	0.04	0.44
Queue Length 95th (ft)	0	3	53
Control Delay (s)	0.0	1.1	25.3
Lane LOS		A	D
Approach Delay (s)	0.0	1.1	25.3
Approach LOS			D

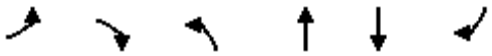
Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1722	1135	45	0	45
Future Volume (Veh/h)	0	1722	1135	45	0	45
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	0	1739	1146	45	0	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		841	432			
pX, platoon unblocked	0.84				0.63	0.84
vC, conflicting volume	1191				2908	596
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	855				2800	148
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	94
cM capacity (veh/h)	658				9	735

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	1739	764	427	45
Volume Left	0	0	0	0
Volume Right	0	0	45	45
cSH	1700	1700	1700	735
Volume to Capacity	1.02	0.45	0.25	0.06
Queue Length 95th (ft)	0	0	0	5
Control Delay (s)	0.0	0.0	0.0	10.2
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.2
Approach LOS				B

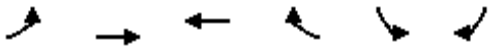
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	109.6%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	111	53	1246	792	63
Future Volume (Veh/h)	50	111	53	1246	792	63
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	53	117	56	1312	834	66
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked	0.72					
vC, conflicting volume	1635	450	900			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1093	450	900			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	62	79	93			
cM capacity (veh/h)	138	556	751			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	170	56	656	656	556	344
Volume Left	53	56	0	0	0	0
Volume Right	117	0	0	0	0	66
cSH	286	751	1700	1700	1700	1700
Volume to Capacity	0.59	0.07	0.39	0.39	0.33	0.20
Queue Length 95th (ft)	88	6	0	0	0	0
Control Delay (s)	34.4	10.2	0.0	0.0	0.0	0.0
Lane LOS	D	B				
Approach Delay (s)	34.4	0.4			0.0	
Approach LOS	D					

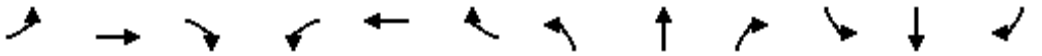
Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	58.3%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	1704	1124	120	0	154
Future Volume (Veh/h)	1	1704	1124	120	0	154
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	1775	1171	125	0	160
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		325	948			
pX, platoon unblocked					0.61	
vC, conflicting volume	1296				2123	453
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1296				1554	453
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	71
cM capacity (veh/h)	531				63	554

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	593	1183	468	468	359	160
Volume Left	1	0	0	0	0	0
Volume Right	0	0	0	0	125	160
cSH	531	1700	1700	1700	1700	554
Volume to Capacity	0.00	0.70	0.28	0.28	0.21	0.29
Queue Length 95th (ft)	0	0	0	0	0	30
Control Delay (s)	0.1	0.0	0.0	0.0	0.0	14.1
Lane LOS	A					B
Approach Delay (s)	0.0		0.0			14.1
Approach LOS						B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		

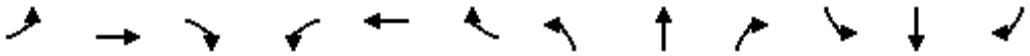


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1514	17	0	1208	0	0	0	109	0	0	0
Future Volume (Veh/h)	0	1514	17	0	1208	0	0	0	109	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1646	18	0	1313	0	0	0	118	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		735			538							
pX, platoon unblocked	0.85			0.62			0.70	0.70	0.62	0.70	0.70	0.85
vC, conflicting volume	1313			1664			2312	2968	832	2254	2977	656
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1022			856			1062	2004	0	979	2017	253
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 %	100			100			100	100	83	100	100	100
cM capacity (veh/h)	576			486			124	41	676	117	40	637

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	1097	567	656	656	118	0
Volume Left	0	0	0	0	0	0
Volume Right	0	18	0	0	118	0
cSH	1700	1700	1700	1700	676	1700
Volume to Capacity	0.65	0.33	0.39	0.39	0.17	0.00
Queue Length 95th (ft)	0	0	0	0	16	0
Control Delay (s)	0.0	0.0	0.0	0.0	11.5	0.0
Lane LOS					B	A
Approach Delay (s)	0.0		0.0		11.5	0.0
Approach LOS					B	A

Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	64.3%	ICU Level of Service		C
Analysis Period (min)	15			

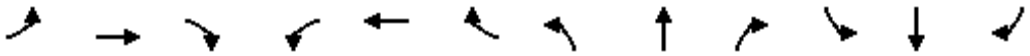
EXISTING PLUS PROJECT CONDITIONS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	662	62	164	1641	123	64	460	112	55	424	65
Future Volume (vph)	79	662	62	164	1641	123	64	460	112	55	424	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	2979		1509	2986		1509	3018	1350	1509	2957	
Flt Permitted	0.07	1.00		0.30	1.00		0.28	1.00	1.00	0.31	1.00	
Satd. Flow (perm)	110	2979		484	2986		441	3018	1350	485	2957	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	81	682	64	169	1692	127	66	474	115	57	437	67
RTOR Reduction (vph)	0	6	0	0	5	0	0	0	89	0	12	0
Lane Group Flow (vph)	81	740	0	169	1814	0	66	474	26	57	492	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)	62.3	58.0		68.2	60.7		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	62.3	58.0		67.2	60.7		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.62	0.58		0.67	0.61		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)	128	1727		396	1812		101	694	310	111	680	
v/s Ratio Prot	c0.03	0.25		c0.03	c0.61			0.16			c0.17	
v/s Ratio Perm	0.37			0.26			0.15		0.02	0.12		
v/c Ratio	0.63	0.43		0.43	1.00		0.65	0.68	0.09	0.51	0.72	
Uniform Delay, d1	17.2	11.7		6.8	19.6		34.9	35.2	30.2	33.6	35.6	
Progression Factor	1.48	0.74		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.7	0.7		0.3	21.4		28.4	5.4	0.5	16.0	6.6	
Delay (s)	32.2	9.4		7.1	41.0		63.3	40.6	30.8	49.6	42.1	
Level of Service	C	A		A	D		E	D	C	D	D	
Approach Delay (s)		11.7			38.2			41.1			42.9	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	33.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.4%	ICU Level of Service	F
Analysis Period (min)	15		

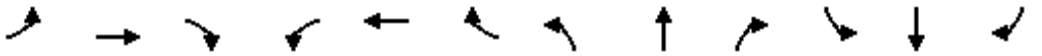
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	850	325	1	1173	10	482	15	1	22	22	50
Future Volume (vph)	17	850	325	1	1173	10	482	15	1	22	22	50
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			0.93	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3014		1433	1441			1457	
Flt Permitted	0.14	1.00	1.00		0.95		0.95	0.96			0.99	
Satd. Flow (perm)	221	3018	1350		2877		1433	1441			1457	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	18	904	346	1	1248	11	513	16	1	23	23	53
RTOR Reduction (vph)	0	0	85	0	0	0	0	0	0	0	34	0
Lane Group Flow (vph)	18	904	261	0	1260	0	272	258	0	0	65	0
Turn Type	pm+pt	NA	Perm	Perm	NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6	2								
Actuated Green, G (s)	77.0	77.0	77.0		72.2		24.9	24.9			6.1	
Effective Green, g (s)	76.0	77.0	77.0		72.2		24.9	24.9			6.1	
Actuated g/C Ratio	0.63	0.64	0.64		0.60		0.21	0.21			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)	148	1936	866		1730		297	299			74	
v/s Ratio Prot	0.00	c0.30					c0.19	0.18			c0.04	
v/s Ratio Perm	0.08		0.19		c0.44							
v/c Ratio	0.12	0.47	0.30		0.73		0.92	0.86			0.88	
Uniform Delay, d1	11.6	11.0	9.6		16.9		46.5	45.9			56.6	
Progression Factor	1.36	1.45	2.33		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	0.7	0.8		2.7		31.0	21.7			63.6	
Delay (s)	15.9	16.6	23.1		19.7		77.6	67.6			120.2	
Level of Service	B	B	C		B		E	E			F	
Approach Delay (s)		18.4			19.7			72.7			120.2	
Approach LOS		B			B			E			F	

Intersection Summary			
HCM 2000 Control Delay	31.2	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	78.4%	ICU Level of Service	D
Analysis Period (min)	15		

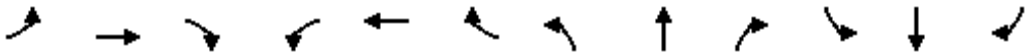
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	760	16	120	1758	24	110	0	38	0	0	71
Future Volume (vph)	28	760	16	120	1758	24	110	0	38	0	0	71
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	0.95			1.00				1.00
Frt	1.00	1.00		1.00	1.00			0.97				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.96				1.00
Satd. Flow (prot)	1509	3009		1509	3011			1478				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.96				1.00
Satd. Flow (perm)	1509	3009		1509	3011			1478				1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	29	784	16	124	1812	25	113	0	39	0	0	73
RTOR Reduction (vph)	0	1	0	0	1	0	0	88	0	0	0	65
Lane Group Flow (vph)	29	799	0	124	1836	0	0	64	0	0	0	8
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	10.8	41.1		33.1	67.4			9.8				10.8
Effective Green, g (s)	10.8	41.1		33.1	67.4			9.8				10.8
Actuated g/C Ratio	0.11	0.41		0.33	0.67			0.10				0.11
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	162	1236		499	2029			144				148
v/s Ratio Prot	0.02	0.27		c0.08	c0.61							0.01
v/s Ratio Perm								0.04				
v/c Ratio	0.18	0.65		0.25	0.91			0.44				0.05
Uniform Delay, d1	40.6	23.6		24.4	13.6			42.5				40.0
Progression Factor	1.00	1.00		1.43	0.51			1.00				1.00
Incremental Delay, d2	0.5	2.6		0.1	3.4			2.2				0.2
Delay (s)	41.1	26.2		34.9	10.4			44.7				40.2
Level of Service	D	C		C	B			D				D
Approach Delay (s)		26.8			11.9			44.7			40.2	
Approach LOS		C			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	18.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

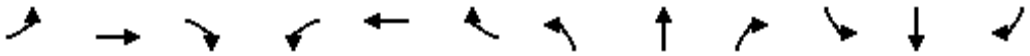
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	861	104	79	1209	16	222	6	142	15	6	13
Future Volume (vph)	10	861	104	79	1209	16	222	6	142	15	6	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	
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1509	2969		1509	3012			1514	1350		1472	
Flt Permitted	0.15	1.00		0.14	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	244	2969		219	3012			1514	1350		1472	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	926	112	85	1300	17	239	6	153	16	6	14
RTOR Reduction (vph)	0	9	0	0	1	0	0	0	122	0	12	0
Lane Group Flow (vph)	11	1029	0	85	1316	0	0	245	31	0	24	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1007		102	1218			308	274		249	
v/s Ratio Prot		0.35		0.01	c0.44			c0.16	0.00		c0.02	
v/s Ratio Perm	0.05			0.31					0.02			
v/c Ratio	0.13	1.02		0.83	1.08			0.80	0.11		0.10	
Uniform Delay, d1	17.5	25.3		28.2	22.8			29.0	24.9		26.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	0.7	33.9		40.0	50.6			13.9	0.1		0.8	
Delay (s)	18.3	59.2		68.2	73.4			42.9	24.9		27.6	
Level of Service	B	E		E	E			D	C		C	
Approach Delay (s)		58.8			73.1			36.0			27.6	
Approach LOS		E			E			D			C	

Intersection Summary			
HCM 2000 Control Delay	62.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	96.3%	ICU Level of Service	F
Analysis Period (min)	15		

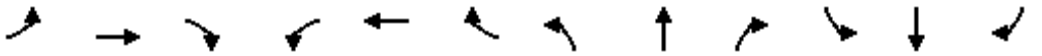
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	10	1323	0	118	3	211	523	0	196	0
Future Volume (vph)	0	0	10	1323	0	118	3	211	523	0	196	0
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.98			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1412			3016	1350		3018	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1412			2875	1350		3018	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	1438	0	128	3	229	568	0	213	0
RTOR Reduction (vph)	0	0	6	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	6	791	764	0	0	232	568	0	213	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			50.0	50.0	50.0			41.0	100.0		41.0	
Effective Green, g (s)			50.0	50.0	50.0			42.0	100.0		42.0	
Actuated g/C Ratio			0.50	0.50	0.50			0.42	1.00		0.42	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			687	716	706			1207	1350		1267	
v/s Ratio Prot				c0.55	0.54						0.07	
v/s Ratio Perm			0.00					0.08	c0.42			
v/c Ratio			0.01	1.10	1.08			0.19	0.42		0.17	
Uniform Delay, d1			12.6	25.0	25.0			18.3	0.0		18.1	
Progression Factor			1.00	1.00	1.00			1.49	1.00		1.00	
Incremental Delay, d2			0.0	66.1	58.3			0.3	0.8		0.3	
Delay (s)			12.6	91.1	83.3			27.5	0.8		18.4	
Level of Service			B	F	F			C	A		B	
Approach Delay (s)		12.6			87.2			8.5			18.4	
Approach LOS		B			F			A			B	

Intersection Summary			
HCM 2000 Control Delay	56.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

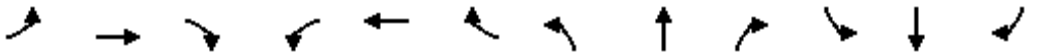
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	256	135	118	304	58	107	580	51	44	830	401
Future Volume (vph)	203	256	135	118	304	58	107	580	51	44	830	401
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1550		1509	2981		1509	3018	1350
Flt Permitted	0.21	1.00	1.00	0.47	1.00		0.19	1.00		0.36	1.00	1.00
Satd. Flow (perm)	329	1588	1350	746	1550		308	2981		565	3018	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	207	261	138	120	310	59	109	592	52	45	847	409
RTOR Reduction (vph)	0	0	97	0	7	0	0	5	0	0	0	128
Lane Group Flow (vph)	207	261	41	120	362	0	109	639	0	45	847	281
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	38.8	28.9	28.9	34.5	27.0		51.6	45.1		45.7	42.2	42.2
Effective Green, g (s)	36.8	29.4	29.4	32.5	27.0		50.0	45.6		43.7	42.2	42.2
Actuated g/C Ratio	0.37	0.29	0.29	0.32	0.27		0.50	0.46		0.44	0.42	0.42
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	226	466	396	292	418		224	1359		270	1273	569
v/s Ratio Prot	c0.08	0.16		0.03	0.23		c0.03	0.21		0.00	c0.28	
v/s Ratio Perm	c0.26		0.03	0.11			0.21			0.07		0.21
v/c Ratio	0.92	0.56	0.10	0.41	0.87		0.49	0.47		0.17	0.67	0.49
Uniform Delay, d1	26.8	29.8	25.7	24.9	34.8		15.6	18.8		16.5	23.2	21.1
Progression Factor	0.92	0.90	1.25	1.16	1.15		0.52	0.50		1.73	1.61	2.32
Incremental Delay, d2	36.2	1.5	0.1	0.3	15.6		0.5	1.0		0.0	0.8	0.9
Delay (s)	60.9	28.3	32.3	29.2	55.4		8.6	10.4		28.6	38.1	49.9
Level of Service	E	C	C	C	E		A	B		C	D	D
Approach Delay (s)		40.4			49.0			10.1			41.5	
Approach LOS		D			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	35.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

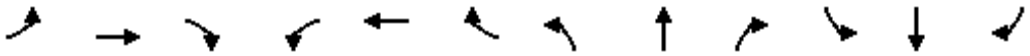
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	238	558	71	182	1112	9	244	518	78	0	679	403
Future Volume (vph)	238	558	71	182	1112	9	244	518	78	0	679	403
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.98			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2966		2927	3014		2927	2958			3018	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	2927	2966		2927	3014		2927	2958			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)	251	587	75	192	1171	9	257	545	82	0	715	424
RTOR Reduction (vph)	0	9	0	0	1	0	0	12	0	0	0	133
Lane Group Flow (vph)	251	653	0	192	1179	0	257	615	0	0	715	291
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	10.1	34.2		10.0	34.1		6.0	42.3			31.3	31.3
Effective Green, g (s)	10.1	34.7		10.0	34.6		7.0	43.3			32.3	32.3
Actuated g/C Ratio	0.10	0.35		0.10	0.35		0.07	0.43			0.32	0.32
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	295	1029		292	1042		204	1280			974	436
v/s Ratio Prot	c0.09	0.22		0.07	c0.39		c0.09	0.21			c0.24	
v/s Ratio Perm												0.22
v/c Ratio	0.85	0.63		0.66	1.13		1.26	0.48			0.73	0.67
Uniform Delay, d1	44.2	27.3		43.4	32.7		46.5	20.3			30.0	29.2
Progression Factor	0.64	0.92		1.13	1.06		1.00	1.00			1.58	2.19
Incremental Delay, d2	17.7	2.6		3.2	69.2		150.2	0.4			2.6	3.5
Delay (s)	46.2	27.8		52.2	103.8		196.7	20.7			49.9	67.7
Level of Service	D	C		D	F		F	C			D	E
Approach Delay (s)		32.9			96.6			71.9			56.5	
Approach LOS		C			F			E			E	

Intersection Summary			
HCM 2000 Control Delay	67.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		

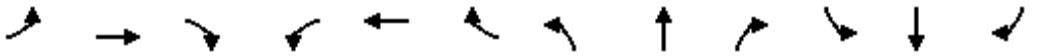
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	407	62	475	799	59	49	647	220	72	938	134
Future Volume (vph)	51	407	62	475	799	59	49	647	220	72	938	134
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2958		1509	3018	1350	1509	2903		1509	2961	
Flt Permitted	0.33	1.00		0.29	1.00	1.00	0.12	1.00		0.20	1.00	
Satd. Flow (perm)	528	2958		454	3018	1350	188	2903		314	2961	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	54	433	66	505	850	63	52	688	234	77	998	143
RTOR Reduction (vph)	0	14	0	0	0	34	0	37	0	0	12	0
Lane Group Flow (vph)	54	485	0	505	850	29	52	885	0	77	1129	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	152	854		342	1408	630	83	1290		139	1316	
v/s Ratio Prot		0.16		c0.20	0.28			0.30			c0.38	
v/s Ratio Perm	0.10			c0.46		0.02	0.28			0.25		
v/c Ratio	0.36	0.57		1.48	0.60	0.05	0.63	0.69		0.55	0.86	
Uniform Delay, d1	25.4	27.2		21.5	17.8	13.1	19.2	20.0		18.4	22.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.4	2.7		229.7	1.9	0.1	30.8	3.0		15.0	7.4	
Delay (s)	31.7	30.0		251.2	19.7	13.2	50.0	23.0		33.4	29.8	
Level of Service	C	C		F	B	B	D	C		C	C	
Approach Delay (s)		30.1			101.9			24.4			30.1	
Approach LOS		C			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	53.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.5%	ICU Level of Service	G
Analysis Period (min)	15		

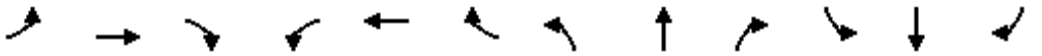
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	601	14	1	1208	260	18	20	35	240	42	32
Future Volume (vph)	0	601	14	1	1208	260	18	20	35	240	42	32
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.93		1.00	0.97	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3008			3018	1350		1466		1433	1425	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3008			2881	1350		1466		1433	1425	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	613	14	1	1233	265	18	20	36	245	43	33
RTOR Reduction (vph)	0	1	0	0	0	58	0	34	0	0	9	0
Lane Group Flow (vph)	0	626	0	0	1234	207	0	40	0	154	158	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		62.8			62.8	19.2		6.0		19.2	19.2	
Effective Green, g (s)		62.8			62.8	19.2		6.0		19.2	19.2	
Actuated g/C Ratio		0.63			0.63	0.19		0.06		0.19	0.19	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1889			1809	259		87		275	273	
v/s Ratio Prot		0.21				c0.15		c0.03		0.11	0.11	
v/s Ratio Perm					c0.43							
v/c Ratio		0.33			0.68	0.80		0.46		0.56	0.58	
Uniform Delay, d1		8.7			12.1	38.6		45.4		36.6	36.7	
Progression Factor		0.28			1.00	1.00		1.00		0.76	0.74	
Incremental Delay, d2		0.4			2.1	16.5		3.8		2.8	3.2	
Delay (s)		2.8			14.2	55.0		49.3		30.5	30.4	
Level of Service		A			B	E		D		C	C	
Approach Delay (s)		2.8			21.4			49.3			30.5	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	18.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

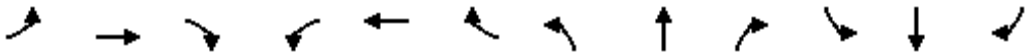
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	804	33	4	1193	32	46	12	84	36	3	91
Future Volume (vph)	23	804	33	4	1193	32	46	12	84	36	3	91
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			1.00			1.00	1.00
Frt	1.00	0.99		1.00	1.00			0.92			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.96	1.00
Satd. Flow (prot)	1509	3000		1509	3006			1439			1518	1350
Flt Permitted	0.17	1.00		0.32	1.00			0.88			0.54	1.00
Satd. Flow (perm)	269	3000		508	3006			1286			863	1350
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	24	855	35	4	1269	34	49	13	89	38	3	97
RTOR Reduction (vph)	0	2	0	0	1	0	0	57	0	0	0	85
Lane Group Flow (vph)	24	888	0	4	1302	0	0	94	0	0	41	12
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	79.6	79.6		74.9	74.9			12.4			12.4	12.4
Effective Green, g (s)	78.6	79.6		74.9	74.9			12.4			12.4	12.4
Actuated g/C Ratio	0.79	0.80		0.75	0.75			0.12			0.12	0.12
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	220	2388		380	2251			159			107	167
v/s Ratio Prot	0.00	c0.30			c0.43							
v/s Ratio Perm	0.08			0.01				c0.07			0.05	0.01
v/c Ratio	0.11	0.37		0.01	0.58			0.59			0.38	0.07
Uniform Delay, d1	3.6	3.0		3.2	5.6			41.4			40.3	38.7
Progression Factor	1.00	1.00		1.08	1.01			1.00			1.00	1.00
Incremental Delay, d2	0.1	0.4		0.0	0.7			5.8			2.3	0.2
Delay (s)	3.7	3.4		3.5	6.4			47.2			42.6	38.9
Level of Service	A	A		A	A			D			D	D
Approach Delay (s)		3.4			6.4			47.2			40.0	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	9.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
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												
Traffic Volume (veh/h)	0	397	17	57	615	0	24	0	66	0	0	1
Future Volume (Veh/h)	0	397	17	57	615	0	24	0	66	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	409	18	59	634	0	25	0	68	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		513			1070							
pX, platoon unblocked	0.89						0.89	0.89		0.89	0.89	0.89
vC, conflicting volume	634			427			1171	1170	418	1238	1179	634
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	531			427			1132	1131	418	1207	1141	531
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			95			84	100	89	100	100	100
cM capacity (veh/h)	926			1132			154	172	635	123	170	490

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	427	693	93	1
Volume Left	0	59	25	0
Volume Right	18	0	68	1
cSH	1700	1132	346	490
Volume to Capacity	0.25	0.05	0.27	0.00
Queue Length 95th (ft)	0	4	27	0
Control Delay (s)	0.0	1.3	19.2	12.4
Lane LOS		A	C	B
Approach Delay (s)	0.0	1.3	19.2	12.4
Approach LOS			C	B

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	90.4%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	45	754	51	0	0	1760	23	0	0	0	0	0
Future Volume (Veh/h)	45	754	51	0	0	1760	23	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop
Grade		0%				0%			0%			0%
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	46	769	52	0	0	1796	23	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1819			0	821			1967	2706	410	2284	2720
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1819			0	821			1967	2706	410	2284	2720
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	86			0	100			100	100	100	100	100
cM capacity (veh/h)	333			0	804			12	18	590	19	18

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	46	513	308	1197	622	0	182
Volume Left	46	0	0	0	0	0	0
Volume Right	0	0	52	0	23	0	182
cSH	333	1700	1700	1700	1700	1700	277
Volume to Capacity	0.14	0.30	0.18	0.70	0.37	0.00	0.66
Queue Length 95th (ft)	12	0	0	0	0	0	106
Control Delay (s)	17.5	0.0	0.0	0.0	0.0	0.0	39.7
Lane LOS	C						E
Approach Delay (s)	0.9			0.0			39.7
Approach LOS							E

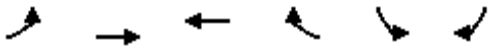
Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	77.5%	ICU Level of Service	D	
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	178
Future Volume (Veh/h)	178
Sign Control	
Grade	
Peak Hour Factor	0.98
Hourly flow rate (vph)	182
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	910
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	910
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	34
cM capacity (veh/h)	277
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	432	31	124	665	7	90
Future Volume (Veh/h)	432	31	124	665	7	90
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	445	32	128	686	7	93
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.78	
vC, conflicting volume			477		1403	461
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			477		1375	461
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			88		94	85
cM capacity (veh/h)			1085		110	600

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	477	814	100
Volume Left	0	128	7
Volume Right	32	0	93
cSH	1700	1085	457
Volume to Capacity	0.28	0.12	0.22
Queue Length 95th (ft)	0	10	21
Control Delay (s)	0.0	2.8	15.1
Lane LOS		A	C
Approach Delay (s)	0.0	2.8	15.1
Approach LOS			C

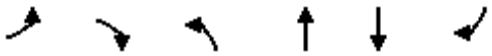
Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	828	1703	64	0	49
Future Volume (Veh/h)	0	828	1703	64	0	49
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	881	1812	68	0	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		841	432			
pX, platoon unblocked	0.67				0.81	0.67
vC, conflicting volume	1880				2727	940
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1339				1635	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	93
cM capacity (veh/h)	344				75	731

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	881	1208	672	52
Volume Left	0	0	0	0
Volume Right	0	0	68	52
cSH	1700	1700	1700	731
Volume to Capacity	0.52	0.71	0.40	0.07
Queue Length 95th (ft)	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	10.3
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.3
Approach LOS				B

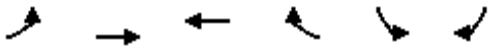
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	93	244	771	949	428
Future Volume (Veh/h)	7	93	244	771	949	428
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	7	96	252	795	978	441
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked						
vC, conflicting volume	2100	710	1419			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2100	710	1419			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	67	74	47			
cM capacity (veh/h)	21	376	476			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	103	252	398	398	652	767
Volume Left	7	252	0	0	0	0
Volume Right	96	0	0	0	0	441
cSH	175	476	1700	1700	1700	1700
Volume to Capacity	0.59	0.53	0.23	0.23	0.38	0.45
Queue Length 95th (ft)	79	76	0	0	0	0
Control Delay (s)	51.5	20.8	0.0	0.0	0.0	0.0
Lane LOS	F	C				
Approach Delay (s)	51.5	5.0			0.0	
Approach LOS	F					

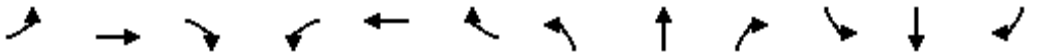
Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	861	1698	66	0	80
Future Volume (Veh/h)	0	861	1698	66	0	80
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	936	1846	72	0	87
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		325	948			
pX, platoon unblocked	0.98				0.81	0.98
vC, conflicting volume	1918				2350	651
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1853				2017	554
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	81
cM capacity (veh/h)	315				41	464

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	468	468	738	738	441	87
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	72	87
cSH	1700	1700	1700	1700	1700	464
Volume to Capacity	0.28	0.28	0.43	0.43	0.26	0.19
Queue Length 95th (ft)	0	0	0	0	0	17
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	14.5
Lane LOS						B
Approach Delay (s)	0.0		0.0			14.5
Approach LOS						B

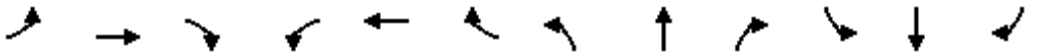
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	52.7%	ICU Level of Service		A
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	770	15	0	1778	11	0	0	73	0	0	41
Future Volume (Veh/h)	0	770	15	0	1778	11	0	0	73	0	0	41
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	837	16	0	1933	12	0	0	79	0	0	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		735			538							
pX, platoon unblocked	0.68			0.83			0.76	0.76	0.83	0.76	0.76	0.68
vC, conflicting volume	1945			853			1856	2790	426	2436	2792	972
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1446			421			512	1736	0	1272	1738	13
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 %	100			100			100	100	91	100	100	94
cM capacity (veh/h)	315			945			318	66	903	87	66	722

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	558	295	1289	656	79	45
Volume Left	0	0	0	0	0	0
Volume Right	0	16	0	12	79	45
cSH	1700	1700	1700	1700	903	722
Volume to Capacity	0.33	0.17	0.76	0.39	0.09	0.06
Queue Length 95th (ft)	0	0	0	0	7	5
Control Delay (s)	0.0	0.0	0.0	0.0	9.4	10.3
Lane LOS					A	B
Approach Delay (s)	0.0		0.0		9.4	10.3
Approach LOS					A	B

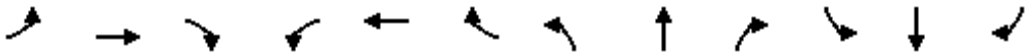
Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	1076	88	255	1169	99	122	439	218	73	362	96
Future Volume (vph)	117	1076	88	255	1169	99	122	439	218	73	362	96
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	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1509	2983		1509	2982		1509	3018	1350	1509	2923	
Flt Permitted	0.16	1.00		0.14	1.00		0.32	1.00	1.00	0.33	1.00	
Satd. Flow (perm)	252	2983		219	2982		501	3018	1350	532	2923	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	118	1087	89	258	1181	100	123	443	220	74	366	97
RTOR Reduction (vph)	0	6	0	0	6	0	0	0	169	0	24	0
Lane Group Flow (vph)	118	1170	0	258	1275	0	123	443	51	74	439	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)	59.0	53.5		69.0	59.5		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	59.0	53.5		68.5	59.5		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.59	0.54		0.68	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)	217	1595		298	1774		115	694	310	122	672	
v/s Ratio Prot	0.03	0.39		c0.10	0.43			0.15			0.15	
v/s Ratio Perm	0.29			c0.49			c0.25		0.04	0.14		
v/c Ratio	0.54	0.73		0.87	0.72		1.07	0.64	0.16	0.61	0.65	
Uniform Delay, d1	10.7	17.8		17.7	14.3		38.5	34.7	30.8	34.5	34.9	
Progression Factor	1.16	0.78		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.5	3.0		21.5	2.5		103.8	4.5	1.1	20.4	4.9	
Delay (s)	13.8	16.9		39.2	16.9		142.3	39.2	31.9	54.8	39.8	
Level of Service	B	B		D	B		F	D	C	D	D	
Approach Delay (s)		16.6			20.6			53.3			41.9	
Approach LOS		B			C			D			D	

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)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	91.3%	ICU Level of Service	F
Analysis Period (min)	15		

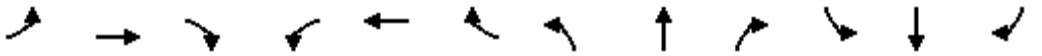
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	999	406	0	1160	15	304	12	0	20	26	28
Future Volume (vph)	30	999	406	0	1160	15	304	12	0	20	26	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	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3012		1433	1442			1487	
Flt Permitted	0.16	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (perm)	247	3018	1350		3012		1433	1442			1487	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	31	1030	419	0	1196	15	313	12	0	21	27	29
RTOR Reduction (vph)	0	0	84	0	1	0	0	0	0	0	18	0
Lane Group Flow (vph)	31	1030	335	0	1210	0	166	159	0	0	59	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6									
Actuated Green, G (s)	79.7	79.7	79.7		73.8		19.0	19.0			9.3	
Effective Green, g (s)	78.7	79.7	79.7		73.8		19.0	19.0			9.3	
Actuated g/C Ratio	0.66	0.66	0.66		0.61		0.16	0.16			0.08	
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)	181	2004	896		1852		226	228			115	
v/s Ratio Prot	0.00	c0.34			c0.40		c0.12	0.11			c0.04	
v/s Ratio Perm	0.11		0.25									
v/c Ratio	0.17	0.51	0.37		0.65		0.73	0.70			0.52	
Uniform Delay, d1	10.2	10.3	9.0		14.9		48.1	47.8			53.2	
Progression Factor	1.33	1.39	1.96		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.1	0.9	1.1		1.8		11.7	8.9			3.9	
Delay (s)	13.7	15.2	18.7		16.7		59.8	56.7			57.1	
Level of Service	B	B	B		B		E	E			E	
Approach Delay (s)		16.1			16.7			58.3			57.1	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	61.7%	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												
Traffic Volume (vph)	34	1250	55	189	1368	60	43	0	35	0	0	59
Future Volume (vph)	34	1250	55	189	1368	60	43	0	35	0	0	59
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	0.95			1.00				1.00
Frt	1.00	0.99		1.00	0.99			0.94				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.97				1.00
Satd. Flow (prot)	1509	2998		1509	2999			1452				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.97				1.00
Satd. Flow (perm)	1509	2998		1509	2999			1452				1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	35	1289	57	195	1410	62	44	0	36	0	0	61
RTOR Reduction (vph)	0	3	0	0	2	0	0	76	0	0	0	53
Lane Group Flow (vph)	35	1343	0	195	1470	0	0	4	0	0	0	8
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	13.0	40.1		38.6	69.7			5.3				13.0
Effective Green, g (s)	13.0	40.1		38.6	69.7			5.3				13.0
Actuated g/C Ratio	0.13	0.40		0.39	0.70			0.05				0.13
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	196	1202		582	2090			76				178
v/s Ratio Prot	0.02	c0.45		c0.13	c0.49							0.01
v/s Ratio Perm								0.00				
v/c Ratio	0.18	1.12		0.34	0.70			0.06				0.04
Uniform Delay, d1	38.7	29.9		21.6	9.0			45.0				38.1
Progression Factor	1.00	1.00		1.31	0.55			1.00				1.00
Incremental Delay, d2	0.4	64.5		0.3	1.6			0.3				0.1
Delay (s)	39.2	94.4		28.6	6.5			45.3				38.2
Level of Service	D	F		C	A			D				D
Approach Delay (s)		93.0			9.1			45.3			38.2	
Approach LOS		F			A			D			D	

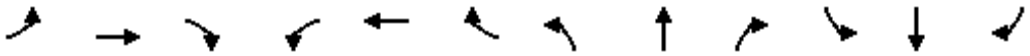
Intersection Summary			
HCM 2000 Control Delay	46.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	70.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	996	151	200	987	18	272	7	295	13	8	20
Future Volume (vph)	23	996	151	200	987	18	272	7	295	13	8	20
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			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	1.00			1.00	0.85		0.93	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1509	2958		1509	3009			1514	1350		1460	
Flt Permitted	0.16	1.00		0.14	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	249	2958		219	3009			1514	1350		1460	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	24	1038	157	208	1028	19	283	7	307	14	8	21
RTOR Reduction (vph)	0	12	0	0	1	0	0	0	244	0	17	0
Lane Group Flow (vph)	24	1183	0	208	1046	0	0	290	63	0	26	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	84	1004		102	1217			308	274		247	
v/s Ratio Prot		0.40		c0.03	0.35			c0.19	0.00		c0.02	
v/s Ratio Perm	0.10			c0.77					0.04			
v/c Ratio	0.29	1.18		2.04	0.86			0.94	0.23		0.10	
Uniform Delay, d1	18.5	25.3		31.0	20.8			30.1	25.5		26.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.9	90.8		500.0	6.2			36.3	0.2		0.8	
Delay (s)	20.4	116.1		531.0	27.1			66.3	25.6		27.7	
Level of Service	C	F		F	C			E	C		C	
Approach Delay (s)		114.2			110.6			45.4			27.7	
Approach LOS		F			F			D			C	

Intersection Summary			
HCM 2000 Control Delay	98.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.44		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

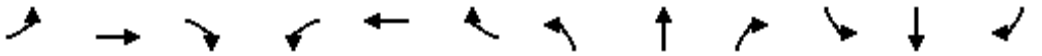
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	7	884	3	132	3	447	830	0	351	3
Future Volume (vph)	0	0	7	884	3	132	3	447	830	0	351	3
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.96			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1400			3017	1350		3014	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1400			2877	1350		3014	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	7	911	3	136	3	461	856	0	362	3
RTOR Reduction (vph)	0	0	4	0	12	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	3	501	537	0	0	464	856	0	365	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			37.0	37.0	37.0			54.0	100.0		54.0	
Effective Green, g (s)			37.0	37.0	37.0			55.0	100.0		55.0	
Actuated g/C Ratio			0.37	0.37	0.37			0.55	1.00		0.55	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			508	530	518			1582	1350		1657	
v/s Ratio Prot				0.35	c0.38						0.12	
v/s Ratio Perm			0.00					0.16	c0.63			
v/c Ratio			0.01	0.95	1.04			0.29	0.63		0.22	
Uniform Delay, d1			19.9	30.5	31.5			12.1	0.0		11.5	
Progression Factor			1.00	1.00	1.00			1.34	1.00		1.00	
Incremental Delay, d2			0.0	27.6	49.4			0.3	1.5		0.3	
Delay (s)			19.9	58.2	80.9			16.4	1.5		11.8	
Level of Service			B	E	F			B	A		B	
Approach Delay (s)		19.9			70.0			6.7			11.8	
Approach LOS		B			E			A			B	

Intersection Summary			
HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		

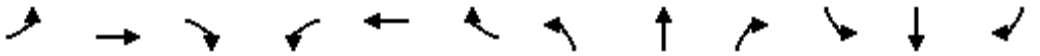
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	305	135	43	160	79	116	864	64	61	936	262
Future Volume (vph)	308	305	135	43	160	79	116	864	64	61	936	262
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1510		1509	2986		1509	3018	1350
Flt Permitted	0.31	1.00	1.00	0.48	1.00		0.17	1.00		0.20	1.00	1.00
Satd. Flow (perm)	500	1588	1350	762	1510		265	2986		320	3018	1350
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	318	314	139	44	165	81	120	891	66	63	965	270
RTOR Reduction (vph)	0	0	81	0	20	0	0	5	0	0	0	71
Lane Group Flow (vph)	318	314	58	44	226	0	120	952	0	63	965	199
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	36.6	29.7	29.7	26.8	22.9		53.7	46.6		49.6	44.8	44.8
Effective Green, g (s)	35.6	30.2	30.2	24.8	22.9		51.7	47.1		47.6	44.8	44.8
Actuated g/C Ratio	0.36	0.30	0.30	0.25	0.23		0.52	0.47		0.48	0.45	0.45
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	280	479	407	210	345		212	1406		197	1352	604
v/s Ratio Prot	c0.12	0.20		0.01	0.15		c0.03	0.32		0.01	c0.32	
v/s Ratio Perm	c0.29		0.04	0.05			0.26			0.14		0.15
v/c Ratio	1.14	0.66	0.14	0.21	0.65		0.57	0.68		0.32	0.71	0.33
Uniform Delay, d1	30.2	30.4	25.5	29.2	35.0		15.4	20.5		15.5	22.4	17.9
Progression Factor	0.93	0.92	0.83	1.13	1.17		0.84	0.49		1.82	1.65	2.27
Incremental Delay, d2	94.9	3.1	0.2	0.2	3.4		0.2	0.2		0.2	2.1	0.9
Delay (s)	122.9	31.2	21.3	33.0	44.4		13.0	10.2		28.4	39.0	41.6
Level of Service	F	C	C	C	D		B	B		C	D	D
Approach Delay (s)		67.2			42.7			10.6			39.0	
Approach LOS		E			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	36.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

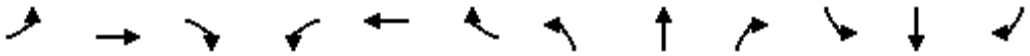
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	384	815	146	194	769	21	225	652	146	2	708	437
Future Volume (vph)	384	815	146	194	769	21	225	652	146	2	708	437
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2949		2927	3006		2927	2935			3017	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.95	1.00
Satd. Flow (perm)	2927	2949		2927	3006		2927	2935			2877	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	392	832	149	198	785	21	230	665	149	2	722	446
RTOR Reduction (vph)	0	14	0	0	2	0	0	19	0	0	0	146
Lane Group Flow (vph)	392	967	0	198	804	0	230	795	0	0	724	300
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	7.5	31.3		10.2	34.0		6.0	45.0			34.0	34.0
Effective Green, g (s)	7.5	31.8		10.2	34.5		7.0	46.0			35.0	35.0
Actuated g/C Ratio	0.08	0.32		0.10	0.34		0.07	0.46			0.35	0.35
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	219	937		298	1037		204	1350			1006	472
v/s Ratio Prot	c0.13	c0.33		0.07	c0.27		c0.08	0.27				
v/s Ratio Perm											c0.25	0.22
v/c Ratio	1.79	1.03		0.66	0.78		1.13	0.59			0.72	0.64
Uniform Delay, d1	46.2	34.1		43.3	29.3		46.5	20.0			28.2	27.2
Progression Factor	0.86	0.81		1.23	1.00		1.00	1.00			1.33	2.07
Incremental Delay, d2	361.1	25.4		3.6	4.8		101.5	0.8			2.1	2.5
Delay (s)	401.1	53.1		56.6	34.1		148.0	20.8			39.7	58.6
Level of Service	F	D		E	C		F	C			D	E
Approach Delay (s)		152.4			38.6			48.8			46.9	
Approach LOS		F			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	77.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.5%	ICU Level of Service	G
Analysis Period (min)	15		

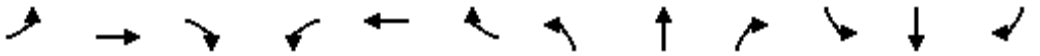
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	670	98	286	620	75	77	854	242	92	845	148
Future Volume (vph)	118	670	98	286	620	75	77	854	242	92	845	148
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2960		1509	3018	1350	1509	2918		1509	2950	
Flt Permitted	0.41	1.00		0.14	1.00	1.00	0.16	1.00		0.12	1.00	
Satd. Flow (perm)	650	2960		227	3018	1350	251	2918		194	2950	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	122	691	101	295	639	77	79	880	249	95	871	153
RTOR Reduction (vph)	0	13	0	0	0	41	0	29	0	0	16	0
Lane Group Flow (vph)	122	779	0	295	639	36	79	1100	0	95	1008	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	187	855		271	1408	630	111	1296		86	1311	
v/s Ratio Prot		0.26		c0.14	0.21			0.38			0.34	
v/s Ratio Perm	0.19			c0.34		0.03	0.31			c0.49		
v/c Ratio	0.65	0.91		1.09	0.45	0.06	0.71	0.85		1.10	0.77	
Uniform Delay, d1	28.0	30.9		23.3	16.2	13.2	20.3	22.3		25.0	21.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.4	15.6		80.3	1.1	0.2	32.1	7.1		128.2	4.4	
Delay (s)	44.4	46.5		103.6	17.3	13.3	52.4	29.4		153.2	25.5	
Level of Service	D	D		F	B	B	D	C		F	C	
Approach Delay (s)		46.2			42.2			30.9			36.3	
Approach LOS		D			D			C			D	

Intersection Summary			
HCM 2000 Control Delay	38.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	102.4%	ICU Level of Service	G
Analysis Period (min)	15		

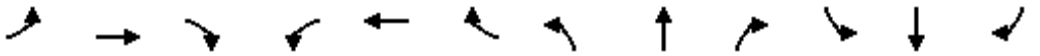
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	974	19	3	960	212	13	16	25	286	30	19
Future Volume (vph)	0	974	19	3	960	212	13	16	25	286	30	19
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.94		1.00	0.98	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3009			3017	1350		1471		1433	1432	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3009			2876	1350		1471		1433	1432	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1036	20	3	1021	226	14	17	27	304	32	20
RTOR Reduction (vph)	0	1	0	0	0	60	0	25	0	0	5	0
Lane Group Flow (vph)	0	1055	0	0	1024	166	0	33	0	192	159	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		63.5			63.5	18.6		5.9		18.6	18.6	
Effective Green, g (s)		63.5			63.5	18.6		5.9		18.6	18.6	
Actuated g/C Ratio		0.64			0.64	0.19		0.06		0.19	0.19	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1910			1826	251		86		266	266	
v/s Ratio Prot		0.35				0.12		c0.02		c0.13	0.11	
v/s Ratio Perm					c0.36							
v/c Ratio		0.55			0.56	0.66		0.38		0.72	0.60	
Uniform Delay, d1		10.3			10.3	37.8		45.3		38.3	37.3	
Progression Factor		0.39			1.00	1.00		1.00		0.81	0.80	
Incremental Delay, d2		0.5			1.3	7.0		2.8		8.3	3.5	
Delay (s)		4.5			11.6	44.8		48.1		39.4	33.2	
Level of Service		A			B	D		D		D	C	
Approach Delay (s)		4.5			17.6			48.1			36.5	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	15.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		

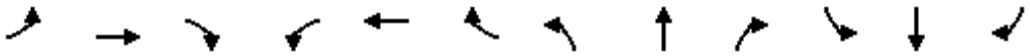
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	1230	37	0	1011	51	77	22	70	34	0	29
Future Volume (vph)	60	1230	37	0	1011	51	77	22	70	34	0	29
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			0.95			1.00			1.00	1.00
Frt	1.00	1.00			0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.95	1.00
Satd. Flow (prot)	1509	3005			2996			1466			1509	1350
Flt Permitted	0.20	1.00			1.00			0.84			0.55	1.00
Satd. Flow (perm)	310	3005			2996			1254			878	1350
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	64	1309	39	0	1076	54	82	23	74	36	0	31
RTOR Reduction (vph)	0	2	0	0	3	0	0	26	0	0	0	26
Lane Group Flow (vph)	64	1346	0	0	1127	0	0	153	0	0	36	5
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	74.8	74.8			67.8			17.2			17.2	17.2
Effective Green, g (s)	73.8	74.8			67.8			17.2			17.2	17.2
Actuated g/C Ratio	0.74	0.75			0.68			0.17			0.17	0.17
Clearance Time (s)	3.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0			5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	264	2247			2031			215			151	232
v/s Ratio Prot	0.01	c0.45			0.38							
v/s Ratio Perm	0.17							c0.12			0.04	0.00
v/c Ratio	0.24	0.60			0.55			0.71			0.24	0.02
Uniform Delay, d1	5.1	5.8			8.3			39.0			35.7	34.4
Progression Factor	1.00	1.00			1.12			1.00			1.00	1.00
Incremental Delay, d2	0.2	1.2			0.8			10.2			0.8	0.0
Delay (s)	5.3	6.9			10.1			49.3			36.6	34.5
Level of Service	A	A			B			D			D	C
Approach Delay (s)		6.9			10.1			49.3			35.6	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	11.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.2%	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												
Traffic Volume (veh/h)	0	532	35	44	453	0	28	0	82	8	5	6
Future Volume (Veh/h)	0	532	35	44	453	0	28	0	82	8	5	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	554	36	46	472	0	29	0	85	8	5	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)		513			1070							
pX, platoon unblocked												
vC, conflicting volume	472			590			1144	1136	572	1221	1154	472
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	472			590			1144	1136	572	1221	1154	472
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			95			82	100	84	94	97	99
cM capacity (veh/h)	1090			985			165	193	520	126	188	592

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	590	518	114	19
Volume Left	0	46	29	8
Volume Right	36	0	85	6
cSH	1700	985	336	190
Volume to Capacity	0.35	0.05	0.34	0.10
Queue Length 95th (ft)	0	4	37	8
Control Delay (s)	0.0	1.3	21.1	26.1
Lane LOS		A	C	D
Approach Delay (s)	0.0	1.3	21.1	26.1
Approach LOS			C	D

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	84.8%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	114	1271	43	0	3	1311	62	0	0	2	0	0
Future Volume (Veh/h)	114	1271	43	0	3	1311	62	0	0	2	0	0
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)	120	1338	45	0	3	1380	65	0	0	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1445			0	1383			2426	3052	692	2330	3042
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1445			0	1383			2426	3052	692	2330	3042
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	74			0	99			100	100	99	100	100
cM capacity (veh/h)	465			0	491			9	9	387	16	9

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	120	892	491	693	755	0	129
Volume Left	120	0	0	3	0	0	0
Volume Right	0	0	45	0	65	0	129
cSH	465	1700	1700	491	1700	1700	369
Volume to Capacity	0.26	0.52	0.29	0.01	0.44	0.00	0.35
Queue Length 95th (ft)	25	0	0	0	0	0	38
Control Delay (s)	15.4	0.0	0.0	0.2	0.0	0.0	19.9
Lane LOS	C			A			C
Approach Delay (s)	1.2			0.1			19.9
Approach LOS							C

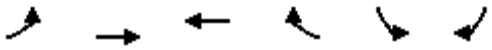
Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	Err%	ICU Level of Service		H
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	123
Future Volume (Veh/h)	123
Sign Control	
Grade	
Peak Hour Factor	0.95
Hourly flow rate (vph)	129
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	722
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	722
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	65
cM capacity (veh/h)	369
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	602	29	55	476	11	97
Future Volume (Veh/h)	602	29	55	476	11	97
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	640	31	59	506	12	103
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.88	
vC, conflicting volume			671		1280	656
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			671		1248	656
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		92	78
cM capacity (veh/h)			919		157	466

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	671	565	115
Volume Left	0	59	12
Volume Right	31	0	103
cSH	1700	919	386
Volume to Capacity	0.39	0.06	0.30
Queue Length 95th (ft)	0	5	31
Control Delay (s)	0.0	1.7	18.2
Lane LOS		A	C
Approach Delay (s)	0.0	1.7	18.2
Approach LOS			C

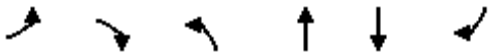
Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1337	1401	56	0	79
Future Volume (Veh/h)	0	1337	1401	56	0	79
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	1364	1430	57	0	81
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		841	432			
pX, platoon unblocked	0.78				0.67	0.78
vC, conflicting volume	1487				2822	744
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1054				2226	98
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	89
cM capacity (veh/h)	510				25	730

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	1364	953	534	81
Volume Left	0	0	0	0
Volume Right	0	0	57	81
cSH	1700	1700	1700	730
Volume to Capacity	0.80	0.56	0.31	0.11
Queue Length 95th (ft)	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	10.5
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.5
Approach LOS				B

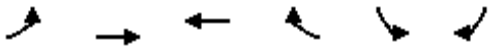
Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	30	98	54	1042	973	84
Future Volume (Veh/h)	30	98	54	1042	973	84
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	32	103	57	1097	1024	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked	0.83					
vC, conflicting volume	1730	556	1112			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1470	556	1112			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	64	78	91			
cM capacity (veh/h)	89	475	624			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	135	57	548	548	683	429
Volume Left	32	57	0	0	0	0
Volume Right	103	0	0	0	0	88
cSH	234	624	1700	1700	1700	1700
Volume to Capacity	0.58	0.09	0.32	0.32	0.40	0.25
Queue Length 95th (ft)	81	8	0	0	0	0
Control Delay (s)	39.4	11.4	0.0	0.0	0.0	0.0
Lane LOS	E	B				
Approach Delay (s)	39.4	0.6			0.0	
Approach LOS	E					

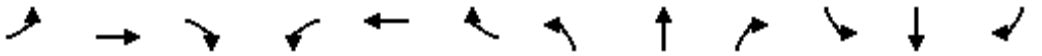
Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1330	1420	121	0	171
Future Volume (Veh/h)	0	1330	1420	121	0	171
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	1400	1495	127	0	180
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		325	948			
pX, platoon unblocked					0.62	
vC, conflicting volume	1622				2258	562
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1622				1795	562
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	62
cM capacity (veh/h)	397				44	470

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	700	700	598	598	426	180
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	127	180
cSH	1700	1700	1700	1700	1700	470
Volume to Capacity	0.41	0.41	0.35	0.35	0.25	0.38
Queue Length 95th (ft)	0	0	0	0	0	44
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	17.3
Lane LOS						C
Approach Delay (s)	0.0		0.0			17.3
Approach LOS						C

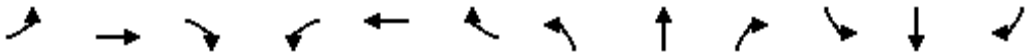
Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	54.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1273	17	0	1471	15	0	0	62	0	0	41
Future Volume (Veh/h)	0	1273	17	0	1471	15	0	0	62	0	0	41
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	1312	18	0	1516	15	0	0	64	0	0	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		735			538							
pX, platoon unblocked	0.79			0.63			0.74	0.74	0.63	0.74	0.74	0.79
vC, conflicting volume	1531			1330			2121	2852	665	2244	2854	766
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1133			359			512	1502	0	678	1504	160
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 %	100			100			100	100	91	100	100	94
cM capacity (veh/h)	482			756			308	89	686	226	89	674

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	875	455	1011	520	64	42
Volume Left	0	0	0	0	0	0
Volume Right	0	18	0	15	64	42
cSH	1700	1700	1700	1700	686	674
Volume to Capacity	0.51	0.27	0.59	0.31	0.09	0.06
Queue Length 95th (ft)	0	0	0	0	8	5
Control Delay (s)	0.0	0.0	0.0	0.0	10.8	10.7
Lane LOS					B	B
Approach Delay (s)	0.0		0.0		10.8	10.7
Approach LOS					B	B

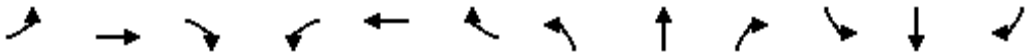
Intersection Summary				
Average Delay	0.4			
Intersection Capacity Utilization	58.2%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	1292	47	197	943	69	108	639	277	73	406	69
Future Volume (vph)	101	1292	47	197	943	69	108	639	277	73	406	69
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	3002		1509	2987		1509	3018	1350	1509	2952	
Flt Permitted	0.24	1.00		0.09	1.00		0.30	1.00	1.00	0.17	1.00	
Satd. Flow (perm)	384	3002		150	2987		470	3018	1350	276	2952	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	103	1318	48	201	962	70	110	652	283	74	414	70
RTOR Reduction (vph)	0	2	0	0	5	0	0	0	159	0	14	0
Lane Group Flow (vph)	103	1364	0	201	1027	0	110	652	124	74	470	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)	58.9	54.4		69.0	60.5		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	58.9	54.4		68.5	60.5		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.59	0.54		0.68	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)	276	1633		246	1807		108	694	310	63	678	
v/s Ratio Prot	0.02	0.45		c0.09	0.34			0.22			0.16	
v/s Ratio Perm	0.20			c0.47			0.23		0.09	c0.27		
v/c Ratio	0.37	0.84		0.82	0.57		1.02	0.94	0.40	1.17	0.69	
Uniform Delay, d1	9.4	19.1		22.0	11.9		38.5	37.8	32.7	38.5	35.3	
Progression Factor	0.86	0.83		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.3	5.1		17.7	1.3		91.7	22.2	3.8	168.3	5.8	
Delay (s)	8.4	20.9		39.7	13.2		130.2	60.0	36.5	206.8	41.0	
Level of Service	A	C		D	B		F	E	D	F	D	
Approach Delay (s)		20.0			17.5			61.0			63.0	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	34.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	95.5%	ICU Level of Service	F
Analysis Period (min)	15		

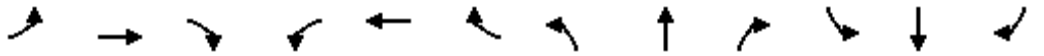
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	57	1230	459	1	1021	26	293	24	1	22	27	24
Future Volume (vph)	57	1230	459	1	1021	26	293	24	1	22	27	24
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			0.96	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3006		1433	1446			1496	
Flt Permitted	0.19	1.00	1.00		0.95		0.95	0.96			0.99	
Satd. Flow (perm)	302	3018	1350		2869		1433	1446			1496	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	58	1255	468	1	1042	27	299	24	1	22	28	24
RTOR Reduction (vph)	0	0	77	0	1	0	0	0	0	0	14	0
Lane Group Flow (vph)	58	1255	391	0	1069	0	158	166	0	0	60	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6									
Actuated Green, G (s)	79.7	79.7	79.7		72.2		18.9	18.9			9.4	
Effective Green, g (s)	78.7	79.7	79.7		72.2		18.9	18.9			9.4	
Actuated g/C Ratio	0.66	0.66	0.66		0.60		0.16	0.16			0.08	
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)	233	2004	896		1726		225	227			117	
v/s Ratio Prot	0.01	c0.42					0.11	c0.11			c0.04	
v/s Ratio Perm	0.16		0.29		0.37							
v/c Ratio	0.25	0.63	0.44		9.00dr		0.70	0.73			0.51	
Uniform Delay, d1	9.7	11.6	9.5		15.2		47.9	48.1			53.1	
Progression Factor	1.29	1.31	1.62		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.2	1.4	1.5		1.7		9.5	11.5			3.8	
Delay (s)	12.7	16.6	16.9		16.9		57.4	59.6			56.9	
Level of Service	B	B	B		B		E	E			E	
Approach Delay (s)		16.6			16.9			58.5			56.9	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
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		

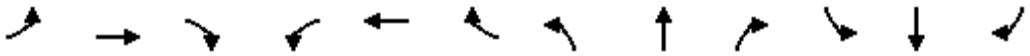
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	1559	43	212	1088	50	52	0	73	0	0	38
Future Volume (vph)	36	1559	43	212	1088	50	52	0	73	0	0	38
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	0.95			1.00				1.00
Frt	1.00	1.00		1.00	0.99			0.92				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.98				1.00
Satd. Flow (prot)	1509	3006		1509	2998			1433				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.98				1.00
Satd. Flow (perm)	1509	3006		1509	2998			1433				1374
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	36	1575	43	214	1099	51	53	0	74	0	0	38
RTOR Reduction (vph)	0	2	0	0	2	0	0	90	0	0	0	33
Lane Group Flow (vph)	36	1616	0	214	1148	0	0	37	0	0	0	5
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	13.8	41.0		34.5	65.7			8.5				13.8
Effective Green, g (s)	13.8	41.0		34.5	65.7			8.5				13.8
Actuated g/C Ratio	0.14	0.41		0.34	0.66			0.08				0.14
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	208	1232		520	1969			121				189
v/s Ratio Prot	0.02	c0.54		c0.14	c0.38							0.00
v/s Ratio Perm								0.03				
v/c Ratio	0.17	1.31		0.41	0.58			0.31				0.03
Uniform Delay, d1	38.1	29.5		25.0	9.5			43.0				37.3
Progression Factor	1.00	1.00		1.20	0.56			1.00				1.00
Incremental Delay, d2	0.4	146.2		0.5	1.1			1.5				0.1
Delay (s)	38.5	175.7		30.4	6.5			44.4				37.4
Level of Service	D	F		C	A			D				D
Approach Delay (s)		172.8			10.2			44.4			37.4	
Approach LOS		F			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	96.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	84.6%	ICU Level of Service	E
Analysis Period (min)	15		

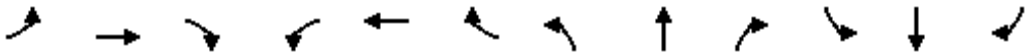
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	1308	167	204	1050	27	218	8	255	22	11	16
Future Volume (vph)	20	1308	167	204	1050	27	218	8	255	22	11	16
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			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	1.00			1.00	0.85		0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.98	
Satd. Flow (prot)	1509	2966		1509	3006			1515	1350		1483	
Flt Permitted	0.15	1.00		0.14	1.00			0.95	1.00		0.98	
Satd. Flow (perm)	244	2966		219	3006			1515	1350		1483	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	21	1362	174	212	1094	28	227	8	266	23	11	17
RTOR Reduction (vph)	0	10	0	0	2	0	0	0	212	0	14	0
Lane Group Flow (vph)	21	1527	0	213	1120	0	0	235	54	0	37	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1006		102	1216			308	274		251	
v/s Ratio Prot		0.51		c0.03	0.37			c0.16	0.00		c0.02	
v/s Ratio Perm	0.09			c0.79					0.04			
v/c Ratio	0.26	1.52		2.09	0.92			0.76	0.20		0.15	
Uniform Delay, d1	18.3	25.3		31.0	21.6			28.8	25.3		27.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	1.7	238.2		521.5	11.4			11.3	0.1		1.2	
Delay (s)	20.0	263.5		552.5	33.1			40.1	25.4		28.3	
Level of Service	B	F		F	C			D	C		C	
Approach Delay (s)		260.2			115.9			32.3			28.3	
Approach LOS		F			F			C			C	

Intersection Summary			
HCM 2000 Control Delay	167.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.42		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		

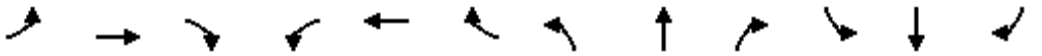
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	8	794	10	110	7	372	1235	0	374	2
Future Volume (vph)	0	0	8	794	10	110	7	372	1235	0	374	2
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.97			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1404			3015	1350		3015	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1404			2862	1350		3015	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	8	819	10	113	7	384	1273	0	386	2
RTOR Reduction (vph)	0	0	5	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	3	450	481	0	0	391	1273	0	388	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			37.0	37.0	37.0			54.0	100.0		54.0	
Effective Green, g (s)			37.0	37.0	37.0			55.0	100.0		55.0	
Actuated g/C Ratio			0.37	0.37	0.37			0.55	1.00		0.55	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			508	530	519			1574	1350		1658	
v/s Ratio Prot				0.31	0.34						0.13	
v/s Ratio Perm			0.00					0.14	c0.94			
v/c Ratio			0.01	0.85	0.93			0.25	0.94		0.23	
Uniform Delay, d1			19.9	28.9	30.2			11.7	0.0		11.6	
Progression Factor			1.00	1.00	1.00			1.47	1.00		1.00	
Incremental Delay, d2			0.0	15.5	22.8			0.0	1.9		0.3	
Delay (s)			19.9	44.5	53.0			17.3	1.9		11.9	
Level of Service			B	D	D			B	A		B	
Approach Delay (s)		19.9			48.9			5.5			11.9	
Approach LOS		B			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	20.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

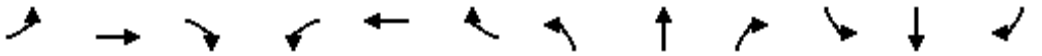
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	417	388	109	37	175	102	128	1148	58	70	833	245
Future Volume (vph)	417	388	109	37	175	102	128	1148	58	70	833	245
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.94		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1501		1509	2996		1509	3018	1350
Flt Permitted	0.30	1.00	1.00	0.30	1.00		0.22	1.00		0.11	1.00	1.00
Satd. Flow (perm)	476	1588	1350	482	1501		348	2996		169	3018	1350
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	421	392	110	37	177	103	129	1160	59	71	841	247
RTOR Reduction (vph)	0	0	57	0	23	0	0	3	0	0	0	74
Lane Group Flow (vph)	421	392	53	37	257	0	129	1216	0	71	841	173
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	36.5	29.9	29.9	29.1	25.5		53.3	46.3		50.2	45.0	45.0
Effective Green, g (s)	35.5	30.4	30.4	27.1	25.5		51.3	46.8		48.2	45.0	45.0
Actuated g/C Ratio	0.36	0.30	0.30	0.27	0.26		0.51	0.47		0.48	0.45	0.45
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	246	482	410	157	382		248	1402		137	1358	607
v/s Ratio Prot	c0.13	0.25		0.01	0.17		c0.03	c0.41		0.02	0.28	
v/s Ratio Perm	c0.48		0.04	0.06			0.24			0.23		0.13
v/c Ratio	1.71	0.81	0.13	0.24	0.67		0.52	0.87		0.52	0.62	0.28
Uniform Delay, d1	31.5	32.2	25.2	27.8	33.5		14.6	23.8		17.6	21.0	17.3
Progression Factor	0.94	0.94	0.83	1.30	1.30		0.58	0.42		1.81	1.56	2.21
Incremental Delay, d2	336.6	10.0	0.1	0.2	3.1		0.1	0.7		1.0	1.6	0.9
Delay (s)	366.2	40.3	21.1	36.3	46.6		8.6	10.6		32.8	34.3	39.2
Level of Service	F	D	C	D	D		A	B		C	C	D
Approach Delay (s)		186.7			45.4			10.4			35.2	
Approach LOS		F			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	64.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	102.5%	ICU Level of Service	G
Analysis Period (min)	15		

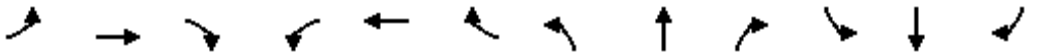
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	528	1050	105	162	613	22	201	828	168	0	622	369
Future Volume (vph)	528	1050	105	162	613	22	201	828	168	0	622	369
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2977		2927	3002		2927	2941			3018	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	2927	2977		2927	3002		2927	2941			3018	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	539	1071	107	165	626	22	205	845	171	0	635	377
RTOR Reduction (vph)	0	6	0	0	3	0	0	18	0	0	0	179
Lane Group Flow (vph)	539	1172	0	165	645	0	205	998	0	0	635	198
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	11.6	36.5		9.1	34.0		6.0	40.9			29.9	29.9
Effective Green, g (s)	11.6	37.0		9.1	34.5		7.0	41.9			30.9	30.9
Actuated g/C Ratio	0.12	0.37		0.09	0.34		0.07	0.42			0.31	0.31
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	339	1101		266	1035		204	1232			932	417
v/s Ratio Prot	c0.18	c0.39		0.06	0.21		c0.07	c0.34			0.21	
v/s Ratio Perm												0.15
v/c Ratio	1.59	1.06		0.62	0.62		1.00	0.81			0.68	0.47
Uniform Delay, d1	44.2	31.5		43.8	27.3		46.5	25.6			30.2	28.0
Progression Factor	0.89	0.79		1.15	0.89		1.00	1.00			1.65	3.33
Incremental Delay, d2	266.8	31.2		2.9	2.5		64.3	4.4			1.9	1.0
Delay (s)	306.1	56.1		53.2	27.0		110.8	29.9			51.8	94.1
Level of Service	F	E		D	C		F	C			D	F
Approach Delay (s)		134.6			32.3			43.5			67.6	
Approach LOS		F			C			D			E	

Intersection Summary			
HCM 2000 Control Delay	79.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.5%	ICU Level of Service	E
Analysis Period (min)	15		

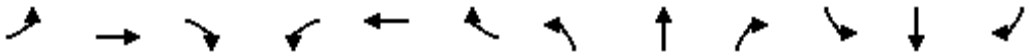
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	983	57	235	565	51	62	1011	359	62	801	94
Future Volume (vph)	121	983	57	235	565	51	62	1011	359	62	801	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	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2993		1509	3018	1350	1509	2899		1509	2970	
Flt Permitted	0.43	1.00		0.14	1.00	1.00	0.20	1.00		0.10	1.00	
Satd. Flow (perm)	687	2993		225	3018	1350	313	2899		159	2970	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	125	1013	59	242	582	53	64	1042	370	64	826	97
RTOR Reduction (vph)	0	5	0	0	0	25	0	39	0	0	10	0
Lane Group Flow (vph)	125	1067	0	242	582	28	64	1373	0	64	913	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.2	25.2		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.2	26.2		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	199	871		268	1408	630	139	1288		70	1320	
v/s Ratio Prot		c0.36		c0.12	0.19			c0.47			0.31	
v/s Ratio Perm	0.18			0.28		0.02	0.20			0.40		
v/c Ratio	0.63	1.23		0.90	0.41	0.04	0.46	1.07		0.91	0.69	
Uniform Delay, d1	27.7	31.9		21.7	15.9	13.1	17.5	25.0		23.4	20.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	14.1	111.5		30.8	0.9	0.1	10.6	44.6		85.4	3.0	
Delay (s)	41.8	143.4		52.5	16.8	13.2	28.1	69.6		108.8	23.0	
Level of Service	D	F		D	B	B	C	E		F	C	
Approach Delay (s)		132.8			26.4			67.8			28.6	
Approach LOS		F			C			E			C	

Intersection Summary			
HCM 2000 Control Delay	68.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	117.2%	ICU Level of Service	H
Analysis Period (min)	15		

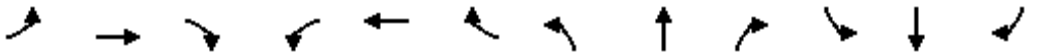
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1133	27	2	797	240	33	55	24	255	51	12
Future Volume (vph)	0	1133	27	2	797	240	33	55	24	255	51	12
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.97		1.00	0.99	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3007			3017	1350		1520		1433	1449	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3007			2877	1350		1520		1433	1449	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1168	28	2	822	247	34	57	25	263	53	12
RTOR Reduction (vph)	0	2	0	0	0	82	0	10	0	0	3	0
Lane Group Flow (vph)	0	1194	0	0	824	165	0	106	0	166	159	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		62.3			62.3	17.7		8.0		17.7	17.7	
Effective Green, g (s)		62.3			62.3	17.7		8.0		17.7	17.7	
Actuated g/C Ratio		0.62			0.62	0.18		0.08		0.18	0.18	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1873			1792	238		121		253	256	
v/s Ratio Prot		c0.40				c0.12		c0.07		0.12	0.11	
v/s Ratio Perm					0.29							
v/c Ratio		0.64			0.46	0.69		0.88		0.66	0.62	
Uniform Delay, d1		11.8			10.0	38.6		45.5		38.3	38.0	
Progression Factor		0.47			1.00	1.00		1.00		0.77	0.76	
Incremental Delay, d2		0.2			0.9	9.0		45.6		4.6	3.5	
Delay (s)		5.7			10.8	47.6		91.1		34.1	32.4	
Level of Service		A			B	D		F		C	C	
Approach Delay (s)		5.7			19.3			91.1			33.3	
Approach LOS		A			B			F			C	

Intersection Summary			
HCM 2000 Control Delay	18.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

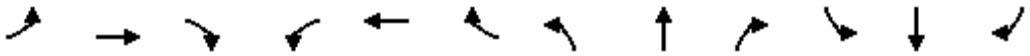
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	1325	41	5	901	61	80	31	97	31	1	30
Future Volume (vph)	50	1325	41	5	901	61	80	31	97	31	1	30
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			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.95	1.00
Satd. Flow (prot)	1509	3004		1509	2989			1460			1515	1350
Flt Permitted	0.23	1.00		0.17	1.00			0.86			0.63	1.00
Satd. Flow (perm)	371	3004		269	2989			1283			1005	1350
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	52	1366	42	5	929	63	82	32	100	32	1	31
RTOR Reduction (vph)	0	2	0	0	4	0	0	32	0	0	0	25
Lane Group Flow (vph)	52	1406	0	5	988	0	0	182	0	0	33	6
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	73.9	73.9		67.1	67.1			18.1			18.1	18.1
Effective Green, g (s)	72.9	73.9		67.1	67.1			18.1			18.1	18.1
Actuated g/C Ratio	0.73	0.74		0.67	0.67			0.18			0.18	0.18
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	302	2219		180	2005			232			181	244
v/s Ratio Prot	0.00	c0.47			0.33							
v/s Ratio Perm	0.12			0.02				c0.14			0.03	0.00
v/c Ratio	0.17	0.63		0.03	0.49			0.78			0.18	0.02
Uniform Delay, d1	4.8	6.4		5.5	8.1			39.1			34.7	33.7
Progression Factor	1.00	1.00		1.00	1.04			1.00			1.00	1.00
Incremental Delay, d2	0.1	1.4		0.2	0.6			15.8			0.5	0.0
Delay (s)	4.9	7.8		5.7	9.0			54.9			35.2	33.7
Level of Service	A	A		A	A			D			D	C
Approach Delay (s)		7.7			9.0			54.9			34.5	
Approach LOS		A			A			D			C	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.1%	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												
Traffic Volume (veh/h)	1	718	29	60	432	0	30	0	103	11	10	35
Future Volume (Veh/h)	1	718	29	60	432	0	30	0	103	11	10	35
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	1	789	32	66	475	0	33	0	113	12	11	38
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		513			1070							
pX, platoon unblocked												
vC, conflicting volume	475			821			1458	1414	805	1527	1430	475
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	475			821			1458	1414	805	1527	1430	475
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			92			62	100	70	81	91	94
cM capacity (veh/h)	1087			808			88	126	382	63	123	590

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	822	541	146	61
Volume Left	1	66	33	12
Volume Right	32	0	113	38
cSH	1087	808	218	178
Volume to Capacity	0.00	0.08	0.67	0.34
Queue Length 95th (ft)	0	7	104	36
Control Delay (s)	0.0	2.2	49.9	35.4
Lane LOS	A	A	E	E
Approach Delay (s)	0.0	2.2	49.9	35.4
Approach LOS			E	E

Intersection Summary			
Average Delay	6.8		
Intersection Capacity Utilization	100.2%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	145	1606	58	0	3	1115	54	0	0	0	0	0
Future Volume (Veh/h)	145	1606	58	0	3	1115	54	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop
Grade		0%				0%			0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	151	1673	60	0	3	1161	56	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1217			0	1733			2692	3228	866	2334	3230
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1217			0	1733			2692	3228	866	2334	3230
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	73			0	99			100	100	100	100	100
cM capacity (veh/h)	569			0	360			6	7	296	15	7

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	151	1115	618	584	636	0	101
Volume Left	151	0	0	3	0	0	0
Volume Right	0	0	60	0	56	0	101
cSH	569	1700	1700	360	1700	1700	438
Volume to Capacity	0.27	0.66	0.36	0.01	0.37	0.00	0.23
Queue Length 95th (ft)	27	0	0	1	0	0	22
Control Delay (s)	13.6	0.0	0.0	0.3	0.0	0.0	15.7
Lane LOS	B			A			C
Approach Delay (s)	1.1			0.1			15.7
Approach LOS							C

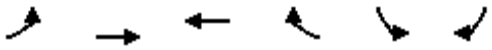
Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	99.2%	ICU Level of Service		F
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	97
Future Volume (Veh/h)	97
Sign Control	
Grade	
Peak Hour Factor	0.96
Hourly flow rate (vph)	101
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	608
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	608
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	77
cM capacity (veh/h)	438
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	836	20	30	488	10	122
Future Volume (Veh/h)	836	20	30	488	10	122
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	862	21	31	503	10	126
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.89	
vC, conflicting volume			883		1438	872
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			883		1430	872
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		92	64
cM capacity (veh/h)			766		127	350

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	883	534	136
Volume Left	0	31	10
Volume Right	21	0	126
cSH	1700	766	310
Volume to Capacity	0.52	0.04	0.44
Queue Length 95th (ft)	0	3	53
Control Delay (s)	0.0	1.1	25.4
Lane LOS		A	D
Approach Delay (s)	0.0	1.1	25.4
Approach LOS			D

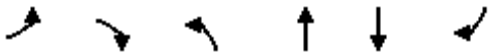
Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1734	1165	46	0	56
Future Volume (Veh/h)	0	1734	1165	46	0	56
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	0	1752	1177	46	0	57
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		841	432			
pX, platoon unblocked	0.84				0.63	0.84
vC, conflicting volume	1223				2952	612
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	884				2847	156
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	92
cM capacity (veh/h)	639				9	724

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	1752	785	438	57
Volume Left	0	0	0	0
Volume Right	0	0	46	57
cSH	1700	1700	1700	724
Volume to Capacity	1.03	0.46	0.26	0.08
Queue Length 95th (ft)	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	10.4
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.4
Approach LOS				B

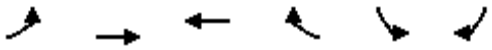
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	110.4%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	111	53	1263	795	63
Future Volume (Veh/h)	50	111	53	1263	795	63
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	53	117	56	1329	837	66
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked	0.71					
vC, conflicting volume	1646	452	903			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1086	452	903			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	62	79	93			
cM capacity (veh/h)	138	555	749			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	170	56	664	664	558	345
Volume Left	53	56	0	0	0	0
Volume Right	117	0	0	0	0	66
cSH	286	749	1700	1700	1700	1700
Volume to Capacity	0.59	0.07	0.39	0.39	0.33	0.20
Queue Length 95th (ft)	89	6	0	0	0	0
Control Delay (s)	34.5	10.2	0.0	0.0	0.0	0.0
Lane LOS	D	B				
Approach Delay (s)	34.5	0.4			0.0	
Approach LOS	D					

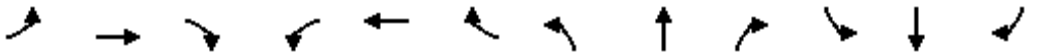
Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	58.9%	ICU Level of Service	B	
Analysis Period (min)	15			



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	1716	1148	120	0	154
Future Volume (Veh/h)	1	1716	1148	120	0	154
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	1788	1196	125	0	160
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		325	948			
pX, platoon unblocked					0.61	
vC, conflicting volume	1321				2154	461
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1321				1606	461
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	71
cM capacity (veh/h)	519				58	547

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	597	1192	478	478	364	160
Volume Left	1	0	0	0	0	0
Volume Right	0	0	0	0	125	160
cSH	519	1700	1700	1700	1700	547
Volume to Capacity	0.00	0.70	0.28	0.28	0.21	0.29
Queue Length 95th (ft)	0	0	0	0	0	30
Control Delay (s)	0.1	0.0	0.0	0.0	0.0	14.3
Lane LOS	A					B
Approach Delay (s)	0.0		0.0			14.3
Approach LOS						B

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	59.8%	ICU Level of Service		B
Analysis Period (min)	15			

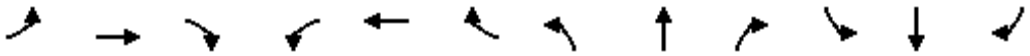


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1526	17	0	1210	41	0	0	109	0	0	22
Future Volume (Veh/h)	0	1526	17	0	1210	41	0	0	109	0	0	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1659	18	0	1315	45	0	0	118	0	0	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		735			538							
pX, platoon unblocked	0.85			0.62			0.70	0.70	0.62	0.70	0.70	0.85
vC, conflicting volume	1360			1677			2350	3028	838	2285	3014	680
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1070			877			1099	2071	0	1007	2052	269
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 %	100			100			100	100	83	100	100	96
cM capacity (veh/h)	550			477			112	37	676	112	38	619

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total	1106	571	877	483	118	24
Volume Left	0	0	0	0	0	0
Volume Right	0	18	0	45	118	24
cSH	1700	1700	1700	1700	676	619
Volume to Capacity	0.65	0.34	0.52	0.28	0.17	0.04
Queue Length 95th (ft)	0	0	0	0	16	3
Control Delay (s)	0.0	0.0	0.0	0.0	11.5	11.1
Lane LOS					B	B
Approach Delay (s)	0.0		0.0		11.5	11.1
Approach LOS					B	B

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	64.7%	ICU Level of Service		C
Analysis Period (min)	15			

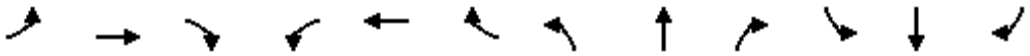
CUMULATIVE BASE CONDITIONS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	961	64	237	1943	180	67	561	152	102	544	68
Future Volume (vph)	82	961	64	237	1943	180	67	561	152	102	544	68
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	2989		1509	2979		1509	3018	1350	1509	2967	
Flt Permitted	0.07	1.00		0.18	1.00		0.17	1.00	1.00	0.21	1.00	
Satd. Flow (perm)	115	2989		283	2979		276	3018	1350	340	2967	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	85	991	66	244	2003	186	69	578	157	105	561	70
RTOR Reduction (vph)	0	4	0	0	7	0	0	0	121	0	9	0
Lane Group Flow (vph)	85	1053	0	244	2182	0	69	578	36	105	622	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)	59.6	55.2		69.0	60.6		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	59.6	55.2		68.5	60.6		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.60	0.55		0.68	0.61		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)	129	1649		314	1805		63	694	310	78	682	
v/s Ratio Prot	0.03	0.35		c0.08	c0.73			0.19			0.21	
v/s Ratio Perm	0.36			0.46			0.25		0.03	c0.31		
v/c Ratio	0.66	0.64		0.78	1.21		1.10	0.83	0.12	1.35	0.91	
Uniform Delay, d1	22.5	15.5		10.6	19.7		38.5	36.7	30.5	38.5	37.5	
Progression Factor	1.12	0.75		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.6	1.8		10.5	99.5		142.0	11.2	0.8	219.5	18.6	
Delay (s)	33.8	13.5		21.1	119.2		180.5	47.9	31.2	258.0	56.1	
Level of Service	C	B		C	F		F	D	C	F	E	
Approach Delay (s)		15.0			109.4			56.0			84.9	
Approach LOS		B			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	76.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.6%	ICU Level of Service	H
Analysis Period (min)	15		

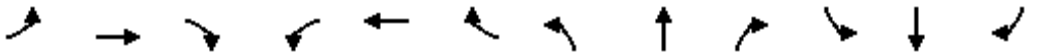
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	1030	409	1	1415	10	581	16	1	23	23	52
Future Volume (vph)	18	1030	409	1	1415	10	581	16	1	23	23	52
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			0.93	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3014		1433	1440			1457	
Flt Permitted	0.08	1.00	1.00		0.95		0.95	0.96			0.99	
Satd. Flow (perm)	133	3018	1350		2878		1433	1440			1457	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	19	1096	435	1	1505	11	618	17	1	24	24	55
RTOR Reduction (vph)	0	0	88	0	0	0	0	0	0	0	35	0
Lane Group Flow (vph)	19	1096	347	0	1517	0	328	308	0	0	69	0
Turn Type	pm+pt	NA	Perm	Perm	NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6	2								
Actuated Green, G (s)	77.0	77.0	77.0		72.1		26.0	26.0			5.0	
Effective Green, g (s)	76.0	77.0	77.0		72.1		26.0	26.0			5.0	
Actuated g/C Ratio	0.63	0.64	0.64		0.60		0.22	0.22			0.04	
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)	94	1936	866		1729		310	312			60	
v/s Ratio Prot	0.00	c0.36					c0.23	0.21			c0.05	
v/s Ratio Perm	0.13		0.26		c0.53							
v/c Ratio	0.20	0.57	0.40		0.88		1.06	0.99			1.14	
Uniform Delay, d1	14.7	12.1	10.4		20.2		47.0	46.8			57.5	
Progression Factor	1.31	1.37	1.89		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.4	1.1	1.3		6.6		67.2	47.0			160.0	
Delay (s)	19.7	17.6	20.9		26.8		114.2	93.8			217.5	
Level of Service	B	B	C		C		F	F			F	
Approach Delay (s)		18.6			26.8			104.4			217.5	
Approach LOS		B			C			F			F	

Intersection Summary			
HCM 2000 Control Delay	41.6	HCM 2000 Level of Service	D
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		

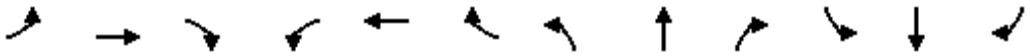
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	1072	17	26	2056	23	110	0	46	0	0	74
Future Volume (vph)	27	1072	17	26	2056	23	110	0	46	0	0	74
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	0.95			1.00				1.00
Frt	1.00	1.00		1.00	1.00			0.96				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.97				1.00
Satd. Flow (prot)	1509	3010		1509	3013			1473				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.97				1.00
Satd. Flow (perm)	1509	3010		1509	3013			1473				1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	28	1105	18	27	2120	24	113	0	47	0	0	76
RTOR Reduction (vph)	0	1	0	0	1	0	0	87	0	0	0	70
Lane Group Flow (vph)	28	1122	0	27	2143	0	0	73	0	0	0	6
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	8.0	56.2		17.0	69.2			10.8				8.0
Effective Green, g (s)	8.0	56.2		17.0	69.2			10.8				8.0
Actuated g/C Ratio	0.08	0.56		0.17	0.69			0.11				0.08
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	120	1691		256	2084			159				109
v/s Ratio Prot	c0.02	0.37		0.02	c0.71							0.00
v/s Ratio Perm								0.05				
v/c Ratio	0.23	0.66		0.11	1.03			0.46				0.06
Uniform Delay, d1	43.1	15.3		35.1	15.4			41.8				42.5
Progression Factor	1.00	1.00		0.70	1.47			1.00				1.00
Incremental Delay, d2	1.0	2.1		0.1	25.5			2.1				0.2
Delay (s)	44.1	17.4		24.8	48.2			43.9				42.7
Level of Service	D	B		C	D			D				D
Approach Delay (s)		18.0			47.9			43.9			42.7	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	37.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		

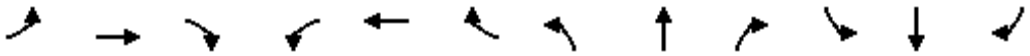
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	982	108	149	1384	95	234	143	165	103	158	79
Future Volume (vph)	69	982	108	149	1384	95	234	143	165	103	158	79
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			1.00	1.00		1.00	
Frt	1.00	0.99		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.99	
Satd. Flow (prot)	1509	2973		1509	2989			1540	1350		1515	
Flt Permitted	0.15	1.00		0.14	1.00			0.97	1.00		0.99	
Satd. Flow (perm)	244	2973		219	2989			1540	1350		1515	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	74	1056	116	160	1488	102	252	154	177	111	170	85
RTOR Reduction (vph)	0	8	0	0	5	0	0	0	141	0	12	0
Lane Group Flow (vph)	74	1164	0	160	1585	0	0	406	36	0	354	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1009		102	1209			313	274		257	
v/s Ratio Prot		0.39		0.02	c0.53			c0.26	0.00		c0.23	
v/s Ratio Perm	0.30			c0.59					0.02			
v/c Ratio	0.90	1.15		1.57	1.31			1.30	0.13		1.38	
Uniform Delay, d1	24.1	25.3		31.0	22.8			30.5	25.0		31.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	67.3	80.6		297.7	146.1			155.3	0.1		193.0	
Delay (s)	91.4	105.9		328.7	168.9			185.8	25.0		224.8	
Level of Service	F	F		F	F			F	C		F	
Approach Delay (s)		105.1			183.5			137.0			224.8	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	155.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.63		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	132.8%	ICU Level of Service	H
Analysis Period (min)	15		

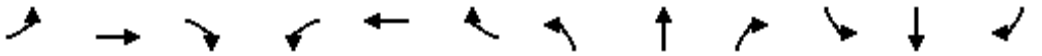
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	10	1415	0	126	3	376	568	0	427	0
Future Volume (vph)	0	0	10	1415	0	126	3	376	568	0	427	0
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.98			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1412			3017	1350		3018	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1412			2875	1350		3018	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	1538	0	137	3	409	617	0	464	0
RTOR Reduction (vph)	0	0	6	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	6	846	818	0	0	412	617	0	464	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			50.0	50.0	50.0			41.0	100.0		41.0	
Effective Green, g (s)			50.0	50.0	50.0			42.0	100.0		42.0	
Actuated g/C Ratio			0.50	0.50	0.50			0.42	1.00		0.42	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			687	716	706			1207	1350		1267	
v/s Ratio Prot				c0.59	0.58						0.15	
v/s Ratio Perm			0.00					0.14	c0.46			
v/c Ratio			0.01	1.18	1.16			0.34	0.46		0.37	
Uniform Delay, d1			12.6	25.0	25.0			19.6	0.0		19.9	
Progression Factor			1.00	1.00	1.00			1.57	1.00		1.00	
Incremental Delay, d2			0.0	95.7	86.7			0.5	0.7		0.8	
Delay (s)			12.6	120.7	111.7			31.4	0.7		20.7	
Level of Service			B	F	F			C	A		C	
Approach Delay (s)		12.6			116.2			13.0			20.7	
Approach LOS		B			F			B			C	

Intersection Summary			
HCM 2000 Control Delay	68.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		

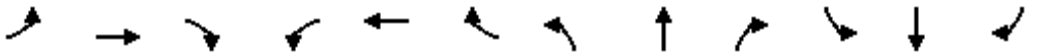
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	224	307	155	123	359	80	129	751	53	68	1083	438
Future Volume (vph)	224	307	155	123	359	80	129	751	53	68	1083	438
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1545		1509	2988		1509	3018	1350
Flt Permitted	0.16	1.00	1.00	0.38	1.00		0.10	1.00		0.24	1.00	1.00
Satd. Flow (perm)	261	1588	1350	609	1545		157	2988		377	3018	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	229	313	158	126	366	82	132	766	54	69	1105	447
RTOR Reduction (vph)	0	0	92	0	8	0	0	5	0	0	0	113
Lane Group Flow (vph)	229	313	66	126	440	0	132	815	0	69	1105	334
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	39.2	30.7	30.7	37.9	30.3		49.2	41.5		44.7	39.5	39.5
Effective Green, g (s)	37.2	31.2	31.2	35.9	30.3		47.2	42.0		42.7	39.5	39.5
Actuated g/C Ratio	0.37	0.31	0.31	0.36	0.30		0.47	0.42		0.43	0.40	0.40
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	190	495	421	278	468		164	1254		208	1192	533
v/s Ratio Prot	c0.09	0.20		0.03	0.28		c0.05	0.27		0.01	c0.37	
v/s Ratio Perm	c0.36		0.05	0.13			0.32			0.13		0.25
v/c Ratio	1.21	0.63	0.16	0.45	0.94		0.80	0.65		0.33	0.93	0.63
Uniform Delay, d1	28.1	29.5	24.9	22.9	34.0		20.4	23.1		18.0	28.9	24.3
Progression Factor	0.97	0.91	0.93	1.21	1.19		1.30	0.28		1.54	1.42	1.75
Incremental Delay, d2	130.5	2.6	0.2	0.4	23.4		2.5	0.2		0.1	4.5	1.5
Delay (s)	157.7	29.5	23.3	28.1	64.0		29.0	6.7		27.7	45.5	44.1
Level of Service	F	C	C	C	E		C	A		C	D	D
Approach Delay (s)		70.0			56.1			9.8			44.3	
Approach LOS		E			E			A			D	

Intersection Summary			
HCM 2000 Control Delay	42.2	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)	16.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

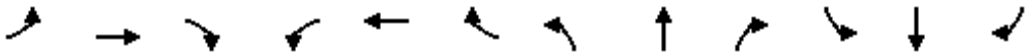
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	305	849	76	373	1421	9	255	635	325	0	863	497
Future Volume (vph)	305	849	76	373	1421	9	255	635	325	0	863	497
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.99		1.00	1.00		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2980		2927	3015		2927	2864			3018	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	2927	2980		2927	3015		2927	2864			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)	321	894	80	393	1496	9	268	668	342	0	908	523
RTOR Reduction (vph)	0	7	0	0	1	0	0	65	0	0	0	111
Lane Group Flow (vph)	321	967	0	393	1504	0	268	945	0	0	908	412
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	7.0	36.5		10.0	39.5		6.0	40.0			29.0	29.0
Effective Green, g (s)	7.0	37.0		10.0	40.0		7.0	41.0			30.0	30.0
Actuated g/C Ratio	0.07	0.37		0.10	0.40		0.07	0.41			0.30	0.30
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	204	1102		292	1206		204	1174			905	405
v/s Ratio Prot	0.11	0.32		c0.13	c0.50		c0.09	0.33			0.30	
v/s Ratio Perm												c0.30
v/c Ratio	1.57	0.88		1.35	1.25		1.31	0.81			1.00	1.02
Uniform Delay, d1	46.5	29.4		45.0	30.0		46.5	26.0			35.0	35.0
Progression Factor	1.00	1.00		1.16	0.97		1.00	1.00			1.57	1.89
Incremental Delay, d2	280.4	9.9		170.3	116.2		171.6	4.3			23.8	38.6
Delay (s)	326.9	39.3		222.5	145.4		218.1	30.3			78.8	104.8
Level of Service	F	D		F	F		F	C			E	F
Approach Delay (s)		110.6			161.3			69.7			88.3	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	112.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	106.5%	ICU Level of Service	G
Analysis Period (min)	15		

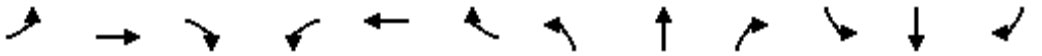
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	578	67	545	1127	85	65	860	262	101	1159	272
Future Volume (vph)	185	578	67	545	1127	85	65	860	262	101	1159	272
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2971		1509	3018	1350	1509	2912		1509	2932	
Flt Permitted	0.18	1.00		0.17	1.00	1.00	0.10	1.00		0.10	1.00	
Satd. Flow (perm)	288	2971		265	3018	1350	159	2912		161	2932	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	197	615	71	580	1199	90	69	915	279	107	1233	289
RTOR Reduction (vph)	0	10	0	0	0	37	0	32	0	0	19	0
Lane Group Flow (vph)	197	676	0	580	1199	53	69	1162	0	107	1503	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	83	858		283	1408	630	70	1294		71	1303	
v/s Ratio Prot		0.23		c0.27	0.40			0.40			0.51	
v/s Ratio Perm	c0.68			0.64		0.04	0.43			c0.66		
v/c Ratio	2.37	0.79		2.05	0.85	0.08	0.99	0.90		1.51	1.15	
Uniform Delay, d1	32.0	29.5		21.0	21.2	13.3	24.7	23.1		25.0	25.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	653.5	7.2		484.4	6.7	0.3	103.6	10.0		287.9	78.3	
Delay (s)	685.5	36.7		505.3	27.9	13.6	128.4	33.1		312.9	103.3	
Level of Service	F	D		F	C	B	F	C		F	F	
Approach Delay (s)		181.5			175.4			38.3			117.0	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	128.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

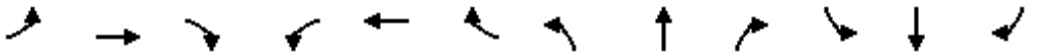
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	837	15	1	1505	332	19	21	36	312	44	33
Future Volume (vph)	0	837	15	1	1505	332	19	21	36	312	44	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	
Lane Util. Factor		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.94		1.00	0.97	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3010			3018	1350		1467		1433	1427	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3010			2881	1350		1467		1433	1427	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	854	15	1	1536	339	19	21	37	318	45	34
RTOR Reduction (vph)	0	1	0	0	0	57	0	34	0	0	8	0
Lane Group Flow (vph)	0	868	0	0	1537	282	0	43	0	200	189	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		59.5			59.5	22.4		6.1		22.4	22.4	
Effective Green, g (s)		59.5			59.5	22.4		6.1		22.4	22.4	
Actuated g/C Ratio		0.60			0.60	0.22		0.06		0.22	0.22	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1790			1714	302		89		320	319	
v/s Ratio Prot		0.29				c0.21		c0.03		0.14	0.13	
v/s Ratio Perm					c0.53							
v/c Ratio		0.48			0.90	0.93		0.49		0.62	0.59	
Uniform Delay, d1		11.5			17.6	38.1		45.4		35.0	34.7	
Progression Factor		0.56			1.00	1.00		1.00		0.73	0.71	
Incremental Delay, d2		0.5			7.8	35.1		4.1		3.6	2.9	
Delay (s)		6.9			25.4	73.2		49.6		29.1	27.6	
Level of Service		A			C	E		D		C	C	
Approach Delay (s)		6.9			34.0			49.6			28.3	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		

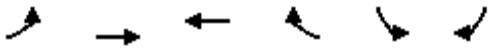
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	1059	34	4	1493	33	48	12	87	38	3	102
Future Volume (vph)	27	1059	34	4	1493	33	48	12	87	38	3	102
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			1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00			0.92			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.96	1.00
Satd. Flow (prot)	1509	3004		1509	3008			1438			1518	1350
Flt Permitted	0.11	1.00		0.24	1.00			0.88			0.54	1.00
Satd. Flow (perm)	167	3004		381	3008			1284			851	1350
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	29	1127	36	4	1588	35	51	13	93	40	3	109
RTOR Reduction (vph)	0	2	0	0	1	0	0	57	0	0	0	95
Lane Group Flow (vph)	29	1161	0	4	1622	0	0	100	0	0	43	14
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	79.2	79.2		73.6	73.6			12.8			12.8	12.8
Effective Green, g (s)	78.2	79.2		73.6	73.6			12.8			12.8	12.8
Actuated g/C Ratio	0.78	0.79		0.74	0.74			0.13			0.13	0.13
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	152	2379		280	2213			164			108	172
v/s Ratio Prot	0.00	c0.39			c0.54							
v/s Ratio Perm	0.15			0.01				c0.08			0.05	0.01
v/c Ratio	0.19	0.49		0.01	0.73			0.61			0.40	0.08
Uniform Delay, d1	5.7	3.5		3.5	7.6			41.2			40.1	38.4
Progression Factor	1.00	1.00		0.84	0.52			1.00			1.00	1.00
Incremental Delay, d2	0.2	0.7		0.1	1.5			6.6			2.4	0.2
Delay (s)	5.9	4.2		3.0	5.4			47.8			42.5	38.6
Level of Service	A	A		A	A			D			D	D
Approach Delay (s)		4.3			5.4			47.8			39.7	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		

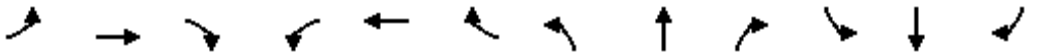
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1045	1797	69	34	49
Future Volume (vph)	0	1045	1797	69	34	49
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	0.91		1.00	1.00
Frt		1.00	0.99		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3018	4312		1509	1350
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3018	4312		1509	1350
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1136	1953	75	37	53
RTOR Reduction (vph)	0	0	4	0	0	21
Lane Group Flow (vph)	0	1136	2024	0	37	32
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Actuated Green, G (s)		68.6	68.6		23.4	23.4
Effective Green, g (s)		68.6	68.6		23.4	23.4
Actuated g/C Ratio		0.69	0.69		0.23	0.23
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)		2070	2958		353	315
v/s Ratio Prot		0.38	c0.47		c0.02	
v/s Ratio Perm						0.02
v/c Ratio		0.55	0.68		0.10	0.10
Uniform Delay, d1		7.9	9.3		30.1	30.0
Progression Factor		1.72	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.7		0.6	0.6
Delay (s)		13.8	10.0		30.7	30.7
Level of Service		B	A		C	C
Approach Delay (s)		13.8	10.0		30.7	
Approach LOS		B	A		C	

Intersection Summary			
HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

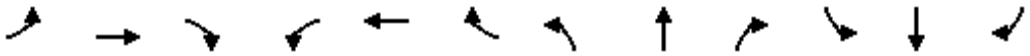
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	1043	17	0	1992	0	0	0	76	0	0	0
Future Volume (vph)	13	1043	17	0	1992	0	0	0	76	0	0	0
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			
Lane Util. Factor	1.00	0.95			0.95				1.00			
Frt	1.00	1.00			1.00				0.86			
Flt Protected	0.95	1.00			1.00				1.00			
Satd. Flow (prot)	1509	3011			3018				1374			
Flt Permitted	0.05	1.00			1.00				1.00			
Satd. Flow (perm)	85	3011			3018				1374			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	1134	18	0	2165	0	0	0	83	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	72	0	0	0
Lane Group Flow (vph)	14	1151	0	0	2165	0	0	0	11	0	0	0
Turn Type	Perm	NA			NA				Perm			Perm
Protected Phases		4			8							
Permitted Phases	4								2			6
Actuated Green, G (s)	96.0	96.0			96.0				16.0			
Effective Green, g (s)	96.0	96.0			96.0				16.0			
Actuated g/C Ratio	0.80	0.80			0.80				0.13			
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)	68	2408			2414				183			
v/s Ratio Prot		0.38			c0.72							
v/s Ratio Perm	0.17								c0.01			
v/c Ratio	0.21	0.48			0.90				0.06			
Uniform Delay, d1	2.9	3.9			8.5				45.4			
Progression Factor	1.00	1.00			1.00				1.00			
Incremental Delay, d2	1.5	0.2			4.8				0.6			
Delay (s)	4.4	4.0			13.3				46.1			
Level of Service	A	A			B				D			
Approach Delay (s)		4.0			13.3			46.1			0.0	
Approach LOS		A			B			D			A	

Intersection Summary			
HCM 2000 Control Delay	11.0	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)	8.0
Intersection Capacity Utilization	67.9%	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												
Traffic Volume (veh/h)	0	485	18	59	722	0	23	0	67	0	0	1
Future Volume (Veh/h)	0	485	18	59	722	0	23	0	67	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	500	19	61	744	0	24	0	69	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		513			1070							
pX, platoon unblocked	0.79						0.79	0.79		0.79	0.79	0.79
vC, conflicting volume	744			519			1376	1376	510	1444	1385	744
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	545			519			1344	1343	510	1430	1355	545
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			94			75	100	88	100	100	100
cM capacity (veh/h)	811			1047			97	113	564	75	111	426

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	519	805	93	1
Volume Left	0	61	24	0
Volume Right	19	0	69	1
cSH	1700	1047	252	426
Volume to Capacity	0.31	0.06	0.37	0.00
Queue Length 95th (ft)	0	5	41	0
Control Delay (s)	0.0	1.5	27.4	13.5
Lane LOS		A	D	B
Approach Delay (s)	0.0	1.5	27.4	13.5
Approach LOS			D	B

Intersection Summary				
Average Delay	2.7			
Intersection Capacity Utilization	102.6%	ICU Level of Service	G	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	47	1045	53	0	0	2053	21	0	0	0	0	0
Future Volume (Veh/h)	47	1045	53	0	0	2053	21	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop
Grade		0%				0%			0%			0%
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	48	1066	54	0	0	2095	21	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	2116			0	1120			2426	3305	560	2734	3322
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2116			0	1120			2426	3305	560	2734	3322
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	81			0	100			100	100	100	100	100
cM capacity (veh/h)	255			0	619			2	7	472	8	7

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	48	711	409	1397	719	0	189
Volume Left	48	0	0	0	0	0	0
Volume Right	0	0	54	0	21	0	189
cSH	255	1700	1700	1700	1700	1700	221
Volume to Capacity	0.19	0.42	0.24	0.82	0.42	0.00	0.86
Queue Length 95th (ft)	17	0	0	0	0	0	166
Control Delay (s)	22.4	0.0	0.0	0.0	0.0	0.0	74.4
Lane LOS	C						F
Approach Delay (s)	0.9			0.0			74.4
Approach LOS							F

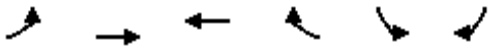
Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	87.4%	ICU Level of Service		E
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	185
Future Volume (Veh/h)	185
Sign Control	
Grade	
Peak Hour Factor	0.98
Hourly flow rate (vph)	189
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	1058
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	1058
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	14
cM capacity (veh/h)	221
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	541	32	129	800	7	93
Future Volume (Veh/h)	541	32	129	800	7	93
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	558	33	133	825	7	96
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.69	
vC, conflicting volume			591		1666	574
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			591		1739	574
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			86		88	81
cM capacity (veh/h)			985		57	518

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	591	958	103
Volume Left	0	133	7
Volume Right	33	0	96
cSH	1700	985	335
Volume to Capacity	0.35	0.14	0.31
Queue Length 95th (ft)	0	12	32
Control Delay (s)	0.0	3.4	20.5
Lane LOS		A	C
Approach Delay (s)	0.0	3.4	20.5
Approach LOS			C

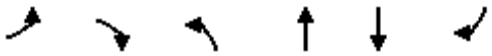
Intersection Summary			
Average Delay		3.2	
Intersection Capacity Utilization	110.6%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1179	1987	67	0	50
Future Volume (Veh/h)	0	1179	1987	67	0	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	1254	2114	71	0	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		106	432			
pX, platoon unblocked	0.62				0.39	0.62
vC, conflicting volume	2185				3404	1092
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1686				2724	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	92
cM capacity (veh/h)	233				6	673

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	1254	1409	776	53
Volume Left	0	0	0	0
Volume Right	0	0	71	53
cSH	1700	1700	1700	673
Volume to Capacity	0.74	0.83	0.46	0.08
Queue Length 95th (ft)	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	10.8
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.8
Approach LOS				B

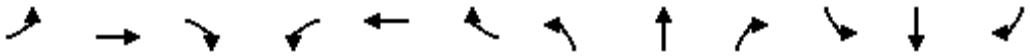
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	97	257	1043	1330	445
Future Volume (Veh/h)	7	97	257	1043	1330	445
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	7	100	265	1075	1371	459
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked						
vC, conflicting volume	2668	915	1830			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2668	915	1830			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	64	20			
cM capacity (veh/h)	4	275	330			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	107	265	538	538	914	916
Volume Left	7	265	0	0	0	0
Volume Right	100	0	0	0	0	459
cSH	46	330	1700	1700	1700	1700
Volume to Capacity	2.33	0.80	0.32	0.32	0.54	0.54
Queue Length 95th (ft)	280	168	0	0	0	0
Control Delay (s)	797.8	48.5	0.0	0.0	0.0	0.0
Lane LOS	F	E				
Approach Delay (s)	797.8	9.6			0.0	
Approach LOS	F					

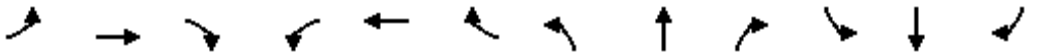
Intersection Summary			
Average Delay	30.0		
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	1397	92	391	1466	157	127	585	350	123	504	100
Future Volume (vph)	122	1397	92	391	1466	157	127	585	350	123	504	100
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	2974		1509	3018	1350	1509	2943	
Flt Permitted	0.08	1.00		0.07	1.00		0.19	1.00	1.00	0.20	1.00	
Satd. Flow (perm)	123	2990		116	2974		299	3018	1350	323	2943	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	123	1411	93	395	1481	159	128	591	354	124	509	101
RTOR Reduction (vph)	0	5	0	0	8	0	0	0	154	0	16	0
Lane Group Flow (vph)	123	1499	0	395	1632	0	128	591	200	124	594	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)	57.4	51.5		69.0	59.1		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	57.4	51.5		68.5	59.1		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.57	0.52		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)	152	1539		267	1757		68	694	310	74	676	
v/s Ratio Prot	0.05	0.50		c0.20	0.55			0.20			0.20	
v/s Ratio Perm	0.41			c0.82			c0.43		0.15	0.38		
v/c Ratio	0.81	0.97		1.48	0.93		1.88	0.85	0.65	1.68	0.88	
Uniform Delay, d1	16.6	23.6		32.1	18.5		38.5	36.9	34.8	38.5	37.2	
Progression Factor	1.00	0.87		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	24.7	17.4		234.8	10.1		447.2	12.5	9.9	355.6	15.1	
Delay (s)	41.2	38.0		267.0	28.7		485.7	49.4	44.7	394.1	52.2	
Level of Service	D	D		F	C		F	D	D	F	D	
Approach Delay (s)		38.3			74.9			99.9			110.0	
Approach LOS		D			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	73.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	115.8%	ICU Level of Service	H
Analysis Period (min)	15		

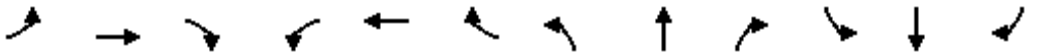
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	1281	496	0	1451	16	403	12	0	21	27	29
Future Volume (vph)	31	1281	496	0	1451	16	403	12	0	21	27	29
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	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3013		1433	1441			1487	
Flt Permitted	0.08	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (perm)	134	3018	1350		3013		1433	1441			1487	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	32	1321	511	0	1496	16	415	12	0	22	28	30
RTOR Reduction (vph)	0	0	84	0	0	0	0	0	0	0	18	0
Lane Group Flow (vph)	32	1321	427	0	1512	0	220	207	0	0	62	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6									
Actuated Green, G (s)	78.0	78.0	78.0		72.0		22.3	22.3			7.7	
Effective Green, g (s)	77.0	78.0	78.0		72.0		22.3	22.3			7.7	
Actuated g/C Ratio	0.64	0.65	0.65		0.60		0.19	0.19			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)	108	1961	877		1807		266	267			95	
v/s Ratio Prot	0.00	c0.44			c0.50		c0.15	0.14			c0.04	
v/s Ratio Perm	0.18		0.32									
v/c Ratio	0.30	0.67	0.49		0.84		0.83	0.78			0.65	
Uniform Delay, d1	14.7	13.1	10.8		19.3		47.0	46.5			54.9	
Progression Factor	1.27	1.29	1.57		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.5	1.8	1.8		4.8		18.6	13.1			15.1	
Delay (s)	19.2	18.6	18.7		24.1		65.6	59.6			69.9	
Level of Service	B	B	B		C		E	E			E	
Approach Delay (s)		18.6			24.1			62.7			69.9	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.4%	ICU Level of Service	D
Analysis Period (min)	15		

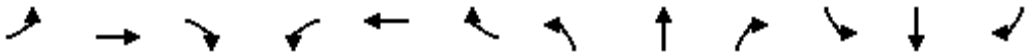
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	1600	57	48	1708	60	31	0	47	0	0	61
Future Volume (vph)	30	1600	57	48	1708	60	31	0	47	0	0	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	0.95		1.00	0.95			1.00				1.00
Frt	1.00	0.99		1.00	0.99			0.92				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.98				1.00
Satd. Flow (prot)	1509	3002		1509	3002			1431				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.98				1.00
Satd. Flow (perm)	1509	3002		1509	3002			1431				1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	31	1649	59	49	1761	62	32	0	48	0	0	63
RTOR Reduction (vph)	0	3	0	0	2	0	0	77	0	0	0	58
Lane Group Flow (vph)	31	1705	0	49	1821	0	0	3	0	0	0	5
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	8.2	56.5		23.3	75.6			4.2				8.2
Effective Green, g (s)	8.2	56.5		23.3	75.6			4.2				8.2
Actuated g/C Ratio	0.08	0.56		0.23	0.76			0.04				0.08
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	123	1696		351	2269			60				112
v/s Ratio Prot	c0.02	c0.57		0.03	c0.61							0.00
v/s Ratio Perm								0.00				
v/c Ratio	0.25	1.01		0.14	0.80			0.06				0.05
Uniform Delay, d1	43.0	21.8		30.4	7.6			46.0				42.3
Progression Factor	1.00	1.00		0.83	1.31			1.00				1.00
Incremental Delay, d2	1.1	23.2		0.2	2.7			0.4				0.2
Delay (s)	44.1	44.9		25.3	12.6			46.4				42.5
Level of Service	D	D		C	B			D				D
Approach Delay (s)		44.9			12.9			46.4			42.5	
Approach LOS		D			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		

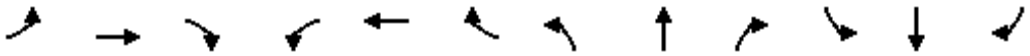
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	1183	157	270	1174	146	285	229	437	141	230	116
Future Volume (vph)	119	1183	157	270	1174	146	285	229	437	141	230	116
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			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.99	
Satd. Flow (prot)	1509	2964		1509	2968			1545	1350		1515	
Flt Permitted	0.15	1.00		0.14	1.00			0.97	1.00		0.99	
Satd. Flow (perm)	244	2964		219	2968			1545	1350		1515	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	124	1232	164	281	1223	152	297	239	455	147	240	121
RTOR Reduction (vph)	0	10	0	0	9	0	0	0	273	0	12	0
Lane Group Flow (vph)	124	1386	0	281	1366	0	0	536	182	0	496	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1006		102	1201			314	274		257	
v/s Ratio Prot		0.47		c0.04	0.46			c0.35	0.01		c0.33	
v/s Ratio Perm	0.51			c1.04					0.13			
v/c Ratio	1.51	1.38		2.75	1.14			1.71	0.66		1.93	
Uniform Delay, d1	25.3	25.3		31.0	22.8			30.5	28.1		31.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	283.2	176.3		816.5	72.4			331.4	4.6		433.2	
Delay (s)	308.5	201.6		847.5	95.2			361.9	32.7		465.0	
Level of Service	F	F		F	F			F	C		F	
Approach Delay (s)		210.3			222.9			210.8			465.0	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	242.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.53		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	146.1%	ICU Level of Service	H
Analysis Period (min)	15		

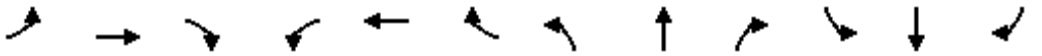
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	7	980	3	140	3	825	914	0	656	3
Future Volume (vph)	0	0	7	980	3	140	3	825	914	0	656	3
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.96			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1402			3017	1350		3016	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1402			2877	1350		3016	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	7	1010	3	144	3	851	942	0	676	3
RTOR Reduction (vph)	0	0	4	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	3	555	591	0	0	854	942	0	679	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			37.0	37.0	37.0			54.0	100.0		54.0	
Effective Green, g (s)			37.0	37.0	37.0			55.0	100.0		55.0	
Actuated g/C Ratio			0.37	0.37	0.37			0.55	1.00		0.55	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			508	530	518			1582	1350		1658	
v/s Ratio Prot				0.39	c0.42						0.23	
v/s Ratio Perm			0.00					0.30	c0.70			
v/c Ratio			0.01	1.05	1.14			0.54	0.70		0.41	
Uniform Delay, d1			19.9	31.5	31.5			14.4	0.0		13.1	
Progression Factor			1.00	1.00	1.00			1.61	1.00		1.00	
Incremental Delay, d2			0.0	52.0	84.3			0.4	1.0		0.8	
Delay (s)			19.9	83.5	115.8			23.6	1.0		13.8	
Level of Service			B	F	F			C	A		B	
Approach Delay (s)		19.9			100.3			11.7			13.8	
Approach LOS		B			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	40.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

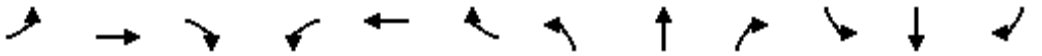
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	332	363	154	45	219	114	138	1165	67	95	1224	292
Future Volume (vph)	332	363	154	45	219	114	138	1165	67	95	1224	292
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1507		1509	2993		1509	3018	1350
Flt Permitted	0.23	1.00	1.00	0.35	1.00		0.09	1.00		0.10	1.00	1.00
Satd. Flow (perm)	361	1588	1350	549	1507		146	2993		153	3018	1350
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	342	374	159	46	226	118	142	1201	69	98	1262	301
RTOR Reduction (vph)	0	0	77	0	20	0	0	4	0	0	0	63
Lane Group Flow (vph)	342	374	82	46	324	0	142	1266	0	98	1262	238
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	37.8	31.0	31.0	30.6	26.8		52.7	44.5		48.2	42.5	42.5
Effective Green, g (s)	36.8	31.5	31.5	28.6	26.8		50.7	45.0		46.2	42.5	42.5
Actuated g/C Ratio	0.37	0.32	0.32	0.29	0.27		0.51	0.45		0.46	0.42	0.42
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	218	500	425	183	403		172	1346		134	1282	573
v/s Ratio Prot	c0.12	0.24		0.01	0.22		c0.06	c0.42		0.03	0.42	
v/s Ratio Perm	c0.46		0.06	0.06			0.36			0.30		0.18
v/c Ratio	1.57	0.75	0.19	0.25	0.80		0.83	0.94		0.73	0.98	0.41
Uniform Delay, d1	29.9	30.7	25.0	26.7	34.2		20.3	26.2		19.9	28.4	20.1
Progression Factor	0.93	0.93	0.81	1.13	1.21		1.53	0.34		1.47	1.42	1.72
Incremental Delay, d2	276.7	6.0	0.2	0.2	7.2		2.9	1.8		9.4	15.4	1.2
Delay (s)	304.6	34.6	20.5	30.4	48.3		34.0	10.7		38.7	55.7	35.7
Level of Service	F	C	C	C	D		C	B		D	E	D
Approach Delay (s)		137.6			46.2			13.1			51.1	
Approach LOS		F			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	55.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	105.2%	ICU Level of Service	G
Analysis Period (min)	15		

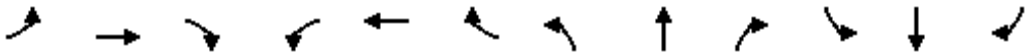
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	505	1130	164	523	1051	22	232	915	418	2	913	592
Future Volume (vph)	505	1130	164	523	1051	22	232	915	418	2	913	592
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2960		2927	3009		2927	2876			3017	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.86	1.00
Satd. Flow (perm)	2927	2960		2927	3009		2927	2876			2609	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	515	1153	167	534	1072	22	237	934	427	2	932	604
RTOR Reduction (vph)	0	11	0	0	1	0	0	53	0	0	0	162
Lane Group Flow (vph)	515	1309	0	534	1093	0	237	1308	0	0	934	442
Turn Type	Prot	NA		Prot	NA		Prot	NA		Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases										4		4
Actuated Green, G (s)	10.0	37.5		11.0	38.5		4.0	38.0			29.0	29.0
Effective Green, g (s)	10.0	38.0		11.0	39.0		5.0	39.0			30.0	30.0
Actuated g/C Ratio	0.10	0.38		0.11	0.39		0.05	0.39			0.30	0.30
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	292	1124		321	1173		146	1121			782	405
v/s Ratio Prot	0.18	c0.44		c0.18	0.36		c0.08	c0.45				
v/s Ratio Perm											0.36	0.33
v/c Ratio	1.76	1.16		1.66	0.93		1.62	1.17			1.19	1.09
Uniform Delay, d1	45.0	31.0		44.5	29.2		47.5	30.5			35.0	35.0
Progression Factor	1.00	1.00		1.20	0.91		1.00	1.00			1.43	1.86
Incremental Delay, d2	357.4	84.0		308.9	11.5		309.6	85.0			94.5	60.8
Delay (s)	402.4	115.0		362.4	38.0		357.1	115.5			144.7	126.0
Level of Service	F	F		F	D		F	F			F	F
Approach Delay (s)		195.6			144.4			151.3			137.3	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	158.7	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)	16.0
Intersection Capacity Utilization	148.6%	ICU Level of Service	H
Analysis Period (min)	15		

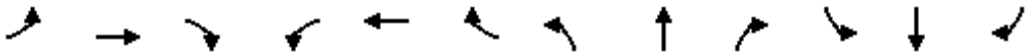
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	318	971	110	338	884	115	102	1063	294	134	1155	350
Future Volume (vph)	318	971	110	338	884	115	102	1063	294	134	1155	350
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2972		1509	3018	1350	1509	2920		1509	2912	
Flt Permitted	0.31	1.00		0.14	1.00	1.00	0.10	1.00		0.10	1.00	
Satd. Flow (perm)	497	2972		227	3018	1350	159	2920		159	2912	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	328	1001	113	348	911	119	105	1096	303	138	1191	361
RTOR Reduction (vph)	0	9	0	0	0	21	0	28	0	0	32	0
Lane Group Flow (vph)	328	1105	0	348	911	98	105	1371	0	138	1520	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	143	858		271	1408	630	70	1297		70	1294	
v/s Ratio Prot		0.37		c0.17	0.30			0.47			0.52	
v/s Ratio Perm	c0.66			0.40		0.07	0.66			c0.87		
v/c Ratio	2.29	1.29		1.28	0.65	0.16	1.50	1.06		1.97	1.17	
Uniform Delay, d1	32.0	32.0		23.9	18.3	13.8	25.0	25.0		25.0	25.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	603.7	138.2		153.0	2.3	0.5	285.7	41.6		484.3	87.1	
Delay (s)	635.7	170.2		176.8	20.6	14.3	310.7	66.6		509.3	112.1	
Level of Service	F	F		F	C	B	F	E		F	F	
Approach Delay (s)		276.1			59.5			83.7			144.6	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	141.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.96		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	129.8%	ICU Level of Service	H
Analysis Period (min)	15		

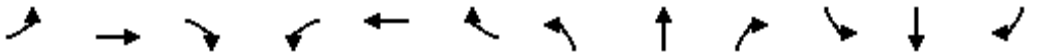
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1391	20	3	1269	304	14	17	26	374	31	20
Future Volume (vph)	0	1391	20	3	1269	304	14	17	26	374	31	20
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.94		1.00	0.98	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.96	
Satd. Flow (prot)		3011			3017	1350		1472		1433	1433	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.96	
Satd. Flow (perm)		3011			2874	1350		1472		1433	1433	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1480	21	3	1350	323	15	18	28	398	33	21
RTOR Reduction (vph)	0	1	0	0	0	63	0	26	0	0	4	0
Lane Group Flow (vph)	0	1500	0	0	1353	260	0	35	0	251	197	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		60.5			60.5	21.6		5.9		21.6	21.6	
Effective Green, g (s)		60.5			60.5	21.6		5.9		21.6	21.6	
Actuated g/C Ratio		0.60			0.60	0.22		0.06		0.22	0.22	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1821			1738	291		86		309	309	
v/s Ratio Prot		c0.50				c0.19		c0.02		0.18	0.14	
v/s Ratio Perm					0.47							
v/c Ratio		0.82			0.78	0.89		0.40		0.81	0.64	
Uniform Delay, d1		15.6			14.7	38.1		45.4		37.3	35.6	
Progression Factor		0.61			1.00	1.00		1.00		0.81	0.79	
Incremental Delay, d2		0.4			3.5	27.9		3.1		11.2	3.3	
Delay (s)		9.8			18.3	66.0		48.4		41.3	31.4	
Level of Service		A			B	E		D		D	C	
Approach Delay (s)		9.8			27.5			48.4			36.9	
Approach LOS		A			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.0%	ICU Level of Service	C
Analysis Period (min)	15		

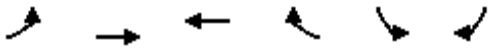
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	1548	38	0	1349	54	80	23	73	36	0	38
Future Volume (vph)	65	1548	38	0	1349	54	80	23	73	36	0	38
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			0.95			1.00			1.00	1.00
Frt	1.00	1.00			0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.95	1.00
Satd. Flow (prot)	1509	3007			3000			1465			1509	1350
Flt Permitted	0.12	1.00			1.00			0.84			0.54	1.00
Satd. Flow (perm)	183	3007			3000			1253			853	1350
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	69	1647	40	0	1435	57	85	24	78	38	0	40
RTOR Reduction (vph)	0	1	0	0	3	0	0	27	0	0	0	33
Lane Group Flow (vph)	69	1686	0	0	1489	0	0	160	0	0	38	7
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	75.5	75.5			68.5			16.5			16.5	16.5
Effective Green, g (s)	74.5	75.5			68.5			16.5			16.5	16.5
Actuated g/C Ratio	0.74	0.76			0.68			0.16			0.16	0.16
Clearance Time (s)	3.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0			5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	176	2270			2055			206			140	222
v/s Ratio Prot	0.01	c0.56			0.50							
v/s Ratio Perm	0.28							c0.13			0.04	0.00
v/c Ratio	0.39	0.74			0.72			0.78			0.27	0.03
Uniform Delay, d1	7.4	6.8			9.9			40.0			36.5	35.0
Progression Factor	1.00	1.00			0.51			1.00			1.00	1.00
Incremental Delay, d2	0.5	2.2			1.6			16.7			1.1	0.1
Delay (s)	7.9	9.1			6.6			56.7			37.5	35.1
Level of Service	A	A			A			E			D	D
Approach Delay (s)		9.0			6.6			56.7			36.3	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		

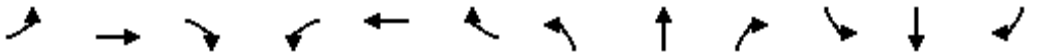
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	51	1418	1567	75	24	154
Future Volume (vph)	51	1418	1567	75	24	154
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1509	3018	4306		1509	1350
Flt Permitted	0.10	1.00	1.00		0.95	1.00
Satd. Flow (perm)	164	3018	4306		1509	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	54	1493	1649	79	25	162
RTOR Reduction (vph)	0	0	6	0	0	41
Lane Group Flow (vph)	54	1493	1722	0	25	121
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Actuated Green, G (s)	69.0	69.0	69.0		23.0	23.0
Effective Green, g (s)	69.0	69.0	69.0		23.0	23.0
Actuated g/C Ratio	0.69	0.69	0.69		0.23	0.23
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	113	2082	2971		347	310
v/s Ratio Prot		c0.49	0.40		0.02	
v/s Ratio Perm	0.33					c0.09
v/c Ratio	0.48	0.72	0.58		0.07	0.39
Uniform Delay, d1	7.2	9.5	8.0		30.1	32.6
Progression Factor	1.48	1.37	1.00		1.00	1.00
Incremental Delay, d2	0.9	0.4	0.3		0.4	3.7
Delay (s)	11.5	13.4	8.3		30.5	36.3
Level of Service	B	B	A		C	D
Approach Delay (s)		13.4	8.3		35.5	
Approach LOS		B	A		D	

Intersection Summary			
HCM 2000 Control Delay	12.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

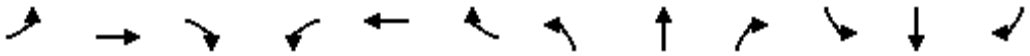
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	1574	22	0	1747	0	0	0	64	0	0	0
Future Volume (vph)	56	1574	22	0	1747	0	0	0	64	0	0	0
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			
Lane Util. Factor	1.00	0.95			0.95				1.00			
Frt	1.00	1.00			1.00				0.86			
Flt Protected	0.95	1.00			1.00				1.00			
Satd. Flow (prot)	1509	3011			3018				1374			
Flt Permitted	0.11	1.00			1.00				1.00			
Satd. Flow (perm)	170	3011			3018				1374			
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	58	1623	23	0	1801	0	0	0	66	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	60	0	0	0
Lane Group Flow (vph)	58	1645	0	0	1801	0	0	0	6	0	0	0
Turn Type	Perm	NA			NA				Perm			Perm
Protected Phases		4			8							
Permitted Phases	4								2			6
Actuated Green, G (s)	101.8	101.8			101.8				10.2			
Effective Green, g (s)	101.8	101.8			101.8				10.2			
Actuated g/C Ratio	0.85	0.85			0.85				0.08			
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)	144	2554			2560				116			
v/s Ratio Prot		0.55			c0.60							
v/s Ratio Perm	0.34								c0.00			
v/c Ratio	0.40	0.64			0.70				0.05			
Uniform Delay, d1	2.1	3.0			3.4				50.4			
Progression Factor	1.00	1.00			1.00				1.00			
Incremental Delay, d2	1.8	0.6			0.9				0.8			
Delay (s)	3.9	3.6			4.3				51.2			
Level of Service	A	A			A				D			
Approach Delay (s)		3.6			4.3			51.2			0.0	
Approach LOS		A			A			D			A	

Intersection Summary			
HCM 2000 Control Delay	4.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
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												
Traffic Volume (veh/h)	0	628	35	46	561	0	26	0	83	8	5	6
Future Volume (Veh/h)	0	628	35	46	561	0	26	0	83	8	5	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	654	36	48	584	0	27	0	86	8	5	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)		513			1070							
pX, platoon unblocked	0.95						0.95	0.95		0.95	0.95	0.95
vC, conflicting volume	584			690			1360	1352	672	1438	1370	584
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	538			690			1353	1345	672	1435	1363	538
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			95			76	100	81	90	96	99
cM capacity (veh/h)	981			905			111	137	456	83	133	517

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	690	632	113	19
Volume Left	0	48	27	8
Volume Right	36	0	86	6
cSH	1700	905	262	130
Volume to Capacity	0.41	0.05	0.43	0.15
Queue Length 95th (ft)	0	4	51	12
Control Delay (s)	0.0	1.4	28.8	37.4
Lane LOS		A	D	E
Approach Delay (s)	0.0	1.4	28.8	37.4
Approach LOS			D	E

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	119	1561	45	0	3	1572	59	0	0	2	0	0
Future Volume (Veh/h)	119	1561	45	0	3	1572	59	0	0	2	0	0
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)	125	1643	47	0	3	1655	62	0	0	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1717			0	1690			2885	3640	845	2766	3632
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1717			0	1690			2885	3640	845	2766	3632
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	66			0	99			100	100	99	100	100
cM capacity (veh/h)	365			0	374			3	3	306	7	3

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	125	1095	595	830	890	0	135
Volume Left	125	0	0	3	0	0	0
Volume Right	0	0	47	0	62	0	135
cSH	365	1700	1700	374	1700	1700	300
Volume to Capacity	0.34	0.64	0.35	0.01	0.52	0.00	0.45
Queue Length 95th (ft)	37	0	0	1	0	0	55
Control Delay (s)	19.9	0.0	0.0	0.3	0.0	0.0	26.5
Lane LOS	C			A			D
Approach Delay (s)	1.4			0.1			26.5
Approach LOS							D

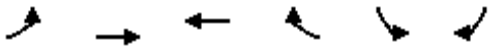
Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	Err%	ICU Level of Service		H
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	128
Future Volume (Veh/h)	128
Sign Control	
Grade	
Peak Hour Factor	0.95
Hourly flow rate (vph)	135
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	858
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	858
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	55
cM capacity (veh/h)	300
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	756	29	57	633	11	99
Future Volume (Veh/h)	756	29	57	633	11	99
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	804	31	61	673	12	105
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.81	
vC, conflicting volume			835		1614	820
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			835		1641	820
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			92		85	72
cM capacity (veh/h)			798		82	375

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	835	734	117
Volume Left	0	61	12
Volume Right	31	0	105
cSH	1700	798	275
Volume to Capacity	0.49	0.08	0.43
Queue Length 95th (ft)	0	6	50
Control Delay (s)	0.0	2.0	27.5
Lane LOS		A	D
Approach Delay (s)	0.0	2.0	27.5
Approach LOS			D

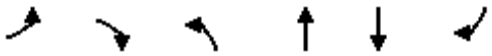
Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	109.0%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2011	1638	47	0	60
Future Volume (Veh/h)	0	2011	1638	47	0	60
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	2052	1671	48	0	61
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		106	432			
pX, platoon unblocked	0.68				0.31	0.68
vC, conflicting volume	1719				3747	860
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1114				4853	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	92
cM capacity (veh/h)	423				0	737

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	2052	1114	605	61
Volume Left	0	0	0	0
Volume Right	0	0	48	61
cSH	1700	1700	1700	737
Volume to Capacity	1.21	0.66	0.36	0.08
Queue Length 95th (ft)	0	0	0	7
Control Delay (s)	0.0	0.0	0.0	10.3
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.3
Approach LOS				B

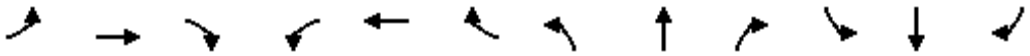
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	127.5%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	102	61	1284	1272	87
Future Volume (Veh/h)	31	102	61	1284	1272	87
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	33	107	64	1352	1339	92
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked	0.74					
vC, conflicting volume	2189	716	1431			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1903	716	1431			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	15	71	86			
cM capacity (veh/h)	39	373	471			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	140	64	676	676	893	538
Volume Left	33	64	0	0	0	0
Volume Right	107	0	0	0	0	92
cSH	123	471	1700	1700	1700	1700
Volume to Capacity	1.14	0.14	0.40	0.40	0.53	0.32
Queue Length 95th (ft)	210	12	0	0	0	0
Control Delay (s)	192.1	13.8	0.0	0.0	0.0	0.0
Lane LOS	F	B				
Approach Delay (s)	192.1	0.6			0.0	
Approach LOS	F					

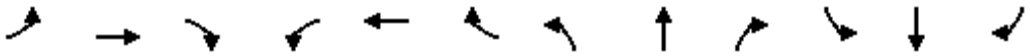
Intersection Summary				
Average Delay	9.3			
Intersection Capacity Utilization	67.8%	ICU Level of Service	C	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	1608	49	328	1249	140	112	810	415	132	546	72
Future Volume (vph)	105	1608	49	328	1249	140	112	810	415	132	546	72
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	1.00		1.00	0.98		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	3004		1509	2972		1509	3018	1350	1509	2965	
Flt Permitted	0.13	1.00		0.07	1.00		0.17	1.00	1.00	0.17	1.00	
Satd. Flow (perm)	204	3004		116	2972		276	3018	1350	276	2965	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	107	1641	50	335	1274	143	114	827	423	135	557	73
RTOR Reduction (vph)	0	2	0	0	8	0	0	0	146	0	10	0
Lane Group Flow (vph)	107	1689	0	335	1409	0	114	827	277	135	620	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)	56.9	51.5		69.0	59.6		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	56.9	51.5		68.5	59.6		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.57	0.52		0.68	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)	186	1547		267	1771		63	694	310	63	681	
v/s Ratio Prot	0.03	0.56		c0.17	0.47			0.27			0.21	
v/s Ratio Perm	0.30			c0.69			0.41		0.21	c0.49		
v/c Ratio	0.58	1.09		1.25	0.80		1.81	1.19	0.90	2.14	0.91	
Uniform Delay, d1	12.1	24.2		33.2	15.5		38.5	38.5	37.3	38.5	37.5	
Progression Factor	0.98	0.89		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.6	52.2		141.5	3.8		419.7	100.1	30.2	563.2	18.4	
Delay (s)	14.5	73.9		174.7	19.3		458.2	138.6	67.5	601.7	55.9	
Level of Service	B	E		F	B		F	F	E	F	E	
Approach Delay (s)		70.3			49.0			143.3			152.2	
Approach LOS		E			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	92.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.51		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	123.4%	ICU Level of Service	H
Analysis Period (min)	15		

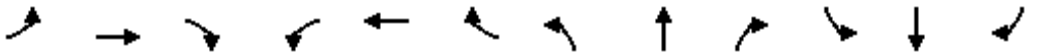
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1545	567	1	1295	27	410	25	1	23	28	25
Future Volume (vph)	59	1545	567	1	1295	27	410	25	1	23	28	25
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	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3008		1433	1444			1495	
Flt Permitted	0.11	1.00	1.00		0.95		0.95	0.96			0.99	
Satd. Flow (perm)	179	3018	1350		2871		1433	1444			1495	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	60	1577	579	1	1321	28	418	26	1	23	29	26
RTOR Reduction (vph)	0	0	80	0	1	0	0	0	0	0	15	0
Lane Group Flow (vph)	60	1577	499	0	1349	0	222	223	0	0	63	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6									
Actuated Green, G (s)	77.9	77.9	77.9		70.4		22.4	22.4			7.7	
Effective Green, g (s)	76.9	77.9	77.9		70.4		22.4	22.4			7.7	
Actuated g/C Ratio	0.64	0.65	0.65		0.59		0.19	0.19			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)	153	1959	876		1684		267	269			95	
v/s Ratio Prot	0.01	c0.52					c0.15	0.15			c0.04	
v/s Ratio Perm	0.24		0.37		0.47							
v/c Ratio	0.39	0.81	0.57		9.33dr		0.83	0.83			0.66	
Uniform Delay, d1	13.4	15.5	11.7		19.3		47.0	47.0			54.9	
Progression Factor	1.24	1.20	1.38		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.6	3.5	2.6		4.1		19.3	18.6			16.1	
Delay (s)	17.2	22.1	18.8		23.4		66.3	65.6			71.0	
Level of Service	B	C	B		C		E	E			E	
Approach Delay (s)		21.1			23.4			65.9			71.0	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

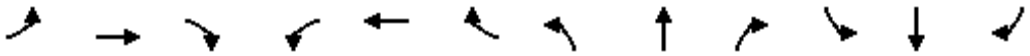
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	1905	45	90	1418	51	34	0	88	0	0	40
Future Volume (vph)	31	1905	45	90	1418	51	34	0	88	0	0	40
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	0.95			1.00				1.00
Frt	1.00	1.00		1.00	0.99			0.90				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.99				1.00
Satd. Flow (prot)	1509	3007		1509	3002			1414				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.99				1.00
Satd. Flow (perm)	1509	3007		1509	3002			1414				1374
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	31	1924	45	91	1432	52	34	0	89	0	0	40
RTOR Reduction (vph)	0	2	0	0	2	0	0	91	0	0	0	36
Lane Group Flow (vph)	31	1967	0	91	1482	0	0	32	0	0	0	4
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	9.4	57.2		19.2	71.0			7.6				9.4
Effective Green, g (s)	9.4	57.2		19.2	71.0			7.6				9.4
Actuated g/C Ratio	0.09	0.57		0.19	0.71			0.08				0.09
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	141	1720		289	2131			107				129
v/s Ratio Prot	0.02	c0.65		c0.06	c0.49							0.00
v/s Ratio Perm								0.02				
v/c Ratio	0.22	1.14		0.31	0.70			0.30				0.03
Uniform Delay, d1	41.9	21.4		34.7	8.3			43.7				41.2
Progression Factor	1.00	1.00		0.60	1.55			1.00				1.00
Incremental Delay, d2	0.8	72.2		0.6	1.7			1.6				0.1
Delay (s)	42.7	93.6		21.6	14.6			45.3				41.2
Level of Service	D	F		C	B			D				D
Approach Delay (s)		92.8			15.0			45.3			41.2	
Approach LOS		F			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	57.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		

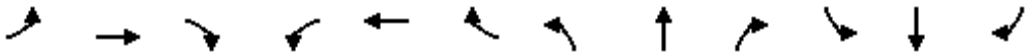
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	1538	174	274	1246	145	228	213	394	127	193	95
Future Volume (vph)	109	1538	174	274	1246	145	228	213	394	127	193	95
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			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	
Satd. Flow (prot)	1509	2972		1509	2970			1548	1350		1516	
Flt Permitted	0.15	1.00		0.14	1.00			0.97	1.00		0.98	
Satd. Flow (perm)	244	2972		219	2970			1548	1350		1516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	114	1602	181	285	1298	151	238	222	410	132	201	99
RTOR Reduction (vph)	0	9	0	0	8	0	0	0	281	0	11	0
Lane Group Flow (vph)	114	1774	0	285	1441	0	0	460	129	0	421	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1008		102	1201			315	274		257	
v/s Ratio Prot		0.60		c0.04	0.48			c0.30	0.01		c0.28	
v/s Ratio Perm	0.47			c1.05					0.09			
v/c Ratio	1.39	1.76		2.79	1.20			1.46	0.47		1.64	
Uniform Delay, d1	25.3	25.3		31.0	22.8			30.5	26.9		31.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	234.2	346.2		834.0	98.1			223.9	0.5		304.5	
Delay (s)	259.5	371.5		864.9	120.9			254.4	27.3		336.3	
Level of Service	F	F		F	F			F	C		F	
Approach Delay (s)		364.8			243.1			147.4			336.3	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	281.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.40		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	142.4%	ICU Level of Service	H
Analysis Period (min)	15		

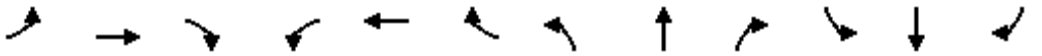
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	8	867	10	115	7	731	1324	0	640	2
Future Volume (vph)	0	0	8	867	10	115	7	731	1324	0	640	2
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.97			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1405			3016	1350		3016	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1405			2865	1350		3016	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	8	894	10	119	7	754	1365	0	660	2
RTOR Reduction (vph)	0	0	5	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	3	492	520	0	0	761	1365	0	662	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			37.0	37.0	37.0			54.0	100.0		54.0	
Effective Green, g (s)			37.0	37.0	37.0			55.0	100.0		55.0	
Actuated g/C Ratio			0.37	0.37	0.37			0.55	1.00		0.55	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			508	530	519			1575	1350		1658	
v/s Ratio Prot				0.34	0.37						0.22	
v/s Ratio Perm			0.00					0.27	c1.01			
v/c Ratio			0.01	0.93	1.00			0.48	1.01		0.40	
Uniform Delay, d1			19.9	30.2	31.5			13.8	50.0		13.0	
Progression Factor			1.00	1.00	1.00			1.68	1.00		1.00	
Incremental Delay, d2			0.0	24.8	40.1			0.1	10.3		0.7	
Delay (s)			19.9	55.1	71.6			23.2	60.3		13.7	
Level of Service			B	E	E			C	E		B	
Approach Delay (s)		19.9			63.7			47.0			13.7	
Approach LOS		B			E			D			B	

Intersection Summary			
HCM 2000 Control Delay	45.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

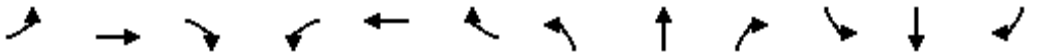
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	452	458	130	38	241	135	155	1531	60	99	1108	280
Future Volume (vph)	452	458	130	38	241	135	155	1531	60	99	1108	280
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1503		1509	3000		1509	3018	1350
Flt Permitted	0.21	1.00	1.00	0.25	1.00		0.10	1.00		0.10	1.00	1.00
Satd. Flow (perm)	338	1588	1350	396	1503		154	3000		162	3018	1350
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	457	463	131	38	243	136	157	1546	61	100	1119	283
RTOR Reduction (vph)	0	0	54	0	21	0	0	2	0	0	0	69
Lane Group Flow (vph)	457	463	77	38	358	0	157	1605	0	100	1119	214
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	39.9	33.4	33.4	32.4	28.9		50.7	42.2		46.0	40.1	40.1
Effective Green, g (s)	38.9	33.9	33.9	30.4	28.9		48.7	42.7		44.0	40.1	40.1
Actuated g/C Ratio	0.39	0.34	0.34	0.30	0.29		0.49	0.43		0.44	0.40	0.40
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	219	538	457	148	434		176	1281		137	1210	541
v/s Ratio Prot	c0.16	0.29		0.01	0.24		c0.07	c0.53		0.04	0.37	
v/s Ratio Perm	c0.66		0.06	0.07			0.37			0.28		0.16
v/c Ratio	2.09	0.86	0.17	0.26	0.83		0.89	1.25		0.73	0.92	0.39
Uniform Delay, d1	28.8	30.8	23.2	25.9	33.2		20.9	28.6		23.4	28.5	21.3
Progression Factor	0.94	0.95	0.85	1.26	1.30		1.32	0.32		1.46	1.37	1.72
Incremental Delay, d2	504.2	13.1	0.2	0.1	5.0		5.5	114.3		10.7	9.7	1.5
Delay (s)	531.4	42.4	20.0	32.8	48.0		33.0	123.5		44.8	48.8	38.1
Level of Service	F	D	B	C	D		C	F		D	D	D
Approach Delay (s)		252.2			46.6			115.5			46.5	
Approach LOS		F			D			F			D	

Intersection Summary			
HCM 2000 Control Delay	117.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	125.5%	ICU Level of Service	H
Analysis Period (min)	15		

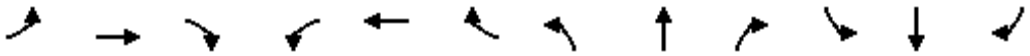
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	621	1303	130	485	914	23	203	1093	448	0	805	485
Future Volume (vph)	621	1303	130	485	914	23	203	1093	448	0	805	485
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.99		1.00	1.00		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2976		2927	3007		2927	2886			3018	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	2927	2976		2927	3007		2927	2886			3018	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	634	1330	133	495	933	23	207	1115	457	0	821	495
RTOR Reduction (vph)	0	8	0	0	2	0	0	44	0	0	0	180
Lane Group Flow (vph)	634	1455	0	495	954	0	207	1528	0	0	821	315
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	13.0	35.5		11.0	33.5		5.0	40.0			30.0	30.0
Effective Green, g (s)	13.0	36.0		11.0	34.0		6.0	41.0			31.0	31.0
Actuated g/C Ratio	0.13	0.36		0.11	0.34		0.06	0.41			0.31	0.31
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	380	1071		321	1022		175	1183			935	418
v/s Ratio Prot	c0.22	c0.49		0.17	0.32		0.07	c0.53			0.27	
v/s Ratio Perm												0.23
v/c Ratio	1.67	1.36		1.54	0.93		1.18	1.29			0.88	0.75
Uniform Delay, d1	43.5	32.0		44.5	31.9		47.0	29.5			32.7	31.1
Progression Factor	0.80	1.20		1.16	0.92		1.00	1.00			1.65	2.52
Incremental Delay, d2	306.6	164.6		255.4	13.0		125.8	137.6			5.9	4.8
Delay (s)	341.6	203.2		307.2	42.5		172.8	167.1			59.9	83.2
Level of Service	F	F		F	D		F	F			E	F
Approach Delay (s)		245.0			132.8			167.7			68.6	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	164.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	125.6%	ICU Level of Service	H
Analysis Period (min)	15		

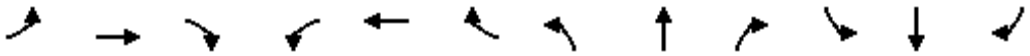
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	322	1179	65	285	784	86	81	1326	431	96	1105	290
Future Volume (vph)	322	1179	65	285	784	86	81	1326	431	96	1105	290
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2994		1509	3018	1350	1509	2907		1509	2924	
Flt Permitted	0.35	1.00		0.14	1.00	1.00	0.10	1.00		0.10	1.00	
Satd. Flow (perm)	551	2994		227	3018	1350	159	2907		159	2924	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	332	1215	67	294	808	89	84	1367	444	99	1139	299
RTOR Reduction (vph)	0	4	0	0	0	13	0	35	0	0	26	0
Lane Group Flow (vph)	332	1278	0	294	808	76	84	1776	0	99	1412	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	159	864		271	1408	630	70	1292		70	1299	
v/s Ratio Prot		0.43		c0.14	0.27			0.61			0.48	
v/s Ratio Perm	c0.60			0.34		0.06	0.53			c0.62		
v/c Ratio	2.09	1.48		1.08	0.57	0.12	1.20	1.37		1.41	1.09	
Uniform Delay, d1	32.0	32.0		23.9	17.5	13.6	25.0	25.0		25.0	25.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	510.5	221.7		79.2	1.7	0.4	171.1	173.5		251.5	52.1	
Delay (s)	542.5	253.7		103.0	19.2	14.0	196.1	198.5		276.5	77.1	
Level of Service	F	F		F	B	B	F	F		F	E	
Approach Delay (s)		313.1			39.5			198.4			90.0	
Approach LOS		F			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	171.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	140.0%	ICU Level of Service	H
Analysis Period (min)	15		

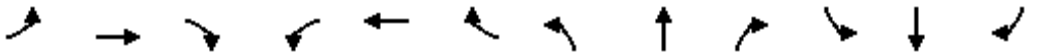
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1522	28	2	1198	338	34	57	25	345	53	12
Future Volume (vph)	0	1522	28	2	1198	338	34	57	25	345	53	12
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.97		1.00	0.99	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3009			3017	1350		1520		1433	1447	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3009			2877	1350		1520		1433	1447	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1569	29	2	1235	348	35	59	26	356	55	12
RTOR Reduction (vph)	0	1	0	0	0	74	0	10	0	0	2	0
Lane Group Flow (vph)	0	1597	0	0	1237	274	0	110	0	224	197	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		58.3			58.3	21.7		8.0		21.7	21.7	
Effective Green, g (s)		58.3			58.3	21.7		8.0		21.7	21.7	
Actuated g/C Ratio		0.58			0.58	0.22		0.08		0.22	0.22	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1754			1677	292		121		310	313	
v/s Ratio Prot		c0.53				c0.20		c0.07		0.16	0.14	
v/s Ratio Perm					0.43							
v/c Ratio		0.91			0.74	0.94		0.91		0.72	0.63	
Uniform Delay, d1		18.5			15.3	38.5		45.6		36.4	35.5	
Progression Factor		0.59			1.00	1.00		1.00		0.79	0.78	
Incremental Delay, d2		0.9			2.9	36.8		53.7		4.5	2.3	
Delay (s)		11.8			18.2	75.3		99.3		33.4	30.0	
Level of Service		B			B	E		F		C	C	
Approach Delay (s)		11.8			30.7			99.3			31.8	
Approach LOS		B			C			F			C	

Intersection Summary			
HCM 2000 Control Delay	25.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

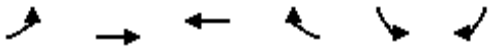
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1639	43	5	1214	64	83	32	101	33	1	35
Future Volume (vph)	59	1639	43	5	1214	64	83	32	101	33	1	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			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.95	1.00
Satd. Flow (prot)	1509	3006		1509	2995			1460			1515	1350
Flt Permitted	0.15	1.00		0.10	1.00			0.86			0.61	1.00
Satd. Flow (perm)	235	3006		166	2995			1278			967	1350
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	61	1690	44	5	1252	66	86	33	104	34	1	36
RTOR Reduction (vph)	0	2	0	0	3	0	0	32	0	0	0	30
Lane Group Flow (vph)	61	1732	0	5	1315	0	0	191	0	0	35	6
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	74.2	74.2		67.3	67.3			17.8			17.8	17.8
Effective Green, g (s)	73.2	74.2		67.3	67.3			17.8			17.8	17.8
Actuated g/C Ratio	0.73	0.74		0.67	0.67			0.18			0.18	0.18
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	208	2230		111	2015			227			172	240
v/s Ratio Prot	0.01	c0.58			0.44							
v/s Ratio Perm	0.21			0.03				c0.15			0.04	0.00
v/c Ratio	0.29	0.78		0.05	0.65			0.84			0.20	0.03
Uniform Delay, d1	6.3	7.9		5.5	9.5			39.7			35.1	33.9
Progression Factor	1.00	1.00		0.73	0.48			1.00			1.00	1.00
Incremental Delay, d2	0.3	2.7		0.5	1.1			23.5			0.6	0.0
Delay (s)	6.6	10.6		4.6	5.7			63.2			35.6	34.0
Level of Service	A	B		A	A			E			D	C
Approach Delay (s)		10.5			5.7			63.2			34.8	
Approach LOS		B			A			E			C	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		

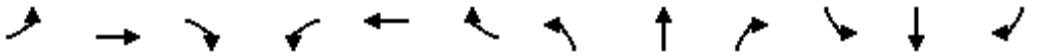
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	62	1820	1324	64	12	148
Future Volume (vph)	62	1820	1324	64	12	148
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1509	3018	4306		1509	1350
Flt Permitted	0.16	1.00	1.00		0.95	1.00
Satd. Flow (perm)	251	3018	4306		1509	1350
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	65	1896	1379	67	12	154
RTOR Reduction (vph)	0	0	5	0	0	82
Lane Group Flow (vph)	65	1896	1441	0	13	72
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Actuated Green, G (s)	76.0	76.0	76.0		16.0	16.0
Effective Green, g (s)	76.0	76.0	76.0		16.0	16.0
Actuated g/C Ratio	0.76	0.76	0.76		0.16	0.16
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	190	2293	3272		241	216
v/s Ratio Prot		c0.63	0.33		0.01	
v/s Ratio Perm	0.26					c0.05
v/c Ratio	0.34	0.83	0.44		0.05	0.33
Uniform Delay, d1	3.9	7.8	4.3		35.6	37.3
Progression Factor	1.04	1.81	0.10		1.00	1.00
Incremental Delay, d2	0.1	0.2	0.1		0.4	4.1
Delay (s)	4.2	14.2	0.5		36.0	41.3
Level of Service	A	B	A		D	D
Approach Delay (s)		13.9	0.5		40.9	
Approach LOS		B	A		D	

Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.0%	ICU Level of Service	C
Analysis Period (min)	15		

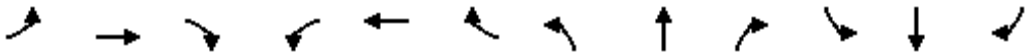
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	1866	19	0	1465	0	0	0	113	0	0	0
Future Volume (vph)	76	1866	19	0	1465	0	0	0	113	0	0	0
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			
Lane Util. Factor	1.00	0.95			0.95				1.00			
Frt	1.00	1.00			1.00				0.86			
Flt Protected	0.95	1.00			1.00				1.00			
Satd. Flow (prot)	1509	3013			3018				1374			
Flt Permitted	0.12	1.00			1.00				1.00			
Satd. Flow (perm)	195	3013			3018				1374			
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	83	2028	21	0	1592	0	0	0	123	0	0	0
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	24	0	0	0
Lane Group Flow (vph)	83	2048	0	0	1592	0	0	0	99	0	0	0
Turn Type	Perm	NA			NA				Perm			Perm
Protected Phases		4			8							
Permitted Phases	4								2			6
Actuated Green, G (s)	76.0	76.0			76.0				16.0			
Effective Green, g (s)	76.0	76.0			76.0				16.0			
Actuated g/C Ratio	0.76	0.76			0.76				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)	148	2289			2293				219			
v/s Ratio Prot		c0.68			0.53							
v/s Ratio Perm	0.43								c0.07			
v/c Ratio	0.56	0.89			0.69				0.45			
Uniform Delay, d1	5.0	9.0			6.1				38.0			
Progression Factor	0.18	0.22			1.68				1.00			
Incremental Delay, d2	3.2	3.4			0.5				6.6			
Delay (s)	4.1	5.3			10.8				44.6			
Level of Service	A	A			B				D			
Approach Delay (s)		5.3			10.8			44.6			0.0	
Approach LOS		A			B			D			A	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.1%	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												
Traffic Volume (veh/h)	1	838	29	62	555	0	30	0	106	11	10	36
Future Volume (Veh/h)	1	838	29	62	555	0	30	0	106	11	10	36
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	1	921	32	68	610	0	33	0	116	12	11	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		513			1070							
pX, platoon unblocked	0.91						0.91	0.91		0.91	0.91	0.91
vC, conflicting volume	610			953			1730	1685	937	1801	1701	610
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	521			953			1754	1703	937	1831	1721	521
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			91			28	100	64	62	85	92
cM capacity (veh/h)	950			721			46	75	321	32	73	505

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	954	678	149	63
Volume Left	1	68	33	12
Volume Right	32	0	116	40
cSH	950	721	138	104
Volume to Capacity	0.00	0.09	1.08	0.61
Queue Length 95th (ft)	0	8	205	74
Control Delay (s)	0.0	2.4	163.3	83.1
Lane LOS	A	A	F	F
Approach Delay (s)	0.0	2.4	163.3	83.1
Approach LOS			F	F

Intersection Summary				
Average Delay	16.9			
Intersection Capacity Utilization	113.3%	ICU Level of Service	H	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	151	1885	60	0	3	1416	56	0	0	0	0	0
Future Volume (Veh/h)	151	1885	60	0	3	1416	56	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop
Grade		0%				0%			0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	157	1964	63	0	3	1475	58	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1533			0	2027			3158	3848	1014	2806	3851
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1533			0	2027			3158	3848	1014	2806	3851
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	63			0	99			100	100	100	100	100
cM capacity (veh/h)	430			0	276			2	2	237	6	2

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	157	1309	718	740	796	0	105
Volume Left	157	0	0	3	0	0	0
Volume Right	0	0	63	0	58	0	105
cSH	430	1700	1700	276	1700	1700	345
Volume to Capacity	0.37	0.77	0.42	0.01	0.47	0.00	0.30
Queue Length 95th (ft)	41	0	0	1	0	0	31
Control Delay (s)	18.1	0.0	0.0	0.4	0.0	0.0	19.9
Lane LOS	C			A			C
Approach Delay (s)	1.3			0.2			19.9
Approach LOS							C

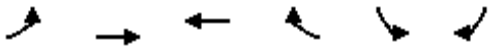
Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	118.1%	ICU Level of Service		H
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	101
Future Volume (Veh/h)	101
Sign Control	
Grade	
Peak Hour Factor	0.96
Hourly flow rate (vph)	105
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	766
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	766
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	70
cM capacity (veh/h)	345
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1028	20	31	668	10	126
Future Volume (Veh/h)	1028	20	31	668	10	126
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1060	21	32	689	10	130
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.81	
vC, conflicting volume			1081		1824	1070
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1081		1897	1070
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		83	52
cM capacity (veh/h)			645		59	268

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	1081	721	140
Volume Left	0	32	10
Volume Right	21	0	130
cSH	1700	645	214
Volume to Capacity	0.64	0.05	0.65
Queue Length 95th (ft)	0	4	99
Control Delay (s)	0.0	1.3	48.8
Lane LOS		A	E
Approach Delay (s)	0.0	1.3	48.8
Approach LOS			E

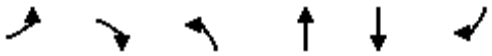
Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	87.2%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2014	1401	47	0	47
Future Volume (Veh/h)	0	2014	1401	47	0	47
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	0	2034	1415	47	0	47
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		106	432			
pX, platoon unblocked	0.72				0.38	0.72
vC, conflicting volume	1462				3472	731
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	872				3977	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	94
cM capacity (veh/h)	556				1	784

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	2034	943	519	47
Volume Left	0	0	0	0
Volume Right	0	0	47	47
cSH	1700	1700	1700	784
Volume to Capacity	1.20	0.55	0.31	0.06
Queue Length 95th (ft)	0	0	0	5
Control Delay (s)	0.0	0.0	0.0	9.9
Lane LOS				A
Approach Delay (s)	0.0	0.0		9.9
Approach LOS				A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	127.7%	ICU Level of Service	H
Analysis Period (min)	15		

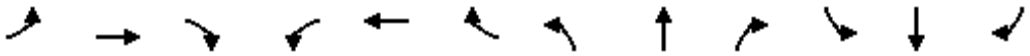


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	52	115	60	1813	1323	66
Future Volume (Veh/h)	52	115	60	1813	1323	66
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	55	121	63	1908	1393	69
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked	0.61					
vC, conflicting volume	2508	731	1462			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2197	731	1462			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	67	86			
cM capacity (veh/h)	20	364	458			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	176	63	954	954	929	533
Volume Left	55	63	0	0	0	0
Volume Right	121	0	0	0	0	69
cSH	58	458	1700	1700	1700	1700
Volume to Capacity	3.05	0.14	0.56	0.56	0.55	0.31
Queue Length 95th (ft)	Err	12	0	0	0	0
Control Delay (s)	Err	14.1	0.0	0.0	0.0	0.0
Lane LOS	F	B				
Approach Delay (s)	Err	0.5			0.0	
Approach LOS	F					

Intersection Summary				
Average Delay	487.9			
Intersection Capacity Utilization	77.1%	ICU Level of Service		D
Analysis Period (min)	15			

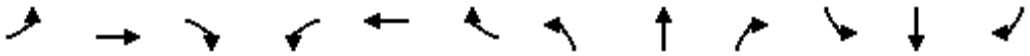
CUMULATIVE PLUS PROJECT CONDITIONS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	963	64	238	1950	181	67	561	152	102	544	68
Future Volume (vph)	82	963	64	238	1950	181	67	561	152	102	544	68
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	2989		1509	2979		1509	3018	1350	1509	2967	
Flt Permitted	0.07	1.00		0.18	1.00		0.17	1.00	1.00	0.21	1.00	
Satd. Flow (perm)	115	2989		282	2979		276	3018	1350	340	2967	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	85	993	66	245	2010	187	69	578	157	105	561	70
RTOR Reduction (vph)	0	4	0	0	7	0	0	0	121	0	9	0
Lane Group Flow (vph)	85	1055	0	245	2190	0	69	578	36	105	622	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)	59.5	55.1		69.0	60.6		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	59.5	55.1		68.5	60.6		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.60	0.55		0.68	0.61		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)	129	1646		314	1805		63	694	310	78	682	
v/s Ratio Prot	0.03	0.35		c0.08	c0.74			0.19			0.21	
v/s Ratio Perm	0.36			0.46			0.25		0.03	c0.31		
v/c Ratio	0.66	0.64		0.78	1.21		1.10	0.83	0.12	1.35	0.91	
Uniform Delay, d1	22.5	15.6		10.6	19.7		38.5	36.7	30.5	38.5	37.5	
Progression Factor	1.12	0.75		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	8.6	1.9		11.0	101.4		142.0	11.2	0.8	219.5	18.6	
Delay (s)	33.9	13.6		21.6	121.1		180.5	47.9	31.2	258.0	56.1	
Level of Service	C	B		C	F		F	D	C	F	E	
Approach Delay (s)		15.1			111.1			56.0			84.9	
Approach LOS		B			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	77.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
Analysis Period (min)	15		

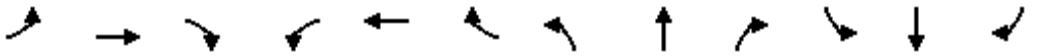
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	1030	409	1	1415	10	583	16	1	23	23	52
Future Volume (vph)	18	1030	409	1	1415	10	583	16	1	23	23	52
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			0.93	
Flt Protected	0.95	1.00	1.00		1.00		0.95	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3014		1433	1440			1457	
Flt Permitted	0.08	1.00	1.00		0.95		0.95	0.96			0.99	
Satd. Flow (perm)	133	3018	1350		2878		1433	1440			1457	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	19	1096	435	1	1505	11	620	17	1	24	24	55
RTOR Reduction (vph)	0	0	88	0	0	0	0	0	0	0	35	0
Lane Group Flow (vph)	19	1096	347	0	1517	0	329	309	0	0	69	0
Turn Type	pm+pt	NA	Perm	Perm	NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6	2								
Actuated Green, G (s)	77.0	77.0	77.0		72.1		26.0	26.0			5.0	
Effective Green, g (s)	76.0	77.0	77.0		72.1		26.0	26.0			5.0	
Actuated g/C Ratio	0.63	0.64	0.64		0.60		0.22	0.22			0.04	
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)	94	1936	866		1729		310	312			60	
v/s Ratio Prot	0.00	c0.36					c0.23	0.21			c0.05	
v/s Ratio Perm	0.13		0.26		c0.53							
v/c Ratio	0.20	0.57	0.40		0.88		1.06	0.99			1.14	
Uniform Delay, d1	14.7	12.1	10.4		20.2		47.0	46.9			57.5	
Progression Factor	1.31	1.37	1.89		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.4	1.1	1.3		6.6		68.2	48.2			160.0	
Delay (s)	19.7	17.6	20.9		26.8		115.2	95.1			217.5	
Level of Service	B	B	C		C		F	F			F	
Approach Delay (s)		18.6			26.8			105.5			217.5	
Approach LOS		B			C			F			F	

Intersection Summary			
HCM 2000 Control Delay	41.8	HCM 2000 Level of Service	D
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		

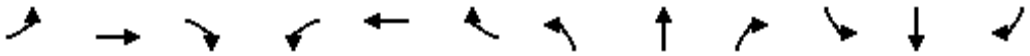
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	1075	17	37	2067	25	110	0	47	0	0	74
Future Volume (vph)	27	1075	17	37	2067	25	110	0	47	0	0	74
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	0.95			1.00				1.00
Frt	1.00	1.00		1.00	1.00			0.96				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.97				1.00
Satd. Flow (prot)	1509	3010		1509	3012			1473				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.97				1.00
Satd. Flow (perm)	1509	3010		1509	3012			1473				1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	28	1108	18	38	2131	26	113	0	48	0	0	76
RTOR Reduction (vph)	0	1	0	0	1	0	0	86	0	0	0	70
Lane Group Flow (vph)	28	1125	0	38	2156	0	0	75	0	0	0	6
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	8.0	57.2		15.0	68.2			11.8				8.0
Effective Green, g (s)	8.0	57.2		15.0	68.2			11.8				8.0
Actuated g/C Ratio	0.08	0.57		0.15	0.68			0.12				0.08
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	120	1721		226	2054			173				109
v/s Ratio Prot	c0.02	0.37		0.03	c0.72							0.00
v/s Ratio Perm								0.05				
v/c Ratio	0.23	0.65		0.17	1.05			0.43				0.06
Uniform Delay, d1	43.1	14.6		37.1	15.9			41.0				42.5
Progression Factor	1.00	1.00		0.71	1.41			1.00				1.00
Incremental Delay, d2	1.0	1.9		0.3	32.6			1.7				0.2
Delay (s)	44.1	16.6		26.5	55.0			42.7				42.7
Level of Service	D	B		C	D			D				D
Approach Delay (s)		17.2			54.5			42.7			42.7	
Approach LOS		B			D			D			D	

Intersection Summary			
HCM 2000 Control Delay	41.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	93.8%	ICU Level of Service	F
Analysis Period (min)	15		

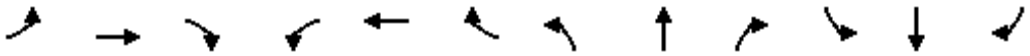
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	982	108	150	1384	95	234	143	169	103	158	79
Future Volume (vph)	69	982	108	150	1384	95	234	143	169	103	158	79
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			1.00	1.00		1.00	
Frt	1.00	0.99		1.00	0.99			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.99	
Satd. Flow (prot)	1509	2973		1509	2989			1540	1350		1515	
Flt Permitted	0.15	1.00		0.14	1.00			0.97	1.00		0.99	
Satd. Flow (perm)	244	2973		219	2989			1540	1350		1515	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	74	1056	116	161	1488	102	252	154	182	111	170	85
RTOR Reduction (vph)	0	8	0	0	5	0	0	0	145	0	12	0
Lane Group Flow (vph)	74	1164	0	161	1585	0	0	406	37	0	354	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1009		102	1209			313	274		257	
v/s Ratio Prot		0.39		0.02	c0.53			c0.26	0.00		c0.23	
v/s Ratio Perm	0.30			c0.59					0.03			
v/c Ratio	0.90	1.15		1.58	1.31			1.30	0.14		1.38	
Uniform Delay, d1	24.1	25.3		31.0	22.8			30.5	25.0		31.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	67.3	80.6		301.8	146.1			155.3	0.1		193.0	
Delay (s)	91.4	105.9		332.8	168.9			185.8	25.1		224.8	
Level of Service	F	F		F	F			F	C		F	
Approach Delay (s)		105.1			183.9			136.1			224.8	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	155.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.64		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	132.8%	ICU Level of Service	H
Analysis Period (min)	15		

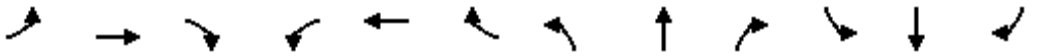
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	10	1416	0	126	3	380	570	0	428	0
Future Volume (vph)	0	0	10	1416	0	126	3	380	570	0	428	0
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.98			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1412			3017	1350		3018	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1412			2875	1350		3018	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	11	1539	0	137	3	413	620	0	465	0
RTOR Reduction (vph)	0	0	6	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	6	846	819	0	0	416	620	0	465	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			50.0	50.0	50.0			41.0	100.0		41.0	
Effective Green, g (s)			50.0	50.0	50.0			42.0	100.0		42.0	
Actuated g/C Ratio			0.50	0.50	0.50			0.42	1.00		0.42	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			687	716	706			1207	1350		1267	
v/s Ratio Prot				c0.59	0.58						0.15	
v/s Ratio Perm			0.00					0.14	c0.46			
v/c Ratio			0.01	1.18	1.16			0.34	0.46		0.37	
Uniform Delay, d1			12.6	25.0	25.0			19.7	0.0		19.9	
Progression Factor			1.00	1.00	1.00			1.57	1.00		1.00	
Incremental Delay, d2			0.0	95.7	87.3			0.5	0.7		0.8	
Delay (s)			12.6	120.7	112.3			31.3	0.7		20.7	
Level of Service			B	F	F			C	A		C	
Approach Delay (s)		12.6			116.5			13.0			20.7	
Approach LOS		B			F			B			C	

Intersection Summary			
HCM 2000 Control Delay	68.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

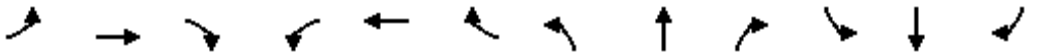
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	307	155	123	359	80	129	755	53	68	1085	438
Future Volume (vph)	227	307	155	123	359	80	129	755	53	68	1085	438
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1545		1509	2988		1509	3018	1350
Flt Permitted	0.16	1.00	1.00	0.38	1.00		0.10	1.00		0.24	1.00	1.00
Satd. Flow (perm)	261	1588	1350	609	1545		157	2988		374	3018	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	232	313	158	126	366	82	132	770	54	69	1107	447
RTOR Reduction (vph)	0	0	92	0	8	0	0	5	0	0	0	112
Lane Group Flow (vph)	232	313	66	126	440	0	132	819	0	69	1107	335
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	39.2	30.7	30.7	37.9	30.3		49.2	41.5		44.7	39.5	39.5
Effective Green, g (s)	37.2	31.2	31.2	35.9	30.3		47.2	42.0		42.7	39.5	39.5
Actuated g/C Ratio	0.37	0.31	0.31	0.36	0.30		0.47	0.42		0.43	0.40	0.40
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	190	495	421	278	468		164	1254		207	1192	533
v/s Ratio Prot	c0.09	0.20		0.03	0.28		c0.05	0.27		0.01	c0.37	
v/s Ratio Perm	c0.36		0.05	0.13			0.32			0.13		0.25
v/c Ratio	1.22	0.63	0.16	0.45	0.94		0.80	0.65		0.33	0.93	0.63
Uniform Delay, d1	28.1	29.5	24.9	22.9	34.0		20.4	23.2		18.0	28.9	24.3
Progression Factor	0.97	0.91	0.92	1.21	1.19		1.30	0.28		1.54	1.42	1.75
Incremental Delay, d2	136.5	2.6	0.2	0.4	23.4		2.5	0.2		0.1	4.6	1.5
Delay (s)	163.6	29.5	23.2	28.1	64.0		29.1	6.8		27.8	45.6	44.1
Level of Service	F	C	C	C	E		C	A		C	D	D
Approach Delay (s)		72.3			56.1			9.9			44.4	
Approach LOS		E			E			A			D	

Intersection Summary			
HCM 2000 Control Delay	42.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		

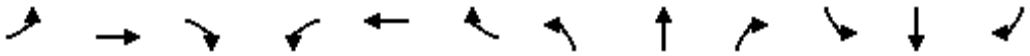
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	856	82	373	1423	9	259	635	325	0	863	499
Future Volume (vph)	309	856	82	373	1423	9	259	635	325	0	863	499
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.99		1.00	1.00		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2978		2927	3015		2927	2864			3018	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	2927	2978		2927	3015		2927	2864			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)	325	901	86	393	1498	9	273	668	342	0	908	525
RTOR Reduction (vph)	0	7	0	0	1	0	0	65	0	0	0	111
Lane Group Flow (vph)	325	980	0	393	1506	0	273	945	0	0	908	414
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	7.0	36.5		10.0	39.5		6.0	40.0			29.0	29.0
Effective Green, g (s)	7.0	37.0		10.0	40.0		7.0	41.0			30.0	30.0
Actuated g/C Ratio	0.07	0.37		0.10	0.40		0.07	0.41			0.30	0.30
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	204	1101		292	1206		204	1174			905	405
v/s Ratio Prot	0.11	0.33		c0.13	c0.50		c0.09	0.33			0.30	
v/s Ratio Perm												c0.31
v/c Ratio	1.59	0.89		1.35	1.25		1.34	0.81			1.00	1.02
Uniform Delay, d1	46.5	29.6		45.0	30.0		46.5	26.0			35.0	35.0
Progression Factor	1.00	1.00		1.16	0.97		1.00	1.00			1.57	1.89
Incremental Delay, d2	288.8	10.9		170.3	116.9		181.5	4.3			23.8	39.9
Delay (s)	335.3	40.5		222.5	146.1		228.0	30.3			78.7	105.9
Level of Service	F	D		F	F		F	C			E	F
Approach Delay (s)		113.5			161.9			72.4			88.7	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	114.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	106.8%	ICU Level of Service	G
Analysis Period (min)	15		

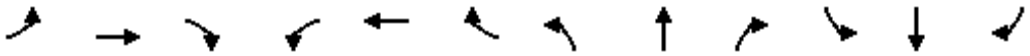
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	185	580	73	545	1127	86	65	863	262	101	1165	272
Future Volume (vph)	185	580	73	545	1127	86	65	863	262	101	1165	272
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2967		1509	3018	1350	1509	2912		1509	2932	
Flt Permitted	0.18	1.00		0.16	1.00	1.00	0.10	1.00		0.10	1.00	
Satd. Flow (perm)	288	2967		257	3018	1350	159	2912		160	2932	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	197	617	78	580	1199	91	69	918	279	107	1239	289
RTOR Reduction (vph)	0	11	0	0	0	37	0	32	0	0	19	0
Lane Group Flow (vph)	197	684	0	580	1199	54	69	1165	0	107	1509	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	83	857		281	1408	630	70	1294		71	1303	
v/s Ratio Prot		0.23		c0.28	0.40			0.40			0.51	
v/s Ratio Perm	c0.68			0.64		0.04	0.43			c0.67		
v/c Ratio	2.37	0.80		2.06	0.85	0.09	0.99	0.90		1.51	1.16	
Uniform Delay, d1	32.0	29.6		21.4	21.2	13.3	24.7	23.2		25.0	25.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	653.5	7.7		490.9	6.7	0.3	103.6	10.3		287.9	80.2	
Delay (s)	685.5	37.3		512.4	27.9	13.6	128.4	33.4		312.9	105.2	
Level of Service	F	D		F	C	B	F	C		F	F	
Approach Delay (s)		180.4			177.5			38.6			118.8	
Approach LOS		F			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	129.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	126.6%	ICU Level of Service	H
Analysis Period (min)	15		

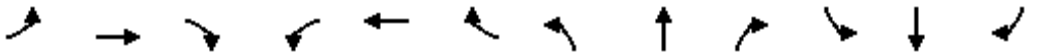
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	844	15	1	1507	332	19	21	36	312	44	33
Future Volume (vph)	0	844	15	1	1507	332	19	21	36	312	44	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	
Lane Util. Factor		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.94		1.00	0.97	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3010			3018	1350		1467		1433	1427	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3010			2881	1350		1467		1433	1427	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	861	15	1	1538	339	19	21	37	318	45	34
RTOR Reduction (vph)	0	1	0	0	0	57	0	34	0	0	8	0
Lane Group Flow (vph)	0	875	0	0	1539	282	0	43	0	200	189	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		59.5			59.5	22.4		6.1		22.4	22.4	
Effective Green, g (s)		59.5			59.5	22.4		6.1		22.4	22.4	
Actuated g/C Ratio		0.60			0.60	0.22		0.06		0.22	0.22	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1790			1714	302		89		320	319	
v/s Ratio Prot		0.29				c0.21		c0.03		0.14	0.13	
v/s Ratio Perm					c0.53							
v/c Ratio		0.49			0.90	0.93		0.49		0.62	0.59	
Uniform Delay, d1		11.6			17.6	38.1		45.4		35.0	34.7	
Progression Factor		0.57			1.00	1.00		1.00		0.73	0.71	
Incremental Delay, d2		0.4			7.9	35.1		4.1		3.6	2.9	
Delay (s)		7.0			25.5	73.2		49.6		29.1	27.6	
Level of Service		A			C	E		D		C	C	
Approach Delay (s)		7.0			34.1			49.6			28.3	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM 2000 Control Delay	26.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		

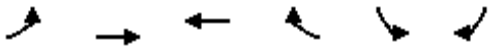
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	1066	34	4	1495	33	48	12	87	38	3	102
Future Volume (vph)	27	1066	34	4	1495	33	48	12	87	38	3	102
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			1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00			0.92			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.96	1.00
Satd. Flow (prot)	1509	3004		1509	3008			1438			1518	1350
Flt Permitted	0.11	1.00		0.24	1.00			0.88			0.54	1.00
Satd. Flow (perm)	167	3004		378	3008			1284			851	1350
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	29	1134	36	4	1590	35	51	13	93	40	3	109
RTOR Reduction (vph)	0	2	0	0	1	0	0	57	0	0	0	95
Lane Group Flow (vph)	29	1168	0	4	1624	0	0	100	0	0	43	14
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	79.2	79.2		73.6	73.6			12.8			12.8	12.8
Effective Green, g (s)	78.2	79.2		73.6	73.6			12.8			12.8	12.8
Actuated g/C Ratio	0.78	0.79		0.74	0.74			0.13			0.13	0.13
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	152	2379		278	2213			164			108	172
v/s Ratio Prot	0.00	c0.39			c0.54							
v/s Ratio Perm	0.15			0.01				c0.08			0.05	0.01
v/c Ratio	0.19	0.49		0.01	0.73			0.61			0.40	0.08
Uniform Delay, d1	5.7	3.5		3.5	7.6			41.2			40.1	38.4
Progression Factor	1.00	1.00		0.84	0.52			1.00			1.00	1.00
Incremental Delay, d2	0.2	0.7		0.1	1.5			6.6			2.4	0.2
Delay (s)	5.9	4.3		3.0	5.4			47.8			42.5	38.6
Level of Service	A	A		A	A			D			D	D
Approach Delay (s)		4.3			5.4			47.8			39.7	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.2%	ICU Level of Service	D
Analysis Period (min)	15		

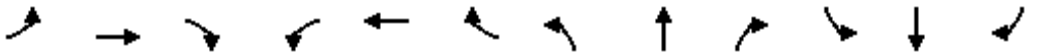
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	1049	1821	69	34	49
Future Volume (vph)	0	1049	1821	69	34	49
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	0.91		1.00	1.00
Frt		1.00	0.99		1.00	0.85
Flt Protected		1.00	1.00		0.95	1.00
Satd. Flow (prot)		3018	4312		1509	1350
Flt Permitted		1.00	1.00		0.95	1.00
Satd. Flow (perm)		3018	4312		1509	1350
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1140	1979	75	37	53
RTOR Reduction (vph)	0	0	4	0	0	20
Lane Group Flow (vph)	0	1140	2050	0	37	33
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Actuated Green, G (s)		68.9	68.9		23.1	23.1
Effective Green, g (s)		68.9	68.9		23.1	23.1
Actuated g/C Ratio		0.69	0.69		0.23	0.23
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)		2079	2970		348	311
v/s Ratio Prot		0.38	c0.48		c0.02	
v/s Ratio Perm						0.02
v/c Ratio		0.55	0.69		0.11	0.11
Uniform Delay, d1		7.8	9.2		30.3	30.3
Progression Factor		1.72	1.00		1.00	1.00
Incremental Delay, d2		0.2	0.7		0.6	0.7
Delay (s)		13.6	9.9		30.9	31.0
Level of Service		B	A		C	C
Approach Delay (s)		13.6	9.9		31.0	
Approach LOS		B	A		C	

Intersection Summary			
HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.3%	ICU Level of Service	A
Analysis Period (min)	15		

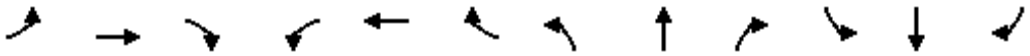
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	1059	17	0	1992	7	0	0	76	0	0	41
Future Volume (vph)	17	1059	17	0	1992	7	0	0	76	0	0	41
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
Lane Util. Factor	1.00	0.95			0.95				1.00			1.00
Frt	1.00	1.00			1.00				0.86			0.86
Flt Protected	0.95	1.00			1.00				1.00			1.00
Satd. Flow (prot)	1509	3011			3016				1374			1374
Flt Permitted	0.06	1.00			1.00				1.00			1.00
Satd. Flow (perm)	90	3011			3016				1374			1374
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	1151	18	0	2165	8	0	0	83	0	0	45
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	73	0	0	24
Lane Group Flow (vph)	18	1168	0	0	2173	0	0	0	10	0	0	21
Turn Type	Perm	NA			NA				Perm			Perm
Protected Phases		4			8							
Permitted Phases	4								2			6
Actuated Green, G (s)	98.2	98.2			98.2				13.8			13.8
Effective Green, g (s)	98.2	98.2			98.2				13.8			13.8
Actuated g/C Ratio	0.82	0.82			0.82				0.12			0.12
Clearance Time (s)	4.0	4.0			4.0				4.0			4.0
Vehicle Extension (s)	3.0	3.0			3.0				3.0			3.0
Lane Grp Cap (vph)	73	2464			2468				158			158
v/s Ratio Prot		0.39			c0.72							
v/s Ratio Perm	0.20								0.01			c0.02
v/c Ratio	0.25	0.47			0.88				0.06			0.13
Uniform Delay, d1	2.5	3.2			7.1				47.3			47.7
Progression Factor	1.00	1.00			1.00				1.00			1.00
Incremental Delay, d2	1.8	0.1			4.0				0.7			1.7
Delay (s)	4.2	3.4			11.1				48.1			49.5
Level of Service	A	A			B				D			D
Approach Delay (s)		3.4			11.1			48.1			49.5	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.8%	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												
Traffic Volume (veh/h)	0	485	18	59	722	0	25	0	69	0	0	1
Future Volume (Veh/h)	0	485	18	59	722	0	25	0	69	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	0	500	19	61	744	0	26	0	71	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		513			1070							
pX, platoon unblocked	0.79						0.79	0.79		0.79	0.79	0.79
vC, conflicting volume	744			519			1376	1376	510	1446	1385	744
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	545			519			1344	1343	510	1432	1355	545
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			94			73	100	87	100	100	100
cM capacity (veh/h)	811			1047			97	113	564	74	111	426

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	519	805	97	1
Volume Left	0	61	26	0
Volume Right	19	0	71	1
cSH	1700	1047	247	426
Volume to Capacity	0.31	0.06	0.39	0.00
Queue Length 95th (ft)	0	5	44	0
Control Delay (s)	0.0	1.5	28.8	13.5
Lane LOS		A	D	B
Approach Delay (s)	0.0	1.5	28.8	13.5
Approach LOS			D	B

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	102.9%	ICU Level of Service	G	
Analysis Period (min)	15			

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	47	1048	53	0	0	2061	24	0	0	0	0	0
Future Volume (Veh/h)	47	1048	53	0	0	2061	24	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop
Grade		0%				0%			0%			0%
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	48	1069	54	0	0	2103	24	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	2127			0	1123			2432	3319	562	2746	3334
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2127			0	1123			2432	3319	562	2746	3334
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	81			0	100			100	100	100	100	100
cM capacity (veh/h)	252			0	618			2	7	471	8	6

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	48	713	410	1402	725	0	189
Volume Left	48	0	0	0	0	0	0
Volume Right	0	0	54	0	24	0	189
cSH	252	1700	1700	1700	1700	1700	219
Volume to Capacity	0.19	0.42	0.24	0.82	0.43	0.00	0.86
Queue Length 95th (ft)	17	0	0	0	0	0	169
Control Delay (s)	22.6	0.0	0.0	0.0	0.0	0.0	76.2
Lane LOS	C						F
Approach Delay (s)	0.9			0.0			76.2
Approach LOS							F

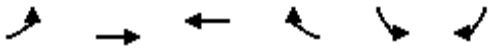
Intersection Summary				
Average Delay	4.4			
Intersection Capacity Utilization	87.8%	ICU Level of Service		E
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	185
Future Volume (Veh/h)	185
Sign Control	
Grade	
Peak Hour Factor	0.98
Hourly flow rate (vph)	189
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	1064
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	1064
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	14
cM capacity (veh/h)	219
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	543	32	129	800	7	94
Future Volume (Veh/h)	543	32	129	800	7	94
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	560	33	133	825	7	97
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.69	
vC, conflicting volume			593		1668	576
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			593		1742	576
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			86		88	81
cM capacity (veh/h)			983		57	517

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	593	958	104
Volume Left	0	133	7
Volume Right	33	0	97
cSH	1700	983	335
Volume to Capacity	0.35	0.14	0.31
Queue Length 95th (ft)	0	12	32
Control Delay (s)	0.0	3.4	20.5
Lane LOS		A	C
Approach Delay (s)	0.0	3.4	20.5
Approach LOS			C

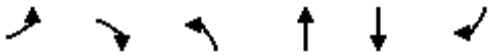
Intersection Summary			
Average Delay		3.2	
Intersection Capacity Utilization	110.8%	ICU Level of Service	H
Analysis Period (min)		15	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	1195	1994	67	0	49
Future Volume (Veh/h)	0	1195	1994	67	0	49
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	1271	2121	71	0	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		106	432			
pX, platoon unblocked	0.62				0.37	0.62
vC, conflicting volume	2192				3428	1096
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1698				2849	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	92
cM capacity (veh/h)	230				5	673

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	1271	1414	778	52
Volume Left	0	0	0	0
Volume Right	0	0	71	52
cSH	1700	1700	1700	673
Volume to Capacity	0.75	0.83	0.46	0.08
Queue Length 95th (ft)	0	0	0	6
Control Delay (s)	0.0	0.0	0.0	10.8
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.8
Approach LOS				B

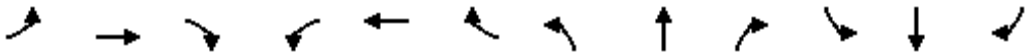
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	77.4%	ICU Level of Service	D
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	7	97	257	1047	1336	445
Future Volume (Veh/h)	7	97	257	1047	1336	445
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	7	100	265	1079	1377	459
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked						
vC, conflicting volume	2676	918	1836			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2676	918	1836			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	63	19			
cM capacity (veh/h)	3	274	328			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	107	265	540	540	918	918
Volume Left	7	265	0	0	0	0
Volume Right	100	0	0	0	0	459
cSH	45	328	1700	1700	1700	1700
Volume to Capacity	2.40	0.81	0.32	0.32	0.54	0.54
Queue Length 95th (ft)	284	170	0	0	0	0
Control Delay (s)	834.3	49.3	0.0	0.0	0.0	0.0
Lane LOS	F	E				
Approach Delay (s)	834.3	9.7			0.0	
Approach LOS	F					

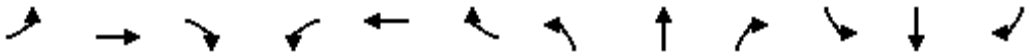
Intersection Summary			
Average Delay	31.1		
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	1403	92	392	1476	158	127	585	350	123	504	100
Future Volume (vph)	122	1403	92	392	1476	158	127	585	350	123	504	100
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	2974		1509	3018	1350	1509	2943	
Flt Permitted	0.08	1.00		0.07	1.00		0.19	1.00	1.00	0.20	1.00	
Satd. Flow (perm)	123	2990		116	2974		299	3018	1350	323	2943	
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	123	1417	93	396	1491	160	128	591	354	124	509	101
RTOR Reduction (vph)	0	5	0	0	8	0	0	0	153	0	16	0
Lane Group Flow (vph)	123	1505	0	396	1643	0	128	591	201	124	594	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)	57.4	51.5		69.0	59.1		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	57.4	51.5		68.5	59.1		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.57	0.52		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)	152	1539		267	1757		68	694	310	74	676	
v/s Ratio Prot	0.05	0.50		c0.20	0.55			0.20			0.20	
v/s Ratio Perm	0.41			c0.82			c0.43		0.15	0.38		
v/c Ratio	0.81	0.98		1.48	0.94		1.88	0.85	0.65	1.68	0.88	
Uniform Delay, d1	16.7	23.7		32.2	18.7		38.5	36.9	34.8	38.5	37.2	
Progression Factor	1.00	0.87		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	24.7	18.1		236.4	10.8		447.2	12.5	10.0	355.6	15.1	
Delay (s)	41.4	38.8		268.6	29.5		485.7	49.4	44.9	394.1	52.2	
Level of Service	D	D		F	C		F	D	D	F	D	
Approach Delay (s)		39.0			75.7			100.0			110.0	
Approach LOS		D			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	74.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.1%	ICU Level of Service	H
Analysis Period (min)	15		

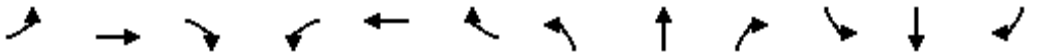
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	1281	497	0	1452	16	406	12	0	21	27	29
Future Volume (vph)	31	1281	497	0	1452	16	406	12	0	21	27	29
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		3013		1433	1441			1487	
Flt Permitted	0.08	1.00	1.00		1.00		0.95	0.95			0.99	
Satd. Flow (perm)	134	3018	1350		3013		1433	1441			1487	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	32	1321	512	0	1497	16	419	12	0	22	28	30
RTOR Reduction (vph)	0	0	84	0	0	0	0	0	0	0	18	0
Lane Group Flow (vph)	32	1321	428	0	1513	0	222	209	0	0	62	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6									
Actuated Green, G (s)	78.0	78.0	78.0		72.0		22.4	22.4			7.6	
Effective Green, g (s)	77.0	78.0	78.0		72.0		22.4	22.4			7.6	
Actuated g/C Ratio	0.64	0.65	0.65		0.60		0.19	0.19			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)	108	1961	877		1807		267	268			94	
v/s Ratio Prot	0.00	c0.44			c0.50		c0.15	0.15			c0.04	
v/s Ratio Perm	0.18		0.32									
v/c Ratio	0.30	0.67	0.49		0.84		0.83	0.78			0.66	
Uniform Delay, d1	14.7	13.1	10.8		19.3		47.0	46.5			54.9	
Progression Factor	1.27	1.29	1.56		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.5	1.8	1.8		4.8		19.3	13.4			16.1	
Delay (s)	19.3	18.6	18.7		24.1		66.3	59.8			71.1	
Level of Service	B	B	B		C		E	E			E	
Approach Delay (s)		18.6			24.1			63.2			71.1	
Approach LOS		B			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	26.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

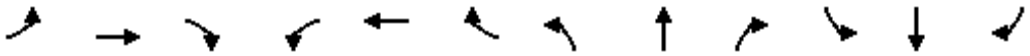
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	1605	57	64	1725	62	31	0	48	0	0	61
Future Volume (vph)	32	1605	57	64	1725	62	31	0	48	0	0	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	0.95		1.00	0.95			1.00				1.00
Frt	1.00	0.99		1.00	0.99			0.92				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.98				1.00
Satd. Flow (prot)	1509	3002		1509	3002			1430				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.98				1.00
Satd. Flow (perm)	1509	3002		1509	3002			1430				1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	33	1655	59	66	1778	64	32	0	49	0	0	63
RTOR Reduction (vph)	0	3	0	0	2	0	0	78	0	0	0	58
Lane Group Flow (vph)	33	1711	0	66	1840	0	0	3	0	0	0	5
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	8.7	56.3		23.4	75.0			4.3				8.7
Effective Green, g (s)	8.7	56.3		23.4	75.0			4.3				8.7
Actuated g/C Ratio	0.09	0.56		0.23	0.75			0.04				0.09
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	131	1690		353	2251			61				119
v/s Ratio Prot	c0.02	c0.57		0.04	c0.61							0.00
v/s Ratio Perm								0.00				
v/c Ratio	0.25	1.01		0.19	0.82			0.06				0.05
Uniform Delay, d1	42.6	21.9		30.7	8.1			45.9				41.8
Progression Factor	1.00	1.00		0.83	1.30			1.00				1.00
Incremental Delay, d2	1.0	25.1		0.2	3.0			0.4				0.2
Delay (s)	43.6	46.9		25.5	13.4			46.3				42.0
Level of Service	D	D		C	B			D				D
Approach Delay (s)		46.8			13.8			46.3			42.0	
Approach LOS		D			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	30.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		

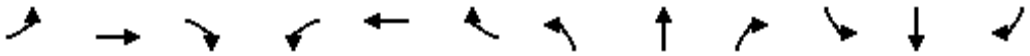
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	119	1183	157	273	1174	146	286	229	443	141	230	116
Future Volume (vph)	119	1183	157	273	1174	146	286	229	443	141	230	116
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			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.99	
Satd. Flow (prot)	1509	2964		1509	2968			1545	1350		1515	
Flt Permitted	0.15	1.00		0.14	1.00			0.97	1.00		0.99	
Satd. Flow (perm)	244	2964		219	2968			1545	1350		1515	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	124	1232	164	284	1223	152	298	239	461	147	240	121
RTOR Reduction (vph)	0	10	0	0	9	0	0	0	273	0	12	0
Lane Group Flow (vph)	124	1386	0	284	1366	0	0	537	188	0	496	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1006		102	1201			314	274		257	
v/s Ratio Prot		0.47		c0.04	0.46			c0.35	0.01		c0.33	
v/s Ratio Perm	0.51			c1.05					0.13			
v/c Ratio	1.51	1.38		2.78	1.14			1.71	0.69		1.93	
Uniform Delay, d1	25.3	25.3		31.0	22.8			30.5	28.2		31.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	283.2	176.3		829.6	72.4			332.8	5.6		433.2	
Delay (s)	308.5	201.6		860.6	95.2			363.3	33.8		465.0	
Level of Service	F	F		F	F			F	C		F	
Approach Delay (s)		210.3			226.3			211.1			465.0	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	243.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.54		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	146.2%	ICU Level of Service	H
Analysis Period (min)	15		

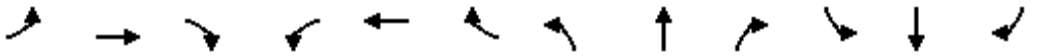
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	7	982	3	140	3	831	917	0	659	3
Future Volume (vph)	0	0	7	982	3	140	3	831	917	0	659	3
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.96			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1402			3017	1350		3016	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1402			2877	1350		3016	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	7	1012	3	144	3	857	945	0	679	3
RTOR Reduction (vph)	0	0	4	0	11	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	3	557	591	0	0	860	945	0	682	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			37.0	37.0	37.0			54.0	100.0		54.0	
Effective Green, g (s)			37.0	37.0	37.0			55.0	100.0		55.0	
Actuated g/C Ratio			0.37	0.37	0.37			0.55	1.00		0.55	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			508	530	518			1582	1350		1658	
v/s Ratio Prot				0.39	c0.42						0.23	
v/s Ratio Perm			0.00					0.30	c0.70			
v/c Ratio			0.01	1.05	1.14			0.54	0.70		0.41	
Uniform Delay, d1			19.9	31.5	31.5			14.4	0.0		13.1	
Progression Factor			1.00	1.00	1.00			1.61	1.00		1.00	
Incremental Delay, d2			0.0	53.1	84.3			0.4	0.9		0.8	
Delay (s)			19.9	84.6	115.8			23.7	0.9		13.8	
Level of Service			B	F	F			C	A		B	
Approach Delay (s)		19.9			100.8			11.8			13.8	
Approach LOS		B			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	40.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.8%	ICU Level of Service	D
Analysis Period (min)	15		

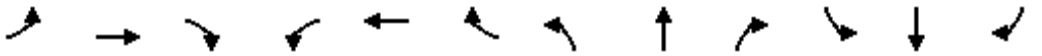
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	336	363	154	45	219	114	138	1170	67	95	1229	292
Future Volume (vph)	336	363	154	45	219	114	138	1170	67	95	1229	292
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1507		1509	2993		1509	3018	1350
Flt Permitted	0.23	1.00	1.00	0.35	1.00		0.09	1.00		0.10	1.00	1.00
Satd. Flow (perm)	361	1588	1350	549	1507		146	2993		153	3018	1350
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	346	374	159	46	226	118	142	1206	69	98	1267	301
RTOR Reduction (vph)	0	0	77	0	20	0	0	4	0	0	0	63
Lane Group Flow (vph)	346	374	82	46	324	0	142	1271	0	98	1267	238
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	37.8	31.0	31.0	30.6	26.8		52.7	44.5		48.2	42.5	42.5
Effective Green, g (s)	36.8	31.5	31.5	28.6	26.8		50.7	45.0		46.2	42.5	42.5
Actuated g/C Ratio	0.37	0.32	0.32	0.29	0.27		0.51	0.45		0.46	0.42	0.42
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	218	500	425	183	403		172	1346		134	1282	573
v/s Ratio Prot	c0.12	0.24		0.01	0.22		c0.06	c0.42		0.03	0.42	
v/s Ratio Perm	c0.46		0.06	0.06			0.36			0.30		0.18
v/c Ratio	1.59	0.75	0.19	0.25	0.80		0.83	0.94		0.73	0.99	0.42
Uniform Delay, d1	29.9	30.7	25.0	26.7	34.2		20.4	26.3		20.0	28.5	20.1
Progression Factor	0.93	0.94	0.81	1.12	1.21		1.56	0.40		1.46	1.42	1.71
Incremental Delay, d2	284.6	6.0	0.2	0.2	7.1		2.9	1.9		9.4	16.1	1.2
Delay (s)	312.6	34.7	20.4	30.3	48.3		34.8	12.5		38.6	56.6	35.6
Level of Service	F	C	C	C	D		C	B		D	E	D
Approach Delay (s)		141.5			46.2			14.8			51.7	
Approach LOS		F			D			B			D	

Intersection Summary			
HCM 2000 Control Delay	57.3	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	105.6%	ICU Level of Service	G
Analysis Period (min)	15		

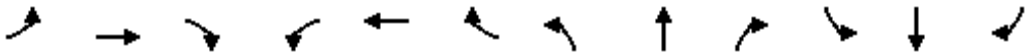
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	510	1141	172	523	1056	22	243	915	418	2	913	597
Future Volume (vph)	510	1141	172	523	1056	22	243	915	418	2	913	597
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.98		1.00	1.00		1.00	0.95			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2958		2927	3009		2927	2876			3017	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			0.86	1.00
Satd. Flow (perm)	2927	2958		2927	3009		2927	2876			2609	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	520	1164	176	534	1078	22	248	934	427	2	932	609
RTOR Reduction (vph)	0	12	0	0	1	0	0	53	0	0	0	159
Lane Group Flow (vph)	520	1328	0	534	1099	0	248	1308	0	0	934	450
Turn Type	Prot	NA		Prot	NA		Prot	NA		Perm	NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases										4		4
Actuated Green, G (s)	10.0	38.5		10.0	38.5		4.0	38.0			29.0	29.0
Effective Green, g (s)	10.0	39.0		10.0	39.0		5.0	39.0			30.0	30.0
Actuated g/C Ratio	0.10	0.39		0.10	0.39		0.05	0.39			0.30	0.30
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	292	1153		292	1173		146	1121			782	405
v/s Ratio Prot	0.18	c0.45		c0.18	0.37		c0.08	c0.45				
v/s Ratio Perm											0.36	0.33
v/c Ratio	1.78	1.15		1.83	0.94		1.70	1.17			1.19	1.11
Uniform Delay, d1	45.0	30.5		45.0	29.3		47.5	30.5			35.0	35.0
Progression Factor	1.00	1.00		1.20	0.88		1.00	1.00			1.40	1.78
Incremental Delay, d2	364.9	78.5		383.0	12.1		341.9	85.0			94.5	67.7
Delay (s)	409.9	109.0		437.0	38.0		389.4	115.5			143.4	130.0
Level of Service	F	F		F	D		F	F			F	F
Approach Delay (s)		193.1			168.4			157.7			138.1	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	165.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	149.3%	ICU Level of Service	H
Analysis Period (min)	15		

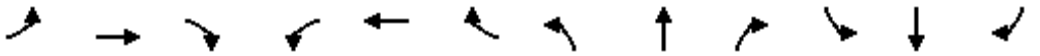
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	319	975	118	338	884	117	102	1071	294	134	1163	350
Future Volume (vph)	319	975	118	338	884	117	102	1071	294	134	1163	350
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2969		1509	3018	1350	1509	2920		1509	2913	
Flt Permitted	0.31	1.00		0.14	1.00	1.00	0.10	1.00		0.10	1.00	
Satd. Flow (perm)	497	2969		227	3018	1350	159	2920		159	2913	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	329	1005	122	348	911	121	105	1104	303	138	1199	361
RTOR Reduction (vph)	0	11	0	0	0	20	0	28	0	0	32	0
Lane Group Flow (vph)	329	1116	0	348	911	101	105	1379	0	138	1528	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	143	857		271	1408	630	70	1297		70	1294	
v/s Ratio Prot		0.38		c0.17	0.30			0.47			0.52	
v/s Ratio Perm	c0.66			0.40		0.07	0.66			c0.87		
v/c Ratio	2.30	1.30		1.28	0.65	0.16	1.50	1.06		1.97	1.18	
Uniform Delay, d1	32.0	32.0		23.9	18.3	13.8	25.0	25.0		25.0	25.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	606.8	144.7		153.0	2.3	0.5	285.7	43.7		484.3	89.7	
Delay (s)	638.8	176.7		176.8	20.6	14.4	310.7	68.7		509.3	114.7	
Level of Service	F	F		F	C	B	F	E		F	F	
Approach Delay (s)		281.1			59.5			85.5			146.8	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM 2000 Control Delay	143.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.97		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	130.5%	ICU Level of Service	H
Analysis Period (min)	15		

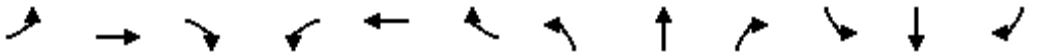
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1402	20	3	1274	304	14	17	26	374	31	20
Future Volume (vph)	0	1402	20	3	1274	304	14	17	26	374	31	20
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.94		1.00	0.98	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.96	
Satd. Flow (prot)		3011			3017	1350		1472		1433	1433	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.96	
Satd. Flow (perm)		3011			2874	1350		1472		1433	1433	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	1491	21	3	1355	323	15	18	28	398	33	21
RTOR Reduction (vph)	0	1	0	0	0	62	0	26	0	0	4	0
Lane Group Flow (vph)	0	1511	0	0	1358	261	0	35	0	251	197	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		60.4			60.4	21.7		5.9		21.7	21.7	
Effective Green, g (s)		60.4			60.4	21.7		5.9		21.7	21.7	
Actuated g/C Ratio		0.60			0.60	0.22		0.06		0.22	0.22	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1818			1735	292		86		310	310	
v/s Ratio Prot		c0.50				c0.19		c0.02		0.18	0.14	
v/s Ratio Perm					0.47							
v/c Ratio		0.83			0.78	0.89		0.40		0.81	0.64	
Uniform Delay, d1		15.7			14.9	38.0		45.4		37.2	35.6	
Progression Factor		0.61			1.00	1.00		1.00		0.81	0.79	
Incremental Delay, d2		0.4			3.6	27.8		3.1		10.8	3.3	
Delay (s)		10.0			18.5	65.9		48.4		40.9	31.3	
Level of Service		A			B	E		D		D	C	
Approach Delay (s)		10.0			27.6			48.4			36.6	
Approach LOS		A			C			D			D	

Intersection Summary			
HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.4%	ICU Level of Service	D
Analysis Period (min)	15		

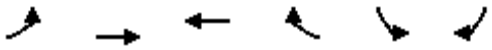
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	1559	38	0	1354	54	80	23	73	36	0	38
Future Volume (vph)	65	1559	38	0	1354	54	80	23	73	36	0	38
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			0.95			1.00			1.00	1.00
Frt	1.00	1.00			0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00			1.00			0.98			0.95	1.00
Satd. Flow (prot)	1509	3007			3000			1465			1509	1350
Flt Permitted	0.11	1.00			1.00			0.84			0.54	1.00
Satd. Flow (perm)	181	3007			3000			1253			853	1350
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	69	1659	40	0	1440	57	85	24	78	38	0	40
RTOR Reduction (vph)	0	1	0	0	3	0	0	27	0	0	0	33
Lane Group Flow (vph)	69	1698	0	0	1494	0	0	160	0	0	38	7
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	75.5	75.5			68.5			16.5			16.5	16.5
Effective Green, g (s)	74.5	75.5			68.5			16.5			16.5	16.5
Actuated g/C Ratio	0.74	0.76			0.68			0.16			0.16	0.16
Clearance Time (s)	3.0	4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0			5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	174	2270			2055			206			140	222
v/s Ratio Prot	0.01	c0.56			0.50							
v/s Ratio Perm	0.28							c0.13			0.04	0.00
v/c Ratio	0.40	0.75			0.73			0.78			0.27	0.03
Uniform Delay, d1	7.4	6.9			9.9			40.0			36.5	35.0
Progression Factor	1.00	1.00			0.51			1.00			1.00	1.00
Incremental Delay, d2	0.5	2.3			1.6			16.7			1.1	0.1
Delay (s)	8.0	9.2			6.6			56.7			37.5	35.1
Level of Service	A	A			A			E			D	D
Approach Delay (s)		9.1			6.6			56.7			36.3	
Approach LOS		A			A			E			D	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		

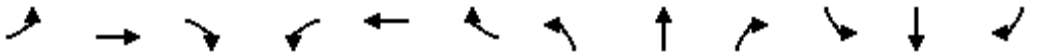
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	51	1424	1602	75	24	154
Future Volume (vph)	51	1424	1602	75	24	154
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1509	3018	4307		1509	1350
Flt Permitted	0.10	1.00	1.00		0.95	1.00
Satd. Flow (perm)	157	3018	4307		1509	1350
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	54	1499	1686	79	25	162
RTOR Reduction (vph)	0	0	6	0	0	38
Lane Group Flow (vph)	54	1499	1759	0	25	124
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Actuated Green, G (s)	69.1	69.1	69.1		22.9	22.9
Effective Green, g (s)	69.1	69.1	69.1		22.9	22.9
Actuated g/C Ratio	0.69	0.69	0.69		0.23	0.23
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	108	2085	2976		345	309
v/s Ratio Prot		c0.50	0.41		0.02	
v/s Ratio Perm	0.34					c0.09
v/c Ratio	0.50	0.72	0.59		0.07	0.40
Uniform Delay, d1	7.3	9.5	8.1		30.2	32.7
Progression Factor	1.49	1.38	1.00		1.00	1.00
Incremental Delay, d2	1.0	0.4	0.3		0.4	3.9
Delay (s)	11.9	13.4	8.4		30.6	36.6
Level of Service	B	B	A		C	D
Approach Delay (s)		13.4	8.4		35.8	
Approach LOS		B	A		D	

Intersection Summary			
HCM 2000 Control Delay	12.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.2%	ICU Level of Service	B
Analysis Period (min)	15		

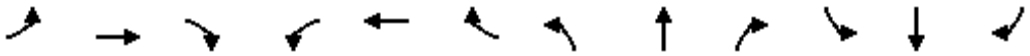
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	1599	22	0	1765	10	0	0	64	0	0	41
Future Volume (vph)	61	1599	22	0	1765	10	0	0	64	0	0	41
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
Lane Util. Factor	1.00	0.95			0.95				1.00			1.00
Frt	1.00	1.00			1.00				0.86			0.86
Flt Protected	0.95	1.00			1.00				1.00			1.00
Satd. Flow (prot)	1509	3011			3015				1374			1374
Flt Permitted	0.10	1.00			1.00				1.00			1.00
Satd. Flow (perm)	163	3011			3015				1374			1374
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	63	1648	23	0	1820	10	0	0	66	0	0	42
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	60	0	0	38
Lane Group Flow (vph)	63	1670	0	0	1830	0	0	0	6	0	0	4
Turn Type	Perm	NA			NA				Perm			Perm
Protected Phases		4			8							
Permitted Phases	4								2			6
Actuated Green, G (s)	101.6	101.6			101.6				10.4			10.4
Effective Green, g (s)	101.6	101.6			101.6				10.4			10.4
Actuated g/C Ratio	0.85	0.85			0.85				0.09			0.09
Clearance Time (s)	4.0	4.0			4.0				4.0			4.0
Vehicle Extension (s)	3.0	3.0			3.0				3.0			3.0
Lane Grp Cap (vph)	138	2549			2552				119			119
v/s Ratio Prot		0.55			c0.61							
v/s Ratio Perm	0.39								c0.00			0.00
v/c Ratio	0.46	0.66			0.72				0.05			0.03
Uniform Delay, d1	2.3	3.2			3.6				50.3			50.2
Progression Factor	1.00	1.00			1.00				1.00			1.00
Incremental Delay, d2	2.4	0.6			1.0				0.8			0.5
Delay (s)	4.7	3.8			4.6				51.0			50.7
Level of Service	A	A			A				D			D
Approach Delay (s)		3.8			4.6			51.0			50.7	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	5.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.6%	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												
Traffic Volume (veh/h)	0	628	35	46	561	0	29	0	85	8	5	6
Future Volume (Veh/h)	0	628	35	46	561	0	29	0	85	8	5	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	654	36	48	584	0	30	0	89	8	5	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)		513			1070							
pX, platoon unblocked	0.95						0.95	0.95		0.95	0.95	0.95
vC, conflicting volume	584			690			1360	1352	672	1441	1370	584
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	538			690			1353	1345	672	1438	1363	538
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			95			73	100	80	90	96	99
cM capacity (veh/h)	981			905			111	137	456	81	133	517

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	690	632	119	19
Volume Left	0	48	30	8
Volume Right	36	0	89	6
cSH	1700	905	256	129
Volume to Capacity	0.41	0.05	0.46	0.15
Queue Length 95th (ft)	0	4	57	13
Control Delay (s)	0.0	1.4	30.7	37.7
Lane LOS		A	D	E
Approach Delay (s)	0.0	1.4	30.7	37.7
Approach LOS			D	E

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	119	1568	45	0	3	1584	64	0	0	2	0	0
Future Volume (Veh/h)	119	1568	45	0	3	1584	64	0	0	2	0	0
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)	125	1651	47	0	3	1667	67	0	0	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1734			0	1698			2899	3664	849	2784	3654
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1734			0	1698			2899	3664	849	2784	3654
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	65			0	99			100	100	99	100	100
cM capacity (veh/h)	359			0	371			3	3	304	6	3

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	125	1101	597	836	900	0	135
Volume Left	125	0	0	3	0	0	0
Volume Right	0	0	47	0	67	0	135
cSH	359	1700	1700	371	1700	1700	296
Volume to Capacity	0.35	0.65	0.35	0.01	0.53	0.00	0.46
Queue Length 95th (ft)	38	0	0	1	0	0	57
Control Delay (s)	20.3	0.0	0.0	0.3	0.0	0.0	27.0
Lane LOS	C			A			D
Approach Delay (s)	1.4			0.1			27.0
Approach LOS							D

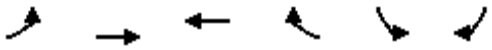
Intersection Summary				
Average Delay	Err			
Intersection Capacity Utilization	Err%	ICU Level of Service		H
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	128
Future Volume (Veh/h)	128
Sign Control	
Grade	
Peak Hour Factor	0.95
Hourly flow rate (vph)	135
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	867
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	867
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	54
cM capacity (veh/h)	296
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	758	29	57	633	11	101
Future Volume (Veh/h)	758	29	57	633	11	101
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	806	31	61	673	12	107
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.81	
vC, conflicting volume			837		1616	822
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			837		1644	822
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			92		85	71
cM capacity (veh/h)			797		82	374

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	837	734	119
Volume Left	0	61	12
Volume Right	31	0	107
cSH	1700	797	275
Volume to Capacity	0.49	0.08	0.43
Queue Length 95th (ft)	0	6	52
Control Delay (s)	0.0	2.0	27.7
Lane LOS		A	D
Approach Delay (s)	0.0	2.0	27.7
Approach LOS			D

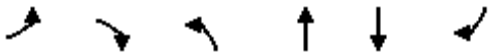
Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	109.2%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2036	1648	58	0	78
Future Volume (Veh/h)	0	2036	1648	58	0	78
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	2078	1682	59	0	80
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		106	432			
pX, platoon unblocked	0.68				0.31	0.68
vC, conflicting volume	1741				3790	870
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1137				4915	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	89
cM capacity (veh/h)	412				0	733

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	2078	1121	620	80
Volume Left	0	0	0	0
Volume Right	0	0	59	80
cSH	1700	1700	1700	733
Volume to Capacity	1.22	0.66	0.36	0.11
Queue Length 95th (ft)	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	10.5
Lane LOS				B
Approach Delay (s)	0.0	0.0		10.5
Approach LOS				B

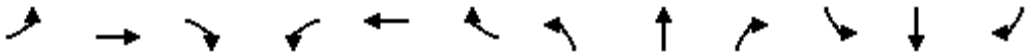
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	129.0%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	102	61	1295	1280	87
Future Volume (Veh/h)	31	102	61	1295	1280	87
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	33	107	64	1363	1347	92
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked	0.73					
vC, conflicting volume	2202	720	1439			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1910	720	1439			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	13	71	86			
cM capacity (veh/h)	38	371	468			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	140	64	682	682	898	541
Volume Left	33	64	0	0	0	0
Volume Right	107	0	0	0	0	92
cSH	121	468	1700	1700	1700	1700
Volume to Capacity	1.16	0.14	0.40	0.40	0.53	0.32
Queue Length 95th (ft)	214	12	0	0	0	0
Control Delay (s)	200.8	13.9	0.0	0.0	0.0	0.0
Lane LOS	F	B				
Approach Delay (s)	200.8	0.6			0.0	
Approach LOS	F					

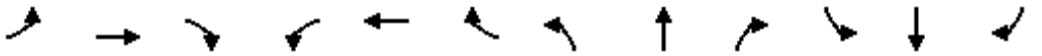
Intersection Summary			
Average Delay	9.6		
Intersection Capacity Utilization	68.1%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	1617	49	328	1253	140	112	810	416	133	546	72
Future Volume (vph)	105	1617	49	328	1253	140	112	810	416	133	546	72
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	1.00		1.00	0.98		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	3004		1509	2972		1509	3018	1350	1509	2965	
Flt Permitted	0.13	1.00		0.07	1.00		0.17	1.00	1.00	0.17	1.00	
Satd. Flow (perm)	202	3004		116	2972		276	3018	1350	276	2965	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	107	1650	50	335	1279	143	114	827	424	136	557	73
RTOR Reduction (vph)	0	2	0	0	8	0	0	0	146	0	10	0
Lane Group Flow (vph)	107	1698	0	335	1414	0	114	827	278	136	620	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)	56.9	51.5		69.0	59.6		23.0	23.0	23.0	23.0	23.0	
Effective Green, g (s)	56.9	51.5		68.5	59.6		23.0	23.0	23.0	23.0	23.0	
Actuated g/C Ratio	0.57	0.52		0.68	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)	185	1547		267	1771		63	694	310	63	681	
v/s Ratio Prot	0.03	0.57		c0.17	0.48			0.27			0.21	
v/s Ratio Perm	0.30			c0.69			0.41		0.21	c0.49		
v/c Ratio	0.58	1.10		1.25	0.80		1.81	1.19	0.90	2.16	0.91	
Uniform Delay, d1	12.2	24.2		33.3	15.6		38.5	38.5	37.4	38.5	37.5	
Progression Factor	0.97	0.90		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.7	54.4		141.5	3.9		419.7	100.1	30.7	570.1	18.4	
Delay (s)	14.5	76.1		174.8	19.4		458.2	138.6	68.1	608.6	55.9	
Level of Service	B	E		F	B		F	F	E	F	E	
Approach Delay (s)		72.5			49.0			143.4			154.1	
Approach LOS		E			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	93.2	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	123.8%	ICU Level of Service	H
Analysis Period (min)	15		

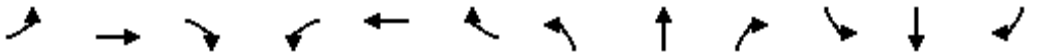
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1545	567	1	1295	27	411	25	1	23	28	25
Future Volume (vph)	59	1545	567	1	1295	27	411	25	1	23	28	25
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	0.96			0.99	
Satd. Flow (prot)	1509	3018	1350		3008		1433	1444			1495	
Flt Permitted	0.11	1.00	1.00		0.95		0.95	0.96			0.99	
Satd. Flow (perm)	180	3018	1350		2871		1433	1444			1495	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	60	1577	579	1	1321	28	419	26	1	23	29	26
RTOR Reduction (vph)	0	0	79	0	1	0	0	0	0	0	15	0
Lane Group Flow (vph)	60	1577	500	0	1349	0	222	224	0	0	63	0
Turn Type	pm+pt	NA	Perm		NA		Split	NA		Split	NA	
Protected Phases	1	6			2		4	4		3	3	
Permitted Phases	6		6									
Actuated Green, G (s)	78.0	78.0	78.0		70.5		22.4	22.4			7.6	
Effective Green, g (s)	77.0	78.0	78.0		70.5		22.4	22.4			7.6	
Actuated g/C Ratio	0.64	0.65	0.65		0.59		0.19	0.19			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)	154	1961	877		1686		267	269			94	
v/s Ratio Prot	0.01	c0.52					0.15	c0.16			c0.04	
v/s Ratio Perm	0.24		0.37		0.47							
v/c Ratio	0.39	0.80	0.57		9.33dr		0.83	0.83			0.67	
Uniform Delay, d1	13.4	15.4	11.7		19.3		47.0	47.0			55.0	
Progression Factor	1.24	1.20	1.38		1.00		1.00	1.00			1.00	
Incremental Delay, d2	0.6	3.5	2.6		4.1		19.3	19.3			17.2	
Delay (s)	17.1	22.0	18.7		23.3		66.3	66.3			72.1	
Level of Service	B	C	B		C		E	E			E	
Approach Delay (s)		21.0			23.3			66.3			72.1	
Approach LOS		C			C			E			E	

Intersection Summary			
HCM 2000 Control Delay	27.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.2%	ICU Level of Service	F
Analysis Period (min)	15		

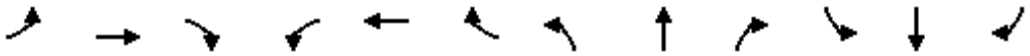
dr Defacto Right Lane. Recode with 1 though lane as a right lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	1915	45	96	1425	52	34	0	91	0	0	40
Future Volume (vph)	31	1915	45	96	1425	52	34	0	91	0	0	40
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	0.95			1.00				1.00
Frt	1.00	1.00		1.00	0.99			0.90				0.86
Flt Protected	0.95	1.00		0.95	1.00			0.99				1.00
Satd. Flow (prot)	1509	3007		1509	3002			1413				1374
Flt Permitted	0.95	1.00		0.95	1.00			0.99				1.00
Satd. Flow (perm)	1509	3007		1509	3002			1413				1374
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	31	1934	45	97	1439	53	34	0	92	0	0	40
RTOR Reduction (vph)	0	2	0	0	2	0	0	90	0	0	0	36
Lane Group Flow (vph)	31	1977	0	97	1490	0	0	36	0	0	0	4
Turn Type	Prot	NA		Prot	NA		Perm	NA				Over
Protected Phases	8	2		1 8	6			4				8
Permitted Phases							4					
Actuated Green, G (s)	9.6	57.2		19.1	70.7			7.7				9.6
Effective Green, g (s)	9.6	57.2		19.1	70.7			7.7				9.6
Actuated g/C Ratio	0.10	0.57		0.19	0.71			0.08				0.10
Clearance Time (s)	4.0	4.0			4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0			3.0			3.0				3.0
Lane Grp Cap (vph)	144	1720		288	2122			108				131
v/s Ratio Prot	0.02	c0.66		c0.06	c0.50							0.00
v/s Ratio Perm								0.03				
v/c Ratio	0.22	1.15		0.34	0.70			0.33				0.03
Uniform Delay, d1	41.7	21.4		35.0	8.5			43.7				41.0
Progression Factor	1.00	1.00		0.61	1.54			1.00				1.00
Incremental Delay, d2	0.8	74.6		0.6	1.8			1.8				0.1
Delay (s)	42.5	96.0		22.0	14.9			45.5				41.1
Level of Service	D	F		C	B			D				D
Approach Delay (s)		95.1			15.3			45.5			41.1	
Approach LOS		F			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	59.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		

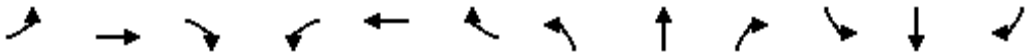
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	109	1538	174	278	1246	145	228	213	396	127	193	95
Future Volume (vph)	109	1538	174	278	1246	145	228	213	396	127	193	95
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			1.00	1.00		1.00	
Frt	1.00	0.98		1.00	0.98			1.00	0.85		0.97	
Flt Protected	0.95	1.00		0.95	1.00			0.97	1.00		0.98	
Satd. Flow (prot)	1509	2972		1509	2970			1548	1350		1516	
Flt Permitted	0.15	1.00		0.14	1.00			0.97	1.00		0.98	
Satd. Flow (perm)	244	2972		219	2970			1548	1350		1516	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	114	1602	181	290	1298	151	238	222	412	132	201	99
RTOR Reduction (vph)	0	9	0	0	8	0	0	0	281	0	11	0
Lane Group Flow (vph)	114	1774	0	290	1441	0	0	460	132	0	421	0
Turn Type	Perm	NA		pm+pt	NA		Split	NA	pm+ov	Split	NA	
Protected Phases		6		5 7	2		4	4	5 7	8	8	
Permitted Phases	6			2					4			
Actuated Green, G (s)	26.0	26.0		36.0	31.0			15.6	22.6		13.0	
Effective Green, g (s)	26.0	26.0		30.0	31.0			15.6	15.6		13.0	
Actuated g/C Ratio	0.34	0.34		0.39	0.40			0.20	0.20		0.17	
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0			3.0			4.0			3.0	
Lane Grp Cap (vph)	82	1008		102	1201			315	274		257	
v/s Ratio Prot		0.60		c0.04	0.48			c0.30	0.01		c0.28	
v/s Ratio Perm	0.47			c1.07					0.09			
v/c Ratio	1.39	1.76		2.84	1.20			1.46	0.48		1.64	
Uniform Delay, d1	25.3	25.3		31.0	22.8			30.5	26.9		31.8	
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	
Incremental Delay, d2	234.2	346.2		855.8	98.1			223.9	0.5		304.5	
Delay (s)	259.5	371.5		886.8	120.9			254.4	27.4		336.3	
Level of Service	F	F		F	F			F	C		F	
Approach Delay (s)		364.8			248.6			147.0			336.3	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	282.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	2.43		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	25.0
Intersection Capacity Utilization	142.6%	ICU Level of Service	H
Analysis Period (min)	15		

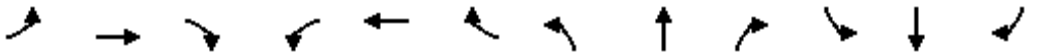
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	8	869	10	115	7	734	1325	0	645	2
Future Volume (vph)	0	0	8	869	10	115	7	734	1325	0	645	2
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	0.95			0.95	1.00		0.95	
Frt			0.86	1.00	0.97			1.00	0.85		1.00	
Flt Protected			1.00	0.95	0.96			1.00	1.00		1.00	
Satd. Flow (prot)			1374	1433	1405			3016	1350		3016	
Flt Permitted			1.00	0.95	0.96			0.95	1.00		1.00	
Satd. Flow (perm)			1374	1433	1405			2865	1350		3016	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	0	8	896	10	119	7	757	1366	0	665	2
RTOR Reduction (vph)	0	0	5	0	10	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	3	493	522	0	0	764	1366	0	667	0
Turn Type			Perm	Prot	NA		Perm	NA	Free		NA	
Protected Phases				4	8			2			2	
Permitted Phases			4				2		Free			
Actuated Green, G (s)			37.0	37.0	37.0			54.0	100.0		54.0	
Effective Green, g (s)			37.0	37.0	37.0			55.0	100.0		55.0	
Actuated g/C Ratio			0.37	0.37	0.37			0.55	1.00		0.55	
Clearance Time (s)			4.0	4.0	4.0			5.0			5.0	
Vehicle Extension (s)			7.0	7.0	3.0			3.0			3.0	
Lane Grp Cap (vph)			508	530	519			1575	1350		1658	
v/s Ratio Prot				0.34	0.37						0.22	
v/s Ratio Perm			0.00					0.27	c1.01			
v/c Ratio			0.01	0.93	1.01			0.49	1.01		0.40	
Uniform Delay, d1			19.9	30.3	31.5			13.8	50.0		13.0	
Progression Factor			1.00	1.00	1.00			1.68	1.00		1.00	
Incremental Delay, d2			0.0	25.1	40.9			0.1	10.5		0.7	
Delay (s)			19.9	55.4	72.4			23.2	60.5		13.7	
Level of Service			B	E	E			C	E		B	
Approach Delay (s)		19.9			64.2			47.1			13.7	
Approach LOS		B			E			D			B	

Intersection Summary			
HCM 2000 Control Delay	45.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.0%	ICU Level of Service	C
Analysis Period (min)	15		

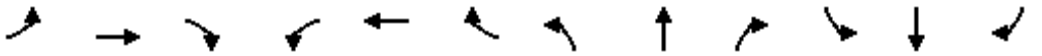
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	454	458	130	38	241	135	155	1533	60	99	1114	280
Future Volume (vph)	454	458	130	38	241	135	155	1533	60	99	1114	280
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	1.00	1.00	1.00	1.00		1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.95		1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1509	1588	1350	1509	1503		1509	3000		1509	3018	1350
Flt Permitted	0.21	1.00	1.00	0.25	1.00		0.10	1.00		0.10	1.00	1.00
Satd. Flow (perm)	338	1588	1350	396	1503		154	3000		162	3018	1350
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	459	463	131	38	243	136	157	1548	61	100	1125	283
RTOR Reduction (vph)	0	0	54	0	21	0	0	2	0	0	0	69
Lane Group Flow (vph)	459	463	77	38	358	0	157	1607	0	100	1125	214
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Actuated Green, G (s)	39.9	33.4	33.4	32.4	28.9		50.7	42.2		46.0	40.1	40.1
Effective Green, g (s)	38.9	33.9	33.9	30.4	28.9		48.7	42.7		44.0	40.1	40.1
Actuated g/C Ratio	0.39	0.34	0.34	0.30	0.29		0.49	0.43		0.44	0.40	0.40
Clearance Time (s)	3.0	4.5	4.5	3.0	4.0		3.0	4.5		3.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	1.0	2.5		1.0	5.0		1.0	5.0	5.0
Lane Grp Cap (vph)	219	538	457	148	434		176	1281		137	1210	541
v/s Ratio Prot	c0.16	0.29		0.01	0.24		c0.07	c0.54		0.04	0.37	
v/s Ratio Perm	c0.66		0.06	0.07			0.37			0.28		0.16
v/c Ratio	2.10	0.86	0.17	0.26	0.83		0.89	1.25		0.73	0.93	0.39
Uniform Delay, d1	28.8	30.8	23.2	25.9	33.2		20.9	28.6		23.4	28.6	21.3
Progression Factor	0.94	0.95	0.86	1.25	1.30		1.32	0.32		1.46	1.37	1.71
Incremental Delay, d2	508.2	13.1	0.2	0.1	5.0		5.5	115.0		10.6	10.1	1.5
Delay (s)	535.5	42.4	20.0	32.5	48.1		33.0	124.3		44.7	49.3	38.0
Level of Service	F	D	C	C	D		C	F		D	D	D
Approach Delay (s)		254.6			46.7			116.2			46.9	
Approach LOS		F			D			F			D	

Intersection Summary			
HCM 2000 Control Delay	118.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.66		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	125.7%	ICU Level of Service	H
Analysis Period (min)	15		

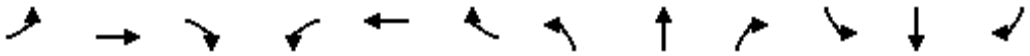
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	623	1307	133	485	922	23	217	1093	448	0	805	491
Future Volume (vph)	623	1307	133	485	922	23	217	1093	448	0	805	491
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
Lane Util. Factor	0.97	0.95		0.97	0.95		0.97	0.95			0.95	1.00
Frt	1.00	0.99		1.00	1.00		1.00	0.96			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)	2927	2976		2927	3007		2927	2886			3018	1350
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (perm)	2927	2976		2927	3007		2927	2886			3018	1350
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	636	1334	136	495	941	23	221	1115	457	0	821	501
RTOR Reduction (vph)	0	8	0	0	2	0	0	44	0	0	0	179
Lane Group Flow (vph)	636	1462	0	495	962	0	221	1528	0	0	821	322
Turn Type	Prot	NA		Prot	NA		Prot	NA			NA	Perm
Protected Phases	5	2		1	6		3	8			4	
Permitted Phases												4
Actuated Green, G (s)	13.0	35.5		11.0	33.5		5.0	40.0			30.0	30.0
Effective Green, g (s)	13.0	36.0		11.0	34.0		6.0	41.0			31.0	31.0
Actuated g/C Ratio	0.13	0.36		0.11	0.34		0.06	0.41			0.31	0.31
Clearance Time (s)	4.0	4.5		4.0	4.5		5.0	5.0			5.0	5.0
Vehicle Extension (s)	1.0	5.0		1.0	5.0		2.0	4.0			4.0	4.0
Lane Grp Cap (vph)	380	1071		321	1022		175	1183			935	418
v/s Ratio Prot	c0.22	c0.49		0.17	0.32		0.08	c0.53			0.27	
v/s Ratio Perm												0.24
v/c Ratio	1.67	1.37		1.54	0.94		1.26	1.29			0.88	0.77
Uniform Delay, d1	43.5	32.0		44.5	32.0		47.0	29.5			32.7	31.3
Progression Factor	0.81	1.21		1.16	0.93		1.00	1.00			1.65	2.50
Incremental Delay, d2	308.9	167.5		255.4	13.9		155.8	137.6			5.9	5.2
Delay (s)	344.0	206.1		307.0	43.6		202.8	167.1			59.8	83.3
Level of Service	F	F		F	D		F	F			E	F
Approach Delay (s)		247.7			133.0			171.5			68.7	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM 2000 Control Delay	166.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	125.8%	ICU Level of Service	H
Analysis Period (min)	15		

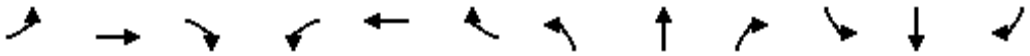
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	322	1180	68	285	784	89	81	1338	431	96	1108	290
Future Volume (vph)	322	1180	68	285	784	89	81	1338	431	96	1108	290
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	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1509	2993		1509	3018	1350	1509	2907		1509	2924	
Flt Permitted	0.35	1.00		0.14	1.00	1.00	0.10	1.00		0.10	1.00	
Satd. Flow (perm)	551	2993		227	3018	1350	159	2907		159	2924	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	332	1216	70	294	808	92	84	1379	444	99	1142	299
RTOR Reduction (vph)	0	4	0	0	0	13	0	34	0	0	26	0
Lane Group Flow (vph)	332	1282	0	294	808	79	84	1789	0	99	1415	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4		4	6			2		
Actuated Green, G (s)	25.0	25.0		41.0	41.0	41.0	39.0	39.0		39.0	39.0	
Effective Green, g (s)	26.0	26.0		40.0	42.0	42.0	40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.29	0.29		0.44	0.47	0.47	0.44	0.44		0.44	0.44	
Clearance Time (s)	5.0	5.0		3.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	159	864		271	1408	630	70	1292		70	1299	
v/s Ratio Prot		0.43		c0.14	0.27			0.62			0.48	
v/s Ratio Perm	c0.60			0.34		0.06	0.53			c0.62		
v/c Ratio	2.09	1.48		1.08	0.57	0.13	1.20	1.38		1.41	1.09	
Uniform Delay, d1	32.0	32.0		23.9	17.5	13.6	25.0	25.0		25.0	25.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	510.5	223.8		79.2	1.7	0.4	171.1	177.8		251.5	53.0	
Delay (s)	542.5	255.8		103.0	19.2	14.0	196.1	202.8		276.5	78.0	
Level of Service	F	F		F	B	B	F	F		F	E	
Approach Delay (s)		314.6			39.4			202.5			90.7	
Approach LOS		F			D			F			F	

Intersection Summary			
HCM 2000 Control Delay	172.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.58		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	140.5%	ICU Level of Service	H
Analysis Period (min)	15		

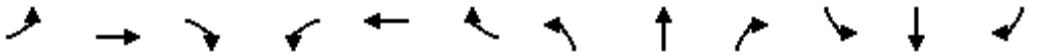
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1526	28	2	1206	338	34	57	25	345	53	12
Future Volume (vph)	0	1526	28	2	1206	338	34	57	25	345	53	12
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		0.95			0.95	1.00		1.00		0.95	0.95	
Frt		1.00			1.00	0.85		0.97		1.00	0.99	
Flt Protected		1.00			1.00	1.00		0.99		0.95	0.97	
Satd. Flow (prot)		3009			3017	1350		1520		1433	1447	
Flt Permitted		1.00			0.95	1.00		0.99		0.95	0.97	
Satd. Flow (perm)		3009			2877	1350		1520		1433	1447	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1573	29	2	1243	348	35	59	26	356	55	12
RTOR Reduction (vph)	0	1	0	0	0	73	0	10	0	0	2	0
Lane Group Flow (vph)	0	1601	0	0	1245	275	0	110	0	224	197	0
Turn Type		NA		Perm	NA	Over	Split	NA		Split	NA	
Protected Phases		2			6	4	3	3		4	4	
Permitted Phases				6								
Actuated Green, G (s)		58.3			58.3	21.7		8.0		21.7	21.7	
Effective Green, g (s)		58.3			58.3	21.7		8.0		21.7	21.7	
Actuated g/C Ratio		0.58			0.58	0.22		0.08		0.22	0.22	
Clearance Time (s)		4.0			4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)		4.5			4.5	4.0		3.0		4.0	4.0	
Lane Grp Cap (vph)		1754			1677	292		121		310	313	
v/s Ratio Prot		c0.53				c0.20		c0.07		0.16	0.14	
v/s Ratio Perm					0.43							
v/c Ratio		0.91			0.74	0.94		0.91		0.72	0.63	
Uniform Delay, d1		18.6			15.3	38.5		45.6		36.4	35.5	
Progression Factor		0.59			1.00	1.00		1.00		0.79	0.78	
Incremental Delay, d2		0.9			3.0	37.7		53.7		4.5	2.3	
Delay (s)		11.9			18.3	76.2		99.3		33.4	30.1	
Level of Service		B			B	E		F		C	C	
Approach Delay (s)		11.9			31.0			99.3			31.8	
Approach LOS		B			C			F			C	

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		

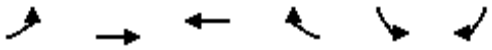
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1643	43	5	1222	64	83	32	101	33	1	35
Future Volume (vph)	59	1643	43	5	1222	64	83	32	101	33	1	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			1.00			1.00	1.00
Frt	1.00	1.00		1.00	0.99			0.94			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.95	1.00
Satd. Flow (prot)	1509	3006		1509	2995			1460			1515	1350
Flt Permitted	0.15	1.00		0.10	1.00			0.86			0.61	1.00
Satd. Flow (perm)	232	3006		165	2995			1278			967	1350
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	61	1694	44	5	1260	66	86	33	104	34	1	36
RTOR Reduction (vph)	0	2	0	0	3	0	0	32	0	0	0	30
Lane Group Flow (vph)	61	1736	0	5	1323	0	0	191	0	0	35	6
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2			6			8			4		4
Actuated Green, G (s)	74.2	74.2		67.3	67.3			17.8			17.8	17.8
Effective Green, g (s)	73.2	74.2		67.3	67.3			17.8			17.8	17.8
Actuated g/C Ratio	0.73	0.74		0.67	0.67			0.18			0.18	0.18
Clearance Time (s)	3.0	4.0		4.0	4.0			4.0			4.0	4.0
Vehicle Extension (s)	1.0	5.0		5.0	5.0			3.0			3.0	3.0
Lane Grp Cap (vph)	206	2230		111	2015			227			172	240
v/s Ratio Prot	0.01	c0.58			0.44							
v/s Ratio Perm	0.21			0.03				c0.15			0.04	0.00
v/c Ratio	0.30	0.78		0.05	0.66			0.84			0.20	0.03
Uniform Delay, d1	6.4	7.9		5.5	9.6			39.7			35.1	33.9
Progression Factor	1.00	1.00		0.73	0.47			1.00			1.00	1.00
Incremental Delay, d2	0.3	2.8		0.5	1.2			23.5			0.6	0.0
Delay (s)	6.7	10.6		4.6	5.7			63.2			35.6	34.0
Level of Service	A	B		A	A			E			D	C
Approach Delay (s)		10.5			5.7			63.2			34.8	
Approach LOS		B			A			E			C	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		

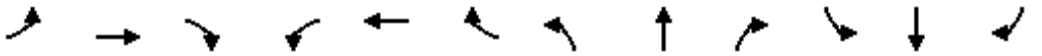
c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	62	1833	1338	64	12	148
Future Volume (vph)	62	1833	1338	64	12	148
Ideal Flow (vphpl)	1620	1620	1620	1620	1620	1620
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	0.95	0.91		1.00	1.00
Frt	1.00	1.00	0.99		1.00	0.85
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1509	3018	4306		1509	1350
Flt Permitted	0.16	1.00	1.00		0.95	1.00
Satd. Flow (perm)	247	3018	4306		1509	1350
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	65	1909	1394	67	12	154
RTOR Reduction (vph)	0	0	5	0	0	81
Lane Group Flow (vph)	65	1909	1456	0	13	73
Turn Type	Perm	NA	NA		Prot	Perm
Protected Phases		4	8		6	
Permitted Phases	4					6
Actuated Green, G (s)	76.0	76.0	76.0		16.0	16.0
Effective Green, g (s)	76.0	76.0	76.0		16.0	16.0
Actuated g/C Ratio	0.76	0.76	0.76		0.16	0.16
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Lane Grp Cap (vph)	187	2293	3272		241	216
v/s Ratio Prot		c0.63	0.34		0.01	
v/s Ratio Perm	0.26					c0.05
v/c Ratio	0.35	0.83	0.44		0.05	0.34
Uniform Delay, d1	3.9	7.8	4.4		35.6	37.3
Progression Factor	1.08	1.80	0.11		1.00	1.00
Incremental Delay, d2	0.1	0.3	0.1		0.4	4.2
Delay (s)	4.3	14.4	0.5		36.0	41.5
Level of Service	A	B	A		D	D
Approach Delay (s)		14.1	0.5		41.1	
Approach LOS		B	A		D	

Intersection Summary			
HCM 2000 Control Delay	9.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.4%	ICU Level of Service	C
Analysis Period (min)	15		

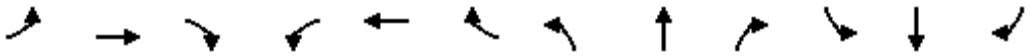
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	89	1876	19	0	1467	28	0	0	113	0	0	22
Future Volume (vph)	89	1876	19	0	1467	28	0	0	113	0	0	22
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
Lane Util. Factor	1.00	0.95			0.95				1.00			1.00
Frt	1.00	1.00			1.00				0.86			0.86
Flt Protected	0.95	1.00			1.00				1.00			1.00
Satd. Flow (prot)	1509	3013			3009				1374			1374
Flt Permitted	0.12	1.00			1.00				1.00			1.00
Satd. Flow (perm)	186	3013			3009				1374			1374
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	97	2039	21	0	1595	30	0	0	123	0	0	24
RTOR Reduction (vph)	0	1	0	0	1	0	0	0	24	0	0	20
Lane Group Flow (vph)	97	2059	0	0	1624	0	0	0	99	0	0	4
Turn Type	Perm	NA			NA				Perm			Perm
Protected Phases		4			8							
Permitted Phases	4								2			6
Actuated Green, G (s)	76.0	76.0			76.0				16.0			16.0
Effective Green, g (s)	76.0	76.0			76.0				16.0			16.0
Actuated g/C Ratio	0.76	0.76			0.76				0.16			0.16
Clearance Time (s)	4.0	4.0			4.0				4.0			4.0
Vehicle Extension (s)	3.0	3.0			3.0				3.0			3.0
Lane Grp Cap (vph)	141	2289			2286				219			219
v/s Ratio Prot		c0.68			0.54							
v/s Ratio Perm	0.52								c0.07			0.00
v/c Ratio	0.69	0.90			0.71				0.45			0.02
Uniform Delay, d1	6.0	9.1			6.3				38.0			35.4
Progression Factor	0.15	0.22			1.68				1.00			1.00
Incremental Delay, d2	8.8	3.5			0.5				6.6			0.1
Delay (s)	9.8	5.5			11.0				44.6			35.5
Level of Service	A	A			B				D			D
Approach Delay (s)		5.7			11.0			44.6			35.5	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	9.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.4%	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												
Traffic Volume (veh/h)	1	838	29	62	555	0	31	0	107	11	10	36
Future Volume (Veh/h)	1	838	29	62	555	0	31	0	107	11	10	36
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	1	921	32	68	610	0	34	0	118	12	11	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		513			1070							
pX, platoon unblocked	0.91						0.91	0.91		0.91	0.91	0.91
vC, conflicting volume	610			953			1730	1685	937	1803	1701	610
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	521			953			1754	1703	937	1833	1721	521
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
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 %	100			91			26	100	63	62	85	92
cM capacity (veh/h)	950			721			46	75	321	31	73	505

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	954	678	152	63
Volume Left	1	68	34	12
Volume Right	32	0	118	40
cSH	950	721	137	103
Volume to Capacity	0.00	0.09	1.11	0.61
Queue Length 95th (ft)	0	8	213	74
Control Delay (s)	0.0	2.4	172.7	84.4
Lane LOS	A	A	F	F
Approach Delay (s)	0.0	2.4	172.7	84.4
Approach LOS			F	F

Intersection Summary			
Average Delay	18.0		
Intersection Capacity Utilization	113.6%	ICU Level of Service	H
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	151	1895	60	0	3	1421	58	0	0	0	0	0
Future Volume (Veh/h)	151	1895	60	0	3	1421	58	0	0	0	0	0
Sign Control		Free				Free			Stop			Stop
Grade		0%				0%			0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	157	1974	63	0	3	1480	60	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None				None						
Median storage veh)												
Upstream signal (ft)		685										
pX, platoon unblocked				0.00								
vC, conflicting volume	1540			0	2037			3170	3866	1018	2817	3867
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1540			0	2037			3170	3866	1018	2817	3867
tC, single (s)	4.1			0.0	4.1			7.5	6.5	6.9	7.5	6.5
tC, 2 stage (s)												
tF (s)	2.2			0.0	2.2			3.5	4.0	3.3	3.5	4.0
p0 queue free %	63			0	99			100	100	100	100	100
cM capacity (veh/h)	427			0	274			2	2	235	6	2

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	157	1316	721	743	800	0	105
Volume Left	157	0	0	3	0	0	0
Volume Right	0	0	63	0	60	0	105
cSH	427	1700	1700	274	1700	1700	343
Volume to Capacity	0.37	0.77	0.42	0.01	0.47	0.00	0.31
Queue Length 95th (ft)	42	0	0	1	0	0	32
Control Delay (s)	18.2	0.0	0.0	0.4	0.0	0.0	20.0
Lane LOS	C			A			C
Approach Delay (s)	1.3			0.2			20.0
Approach LOS							C

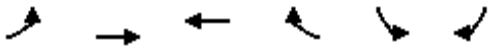
Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	118.7%	ICU Level of Service		H
Analysis Period (min)	15			

Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	101
Future Volume (Veh/h)	101
Sign Control	
Grade	
Peak Hour Factor	0.96
Hourly flow rate (vph)	105
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	
Median storage veh)	
Upstream signal (ft)	
pX, platoon unblocked	
vC, conflicting volume	770
vC1, stage 1 conf vol	
vC2, stage 2 conf vol	
vCu, unblocked vol	770
tC, single (s)	6.9
tC, 2 stage (s)	
tF (s)	3.3
p0 queue free %	69
cM capacity (veh/h)	343
Direction, Lane #	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1029	20	31	668	10	127
Future Volume (Veh/h)	1029	20	31	668	10	127
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	1061	21	32	689	10	131
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)	1163			420		
pX, platoon unblocked					0.81	
vC, conflicting volume			1082		1824	1072
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			1082		1898	1072
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		83	51
cM capacity (veh/h)			645		59	268

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	1082	721	141
Volume Left	0	32	10
Volume Right	21	0	131
cSH	1700	645	214
Volume to Capacity	0.64	0.05	0.66
Queue Length 95th (ft)	0	4	100
Control Delay (s)	0.0	1.4	49.2
Lane LOS		A	E
Approach Delay (s)	0.0	1.4	49.2
Approach LOS			E

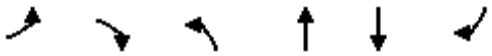
Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	87.3%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	2024	1428	48	0	49
Future Volume (Veh/h)	0	2024	1428	48	0	49
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	0	2044	1442	48	0	49
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		106	432			
pX, platoon unblocked	0.72				0.38	0.72
vC, conflicting volume	1490				3510	745
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	898				4021	0
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	94
cM capacity (veh/h)	540				1	779

Direction, Lane #	EB 1	WB 1	WB 2	SB 1
Volume Total	2044	961	529	49
Volume Left	0	0	0	0
Volume Right	0	0	48	49
cSH	1700	1700	1700	779
Volume to Capacity	1.20	0.57	0.31	0.06
Queue Length 95th (ft)	0	0	0	5
Control Delay (s)	0.0	0.0	0.0	9.9
Lane LOS				A
Approach Delay (s)	0.0	0.0		9.9
Approach LOS				A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	128.3%	ICU Level of Service	H
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	52	115	60	1827	1326	66
Future Volume (Veh/h)	52	115	60	1827	1326	66
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	55	121	63	1923	1396	69
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				1029		
pX, platoon unblocked	0.61					
vC, conflicting volume	2518	732	1465			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2214	732	1465			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	67	86			
cM capacity (veh/h)	20	363	457			

Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	176	63	962	962	931	534
Volume Left	55	63	0	0	0	0
Volume Right	121	0	0	0	0	69
cSH	56	457	1700	1700	1700	1700
Volume to Capacity	3.13	0.14	0.57	0.57	0.55	0.31
Queue Length 95th (ft)	Err	12	0	0	0	0
Control Delay (s)	Err	14.1	0.0	0.0	0.0	0.0
Lane LOS	F	B				
Approach Delay (s)	Err	0.4			0.0	
Approach LOS	F					

Intersection Summary				
Average Delay	485.4			
Intersection Capacity Utilization	77.6%	ICU Level of Service		D
Analysis Period (min)	15			

APPENDIX D:
SIGNAL WARRANT ANALYSIS

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: La Cienega Bl
Minor Street: Sherwood Dr
Scenario: Existing AM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	NO	8th Highest Hour
80% Combination	1C	8	YES	NO	8th Highest Hour
Four Hour Volume	2	9	YES	YES	4th Highest Hour
Peak Hour Volume	3	11	YES	YES	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			YES	NO	Daily
Interruption of Continuous Traffic			YES	NO	Daily
80% Combination			YES	NO	Daily

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: La Cienega Bl
Minor Street: Sherwood Dr
Scenario: Existing PM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	YES	8th Highest Hour
80% Combination	1C	8	YES	YES	8th Highest Hour
Four Hour Volume	2	9	YES	YES	4th Highest Hour
Peak Hour Volume	3	11	YES	YES	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			YES	NO	Daily
Interruption of Continuous Traffic			YES	NO	Daily
80% Combination			YES	NO	Daily

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: La Cienega Bl
Minor Street: Sherwood Dr
Scenario: Existing + Project AM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	NO	8th Highest Hour
80% Combination	1C	8	YES	NO	8th Highest Hour
Four Hour Volume	2	9	YES	YES	4th Highest Hour
Peak Hour Volume	3	11	YES	YES	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			YES	NO	Daily
Interruption of Continuous Traffic			YES	NO	Daily
80% Combination			YES	NO	Daily

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: La Cienega Bl
Minor Street: Sherwood Dr
Scenario: Existing + Project PM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	YES	8th Highest Hour
80% Combination	1C	8	YES	YES	8th Highest Hour
Four Hour Volume	2	9	YES	YES	4th Highest Hour
Peak Hour Volume	3	11	YES	YES	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			YES	NO	Daily
Interruption of Continuous Traffic			YES	NO	Daily
80% Combination			YES	NO	Daily

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: La Cienega Bl
Minor Street: Sherwood Dr
Scenario: Cumulative Base

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	NO	8th Highest Hour
80% Combination	1C	8	YES	NO	8th Highest Hour
Four Hour Volume	2	9	YES	YES	4th Highest Hour
Peak Hour Volume	3	11	YES	YES	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			YES	NO	Daily
Interruption of Continuous Traffic			YES	NO	Daily
80% Combination			YES	NO	Daily

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: La Cienega Bl
Minor Street: Sherwood Dr
Scenario: Cumulative Base PM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	YES	8th Highest Hour
80% Combination	1C	8	YES	YES	8th Highest Hour
Four Hour Volume	2	9	YES	YES	4th Highest Hour
Peak Hour Volume	3	11	YES	YES	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			YES	NO	Daily
Interruption of Continuous Traffic			YES	NO	Daily
80% Combination			YES	NO	Daily

SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: La Cienega Bl
Minor Street: Sherwood Dr
Scenario: Cumulative + Project AM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	NO	8th Highest Hour
80% Combination	1C	8	YES	NO	8th Highest Hour
Four Hour Volume	2	9	YES	YES	4th Highest Hour
Peak Hour Volume	3	11	YES	YES	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			YES	NO	Daily
Interruption of Continuous Traffic			YES	NO	Daily
80% Combination			YES	NO	Daily

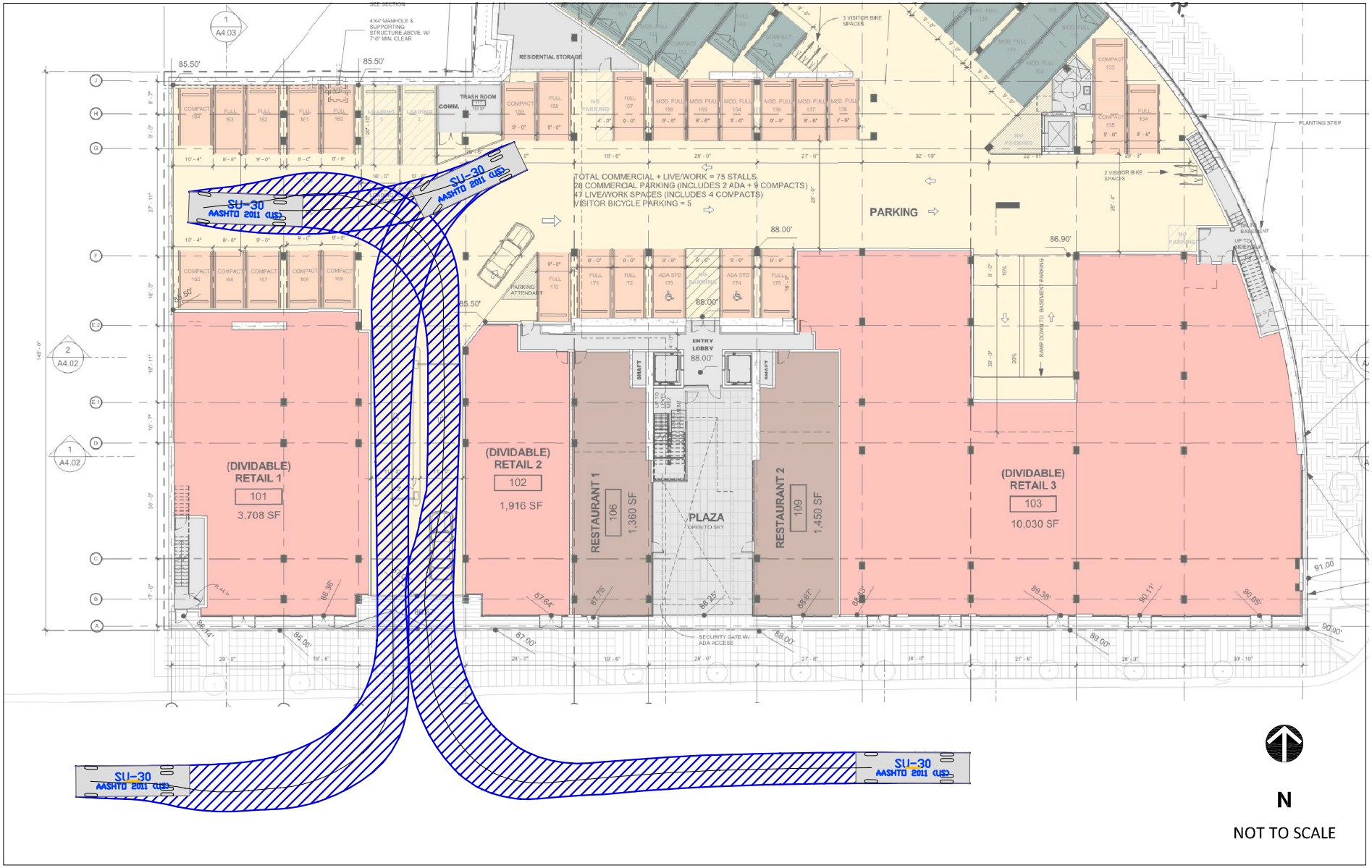
SUMMARY OF TRAFFIC SIGNAL WARRANT ANALYSIS

Major Street: La Cienega Bl
Minor Street: Sherwood Dr
Scenario: Cumulative + Project PM

SUMMARY OF RESULTS

Warrant	MUTCD Warrant Number	Caltrans Warrant Number	Requested for Analysis?	Volumes Satisfy Warrant?	Applicable Time Period
Eight Hour Vehicular Volume	1				
Minimum Vehicular Volume	1A	1	YES	NO	8th Highest Hour
Interruption of Continuous Traffic	1B	2	YES	YES	8th Highest Hour
80% Combination	1C	8	YES	YES	8th Highest Hour
Four Hour Volume	2	9	YES	YES	4th Highest Hour
Peak Hour Volume	3	11	YES	YES	Peak Hour
Estimated Average Daily Traffic	n/a	n/a			
Minimum Vehicular Volume			YES	NO	Daily
Interruption of Continuous Traffic			YES	NO	Daily
80% Combination			YES	NO	Daily

APPENDIX E:
SITE PLAN REVIEW



FEHR & PEERS

TURNING TEMPLATE - SANTA MONICA BOULEVARD DRIVEWAY
30' SINGLE UNIT TRUCK

APPENDIX E

Jun 07, 2017 FPA
\\fpla03\data\Jobs\Active\2500s\2554 – 8555 SM Blvd Traffic Study\Graphics\ATURN\June 2017\Site Layout.dwg

APPENDIX F:
RELATED PROJECTS

8555 SANTA MONICA BOULEVARD PROJECT
RELATED PROJECT TRIP GENERATION ESTIMATES

PROJ	ADDRESS	CITY	ITE CODE	DESCRIPTION	SIZE	UNITS	AM IN	AM OUT	AM TOTAL	PM IN	PM OUT	PM TOTAL	MID IN	MID OUT	MID TOTAL	ADT TOTAL
	City of West Hollywood [3]															
1	8816 Beverly Blvd	West Hollywood, CA	[3]	Mixed-use Project	[3]	[3]	47	18	65	31	54	85	32	32	64	959
2	920 Fairfax Ave	West Hollywood, CA	826/710	Retail/Office	[3]	[3]	1	9	8	7	9	2	1	9	8	86
3	1216 Flores St	West Hollywood, CA	230	Condominiums	14	du	1	5	6	5	2	7	1	5	6	81
4	1041 Formosa Ave	West Hollywood, CA	710	Office/Media Support	[3]	[3]	389	49	438	113	332	445	113	332	445	4,450
5	1264 Harper Ave	West Hollywood, CA	230	Condominiums	14	du	1	5	6	5	2	7	1	6	7	81
6	1345 Havenhurst Dr	West Hollywood, CA	230	Condominiums	16	du	1	6	7	5	3	8	1	6	7	94
7	1342 Hayworth Ave	West Hollywood, CA	230	Condominiums	16	du	1	6	7	5	3	8	1	6	7	94
8	1125 Kings Rd	West Hollywood, CA	230	Condominiums	10	du	1	4	4	3	2	5	1	4	4	59
9	1232 Kings Rd	West Hollywood, CA	220	Apartments	25	du	3	10	13	10	5	16	4	10	14	168
10	1145 La Brea Ave	West Hollywood, CA	220/710	Apartments/Office	[3]	[3]	6	14	60	14	10	24	6	14	60	222
11	1201 La Brea Ave	West Hollywood, CA	931	Restaurant	4,575	sf	2	2	4	21	4	25	21	4	25	412
12	623 La Peer Dr	West Hollywood, CA	310	La Peer Hotel	[3]	[3]	28	24	52	36	32	68	36	32	68	876
13	1223 Larrabee St	West Hollywood, CA	230	Condominiums	8	du	1	3	4	3	1	4	1	3	4	47
14	8451 Melrose Ave	West Hollywood, CA	826	Retail	3,929	sf	13	14	27	5	6	11	13	14	27	174
15	8551 Melrose Ave	West Hollywood, CA	826	Retail	6,500	sf	5	4	9	8	10	18	21	23	44	288
16	8583 Melrose Ave	West Hollywood, CA	826	Retail	9,545	sf	16	12	28	22	22	44	22	22	44	561
17	8650 Melrose Ave	West Hollywood, CA	826 220	Retail Apartments	14,571 7	sf du	12	11	23	20	23	43	49	55	104	693
18	8711 Melrose Ave	West Hollywood, CA	826	Commercial	21,565	sf	10	7	17	8	9	17	39	41	80	567
19	8715 Melrose Ave	West Hollywood, CA	931	Restaurant	8,997	sf	0	0	0	45	22	67	45	22	67	809
20	7914 Norton Ave	West Hollywood, CA	230	Condominiums	8	du	1	3	4	3	1	4	3	1	4	47
21	507 Orlando Ave	West Hollywood, CA	220	Apartments	9	du	1	4	5	4	2	6	1	4	5	60
22	645 Robertson Blvd	West Hollywood, CA	[3]	Hotel/Restaurant/Retail	[3]	[3]	189	122	311	549	534	1083	406	406	812	18,412
23	7144 Santa Monica Blvd	West Hollywood, CA	[3]	Mixed-use Project (Faith Plating)	[3]	[3]	24	72	96	88	52	140	88	52	140	1,630
24	7302 Santa Monica Blvd	West Hollywood, CA	[3]	Mixed-use Project (Movietown)	[3]	[3]	41	122	163	155	94	249	155	94	249	1,617
25	7811 Santa Monica Blvd	West Hollywood, CA	310 220	Hotel Apartments	81 79	rm du	39	55	94	60	42	106	60	42	106	1,248
26	7965-7985 Santa Monica Blvd	West Hollywood, CA	826 931 710	Retail Restaurant Office	4,365 13,682 70,036	sf sf sf	185	92	277	146	205	355	146	205	355	3,389
27	8350 Santa Monica Blvd	West Hollywood, CA	[3]	Kings Rd Mixed-use	[3]	[3]	7	11	18	15	14	29	26	32	58	432
28	8550 Santa Monica Blvd	West Hollywood, CA	826/931	Retail/Restaurant	[3]	[3]	8	12	20	18	16	34	30	38	68	497
29	9001 Santa Monica Blvd	West Hollywood, CA	[3]	Mixed-use Project	[3]	[3]	16	-8	8	31	16	47	49	9	58	829
30	9040-9098 Santa Monica Blvd	West Hollywood, CA	[3]	Melrose Triangle	[3]	[3]	193	67	260	123	180	303	218	212	431	3,578
31	8305 Sunset Blvd	West Hollywood, CA	826/931	Retail/Restaurant	[3]	[3]	0	0	0	64	31	95	57	13	70	1,137
32	8418 Sunset Blvd	West Hollywood, CA	[3]	Sunset Time	[3]	[3]	67	55	122	114	76	190	82	68	150	2,226
33	8490/8500 Sunset Blvd	West Hollywood, CA	[3]	Sunset Millenium	[3]	[3]	160	173	333	214	198	412	249	293	542	5,496
34	8497 Sunset Blvd	West Hollywood, CA	[3]	Mixed-use Project	[3]	[3]	8	8	16	39	16	55	50	36	86	898
35	8950 Sunset Blvd	West Hollywood, CA	310 220 931	Hotel Apartments Restaurant	196 4 29,710	rm du sf	184	146	330	183	138	321	184	146	330	4,208
36	9040 Sunset Blvd	West Hollywood, CA	310	Hotel	[3]	[3]	71	55	126	126	108	234	63	49	112	2,986
37	1253 Sweetzer Ave	West Hollywood, CA	230	Condominiums	8	du	1	3	4	3	1	4	1	3	4	47
38	605 West Knoll Dr	West Hollywood, CA	826	Retail	7,270	sf	24	26	50	9	11	20	24	26	50	322
	City of Beverly Hills [1]															
39	257 North Canon Dr	Beverly Hills, CA	826 710 931	Retail Office Restaurant	15,899 26,196 1,800	sf sf sf	57	21	78	48	71	119	79	70	149	1,200
40	246 North Canon Dr	Beverly Hills, CA	931	Restaurant	7,100	sf	24	12	36	39	24	63	24	23	47	630
41	250 North Crescent Dr	Beverly Hills, CA	230	Condominiums	8	du	1	3	4	3	1	4	2	1	3	46
42	9262 Burton Wy	Beverly Hills, CA	230	Condominiums	23	du	8	2	10	8	4	12	4	4	8	134
43	325 North Maple Dr	Beverly Hills, CA	732 826 710	Post Office Retail Office	7,800 3,700 88,500	sf sf sf	92	16	108	0	72	72	27	27	54	280
44	450-460 North Palm Dr	Beverly Hills, CA	230	Condominiums	35	du	3	12	15	12	6	18	6	6	12	205
45	154-168 North La Peer Dr	Beverly Hills, CA	230	Condominiums	16	du	5	2	7	6	2	8	3	2	5	93
46	425 North Palm Dr	Beverly Hills, CA	230	Condominiums	20	du	2	7	9	7	4	11	4	3	7	110
47	332 North Oakhurst Dr	Beverly Hills, CA	230	Condominiums	31	du	3	11	14	10	5	15	5	5	10	186
48	207 South Robertson Blvd	Beverly Hills, CA	710	Office	1,700	sf	2	0	2	0	3	3	0	0	0	19
49	9000 Wilshire Blvd	Beverly Hills, CA	710	Office	31,700	sf	13	2	15	3	12	15	1	1	2	105
50	8600 Wilshire Blvd	Beverly Hills, CA	220 230 720 826	Apartments Townhouses Medical Office Retail	21 4 2,900 1,900	du du sf sf	7	12	19	11	13	24	9	9	18	244
51	8767 Wilshire Blvd	Beverly Hills, CA	720 710 826 931	Medical Office Office Retail Restaurant	37,500 22,100 12,500 3,000	sf sf sf sf	131	33	164	78	151	229	86	86	172	2,543
52	9200 Wilshire Blvd	Beverly Hills, CA	230 931 826	Condominiums Restaurant Retail	53 5,600 8,400	du sf sf	9	22	31	51	31	82	31	31	62	945
53	9230 Wilshire Blvd	Beverly Hills, CA	[1]	Jim Falk Lexus Project	[1]	[1]	47	30	77	23	50	73	28	25	53	3,000
54	121 San Vicente Blvd	Beverly Hills, CA	720	Medical-Dental Office	35,000	sf	68	18	86	35	95	130	6	7	13	1,265
	City of Los Angeles [2]															
55	8418 Sunset Blvd	Los Angeles, CA	826 220	Retail Apartments	75,000 138	sf du	46	75	120	162	134	296	162	134	296	2,226
56	8500 Sunset Blvd	Los Angeles, CA	310 826/931 445	Hotel Retail/Restaurant Movie Theater	371 36,500 7,000	rm sf sf	177	177	354	172	171	434	172	171	434	5,412
57	7300 W Hollywood Blvd	Los Angeles, CA		Temple Expansion	[2]	[2]	48	32	79	9	20	29	48	32	79	294
58	300 S Wetherly Dr	Los Angeles, CA	230	Condominiums	140	du	3	17	20	16	6	22	16	6	22	270
59	8723 W Alden Dr	Los Angeles, CA	720	Medical Center	100	beds	79	34	113	47	83	130	79	34	113	1,181
60	936 N La Brea Ave	Los Angeles, CA	710 826	Office Retail	33,190 19,923	sf sf	24	5	29	14	37	38	14	37	38	911
61	6535 W Wilshire Blvd	Los Angeles, CA	710 220 826	Office Apartments Retail	62,000 22 5,603	sf du sf	61	17	78	20	63	86	20	63	86	786
62	6298 W 3rd St	Los Angeles, CA	230	Condominiums	300	du	-8	56	48	-24	-53	-77	-8	56	48	-655
63	7901 W Beverly Blvd	Los Angeles, CA	220 826	Apartments Retail	71 11,454	du sf	7	29	36	30	16	46	30	16	46	493
64	915 N La Brea Ave	Los Angeles, CA	850 220	Supermarket Apartments	33,500 179	sf du	5	86	91	158	90	248	158	90	248	2,615
65	375 N La Cienega Blvd	Los Angeles, CA	220 826	Apartments Retail	125 17,400	du sf	8	47	55	34	11	45	8	47	55	168
66	316 N La Cienega Blvd	Los Angeles, CA	220 931 826	Apartments Restaurant Retail	45 800 3,680	du sf sf	41	53	94	31	22	53	41	53	94	602
67	7120 W Sunset Blvd	Los Angeles, CA	220 931	Apartments Restaurant	44 2,900	du sf	0	14	14	25	4	29	25	4	29	397
68	8150 W Sunset Blvd	Los Angeles, CA	220 826	Apartments Retail	249 110,000	du sf	-92	10	-82	158	58	216	158	58	216	1,077
69	925 N La Brea Ave	Los Angeles, CA	826 710	Retail Office	15,265 46,527	sf sf	58	11	69	24	61	85	24	61	85	735
70	904 N Le Brea Ave	Los Angeles, CA	220 826	Apartments Retail	169 40,000	du sf	25	68	93	83	103	186	83	103	186	2,072
71	7510 W Sunset Blvd	Los Angeles, CA	220 826 826	Apartments Retail Retail	236 20,000 10,000	du sf sf	65	131	323	124	64	361	124	64	361	4,288
72	333 S La Cienega Blvd	Los Angeles, CA	220 850 931	Apartments Supermarket Restaurant	162 27,000 3,560	du sf sf	35	71	106	114	77	191	114	77	191	2,020
73	320 N Fairfax Ave	Los Angeles, CA	710	Office	28,341	sf	28	9	37	4	21	25	28	9	37	276
				TOTAL			2,839	2,366	5,205	3,845	3,818	7,663	3,911	3,784	7,695	95,953

[1] Daily, AM peak hour, and PM peak hour trip generation estimates were provided by City of Beverly Hills staff unless noted otherwise (August 2015).
[2] Daily, AM peak hour, and PM peak hour trip generation estimates were provided by City of Los Angeles on 12/29/2015
[3] Daily, AM peak hour, and PM peak hour trip generation estimates were provided by City of West Hollywood on 12/29/2015