Appendix K

Traffic Impact Analysis

The Preserve
City of Rancho Cordova, California

DRAFT
November 4, 2020

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Winn Communities

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EXECUTIVE SUMMARY

This report documents the results of a traffic impact analysis completed for The Preserve project (the "proposed project" or "project"). The vacant project site is located west of the Raymer Way intersection with Grant Line Road in Rancho Cordova, California. The proposed project will consist of approximately 434 single-family detached housing units. Access to the project site will be provided by Raymer Way from the east and Americanos Way from the south. This study was performed in accordance with the County of Sacramento's traffic study guidelines and standards established by the Circulation Element of the City of Rancho Cordova's General Plan.

This analysis includes evaluation of the following transportation facilities:

- 22 Intersections
  - 19 within Rancho Cordova
  - 3 within Sacramento County's jurisdiction
- 17 Roadway Segments
  - 15 within Rancho Cordova
  - 2 within Sacramento County's jurisdiction

Based on the County's requirements, this traffic impact analysis was conducted for the study facilities for the following scenarios:

A. Existing (2019) Conditions
B. Existing (2019) plus Proposed Project Conditions
C. Cumulative (2035) Conditions
D. Cumulative (2035) plus Proposed Project Conditions

Significant findings of this study include:

- The proposed project is estimated to generate 4,014 new daily trips, with 313 new trips occurring during the AM peak-hour, and 416 new trips occurring during the PM peak-hour.
- The addition of the proposed project to the Existing (2019) Conditions results in a significant impact at two (2) study intersections, Intersection #17 (Jackson Road/SR-16 at Grant Line Road) and Intersection #20 (Grant Line Road at Raymer Way). With the application of mitigation measures recommended herein, the impacts to Intersection #17 can be mitigated. However, because the City of Rancho Cordova cannot guarantee that mitigation measure M1 can be implemented, the impact would remain ***significant and unavoidable***. With the implementation of mitigation measure M2, the impact to Intersection #20 is ***less than significant with mitigation***.
- The addition of the proposed project to Cumulative (2035) Conditions results in a significant impact at three (3) intersections. With the application of mitigation measures recommended herein, the impacts to intersections can be mitigated. However, because the City of Rancho Cordova cannot guarantee that these mitigation measures (M3, M4, and M5) can be implemented, the impact would remain ***significant and unavoidable***.

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INTRODUCTION

This report documents the results of a traffic impact analysis completed for The Preserve residential project (the "proposed project" or "project"). The vacant project site is located west of the Raymer Way intersection with Grant Line Road in Rancho Cordova, California. The purpose of this impact analysis is to identify potential environmental impacts to transportation facilities as required by the California Environmental Quality Act (CEQA). This study was performed in accordance with the County of Sacramento's traffic study guidelines[1] and standards established by the Circulation Element of the City of Rancho Cordova's General Plan [2].

PROJECT DESCRIPTION

The proposed project will consist of approximately 434 single-family detached housing units. Access to the project site will be provided by Raymer Way from the east and Americanos Way from the south. The project location, study intersections and study segments are depicted in **Figure 1.** The proposed project site plan is shown in **Figure 2**. **Figure 3** illustrates the existing study intersections facilities, traffic control, and lane configurations.

Based on the County's requirements, this traffic impact analysis was conducted for the study facilities for the following scenarios:

A. Existing (2019) Conditions
B. Existing (2019) plus Proposed Project Conditions
C. Cumulative (2035) Conditions
D. Cumulative (2035) plus Proposed Project Conditions

The following transportation facilities are included in this evaluation:

Intersections:

1. Mather Field Rd @ US-50 Westbound Ramps
2. Mather Field Rd @ US-50 Eastbound Ramps
3. Mather Field Rd @ International Dr
4. Zinfandel Dr @ US-50 Westbound Ramps
5. Zinfandel Dr @ US-50 Eastbound Ramps
6. Zinfandel Dr @ White Rock Rd
7. Zinfandel Dr @ International Dr
8. Sunrise Blvd @ Zinfandel Dr
9. Sunrise Blvd @ US-50 Westbound Ramps
10. Sunrise Blvd @ US-50 Eastbound Ramps
11. Sunrise Blvd @ Folsom Blvd
12. Sunrise Blvd @ White Rock Rd
13. Douglas Rd @ Zinfandel Dr
14. Douglas Rd @ Sunrise Blvd
15. Douglas Rd @ Americanos Blvd
16. Jackson Rd/SR-16 @ Sunrise Blvd
17. Jackson Rd/SR-16 @ Grant Line Rd
18. Grant Line Rd @ Kiefer Blvd
19. Grant Line Rd @ Douglas Rd
20. Grant Line Rd @ Raymer Way
21. Grant Line Rd @ White Rock Rd
22. White Rock Rd @ Prairie City Rd

[1] *Traffic Impact Analysis Guidelines, July 2004*, County of Sacramento.
[2] *City of Rancho Cordova General Plan: Circulation Element, May 2015,* City of Rancho Cordova

Roadway Segments

1. Mather Field Rd between Folsom Blvd and US-50 Westbound Ramps
2. Mather Field Rd between US-50 Eastbound Ramps and International Dr
3. Zinfandel Dr between Folsom Blvd and US-50 Westbound Ramps
4. Zinfandel Dr between White Rock Rd and International Dr
5. Zinfandel Dr between International Dr and Douglas Rd
6. Mather Blvd between Femoyer St and Douglas Rd
7. Sunrise Blvd between Folsom Blvd and White Rock Rd
8. Sunrise Blvd between White Rock Rd and Douglas Rd
9. Sunrise Blvd between Douglas Rd and Jackson Rd/SR-16
10. White Rock Rd between Zinfandel Dr and Sunrise Blvd
11. White Rock Rd between Sunrise Blvd and Grant Line Rd
12. White Rock Rd between Grant Line Rd and Prairie City Rd
13. Grant Line Rd between Raymer Wy and Douglas Rd
14. Grant Line Rd between Douglas Rd and Jackson Rd/SR-16
15. Douglas Rd between Mather Blvd and Sunrise Blvd
16. Douglas Rd between Sunrise Blvd and Grant Line Rd
17. Grant Line Rd between White Rock Rd and Raymer Wy

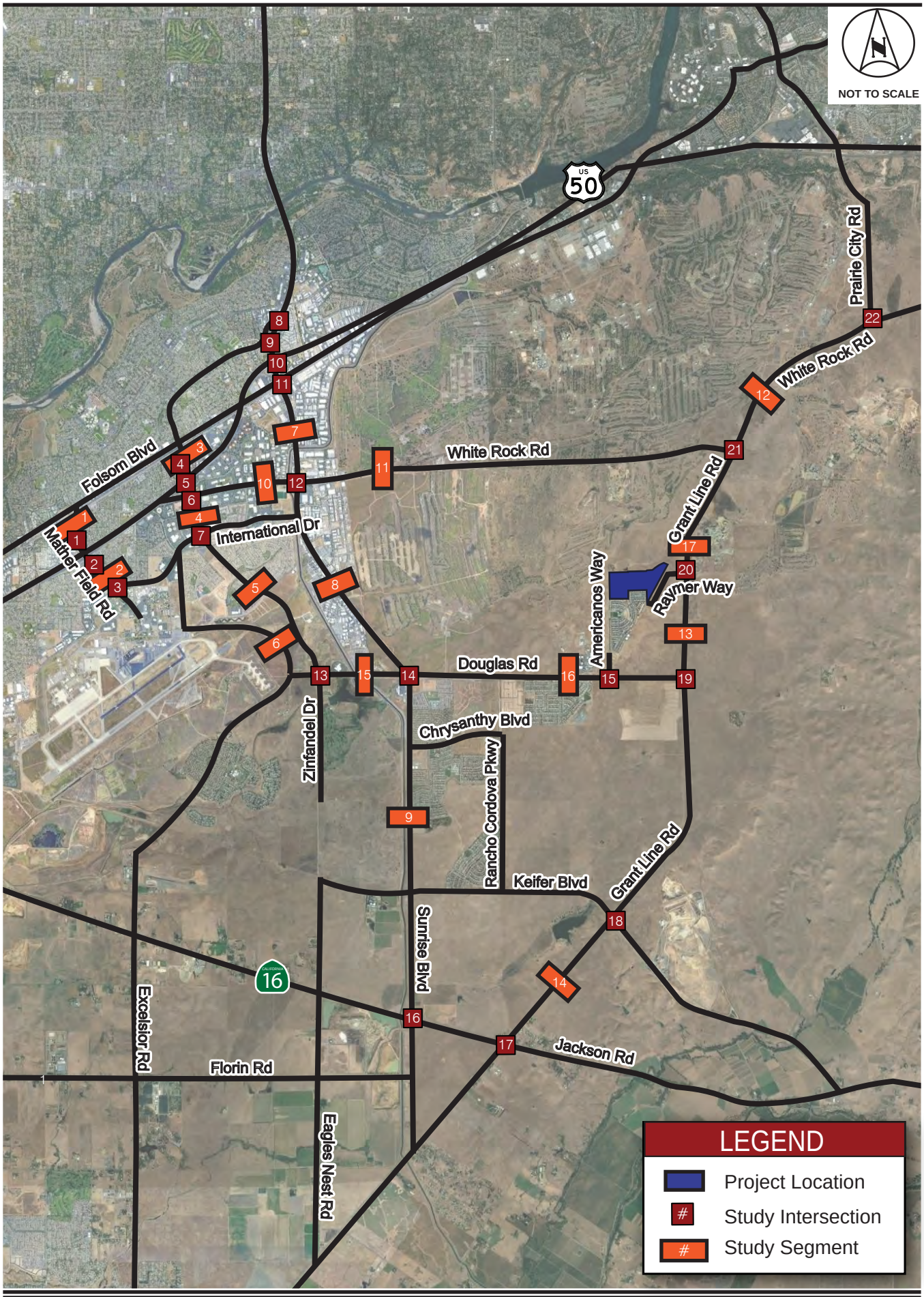

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Figure 1
Project Vicinity Map

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Figure 2
Proposed Project Site Plan

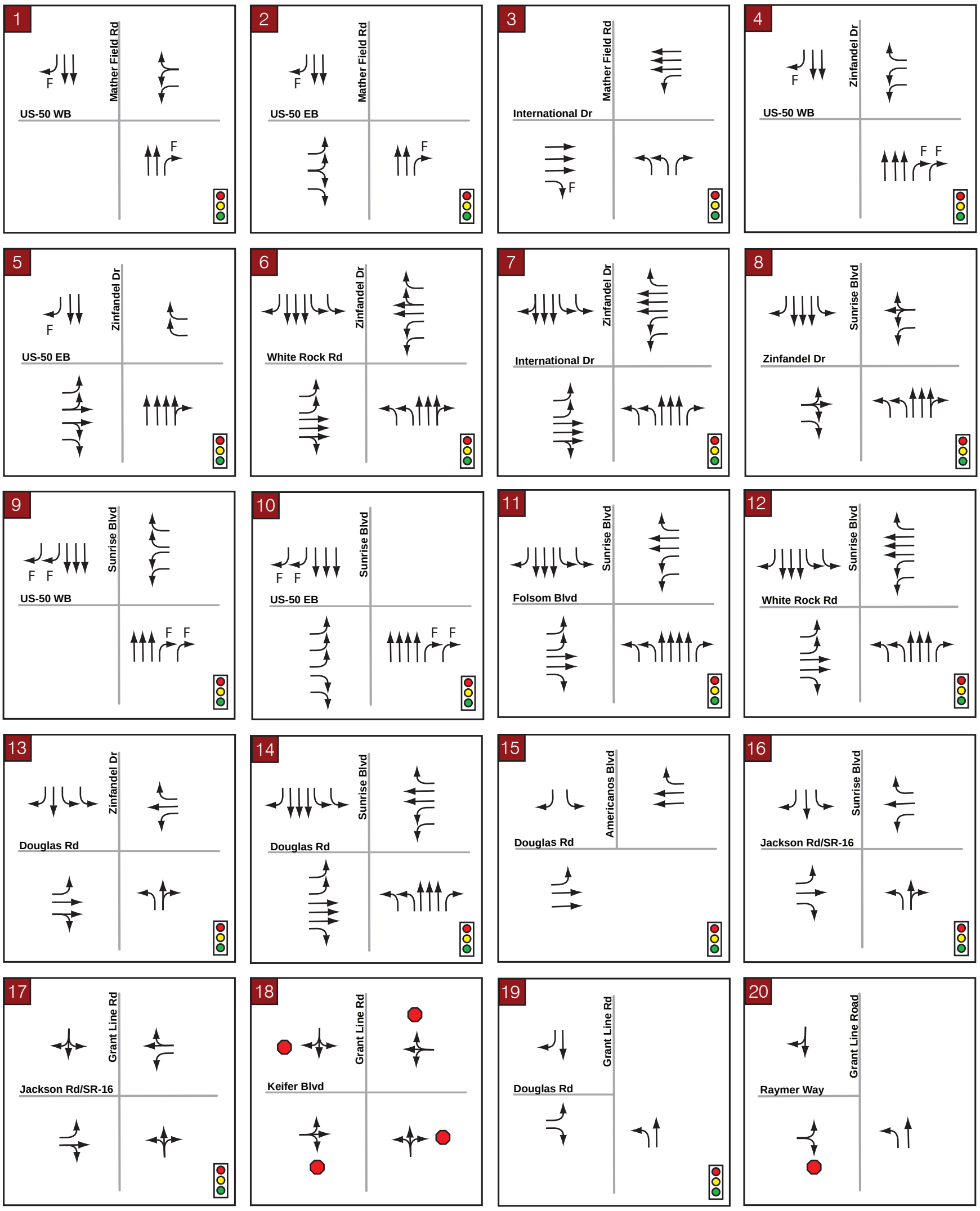

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Figure 3
Existing (2019) Study Intersections, Traffic Control, and Lane Geometries

PROJECT AREA ROADWAYS

The following are descriptions of the primary roadways in the vicinity of the project.

United States Route 50 (US-50) is an east-west interstate facility located approximately 5-miles from the proposed project. US-50 connects Rancho Cordova to Sacramento to the west and El Dorado County to the east. Primary access to the project site from US-50 is provided at the Sunrise Boulevard, Zinfandel Drive and Mather Field Road interchanges. Near Zinfandel Drive, US-50 carries approximately 180,000 vehicles per day[3] with five lanes in each direction.

Jackson Road (SR 16) is an expressway connecting Amador County and Sacramento County, along the southern edge of Rancho Cordova's city limits. Jackson Road connects with US-50 west of the project site. South of the project site, between Sunrise Boulevard and Grant Line Road, Jackson Road carries approximately 13,000 vehicles per day[3] with one lane in each direction.

Sunrise Boulevard is a north-south arterial, connecting the project site to north Rancho Cordova and Placer County.

Zinfandel Drive is a north-south arterial, connecting the project site to US-50, as well as the commercial, industrial and residential areas northwest of the project site.

Raymer Way is a local roadway adjacent to the project site and provides access to Grant Line Road to the east.

Americanos Way is a local roadway that will provide access to the project site from the south. This roadway will serve as a connection between the project site and Douglas Road.

TRANSPORTATION IMPACT STUDY METHODOLOGY

This study was performed in accordance with the County of Sacramento's traffic study guidelines[4] and standards established by the Circulation Element of the City of Rancho Cordova's General Plan[5].

Level of Service Definitions

Analysis of transportation facility significant environmental impacts is based on the concept of Level of Service (LOS). The LOS of a facility is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity.

Intersection Analysis

Levels of Service for this study were determined using methods defined in the *Highway Capacity Manual (HCM) 6th Edition* and appropriate traffic analysis software. The HCM includes procedures for analyzing side-street stop controlled (SSSC), all-way stop controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. The AWSC and signalized intersection procedure defines LOS as a function of average control delay for the intersection as a whole. Table 1 presents intersection LOS definitions as defined in the HCM.

[3] Caltrans Traffic Counts, 2017. http://www.dot.ca.gov/trafficops/census/
[4] *Traffic Impact Analysis Guidelines, July 2004*, County of Sacramento.
[5] *City of Rancho Cordova General Plan: Circulation Element, May 2015,* City of Rancho Cordova

Table 1 – Intersection Level of Service Criteria

Level of Service (LOS)	Unsignalized	Signalized
	Average Control Delay* (sec/veh)	Average Control Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F	> 50	> 80

Source: Highway Capacity Manual, 2010
* Applied to the worst lane/lane group(s) for SSSC

Roadway Segment Analysis

The analysis of roadway segments involves the comparison of daily segment volumes to the LOS criteria provided in the County's traffic impact analysis guidelines[1]. The criteria provide maximum volumes for given service levels for various facility types. Table 2 replicates the County's roadway segment LOS criteria.

Table 2 – Roadway Segment Level of Service Criteria

Facility Type	# Lanes	Maximum Volume for Given Service Level				
		A	B	C	D	E
Residential	2	600	1,200	2,000	3,000	4,500
Residential Collector w/ Frontage	2	1,600	3,200	4,800	6,400	8,000
Residential Collector w/o Frontage	2	6,000	7,000	8,000	9,000	10,000
Arterial, Low Access Control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, Moderate Access Control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,400	37,800	43,200	48,600	54,000
Arterial, High Access Control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	42,000	48,000	54,000	60,000
Rural, 2-lane highway	2	2,400	4,800	7,900	13,500	22,900
Rural, 2-lane road, 24'-36' of pavement, paved shoulders	2	2,200	4,300	7,100	12,200	20,000
Rural, 2-lane road, 24'-36' of pavement, no shoulders	2	1,800	3,600	5,900	10,100	17,000

Source: Traffic Impact Analysis Guidelines, Table 2, County of Sacramento Department of Transportation, July 2004.

Based on the County's requirements[4], this LOS analysis was conducted for the study facilities for the following scenarios:

A. Existing (2019) Conditions
B. Existing (2019) plus Proposed Project Conditions
C. Cumulative (2035) Conditions
D. Cumulative (2035) plus Proposed Project Conditions

The following sections present the technical analysis results for the four primary scenarios.

EXISTING (2019) CONDTIONS

To establish existing conditions, new traffic counts were collected for the study intersections and roadway segments. Twenty (20) new weekday AM and PM peak-period intersection turning movement traffic counts were collected on May 22, 2019. These counts were conducted between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m. Sixteen (16) new roadway segment counts were conducted on May 21, 2019. Weekday AM and PM peak-period turning movement traffic counts were also collected on November 8, 2017, at the Douglas Road intersection with Americanos Way (Intersection #15) and at the Grant Line Road intersection with Raymer Way (Intersection #20). These counts were conducted between 7:00 a.m. and 9:00 a.m. and between 4:00 p.m. and 6:00 p.m.

Existing (2019) peak-hour turn movement volumes are presented in Figure 4, and the traffic count data sheets are provided in Appendix A. Analysis worksheets for this scenario are provided in Appendix B.

Intersections

Table 3 presents the peak-hour intersection operating conditions for this analysis scenario. As indicated in Table 3, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours. It should be noted that U-turn movement volumes were added to the corresponding left-turn movement volumes due to *HCM 6th Edition* analysis methodology limitations.

Table 3 – Existing (2019) Intersection Levels of Service

ID	Intersection	Control	Peak Hour	Existing (2019)	
				Delay (sec)	LOS
1	Mather Field Road @ US-50 Westbound Ramps	Signal	AM	**117.2**	**F**
			PM	26.4	C
2	Mather Field Road @ US-50 Eastbound Ramps	Signal	AM	**74.7**	**E**
			PM	24.3	C
3	Mather Field Road @ International Drive	Signal	AM	9.7	A
			PM	14.8	B
4	Zinfandel Drive @ US-50 Westbound Ramps	Signal	AM	32.7	C
			PM	20.2	C
5	Zinfandel Drive @ US-50 Eastbound Ramps	Signal	AM	**86.3**	**F**
			PM	36.7	D
6	Zinfandel Drive @ White Rock Road	Signal	AM	31.9	C
			PM	43.3	D
7	Zinfandel Drive @ International Drive	Signal	AM	22.0	C
			PM	30.2	C
8	Sunrise Boulevard @ Zinfandel Drive	Signal	AM	**110.8**	**F**
			PM	**56.6**	**E**
9	Sunrise Boulevard @ US-50 Westbound Ramps	Signal	AM	17.4	B
			PM	12.9	B
10	Sunrise Boulevard @ US-50 Eastbound Ramps	Signal	AM	23.4	C
			PM	22.0	C
11	Sunrise Boulevard @ Folsom Boulevard	Signal	AM	32.8	C
			PM	35.8	D
12	Sunrise Boulevard @ White Rock Road	Signal	AM	30.8	C
			PM	**58.0**	**E**
13	Douglas Road @ Zinfandel Drive	Signal	AM	41.7	D
			PM	19.6	B
14	Douglas Road @ Sunrise Boulevard	Signal	AM	29.1	C
			PM	42.7	D
15	Douglas Road @ Americanos Boulevard	Signal	AM	8.6	A
			PM	8.3	A
16	Jackson Road/SR-16 @ Sunrise Boulevard	Signal	AM	**70.7**	**E**
			PM	**59.6**	**E**
17	Jackson Road/SR-16 @ Grant Line Road	Signal	AM	**90.9**	**F**
			PM	**108.5**	**F**
18	Grant Line Road @ Kiefer Boulevard	AWSC	AM	16.3	C
			PM	17.1	C
19	Grant Line Road @ Douglas Road	Signal	AM	10.7	B
			PM	9.2	A
20	Grant Line Road @ Raymer Way	SSSC	AM	**2.2 (37 EB)**	**E**
			PM	0.7 (28.1 EB)	D
21	Grant Line Road @ White Rock Road	Signal	AM	6.9	A
			PM	11.9	B
22	White Rock Road @ Prairie City Road	Signal	AM	19.0	B
			PM	18.1	B

Notes: **Bold** represents unacceptable operations.

Roadway Segments

Table 4 presents the peak-hour intersection operating conditions for this analysis scenario. As indicated in Table 4, the study roadway segments operate from LOS A to LOS F.

Table 4 – Existing (2019) Roadway Segment Level of Service

ID	Roadway	Segment		Existing				
		From	To	Travel Lanes	Facility Type	Daily Volume	Volume / Capacity Ratio	Level of Service
1	Mather Field Rd	Folsom Blvd	US-50 WB Ramps	4	Arterial Moderate	23,486	0.65	B
2	Mather Field Rd	US-50 EB Ramps	International Dr	6	Arterial Moderate	19,544	0.36	A
3	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	4	Arterial Moderate	21,533	0.60	A
4	Zinfandel Dr	White Rock Rd	International Dr	6	Arterial Moderate	29,740	0.55	A
5	Zinfandel Dr	International Dr	Douglas Rd	4	Arterial Moderate	15,603	0.43	A
6	Mather Field Rd	Femoyer St	Douglas Rd	2	Arterial Moderate	5,711	0.32	A
7	Sunrise Blvd	Folsom Blvd	White Rock Rd	6	Arterial Moderate	37,902	0.70	C
8	Sunrise Blvd	White Rock Rd	Douglas Road	6	Arterial Moderate	27,763	0.51	A
9	Sunrise Blvd	Douglas Rd	Jackson Rd/SR 16	2	Arterial Moderate	20,467	**1.14**	**F**
10	White Rock Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial Moderate	14,871	0.28	A
11	White Rock Rd	Sunrise Blvd	Grant Line Road	2	Arterial Moderate	3,375	0.19	A
12	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial Moderate	14,582	0.41	A
13	Grant Line Road	Raymer Wy	Douglas Road	2	Rural (No Shoulder)	10,151	**0.60**	**E**
14	Grant Line Road	Douglas Rd	Jackson Rd/SR 16	2	Rural (Shoulder)	7,501	0.38	D
15	Douglas Rd	Mather Field Rd	Sunrise Blvd	2	Arterial Moderate	14,030	0.78	C
16	Douglas Rd	Sunrise Blvd	Grant Line Road	4	Arterial Moderate	10,853	0.30	A
17	Grant Line Road	White Rock Rd	Raymer Wy	2	Rural (No Shoulder)	10,384	0.61	E

Note: **Bold** represents unacceptable operations. Shaded indicates significant impact.

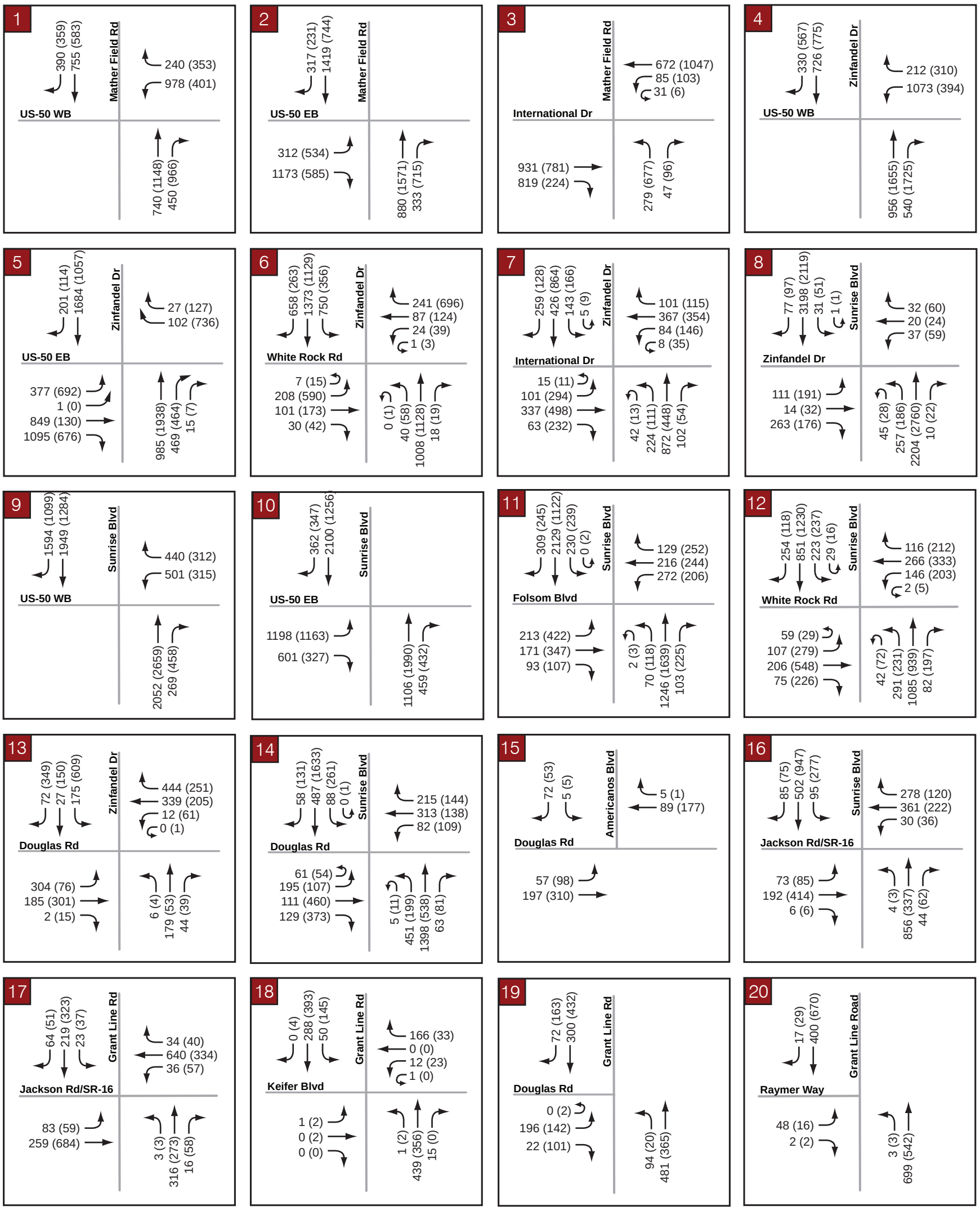

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Figure 4
Existing (2019) Peak-Hour Traffic Volumes

ASSESSMENT OF PROPOSED PROJECT

Proposed Project Trip Generation and Assignment

The number of trips anticipated to be generated by the proposed project are approximated using data included in *Trip Generation, 10th Edition,* published by the Institute of Transportation Engineers (ITE). ITE Land Use Code 210 (Single-Family Detached Housing) was used to represent the proposed units and the equation was used to calculate the generated trips. As shown in Table 5, the proposed project is estimated to generate 4,014 new daily trips, with 313 new trips occurring during the AM peak-hour, and 416 new trips occurring during the PM peak-hour.

Table 5 – Proposed Project Trip Generation

Land Use (ITE Code)	Size (Dwelling Units)	Daily Trips	AM Peak-Hour					PM Peak-Hour				
			Total Trips	In		Out		Total Trips	In		Out	
				%	Trips	%	Trips		%	Trips	%	Trips
Single-Family Detached Housing (210)[1]	434	4,014	313	25%	78	75%	235	416	63%	262	37%	154
New Project Trips		**4,014**	**313**		**78**		**235**	**416**		**262**		**154**

[1] *Trip generation based on Institute of Transporation Engineers (ITE), Trip Generation Manual, (10th Edition) equations for Single-Family Detached Housing (Land Use Code 210)*
Daily: Ln(T) = 0.92Ln(X) + 2.71
AM Peak Hour: T = 0.71(X) + 4.80
PM Peak Hour: Ln(T) = 0.96Ln(X) + 0.2
Where: T = trips generated, X = dwelling units

The project trip distribution percentages are provided in Figure 5. The assignments of project trips are depicted in Figure 6.

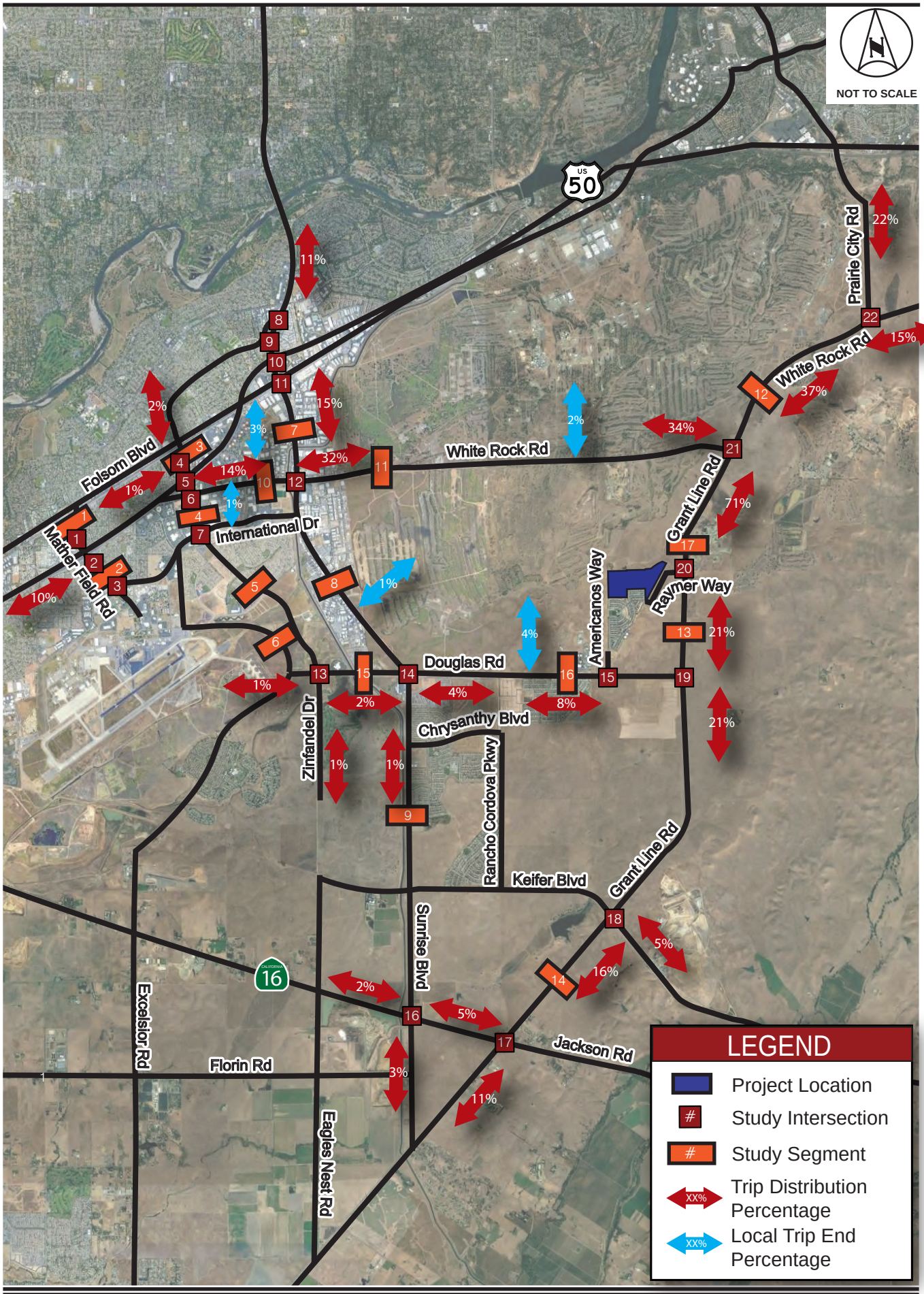

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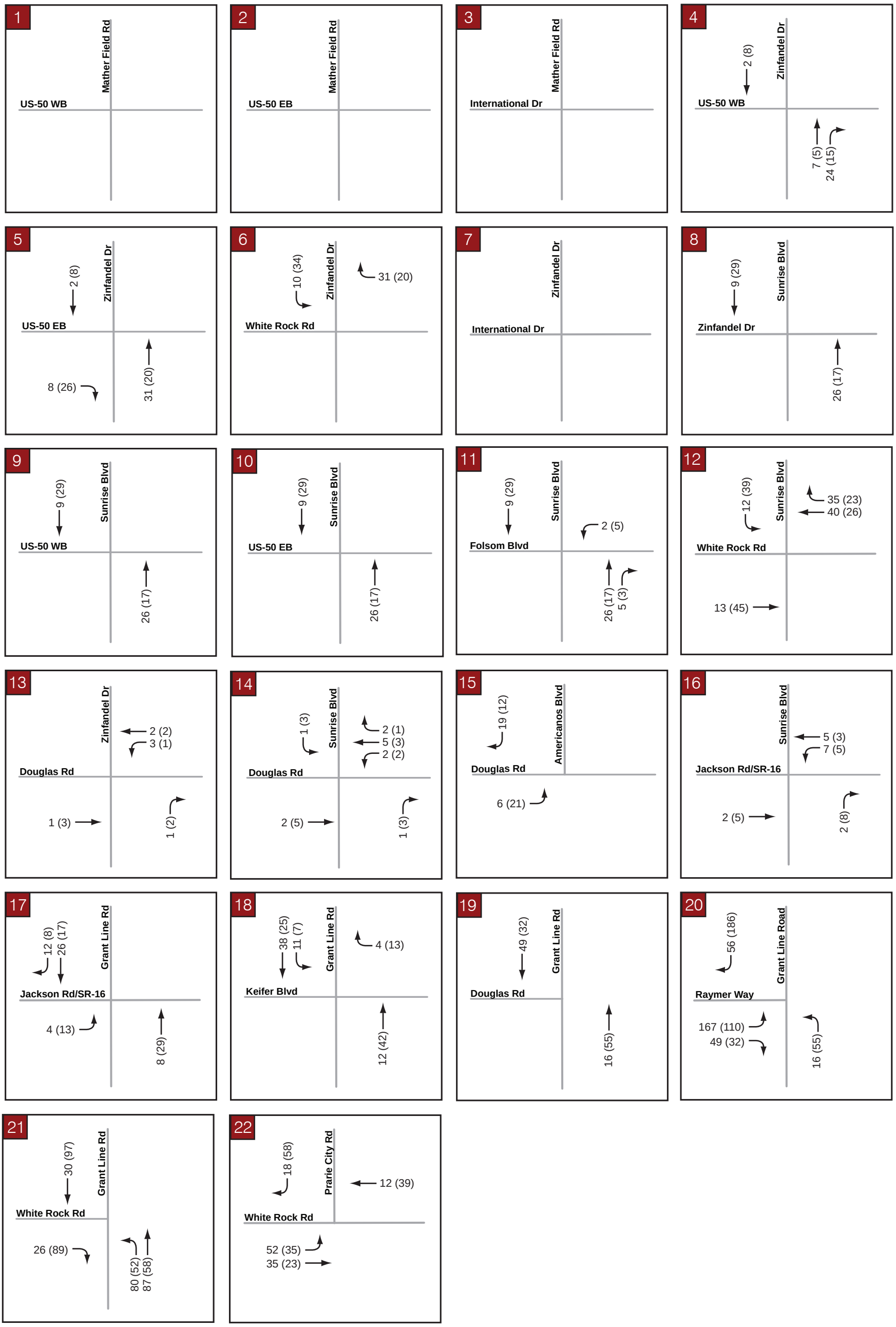
Figure 5
Existing (2019) Project Trip Distribution



LEGEND	
#	Study Intersection
xx(xx)	AM(PM) Peak-Hour Volumes

EXISTING (2019) PLUS PROPOSED PROJECT CONDTIONS

As previously discussed, the number of trips anticipated to be generated by the proposed project was derived using the *Trip Generation Manual, 10th Edition,* published by the Institute for Traffic Engineering (ITE). These trips were assigned to the roadway network based on existing traffic volumes, the City's Travel Demand Model (TDM), and professional judgment. Using these volumes, levels of service were determined at the study facilities. Existing (2019) plus Proposed Project peak-hour turn movement volumes are presented in Figure 7. Levels of service were then determined at the study facilities. Analysis worksheets for this scenario are provided in Appendix C.

Table 6 presents the intersection operating conditions for this analysis scenario. As indicated in Table 6, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours. As noted previously, U-turn movement volumes were added to the corresponding left-turn movement volumes due to *HCM 6th Edition* analysis methodology limitations.

Table 7 presents the roadway segment operating conditions for this analysis scenario. As indicated in Table 7, the study roadway segments operate from LOS A to LOS F.

Table 6 - Existing (2019) plus Proposed Project Intersection Levels of Service

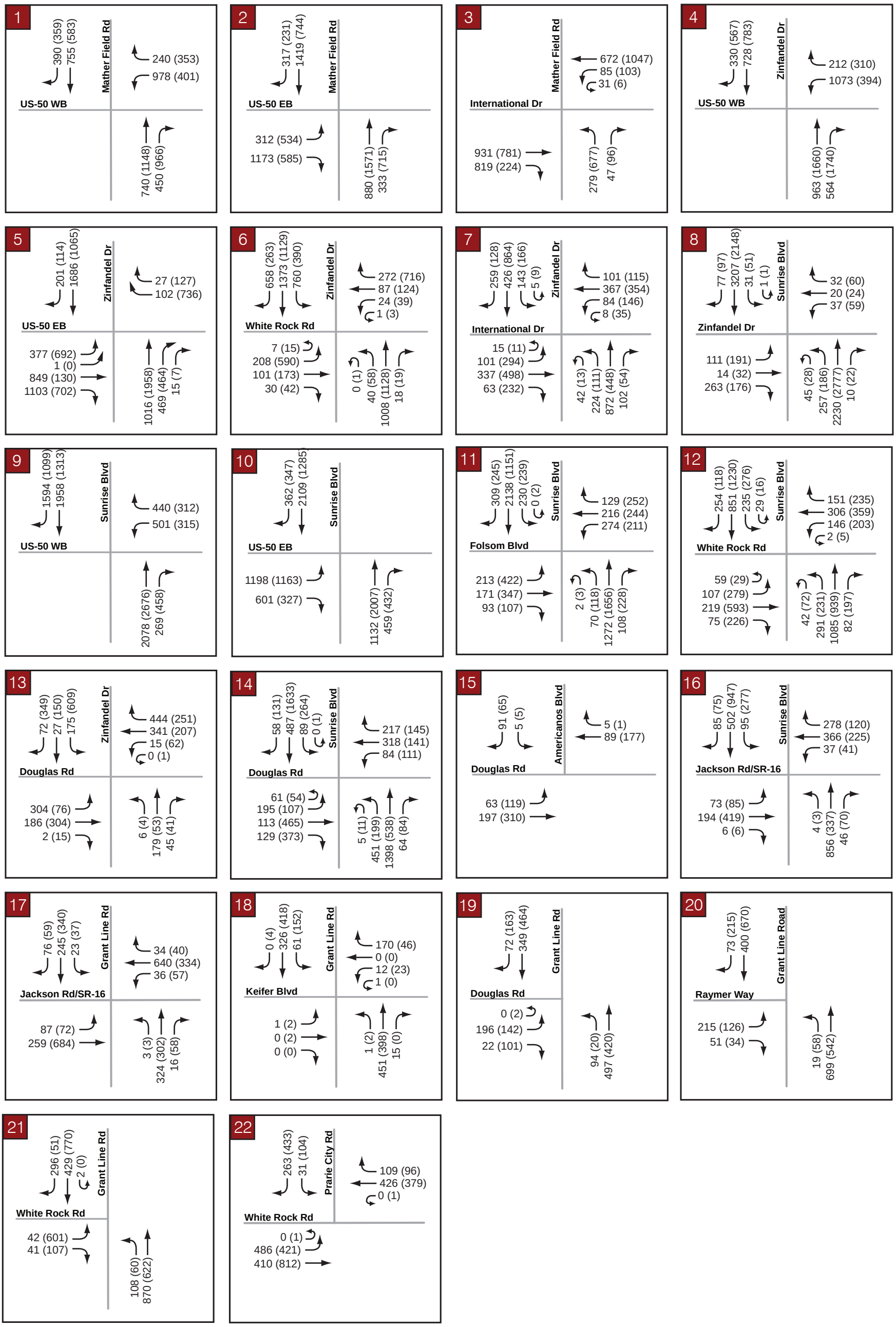
ID	Intersection	Control	Peak Hour	Existing (2019)		Existing (2019) plus Proposed Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	Mather Field Road @ US-50 Westbound Ramps	Signal	AM	**117.2**	**F**	**117.2**	**F**
			PM	26.4	C	26.4	C
2	Mather Field Road @ US-50 Eastbound Ramps	Signal	AM	**74.7**	**E**	**74.7**	**E**
			PM	24.3	C	24.3	C
3	Mather Field Road @ International Drive	Signal	AM	9.7	A	9.7	A
			PM	14.8	B	14.8	B
4	Zinfandel Drive @ US-50 Westbound Ramps	Signal	AM	32.7	C	32.7	C
			PM	20.2	C	20.1	C
5	Zinfandel Drive @ US-50 Eastbound Ramps	Signal	AM	**86.3**	**F**	**87.0**	**F**
			PM	36.7	D	37.7	D
6	Zinfandel Drive @ White Rock Road	Signal	AM	31.9	C	32.1	C
			PM	43.3	D	45.2	D
7	Zinfandel Drive @ International Drive	Signal	AM	22.0	C	22.0	C
			PM	30.2	C	30.2	C
8	Sunrise Boulevard @ Zinfandel Drive	Signal	**AM**	**110.8**	**F**	**111.6**	**F**
			PM	**56.6**	**E**	**58.1**	**E**
9	Sunrise Boulevard @ US-50 Westbound Ramps	Signal	AM	17.4	B	17.4	B
			PM	12.9	B	12.9	B
10	Sunrise Boulevard @ US-50 Eastbound Ramps	Signal	AM	23.4	C	23.4	C
			PM	22.0	C	22.0	C
11	Sunrise Boulevard @ Folsom Boulevard	Signal	AM	32.8	C	32.9	C
			PM	35.8	D	36.0	D
12	Sunrise Boulevard @ White Rock Road	Signal	AM	30.8	C	33.4	C
			PM	**58.0**	**E**	**62.0**	**E**
13	Douglas Road @ Zinfandel Drive	Signal	AM	41.7	D	41.9	D
			PM	19.6	B	19.6	B
14	Douglas Road @ Sunrise Boulevard	Signal	AM	29.1	C	29.3	C
			PM	42.7	D	42.8	D
15	Douglas Road @ Americanos Boulevard	Signal	AM	8.6	A	9.0	A
			PM	8.3	A	8.6	A
16	Jackson Road/SR-16 @ Sunrise Boulevard	Signal	AM	**70.7**	**E**	**72.2**	**E**
			PM	**59.6**	**E**	**61.3**	**E**
17	Jackson Road/SR-16 @ Grant Line Road	Signal	AM	**90.9**	**F**	**103.7**	**F**
			PM	**108.5**	**F**	**120.4**	**F**
18	Grant Line Road @ Kiefer Boulevard	AWSC	AM	16.3	C	19.1	C
			PM	17.1	C	20.6	C
19	Grant Line Road @ Douglas Road	Signal	AM	10.7	B	11.0	B
			PM	9.2	A	9.3	A
20	Grant Line Road @ Raymer Way	SSSC	AM	**2.2 (37 EB)**	**E**	**146.3 (606 EB)**	**F**
			PM	0.7 (28.1 EB)	D	**84.1 (545 EB)**	**F**
21	Grant Line Road @ White Rock Road	Signal	AM	6.9	A	7.7	A
			PM	11.9	B	13.3	B
22	White Rock Road @ Prairie City Road	Signal	AM	19.0	B	23.2	C
			PM	18.1	B	25.8	C

Notes: **Bold** represents unacceptable operations. Shaded represents a significant impact.

Table 7- Existing (2019) Plus Project Roadway Segment Levels of Service

ID	Roadway	Segment		Existing					Existing plus Project					LOS Threshold
		From	To	Travel Lanes	Facility Type	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type	Daily Volume	Volume / Capacity Ratio	Level of Service	
1	Mather Field Rd	Folsom Blvd	US-50 WB Ramps	4	Arterial Moderate	23,486	0.65	B	4	Arterial Moderate	23,486	0.65	B	D
2	Mather Field Rd	US-50 EB Ramps	International Dr	6	Arterial Moderate	19,544	0.36	A	6	Arterial Moderate	19,544	0.36	A	D
3	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	4	Arterial Moderate	21,533	0.60	A	4	Arterial Moderate	21,653	0.60	B	D
4	Zinfandel Dr	White Rock Rd	International Dr	6	Arterial Moderate	29,740	0.55	A	6	Arterial Moderate	29,740	0.55	A	D
5	Zinfandel Dr	International Dr	Douglas Rd	4	Arterial Moderate	15,603	0.43	A	4	Arterial Moderate	15,603	0.43	A	D
6	Mather Field Rd	Femoyer St	Douglas Rd	2	Arterial Moderate	5,711	0.32	A	2	Arterial Moderate	5,711	0.32	A	D
7	Sunrise Blvd	Folsom Blvd	White Rock Rd	6	Arterial Moderate	37,902	0.70	C	6	Arterial Moderate	38,504	0.71	C	D
8	Sunrise Blvd	White Rock Rd	Douglas Road	6	Arterial Moderate	27,763	0.51	A	6	Arterial Moderate	27,803	0.51	A	D
9	Sunrise Blvd	Douglas Rd	Jackson Rd/SR 16	2	Arterial Moderate	20,467	**1.14**	**F**	2	Arterial Moderate	20,507	**1.14**	**F**	D
10	White Rock Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial Moderate	14,871	0.28	A	6	Arterial Moderate	15,553	0.29	A	D
11	White Rock Rd	Sunrise Blvd	Grant Line Road	2	Arterial Moderate	3,375	0.19	A	2	Arterial Moderate	4,740	0.26	A	D
12	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial Moderate	14,582	0.41	A	4	Arterial Moderate	16,067	0.45	A	E
13	Grant Line Road	Raymer Wy	Douglas Road	2	Rural (No Shoulder)	10,151	**0.60**	**E**	2	Rural (No Shoulder)	10,994	**0.65**	**E**	D
14	Grant Line Road	Douglas Rd	Jackson Rd/SR 16	2	Rural (Shoulder)	7,501	0.38	D	2	Rural (Shoulder)	8,143	0.41	D	D
15	Douglas Rd	Mather Field Rd	Sunrise Blvd	2	Arterial Moderate	14,030	0.78	C	2	Arterial Moderate	14,110	0.78	C	D
16	Douglas Rd	Sunrise Blvd	Grant Line Road	4	Arterial Moderate	10,853	0.30	A	4	Arterial Moderate	11,174	0.31	A	D
17	Grant Line Road	White Rock Rd	Raymer Wy	2	Rural (No Shoulder)	10,384	0.61	E	2	Rural (No Shoulder)	13,234	0.78	E	E

Note: **Bold** represents unacceptable operations. Shaded indicates significant impact.



LEGEND

#	Study Intersection
xx(xx)	AM(PM) Peak-Hour Volumes

Figure 7
Existing (2019) plus Proposed Project Peak-Hour Traffic Volumes

CUMULATIVE CONDITIONS

Future traffic estimates were prepared using the modified SACMET travel demand model developed by the City of Rancho Cordova for the 2035 General Plan. The interpolated difference between the resulting traffic estimate and the 2008 baseline model results (the growth) was then added to Existing (2019) traffic volumes to establish Cumulative (2035) traffic estimates for this study. Using these volumes, levels of service were determined at the study facilities. Analysis worksheets for this scenario are provided in Appendix D. Figure 8 depicts the assumed lane geometries for the Cumulative (2035) scenario. Cumulative peak-hour turning movement volumes are presented in Figure 9.

Table 8 presents the peak-hour intersection operating conditions for this analysis scenario. As indicated in Table 8, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours.

Table 9 presents the roadway segment operating conditions for this analysis scenario. As indicated in Table 9, the study roadway segments operate from LOS A to LOS F.

Table 8 – Cumulative (2035) Intersection Levels of Service

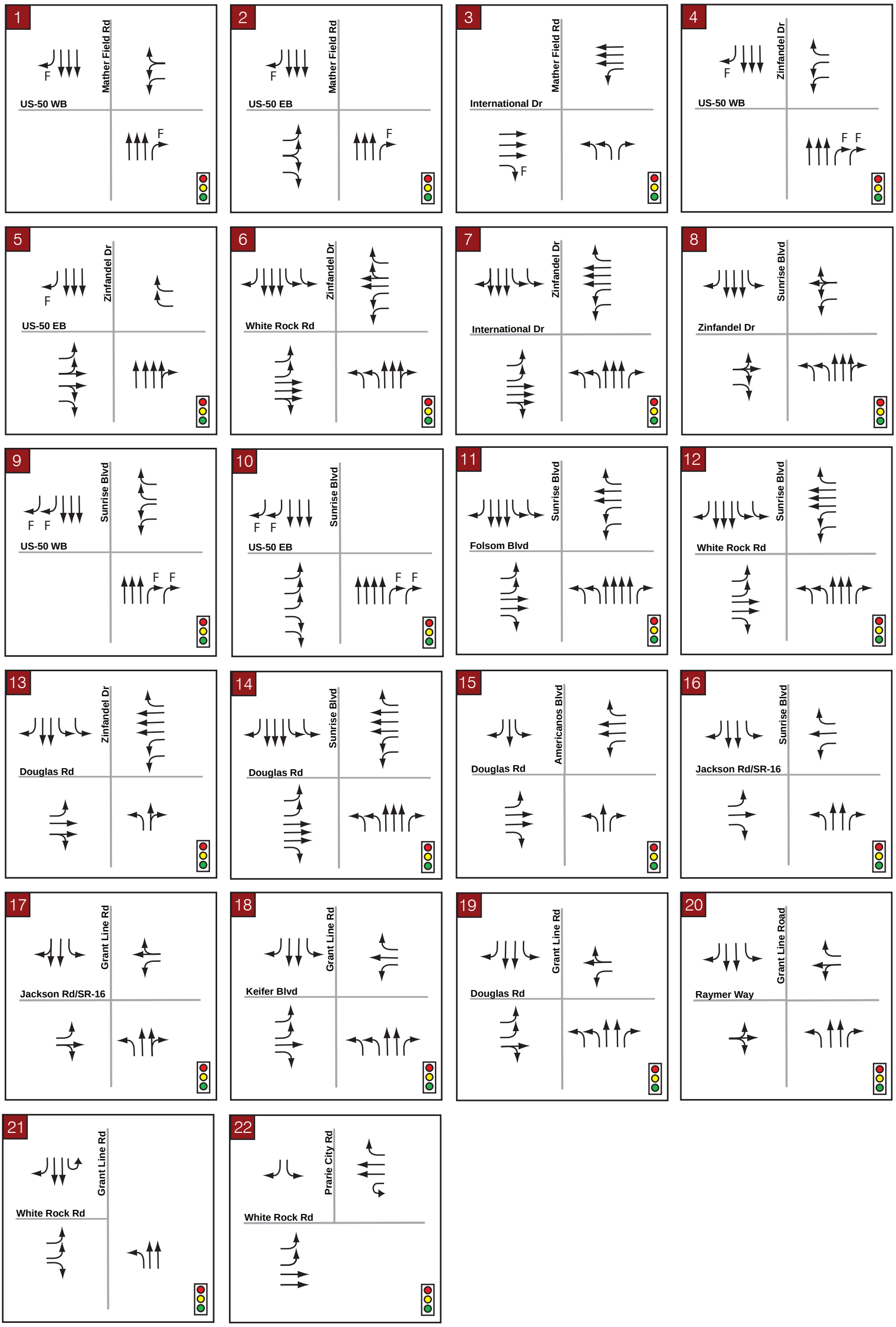
ID	Intersection	Control	Peak Hour	Cumulative (2035)	
				Delay (sec)	LOS
1	Mather Field Road @ US-50 Westbound Ramps	Signal	AM	37.7	D
			PM	16.3	B
2	Mather Field Road @ US-50 Eastbound Ramps	Signal	AM	34.5	C
			PM	27.8	C
3	Mather Field Road @ International Drive	Signal	AM	39.0	D
			PM	23.3	C
4	Zinfandel Drive @ US-50 Westbound Ramps	Signal	AM	22.1	C
			PM	15.0	B
5	Zinfandel Drive @ US-50 Eastbound Ramps	Signal	AM	73.6	E
			PM	**174.1**	**F**
6	Zinfandel Drive @ White Rock Road	Signal	AM	60.0	E
			PM	70.4	E
7	Zinfandel Drive @ International Drive	Signal	AM	**223.4**	**F**
			PM	**332.9**	**F**
8	Sunrise Boulevard @ Zinfandel Drive	Signal	AM	**217.8**	**F**
			PM	**166.9**	**F**
9	Sunrise Boulevard @ US-50 Westbound Ramps	Signal	AM	12.3	B
			PM	13.8	B
10	Sunrise Boulevard @ US-50 Eastbound Ramps	Signal	AM	13.5	B
			PM	13.2	B
11	Sunrise Boulevard @ Folsom Boulevard	Signal	AM	46.2	D
			PM	62.0	E
12	Sunrise Boulevard @ White Rock Road	Signal	AM	66.2	E
			PM	**140.3**	**F**
13	Douglas Road @ Zinfandel Drive	Signal	AM	**436.4**	**F**
			PM	**165.7**	**F**
14	Douglas Road @ Sunrise Boulevard	Signal	AM	**114.9**	**F**
			PM	**175.3**	**F**
15	Douglas Road @ Americanos Boulevard	Signal	AM	21.5	C
			PM	24.0	C
16	Jackson Road/SR-16 @ Sunrise Boulevard	Signal	AM	**142.7**	**F**
			PM	**172.3**	**F**
17	Jackson Road/SR-16 @ Grant Line Road	Signal	AM	**210.3**	**F**
			PM	**141.8**	**F**
18	Grant Line Road @ Kiefer Boulevard	Signal	AM	21.4	C
			PM	23.1	C
19	Grant Line Road @ Douglas Road	Signal	AM	41.6	D
			PM	47.4	D
20	Grant Line Road @ Raymer Way	Signal	AM	**170.3**	**F**
			PM	**100.8**	**F**
21	Grant Line Road @ White Rock Road	Signal	AM	**81.3**	**F**
			PM	**153.7**	**F**
22	White Rock Road @ Prairie City Road	Signal	AM	**178.6**	**F**
			PM	**249.4**	**F**

Notes: **Bold** represents unacceptable operations.

Table 9 – Cumulative (2035) Roadway Segment Level of Service

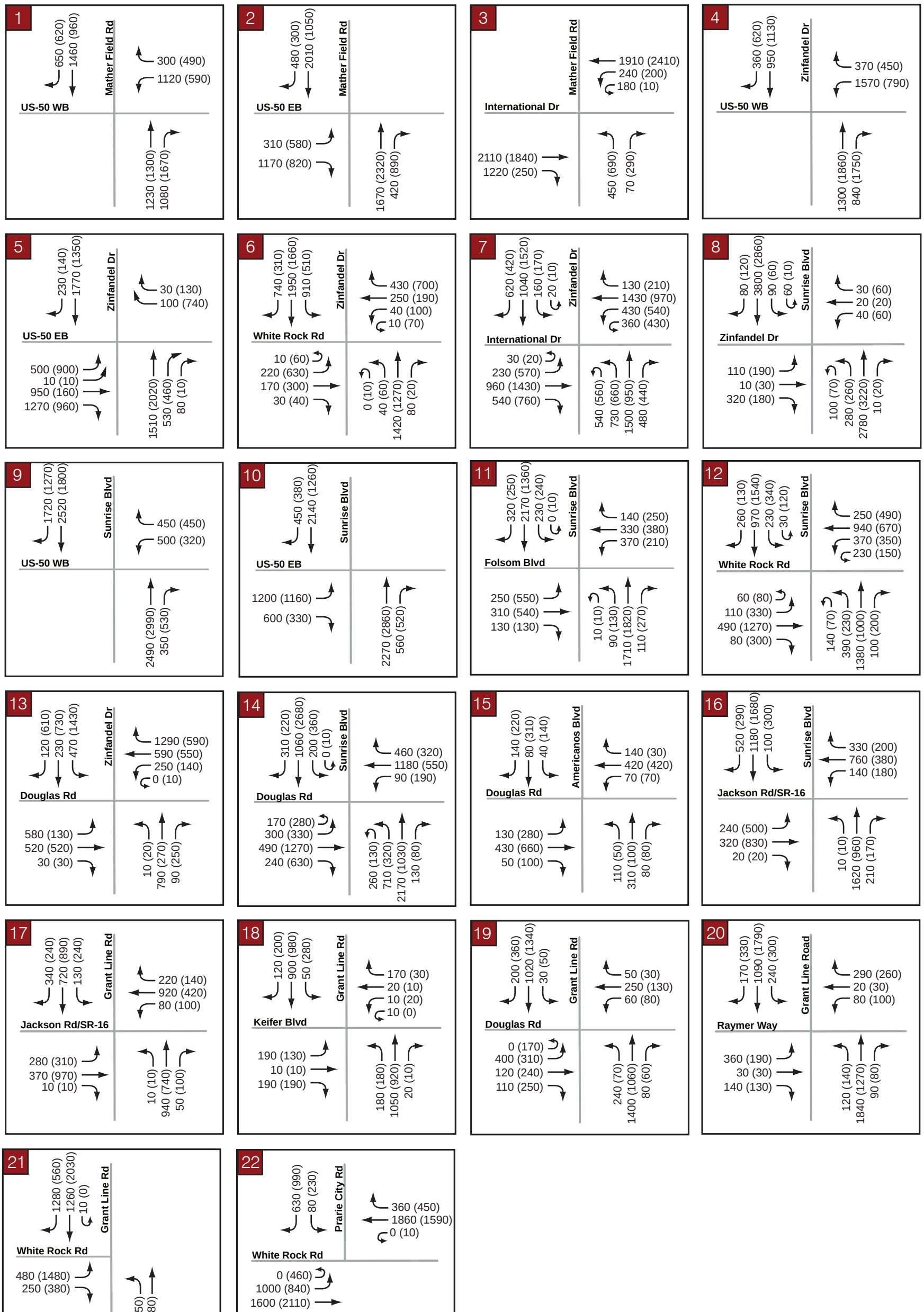
ID	Roadway	Segment		Cumulative				
		From	To	Travel Lanes	Facility Type	Daily Volume	Volume / Capacity Ratio	Level of Service
1	Mather Field Rd	Folsom Blvd	US-50 WB Ramps	6	Arterial Moderate	34,520	0.64	B
2	Mather Field Rd	US-50 EB Ramps	International Dr	6	Arterial Moderate	29,010	0.54	A
3	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	6	Arterial Moderate	21,900	0.41	A
4	Zinfandel Dr	White Rock Rd	International Dr	6	Arterial Moderate	88,350	**1.64**	**F**
5	Zinfandel Dr	International Dr	Douglas Rd	4	Arterial Moderate	46,350	**1.29**	**F**
6	Mather Field Rd	Femoyer St	Douglas Rd	4	Arterial Moderate	15,630	0.43	A
7	Sunrise Blvd	Folsom Blvd	White Rock Rd	6	Arterial Moderate	39,830	0.74	C
8	Sunrise Blvd	White Rock Rd	Douglas Road	6	Arterial Moderate	38,650	0.72	C
9	Sunrise Blvd	Douglas Rd	Jackson Rd/SR 16	4	Arterial Moderate	43,460	**1.21**	**F**
10	White Rock Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial Moderate	15,080	0.28	A
11	White Rock Rd	Sunrise Blvd	Grant Line Road	6	Arterial Moderate	13,380	0.25	A
12	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial Moderate	69,700	**1.94**	**F**
13	Grant Line Road	Raymer Wy	Douglas Road	4	Expressway	38,620	0.54	A
14	Grant Line Road	Douglas Rd	Jackson Rd/SR 16	4	Arterial High	23,280	0.58	A
15	Douglas Rd	Mather Field Rd	Sunrise Blvd	4	Arterial Moderate	60,580	**1.68**	**F**
16	Douglas Rd	Sunrise Blvd	Grant Line Road	6	Arterial Moderate	24,730	0.46	A
17	Grant Line Road	White Rock Rd	Raymer Wy	4	Expressway	51,290	0.71	C

Note: **Bold** represents unacceptable operations. Shaded indicates significant impact



LEGEND	
#	Study Intersection
	Signalized Study Intersection
F	Free Movement

Figure 8
Cumulative (2035) Study Intersections, Traffic Control, and Lane Geometries



LEGEND

#	Study Intersection
xx(xx)	AM(PM) Peak-Hour Volumes

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Figure 9
Cumulative (2035) Peak-Hour Traffic Volumes

CUMULATIVE PLUS PROPOSED PROJECT CONDITIONS

As previously discussed, the number of trips anticipated to be generated by the proposed project was derived using the *Trip Generation Manual, 10th Edition,* published by the Institute for Traffic Engineering (ITE). The project trips were assigned to the future roadway network based on modified SACMET travel demand model, as provided by the City of Rancho Cordova. Using these volumes, levels of service were determined at the study facilities.

The Cumulative Scenario Project Trip distribution and trip assignment are shown in Figure 10 and Figure 11, respectively. Cumulative plus Proposed Project peak-hour turning movement volumes are presented in Figure 12. Analysis worksheets for this scenario are provided in Appendix E.

Table 10 presents the peak-hour intersection operating conditions for this analysis scenario. As indicated in Table 10, the study intersections operate from LOS A to LOS F during the AM and PM peak-hours.

Table 11 presents the roadway segment operating conditions for this analysis scenario. As indicated in Table 11, the study roadway segments operate from LOS A to LOS F.

Table 10 - Cumulative (2035) plus Proposed Project Intersection Levels of Service

ID	Intersection	Control	Peak Hour	Cumulative (2035)		Cumulative (2035) plus Proposed Project	
				Delay (sec)	LOS	Delay (sec)	LOS
1	Mather Field Road @ US-50 Westbound Ramps	Signal	AM	37.7	D	37.7	D
			PM	16.3	B	16.3	B
2	Mather Field Road @ US-50 Eastbound Ramps	Signal	AM	34.5	C	34.5	C
			PM	27.8	C	27.8	C
3	Mather Field Road @ International Drive	Signal	AM	39.0	D	39.0	D
			PM	23.3	C	23.3	C
4	Zinfandel Drive @ US-50 Westbound Ramps	Signal	AM	22.1	C	22.1	C
			PM	15.0	B	15.0	B
5	Zinfandel Drive @ US-50 Eastbound Ramps	Signal	AM	**73.6**	**E**	**75.6**	**E**
			PM	**174.1**	**F**	**175.5**	**F**
6	Zinfandel Drive @ White Rock Road	Signal	AM	**60.0**	**E**	**60.5**	**E**
			PM	**70.4**	**E**	**71.8**	**E**
7	Zinfandel Drive @ International Drive	Signal	AM	**223.4**	**F**	**223.4**	**F**
			PM	**332.9**	**F**	**332.9**	**F**
8	Sunrise Boulevard @ Zinfandel Drive	Signal	AM	**217.8**	**F**	**218.6**	**F**
			PM	**166.9**	**F**	**168.2**	**F**
9	Sunrise Boulevard @ US-50 Westbound Ramps	Signal	AM	12.3	B	12.4	B
			PM	13.8	B	13.9	B
10	Sunrise Boulevard @ US-50 Eastbound Ramps	Signal	AM	13.5	B	13.5	B
			PM	13.2	B	13.3	B
11	Sunrise Boulevard @ Folsom Boulevard	Signal	AM	46.2	D	46.2	D
			PM	**62.0**	**E**	**62.2**	**E**
12	Sunrise Boulevard @ White Rock Road	Signal	AM	**66.2**	**E**	**66.6**	**E**
			PM	**140.3**	**F**	**143.7**	**F**
13	Douglas Road @ Zinfandel Drive	Signal	AM	**436.4**	**F**	**436.2**	**F**
			PM	**165.7**	**F**	**166.0**	**F**
14	Douglas Road @ Sunrise Boulevard	Signal	AM	**114.9**	**F**	**115.3**	**F**
			PM	**175.3**	**F**	**175.2**	**F**
15	Douglas Road @ Americanos Boulevard	Signal	AM	21.5	C	23.2	C
			PM	24.0	C	26.2	C
16	Jackson Road/SR-16 @ Sunrise Boulevard	Signal	AM	**142.7**	**F**	**143.4**	**F**
			PM	**172.3**	**F**	**173.4**	**F**
17	Jackson Road/SR-16 @ Grant Line Road	Signal	AM	**210.3**	**F**	**214.0**	**F**
			PM	**141.8**	**F**	**145.5**	**F**
18	Grant Line Road @ Kiefer Boulevard	Signal	AM	21.4	C	21.5	C
			PM	23.1	C	23.5	C
19	Grant Line Road @ Douglas Road	Signal	AM	41.6	D	45.0	D
			PM	47.4	D	49.0	D
20	Grant Line Road @ Raymer Way	Signal	AM	**170.3**	**F**	**206.3**	**F**
			PM	**100.8**	**F**	**129.1**	**F**
21	Grant Line Road @ White Rock Road	Signal	AM	**81.3**	**F**	**88.6**	**F**
			PM	**153.7**	**F**	**166.7**	**F**
22	White Rock Road @ Prairie City Road	Signal	AM	**178.6**	**F**	**182.6**	**F**
			PM	**249.4**	**F**	**260.5**	**F**

Notes: **Bold** represents unacceptable operations. Shaded represents a significant impact.

Table 11 – Cumulative (2035) plus Proposed Project Roadway Segment Levels of Service

ID	Roadway	Segment		Cumulative					Cumulative plus Project					LOS Threshold
		From	To	Travel Lanes	Facility Type	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type	Daily Volume	Volume / Capacity Ratio	Level of Service	
1	Mather Field Rd	Folsom Blvd	US-50 WB Ramps	6	Arterial Moderate	34,520	0.64	B	6	Arterial Moderate	34,520	0.64	B	D
2	Mather Field Rd	US-50 EB Ramps	International Dr	6	Arterial Moderate	29,010	0.54	A	6	Arterial Moderate	29,010	0.54	A	D
3	Zinfandel Dr	Folsom Blvd	US-50 WB Ramps	6	Arterial Moderate	21,900	0.41	A	6	Arterial Moderate	21,940	0.41	A	D
4	Zinfandel Dr	White Rock Rd	International Dr	6	Arterial Moderate	88,350	**1.64**	**F**	6	Arterial Moderate	88,350	**1.64**	**F**	D
5	Zinfandel Dr	International Dr	Douglas Rd	4	Arterial Moderate	46,350	**1.29**	**F**	4	Arterial Moderate	46,350	**1.29**	**F**	D
6	Mather Field Rd	Femoyer St	Douglas Rd	4	Arterial Moderate	15,630	0.43	A	4	Arterial Moderate	15,630	0.43	A	D
7	Sunrise Blvd	Folsom Blvd	White Rock Rd	6	Arterial Moderate	39,830	0.74	C	6	Arterial Moderate	39,991	0.74	C	D
8	Sunrise Blvd	White Rock Rd	Douglas Road	6	Arterial Moderate	38,650	0.72	C	6	Arterial Moderate	38,650	0.72	C	D
9	Sunrise Blvd	Douglas Rd	Jackson Rd/SR 16	4	Arterial Moderate	43,460	**1.21**	**F**	4	Arterial Moderate	43,460	**1.21**	**F**	D
10	White Rock Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial Moderate	15,080	0.28	A	6	Arterial Moderate	15,481	0.29	A	D
11	White Rock Rd	Sunrise Blvd	Grant Line Road	6	Arterial Moderate	13,380	0.25	A	6	Arterial Moderate	14,745	0.27	A	D
12	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Arterial Moderate	69,700	**1.94**	**F**	4	Arterial Moderate	70,623	**1.96**	**F**	E
13	Grant Line Road	Raymer Wy	Douglas Road	4	Expressway	38,620	0.54	A	4	Expressway	39,664	0.55	A	D
14	Grant Line Road	Douglas Rd	Jackson Rd/SR 16	4	Arterial High	23,280	0.58	A	4	Arterial High	23,641	0.59	A	D
15	Douglas Rd	Mather Field Rd	Sunrise Blvd	4	Arterial Moderate	60,580	**1.68**	**F**	4	Arterial Moderate	60,741	**1.69**	**F**	D
16	Douglas Rd	Sunrise Blvd	Grant Line Road	6	Arterial Moderate	24,730	0.46	A	6	Arterial Moderate	25,412	0.47	A	D
17	Grant Line Road	White Rock Rd	Raymer Wy	4	Expressway	51,290	0.71	C	4	Expressway	53,578	0.74	C	E

Note: **Bold** represents unacceptable operations. Shaded indicates significant impact

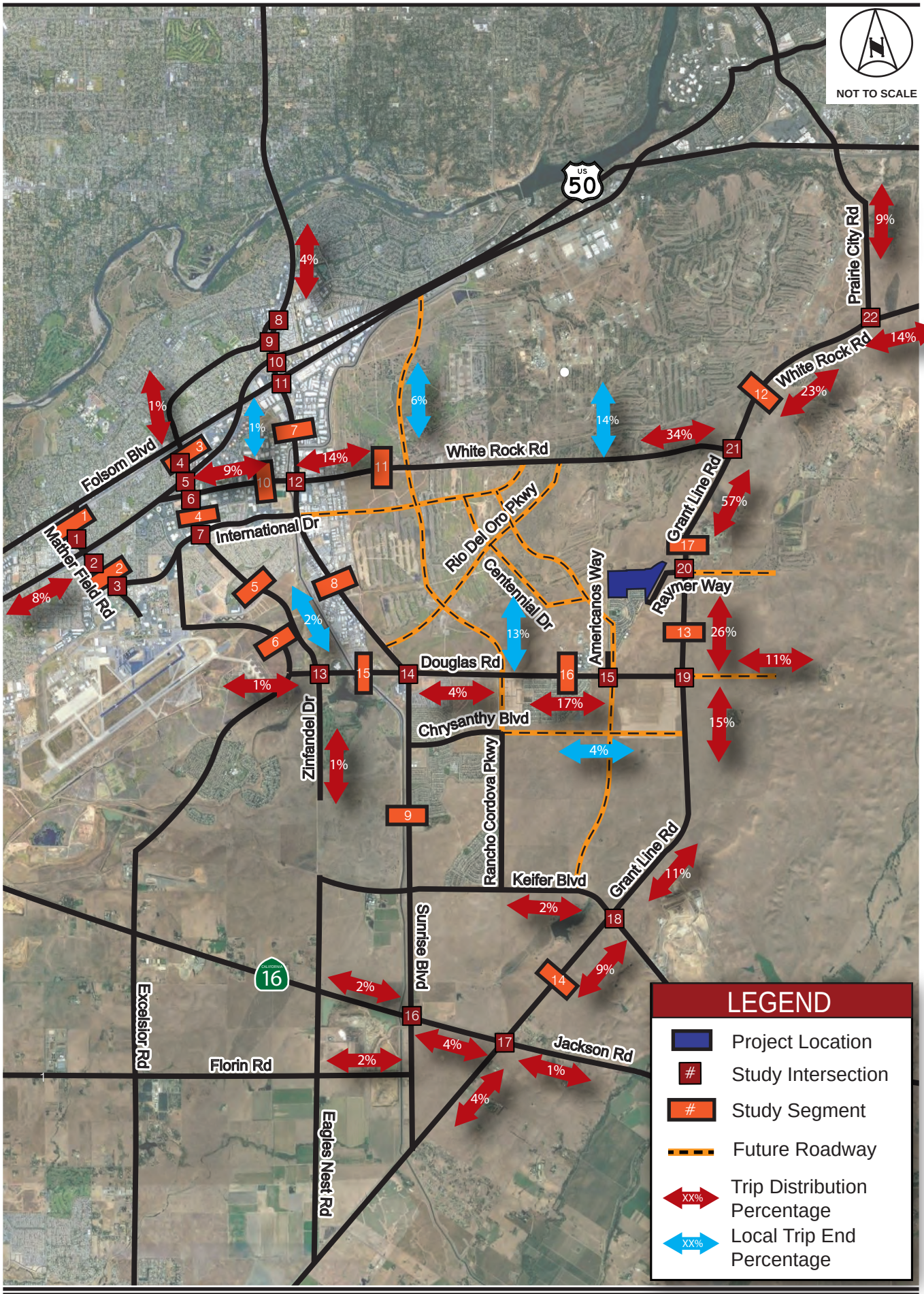

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Figure 10
Cumulative (2035) Project Trip Distribution

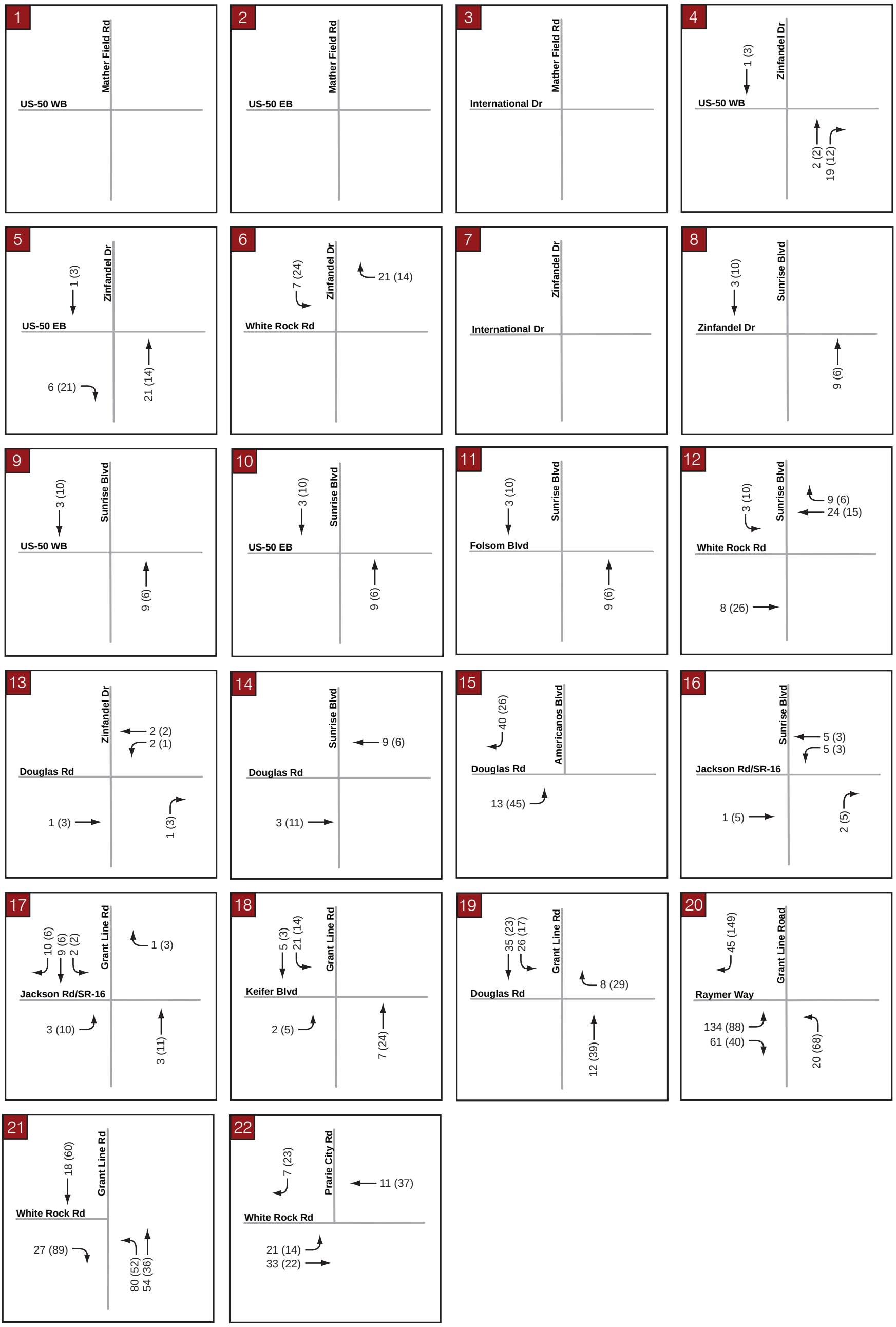
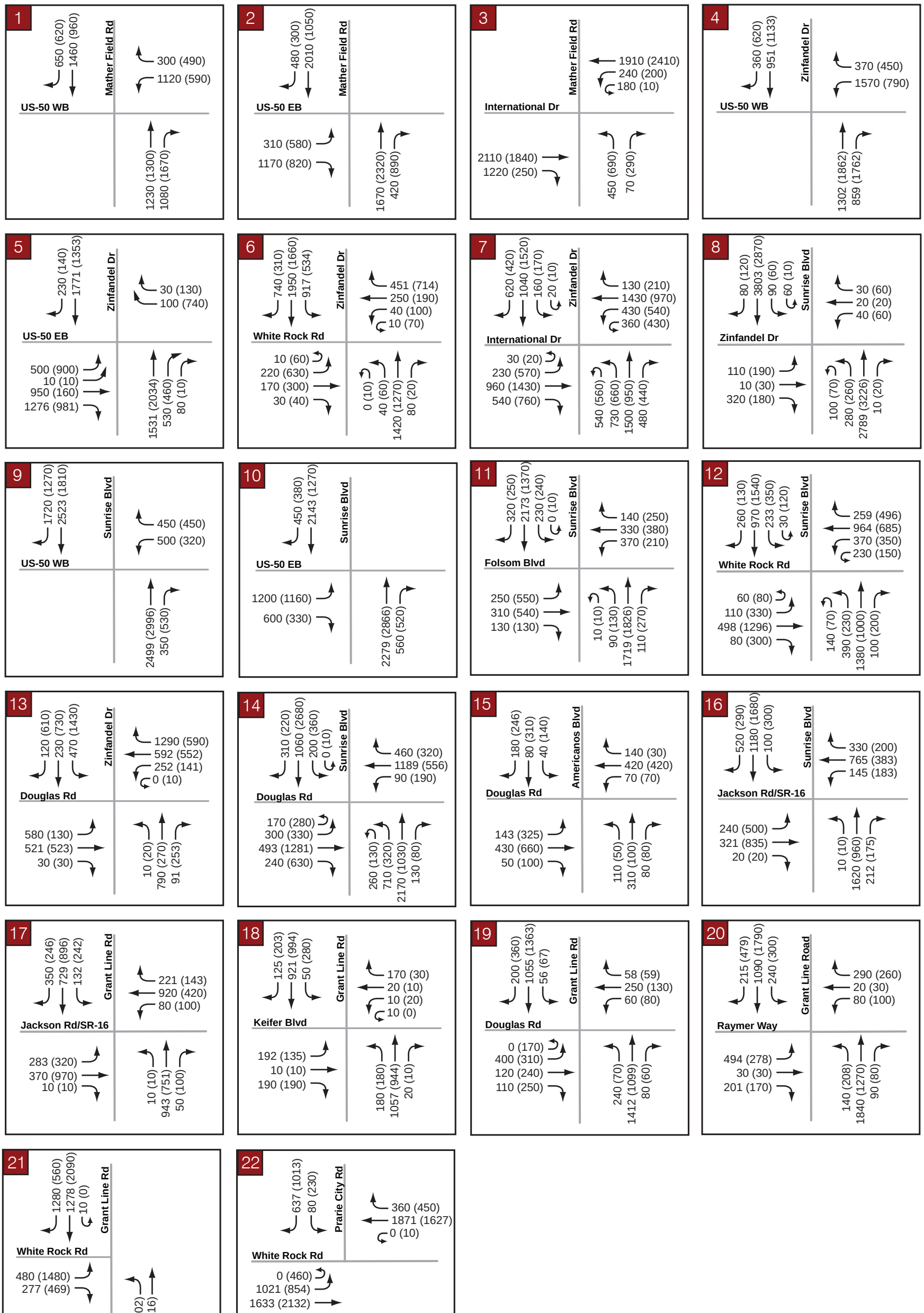


Figure 11
Cumulative (2035) Project Trip Assignment



LEGEND

#	Study Intersection
xx(xx)	AM(PM) Peak-Hour Volumes

Kimley»Horn

Figure 12
Cumulative (2035) plus Proposed Project Peak-Hour Traffic Volumes

IMPACTS AND MITIGATION

Regulatory Setting and Thresholds of Significance

Sacramento County

The Circulation Element of the latest County of Sacramento General Plan[6] includes the following relevant provisions:

> ***CI-9.*** *Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural.*
>
> ***CI-35.*** *The applicant/developer of land development projects shall be responsible to install bicycle and pedestrian facilities in accordance with Sacramento County Improvement Standards and may be responsible to participate in the fair share funding of regional multi-use trails identified in the Sacramento County Bicycle Master Plan.*

Sacramento County's traffic study guidelines[1] provide guidelines for the implementation of the General Plan provisions: "The County defines the minimum acceptable operation level for its roadways and intersections to be LOS D for rural areas and LOS E for urban areas. The urban areas are those areas within the Urban Service Boundary as shown in the Land Use Element of the Sacramento County General Plan. The areas outside the Urban Service Boundary are considered rural."

All of the Sacramento County study facilities are within the Urban Services Boundary. Therefore, LOS E is the minimum acceptable LOS for all County facilities.

Thresholds of Significance

Roadways/Signalized Intersections: A project is considered to have a significant effect if it would:

- result in a roadway or a signalized intersection operating at an acceptable LOS to deteriorate to an unacceptable LOS; or
- increase the V/C ratio by more than 0.05 at a roadway or at a signalized intersection that is operating at an unacceptable LOS without the project.

Unsignalized Intersections: A project is considered to have a significant effect if it would:

- result in an unsignalized intersection movement/approach operating at an acceptable LOS to deteriorate to an unacceptable LOS, and also cause the intersection to meet a traffic signal warrant; or
- for an unsignalized intersection that meets a signal warrant, increase the delay by more than 5 seconds at a movement/approach that is operating at an unacceptable LOS without the project.

[6] *Sacramento County General Plan of 2005-2030,* Sacramento County Community Planning & Development Department, November 9, 2011.

City of Rancho Cordova

The Circulation Element of the City of Rancho Cordova's General Plan 2035 includes the following relevant provisions:

> *Policy C.1.2 - Seek to maintain operations on all roadways and intersections at Level of Service D or better at all times, including peak travel times, unless maintaining this Level of Service would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. Congestion in excess of Level of Service D may be accepted in these cases, provided that provisions are made to improve traffic flow and/or promote non-vehicular transportation as part of a development project or a City-initiated project. Please see Policy C.1.3 for additional policy guidance related to this issue.*
>
> *Examples of system improvements which may be accepted when Level of Service D cannot be maintained include the following, where the improvement or funding is in excess of standard City requirements:*
>
> *• Development of on- or off-street bicycle or pedestrian circulation (not including sidewalks that are constructed as part of roadway improvements);*
> *• Providing or funding public transportation facilities or services;*
> *• Other features as determined appropriate by the City.*
>
> *Policy C.1.3 - Recognize that regional traffic beyond the City's control, as well as circulation system decisions made prior to incorporation or by other agencies, will make it infeasible to achieve the City's desired Level of Service on all roadways. Subject development projects which affect these roadways to the provisions of Policy C.1.2 to provide offsetting improvements to the vehicular and/or non-vehicular transportation system.*

Impacts and Mitigation

Existing (2019) plus Proposed Project Conditions

As reflected in Table 6 and Table 7, the addition of the proposed project results in two (2) significant impacts. Analysis worksheets for the mitigations for this scenario are provided in Appendix F. The following is a discussion of each impact and its associated mitigation.

Intersection Impacts:

I1. Intersection #17, Jackson Road/SR-16 @ Grant Line Road
As shown in Table 6, this intersection operates at unacceptable LOS F during the AM and PM peak-hours without the project, and the project adds more than 5 seconds of delay to the intersection during the AM and PM peak-hours. ***This is a significant impact***.

I2. Intersection #20, Grant Line Road @ Raymer Way
As shown in Table 6, this intersection operates at LOS E and D during the AM and PM peak-hours without the project, and the project results in the intersection operating at LOS F. ***This is a significant impact***.

Mitigations:

M1. Intersection #17, Jackson Road/SR-16 @ Grant Line Road
The significant impact at this intersection during the AM and PM peak-hours can be mitigated by constructing a northbound and southbound left-turn pocket. As shown in Table 12, with the addition of this improvement, the intersection operates at LOS D during the AM and PM peak-

hours. However, a portion of the identified improvement lies outside of the City Limits and beyond the control of the City of Rancho Cordova. Because the City of Rancho Cordova cannot guarantee this measure can be implemented, the impact would remain ***significant and unavoidable***.

M2. Intersection #20, Grant Line Road @ Raymer

The significant impact at this intersection can be mitigated by converting the intersection from side street stop controlled to signalized along the existing Grant Line Road alignment. As shown in Table 12, with this mitigation, the intersection operates at LOS B and LOS C during the AM and PM peak-hours, respectively. Therefore, the impact is ***less than significant with mitigation***.

Table 12 – Intersection Levels of Service – Existing (2019) plus Proposed Project Mitigated Conditions

ID	Intersection	Control	Peak Hour	Existing (2019) plus Proposed Project		Control	Existing (2019) plus Proposed Project (Mitigated)	
				Delay (sec)	LOS		Delay (sec)	LOS
17	Jackson Road/SR-16 @ Grant Line Road	Signal	AM	**103.7**	**F**	Signal	46.3	D
			PM	**120.4**	**F**		40.1	D
20	Grant Line Road @ Raymer Way	SSSC	AM	**146.3 (606 EB)**	**F**	Signal	15.4	B
			PM	**84.1 (545 EB)**	**F**		22.2	C

Bold represents unacceptable operations. Shaded represents significant impact.

Cumulative plus Proposed Project Conditions

As reflected in Table 10 and Table 11, the addition of the proposed project results in three (3) significant impacts. Analysis worksheets for the mitigations for this scenario are provided in Appendix F. The following is a discussion of each impact and its associated mitigation.

Intersection Impacts:

I3. Intersection #20, Grant Line @ Raymer Way

As shown in Table 10, this intersection operates at unacceptable LOS F during the AM peak-hour without the project, and the project adds more than 5 seconds of delay to the intersection during the AM and PM peak-hours. ***This is a significant impact***.

I4. Intersection #21, Grant Line @ White Rock Road

As shown in Table 10, this intersection operates at unacceptable LOS F during the AM peak-hour without the project, and the project adds more than 5 seconds of delay to the intersection during the AM and PM peak-hours. ***This is a significant impact***.

I5. Intersection #22, White Rock Road @Prairie City Road

As shown in Table 10, this intersection operates at unacceptable LOS F during the AM and PM peak-hour without the project, and the project adds more than 5 seconds of delay to the intersection during the PM peak-hour. ***This is a significant impact***.

Mitigations:

M3. Intersection #20, Grant Line @ Raymer Way

The significant impact at this intersection can be mitigated by the addition of two eastbound left-turn lanes, a southbound left turn lane, a westbound left turn lane and restriping the thru-left land to a thru-right lane. It is expected that this these improvements will be implemented with the construction of the Capital South East Connector and related relocation of Grant Line Road. As shown in Table 13, this mitigation measure results in the intersection operating at LOS D during the AM and PM peak-hours. However, since the City of Rancho Cordova cannot guarantee the timing or implementation of Capital South East Connector, the impact would remain ***significant and unavoidable***.

M4. Intersection #21, Grant Line @ White Rock Road

The significant impact at this intersection during the AM and PM peak-hours can be mitigated by the addition of a northbound left-turn lane, a southbound through lane, and an eastbound left-turn lane. As shown in Table 13, this mitigation measure results in the intersection operating at LOS E and LOS D during the AM and PM peak-hours, respectively. However, the identified improvement lies outside of the City Limits and beyond the control of the City of Rancho Cordova. Because the City of Rancho Cordova cannot guarantee this measure can be implemented, the impact would remain ***significant and unavoidable***.

M5. Intersection #22, White Rock Road @ Prairie City Road

The significant impact at this intersection during the PM peak-hour can be mitigated with the addition of a second southbound right-turn lane and the addition of a right-turn overlap signal phase for the southbound right-turn. As shown in Table 13, this mitigation measure results in the intersection operating at LOS E during the AM and PM peak-hours. However, the identified improvement lies outside of the City Limits and beyond the control of the City of Rancho Cordova. Because the City of Rancho Cordova cannot guarantee this measure can be implemented, the impact would remain ***significant and unavoidable***.

Table 13 – Intersection Levels of Service – Cumulative (2035) plus Proposed Project Mitigated Conditions

ID	Intersection	Control	Peak Hour	Cumulative (2035) plus Proposed Project		Control	Cumulative (2035) plus Proposed Project (Mitigated)	
				Delay (sec)	LOS		Delay (sec)	LOS
20	Grant Line Road @ Raymer Way	Signal	AM	**206.3**	**F**	Signal	39.1	D
			PM	**129.1**	**F**		54.3	D
21	Grant Line Road @ White Rock Road	Signal	AM	**88.6**	**F**	Signal	59.2	E
			PM	**166.7**	**F**		46.7	D
22	White Rock Road @ Prairie City Road	Signal	AM	**182.6**	**F**	Signal	72.7	E
			PM	**260.5**	**F**		77.9	E

Bold represents unacceptable operations. Shaded represents significant impact.

CONCLUSIONS

Significant findings of this study include:

- The proposed project is estimated to generate 4,014 new daily trips, with 313 new trips occurring during the AM peak-hour, and 416 new trips occurring during the PM peak-hour.
- The addition of the proposed project to the Existing (2019) Conditions results in a significant impact at two (2) study intersections, Intersection #17 (Jackson Road/SR-16 at Grant Line Road) and Intersection #20 (Grant Line Road at Raymer Way). With the application of mitigation measures recommended herein, the impacts to Intersection #17 can be mitigated. However, because the City of Rancho Cordova cannot guarantee that mitigation measure M1 can be implemented, the impact would remain ***significant and unavoidable***. With the implementation of mitigation measure M2, the impact to Intersection #20 is ***less than significant with mitigation***.
- The addition of the proposed project to Cumulative (2035) Conditions results in a significant impact at three (3) intersections. With the application of mitigation measures recommended herein, the impacts to intersections can be mitigated. However, because the City of Rancho Cordova cannot guarantee that these mitigation measures (M3, M4, and M5) can be implemented, the impact would remain ***significant and unavoidable***.

Appendix A

Traffic Count Data Sheets

National Data & Surveying Services

Intersection Turning Movement Count

Location: Grant Line Rd & Kiefer Blvd
City: Rancho Cordova
Control: 3-Way Stop(NB/SB/WB)

Project ID: 19-07202-001
Date: 5/21/2019

Total

NS/EW Streets:	Grant Line Rd				Grant Line Rd				Kiefer Blvd				Kiefer Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	78	5	0	11	63	0	0	0	0	0	0	9	0	22	0	188
7:15 AM	0	110	1	0	15	61	0	0	0	0	0	0	1	0	49	1	238
7:30 AM	0	111	7	0	15	92	0	0	0	0	0	0	4	0	49	0	278
7:45 AM	0	112	5	0	11	75	0	0	0	0	0	0	3	0	48	0	254
8:00 AM	1	106	2	0	9	60	0	0	1	0	0	0	4	0	20	0	203
8:15 AM	0	111	7	0	7	57	0	0	0	0	0	0	5	0	23	0	210
8:30 AM	0	114	14	0	9	45	0	0	0	0	0	0	6	0	12	0	200
8:45 AM	0	101	18	0	8	46	1	0	0	0	0	0	3	0	16	0	193
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	843	59	0	85	499	1	0	1	0	0	0	35	0	239	1	1764
APPROACH %'s :	0.11%	93.36%	6.53%	0.00%	14.53%	85.30%	0.17%	0.00%	100.00%	0.00%	0.00%	0.00%	12.73%	0.00%	86.91%	0.36%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	1	439	15	0	50	288	0	0	1	0	0	0	12	0	166	1	973
PEAK HR FACTOR :	0.250	0.980	0.536	0.000	0.833	0.783	0.000	0.000	0.250	0.000	0.000	0.000	0.750	0.000	0.847	0.250	0.875
		0.964				0.790				0.250				0.844			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	87	2	0	23	79	2	0	0	0	2	0	4	0	8	0	207
4:15 PM	1	98	5	0	26	99	0	0	2	0	0	0	5	1	10	0	247
4:30 PM	0	83	0	0	34	102	0	0	1	0	0	0	4	0	7	0	231
4:45 PM	0	80	0	0	42	87	2	0	0	2	0	0	8	0	6	0	227
5:00 PM	1	97	0	0	37	91	1	0	1	0	0	0	10	0	10	0	248
5:15 PM	1	96	0	0	32	113	1	0	0	0	0	0	1	0	10	0	254
5:30 PM	1	71	1	0	22	92	0	0	1	1	0	0	2	0	4	0	195
5:45 PM	0	75	0	0	21	68	1	0	0	0	1	0	0	0	5	0	171
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	4	687	8	0	237	731	7	0	5	3	3	0	34	1	60	0	1780
APPROACH %'s :	0.57%	98.28%	1.14%	0.00%	24.31%	74.97%	0.72%	0.00%	45.45%	27.27%	27.27%	0.00%	35.79%	1.05%	63.16%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	2	356	0	0	145	393	4	0	2	2	0	0	23	0	33	0	960
PEAK HR FACTOR :	0.500	0.918	0.000	0.000	0.863	0.869	0.500	0.000	0.500	0.250	0.000	0.000	0.575	0.000	0.825	0.000	0.945
		0.913				0.928				0.500				0.700			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Grant Line Rd & Jackson Rd/SR-16
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-002
Date: 5/21/2019

Total

NS/EW Streets:	Grant Line Rd				Grant Line Rd				Jackson Rd/SR-16				Jackson Rd/SR-16				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	63	4	0	5	51	13	0	16	67	0	0	9	177	6	0	411
7:15 AM	1	85	4	0	7	50	10	0	18	72	0	0	14	164	4	0	429
7:30 AM	1	90	2	0	9	56	19	0	23	54	0	0	9	153	12	0	428
7:45 AM	1	78	6	0	2	62	22	0	26	66	0	0	4	146	12	0	425
8:00 AM	2	75	11	0	5	42	25	0	21	50	1	0	5	127	19	0	383
8:15 AM	2	86	5	0	2	45	10	0	15	78	0	0	7	139	15	0	404
8:30 AM	1	94	7	0	3	45	12	0	21	56	3	0	12	133	16	0	403
8:45 AM	1	90	4	0	6	32	13	0	22	70	1	0	9	119	5	0	372
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	9	661	43	0	39	383	124	0	162	513	5	0	69	1158	89	0	3255
APPROACH %'s :	1.26%	92.71%	6.03%	0.00%	7.14%	70.15%	22.71%	0.00%	23.82%	75.44%	0.74%	0.00%	5.24%	87.99%	6.76%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	3	316	16	0	23	219	64	0	83	259	0	0	36	640	34	0	1693
PEAK HR FACTOR :	0.750	0.878	0.667	0.000	0.639	0.883	0.727	0.000	0.798	0.899	0.000	0.000	0.643	0.904	0.708	0.000	0.987
		0.901				0.890				0.929				0.924			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	1	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	71	13	0	11	66	11	0	5	144	1	0	7	72	0	0	402
4:15 PM	0	84	16	0	13	74	10	0	11	162	0	0	14	78	10	0	472
4:30 PM	1	56	10	0	6	93	9	0	15	186	0	0	18	98	11	0	503
4:45 PM	1	61	17	0	9	69	13	0	17	180	0	0	14	79	13	0	473
5:00 PM	1	72	15	0	9	87	19	0	16	156	0	0	11	79	6	0	471
5:15 PM	1	73	14	0	9	85	16	0	16	175	0	0	2	67	13	0	471
5:30 PM	0	56	13	0	9	81	8	0	14	174	0	0	11	75	14	0	455
5:45 PM	0	60	6	0	11	53	9	0	7	170	1	0	10	69	6	0	402
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	533	104	0	77	608	95	0	101	1347	2	0	87	617	73	0	3649
APPROACH %'s :	0.78%	83.02%	16.20%	0.00%	9.87%	77.95%	12.18%	0.00%	6.97%	92.90%	0.14%	0.00%	11.20%	79.41%	9.40%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	3	273	58	0	37	323	51	0	59	684	0	0	57	334	40	0	1919
PEAK HR FACTOR :	0.750	0.813	0.853	0.000	0.712	0.868	0.671	0.000	0.868	0.919	0.000	0.000	0.792	0.852	0.769	0.000	0.954
		0.835				0.893				0.924				0.848			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Zinfandel Dr & Douglas Rd
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-003
Date: 5/21/2019

Total

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				Douglas Rd				Douglas Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	2	1	1	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	3	23	9	0	22	2	9	0	54	27	0	0	3	72	137	0	361
7:15 AM	3	29	11	0	42	5	9	0	63	28	0	0	9	92	133	0	424
7:30 AM	3	56	11	0	43	2	11	0	81	38	1	0	2	73	106	0	427
7:45 AM	1	46	15	0	45	13	18	0	81	49	1	0	1	101	135	0	506
8:00 AM	0	47	9	0	44	5	17	0	69	42	0	0	4	78	109	0	424
8:15 AM	2	30	9	0	43	7	26	0	73	56	0	0	5	87	94	0	432
8:30 AM	2	37	16	0	42	7	19	0	47	40	1	0	5	42	110	1	369
8:45 AM	2	19	6	0	35	7	10	0	38	20	1	0	9	46	94	0	287
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	16	287	86	0	316	48	119	0	506	300	4	0	38	591	918	1	3230
APPROACH %'s :	4.11%	73.78%	22.11%	0.00%	65.42%	9.94%	24.64%	0.00%	62.47%	37.04%	0.49%	0.00%	2.45%	38.18%	59.30%	0.06%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	6	179	44	0	175	27	72	0	304	185	2	0	12	339	444	0	1789
PEAK HR FACTOR :	0.500	0.799	0.733	0.000	0.972	0.519	0.692	0.000	0.938	0.826	0.500	0.000	0.600	0.839	0.822	0.000	0.884
	0.818				0.901				0.937				0.839				

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				Douglas Rd				Douglas Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	2	1	1	0	1	2	0	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	14	10	0	132	35	59	0	17	64	3	0	13	51	47	0	445
4:15 PM	0	8	9	0	149	32	79	0	13	66	3	0	13	39	52	0	463
4:30 PM	1	19	11	0	144	39	85	0	21	75	3	0	19	56	61	0	534
4:45 PM	0	6	8	0	135	36	88	0	19	86	2	0	17	44	60	0	501
5:00 PM	2	14	10	0	152	39	95	0	23	67	5	0	12	53	65	0	537
5:15 PM	1	14	10	0	178	36	81	0	13	73	5	0	13	52	65	1	542
5:30 PM	4	17	7	0	157	42	66	0	19	70	3	0	21	40	56	0	502
5:45 PM	2	8	6	0	145	28	64	0	15	44	1	0	7	47	42	0	409
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	10	100	71	0	1192	287	617	0	140	545	25	0	115	382	448	1	3933
APPROACH %'s :	5.52%	55.25%	39.23%	0.00%	56.87%	13.69%	29.44%	0.00%	19.72%	76.76%	3.52%	0.00%	12.16%	40.38%	47.36%	0.11%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	4	53	39	0	609	150	349	0	76	301	15	0	61	205	251	1	2114
PEAK HR FACTOR :	0.500	0.697	0.886	0.000	0.855	0.962	0.918	0.000	0.826	0.875	0.750	0.000	0.803	0.915	0.965	0.250	0.975
	0.774				0.939				0.916				0.952				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Grant Line Rd & Douglas Rd
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-005
Date: 5/21/2019

Total

NS/EW Streets:	Grant Line Rd				Grant Line Rd				Douglas Rd				Douglas Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	13	87	0	0	0	69	12	0	27	0	11	0	0	0	0	0	219
7:15 AM	27	117	0	0	0	71	14	0	34	0	5	0	0	0	0	0	268
7:30 AM	24	119	0	0	0	88	18	0	74	0	6	0	0	0	0	0	329
7:45 AM	33	133	0	0	0	76	23	0	36	0	7	0	0	0	0	0	308
8:00 AM	10	112	0	0	0	65	17	0	52	0	4	0	0	0	0	0	260
8:15 AM	13	111	0	0	0	55	12	0	62	0	3	0	0	0	0	0	256
8:30 AM	11	124	0	0	0	52	15	0	43	0	6	0	0	0	0	0	251
8:45 AM	8	112	0	0	0	42	11	0	33	0	4	0	0	0	0	0	210
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	139	915	0	0	0	518	122	0	361	0	46	0	0	0	0	0	2101
APPROACH %'s :	13.19%	86.81%	0.00%	0.00%	0.00%	80.94%	19.06%	0.00%	88.70%	0.00%	11.30%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	94	481	0	0	0	300	72	0	196	0	22	0	0	0	0	0	1165
PEAK HR FACTOR :	0.712	0.904	0.000	0.000	0.000	0.852	0.783	0.000	0.662	0.000	0.786	0.000	0.000	0.000	0.000	0.000	0.885
	0.866				0.877				0.681								

NS/EW Streets:	Grant Line Rd				Grant Line Rd				Douglas Rd				Douglas Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	86	0	0	0	85	35	0	37	0	10	0	0	0	0	0	255
4:15 PM	6	109	0	0	0	125	41	0	35	0	18	1	0	0	0	0	335
4:30 PM	5	80	0	0	0	86	38	0	42	0	33	0	0	0	0	0	284
4:45 PM	2	75	0	0	0	114	45	0	26	0	26	1	0	0	0	0	289
5:00 PM	7	101	0	0	0	107	39	0	39	0	24	0	0	0	0	0	317
5:15 PM	8	96	0	0	0	119	44	0	35	0	22	0	0	0	0	0	324
5:30 PM	2	77	0	0	0	96	52	0	48	0	11	0	0	0	0	0	286
5:45 PM	3	87	0	0	0	68	36	0	29	0	12	0	0	0	0	0	235
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	35	711	0	0	0	800	330	0	291	0	156	2	0	0	0	0	2325
APPROACH %'s :	4.69%	95.31%	0.00%	0.00%	0.00%	70.80%	29.20%	0.00%	64.81%	0.00%	34.74%	0.45%					
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	20	365	0	0	0	432	163	0	142	0	101	2	0	0	0	0	1225
PEAK HR FACTOR :	0.714	0.837	0.000	0.000	0.000	0.864	0.906	0.000	0.845	0.000	0.765	0.500	0.000	0.000	0.000	0.000	0.914
	0.837				0.896				0.817								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mather Field Rd & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-006
Date: 5/22/2019

Total

NS/EW Streets:	Mather Field Rd				Mather Field Rd				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	1	0	0	2	1	0	0	0	0	0	1.5	0	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	146	166	0	0	112	123	0	0	0	0	0	212	0	40	0	799
7:15 AM	0	169	140	0	0	175	82	0	0	0	0	0	227	0	60	0	853
7:30 AM	0	205	104	0	0	179	88	0	0	0	0	0	247	0	56	0	879
7:45 AM	0	188	96	0	0	205	76	0	0	0	0	0	284	0	67	0	916
8:00 AM	0	189	121	0	0	178	115	0	0	0	0	0	213	0	67	0	883
8:15 AM	0	158	129	0	0	193	111	0	0	0	0	0	234	0	50	0	875
8:30 AM	0	148	138	0	0	168	104	0	0	0	0	0	189	0	52	0	799
8:45 AM	0	135	122	0	0	115	98	0	0	0	0	0	151	0	61	0	682
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1338	1016	0	0	1325	797	0	0	0	0	0	1757	0	453	0	6686
APPROACH %'s :	0.00%	56.84%	43.16%	0.00%	0.00%	62.44%	37.56%	0.00%					79.50%	0.00%	20.50%	0.00%	
PEAK HR :	**07:30 AM - 08:30 AM**																TOTAL
PEAK HR VOL :	0	740	450	0	0	755	390	0	0	0	0	0	978	0	240	0	3553
PEAK HR FACTOR :	0.000	0.902	0.872	0.000	0.000	0.921	0.848	0.000	0.000	0.000	0.000	0.000	0.861	0.000	0.896	0.000	0.970
		0.960				0.942								0.868			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	1	0	0	2	1	0	0	0	0	0	1.5	0	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	227	263	0	0	143	109	0	0	0	0	0	70	0	72	0	884
4:15 PM	0	241	205	0	0	136	68	0	0	0	0	0	65	0	75	0	790
4:30 PM	0	279	246	0	0	136	95	0	0	0	0	0	83	0	81	0	920
4:45 PM	0	290	240	0	0	146	84	0	0	0	0	0	98	0	94	0	952
5:00 PM	0	293	245	0	0	176	97	0	0	0	0	0	97	0	77	0	985
5:15 PM	0	286	235	0	0	125	83	0	0	0	0	0	123	0	101	0	953
5:30 PM	0	240	176	0	0	136	90	0	0	0	0	0	91	0	84	0	817
5:45 PM	0	234	149	0	0	129	86	0	0	0	0	0	100	0	87	0	785
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2090	1759	0	0	1127	712	0	0	0	0	0	727	0	671	0	7086
APPROACH %'s :	0.00%	54.30%	45.70%	0.00%	0.00%	61.28%	38.72%	0.00%					52.00%	0.00%	48.00%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	0	1148	966	0	0	583	359	0	0	0	0	0	401	0	353	0	3810
PEAK HR FACTOR :	0.000	0.980	0.982	0.000	0.000	0.828	0.925	0.000	0.000	0.000	0.000	0.000	0.815	0.000	0.874	0.000	0.967
		0.982				0.863								0.842			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mather Field Rd & US-50 EB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-007
Date: 5/22/2019

Total

NS/EW Streets:	Mather Field Rd				Mather Field Rd				US-50 EB Ramps				US-50 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	2	1	0	1.5	0	1.5	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	237	66	0	0	284	46	0	76	0	222	0	0	0	0	0	931
7:15 AM	0	238	84	0	0	309	80	0	67	0	265	0	0	0	0	0	1043
7:30 AM	0	230	88	0	0	348	96	0	83	0	305	0	0	0	0	0	1150
7:45 AM	0	225	86	0	0	387	79	0	61	0	329	0	0	0	0	0	1167
8:00 AM	0	219	77	0	0	346	63	0	84	0	261	0	0	0	0	0	1050
8:15 AM	0	206	82	0	0	338	79	0	84	0	278	0	0	0	0	0	1067
8:30 AM	0	205	82	0	0	278	77	0	76	0	242	0	0	0	0	0	960
8:45 AM	0	178	69	0	0	225	52	0	76	0	200	0	0	0	0	0	800
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1738	634	0	0	2515	572	0	607	0	2102	0	0	0	0	0	8168
APPROACH %'s :	0.00%	73.27%	26.73%	0.00%	0.00%	81.47%	18.53%	0.00%	22.41%	0.00%	77.59%	0.00%					
PEAK HR :	**07:30 AM - 08:30 AM**																TOTAL
PEAK HR VOL :	0	880	333	0	0	1419	317	0	312	0	1173	0	0	0	0	0	4434
PEAK HR FACTOR :	0.000	0.957	0.946	0.000	0.000	0.917	0.826	0.000	0.929	0.000	0.891	0.000	0.000	0.000	0.000	0.000	0.950
		0.954				0.931				0.952							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	2	1	0	1.5	0	1.5	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	381	239	0	0	137	70	0	113	0	157	0	0	0	0	0	1097
4:15 PM	0	285	179	0	0	162	48	0	150	0	146	0	0	0	0	0	970
4:30 PM	0	402	211	0	0	151	52	0	131	0	144	0	0	0	0	0	1091
4:45 PM	0	388	182	0	0	202	48	0	120	0	158	0	0	0	0	0	1098
5:00 PM	0	432	182	0	0	188	71	0	124	0	119	0	0	0	0	0	1116
5:15 PM	0	349	140	0	0	203	60	0	159	0	164	0	0	0	0	0	1075
5:30 PM	0	291	99	0	0	186	57	0	128	0	153	0	0	0	0	0	914
5:45 PM	0	244	83	0	0	183	42	0	145	0	148	0	0	0	0	0	845
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2772	1315	0	0	1412	448	0	1070	0	1189	0	0	0	0	0	8206
APPROACH %'s :	0.00%	67.82%	32.18%	0.00%	0.00%	75.91%	24.09%	0.00%	47.37%	0.00%	52.63%	0.00%					
PEAK HR :	**04:30 PM - 05:30 PM**																TOTAL
PEAK HR VOL :	0	1571	715	0	0	744	231	0	534	0	585	0	0	0	0	0	4380
PEAK HR FACTOR :	0.000	0.909	0.847	0.000	0.000	0.916	0.813	0.000	0.840	0.000	0.892	0.000	0.000	0.000	0.000	0.000	0.981
		0.931				0.927				0.866							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Mather Field Rd & International Dr
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-008
Date: 5/22/2019

Total

NS/EW Streets:	Mather Field Rd				Mather Field Rd				International Dr				International Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	1	0	0	0	0	0	0	3	1	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	61	0	12	0	0	0	0	0	0	144	204	0	10	166	0	1	598
7:15 AM	65	0	9	0	0	0	0	0	0	203	174	0	20	183	0	3	657
7:30 AM	69	0	11	0	0	0	0	0	0	193	184	0	23	214	0	3	697
7:45 AM	62	0	11	0	0	0	0	0	0	284	234	0	22	168	0	4	785
8:00 AM	67	0	13	0	0	0	0	0	0	231	208	0	19	139	0	8	685
8:15 AM	81	0	12	0	0	0	0	0	0	223	193	0	21	151	0	16	697
8:30 AM	66	0	17	0	0	0	0	0	0	198	163	0	4	142	0	2	592
8:45 AM	82	0	6	0	0	0	0	0	0	173	162	0	18	126	0	5	572
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	553	0	91	0	0	0	0	0	0	1649	1522	0	137	1289	0	42	5283
APPROACH %'s :	85.87%	0.00%	14.13%	0.00%					0.00%	52.00%	48.00%	0.00%	9.33%	87.81%	0.00%	2.86%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	279	0	47	0	0	0	0	0	0	931	819	0	85	672	0	31	2864
PEAK HR FACTOR :	0.861	0.000	0.904	0.000	0.000	0.000	0.000	0.000	0.000	0.820	0.875	0.000	0.924	0.785	0.000	0.484	0.912
	0.876									0.845				0.821			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	0	1	0	0	0	0	0	0	3	1	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	263	0	33	0	0	0	0	0	0	145	41	0	25	264	0	2	773
4:15 PM	153	0	26	0	0	0	0	0	0	179	59	0	18	234	0	4	673
4:30 PM	251	0	26	0	0	0	0	0	0	165	55	0	18	254	0	1	770
4:45 PM	145	0	21	0	0	0	0	0	0	186	57	0	23	247	0	0	679
5:00 PM	174	0	30	0	0	0	0	0	0	219	55	0	32	291	0	4	805
5:15 PM	107	0	19	0	0	0	0	0	0	211	57	0	30	255	0	1	680
5:30 PM	108	0	9	0	0	0	0	0	0	185	53	0	17	220	0	2	594
5:45 PM	73	0	7	0	0	0	0	0	0	188	60	0	8	179	0	6	521
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1274	0	171	0	0	0	0	0	0	1478	437	0	171	1944	0	20	5495
APPROACH %'s :	88.17%	0.00%	11.83%	0.00%					0.00%	77.18%	22.82%	0.00%	8.01%	91.05%	0.00%	0.94%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	677	0	96	0	0	0	0	0	0	781	224	0	103	1047	0	6	2934
PEAK HR FACTOR :	0.674	0.000	0.800	0.000	0.000	0.000	0.000	0.000	0.000	0.892	0.982	0.000	0.805	0.899	0.000	0.375	0.911
	0.698									0.917				0.884			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Zinfandel Dr & International Dr
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-009
Date: 5/22/2019

Total

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				International Dr				International Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	0	0	2	3	0	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	65	195	14	2	18	59	42	1	15	59	14	1	10	76	25	4	600
7:15 AM	71	234	16	8	24	62	47	0	19	62	14	1	14	93	24	5	694
7:30 AM	47	221	21	7	40	71	61	1	21	81	16	3	13	86	30	0	719
7:45 AM	71	208	30	9	29	138	75	2	28	95	21	3	29	113	19	4	874
8:00 AM	56	219	26	19	39	98	58	1	25	83	13	3	25	86	26	0	777
8:15 AM	50	224	25	7	35	119	65	1	27	78	13	6	17	82	26	4	779
8:30 AM	58	148	6	5	27	74	40	1	36	83	22	0	14	63	30	4	611
8:45 AM	52	160	18	7	28	91	57	1	34	68	13	2	16	54	28	2	631
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	470	1609	156	64	240	712	445	8	205	609	126	19	138	653	208	23	5685
APPROACH %'s :	20.44%	69.99%	6.79%	2.78%	17.08%	50.68%	31.67%	0.57%	21.38%	63.50%	13.14%	1.98%	13.50%	63.89%	20.35%	2.25%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	224	872	102	42	143	426	259	5	101	337	63	15	84	367	101	8	3149
PEAK HR FACTOR :	0.789	0.973	0.850	0.553	0.894	0.772	0.863	0.625	0.902	0.887	0.750	0.625	0.724	0.812	0.842	0.500	0.901
	0.969				0.853				0.878				0.848				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	0	0	2	3	0	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	20	91	12	4	46	182	48	1	80	104	56	2	32	106	41	7	832
4:15 PM	26	125	11	5	43	214	34	2	63	124	51	2	31	73	20	4	828
4:30 PM	30	106	16	1	36	204	30	4	89	134	54	4	36	76	31	7	858
4:45 PM	27	99	11	1	31	204	33	1	65	107	61	2	35	97	34	11	819
5:00 PM	28	118	16	6	56	242	31	2	77	133	66	3	44	108	30	13	973
5:15 PM	30	88	16	11	42	213	31	1	56	98	57	2	27	79	34	8	793
5:30 PM	28	113	13	6	48	219	19	1	45	78	63	1	35	94	24	6	793
5:45 PM	23	108	17	7	27	191	22	7	30	64	56	2	30	79	23	6	692
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	212	848	112	41	329	1669	248	19	505	842	464	18	270	712	237	62	6588
APPROACH %'s :	17.48%	69.91%	9.23%	3.38%	14.53%	73.69%	10.95%	0.84%	27.61%	46.04%	25.37%	0.98%	21.08%	55.58%	18.50%	4.84%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	111	448	54	13	166	864	128	9	294	498	232	11	146	354	115	35	3478
PEAK HR FACTOR :	0.925	0.896	0.844	0.542	0.741	0.893	0.941	0.563	0.826	0.929	0.879	0.688	0.830	0.819	0.846	0.673	0.894
	0.932				0.881				0.921				0.833				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Zinfandel Dr & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-010
Date: 5/22/2019

Total

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	2	3	1	0	2	3	0	0	2	1.5	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	8	214	3	0	125	171	122	0	35	17	3	4	7	19	72	1	801
7:15 AM	8	272	6	0	151	313	155	0	45	19	6	4	6	24	54	0	1063
7:30 AM	7	250	5	0	154	287	147	0	62	26	6	1	4	18	81	0	1048
7:45 AM	8	238	5	0	199	373	170	0	46	28	5	1	6	29	48	0	1156
8:00 AM	14	243	2	0	202	329	169	0	61	27	10	2	9	21	44	0	1133
8:15 AM	11	277	6	0	195	384	172	0	39	20	9	3	5	19	68	1	1209
8:30 AM	9	241	8	0	138	244	139	0	77	16	8	2	7	20	49	1	959
8:45 AM	11	209	6	0	129	282	112	0	49	21	5	4	9	18	56	1	912
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	76	1944	41	0	1293	2383	1186	0	414	174	52	21	53	168	472	4	8281
APPROACH %'s :	3.69%	94.32%	1.99%	0.00%	26.59%	49.01%	24.39%	0.00%	62.63%	26.32%	7.87%	3.18%	7.60%	24.10%	67.72%	0.57%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	40	1008	18	0	750	1373	658	0	208	101	30	7	24	87	241	1	4546
PEAK HR FACTOR :	0.714	0.910	0.750	0.000	0.928	0.894	0.956	0.000	0.839	0.902	0.750	0.583	0.667	0.750	0.744	0.250	0.940
		0.906				0.926				0.865				0.857			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	2	3	1	0	2	3	0	0	2	1.5	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	14	262	5	0	76	215	57	0	132	27	4	1	12	27	146	2	980
4:15 PM	10	321	5	0	62	228	52	0	140	31	10	4	11	28	147	3	1052
4:30 PM	13	294	3	0	101	291	51	0	148	44	12	4	11	27	157	1	1157
4:45 PM	11	282	3	1	85	241	69	0	157	38	13	3	8	30	176	1	1118
5:00 PM	21	266	6	0	90	295	68	0	136	46	9	2	8	42	180	1	1170
5:15 PM	13	286	7	0	80	302	75	0	149	45	8	6	12	25	183	0	1191
5:30 PM	8	259	8	0	82	311	60	0	108	20	12	1	9	32	130	1	1041
5:45 PM	4	272	5	0	63	260	76	0	91	30	11	2	5	29	123	2	973
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	94	2242	42	1	639	2143	508	0	1061	281	79	23	76	240	1242	11	8682
APPROACH %'s :	3.95%	94.24%	1.77%	0.04%	19.42%	65.14%	15.44%	0.00%	73.48%	19.46%	5.47%	1.59%	4.84%	15.30%	79.16%	0.70%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	58	1128	19	1	356	1129	263	0	590	173	42	15	39	124	696	3	4636
PEAK HR FACTOR :	0.690	0.959	0.679	0.250	0.881	0.935	0.877	0.000	0.939	0.940	0.808	0.625	0.813	0.738	0.951	0.750	0.973
		0.973				0.956				0.972				0.933			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Zinfandel Dr & US-50 EB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-011
Date: 5/22/2019

Total

NS/EW Streets:	Zinfandel Dr					Zinfandel Dr				US-50 EB Ramps					US-50 EB Ramps					
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND					WESTBOUND					
	0	4	0	0	0	0	2	1	0	1.5	1.5	1.5	0	0	0	0	2	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	EL2	WL	WT	WR	WU	WR2	TOTAL
7:00 AM	0	263	0	0	97	0	221	33	0	63	152	225	0	0	0	0	27	0	5	1086
7:15 AM	0	240	0	0	92	0	320	44	0	80	204	275	0	0	0	0	33	0	11	1299
7:30 AM	0	264	7	0	143	0	370	58	0	75	197	251	0	1	0	0	29	0	5	1400
7:45 AM	0	200	6	0	102	0	431	45	0	110	253	301	0	0	0	0	25	0	11	1484
8:00 AM	0	271	2	0	112	0	472	45	0	93	209	254	0	0	0	0	23	0	6	1487
8:15 AM	0	250	0	0	112	0	411	53	0	99	190	289	0	0	0	0	25	0	5	1434
8:30 AM	0	235	2	0	115	0	300	40	0	88	173	208	0	0	0	0	36	0	8	1205
8:45 AM	0	242	1	0	93	0	324	28	0	93	148	196	0	0	0	0	25	0	6	1156
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	EL2	WL	WT	WR	WU	WR2	TOTAL
TOTAL VOLUMES :	0	1965	18	0	866	0	2849	346	0	701	1526	1999	0	1	0	0	223	0	57	10551
APPROACH %'s :	0.00%	68.97%	0.63%	0.00%	30.40%	0.00%	89.17%	10.83%	0.00%	16.58%	36.10%	47.29%	0.00%	0.02%	0.00%	0.00%	79.64%	0.00%	20.36%	
PEAK HR :	07:30 AM - 08:30 AM																			TOTAL
PEAK HR VOL :	0	985	15	0	469	0	1684	201	0	377	849	1095	0	1	0	0	102	0	27	5805
PEAK HR FACTOR :	0.000	0.909	0.536	0.000	0.820	0.000	0.892	0.866	0.000	0.857	0.839	0.909	0.000	0.250	0.000	0.000	0.879	0.000	0.614	0.976
			0.887				0.912					0.874					0.896			

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND					WESTBOUND					
	0	4	0	0	0	0	2	1	0	1.5	1.5	1.5	0	0	0	0	2	0	0	
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	EL2	WL	WT	WR	WU	WR2	TOTAL
4:00 PM	0	428	0	0	123	0	212	29	0	191	35	151	0	0	0	0	206	0	33	1408
4:15 PM	0	464	0	0	143	0	230	22	0	141	24	153	0	1	0	0	169	0	33	1380
4:30 PM	0	471	3	0	139	0	229	29	0	169	34	173	0	0	0	0	203	0	35	1485
4:45 PM	0	477	1	0	109	0	273	33	0	170	26	162	0	0	0	0	171	0	29	1451
5:00 PM	0	492	0	0	106	0	249	23	0	187	35	166	0	0	0	0	208	0	35	1501
5:15 PM	0	498	3	0	110	0	306	29	0	166	35	175	0	0	0	0	154	0	28	1504
5:30 PM	0	375	1	0	104	0	251	26	0	197	31	167	0	0	0	0	159	0	19	1330
5:45 PM	0	382	1	0	102	0	263	27	0	168	30	150	0	1	0	0	122	0	30	1276
	NL	NT	NR	NU	NT2	SL	ST	SR	SU	EL	ET	ER	EU	EL2	WL	WT	WR	WU	WR2	TOTAL
TOTAL VOLUMES :	0	3587	9	0	936	0	2013	218	0	1389	250	1297	0	2	0	0	1392	0	242	11335
APPROACH %'s :	0.00%	79.15%	0.20%	0.00%	20.65%	0.00%	90.23%	9.77%	0.00%	47.28%	8.51%	44.15%	0.00%	0.07%	0.00%	0.00%	85.19%	0.00%	14.81%	
PEAK HR :	04:30 PM - 05:30 PM																			TOTAL
PEAK HR VOL :	0	1938	7	0	464	0	1057	114	0	692	130	676	0	0	0	0	736	0	127	5941
PEAK HR FACTOR :	0.000	0.973	0.583	0.000	0.835	0.000	0.864	0.864	0.000	0.925	0.929	0.966	0.000	0.000	0.000	0.000	0.885	0.000	0.907	0.988
			0.982				0.874					0.965					0.888			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Zinfandel Dr & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-012
Date: 5/22/2019

Total

NS/EW Streets:	Zinfandel Dr				Zinfandel Dr				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	2	1	0	0	0	0	0	2	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	122	227	0	0	93	97	0	0	0	0	0	155	0	19	0	713
7:15 AM	0	162	193	0	0	140	82	0	0	0	0	0	246	0	43	0	866
7:30 AM	0	211	121	0	0	200	74	0	0	0	0	0	203	0	62	0	871
7:45 AM	0	234	139	0	0	199	73	0	0	0	0	0	300	0	75	0	1020
8:00 AM	0	270	126	0	0	188	79	0	0	0	0	0	302	0	42	0	1007
8:15 AM	0	199	136	0	0	173	85	0	0	0	0	0	277	0	54	0	924
8:30 AM	0	253	139	0	0	166	93	0	0	0	0	0	194	0	41	0	886
8:45 AM	0	220	130	0	0	147	71	0	0	0	0	0	231	0	53	0	852
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1671	1211	0	0	1306	654	0	0	0	0	0	1908	0	389	0	7139
APPROACH %'s :	0.00%	57.98%	42.02%	0.00%	0.00%	66.63%	33.37%	0.00%					83.06%	0.00%	16.94%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	956	540	0	0	726	330	0	0	0	0	0	1073	0	212	0	3837
PEAK HR FACTOR :	0.000	0.885	0.971	0.000	0.000	0.912	0.887	0.000	0.000	0.000	0.000	0.000	0.888	0.000	0.707	0.000	0.940
		0.944				0.971								0.857			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	2	1	0	0	0	0	0	2	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	396	457	0	0	186	122	0	0	0	0	0	82	0	67	0	1310
4:15 PM	0	389	368	0	0	161	137	0	0	0	0	0	78	0	79	0	1212
4:30 PM	0	402	454	0	0	185	136	0	0	0	0	0	93	0	82	0	1352
4:45 PM	0	427	402	0	0	200	133	0	0	0	0	0	97	0	73	0	1332
5:00 PM	0	428	434	0	0	205	144	0	0	0	0	0	87	0	66	0	1364
5:15 PM	0	398	435	0	0	185	154	0	0	0	0	0	117	0	89	0	1378
5:30 PM	0	429	318	0	0	197	119	0	0	0	0	0	105	0	60	0	1228
5:45 PM	0	364	287	0	0	189	115	0	0	0	0	0	82	0	67	0	1104
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3233	3155	0	0	1508	1060	0	0	0	0	0	741	0	583	0	10280
APPROACH %'s :	0.00%	50.61%	49.39%	0.00%	0.00%	58.72%	41.28%	0.00%					55.97%	0.00%	44.03%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	1655	1725	0	0	775	567	0	0	0	0	0	394	0	310	0	5426
PEAK HR FACTOR :	0.000	0.967	0.950	0.000	0.000	0.945	0.920	0.000	0.000	0.000	0.000	0.000	0.842	0.000	0.871	0.000	0.984
		0.980				0.961								0.854			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-013
Date: 5/22/2019

Total

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	1	0	2	2	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	63	238	23	10	57	201	62	4	27	47	9	14	21	54	23	0	853
7:15 AM	57	247	19	9	54	198	66	4	20	38	15	15	41	52	46	0	881
7:30 AM	84	292	24	8	46	205	62	5	31	52	18	15	39	83	24	0	988
7:45 AM	72	275	18	12	52	234	65	4	25	57	21	11	43	62	36	1	988
8:00 AM	66	256	21	9	50	213	69	11	29	43	22	20	30	64	27	1	931
8:15 AM	69	262	19	13	75	199	58	9	22	54	14	13	34	57	29	0	927
8:30 AM	55	243	30	4	52	222	51	6	25	30	15	13	31	49	29	0	855
8:45 AM	47	253	16	11	40	220	39	10	24	41	22	9	35	39	33	1	840
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	513	2066	170	76	426	1692	472	53	203	362	136	110	274	460	247	3	7263
APPROACH %'s :	18.16%	73.13%	6.02%	2.69%	16.12%	64.02%	17.86%	2.01%	25.03%	44.64%	16.77%	13.56%	27.85%	46.75%	25.10%	0.30%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	291	1085	82	42	223	851	254	29	107	206	75	59	146	266	116	2	3834
PEAK HR FACTOR :	0.866	0.929	0.854	0.808	0.743	0.909	0.920	0.659	0.863	0.904	0.852	0.738	0.849	0.801	0.806	0.500	0.970
		0.919				0.956				0.963				0.908			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	1	0	2	3	1	0	2	2	1	0	2	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	38	228	42	15	61	340	24	6	46	99	54	3	55	67	57	2	1137
4:15 PM	50	201	44	14	51	299	21	10	40	119	43	2	49	62	52	0	1057
4:30 PM	59	237	60	16	60	321	19	2	61	118	80	6	36	82	46	1	1204
4:45 PM	52	220	38	18	62	292	31	8	64	145	41	5	60	67	52	2	1157
5:00 PM	71	258	57	19	59	288	40	5	84	177	63	9	51	126	62	1	1370
5:15 PM	49	224	42	19	56	329	28	1	70	108	42	9	56	58	52	1	1144
5:30 PM	51	188	28	20	54	275	31	9	48	97	43	7	53	56	42	1	1003
5:45 PM	22	183	21	8	49	241	34	6	43	73	26	9	47	40	47	1	850
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	392	1739	332	129	452	2385	228	47	456	936	392	50	407	558	410	9	8922
APPROACH %'s :	15.12%	67.09%	12.81%	4.98%	14.52%	76.64%	7.33%	1.51%	24.86%	51.04%	21.37%	2.73%	29.41%	40.32%	29.62%	0.65%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	231	939	197	72	237	1230	118	16	279	548	226	29	203	333	212	5	4875
PEAK HR FACTOR :	0.813	0.910	0.821	0.947	0.956	0.935	0.738	0.500	0.830	0.774	0.706	0.806	0.846	0.661	0.855	0.625	0.890
		0.888				0.967				0.812				0.784			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & Folsom Blvd
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-014
Date: 5/22/2019

Total

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				Folsom Blvd				Folsom Blvd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	4	1	0	2	3	1	0	2	2	1	0	2	1.5	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	250	20	1	69	545	62	2	34	34	8	0	60	36	31	0	1162
7:15 AM	8	277	20	0	70	475	79	1	41	32	26	0	62	55	42	0	1188
7:30 AM	15	329	27	1	55	487	66	0	54	36	12	0	70	55	34	0	1241
7:45 AM	15	300	30	1	68	533	87	0	51	49	34	0	73	69	32	0	1342
8:00 AM	28	309	26	0	54	562	79	0	49	45	28	0	59	51	37	0	1327
8:15 AM	12	308	20	0	53	547	77	0	59	41	19	0	70	41	26	0	1273
8:30 AM	16	303	20	1	72	484	77	0	53	36	23	0	63	40	39	0	1227
8:45 AM	19	330	32	0	51	469	75	0	42	27	17	0	47	38	44	0	1191
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	123	2406	195	4	492	4102	602	3	383	300	167	0	504	385	285	0	9951
APPROACH %'s :	4.51%	88.20%	7.15%	0.15%	9.46%	78.90%	11.58%	0.06%	45.06%	35.29%	19.65%	0.00%	42.93%	32.79%	24.28%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	70	1246	103	2	230	2129	309	0	213	171	93	0	272	216	129	0	5183
PEAK HR FACTOR :	0.625	0.947	0.858	0.500	0.846	0.947	0.888	0.000	0.903	0.872	0.684	0.000	0.932	0.783	0.872	0.000	0.966
	0.955				0.960				0.890				0.886				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	4	1	0	2	3	1	0	2	2	1	0	2	1.5	1.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	16	464	50	1	51	280	60	2	100	67	26	0	49	54	61	0	1281
4:15 PM	27	451	59	1	63	274	59	0	111	83	28	0	42	60	60	0	1318
4:30 PM	29	355	56	1	43	270	66	2	115	84	25	0	55	74	69	0	1244
4:45 PM	32	420	54	1	65	258	67	0	104	82	29	0	48	56	64	0	1280
5:00 PM	30	413	56	0	68	320	53	0	92	98	25	0	61	54	59	0	1329
5:15 PM	33	378	76	0	60	255	70	1	101	110	27	0	67	77	53	0	1308
5:30 PM	27	383	59	0	58	274	61	0	66	87	21	0	54	61	50	0	1201
5:45 PM	14	291	68	0	52	253	59	0	82	61	28	0	39	42	45	0	1034
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	208	3155	478	4	460	2184	495	5	771	672	209	0	415	478	461	0	9995
APPROACH %'s :	5.41%	82.05%	12.43%	0.10%	14.63%	69.47%	15.74%	0.16%	46.67%	40.68%	12.65%	0.00%	30.65%	35.30%	34.05%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	118	1639	225	3	239	1122	245	2	422	347	107	0	206	244	252	0	5171
PEAK HR FACTOR :	0.922	0.909	0.953	0.750	0.879	0.877	0.914	0.250	0.917	0.885	0.922	0.000	0.844	0.824	0.913	0.000	0.973
	0.922				0.912				0.978				0.886				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & US-50 EB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-015
Date: 5/22/2019

Total

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				US-50 EB Ramps				US-50 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	241	87	0	0	548	80	0	179	0	142	0	0	0	0	0	1277
7:15 AM	0	256	96	0	0	444	102	0	278	0	160	0	0	0	0	0	1336
7:30 AM	0	301	129	0	0	475	112	0	289	0	145	0	0	0	0	0	1451
7:45 AM	0	264	113	0	0	545	84	0	298	0	164	0	0	0	0	0	1468
8:00 AM	0	290	115	0	0	545	81	0	289	0	132	0	0	0	0	0	1452
8:15 AM	0	259	119	0	0	518	83	0	321	0	144	0	0	0	0	0	1444
8:30 AM	0	293	112	0	0	492	114	0	290	0	161	0	0	0	0	0	1462
8:45 AM	0	303	121	0	0	491	98	0	276	0	120	0	0	0	0	0	1409
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2207	892	0	0	4058	754	0	2220	0	1168	0	0	0	0	0	11299
APPROACH %'s :	0.00%	71.22%	28.78%	0.00%	0.00%	84.33%	15.67%	0.00%	65.53%	0.00%	34.47%	0.00%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	1106	459	0	0	2100	362	0	1198	0	601	0	0	0	0	0	5826
PEAK HR FACTOR :	0.000	0.944	0.964	0.000	0.000	0.963	0.794	0.000	0.933	0.000	0.916	0.000	0.000	0.000	0.000	0.000	0.992
		0.966				0.979				0.967							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	4	2	0	0	3	2	0	3	0	2	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	551	113	0	0	299	99	0	317	0	99	0	0	0	0	0	1478
4:15 PM	0	477	116	0	0	320	70	0	287	0	75	0	0	0	0	0	1345
4:30 PM	0	451	102	0	0	301	99	0	279	0	78	0	0	0	0	0	1310
4:45 PM	0	511	101	0	0	336	79	0	280	0	75	0	0	0	0	0	1382
5:00 PM	0	429	103	0	0	346	87	0	259	0	73	0	0	0	0	0	1297
5:15 PM	0	403	103	0	0	321	94	0	250	0	86	0	0	0	0	0	1257
5:30 PM	0	448	79	0	0	303	34	0	260	0	75	0	0	0	0	0	1199
5:45 PM	0	367	68	0	0	297	30	0	253	0	72	0	0	0	0	0	1087
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3637	785	0	0	2523	592	0	2185	0	633	0	0	0	0	0	10355
APPROACH %'s :	0.00%	82.25%	17.75%	0.00%	0.00%	81.00%	19.00%	0.00%	77.54%	0.00%	22.46%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	1990	432	0	0	1256	347	0	1163	0	327	0	0	0	0	0	5515
PEAK HR FACTOR :	0.000	0.903	0.931	0.000	0.000	0.935	0.876	0.000	0.917	0.000	0.826	0.000	0.000	0.000	0.000	0.000	0.933
		0.912				0.966				0.895							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & US-50 WB Ramps
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-016
Date: 5/22/2019

Total

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				US-50 WB Ramps				US-50 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	3	2	0	0	0	0	0	2	0	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	373	65	0	0	540	461	0	0	0	0	0	77	0	84	0	1600
7:15 AM	0	445	79	0	0	478	402	0	0	0	0	0	79	0	94	0	1577
7:30 AM	0	532	73	0	0	484	422	0	0	0	0	0	90	0	111	0	1712
7:45 AM	0	480	64	0	0	494	374	0	0	0	0	0	155	0	123	0	1690
8:00 AM	0	507	59	0	0	488	406	0	0	0	0	0	130	0	108	0	1698
8:15 AM	0	533	73	0	0	483	392	0	0	0	0	0	126	0	98	0	1705
8:30 AM	0	498	69	0	0	494	410	0	0	0	0	0	102	0	86	0	1659
8:45 AM	0	499	83	0	0	452	308	0	0	0	0	0	119	0	99	0	1560
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3867	565	0	0	3913	3175	0	0	0	0	0	878	0	803	0	13201
APPROACH %'s :	0.00%	87.25%	12.75%	0.00%	0.00%	55.21%	44.79%	0.00%					52.23%	0.00%	47.77%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	2052	269	0	0	1949	1594	0	0	0	0	0	501	0	440	0	6805
PEAK HR FACTOR :	0.000	0.962	0.921	0.000	0.000	0.986	0.944	0.000	0.000	0.000	0.000	0.000	0.808	0.000	0.894	0.000	0.994
		0.958				0.978								0.846			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	3	2	0	0	3	2	0	0	0	0	0	2	0	2	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	718	131	0	0	326	268	0	0	0	0	0	80	0	84	0	1607
4:15 PM	0	651	124	0	0	292	289	0	0	0	0	0	74	0	73	0	1503
4:30 PM	0	591	99	0	0	323	303	0	0	0	0	0	86	0	91	0	1493
4:45 PM	0	699	104	0	0	343	239	0	0	0	0	0	75	0	64	0	1524
5:00 PM	0	594	120	0	0	325	275	0	0	0	0	0	91	0	71	0	1476
5:15 PM	0	517	97	0	0	316	311	0	0	0	0	0	92	0	66	0	1399
5:30 PM	0	632	87	0	0	278	296	0	0	0	0	0	85	0	74	0	1452
5:45 PM	0	537	97	0	0	256	310	0	0	0	0	0	95	0	99	0	1394
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4939	859	0	0	2459	2291	0	0	0	0	0	678	0	622	0	11848
APPROACH %'s :	0.00%	85.18%	14.82%	0.00%	0.00%	51.77%	48.23%	0.00%					52.15%	0.00%	47.85%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	2659	458	0	0	1284	1099	0	0	0	0	0	315	0	312	0	6127
PEAK HR FACTOR :	0.000	0.926	0.874	0.000	0.000	0.936	0.907	0.000	0.000	0.000	0.000	0.000	0.916	0.000	0.857	0.000	0.953
		0.918				0.952								0.886			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & Zinfandel Dr
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-017
Date: 5/22/2019

Total

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				Zinfandel Dr				Zinfandel Dr				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	1	3	1	0	0.3	0.3	1.3	0	1.3	0.3	0.3	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	36	382	0	10	3	848	11	0	21	4	59	0	9	3	3	0	1389
7:15 AM	32	532	1	11	1	844	8	1	26	3	56	0	15	6	10	0	1546
7:30 AM	54	558	2	14	3	766	19	0	33	2	77	0	13	3	11	0	1555
7:45 AM	59	561	2	9	11	866	18	0	18	3	51	0	8	8	6	0	1620
8:00 AM	81	520	3	6	8	761	19	0	25	6	66	0	9	6	8	0	1518
8:15 AM	63	565	3	16	9	805	21	1	35	3	69	0	7	3	7	0	1607
8:30 AM	57	511	2	10	5	786	23	0	39	4	59	0	7	3	8	0	1514
8:45 AM	69	551	3	8	6	718	20	1	22	2	52	0	7	7	10	0	1476
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	451	4180	16	84	46	6394	139	3	219	27	489	0	75	39	63	0	12225
APPROACH %'s :	9.53%	88.35%	0.34%	1.78%	0.70%	97.14%	2.11%	0.05%	29.80%	3.67%	66.53%	0.00%	42.37%	22.03%	35.59%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	257	2204	10	45	31	3198	77	1	111	14	263	0	37	20	32	0	6300
PEAK HR FACTOR :	0.793	0.975	0.833	0.703	0.705	0.923	0.917	0.250	0.793	0.583	0.854	0.000	0.712	0.625	0.727	0.000	0.972
		0.972				0.924				0.866				0.824			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	3	0	0	1	3	1	0	0.3	0.3	1.3	0	1.3	0.3	0.3	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	34	743	5	5	7	475	22	1	54	9	48	0	18	3	11	0	1435
4:15 PM	62	640	4	15	25	527	20	0	43	8	41	0	15	8	20	0	1428
4:30 PM	52	630	8	4	11	610	32	0	43	6	42	0	14	7	16	0	1475
4:45 PM	38	747	5	4	8	507	23	0	51	9	45	0	12	6	13	0	1468
5:00 PM	35	591	8	3	9	499	26	0	38	2	44	0	23	7	29	0	1314
5:15 PM	54	534	4	11	21	631	35	4	57	7	42	0	17	14	14	0	1445
5:30 PM	61	693	9	11	14	542	33	0	41	9	41	0	18	5	19	0	1496
5:45 PM	46	595	5	10	13	458	29	0	46	7	50	0	15	6	11	0	1291
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	382	5173	48	63	108	4249	220	5	373	57	353	0	132	56	133	0	11352
APPROACH %'s :	6.74%	91.30%	0.85%	1.11%	2.36%	92.73%	4.80%	0.11%	47.64%	7.28%	45.08%	0.00%	41.12%	17.45%	41.43%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	186	2760	22	28	51	2119	97	1	191	32	176	0	59	24	60	0	5806
PEAK HR FACTOR :	0.750	0.924	0.688	0.467	0.510	0.868	0.758	0.250	0.884	0.889	0.917	0.000	0.819	0.750	0.750	0.000	0.984
		0.943				0.868				0.899				0.831			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Sunrise Blvd & Jackson Rd/SR-16
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-018
Date: 5/21/2019

Total

NS/EW Streets:	Sunrise Blvd				Sunrise Blvd				Jackson Rd/SR-16				Jackson Rd/SR-16				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	1	0	1	1	1	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	196	8	0	23	82	23	0	8	45	1	0	5	109	65	0	566
7:15 AM	0	190	9	0	25	141	26	0	16	49	1	0	8	100	66	0	631
7:30 AM	2	210	15	0	22	163	22	0	14	50	0	0	3	94	72	0	667
7:45 AM	0	225	6	0	21	110	22	0	21	57	2	0	6	94	86	0	650
8:00 AM	2	231	14	0	27	88	15	0	22	36	3	0	13	73	54	0	578
8:15 AM	2	190	4	0	23	78	26	0	22	62	4	0	10	97	50	0	568
8:30 AM	0	153	7	0	28	76	19	0	30	46	1	0	6	68	54	0	488
8:45 AM	2	116	7	0	25	75	20	0	18	53	1	0	4	92	54	0	467
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	9	1511	70	0	194	813	173	0	151	398	13	0	55	727	501	0	4615
APPROACH %'s :	0.57%	95.03%	4.40%	0.00%	16.44%	68.90%	14.66%	0.00%	26.87%	70.82%	2.31%	0.00%	4.29%	56.66%	39.05%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	4	856	44	0	95	502	85	0	73	192	6	0	30	361	278	0	2526
PEAK HR FACTOR :	0.500	0.926	0.733	0.000	0.880	0.770	0.817	0.000	0.830	0.842	0.500	0.000	0.577	0.903	0.808	0.000	0.947
		0.915				0.824				0.847				0.899			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	1	0	1	1	1	0	1	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	90	4	0	55	204	15	0	23	82	2	0	13	39	25	0	553
4:15 PM	0	97	15	0	55	220	15	0	11	111	3	0	15	58	19	0	619
4:30 PM	1	96	14	0	82	220	12	0	24	102	1	0	9	69	40	0	670
4:45 PM	0	73	12	0	68	226	22	0	22	108	3	0	12	49	16	0	611
5:00 PM	2	84	22	0	67	252	28	0	16	96	0	0	8	50	32	0	657
5:15 PM	0	84	14	0	60	249	13	0	23	108	2	0	7	54	32	0	646
5:30 PM	2	60	11	0	75	205	24	0	24	109	2	0	10	56	24	0	602
5:45 PM	0	60	8	0	76	167	19	0	29	88	2	0	8	49	28	0	534
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	6	644	100	0	538	1743	148	0	172	804	15	0	82	424	216	0	4892
APPROACH %'s :	0.80%	85.87%	13.33%	0.00%	22.15%	71.76%	6.09%	0.00%	17.36%	81.13%	1.51%	0.00%	11.36%	58.73%	29.92%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	3	337	62	0	277	947	75	0	85	414	6	0	36	222	120	0	2584
PEAK HR FACTOR :	0.375	0.878	0.705	0.000	0.845	0.939	0.670	0.000	0.885	0.958	0.500	0.000	0.750	0.804	0.750	0.000	0.964
		0.905				0.936				0.949				0.801			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Grant Line Rd & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-019
Date: 5/21/2019

Total

NS/EW Streets:	Grant Line Rd				Grant Line Rd				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	1	0	2	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	7	137	0	0	0	102	72	0	7	0	7	0	0	0	0	0	332
7:15 AM	8	156	0	0	0	101	69	1	10	0	8	0	0	0	0	0	353
7:30 AM	6	225	0	0	0	102	72	0	13	0	2	0	0	0	0	0	420
7:45 AM	10	216	0	0	0	101	82	0	11	0	2	0	0	0	0	0	422
8:00 AM	4	186	0	0	0	95	73	1	8	0	3	0	0	0	0	0	370
8:15 AM	4	170	0	0	0	101	46	1	7	0	3	0	0	0	0	0	332
8:30 AM	9	174	0	0	0	89	46	0	12	0	5	0	0	0	0	0	335
8:45 AM	6	126	0	0	0	58	27	0	5	0	1	0	0	0	0	0	223
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	54	1390	0	0	0	749	487	3	73	0	31	0	0	0	0	0	2787
APPROACH %'s :	3.74%	96.26%	0.00%	0.00%	0.00%	60.45%	39.31%	0.24%	70.19%	0.00%	29.81%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	28	783	0	0	0	399	296	2	42	0	15	0	0	0	0	0	1565
PEAK HR FACTOR :	0.700	0.870	0.000	0.000	0.000	0.978	0.902	0.500	0.808	0.000	0.469	0.000	0.000	0.000	0.000	0.000	0.927
	0.878				0.952				0.792								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	1	0	2	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	114	0	0	0	129	23	0	121	0	2	0	0	0	0	0	392
4:15 PM	2	137	0	0	0	146	18	0	129	0	5	0	0	0	0	0	437
4:30 PM	2	125	0	0	0	137	14	0	148	0	6	0	0	0	0	0	432
4:45 PM	2	138	0	0	0	175	16	0	141	0	2	0	0	0	0	0	474
5:00 PM	0	130	0	0	0	158	15	0	164	0	1	0	0	0	0	0	468
5:15 PM	2	147	0	0	0	183	9	0	176	0	10	0	0	0	0	0	527
5:30 PM	4	149	0	0	0	157	11	0	120	0	5	0	0	0	0	0	446
5:45 PM	1	113	0	0	0	122	8	1	83	0	5	0	0	0	0	0	333
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	16	1053	0	0	0	1207	114	1	1082	0	36	0	0	0	0	0	3509
APPROACH %'s :	1.50%	98.50%	0.00%	0.00%	0.00%	91.30%	8.62%	0.08%	96.78%	0.00%	3.22%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	8	564	0	0	0	673	51	0	601	0	18	0	0	0	0	0	1915
PEAK HR FACTOR :	0.500	0.946	0.000	0.000	0.000	0.919	0.797	0.000	0.854	0.000	0.450	0.000	0.000	0.000	0.000	0.000	0.908
	0.935				0.943				0.832								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Prairie City Rd & White Rock Rd
City: Rancho Cordova
Control: Signalized

Project ID: 19-07202-020
Date: 5/21/2019

Total

NS/EW Streets:	Prairie City Rd				Prairie City Rd				White Rock Rd				White Rock Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	2	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	6	0	63	0	58	56	0	0	0	93	18	0	294
7:15 AM	0	0	0	0	6	0	64	0	76	71	0	0	0	126	15	0	358
7:30 AM	0	0	0	0	10	0	65	0	116	85	0	0	0	126	34	0	436
7:45 AM	0	0	0	0	10	0	72	0	126	96	0	0	0	89	27	0	420
8:00 AM	0	0	0	0	5	0	54	0	88	99	0	0	0	117	24	0	387
8:15 AM	0	0	0	0	6	0	54	0	104	95	0	0	0	82	24	0	365
8:30 AM	0	0	0	0	8	0	40	0	102	100	0	0	0	79	27	1	357
8:45 AM	0	0	0	0	7	0	51	0	99	79	0	1	0	40	25	0	302
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	58	0	463	0	769	681	0	1	0	752	194	1	2919
APPROACH %'s :					11.13%	0.00%	88.87%	0.00%	53.00%	46.93%	0.00%	0.07%	0.00%	79.41%	20.49%	0.11%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	31	0	245	0	434	375	0	0	0	414	109	0	1608
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.775	0.000	0.851	0.000	0.861	0.947	0.000	0.000	0.000	0.821	0.801	0.000	0.922
							0.841				0.911				0.817		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	2	0	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	34	0	87	0	73	140	0	0	0	65	16	0	415
4:15 PM	0	0	0	0	26	0	94	0	102	193	0	0	0	85	23	0	523
4:30 PM	0	0	0	0	26	0	78	0	82	185	0	0	0	78	22	0	471
4:45 PM	0	0	0	0	26	0	87	0	88	182	0	0	0	87	29	0	499
5:00 PM	0	0	0	0	26	0	104	0	100	195	0	1	0	82	22	1	531
5:15 PM	0	0	0	0	26	0	106	0	116	227	0	0	0	93	23	0	591
5:30 PM	0	0	0	0	21	0	67	0	84	179	0	0	0	65	16	1	433
5:45 PM	0	0	0	0	19	0	68	0	82	135	0	0	0	49	10	0	363
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	204	0	691	0	727	1436	0	1	0	604	161	2	3826
APPROACH %'s :					22.79%	0.00%	77.21%	0.00%	33.60%	66.36%	0.00%	0.05%	0.00%	78.75%	20.99%	0.26%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	104	0	375	0	386	789	0	1	0	340	96	1	2092
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	1.000	0.000	0.884	0.000	0.832	0.869	0.000	0.250	0.000	0.914	0.828	0.250	0.885
							0.907				0.857				0.942		

Prepared by NDS/ATD

VOLUME

Mather Blvd Bet. Femoyer St & Douglas Rd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,724	2,987	5,711

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		1		1		12:00			34		20		54	
00:15			3		0		3		12:15			29		23		52	
00:30			2		0		2		12:30			23		34		57	
00:45			3	8	2	3	5	11	12:45			23	109	41	118	64	227
01:00			3		0		3		13:00			31		28		59	
01:15			2		0		2		13:15			32		29		61	
01:30			1		1		2		13:30			32		30		62	
01:45			3	9	1	2	4	11	13:45			38	133	35	122	73	255
02:00			1		0		1		14:00			37		29		66	
02:15			2		0		2		14:15			34		30		64	
02:30			1		2		3		14:30			50		32		82	
02:45			1	5	0	2	1	7	14:45			33	154	30	121	63	275
03:00			1		0		1		15:00			60		37		97	
03:15			0		5		5		15:15			82		34		116	
03:30			1		2		3		15:30			91		31		122	
03:45			2	4	0	7	2	11	15:45			90	323	29	131	119	454
04:00			1		3		4		16:00			134		29		163	
04:15			0		4		4		16:15			120		28		148	
04:30			1		7		8		16:30			179		32		211	
04:45			1	3	5	19	6	22	16:45			130	563	27	116	157	679
05:00			3		11		14		17:00			171		34		205	
05:15			4		13		17		17:15			125		41		166	
05:30			3		36		39		17:30			102		34		136	
05:45			10	20	36	96	46	116	17:45			53	451	25	134	78	585
06:00			4		44		48		18:00			62		24		86	
06:15			10		61		71		18:15			36		19		55	
06:30			12		97		109		18:30			39		22		61	
06:45			13	39	146	348	159	387	18:45			32	169	17	82	49	251
07:00			14		149		163		19:00			39		15		54	
07:15			14		198		212		19:15			25		14		39	
07:30			14		181		195		19:30			27		8		35	
07:45			27	69	195	723	222	792	19:45			19	110	13	50	32	160
08:00			37		148		185		20:00			20		6		26	
08:15			32		139		171		20:15			17		11		28	
08:30			21		94		115		20:30			14		13		27	
08:45			20	110	74	455	94	565	20:45			23	74	11	41	34	115
09:00			18		56		74		21:00			17		5		22	
09:15			18		44		62		21:15			14		9		23	
09:30			17		25		42		21:30			12		8		20	
09:45			18	71	25	150	43	221	21:45			11	54	11	33	22	87
10:00			21		29		50		22:00			8		2		10	
10:15			20		29		49		22:15			6		6		12	
10:30			16		25		41		22:30			4		4		8	
10:45			19	76	21	104	40	180	22:45			7	25	5	17	12	42
11:00			31		20		51		23:00			5		3		8	
11:15			22		18		40		23:15			9		1		10	
11:30			34		32		66		23:30			5		4		9	
11:45			35	122	33	103	68	225	23:45			4	23	2	10	6	33
TOTALS				536		2012		**2548**	**TOTALS**				2188		975		**3163**
SPLIT %				21.0%		79.0%		**44.6%**	**SPLIT %**				69.2%		30.8%		**55.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,724	2,987	5,711

AM Peak Hour			11:30	07:00	**07:15**	**PM Peak Hour**			16:30	16:45	**16:30**
AM Pk Volume			132	723	**814**	**PM Pk Volume**			605	136	**739**
Pk Hr Factor			0.943	0.913	**0.917**	**Pk Hr Factor**			0.845	0.829	**0.876**
7 - 9 Volume	0	0	179	1178	**1357**	**4 - 6 Volume**	0	0	1014	250	**1264**
7 - 9 Peak Hour			07:45	07:00	**07:15**	**4 - 6 Peak Hour**			16:30	16:45	**16:30**
7 - 9 Pk Volume	0	0	117	723	**814**	**4 - 6 Pk Volume**	0	0	605	136	**739**
Pk Hr Factor	0.000	0.000	0.791	0.913	**0.917**	**Pk Hr Factor**	0.000	0.000	0.845	0.829	**0.876**

Prepared by NDS/ATD

VOLUME

Douglas Rd Bet. Mather Blvd & Sunrise Blvd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,263	6,767	14,030

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			12		5		17		12:00			90		76		166	
00:15			12		4		16		12:15			102		74		176	
00:30			9		1		10		12:30			91		89		180	
00:45			6	39	3	13	9	52	12:45			65	348	99	338	164	686
01:00			7		4		11		13:00			85		79		164	
01:15			7		4		11		13:15			81		83		164	
01:30			2		1		3		13:30			77		72		149	
01:45			3	19	2	11	5	30	13:45			99	342	82	316	181	658
02:00			3		3		6		14:00			105		96		201	
02:15			6		2		8		14:15			110		79		189	
02:30			5		5		10		14:30			107		95		202	
02:45			3	17	1	11	4	28	14:45			130	452	86	356	216	808
03:00			2		7		9		15:00			141		73		214	
03:15			1		7		8		15:15			137		90		227	
03:30			4		7		11		15:30			147		106		253	
03:45			8	15	12	33	20	48	15:45			160	585	96	365	256	950
04:00			3		7		10		16:00			220		104		324	
04:15			4		9		13		16:15			219		112		331	
04:30			11		13		24		16:30			233		141		374	
04:45			15	33	20	49	35	82	16:45			234	906	125	482	359	1388
05:00			11		24		35		17:00			247		137		384	
05:15			11		41		52		17:15			253		135		388	
05:30			28		75		103		17:30			231		113		344	
05:45			33	83	77	217	110	300	17:45			208	939	92	477	300	1416
06:00			49		92		141		18:00			164		98		262	
06:15			46		118		164		18:15			129		91		220	
06:30			62		188		250		18:30			152		72		224	
06:45			86	243	196	594	282	837	18:45			105	550	59	320	164	870
07:00			62		212		274		19:00			119		64		183	
07:15			87		224		311		19:15			98		66		164	
07:30			101		228		329		19:30			110		51		161	
07:45			108	358	235	899	343	1257	19:45			73	400	52	233	125	633
08:00			99		202		301		20:00			90		37		127	
08:15			118		188		306		20:15			70		44		114	
08:30			100		176		276		20:30			60		35		95	
08:45			68	385	155	721	223	1106	20:45			73	293	39	155	112	448
09:00			65		94		159		21:00			50		36		86	
09:15			60		88		148		21:15			53		29		82	
09:30			60		90		150		21:30			59		31		90	
09:45			68	253	71	343	139	596	21:45			41	203	35	131	76	334
10:00			68		71		139		22:00			48		23		71	
10:15			65		66		131		22:15			35		16		51	
10:30			65		75		140		22:30			24		10		34	
10:45			71	269	59	271	130	540	22:45			33	140	16	65	49	205
11:00			62		77		139		23:00			28		8		36	
11:15			73		64		137		23:15			21		8		29	
11:30			85		103		188		23:30			16		12		28	
11:45			86	306	84	328	170	634	23:45			20	85	11	39	31	124
TOTALS				2020		3490		**5510**	**TOTALS**				5243		3277		**8520**
SPLIT %				36.7%		63.3%		**39.3%**	**SPLIT %**				61.5%		38.5%		**60.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,263	6,767	14,030

AM Peak Hour			07:30	07:00	**07:15**	**PM Peak Hour**			16:30	16:30	**16:30**
AM Pk Volume			426	899	**1284**	**PM Pk Volume**			967	538	**1505**
Pk Hr Factor			0.903	0.956	**0.936**	**Pk Hr Factor**			0.956	0.954	**0.970**
7 - 9 Volume	0	0	743	1620	**2363**	**4 - 6 Volume**	0	0	1845	959	**2804**
7 - 9 Peak Hour			07:30	07:00	**07:15**	**4 - 6 Peak Hour**			16:30	16:30	**16:30**
7 - 9 Pk Volume	0	0	426	899	**1284**	**4 - 6 Pk Volume**	0	0	967	538	**1505**
Pk Hr Factor	0.000	0.000	0.903	0.956	**0.936**	**Pk Hr Factor**	0.000	0.000	0.956	0.954	**0.970**

Prepared by NDS/ATD

VOLUME

Douglas Rd Bet. Sunrise Blvd & Grant Line Rd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,457	5,396	10,853

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			5		4		9		12:00			78		73		151	
00:15			3		2		5		12:15			74		63		137	
00:30			7		3		10		12:30			82		85		167	
00:45			2	17	2	11	4	28	12:45			53	287	74	295	127	582
01:00			3		5		8		13:00			59		55		114	
01:15			4		2		6		13:15			64		66		130	
01:30			6		1		7		13:30			90		74		164	
01:45			1	14	1	9	2	23	13:45			73	286	86	281	159	567
02:00			4		1		5		14:00			81		70		151	
02:15			2		1		3		14:15			69		81		150	
02:30			4		3		7		14:30			77		118		195	
02:45			2	12	5	10	7	22	14:45			147	374	100	369	247	743
03:00			2		3		5		15:00			104		80		184	
03:15			1		2		3		15:15			102		85		187	
03:30			3		7		10		15:30			131		94		225	
03:45			1	7	6	18	7	25	15:45			128	465	90	349	218	814
04:00			0		5		5		16:00			144		97		241	
04:15			5		4		9		16:15			136		76		212	
04:30			6		13		19		16:30			144		99		243	
04:45			14	25	15	37	29	62	16:45			156	580	86	358	242	938
05:00			6		28		34		17:00			167		86		253	
05:15			7		30		37		17:15			192		90		282	
05:30			18		55		73		17:30			181		91		272	
05:45			29	60	54	167	83	227	17:45			133	673	99	366	232	1039
06:00			25		56		81		18:00			111		79		190	
06:15			46		83		129		18:15			109		71		180	
06:30			66		117		183		18:30			77		59		136	
06:45			59	196	133	389	192	585	18:45			82	379	60	269	142	648
07:00			51		161		212		19:00			84		60		144	
07:15			57		145		202		19:15			74		47		121	
07:30			59		144		203		19:30			78		40		118	
07:45			64	231	177	627	241	858	19:45			72	308	44	191	116	499
08:00			56		158		214		20:00			63		43		106	
08:15			63		113		176		20:15			74		31		105	
08:30			48		118		166		20:30			53		24		77	
08:45			46	213	87	476	133	689	20:45			50	240	26	124	76	364
09:00			74		84		158		21:00			41		27		68	
09:15			62		66		128		21:15			38		21		59	
09:30			63		67		130		21:30			42		24		66	
09:45			49	248	69	286	118	534	21:45			27	148	21	93	48	241
10:00			49		85		134		22:00			26		11		37	
10:15			71		70		141		22:15			26		12		38	
10:30			61		61		122		22:30			16		9		25	
10:45			58	239	71	287	129	526	22:45			21	89	6	38	27	127
11:00			74		85		159		23:00			12		6		18	
11:15			77		70		147		23:15			16		5		21	
11:30			81		92		173		23:30			12		7		19	
11:45			79	311	72	319	151	630	23:45			15	55	9	27	24	82
TOTALS				1573		2636		**4209**	**TOTALS**				3884		2760		**6644**
SPLIT %				37.4%		62.6%		**38.8%**	**SPLIT %**				58.5%		41.5%		**61.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,457	5,396	10,853

AM Peak Hour			11:15	07:00	**07:15**	**PM Peak Hour**			16:45	14:30	**16:45**
AM Pk Volume			315	627	**860**	**PM Pk Volume**			696	383	**1049**
Pk Hr Factor			0.972	0.886	**0.892**	**Pk Hr Factor**			0.906	0.811	**0.930**
7 - 9 Volume	0	0	444	1103	**1547**	**4 - 6 Volume**	0	0	1253	724	**1977**
7 - 9 Peak Hour			07:30	07:00	**07:15**	**4 - 6 Peak Hour**			16:45	17:00	**16:45**
7 - 9 Pk Volume	0	0	242	627	**860**	**4 - 6 Pk Volume**	0	0	696	366	**1049**
Pk Hr Factor	0.000	0.000	0.945	0.886	**0.892**	**Pk Hr Factor**	0.000	0.000	0.906	0.924	**0.930**

Prepared by NDS/ATD

VOLUME

White Rock Rd Bet. Zinfandel Dr & Sunrise Blvd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,334	7,537	14,871

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			4		11		15		12:00			149		134		283	
00:15			3		3		6		12:15			155		156		311	
00:30			1		5		6		12:30			141		141		282	
00:45			5	13	2	21	7	34	12:45			148	593	104	535	252	1128
01:00			6		10		16		13:00			143		129		272	
01:15			3		2		5		13:15			153		138		291	
01:30			0		5		5		13:30			118		125		243	
01:45			1	10	5	22	6	32	13:45			120	534	127	519	247	1053
02:00			0		2		2		14:00			117		123		240	
02:15			3		6		9		14:15			103		126		229	
02:30			6		2		8		14:30			126		223		349	
02:45			8	17	2	12	10	29	14:45			98	444	156	628	254	1072
03:00			7		2		9		15:00			99		189		288	
03:15			2		27		29		15:15			96		121		217	
03:30			9		16		25		15:30			131		178		309	
03:45			16	34	6	51	22	85	15:45			104	430	157	645	261	1075
04:00			7		9		16		16:00			157		183		340	
04:15			18		8		26		16:15			151		128		279	
04:30			38		15		53		16:30			175		217		392	
04:45			47	110	11	43	58	153	16:45			185	668	169	697	354	1365
05:00			42		13		55		17:00			184		259		443	
05:15			57		30		87		17:15			183		153		336	
05:30			114		39		153		17:30			126		159		285	
05:45			204	417	42	124	246	541	17:45			96	589	127	698	223	1287
06:00			102		57		159		18:00			86		121		207	
06:15			91		81		172		18:15			93		101		194	
06:30			104		70		174		18:30			53		88		141	
06:45			148	445	98	306	246	751	18:45			62	294	84	394	146	688
07:00			114		102		216		19:00			81		105		186	
07:15			117		111		228		19:15			57		72		129	
07:30			167		117		284		19:30			44		70		114	
07:45			179	577	102	432	281	1009	19:45			47	229	58	305	105	534
08:00			137		124		261		20:00			42		52		94	
08:15			131		101		232		20:15			26		44		70	
08:30			103		93		196		20:30			24		42		66	
08:45			120	491	114	432	234	923	20:45			21	113	44	182	65	295
09:00			97		108		205		21:00			13		57		70	
09:15			89		88		177		21:15			20		28		48	
09:30			79		87		166		21:30			13		17		30	
09:45			102	367	93	376	195	743	21:45			14	60	23	125	37	185
10:00			94		77		171		22:00			11		16		27	
10:15			73		84		157		22:15			10		11		21	
10:30			99		119		218		22:30			14		18		32	
10:45			86	352	100	380	186	732	22:45			4	39	16	61	20	100
11:00			114		124		238		23:00			2		23		25	
11:15			116		116		232		23:15			4		8		12	
11:30			106		133		239		23:30			8		10		18	
11:45			154	490	129	502	283	992	23:45			4	18	6	47	10	65
TOTALS				3323		2701		**6024**	**TOTALS**				4011		4836		**8847**
SPLIT %				55.2%		44.8%		**40.5%**	**SPLIT %**				45.3%		54.7%		**59.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,334	7,537	14,871

AM Peak Hour			07:30	11:45	**11:45**	**PM Peak Hour**			16:30	16:30	**16:30**
AM Pk Volume			614	560	**1159**	**PM Pk Volume**			727	798	**1525**
Pk Hr Factor			0.858	0.897	**0.932**	**Pk Hr Factor**			0.982	0.770	**0.861**
7 - 9 Volume	0	0	1068	864	**1932**	**4 - 6 Volume**	0	0	1257	1395	**2652**
7 - 9 Peak Hour			07:30	07:15	**07:30**	**4 - 6 Peak Hour**			16:30	16:30	**16:30**
7 - 9 Pk Volume	0	0	614	454	**1058**	**4 - 6 Pk Volume**	0	0	727	798	**1525**
Pk Hr Factor	0.000	0.000	0.858	0.915	**0.931**	**Pk Hr Factor**	0.000	0.000	0.982	0.770	**0.861**

Prepared by NDS/ATD

VOLUME

White Rock Rd Bet. Sunrise Blvd & Grant Line Rd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,012	1,363	3,375

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			0	0	0	12:00			19	11	30
00:15			0	0	0	12:15			19	9	28
00:30			0	0	0	12:30			19	14	33
00:45			0	0	0	12:45			20	10	30
01:00			0	1	1	13:00			15	12	27
01:15			0	0	0	13:15			19	15	34
01:30			0	0	0	13:30			24	18	42
01:45			0	0	0	13:45			31	12	43
02:00			0	0	0	14:00			21	18	39
02:15			0	0	0	14:15			17	11	28
02:30			1	0	1	14:30			31	11	42
02:45			0	2	2	14:45			36	21	57
03:00			0	0	0	15:00			34	11	45
03:15			0	0	0	15:15			44	8	52
03:30			0	0	0	15:30			53	15	68
03:45			0	1	1	15:45			67	24	91
04:00			0	1	1	16:00			85	10	95
04:15			0	1	1	16:15			142	20	162
04:30			0	2	2	16:30			145	16	161
04:45			3	3	6	16:45			152	17	169
05:00			2	1	3	17:00			161	20	181
05:15			2	5	7	17:15			187	15	202
05:30			6	5	11	17:30			122	16	138
05:45			5	18	23	17:45			75	5	80
06:00			6	23	29	18:00			61	12	73
06:15			7	18	25	18:15			34	8	42
06:30			10	34	44	18:30			17	10	27
06:45			9	64	73	18:45			14	3	17
07:00			8	56	64	19:00			8	4	12
07:15			7	79	86	19:15			6	4	10
07:30			12	81	93	19:30			4	5	9
07:45			9	90	99	19:45			3	3	6
08:00			9	79	88	20:00			5	4	9
08:15			15	74	89	20:15			6	5	11
08:30			9	51	60	20:30			3	1	4
08:45			14	48	62	20:45			0	3	3
09:00			8	31	39	21:00			5	4	9
09:15			18	22	40	21:15			3	3	6
09:30			8	15	23	21:30			1	1	2
09:45			16	9	25	21:45			0	0	0
10:00			10	18	28	22:00			3	0	3
10:15			15	17	32	22:15			3	1	4
10:30			15	11	26	22:30			0	2	2
10:45			17	22	39	22:45			0	1	1
11:00			10	16	26	23:00			0	2	2
11:15			14	13	27	23:15			0	1	1
11:30			14	15	29	23:30			0	2	2
11:45			19	19	38	23:45			0	0	0
TOTALS			298	945	**1243**	**TOTALS**			1714	418	**2132**
SPLIT %			24.0%	76.0%	**36.8%**	**SPLIT %**			80.4%	19.6%	**63.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,012	1,363	3,375

AM Peak Hour			11:45	07:15	**07:30**	**PM Peak Hour**			16:30	16:15	**16:30**
AM Pk Volume			76	329	**369**	**PM Pk Volume**			645	73	**713**
Pk Hr Factor			1.000	0.914	**0.932**	**Pk Hr Factor**			0.862	0.913	**0.882**
7 - 9 Volume	0	0	83	558	**641**	**4 - 6 Volume**	0	0	1069	119	**1188**
7 - 9 Peak Hour			08:00	07:15	**07:30**	**4 - 6 Peak Hour**			16:30	16:15	**16:30**
7 - 9 Pk Volume	0	0	47	329	**369**	**4 - 6 Pk Volume**	0	0	645	73	**713**
Pk Hr Factor	0.000	0.000	0.783	0.914	**0.932**	**Pk Hr Factor**	0.000	0.000	0.862	0.913	**0.882**

Prepared by NDS/ATD

VOLUME

White Rock Rd Bet. Grant Line Rd & Prairie City Rd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_006

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,600	6,982	14,582

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			5		2		7		12:00			89		63		152	
00:15			5		4		9		12:15			84		71		155	
00:30			3		3		6		12:30			64		95		159	
00:45			3	16	4	13	7	29	12:45			87	324	80	309	167	633
01:00			3		6		9		13:00			82		67		149	
01:15			1		4		5		13:15			72		88		160	
01:30			2		1		3		13:30			94		97		191	
01:45			2	8	1	12	3	20	13:45			76	324	87	339	163	663
02:00			1		0		1		14:00			69		100		169	
02:15			0		2		2		14:15			102		107		209	
02:30			3		5		8		14:30			98		122		220	
02:45			3	7	4	11	7	18	14:45			108	377	139	468	247	845
03:00			4		2		6		15:00			105		134		239	
03:15			2		0		2		15:15			118		170		288	
03:30			6		1		7		15:30			150		174		324	
03:45			5	17	4	7	9	24	15:45			189	562	208	686	397	1248
04:00			4		7		11		16:00			188		154		342	
04:15			6		8		14		16:15			284		182		466	
04:30			12		5		17		16:30			281		165		446	
04:45			13	35	19	39	32	74	16:45			258	1011	174	675	432	1686
05:00			18		22		40		17:00			266		198		464	
05:15			28		22		50		17:15			330		209		539	
05:30			46		31		77		17:30			269		139		408	
05:45			54	146	50	125	104	271	17:45			216	1081	123	669	339	1750
06:00			49		62		111		18:00			147		142		289	
06:15			68		85		153		18:15			129		111		240	
06:30			108		97		205		18:30			102		87		189	
06:45			132	357	146	390	278	747	18:45			70	448	69	409	139	857
07:00			98		158		256		19:00			58		45		103	
07:15			139		156		295		19:15			36		62		98	
07:30			186		203		389		19:30			32		36		68	
07:45			228	651	188	705	416	1356	19:45			27	153	61	204	88	357
08:00			185		174		359		20:00			35		44		79	
08:15			187		143		330		20:15			45		33		78	
08:30			196		121		317		20:30			21		27		48	
08:45			191	759	130	568	321	1327	20:45			21	122	34	138	55	260
09:00			121		93		214		21:00			18		36		54	
09:15			130		95		225		21:15			25		24		49	
09:30			99		79		178		21:30			30		31		61	
09:45			89	439	78	345	167	784	21:45			14	87	22	113	36	200
10:00			77		82		159		22:00			11		14		25	
10:15			70		73		143		22:15			10		24		34	
10:30			80		51		131		22:30			12		11		23	
10:45			93	320	69	275	162	595	22:45			2	35	21	70	23	105
11:00			78		88		166		23:00			9		8		17	
11:15			78		86		164		23:15			8		14		22	
11:30			75		106		181		23:30			4		12		16	
11:45			66	297	85	365	151	662	23:45			3	24	13	47	16	71
TOTALS				3052		2855		**5907**	**TOTALS**				4548		4127		**8675**
SPLIT %				51.7%		48.3%		**40.5%**	**SPLIT %**				52.4%		47.6%		**59.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,600	6,982	14,582

AM Peak Hour			07:45	07:15	**07:30**	**PM Peak Hour**			16:30	16:30	**16:30**
AM Pk Volume			796	721	**1494**	**PM Pk Volume**			1135	746	**1881**
Pk Hr Factor			0.873	0.888	**0.898**	**Pk Hr Factor**			0.860	0.892	**0.872**
7 - 9 Volume	0	0	1410	1273	**2683**	**4 - 6 Volume**	0	0	2092	1344	**3436**
7 - 9 Peak Hour			07:45	07:15	**07:30**	**4 - 6 Peak Hour**			16:30	16:30	**16:30**
7 - 9 Pk Volume	0	0	796	721	**1494**	**4 - 6 Pk Volume**	0	0	1135	746	**1881**
Pk Hr Factor	0.000	0.000	0.873	0.888	**0.898**	**Pk Hr Factor**	0.000	0.000	0.860	0.892	**0.872**

Prepared by NDS/ATD

VOLUME

Mather Field Rd Bet. Folsom Blvd & US-50 WB Ramps

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_007

DAILY TOTALS	NB	SB	EB	WB	Total
	11,787	11,699	0	0	23,486

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	38		28				66		12:00	202		157				359	
00:15	34		23				57		12:15	148		156				304	
00:30	25		19				44		12:30	186		160				346	
00:45	22	119	19	89			41	208	12:45	155	691	199	672			354	1363
01:00	13		18				31		13:00	160		193				353	
01:15	24		9				33		13:15	154		163				317	
01:30	22		9				31		13:30	200		176				376	
01:45	18	77	12	48			30	125	13:45	168	682	160	692			328	1374
02:00	15		12				27		14:00	179		194				373	
02:15	12		6				18		14:15	201		177				378	
02:30	9		15				24		14:30	220		182				402	
02:45	16	52	17	50			33	102	14:45	235	835	227	780			462	1615
03:00	8		11				19		15:00	228		200				428	
03:15	12		11				23		15:15	242		225				467	
03:30	9		21				30		15:30	267		196				463	
03:45	5	34	8	51			13	85	15:45	286	1023	171	792			457	1815
04:00	12		13				25		16:00	281		176				457	
04:15	15		30				45		16:15	254		160				414	
04:30	10		54				64		16:30	251		176				427	
04:45	17	54	59	156			76	210	16:45	277	1063	182	694			459	1757
05:00	17		51				68		17:00	298		189				487	
05:15	34		84				118		17:15	283		166				449	
05:30	36		129				165		17:30	270		175				445	
05:45	47	134	121	385			168	519	17:45	231	1082	185	715			416	1797
06:00	41		136				177		18:00	192		171				363	
06:15	58		162				220		18:15	209		174				383	
06:30	70		184				254		18:30	181		167				348	
06:45	77	246	194	676			271	922	18:45	165	747	154	666			319	1413
07:00	113		174				287		19:00	145		150				295	
07:15	169		210				379		19:15	157		133				290	
07:30	191		198				389		19:30	145		124				269	
07:45	189	662	227	809			416	1471	19:45	149	596	112	519			261	1115
08:00	185		223				408		20:00	132		119				251	
08:15	175		224				399		20:15	125		113				238	
08:30	173		224				397		20:30	136		109				245	
08:45	157	690	169	840			326	1530	20:45	124	517	102	443			226	960
09:00	114		172				286		21:00	97		69				166	
09:15	105		151				256		21:15	118		94				212	
09:30	108		168				276		21:30	98		89				187	
09:45	124	451	164	655			288	1106	21:45	93	406	60	312			153	718
10:00	118		164				282		22:00	81		62				143	
10:15	138		153				291		22:15	69		71				140	
10:30	116		163				279		22:30	64		43				107	
10:45	133	505	133	613			266	1118	22:45	55	269	55	231			110	500
11:00	147		166				313		23:00	59		38				97	
11:15	145		134				279		23:15	60		42				102	
11:30	150		158				308		23:30	65		41				106	
11:45	172	614	188	646			360	1260	23:45	54	238	44	165			98	403
TOTALS		3638		5018				8656	TOTALS		8149		6681				14830
SPLIT %		42.0%		58.0%				36.9%	SPLIT %		54.9%		45.1%				63.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	11,787	11,699	0	0	23,486

AM Peak Hour	07:30	07:45			07:45	PM Peak Hour	16:45	14:45			15:15
AM Pk Volume	740	898			1620	PM Pk Volume	1128	848			1844
Pk Hr Factor	0.969	0.989			0.974	Pk Hr Factor	0.946	0.934			0.987
7 - 9 Volume	1352	1649	0	0	3001	4 - 6 Volume	2145	1409	0	0	3554
7 - 9 Peak Hour	07:30	07:45			07:45	4 - 6 Peak Hour	16:45	17:00			16:45
7 - 9 Pk Volume	740	898	0	0	1620	4 - 6 Pk Volume	1128	715	0	0	1840
Pk Hr Factor	0.969	0.989	0.000	0.000	0.974	Pk Hr Factor	0.946	0.946	0.000	0.000	0.945

Prepared by NDS/ATD

VOLUME

Mather Field Rd Bet. US-50 EB Ramps & International Dr

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_008

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	9,824	9,720	19,544

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL
00:00			17	16	33	12:00			151	148	299
00:15			21	10	31	12:15			143	174	317
00:30			13	9	22	12:30			160	173	333
00:45			13 64	3 38	16 102	12:45			141 595	166 661	307 1256
01:00			11	10	21	13:00			152	148	300
01:15			10	7	17	13:15			134	133	267
01:30			6	8	14	13:30			140	157	297
01:45			7 34	6 31	13 65	13:45			120 546	141 579	261 1125
02:00			5	4	9	14:00			123	139	262
02:15			4	7	11	14:15			148	142	290
02:30			4	3	7	14:30			124	204	328
02:45			4 17	9 23	13 40	14:45			167 562	186 671	353 1233
03:00			5	3	8	15:00			160	189	349
03:15			7	7	14	15:15			178	148	326
03:30			6	11	17	15:30			183	216	399
03:45			10 28	9 30	19 58	15:45			175 696	212 765	387 1461
04:00			9	11	20	16:00			181	260	441
04:15			8	8	16	16:15			182	213	395
04:30			22	24	46	16:30			189	288	477
04:45			38 77	17 60	55 137	16:45			198 750	244 1005	442 1755
05:00			31	25	56	17:00			207	322	529
05:15			27	32	59	17:15			228	269	497
05:30			63	52	115	17:30			176	194	370
05:45			100 221	52 161	152 382	17:45			161 772	182 967	343 1739
06:00			82	72	154	18:00			109	188	297
06:15			106	100	206	18:15			144	146	290
06:30			111	148	259	18:30			127	113	240
06:45			189 488	150 470	339 958	18:45			107 487	110 557	217 1044
07:00			149	178	327	19:00			92	104	196
07:15			210	214	424	19:15			92	85	177
07:30			242	208	450	19:30			76	90	166
07:45			293 894	181 781	474 1675	19:45			88 348	69 348	157 696
08:00			246	175	421	20:00			95	71	166
08:15			241	177	418	20:15			93	58	151
08:30			182	144	326	20:30			61	70	131
08:45			146 815	141 637	287 1452	20:45			87 336	42 241	129 577
09:00			149	110	259	21:00			62	45	107
09:15			146	94	240	21:15			59	58	117
09:30			113	94	207	21:30			56	32	88
09:45			116 524	126 424	242 948	21:45			52 229	37 172	89 401
10:00			120	79	199	22:00			45	31	76
10:15			113	100	213	22:15			42	31	73
10:30			112	106	218	22:30			37	27	64
10:45			122 467	109 394	231 861	22:45			45 169	25 114	70 283
11:00			131	120	251	23:00			41	17	58
11:15			132	120	252	23:15			42	13	55
11:30			146	139	285	23:30			38	12	50
11:45			146 555	162 541	308 1096	23:45			29 150	8 50	37 200
TOTALS			4184	3590	7774	TOTALS			5640	6130	11770
SPLIT %			53.8%	46.2%	39.8%	SPLIT %			47.9%	52.1%	60.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	9,824	9,720	19,544

AM Peak Hour			07:30	07:00	07:15	PM Peak Hour			16:30	16:30	16:30
AM Pk Volume			1022	781	1769	PM Pk Volume			822	1123	1945
Pk Hr Factor			0.872	0.912	0.933	Pk Hr Factor			0.901	0.872	0.919
7 - 9 Volume	0	0	1709	1418	3127	4 - 6 Volume	0	0	1522	1972	3494
7 - 9 Peak Hour			07:30	07:00	07:15	4 - 6 Peak Hour			16:30	16:30	16:30
7 - 9 Pk Volume	0	0	1022	781	1769	4 - 6 Pk Volume	0	0	822	1123	1945
Pk Hr Factor	0.000	0.000	0.872	0.912	0.933	Pk Hr Factor	0.000	0.000	0.901	0.872	0.919

Prepared by NDS/ATD

VOLUME

Zinfandel Dr Bet. Folsom Blvd & US-50 WB Ramps

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_009

DAILY TOTALS	NB	SB	EB	WB	Total
	11,913	9,620	0	0	21,533

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	13		21				34		12:00	271		181				452	
00:15	24		9				33		12:15	200		184				384	
00:30	23		15				38		12:30	249		221				470	
00:45	13	73	12	57			25	130	12:45	202	922	169	755			371	1677
01:00	18		12				30		13:00	204		203				407	
01:15	9		9				18		13:15	189		152				341	
01:30	11		6				17		13:30	217		171				388	
01:45	11	49	2	29			13	78	13:45	197	807	140	666			337	1473
02:00	6		19				25		14:00	221		152				373	
02:15	6		7				13		14:15	192		145				337	
02:30	14		8				22		14:30	243		157				400	
02:45	8	34	6	40			14	74	14:45	240	896	162	616			402	1512
03:00	8		4				12		15:00	208		168				376	
03:15	8		5				13		15:15	249		176				425	
03:30	6		9				15		15:30	280		170				450	
03:45	15	37	9	27			24	64	15:45	241	978	146	660			387	1638
04:00	12		8				20		16:00	301		180				481	
04:15	3		11				14		16:15	271		129				400	
04:30	19		18				37		16:30	338		147				485	
04:45	19	53	26	63			45	116	16:45	294	1204	159	615			453	1819
05:00	20		25				45		17:00	281		158				439	
05:15	11		38				49		17:15	323		155				478	
05:30	29		47				76		17:30	299		174				473	
05:45	41	101	68	178			109	279	17:45	252	1155	180	667			432	1822
06:00	31		48				79		18:00	207		160				367	
06:15	55		78				133		18:15	183		164				347	
06:30	59		135				194		18:30	244		147				391	
06:45	70	215	106	367			176	582	18:45	194	828	143	614			337	1442
07:00	73		149				222		19:00	166		152				318	
07:15	120		130				250		19:15	137		151				288	
07:30	174		168				342		19:30	145		127				272	
07:45	154	521	166	613			320	1134	19:45	143	591	121	551			264	1142
08:00	135		195				330		20:00	125		129				254	
08:15	114		162				276		20:15	116		127				243	
08:30	126		125				251		20:30	98		105				203	
08:45	119	494	118	600			237	1094	20:45	116	455	84	445			200	900
09:00	111		104				215		21:00	99		72				171	
09:15	109		110				219		21:15	97		71				168	
09:30	96		109				205		21:30	98		71				169	
09:45	121	437	109	432			230	869	21:45	103	397	51	265			154	662
10:00	133		114				247		22:00	56		63				119	
10:15	126		108				234		22:15	55		48				103	
10:30	147		113				260		22:30	47		51				98	
10:45	133	539	138	473			271	1012	22:45	58	216	44	206			102	422
11:00	166		101				267		23:00	47		26				73	
11:15	193		147				340		23:15	33		41				74	
11:30	219		171				390		23:30	34		22				56	
11:45	189	767	143	562			332	1329	23:45	30	144	30	119			60	263
TOTALS		3320		3441				**6761**	**TOTALS**		8593		6179				**14772**
SPLIT %		49.1%		50.9%				**31.4%**	**SPLIT %**		58.2%		41.8%				**68.6%**

DAILY TOTALS	NB	SB	EB	WB	Total
	11,913	9,620	0	0	21,533

AM Peak Hour	11:45	11:45				**11:45**	**PM Peak Hour**	16:30	12:15				**16:30**
AM Pk Volume	909	729				**1638**	**PM Pk Volume**	1236	777				**1855**
Pk Hr Factor	0.839	0.825				**0.871**	**Pk Hr Factor**	0.914	0.879				**0.956**
7 - 9 Volume	1015	1213	0	0		**2228**	**4 - 6 Volume**	2359	1282	0	0		**3641**
7 - 9 Peak Hour	07:15	07:30				**07:30**	**4 - 6 Peak Hour**	16:30	17:00				**16:30**
7 - 9 Pk Volume	583	691	0	0		**1268**	**4 - 6 Pk Volume**	1236	667	0	0		**1855**
Pk Hr Factor	0.838	0.886	0.000	0.000		**0.927**	**Pk Hr Factor**	0.914	0.926	0.000	0.000		**0.956**

Prepared by NDS/ATD

VOLUME

Zinfandel Dr Bet. White Rock Rd & International Dr

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_010

DAILY TOTALS	NB	SB	EB	WB	Total
	14,945	14,795	0	0	29,740

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	18		30				48		12:00	287		205				492	
00:15	11		18				29		12:15	234		277				511	
00:30	14		18				32		12:30	271		218				489	
00:45	9	52	18	84			27	136	12:45	232	1024	255	955			487	1979
01:00	18		17				35		13:00	255		211				466	
01:15	13		17				30		13:15	207		223				430	
01:30	7		8				15		13:30	226		221				447	
01:45	2	40	5	47			7	87	13:45	211	899	218	873			429	1772
02:00	9		8				17		14:00	269		216				485	
02:15	5		11				16		14:15	260		196				456	
02:30	11		13				24		14:30	288		185				473	
02:45	9	34	5	37			14	71	14:45	278	1095	242	839			520	1934
03:00	11		5				16		15:00	305		251				556	
03:15	8		11				19		15:15	255		265				520	
03:30	14		7				21		15:30	302		263				565	
03:45	21	54	18	41			39	95	15:45	236	1098	258	1037			494	2135
04:00	28		5				33		16:00	322		264				586	
04:15	26		12				38		16:15	298		281				579	
04:30	32		28				60		16:30	334		267				601	
04:45	42	128	30	75			72	203	16:45	325	1279	307	1119			632	2398
05:00	42		30				72		17:00	338		274				612	
05:15	65		39				104		17:15	286		302				588	
05:30	98		56				154		17:30	251		311				562	
05:45	106	311	82	207			188	518	17:45	228	1103	323	1210			551	2313
06:00	102		112				214		18:00	263		212				475	
06:15	142		150				292		18:15	209		245				454	
06:30	212		191				403		18:30	229		212				441	
06:45	239	695	221	674			460	1369	18:45	184	885	193	862			377	1747
07:00	253		223				476		19:00	161		217				378	
07:15	269		272				541		19:15	157		196				353	
07:30	327		283				610		19:30	123		166				289	
07:45	264	1113	338	1116			602	2229	19:45	115	556	157	736			272	1292
08:00	299		356				655		20:00	141		160				301	
08:15	220		299				519		20:15	113		161				274	
08:30	279		284				563		20:30	117		143				260	
08:45	178	976	272	1211			450	2187	20:45	91	462	142	606			233	1068
09:00	220		179				399		21:00	75		97				172	
09:15	188		171				359		21:15	68		131				199	
09:30	191		178				369		21:30	77		123				200	
09:45	182	781	188	716			370	1497	21:45	66	286	91	442			157	728
10:00	197		163				360		22:00	63		99				162	
10:15	192		158				350		22:15	66		72				138	
10:30	222		156				378		22:30	35		59				94	
10:45	207	818	181	658			388	1476	22:45	38	202	79	309			117	511
11:00	203		176				379		23:00	40		48				88	
11:15	203		200				403		23:15	37		41				78	
11:30	272		179				451		23:30	28		41				69	
11:45	250	928	222	777			472	1705	23:45	21	126	34	164			55	290
TOTALS		5930		5643				11573	TOTALS		9015		9152				18167
SPLIT %		51.2%		48.8%				38.9%	SPLIT %		49.6%		50.4%				61.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	14,945	14,795	0	0	29,740

AM Peak Hour	07:15	07:45			07:15	PM Peak Hour	16:15	17:00			16:30
AM Pk Volume	1159	1277			2408	PM Pk Volume	1295	1210			2433
Pk Hr Factor	0.886	0.897			0.919	Pk Hr Factor	0.958	0.937			0.962
7 - 9 Volume	2089	2327	0	0	4416	4 - 6 Volume	2382	2329	0	0	4711
7 - 9 Peak Hour	07:15	07:45			07:15	4 - 6 Peak Hour	16:15	17:00			16:30
7 - 9 Pk Volume	1159	1277	0	0	2408	4 - 6 Pk Volume	1295	1210	0	0	2433
Pk Hr Factor	0.886	0.897	0.000	0.000	0.919	Pk Hr Factor	0.958	0.937	0.000	0.000	0.962

Prepared by NDS/ATD

VOLUME

Zinfandel Dr Bet. International Dr & Douglas Rd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_011

DAILY TOTALS	NB	SB	EB	WB	Total
	7,287	8,316	0	0	15,603

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	4		17				21		12:00	94		100				194	
00:15	6		14				20		12:15	83		147				230	
00:30	4		12				16		12:30	94		120				214	
00:45	5	19	9	52			14	71	12:45	98	369	93	460			191	829
01:00	7		12				19		13:00	113		124				237	
01:15	6		10				16		13:15	90		93				183	
01:30	1		2				3		13:30	96		101				197	
01:45	4	18	5	29			9	47	13:45	93	392	126	444			219	836
02:00	2		2				4		14:00	114		110				224	
02:15	0		5				5		14:15	99		119				218	
02:30	3		3				6		14:30	114		101				215	
02:45	2	7	2	12			4	19	14:45	110	437	142	472			252	909
03:00	6		1				7		15:00	88		177				265	
03:15	3		2				5		15:15	78		182				260	
03:30	9		6				15		15:30	88		184				272	
03:45	14	32	9	18			23	50	15:45	85	339	183	726			268	1065
04:00	13		2				15		16:00	107		265				372	
04:15	18		6				24		16:15	91		249				340	
04:30	22		12				34		16:30	115		251				366	
04:45	23	76	11	31			34	107	16:45	92	405	286	1051			378	1456
05:00	22		12				34		17:00	113		321				434	
05:15	42		18				60		17:15	110		262				372	
05:30	72		23				95		17:30	102		238				340	
05:45	84	220	19	72			103	292	17:45	85	410	238	1059			323	1469
06:00	88		40				128		18:00	104		186				290	
06:15	121		57				178		18:15	85		176				261	
06:30	162		53				215		18:30	95		170				265	
06:45	195	566	73	223			268	789	18:45	67	351	140	672			207	1023
07:00	223		51				274		19:00	61		133				194	
07:15	242		68				310		19:15	62		137				199	
07:30	268		75				343		19:30	52		130				182	
07:45	272	1005	92	286			364	1291	19:45	56	231	110	510			166	741
08:00	228		109				337		20:00	44		103				147	
08:15	196		80				276		20:15	47		86				133	
08:30	217		78				295		20:30	41		95				136	
08:45	148	789	71	338			219	1127	20:45	40	172	91	375			131	547
09:00	122		52				174		21:00	33		69				102	
09:15	121		61				182		21:15	26		85				111	
09:30	98		70				168		21:30	28		77				105	
09:45	108	449	65	248			173	697	21:45	32	119	60	291			92	410
10:00	87		65				152		22:00	24		66				90	
10:15	94		65				159		22:15	31		44				75	
10:30	91		82				173		22:30	17		39				56	
10:45	87	359	82	294			169	653	22:45	18	90	52	201			70	291
11:00	93		75				168		23:00	9		33				42	
11:15	65		87				152		23:15	5		34				39	
11:30	123		79				202		23:30	10		28				38	
11:45	118	399	99	340			217	739	23:45	9	33	17	112			26	145
TOTALS		3939		1943				5882	TOTALS		3348		6373				9721
SPLIT %		67.0%		33.0%				37.7%	SPLIT %		34.4%		65.6%				62.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	7,287	8,316	0	0	15,603

AM Peak Hour	07:15	11:45			07:15	PM Peak Hour	14:00	16:30			16:30
AM Pk Volume	1010	466			1354	PM Pk Volume	437	1120			1550
Pk Hr Factor	0.928	0.793			0.930	Pk Hr Factor	0.958	0.872			0.893
7 - 9 Volume	1794	624	0	0	2418	4 - 6 Volume	815	2110	0	0	2925
7 - 9 Peak Hour	07:15	07:45			07:15	4 - 6 Peak Hour	16:30	16:30			16:30
7 - 9 Pk Volume	1010	359	0	0	1354	4 - 6 Pk Volume	430	1120	0	0	1550
Pk Hr Factor	0.928	0.823	0.000	0.000	0.930	Pk Hr Factor	0.935	0.872	0.000	0.000	0.893

Prepared by NDS/ATD

VOLUME

Sunrise Blvd Bet. Folsom Blvd & White Rock Rd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_012

DAILY TOTALS	NB	SB	EB	WB	Total
	18,167	19,735	0	0	37,902

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	23		26				49		12:00	367		318				685	
00:15	15		14				29		12:15	298		312				610	
00:30	10		17				27		12:30	296		342				638	
00:45	14	62	12	69			26	131	12:45	313	1274	327	1299			640	2573
01:00	15		20				35		13:00	297		324				621	
01:15	6		11				17		13:15	311		364				675	
01:30	21		14				35		13:30	333		287				620	
01:45	9	51	17	62			26	113	13:45	313	1254	364	1339			677	2593
02:00	7		10				17		14:00	311		334				645	
02:15	5		4				9		14:15	328		306				634	
02:30	11		13				24		14:30	429		313				742	
02:45	7	30	15	42			22	72	14:45	354	1422	298	1251			652	2673
03:00	5		5				10		15:00	362		330				692	
03:15	13		17				30		15:15	332		304				636	
03:30	23		12				35		15:30	435		358				793	
03:45	25	66	14	48			39	114	15:45	323	1452	340	1332			663	2784
04:00	14		10				24		16:00	351		376				727	
04:15	18		27				45		16:15	375		362				737	
04:30	38		37				75		16:30	395		331				726	
04:45	35	105	111	185			146	290	16:45	354	1475	370	1439			724	2914
05:00	58		78				136		17:00	382		395				777	
05:15	59		106				165		17:15	366		345				711	
05:30	83		183				266		17:30	305		372				677	
05:45	114	314	258	625			372	939	17:45	284	1337	292	1404			576	2741
06:00	144		201				345		18:00	243		287				530	
06:15	194		270				464		18:15	247		248				495	
06:30	218		310				528		18:30	191		269				460	
06:45	260	816	398	1179			658	1995	18:45	200	881	232	1036			432	1917
07:00	286		353				639		19:00	175		209				384	
07:15	326		362				688		19:15	207		216				423	
07:30	348		376				724		19:30	174		162				336	
07:45	354	1314	371	1462			725	2776	19:45	156	712	165	752			321	1464
08:00	339		387				726		20:00	119		131				250	
08:15	325		364				689		20:15	102		138				240	
08:30	298		343				641		20:30	80		109				189	
08:45	291	1253	360	1454			651	2707	20:45	92	393	121	499			213	892
09:00	230		274				504		21:00	129		132				261	
09:15	254		268				522		21:15	84		119				203	
09:30	237		278				515		21:30	71		82				153	
09:45	267	988	249	1069			516	2057	21:45	98	382	83	416			181	798
10:00	239		247				486		22:00	78		65				143	
10:15	249		257				506		22:15	49		63				112	
10:30	276		253				529		22:30	47		53				100	
10:45	277	1041	270	1027			547	2068	22:45	18	192	76	257			94	449
11:00	296		312				608		23:00	40		39				79	
11:15	302		319				621		23:15	25		39				64	
11:30	325		356				681		23:30	23		52				75	
11:45	319	1242	339	1326			658	2568	23:45	23	111	33	163			56	274
TOTALS		7282		8548				15830	TOTALS		10885		11187				22072
SPLIT %		46.0%		54.0%				41.8%	SPLIT %		49.3%		50.7%				58.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	18,167	19,735	0	0	37,902

AM Peak Hour	07:15	07:30					07:30		PM Peak Hour	16:15	16:45					16:15		
AM Pk Volume	1367	1498					2864		PM Pk Volume	1506	1482					2964		
Pk Hr Factor	0.965	0.968					0.986		Pk Hr Factor	0.953	0.938					0.954		
7 - 9 Volume	2567	2916	0	0			5483		4 - 6 Volume	2812	2843	0	0			5655		
7 - 9 Peak Hour	07:15	07:30					07:30		4 - 6 Peak Hour	16:15	16:45					16:15		
7 - 9 Pk Volume	1367	1498	0	0			2864		4 - 6 Pk Volume	1506	1482	0	0			2964		
Pk Hr Factor	0.965	0.968	0.000	0.000			0.986		Pk Hr Factor	0.953	0.938	0.000	0.000			0.954		

Prepared by NDS/ATD

VOLUME

Sunrise Blvd Bet. White Rock Rd & Douglas Rd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_013

DAILY TOTALS	NB	SB	EB	WB	Total
	13,581	14,182	0	0	27,763

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	11		21				32		12:00	189		182				371	
00:15	10		11				21		12:15	178		190				368	
00:30	11		12				23		12:30	203		174				377	
00:45	7	39	7	51			14	90	12:45	187	757	184	730			371	1487
01:00	8		14				22		13:00	184		105				289	
01:15	4		7				11		13:15	216		198				414	
01:30	7		10				17		13:30	186		185				371	
01:45	4	23	7	38			11	61	13:45	180	766	201	689			381	1455
02:00	2		6				8		14:00	193		228				421	
02:15	6		2				8		14:15	179		229				408	
02:30	11		5				16		14:30	196		240				436	
02:45	10	29	6	19			16	48	14:45	197	765	249	946			446	1711
03:00	5		3				8		15:00	217		317				534	
03:15	10		16				26		15:15	169		300				469	
03:30	17		10				27		15:30	211		384				595	
03:45	24	56	5	34			29	90	15:45	178	775	371	1372			549	2147
04:00	15		2				17		16:00	224		448				672	
04:15	12		8				20		16:15	205		414				619	
04:30	37		16				53		16:30	229		462				691	
04:45	64	128	30	56			94	184	16:45	189	847	417	1741			606	2588
05:00	58		24				82		17:00	236		508				744	
05:15	82		31				113		17:15	204		444				648	
05:30	117		56				173		17:30	173		419				592	
05:45	157	414	84	195			241	609	17:45	176	789	350	1721			526	2510
06:00	155		81				236		18:00	171		332				503	
06:15	208		107				315		18:15	157		296				453	
06:30	261		104				365		18:30	124		227				351	
06:45	337	961	127	419			464	1380	18:45	121	573	199	1054			320	1627
07:00	359		160				519		19:00	124		163				287	
07:15	383		168				551		19:15	95		204				299	
07:30	431		161				592		19:30	111		161				272	
07:45	476	1649	168	657			644	2306	19:45	85	415	121	649			206	1064
08:00	403		164				567		20:00	73		149				222	
08:15	383		155				538		20:15	61		117				178	
08:30	343		216				559		20:30	66		105				171	
08:45	324	1453	191	726			515	2179	20:45	52	252	114	485			166	737
09:00	224		167				391		21:00	52		121				173	
09:15	223		161				384		21:15	55		90				145	
09:30	213		144				357		21:30	46		75				121	
09:45	226	886	142	614			368	1500	21:45	67	220	62	348			129	568
10:00	192		121				313		22:00	52		51				103	
10:15	194		137				331		22:15	39		56				95	
10:30	225		170				395		22:30	26		36				62	
10:45	190	801	142	570			332	1371	22:45	13	130	52	195			65	325
11:00	196		176				372		23:00	35		35				70	
11:15	195		180				375		23:15	12		30				42	
11:30	187		201				388		23:30	17		27				44	
11:45	200	778	190	747			390	1525	23:45	11	75	34	126			45	201
TOTALS		7217		4126				11343	TOTALS		6364		10056				16420
SPLIT %		63.6%		36.4%				40.9%	SPLIT %		38.8%		61.2%				59.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	13,581	14,182	0	0	27,763

AM Peak Hour	07:15	11:30				07:15	PM Peak Hour	16:15	16:30				16:30
AM Pk Volume	1693	763				2354	PM Pk Volume	859	1831				2689
Pk Hr Factor	0.889	0.949				0.914	Pk Hr Factor	0.910	0.901				0.904
7 - 9 Volume	3102	1383	0	0		4485	4 - 6 Volume	1636	3462	0	0		5098
7 - 9 Peak Hour	07:15	08:00				07:15	4 - 6 Peak Hour	16:15	16:30				16:30
7 - 9 Pk Volume	1693	726	0	0		2354	4 - 6 Pk Volume	859	1831	0	0		2689
Pk Hr Factor	0.889	0.840	0.000	0.000		0.914	Pk Hr Factor	0.910	0.901	0.000	0.000		0.904

Prepared by NDS/ATD

VOLUME

Sunrise Blvd Bet. Douglas Rd & Jackson Rd/SR-16

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_014

DAILY TOTALS	NB	SB	EB	WB	Total
	9,528	10,939	0	0	20,467

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	4		24				28		12:00	108		135				243	
00:15	4		7				11		12:15	119		120				239	
00:30	10		11				21		12:30	105		120				225	
00:45	7	25	5	47			12	72	12:45	123	455	117	492			240	947
01:00	5		9				14		13:00	129		127				256	
01:15	2		5				7		13:15	126		154				280	
01:30	4		10				14		13:30	125		156				281	
01:45	3	14	4	28			7	42	13:45	116	496	176	613			292	1109
02:00	3		4				7		14:00	114		156				270	
02:15	2		1				3		14:15	109		168				277	
02:30	12		1				13		14:30	102		217				319	
02:45	7	24	5	11			12	35	14:45	115	440	214	755			329	1195
03:00	5		2				7		15:00	121		247				368	
03:15	6		9				15		15:15	124		244				368	
03:30	15		7				22		15:30	141		272				413	
03:45	25	51	7	25			32	76	15:45	150	536	314	1077			464	1613
04:00	10		4				14		16:00	140		357				497	
04:15	15		6				21		16:15	135		376				511	
04:30	30		12				42		16:30	160		353				513	
04:45	41	96	24	46			65	142	16:45	112	547	397	1483			509	2030
05:00	49		19				68		17:00	132		367				499	
05:15	74		24				98		17:15	140		424				564	
05:30	87		35				122		17:30	105		344				449	
05:45	148	358	37	115			185	473	17:45	104	481	306	1441			410	1922
06:00	142		47				189		18:00	95		241				336	
06:15	198		85				283		18:15	96		247				343	
06:30	236		81				317		18:30	80		159				239	
06:45	279	855	100	313			379	1168	18:45	75	346	168	815			243	1161
07:00	291		114				405		19:00	72		126				198	
07:15	320		179				499		19:15	65		126				191	
07:30	342		116				458		19:30	68		123				191	
07:45	373	1326	128	537			501	1863	19:45	60	265	102	477			162	742
08:00	337		125				462		20:00	56		97				153	
08:15	275		138				413		20:15	59		102				161	
08:30	255		110				365		20:30	48		67				115	
08:45	225	1092	122	495			347	1587	20:45	34	197	85	351			119	548
09:00	174		98				272		21:00	37		82				119	
09:15	173		121				294		21:15	30		82				112	
09:30	138		90				228		21:30	24		46				70	
09:45	150	635	101	410			251	1045	21:45	53	144	51	261			104	405
10:00	122		101				223		22:00	31		46				77	
10:15	118		96				214		22:15	30		42				72	
10:30	143		97				240		22:30	17		32				49	
10:45	128	511	121	415			249	926	22:45	16	94	30	150			46	244
11:00	120		114				234		23:00	13		23				36	
11:15	123		104				227		23:15	13		27				40	
11:30	137		136				273		23:30	6		24				30	
11:45	117	497	134	488			251	985	23:45	11	43	20	94			31	137
TOTALS		5484		2930				**8414**	**TOTALS**		4044		8009				**12053**
SPLIT %		65.2%		34.8%				**41.1%**	**SPLIT %**		33.6%		66.4%				**58.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	9,528	10,939	0	0	20,467

AM Peak Hour	07:15	07:15					**07:15**		**PM Peak Hour**	15:45	16:30					**16:30**		
AM Pk Volume	1372	548					**1920**		**PM Pk Volume**	585	1541					**2085**		
Pk Hr Factor	0.920	0.765					**0.958**		**Pk Hr Factor**	0.914	0.909					**0.924**		
7 - 9 Volume	2418	1032	0	0			**3450**		**4 - 6 Volume**	1028	2924	0	0			**3952**		
7 - 9 Peak Hour	07:15	07:15					**07:15**		**4 - 6 Peak Hour**	16:00	16:30					**16:30**		
7 - 9 Pk Volume	1372	548	0	0			**1920**		**4 - 6 Pk Volume**	547	1541	0	0			**2085**		
Pk Hr Factor	0.920	0.765	0.000	0.000			**0.958**		**Pk Hr Factor**	0.855	0.909	0.000	0.000			**0.924**		

Prepared by NDS/ATD

VOLUME

Grant Line Rd Bet. White Rock Rd & Douglas Rd

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_015

DAILY TOTALS	NB	SB	EB	WB	Total
	5,394	4,757	0	0	10,151

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	5		2				7		12:00	53		48				101	
00:15	6		2				8		12:15	69		46				115	
00:30	1		4				5		12:30	44		61				105	
00:45	2	14	3	11			5	25	12:45	66	232	47	202			113	434
01:00	2		4				6		13:00	58		47				105	
01:15	0		4				4		13:15	54		53				107	
01:30	2		1				3		13:30	66		60				126	
01:45	2	6	2	11			4	17	13:45	63	241	70	230			133	471
02:00	0		0				0		14:00	46		53				99	
02:15	1		1				2		14:15	84		65				149	
02:30	6		3				9		14:30	83		89				172	
02:45	3	10	3	7			6	17	14:45	58	271	91	298			149	569
03:00	3		2				5		15:00	75		91				166	
03:15	3		0				3		15:15	78		114				192	
03:30	6		0				6		15:30	102		122				224	
03:45	2	14	3	5			5	19	15:45	120	375	151	478			271	853
04:00	4		5				9		16:00	121		122				243	
04:15	7		6				13		16:15	136		155				291	
04:30	13		5				18		16:30	127		130				257	
04:45	9	33	12	28			21	61	16:45	98	482	152	559			250	1041
05:00	22		18				40		17:00	134		141				275	
05:15	27		20				47		17:15	125		166				291	
05:30	37		15				52		17:30	122		143				265	
05:45	54	140	30	83			84	223	17:45	129	510	109	559			238	1069
06:00	41		35				76		18:00	75		100				175	
06:15	71		64				135		18:15	89		85				174	
06:30	100		63				163		18:30	67		68				135	
06:45	116	328	75	237			191	565	18:45	50	281	62	315			112	596
07:00	102		81				183		19:00	47		34				81	
07:15	135		73				208		19:15	30		56				86	
07:30	175		123				298		19:30	23		35				58	
07:45	175	587	93	370			268	957	19:45	26	126	39	164			65	290
08:00	161		86				247		20:00	31		42				73	
08:15	176		64				240		20:15	35		31				66	
08:30	171		67				238		20:30	15		20				35	
08:45	176	684	54	271			230	955	20:45	21	102	30	123			51	225
09:00	107		48				155		21:00	14		27				41	
09:15	90		58				148		21:15	18		23				41	
09:30	91		55				146		21:30	19		23				42	
09:45	63	351	42	203			105	554	21:45	19	70	24	97			43	167
10:00	59		56				115		22:00	4		13				17	
10:15	58		42				100		22:15	11		21				32	
10:30	68		38				106		22:30	10		11				21	
10:45	67	252	47	183			114	435	22:45	5	30	16	61			21	91
11:00	55		47				102		23:00	6		9				15	
11:15	70		62				132		23:15	7		9				16	
11:30	54		60				114		23:30	4		9				13	
11:45	57	236	54	223			111	459	23:45	2	19	12	39			14	58
TOTALS		2655		1632				4287	TOTALS		2739		3125				5864
SPLIT %		61.9%		38.1%				42.2%	SPLIT %		46.7%		53.3%				57.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	5,394	4,757	0	0	10,151

AM Peak Hour	07:30	07:15					07:30		PM Peak Hour	17:00	16:45					16:45		
AM Pk Volume	687	375					1053		PM Pk Volume	510	602					1081		
Pk Hr Factor	0.976	0.762					0.883		Pk Hr Factor	0.951	0.907					0.929		
7 - 9 Volume	1271	641	0	0			1912		4 - 6 Volume	992	1118	0	0			2110		
7 - 9 Peak Hour	07:30	07:15					07:30		4 - 6 Peak Hour	17:00	16:45					16:45		
7 - 9 Pk Volume	687	375	0	0			1053		4 - 6 Pk Volume	510	602	0	0			1081		
Pk Hr Factor	0.976	0.762	0.000	0.000			0.883		Pk Hr Factor	0.951	0.907	0.000	0.000			0.929		

Prepared by NDS/ATD

VOLUME

Grant Line Rd Bet. Douglas Rd & Jackson Rd/SR-16

Day: Tuesday
Date: 5/21/2019

City: Rancho Cordova
Project #: CA19_7203_016

DAILY TOTALS	NB	SB	EB	WB	Total
	4,000	3,501	0	0	7,501

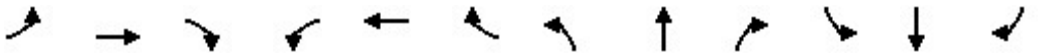
AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		4				7		12:00	48		42				90	
00:15	5		1				6		12:15	37		35				72	
00:30	2		3				5		12:30	42		37				79	
00:45	2	12	2	10			4	22	12:45	44	171	34	148			78	319
01:00	2		0				2		13:00	36		47				83	
01:15	1		3				4		13:15	43		35				78	
01:30	1		2				3		13:30	49		45				94	
01:45	2	6	3	8			5	14	13:45	41	169	54	181			95	350
02:00	0		0				0		14:00	54		50				104	
02:15	1		1				2		14:15	47		46				93	
02:30	4		2				6		14:30	56		74				130	
02:45	2	7	3	6			5	13	14:45	54	211	72	242			126	453
03:00	4		2				6		15:00	60		71				131	
03:15	3		0				3		15:15	80		73				153	
03:30	5		0				5		15:30	71		80				151	
03:45	2	14	3	5			5	19	15:45	81	292	104	328			185	620
04:00	6		1				7		16:00	81		88				169	
04:15	4		6				10		16:15	99		90				189	
04:30	9		5				14		16:30	84		108				192	
04:45	9	28	6	18			15	46	16:45	75	339	96	382			171	721
05:00	23		16				39		17:00	89		96				185	
05:15	22		13				35		17:15	100		109				209	
05:30	45		19				64		17:30	78		102				180	
05:45	49	139	16	64			65	203	17:45	87	354	68	375			155	729
06:00	43		32				75		18:00	58		73				131	
06:15	66		43				109		18:15	63		71				134	
06:30	84		61				145		18:30	42		37				79	
06:45	86	279	62	198			148	477	18:45	45	208	39	220			84	428
07:00	84		64				148		19:00	26		25				51	
07:15	113		62				175		19:15	29		33				62	
07:30	109		86				195		19:30	20		17				37	
07:45	113	419	74	286			187	705	19:45	17	92	18	93			35	185
08:00	118		63				181		20:00	18		21				39	
08:15	106		63				169		20:15	19		15				34	
08:30	130		61				191		20:30	18		17				35	
08:45	120	474	53	240			173	714	20:45	14	69	14	67			28	136
09:00	82		41				123		21:00	9		19				28	
09:15	67		42				109		21:15	17		12				29	
09:30	69		50				119		21:30	15		11				26	
09:45	34	252	43	176			77	428	21:45	9	50	20	62			29	112
10:00	46		43				89		22:00	8		7				15	
10:15	55		32				87		22:15	10		12				22	
10:30	55		45				100		22:30	5		8				13	
10:45	47	203	45	165			92	368	22:45	7	30	10	37			17	67
11:00	58		42				100		23:00	3		5				8	
11:15	32		35				67		23:15	7		7				14	
11:30	29		49				78		23:30	1		5				6	
11:45	50	169	38	164			88	333	23:45	2	13	9	26			11	39
TOTALS		2002		1340				**3342**	**TOTALS**		1998		2161				**4159**
SPLIT %		59.9%		40.1%				**44.6%**	**SPLIT %**		48.0%		52.0%				**55.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	4,000	3,501	0	0	7,501

AM Peak Hour	08:00	07:00			**07:15**	**PM Peak Hour**	17:00	16:30			**16:30**
AM Pk Volume	474	286			**738**	**PM Pk Volume**	354	409			**757**
Pk Hr Factor	0.912	0.831			**0.946**	**Pk Hr Factor**	0.885	0.938			**0.906**
7 - 9 Volume	893	526	0	0	**1419**	**4 - 6 Volume**	693	757	0	0	**1450**
7 - 9 Peak Hour	08:00	07:00			**07:15**	**4 - 6 Peak Hour**	17:00	16:30			**16:30**
7 - 9 Pk Volume	474	286	0	0	**738**	**4 - 6 Pk Volume**	354	409	0	0	**757**
Pk Hr Factor	0.912	0.831	0.000	0.000	**0.946**	**Pk Hr Factor**	0.885	0.938	0.000	0.000	**0.906**

Appendix B

Analysis Worksheets for
Existing (2019) Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	978	0	240	0	740	450	0	755	390
Future Volume (veh/h)	0	0	0	978	0	240	0	740	450	0	755	390
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				700	594	276	0	771	0	0	803	0
Peak Hour Factor				0.87	0.87	0.87	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				568	384	178	0	2869		0	2869	
Arrive On Green				0.32	0.32	0.32	0.00	0.81	0.00	0.00	0.81	0.00
Sat Flow, veh/h				1781	1203	559	0	3741	0	0	3741	0
Grp Volume(v), veh/h				700	0	870	0	771	0	0	803	0
Grp Sat Flow(s),veh/h/ln				1781	0	1762	0	1777	0	0	1777	0
Q Serve(g_s), s				35.1	0.0	35.1	0.0	5.9	0.0	0.0	6.2	0.0
Cycle Q Clear(g_c), s				35.1	0.0	35.1	0.0	5.9	0.0	0.0	6.2	0.0
Prop In Lane				1.00		0.32	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				568	0	562	0	2869		0	2869	
V/C Ratio(X)				1.23	0.00	1.55	0.00	0.27		0.00	0.28	
Avail Cap(c_a), veh/h				568	0	562	0	2869		0	2869	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				37.4	0.0	37.5	0.0	2.6	0.0	0.0	2.6	0.0
Incr Delay (d2), s/veh				118.9	0.0	255.2	0.0	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				33.7	0.0	54.6	0.0	1.2	0.0	0.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				156.4	0.0	292.7	0.0	2.8	0.0	0.0	2.9	0.0
LnGrp LOS				F	A	F	A	A		A	A	
Approach Vol, veh/h					1570			771	A		803	A
Approach Delay, s/veh					231.9			2.8			2.9	
Approach LOS					F			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	94.5		94.5		40.0			
Change Period (Y+Rc), s	* 5		5.0		4.9			
Max Green Setting (Gmax), s	* 66		65.0		35.1			
Max Q Clear Time (g_c+I1), s	8.2		7.9		37.1			
Green Ext Time (p_c), s	1.8		1.7		0.0			

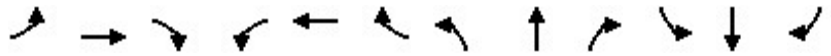
Intersection Summary	
HCM 6th Ctrl Delay	117.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	0	1173	0	0	0	0	880	333	0	1419	317
Future Volume (veh/h)	312	0	1173	0	0	0	0	880	333	0	1419	317
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	219	0	1352				0	926	0	0	1526	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	560	0	994				0	3806		0	2649	
Arrive On Green	0.31	0.00	0.31				0.00	0.75	0.00	0.00	0.75	0.00
Sat Flow, veh/h	1781	0	3160				0	5443	0	0	3647	1585
Grp Volume(v), veh/h	219	0	1352				0	926	0	0	1526	0
Grp Sat Flow(s),veh/h/ln	1781	0	1580				0	1702	0	0	1777	1585
Q Serve(g_s), s	10.6	0.0	34.6				0.0	6.2	0.0	0.0	21.1	0.0
Cycle Q Clear(g_c), s	10.6	0.0	34.6				0.0	6.2	0.0	0.0	21.1	0.0
Prop In Lane	1.00		1.00				0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	560	0	994				0	3806		0	2649	
V/C Ratio(X)	0.39	0.00	1.36				0.00	0.24		0.00	0.58	
Avail Cap(c_a), veh/h	560	0	994				0	3806		0	2649	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	29.5	0.0	37.7				0.0	4.4	0.0	0.0	6.2	0.0
Incr Delay (d2), s/veh	0.2	0.0	168.7				0.0	0.2	0.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	36.4				0.0	1.6	0.0	0.0	6.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	0.0	206.4				0.0	4.5	0.0	0.0	7.2	0.0
LnGrp LOS	C	A	F				A	A		A	A	
Approach Vol, veh/h		1571						926	A		1526	A
Approach Delay, s/veh		181.7						4.5			7.2	
Approach LOS		F						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	87.5	40.0	87.5
Change Period (Y+Rc), s	* 5	* 5.4	5.0
Max Green Setting (Gmax), s	* 66	* 35	65.0
Max Q Clear Time (g_c+I1), s	23.1	36.6	8.2
Green Ext Time (p_c), s	4.3	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	74.7
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	931	819	116	672	279	47
Future Volume (veh/h)	931	819	116	672	279	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1108	0	141	820	317	53
Peak Hour Factor	0.84	0.84	0.82	0.82	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2661		180	3655	443	203
Arrive On Green	0.52	0.00	0.10	0.72	0.13	0.13
Sat Flow, veh/h	5443	0	1781	5274	3456	1585
Grp Volume(v), veh/h	1108	0	141	820	317	53
Grp Sat Flow(s),veh/h/ln	1702	0	1781	1702	1728	1585
Q Serve(g_s), s	7.2	0.0	4.2	3.0	4.8	1.6
Cycle Q Clear(g_c), s	7.2	0.0	4.2	3.0	4.8	1.6
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2661		180	3655	443	203
V/C Ratio(X)	0.42		0.78	0.22	0.72	0.26
Avail Cap(c_a), veh/h	6088		650	6088	2314	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	0.0	23.9	2.6	22.8	21.4
Incr Delay (d2), s/veh	0.2	0.0	2.8	0.1	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.7	0.3	1.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	0.0	26.7	2.7	23.6	21.7
LnGrp LOS	A		C	A	C	C
Approach Vol, veh/h	1108	A		961	370	
Approach Delay, s/veh	8.2			6.2	23.3	
Approach LOS	A			A	C	

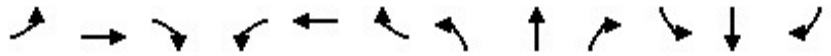
Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	44.0		10.6	33.4	10.5
Change Period (Y+Rc), s	5.0		* 5.1	5.0	3.5
Max Green Setting (Gmax), s	65.0		* 20	65.0	36.5
Max Q Clear Time (g_c+I1), s	5.0		6.2	9.2	6.8
Green Ext Time (p_c), s	12.7		0.0	19.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

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

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1073	0	212	0	956	540	0	726	330
Future Volume (veh/h)	0	0	0	1073	0	212	0	956	540	0	726	330
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				1248	0	247	0	1017	0	0	748	0
Peak Hour Factor				0.86	0.86	0.86	0.94	0.94	0.94	0.97	0.97	0.97
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				1292	0	593	0	2731		0	1900	
Arrive On Green				0.37	0.00	0.37	0.00	0.53	0.00	0.00	0.53	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	2790	0	3647	1585
Grp Volume(v), veh/h				1248	0	247	0	1017	0	0	748	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1395	0	1777	1585
Q Serve(g_s), s				44.2	0.0	14.4	0.0	14.5	0.0	0.0	15.5	0.0
Cycle Q Clear(g_c), s				44.2	0.0	14.4	0.0	14.5	0.0	0.0	15.5	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1292	0	593	0	2731		0	1900	
V/C Ratio(X)				0.97	0.00	0.42	0.00	0.37		0.00	0.39	
Avail Cap(c_a), veh/h				1333	0	611	0	2731		0	1900	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				38.3	0.0	29.0	0.0	16.9	0.0	0.0	17.1	0.0
Incr Delay (d2), s/veh				16.6	0.0	0.2	0.0	0.4	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				21.4	0.0	5.5	0.0	5.4	0.0	0.0	6.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.0	0.0	29.2	0.0	17.3	0.0	0.0	17.7	0.0
LnGrp LOS				D	A	C	A	B		A	B	
Approach Vol, veh/h					1495			1017	A		748	A
Approach Delay, s/veh					50.7			17.3			17.7	
Approach LOS					D			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	71.4		71.4		53.6			
Change Period (Y+Rc), s	4.6		4.6		6.8			
Max Green Setting (Gmax), s	65.4		65.4		48.2			
Max Q Clear Time (g_c+I1), s	17.5		16.5		46.2			
Green Ext Time (p_c), s	1.7		2.5		0.5			

Intersection Summary		
HCM 6th Ctrl Delay	32.7	
HCM 6th LOS	C	

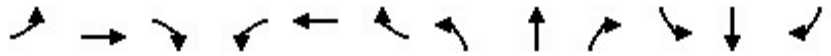
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL2	EBL	EBT	EBR	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	377	1	849	1095	102	27	985	469	15	1684	201
Future Volume (vph)	377	1	849	1095	102	27	985	469	15	1684	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8	6.8	4.9		4.6			4.6	4.0
Lane Util. Factor		0.91	0.86	0.91	0.88		0.86			0.95	1.00
Frpb, ped/bikes		1.00	0.99	0.98	0.99		0.99			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.94	0.85	0.85		0.95			1.00	0.85
Flt Protected		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		1603	3009	1417	2747		6064			3539	1545
Flt Permitted		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		1603	3009	1417	2747		6064			3539	1545
Peak-hour factor, PHF	0.87	0.92	0.87	0.87	0.90	0.92	0.89	0.92	0.89	0.91	0.91
Adj. Flow (vph)	433	1	976	1259	113	29	1107	510	17	1851	221
RTOR Reduction (vph)	0	0	5	9	16	0	1	0	0	0	0
Lane Group Flow (vph)	0	434	1538	683	126	0	1633	0	0	1851	221
Confl. Peds. (#/hr)	6			6	3				3		6
Confl. Bikes (#/hr)									2		3
Turn Type	Split	Perm	NA	Perm	Perm		NA			NA	Free
Protected Phases	4		4				6			2	
Permitted Phases		4		4	8						Free
Actuated Green, G (s)		48.2	48.2	48.2	50.1		65.4			65.4	125.0
Effective Green, g (s)		48.2	48.2	48.2	50.1		65.4			65.4	125.0
Actuated g/C Ratio		0.39	0.39	0.39	0.40		0.52			0.52	1.00
Clearance Time (s)		6.8	6.8	6.8	4.9		4.6			4.6	
Vehicle Extension (s)		1.0	1.0	1.0	3.0		1.0			1.0	
Lane Grp Cap (vph)		618	1160	546	1100		3172			1851	1545
v/s Ratio Prot							0.27			c0.52	
v/s Ratio Perm		0.27	0.51	0.48	0.05						0.14
v/c Ratio		0.70	1.33	1.25	0.11		0.51			1.00	0.14
Uniform Delay, d1		32.4	38.4	38.4	23.5		19.4			29.8	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.00			1.25	1.00
Incremental Delay, d2		3.0	152.7	127.8	0.0		0.6			17.4	0.1
Delay (s)		35.3	191.1	166.2	23.6		20.0			54.5	0.1
Level of Service		D	F	F	C		C			D	A
Approach Delay (s)			159.3				20.0			48.7	
Approach LOS			F				C			D	

Intersection Summary			
HCM 2000 Control Delay	86.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	101.9%	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 (veh/h)	215	101	30	25	87	241	40	1008	18	750	1373	658
Future Volume (veh/h)	215	101	30	25	87	241	40	1008	18	750	1373	658
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	117	35	29	101	280	44	1108	20	806	1476	708
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	320	935	256	60	300	1282	80	1365	25	862	2505	764
Arrive On Green	0.09	0.24	0.24	0.02	0.16	0.16	0.02	0.26	0.26	0.25	0.49	0.49
Sat Flow, veh/h	3456	3961	1085	3563	1870	3070	3456	5163	93	3456	5106	1557
Grp Volume(v), veh/h	250	99	53	29	101	280	44	730	398	806	1476	708
Grp Sat Flow(s),veh/h/ln	1728	1702	1642	1781	1870	1535	1728	1702	1852	1728	1702	1557
Q Serve(g_s), s	6.9	2.2	2.5	0.8	4.7	5.8	1.2	19.5	19.5	22.2	20.1	41.3
Cycle Q Clear(g_c), s	6.9	2.2	2.5	0.8	4.7	5.8	1.2	19.5	19.5	22.2	20.1	41.3
Prop In Lane	1.00		0.66	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	320	803	387	60	300	1282	80	900	490	862	2505	764
V/C Ratio(X)	0.78	0.12	0.14	0.49	0.34	0.22	0.55	0.81	0.81	0.94	0.59	0.93
Avail Cap(c_a), veh/h	693	2241	1081	715	1241	2827	693	2273	1237	871	3378	1030
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	29.2	29.3	47.4	36.2	18.6	47.0	33.5	33.5	35.7	17.7	23.1
Incr Delay (d2), s/veh	1.6	0.0	0.1	2.3	0.2	0.0	2.2	0.7	1.3	16.6	0.1	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.9	0.9	0.4	2.1	1.9	0.5	7.8	8.5	10.8	7.1	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	29.2	29.4	49.6	36.5	18.7	49.1	34.2	34.7	52.3	17.8	32.9
LnGrp LOS	D	C	C	D	D	B	D	C	C	D	B	C
Approach Vol, veh/h		402			410			1172			2990	
Approach Delay, s/veh		38.9			25.2			34.9			30.7	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	53.4	14.5	21.6	29.7	31.4	7.1	28.9
Change Period (Y+Rc), s	5.5	* 5.7	5.5	* 6	5.5	* 5.7	5.5	* 6
Max Green Setting (Gmax), s	19.5	* 64	19.5	* 65	24.5	* 65	19.5	* 64
Max Q Clear Time (g_c+I1), s	3.2	43.3	8.9	7.8	24.2	21.5	2.8	4.5
Green Ext Time (p_c), s	0.0	4.3	0.1	0.4	0.0	2.6	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	31.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

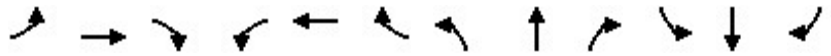
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	337	63	92	367	101	266	872	102	148	426	259
Future Volume (veh/h)	116	337	63	92	367	101	266	872	102	148	426	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	132	383	72	108	432	119	274	899	105	174	501	305
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.97	0.97	0.97	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	653	119	185	722	220	655	1841	570	270	848	389
Arrive On Green	0.06	0.15	0.15	0.05	0.14	0.14	0.19	0.36	0.36	0.08	0.25	0.25
Sat Flow, veh/h	3456	4328	788	3456	5106	1554	3456	5106	1581	3456	3404	1563
Grp Volume(v), veh/h	132	299	156	108	432	119	274	899	105	174	501	305
Grp Sat Flow(s),veh/h/ln	1728	1702	1712	1728	1702	1554	1728	1702	1581	1728	1702	1563
Q Serve(g_s), s	2.3	5.1	5.4	1.9	5.0	4.5	4.4	8.6	2.9	3.1	8.1	11.4
Cycle Q Clear(g_c), s	2.3	5.1	5.4	1.9	5.0	4.5	4.4	8.6	2.9	3.1	8.1	11.4
Prop In Lane	1.00		0.46	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	514	258	185	722	220	655	1841	570	270	848	389
V/C Ratio(X)	0.61	0.58	0.61	0.58	0.60	0.54	0.42	0.49	0.18	0.64	0.59	0.78
Avail Cap(c_a), veh/h	1074	1855	933	1074	2782	847	1074	5239	1622	1074	3492	1603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	24.8	24.9	29.0	25.3	25.1	22.4	15.6	13.7	28.1	20.8	22.0
Incr Delay (d2), s/veh	1.0	0.4	0.9	1.1	0.3	0.8	0.2	0.1	0.1	1.0	0.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.9	2.0	0.8	1.8	1.5	1.6	2.8	0.9	1.2	2.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	25.2	25.8	30.1	25.6	25.8	22.5	15.7	13.8	29.0	21.0	23.3
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	C	C
Approach Vol, veh/h		587			659			1278			980	
Approach Delay, s/veh		26.3			26.4			17.0			23.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	21.2	9.5	14.7	10.4	28.2	8.9	15.3
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.2	19.5	* 64	19.5	34.2
Max Q Clear Time (g_c+I1), s	6.4	13.4	4.3	7.0	5.1	10.6	3.9	7.4
Green Ext Time (p_c), s	0.1	1.8	0.1	1.0	0.1	2.2	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	14	263	37	20	32	302	2204	10	32	3198	77
Future Volume (veh/h)	111	14	263	37	20	32	302	2204	10	32	3198	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	134	223	45	24	39	311	2272	10	35	3476	84
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	155	262	100	36	58	363	3102	14	45	2598	786
Arrive On Green	0.17	0.17	0.17	0.06	0.06	0.06	0.11	0.59	0.59	0.03	0.51	0.51
Sat Flow, veh/h	892	934	1574	1781	639	1038	3456	5247	23	1781	5106	1545
Grp Volume(v), veh/h	262	0	223	45	0	63	311	1474	808	35	3476	84
Grp Sat Flow(s),veh/h/ln	1826	0	1574	1781	0	1677	1728	1702	1866	1781	1702	1545
Q Serve(g_s), s	17.9	0.0	17.6	3.1	0.0	4.7	11.3	40.0	40.0	2.5	65.2	3.6
Cycle Q Clear(g_c), s	17.9	0.0	17.6	3.1	0.0	4.7	11.3	40.0	40.0	2.5	65.2	3.6
Prop In Lane	0.49		1.00	1.00		0.62	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	304	0	262	100	0	94	363	2013	1103	45	2598	786
V/C Ratio(X)	0.86	0.00	0.85	0.45	0.00	0.67	0.86	0.73	0.73	0.78	1.34	0.11
Avail Cap(c_a), veh/h	492	0	424	480	0	451	537	2013	1103	281	2598	786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	51.9	58.6	0.0	59.3	56.4	18.9	18.9	62.1	31.5	16.3
Incr Delay (d2), s/veh	4.9	0.0	4.8	1.2	0.0	3.1	6.1	1.2	2.2	10.5	154.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	7.3	1.5	0.0	2.1	5.1	14.6	16.3	1.2	61.8	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	0.0	56.6	59.8	0.0	62.4	62.5	20.1	21.1	72.7	186.2	16.4
LnGrp LOS	E	A	E	E	A	E	E	C	C	E	F	B
Approach Vol, veh/h		485			108			2593			3595	
Approach Delay, s/veh		56.8			61.3			25.5			181.2	
Approach LOS		E			E			C			F	

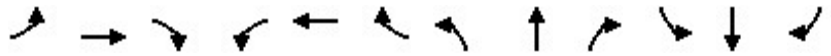
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.6	70.1		26.8	8.0	80.7		12.7
Change Period (Y+Rc), s	* 5.1	* 4.9		5.5	* 4.8	* 4.9		5.5
Max Green Setting (Gmax), s	20.0	* 65		34.5	* 20	* 65		34.5
Max Q Clear Time (g_c+I1), s	13.3	67.2		19.9	4.5	42.0		6.7
Green Ext Time (p_c), s	0.1	0.0		0.6	0.0	6.2		0.1

Intersection Summary	
HCM 6th Ctrl Delay	110.8
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	501	0	440	0	2052	269	0	1949	1594
Future Volume (veh/h)	0	0	0	501	0	440	0	2052	269	0	1949	1594
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				589	0	518	0	2138	0	0	1989	0
Peak Hour Factor				0.85	0.85	0.85	0.96	0.96	0.96	0.98	0.98	0.98
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				716	0	578	0	3837		0	3491	
Arrive On Green				0.21	0.00	0.21	0.00	0.68	0.00	0.00	0.68	0.00
Sat Flow, veh/h				3456	0	2790	0	5611	1585	0	5274	2790
Grp Volume(v), veh/h				589	0	518	0	2138	0	0	1989	0
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1870	1585	0	1702	1395
Q Serve(g_s), s				17.9	0.0	19.9	0.0	21.4	0.0	0.0	22.2	0.0
Cycle Q Clear(g_c), s				17.9	0.0	19.9	0.0	21.4	0.0	0.0	22.2	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				716	0	578	0	3837		0	3491	
V/C Ratio(X)				0.82	0.00	0.90	0.00	0.56		0.00	0.57	
Avail Cap(c_a), veh/h				1037	0	837	0	3837		0	3491	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				41.7	0.0	42.5	0.0	8.9	0.0	0.0	9.0	0.0
Incr Delay (d2), s/veh				2.3	0.0	7.0	0.0	0.6	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.8	0.0	7.4	0.0	7.2	0.0	0.0	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.0	0.0	49.5	0.0	9.5	0.0	0.0	9.7	0.0
LnGrp LOS				D	A	D	A	A		A	A	
Approach Vol, veh/h					1107			2138	A		1989	A
Approach Delay, s/veh					46.6			9.5			9.7	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	80.2		80.2		29.8			
Change Period (Y+Rc), s	* 5		5.0		7.0			
Max Green Setting (Gmax), s	* 65		65.0		33.0			
Max Q Clear Time (g_c+I1), s	24.2		23.4		21.9			
Green Ext Time (p_c), s	6.5		7.4		0.9			

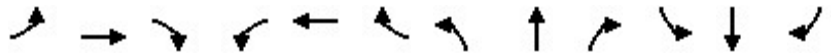
Intersection Summary		
HCM 6th Ctrl Delay		17.4
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1198	0	601	0	0	0	0	1106	459	0	2100	362
Future Volume (veh/h)	1198	0	601	0	0	0	0	1106	459	0	2100	362
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1235	0	620				0	1366	0	0	2143	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1349	0	749				0	4696		0	3522	
Arrive On Green	0.27	0.00	0.27				0.00	0.63	0.00	0.00	0.63	0.00
Sat Flow, veh/h	5023	0	2790				0	7481	1585	0	5611	1585
Grp Volume(v), veh/h	1235	0	620				0	1366	0	0	2143	0
Grp Sat Flow(s),veh/h/ln	1674	0	1395				0	1870	1585	0	1870	1585
Q Serve(g_s), s	26.2	0.0	23.0				0.0	9.1	0.0	0.0	25.3	0.0
Cycle Q Clear(g_c), s	26.2	0.0	23.0				0.0	9.1	0.0	0.0	25.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1349	0	749				0	4696		0	3522	
V/C Ratio(X)	0.92	0.00	0.83				0.00	0.29		0.00	0.61	
Avail Cap(c_a), veh/h	1521	0	845				0	4696		0	3522	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	39.0	0.0	37.8				0.0	9.3	0.0	0.0	12.3	0.0
Incr Delay (d2), s/veh	7.8	0.0	5.5				0.0	0.2	0.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	8.3				0.0	3.3	0.0	0.0	9.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	0.0	43.3				0.0	9.5	0.0	0.0	13.1	0.0
LnGrp LOS	D	A	D				A	A		A	B	
Approach Vol, veh/h		1855						1366	A		2143	A
Approach Delay, s/veh		45.7						9.5			13.1	
Approach LOS		D						A			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	73.7	36.3	73.7
Change Period (Y+Rc), s	* 4.7	6.7	4.7
Max Green Setting (Gmax), s	* 66	33.3	65.3
Max Q Clear Time (g_c+I1), s	27.3	28.2	11.1
Green Ext Time (p_c), s	7.4	1.3	3.7

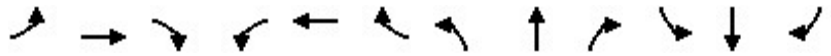
Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	171	93	272	216	129	72	1246	103	230	2129	309
Future Volume (veh/h)	213	171	93	272	216	129	72	1246	103	230	2129	309
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	192	104	306	266	129	76	1312	108	240	2218	322
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	563	245	363	655	267	124	3015	741	295	2646	814
Arrive On Green	0.09	0.16	0.16	0.10	0.18	0.18	0.04	0.47	0.47	0.09	0.52	0.52
Sat Flow, veh/h	3456	3554	1546	3563	3741	1524	3456	6434	1581	3456	5106	1571
Grp Volume(v), veh/h	239	192	104	306	266	129	76	1312	108	240	2218	322
Grp Sat Flow(s),veh/h/ln	1728	1777	1546	1781	1870	1524	1728	1609	1581	1728	1702	1571
Q Serve(g_s), s	8.3	5.9	7.5	10.4	7.8	9.4	2.7	16.7	4.8	8.4	45.5	15.3
Cycle Q Clear(g_c), s	8.3	5.9	7.5	10.4	7.8	9.4	2.7	16.7	4.8	8.4	45.5	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	563	245	363	655	267	124	3015	741	295	2646	814
V/C Ratio(X)	0.81	0.34	0.42	0.84	0.41	0.48	0.61	0.44	0.15	0.81	0.84	0.40
Avail Cap(c_a), veh/h	549	986	429	565	1035	422	549	3362	826	549	2677	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	46.0	46.6	54.2	45.0	45.7	58.4	21.8	18.6	55.2	25.2	17.9
Incr Delay (d2), s/veh	2.1	0.5	1.7	3.9	0.7	2.3	3.0	0.1	0.1	2.1	2.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.7	3.0	4.8	3.7	3.7	1.2	6.0	1.8	3.6	17.5	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	46.5	48.4	58.1	45.7	48.0	61.4	21.8	18.7	57.3	28.0	18.6
LnGrp LOS	E	D	D	E	D	D	E	C	B	E	C	B
Approach Vol, veh/h		535			701			1496			2780	
Approach Delay, s/veh		51.7			51.5			23.6			29.4	
Approach LOS		D			D			C			C	

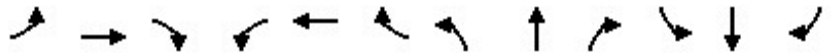
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	69.5	16.0	27.5	16.0	63.4	18.0	25.5
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	* 6
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.0	19.5	* 64	19.5	* 34
Max Q Clear Time (g_c+I1), s	4.7	47.5	10.3	11.4	10.4	18.7	12.4	9.5
Green Ext Time (p_c), s	0.1	16.2	0.1	3.6	0.1	8.5	0.2	2.3

Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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



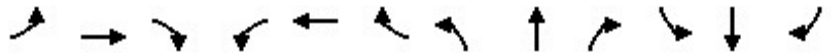
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	206	75	148	266	116	333	1085	82	252	851	254
Future Volume (veh/h)	166	206	75	148	266	116	333	1085	82	252	851	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	173	215	78	163	292	127	362	1179	89	262	886	265
Peak Hour Factor	0.96	0.96	0.96	0.91	0.91	0.91	0.92	0.92	0.92	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	531	232	223	747	231	423	1953	598	324	1807	552
Arrive On Green	0.08	0.17	0.17	0.07	0.16	0.16	0.14	0.43	0.43	0.10	0.39	0.39
Sat Flow, veh/h	3110	3198	1399	3110	4595	1419	3110	4595	1407	3110	4595	1404
Grp Volume(v), veh/h	173	215	78	163	292	127	362	1179	89	262	886	265
Grp Sat Flow(s),veh/h/ln	1555	1599	1399	1555	1532	1419	1555	1532	1407	1555	1532	1404
Q Serve(g_s), s	5.3	5.9	4.8	5.0	5.6	8.0	11.1	19.4	3.8	8.1	14.2	13.8
Cycle Q Clear(g_c), s	5.3	5.9	4.8	5.0	5.6	8.0	11.1	19.4	3.8	8.1	14.2	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	531	232	223	747	231	423	1953	598	324	1807	552
V/C Ratio(X)	0.74	0.41	0.34	0.73	0.39	0.55	0.86	0.60	0.15	0.81	0.49	0.48
Avail Cap(c_a), veh/h	620	2094	916	620	1598	493	620	3027	927	620	3018	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.3	36.5	36.0	44.5	36.6	37.6	41.3	21.7	17.3	42.8	22.3	22.2
Incr Delay (d2), s/veh	1.7	1.0	1.7	1.7	1.1	6.9	5.5	0.6	0.2	1.9	0.4	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.3	1.7	1.9	2.1	3.1	4.4	6.5	1.2	3.1	4.8	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.0	37.5	37.7	46.2	37.7	44.5	46.8	22.4	17.5	44.7	22.7	23.5
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		466			582			1630			1413	
Approach Delay, s/veh		40.7			41.6			27.5			26.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	44.2	12.8	21.9	15.7	47.4	12.5	22.2
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	13.3	* 64	19.5	34.0	19.5	* 64	19.5	64.0
Max Q Clear Time (g_c+I1), s	13.1	16.2	7.3	10.0	10.1	21.4	7.0	7.9
Green Ext Time (p_c), s	0.2	17.1	0.1	5.3	0.1	20.2	0.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

Notes

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



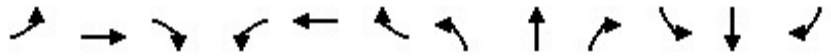
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	185	2	12	339	444	6	179	44	175	27	72
Future Volume (veh/h)	304	185	2	12	339	444	6	179	44	175	27	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	323	197	2	14	404	529	7	218	54	194	30	80
Peak Hour Factor	0.94	0.94	0.94	0.84	0.84	0.84	0.82	0.82	0.82	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	338	1959	20	17	672	557	9	247	61	260	450	382
Arrive On Green	0.19	0.54	0.54	0.01	0.36	0.36	0.01	0.17	0.17	0.08	0.24	0.24
Sat Flow, veh/h	1781	3604	37	1781	1870	1550	1781	1447	359	3456	1870	1585
Grp Volume(v), veh/h	323	97	102	14	404	529	7	0	272	194	30	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1870	1550	1781	0	1806	1728	1870	1585
Q Serve(g_s), s	18.4	2.7	2.7	0.8	18.1	34.1	0.4	0.0	15.1	5.6	1.3	4.1
Cycle Q Clear(g_c), s	18.4	2.7	2.7	0.8	18.1	34.1	0.4	0.0	15.1	5.6	1.3	4.1
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	338	966	1013	17	672	557	9	0	309	260	450	382
V/C Ratio(X)	0.95	0.10	0.10	0.82	0.60	0.95	0.74	0.00	0.88	0.75	0.07	0.21
Avail Cap(c_a), veh/h	338	1127	1182	345	1188	985	338	0	1147	657	1183	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.1	11.3	11.3	50.7	26.9	32.0	51.0	0.0	41.5	46.5	30.1	31.2
Incr Delay (d2), s/veh	36.6	0.0	0.0	28.0	0.3	6.9	34.1	0.0	3.3	1.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	0.9	1.0	0.5	7.4	12.9	0.3	0.0	6.7	2.4	0.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.7	11.3	11.3	78.7	27.2	38.9	85.1	0.0	44.8	48.1	30.1	31.3
LnGrp LOS	E	B	B	E	C	D	F	A	D	D	C	C
Approach Vol, veh/h		522			947			279			304	
Approach Delay, s/veh		52.4			34.5			45.8			41.9	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	41.8	6.0	29.8	6.1	60.7	13.2	22.6
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	19.5	* 65	19.5	* 65	* 20	* 65	19.5	* 65
Max Q Clear Time (g_c+I1), s	20.4	36.1	2.4	6.1	2.8	4.7	7.6	17.1
Green Ext Time (p_c), s	0.0	0.8	0.0	0.1	0.0	0.3	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	41.7
HCM 6th LOS	D

Notes

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



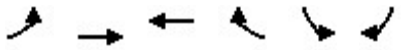
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	111	129	82	313	215	456	1398	63	88	487	58
Future Volume (veh/h)	256	111	129	82	313	215	456	1398	63	88	487	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	113	132	93	356	244	518	1589	72	99	547	65
Peak Hour Factor	0.98	0.98	0.98	0.88	0.88	0.88	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	1206	374	156	646	288	598	1845	565	164	1203	374
Arrive On Green	0.10	0.24	0.24	0.05	0.18	0.18	0.17	0.36	0.36	0.05	0.24	0.24
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1565	3456	5106	1585
Grp Volume(v), veh/h	261	113	132	93	356	244	518	1589	72	99	547	65
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1565	1728	1702	1585
Q Serve(g_s), s	6.0	1.4	5.6	2.1	7.4	12.1	11.9	23.5	2.5	2.3	7.5	2.7
Cycle Q Clear(g_c), s	6.0	1.4	5.6	2.1	7.4	12.1	11.9	23.5	2.5	2.3	7.5	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	344	1206	374	156	646	288	598	1845	565	164	1203	374
V/C Ratio(X)	0.76	0.09	0.35	0.60	0.55	0.85	0.87	0.86	0.13	0.60	0.45	0.17
Avail Cap(c_a), veh/h	829	2091	649	829	1451	647	829	3937	1207	829	3931	1220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	24.3	25.9	38.1	30.2	32.2	32.7	24.1	17.4	38.0	26.6	24.8
Incr Delay (d2), s/veh	1.3	0.0	0.2	1.4	0.3	2.6	5.5	0.5	0.0	1.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.5	1.9	0.9	2.9	4.4	4.9	8.1	0.8	0.9	2.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	24.3	26.1	39.4	30.5	34.8	38.2	24.6	17.4	39.3	26.7	24.9
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		506			693			2179			711	
Approach Delay, s/veh		31.3			33.2			27.6			28.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	36.8	9.2	26.0	19.6	26.6	13.6	21.6
Change Period (Y+Rc), s	5.5	* 7.4	5.5	* 6.8	5.5	* 7.4	5.5	6.8
Max Green Setting (Gmax), s	19.5	* 63	19.5	* 33	19.5	* 63	19.5	33.2
Max Q Clear Time (g_c+I1), s	14.3	25.5	4.1	7.6	13.9	9.5	8.0	14.1
Green Ext Time (p_c), s	0.0	3.9	0.0	0.2	0.2	1.1	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

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



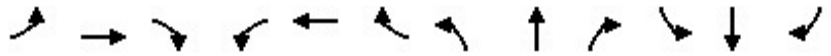
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	197	89	5	5	72
Future Volume (veh/h)	57	197	89	5	5	72
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	226	99	6	6	94
Peak Hour Factor	0.87	0.87	0.90	0.90	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	80	1381	402	179	253	225
Arrive On Green	0.04	0.39	0.11	0.11	0.14	0.14
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	66	226	99	6	6	94
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	0.9	1.0	0.6	0.1	0.1	1.3
Cycle Q Clear(g_c), s	0.9	1.0	0.6	0.1	0.1	1.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	80	1381	402	179	253	225
V/C Ratio(X)	0.83	0.16	0.25	0.03	0.02	0.42
Avail Cap(c_a), veh/h	1491	9787	9802	4372	2586	2301
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	4.7	9.5	9.2	8.7	9.2
Incr Delay (d2), s/veh	7.9	0.0	0.1	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.1	0.0	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.0	4.7	9.6	9.3	8.7	9.6
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h		292	105		100	
Approach Delay, s/veh		7.9	9.6		9.6	
Approach LOS		A	A		A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.4	8.2		8.8		14.6
Change Period (Y+Rc), s	* 5.4	* 5.5		5.5		* 5.5
Max Green Setting (Gmax), s	* 2.8	* 65		34.0		* 65
Max Q Clear Time (g_c+I1), s	2.9	2.6		3.3		3.0
Green Ext Time (p_c), s	0.0	0.2		0.1		0.4

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

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



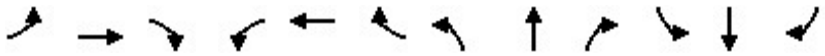
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	192	6	30	361	278	4	856	44	95	502	85
Future Volume (veh/h)	73	192	6	30	361	278	4	856	44	95	502	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	226	7	33	401	309	4	941	48	116	612	104
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	497	421	42	429	364	39	826	42	141	982	927
Arrive On Green	0.06	0.27	0.27	0.02	0.23	0.23	0.02	0.47	0.47	0.08	0.53	0.53
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1764	90	1781	1870	1585
Grp Volume(v), veh/h	86	226	7	33	401	309	4	0	989	116	612	104
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	0	1854	1781	1870	1585
Q Serve(g_s), s	6.5	13.7	0.4	2.5	28.6	25.4	0.3	0.0	63.6	8.7	31.4	4.0
Cycle Q Clear(g_c), s	6.5	13.7	0.4	2.5	28.6	25.4	0.3	0.0	63.6	8.7	31.4	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	107	497	421	42	429	364	39	0	868	141	982	927
V/C Ratio(X)	0.80	0.45	0.02	0.78	0.93	0.85	0.10	0.00	1.14	0.82	0.62	0.11
Avail Cap(c_a), veh/h	269	497	421	269	457	387	269	0	868	321	982	927
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	41.6	36.8	66.0	51.4	50.1	65.1	0.0	36.1	61.6	22.8	12.5
Incr Delay (d2), s/veh	5.2	0.2	0.0	11.1	25.1	14.5	0.4	0.0	76.7	4.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.1	0.2	1.2	15.8	11.1	0.1	0.0	44.7	4.0	12.9	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.3	41.9	36.8	77.1	76.4	64.6	65.5	0.0	112.8	66.2	23.7	12.5
LnGrp LOS	E	D	D	E	E	E	E	A	F	E	C	B
Approach Vol, veh/h		319			743			993			832	
Approach Delay, s/veh		48.9			71.5			112.7			28.2	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	38.0	7.5	77.7	7.7	42.9	15.2	70.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 6.4	4.5	6.8	4.5	6.4
Max Green Setting (Gmax), s	20.5	33.2	20.5	* 64	20.5	33.2	24.5	63.6
Max Q Clear Time (g_c+I1), s	8.5	30.6	2.3	33.4	4.5	15.7	10.7	65.6
Green Ext Time (p_c), s	0.0	0.6	0.0	2.2	0.0	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	70.7
HCM 6th LOS	E

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	259	0	36	640	34	3	316	16	23	219	64
Future Volume (veh/h)	83	259	0	36	640	34	3	316	16	23	219	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	278	0	40	711	38	3	351	18	26	246	72
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	761	0	52	660	35	3	370	19	28	261	76
Arrive On Green	0.06	0.41	0.00	0.03	0.38	0.38	0.21	0.21	0.21	0.20	0.20	0.20
Sat Flow, veh/h	1781	1870	0	1781	1759	94	15	1749	90	136	1284	376
Grp Volume(v), veh/h	89	278	0	40	0	749	372	0	0	344	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	0	1853	1853	0	0	1796	0	0
Q Serve(g_s), s	8.3	17.4	0.0	3.8	0.0	63.2	33.3	0.0	0.0	31.8	0.0	0.0
Cycle Q Clear(g_c), s	8.3	17.4	0.0	3.8	0.0	63.2	33.3	0.0	0.0	31.8	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.05	0.01		0.05	0.08		0.21
Lane Grp Cap(c), veh/h	108	761	0	52	0	696	393	0	0	365	0	0
V/C Ratio(X)	0.83	0.37	0.00	0.78	0.00	1.08	0.95	0.00	0.00	0.94	0.00	0.00
Avail Cap(c_a), veh/h	270	761	0	217	0	696	418	0	0	407	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	78.2	34.8	0.0	81.2	0.0	52.6	65.4	0.0	0.0	66.1	0.0	0.0
Incr Delay (d2), s/veh	5.9	0.1	0.0	8.9	0.0	56.6	29.4	0.0	0.0	27.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	7.8	0.0	1.8	0.0	39.0	18.5	0.0	0.0	17.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.1	34.9	0.0	90.1	0.0	109.2	94.9	0.0	0.0	93.8	0.0	0.0
LnGrp LOS	F	C	A	F	A	F	F	A	A	F	A	A
Approach Vol, veh/h		367			789			372			344	
Approach Delay, s/veh		46.8			108.3			94.9			93.8	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.7	70.0		41.0	9.4	75.3		42.7
Change Period (Y+Rc), s	4.5	6.8		6.8	4.5	* 6.8		7.0
Max Green Setting (Gmax), s	25.5	63.2		38.2	20.5	* 64		38.0
Max Q Clear Time (g_c+I1), s	10.3	65.2		33.8	5.8	19.4		35.3
Green Ext Time (p_c), s	0.0	0.0		0.5	0.0	0.8		0.3

Intersection Summary	
HCM 6th Ctrl Delay	90.9
HCM 6th LOS	F

Notes

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

Intersection	
Intersection Delay, s/veh	16.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	0	13	0	166	1	439	15	50	288	0
Future Vol, veh/h	1	0	0	13	0	166	1	439	15	50	288	0
Peak Hour Factor	0.70	0.70	0.70	0.84	0.84	0.84	0.96	0.96	0.96	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	0	15	0	198	1	457	16	63	365	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10	11.4	18.3	16.6
HCM LOS	A	B	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	7%	15%
Vol Thru, %	96%	0%	0%	85%
Vol Right, %	3%	0%	93%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	455	1	179	338
LT Vol	1	1	13	50
Through Vol	439	0	0	288
RT Vol	15	0	166	0
Lane Flow Rate	474	1	213	428
Geometry Grp	1	1	1	1
Degree of Util (X)	0.677	0.003	0.331	0.623
Departure Headway (Hd)	5.144	6.92	5.597	5.246
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	701	515	641	689
Service Time	3.179	4.994	3.643	3.281
HCM Lane V/C Ratio	0.676	0.002	0.332	0.621
HCM Control Delay	18.3	10	11.4	16.6
HCM Lane LOS	C	A	B	C
HCM 95th-tile Q	5.3	0	1.4	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	196	22	94	481	300	72
Future Volume (veh/h)	196	22	94	481	300	72
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	280	31	108	553	341	82
Peak Hour Factor	0.70	0.70	0.87	0.87	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	358	319	135	868	459	389
Arrive On Green	0.20	0.20	0.08	0.46	0.25	0.25
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	280	31	108	553	341	82
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	4.8	0.5	1.9	7.3	5.4	1.3
Cycle Q Clear(g_c), s	4.8	0.5	1.9	7.3	5.4	1.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	358	319	135	868	459	389
V/C Ratio(X)	0.78	0.10	0.80	0.64	0.74	0.21
Avail Cap(c_a), veh/h	1950	1735	1127	3724	3707	3141
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	10.5	14.7	6.6	11.2	9.7
Incr Delay (d2), s/veh	1.4	0.0	4.0	0.3	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.1	0.6	0.7	1.3	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.6	10.5	18.7	6.9	12.1	9.8
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	311			661	423	
Approach Delay, s/veh	13.3			8.8	11.7	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.0	14.0			21.1	11.2
Change Period (Y+Rc), s	* 4.6	* 6.1			* 6.1	4.7
Max Green Setting (Gmax), s	* 2.4	* 64			* 64	35.3
Max Q Clear Time (g_c+I1), s	3.9	7.4			9.3	6.8
Green Ext Time (p_c), s	0.0	0.5			0.8	0.1

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

Notes

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

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	48	2	3	699	400	17
Future Vol, veh/h	48	2	3	699	400	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	86	86	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	3	3	813	435	18

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1263	444	453	0	-	0
Stage 1	444	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	187	614	1108	-	-	-
Stage 1	646	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	186	614	1108	-	-	-
Mov Cap-2 Maneuver	186	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	433	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	37	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1108	-	191	-	-
HCM Lane V/C Ratio	0.003	-	0.422	-	-
HCM Control Delay (s)	8.3	-	37	-	-
HCM Lane LOS	A	-	E	-	-
HCM 95th %tile Q(veh)	0	-	1.9	-	-

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	42	15	28	783	0	399	296
Future Volume (veh/h)	42	15	28	783	0	399	296
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	53	19	32	890		420	312
Peak Hour Factor	0.79	0.79	0.88	0.88		0.95	0.95
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	160	111	42	1769		966	504
Arrive On Green	0.05	0.05	0.02	0.50		0.27	0.27
Sat Flow, veh/h	3456	1585	1781	3647		3647	1585
Grp Volume(v), veh/h	53	19	32	890		420	312
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777		1777	1585
Q Serve(g_s), s	0.4	0.3	0.5	4.6		2.7	4.5
Cycle Q Clear(g_c), s	0.4	0.3	0.5	4.6		2.7	4.5
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	160	111	42	1769		966	504
V/C Ratio(X)	0.33	0.17	0.76	0.50		0.43	0.62
Avail Cap(c_a), veh/h	6926	3214	1277	6979		6940	3169
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	12.6	11.9	13.2	4.6		8.2	7.9
Incr Delay (d2), s/veh	0.4	0.3	9.8	0.1		0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	0.2	0.0		0.4	0.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	13.0	12.2	23.0	4.7		8.3	8.3
LnGrp LOS	B	B	C	A		A	A
Approach Vol, veh/h	72			922		732	
Approach Delay, s/veh	12.8			5.3		8.3	
Approach LOS	B			A		A	

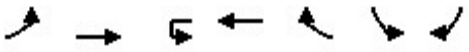
Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	6.1	14.3		6.8		20.4	
Change Period (Y+Rc), s	5.5	* 6.9		5.5		* 6.9	
Max Green Setting (Gmax), s	19.5	* 53		54.5		* 53	
Max Q Clear Time (g_c+I1), s	2.5	6.5		2.4		6.6	
Green Ext Time (p_c), s	0.0	0.8		0.0		1.8	

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	434	375	0	414	109	31	245
Future Volume (veh/h)	434	375	0	414	109	31	245
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	477	412		505	133	37	292
Peak Hour Factor	0.91	0.91		0.82	0.82	0.84	0.84
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	526	2035		662	295	381	339
Arrive On Green	0.30	0.57		0.19	0.19	0.21	0.21
Sat Flow, veh/h	1781	3647		3647	1585	1781	1585
Grp Volume(v), veh/h	477	412		505	133	37	292
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1781	1585
Q Serve(g_s), s	14.7	3.2		7.7	4.3	1.0	10.1
Cycle Q Clear(g_c), s	14.7	3.2		7.7	4.3	1.0	10.1
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	526	2035		662	295	381	339
V/C Ratio(X)	0.91	0.20		0.76	0.45	0.10	0.86
Avail Cap(c_a), veh/h	929	3942		3936	1756	1075	957
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	5.9		22.0	20.6	18.0	21.6
Incr Delay (d2), s/veh	3.3	0.0		0.7	0.4	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.7		2.7	1.3	0.3	3.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.6	5.9		22.7	21.0	18.1	24.2
LnGrp LOS	C	A		C	C	B	C
Approach Vol, veh/h		889		638		329	
Approach Delay, s/veh		14.9		22.4		23.5	
Approach LOS		B		C		C	

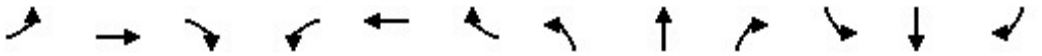
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	22.1	17.4			39.4	17.7
Change Period (Y+Rc), s	* 5.2	* 6.7			* 6.7	5.5
Max Green Setting (Gmax), s	* 36	* 63			* 63	34.5
Max Q Clear Time (g_c+I1), s	16.7	9.7			5.2	12.1
Green Ext Time (p_c), s	0.1	1.0			0.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	401	0	353	0	1148	966	0	583	359
Future Volume (veh/h)	0	0	0	401	0	353	0	1148	966	0	583	359
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				448	40	420	0	1171	0	0	678	0
Peak Hour Factor				0.84	0.84	0.84	0.98	0.98	0.98	0.86	0.86	0.86
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				547	42	442	0	2143		0	2143	
Arrive On Green				0.31	0.31	0.31	0.00	0.60	0.00	0.00	0.60	0.00
Sat Flow, veh/h				1781	137	1441	0	3741	0	0	3741	0
Grp Volume(v), veh/h				448	0	460	0	1171	0	0	678	0
Grp Sat Flow(s),veh/h/ln				1781	0	1579	0	1777	0	0	1777	0
Q Serve(g_s), s				25.6	0.0	31.4	0.0	21.5	0.0	0.0	10.3	0.0
Cycle Q Clear(g_c), s				25.6	0.0	31.4	0.0	21.5	0.0	0.0	10.3	0.0
Prop In Lane				1.00		0.91	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				547	0	484	0	2143		0	2143	
V/C Ratio(X)				0.82	0.00	0.95	0.00	0.55		0.00	0.32	
Avail Cap(c_a), veh/h				568	0	504	0	2143		0	2143	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				35.3	0.0	37.3	0.0	12.9	0.0	0.0	10.7	0.0
Incr Delay (d2), s/veh				8.3	0.0	26.9	0.0	1.0	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.2	0.0	15.5	0.0	7.8	0.0	0.0	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.6	0.0	64.2	0.0	13.9	0.0	0.0	11.1	0.0
LnGrp LOS				D	A	E	A	B		A	B	
Approach Vol, veh/h					908			1171	A		678	A
Approach Delay, s/veh					54.0			13.9			11.1	
Approach LOS					D			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	71.3		71.3		38.7			
Change Period (Y+Rc), s	* 5		5.0		4.9			
Max Green Setting (Gmax), s	* 66		65.0		35.1			
Max Q Clear Time (g_c+I1), s	12.3		23.5		33.4			
Green Ext Time (p_c), s	1.5		2.9		0.4			

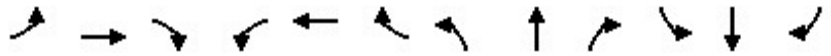
Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	534	0	585	0	0	0	0	1571	715	0	744	231
Future Volume (veh/h)	534	0	585	0	0	0	0	1571	715	0	744	231
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	832	0	438				0	1689	0	0	800	0
Peak Hour Factor	0.87	0.87	0.87				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	1047	0	464				0	3123		0	2174	
Arrive On Green	0.29	0.00	0.29				0.00	0.61	0.00	0.00	0.61	0.00
Sat Flow, veh/h	3563	0	1580				0	5443	0	0	3647	1585
Grp Volume(v), veh/h	832	0	438				0	1689	0	0	800	0
Grp Sat Flow(s),veh/h/ln	1781	0	1580				0	1702	0	0	1777	1585
Q Serve(g_s), s	23.7	0.0	29.8				0.0	21.1	0.0	0.0	12.4	0.0
Cycle Q Clear(g_c), s	23.7	0.0	29.8				0.0	21.1	0.0	0.0	12.4	0.0
Prop In Lane	1.00		1.00				0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	1047	0	464				0	3123		0	2174	
V/C Ratio(X)	0.79	0.00	0.94				0.00	0.54		0.00	0.37	
Avail Cap(c_a), veh/h	1121	0	497				0	3123		0	2174	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	35.8	0.0	38.0				0.0	12.4	0.0	0.0	10.7	0.0
Incr Delay (d2), s/veh	3.4	0.0	25.3				0.0	0.7	0.0	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	14.6				0.0	7.2	0.0	0.0	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	63.3				0.0	13.1	0.0	0.0	11.2	0.0
LnGrp LOS	D	A	E				A	B		A	B	
Approach Vol, veh/h		1270						1689	A		800	A
Approach Delay, s/veh		47.5						13.1			11.2	
Approach LOS		D						B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	72.3	37.7	72.3
Change Period (Y+Rc), s	* 5	* 5.4	5.0
Max Green Setting (Gmax), s	* 66	* 35	65.0
Max Q Clear Time (g_c+I1), s	14.4	31.8	23.1
Green Ext Time (p_c), s	1.8	0.5	5.0

Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	781	224	109	1047	677	96
Future Volume (veh/h)	781	224	109	1047	677	96
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	849	0	124	1190	967	137
Peak Hour Factor	0.92	0.92	0.88	0.88	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1912		159	2796	1079	495
Arrive On Green	0.37	0.00	0.09	0.55	0.31	0.31
Sat Flow, veh/h	5443	0	1781	5274	3456	1585
Grp Volume(v), veh/h	849	0	124	1190	967	137
Grp Sat Flow(s),veh/h/ln	1702	0	1781	1702	1728	1585
Q Serve(g_s), s	7.6	0.0	4.1	8.3	16.2	3.9
Cycle Q Clear(g_c), s	7.6	0.0	4.1	8.3	16.2	3.9
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1912		159	2796	1079	495
V/C Ratio(X)	0.44		0.78	0.43	0.90	0.28
Avail Cap(c_a), veh/h	5473		585	5473	2080	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	27.0	8.1	19.9	15.7
Incr Delay (d2), s/veh	0.3	0.0	3.1	0.2	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	1.7	2.1	5.6	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.6	0.0	30.2	8.3	21.0	15.8
LnGrp LOS	B		C	A	C	B
Approach Vol, veh/h	849	A		1314	1104	
Approach Delay, s/veh	14.6			10.4	20.4	
Approach LOS	B			B	C	

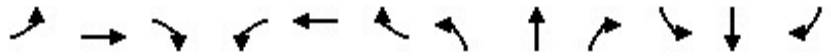
Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	38.2		10.5	27.7	22.4
Change Period (Y+Rc), s	5.0		* 5.1	5.0	3.5
Max Green Setting (Gmax), s	65.0		* 20	65.0	36.5
Max Q Clear Time (g_c+I1), s	10.3		6.1	9.6	18.2
Green Ext Time (p_c), s	21.1		0.0	13.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

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

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	394	0	310	0	1655	1725	0	775	567
Future Volume (veh/h)	0	0	0	394	0	310	0	1655	1725	0	775	567
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				464	0	365	0	1689	0	0	807	0
Peak Hour Factor				0.85	0.85	0.85	0.98	0.98	0.98	0.96	0.96	0.96
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				850	0	390	0	3384		0	2355	
Arrive On Green				0.25	0.00	0.25	0.00	0.66	0.00	0.00	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	2790	0	3647	1585
Grp Volume(v), veh/h				464	0	365	0	1689	0	0	807	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1395	0	1777	1585
Q Serve(g_s), s				14.6	0.0	28.2	0.0	20.8	0.0	0.0	12.4	0.0
Cycle Q Clear(g_c), s				14.6	0.0	28.2	0.0	20.8	0.0	0.0	12.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				850	0	390	0	3384		0	2355	
V/C Ratio(X)				0.55	0.00	0.94	0.00	0.50		0.00	0.34	
Avail Cap(c_a), veh/h				1333	0	611	0	3384		0	2355	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				41.0	0.0	46.2	0.0	10.6	0.0	0.0	9.2	0.0
Incr Delay (d2), s/veh				0.2	0.0	12.2	0.0	0.5	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.3	0.0	12.4	0.0	7.0	0.0	0.0	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.2	0.0	58.4	0.0	11.2	0.0	0.0	9.6	0.0
LnGrp LOS				D	A	E	A	B		A	A	
Approach Vol, veh/h					829			1689	A		807	A
Approach Delay, s/veh					48.8			11.2			9.6	
Approach LOS					D			B			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	87.4		87.4		37.6			
Change Period (Y+Rc), s	4.6		4.6		6.8			
Max Green Setting (Gmax), s	65.4		65.4		48.2			
Max Q Clear Time (g_c+I1), s	14.4		22.8		30.2			
Green Ext Time (p_c), s	1.8		5.0		0.6			

Intersection Summary		
HCM 6th Ctrl Delay		20.2
HCM 6th LOS		C

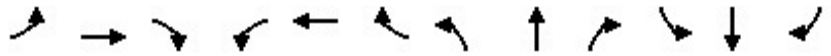
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL2	EBL	EBT	EBR	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	692	0	130	676	736	127	1938	464	7	1057	114
Future Volume (vph)	692	0	130	676	736	127	1938	464	7	1057	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8	6.8	4.6		4.6			4.6	4.0
Lane Util. Factor		0.91	0.86	0.91	0.88		0.86			0.95	1.00
Frpb, ped/bikes		1.00	0.99	0.98	1.00		1.00			1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.89	0.85	0.85		0.97			1.00	0.85
Flt Protected		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		1610	2815	1411	2787		6185			3539	1540
Flt Permitted		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		1610	2815	1411	2787		6185			3539	1540
Peak-hour factor, PHF	0.97	0.92	0.97	0.97	0.89	0.92	0.98	0.92	0.98	0.87	0.87
Adj. Flow (vph)	713	0	134	697	827	138	1978	504	7	1215	131
RTOR Reduction (vph)	0	0	28	28	16	0	0	0	0	0	0
Lane Group Flow (vph)	0	713	455	320	949	0	2489	0	0	1215	131
Confl. Peds. (#/hr)	11			11	3				3		11
Confl. Bikes (#/hr)									8		5
Turn Type	Split	Split	NA	Perm	Prot		NA			NA	Free
Protected Phases	4	4	4		2!		6!			2	
Permitted Phases				4	2						Free
Actuated Green, G (s)		48.2	48.2	48.2	65.4		65.4			65.4	125.0
Effective Green, g (s)		48.2	48.2	48.2	65.4		65.4			65.4	125.0
Actuated g/C Ratio		0.39	0.39	0.39	0.52		0.52			0.52	1.00
Clearance Time (s)		6.8	6.8	6.8	4.6		4.6			4.6	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.0			1.0	
Lane Grp Cap (vph)		620	1085	544	1458		3235			1851	1540
v/s Ratio Prot		c0.44	0.16		0.34		c0.40			0.34	
v/s Ratio Perm				0.23							0.09
v/c Ratio		1.15	0.42	0.59	0.65		0.77			0.66	0.09
Uniform Delay, d1		38.4	28.1	30.5	21.5		23.8			21.6	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.00			1.18	1.00
Incremental Delay, d2		85.1	0.1	1.1	2.3		1.8			1.8	0.1
Delay (s)		123.5	28.2	31.6	23.8		25.6			27.3	0.1
Level of Service		F	C	C	C		C			C	A
Approach Delay (s)			73.0				25.6			24.7	
Approach LOS			E				C			C	

Intersection Summary			
HCM 2000 Control Delay	36.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	118.2%	ICU Level of Service	H
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	605	173	42	42	124	696	59	1128	19	356	1129	263
Future Volume (veh/h)	605	173	42	42	124	696	59	1128	19	356	1129	263
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	624	178	43	45	133	748	61	1163	20	371	1176	274
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.97	0.97	0.97	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	596	1621	369	82	451	1137	104	1348	23	431	1815	558
Arrive On Green	0.17	0.39	0.39	0.02	0.24	0.24	0.03	0.26	0.26	0.12	0.36	0.36
Sat Flow, veh/h	3456	4149	945	3563	1870	3077	3456	5168	89	3456	5106	1569
Grp Volume(v), veh/h	624	144	77	45	133	748	61	766	417	371	1176	274
Grp Sat Flow(s),veh/h/ln	1728	1702	1690	1781	1870	1539	1728	1702	1852	1728	1702	1569
Q Serve(g_s), s	19.5	3.0	3.3	1.4	6.6	23.0	2.0	24.3	24.3	11.9	21.8	15.4
Cycle Q Clear(g_c), s	19.5	3.0	3.3	1.4	6.6	23.0	2.0	24.3	24.3	11.9	21.8	15.4
Prop In Lane	1.00		0.56	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	596	1330	660	82	451	1137	104	888	483	431	1815	558
V/C Ratio(X)	1.05	0.11	0.12	0.55	0.30	0.66	0.59	0.86	0.86	0.86	0.65	0.49
Avail Cap(c_a), veh/h	596	1928	957	615	1068	2152	596	1955	1064	749	2905	893
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	21.9	22.0	54.6	35.0	30.0	54.1	39.8	39.8	48.5	30.5	28.4
Incr Delay (d2), s/veh	49.6	0.0	0.0	2.1	0.1	0.2	1.9	1.0	1.8	2.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	1.2	1.3	0.6	2.9	8.1	0.9	9.9	10.9	5.1	8.5	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	96.3	21.9	22.0	56.8	35.2	30.3	56.0	40.8	41.7	50.5	30.6	28.7
LnGrp LOS	F	C	C	E	D	C	E	D	D	D	C	C
Approach Vol, veh/h		845			926			1244			1821	
Approach Delay, s/veh		76.9			32.3			41.9			34.4	
Approach LOS		E			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	45.9	25.0	33.2	19.6	35.2	8.1	50.1
Change Period (Y+Rc), s	5.5	* 5.7	5.5	* 6	5.5	* 5.7	5.5	* 6
Max Green Setting (Gmax), s	19.5	* 64	19.5	* 65	24.5	* 65	19.5	* 64
Max Q Clear Time (g_c+I1), s	14.0	23.8	21.5	25.0	13.9	26.3	3.4	5.3
Green Ext Time (p_c), s	0.0	3.1	0.0	0.9	0.2	2.7	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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

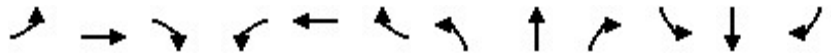
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	498	232	181	354	115	124	448	54	175	864	128
Future Volume (veh/h)	305	498	232	181	354	115	124	448	54	175	864	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	332	541	252	218	427	139	133	482	58	199	982	145
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.93	0.93	0.93	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	411	808	362	297	1040	309	466	1706	515	277	1249	184
Arrive On Green	0.12	0.24	0.24	0.09	0.20	0.20	0.13	0.33	0.33	0.08	0.28	0.28
Sat Flow, veh/h	3456	3411	1530	3456	5106	1519	3456	5106	1543	3456	4473	658
Grp Volume(v), veh/h	332	540	253	218	427	139	133	482	58	199	747	380
Grp Sat Flow(s),veh/h/ln	1728	1702	1536	1728	1702	1519	1728	1702	1543	1728	1702	1727
Q Serve(g_s), s	8.0	12.2	12.8	5.2	6.2	6.8	2.9	5.9	2.2	4.8	17.2	17.3
Cycle Q Clear(g_c), s	8.0	12.2	12.8	5.2	6.2	6.8	2.9	5.9	2.2	4.8	17.2	17.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.38
Lane Grp Cap(c), veh/h	411	807	364	297	1040	309	466	1706	515	277	951	482
V/C Ratio(X)	0.81	0.67	0.70	0.73	0.41	0.45	0.29	0.28	0.11	0.72	0.79	0.79
Avail Cap(c_a), veh/h	791	1367	617	791	2051	610	791	3861	1167	791	2574	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	29.5	29.7	38.0	29.5	29.7	33.1	20.9	19.6	38.2	28.3	28.4
Incr Delay (d2), s/veh	1.4	0.4	0.9	1.3	0.1	0.4	0.1	0.0	0.0	1.3	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.7	4.5	2.2	2.4	2.4	1.2	2.2	0.7	2.0	6.5	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	29.8	30.6	39.3	29.6	30.1	33.3	20.9	19.7	39.5	28.9	29.5
LnGrp LOS	D	C	C	D	C	C	C	C	B	D	C	C
Approach Vol, veh/h		1125			784			673			1326	
Approach Delay, s/veh		32.4			32.4			23.2			30.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	29.4	15.6	23.2	12.3	34.0	12.8	26.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.2	19.5	* 64	19.5	34.2
Max Q Clear Time (g_c+I1), s	14.9	19.3	10.0	8.8	6.8	7.9	7.2	14.8
Green Ext Time (p_c), s	0.1	2.5	0.2	1.0	0.1	1.1	0.1	1.7

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	32	176	59	24	60	214	2760	22	52	2119	97
Future Volume (veh/h)	191	32	176	59	24	60	214	2760	22	52	2119	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	36	196	71	29	72	228	2936	23	60	2436	111
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.94	0.94	0.94	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	43	256	179	46	115	280	2791	22	77	2523	777
Arrive On Green	0.16	0.16	0.16	0.10	0.10	0.10	0.08	0.53	0.53	0.04	0.49	0.49
Sat Flow, veh/h	1533	260	1568	1781	462	1148	3456	5225	41	1781	5106	1572
Grp Volume(v), veh/h	248	0	196	71	0	101	228	1910	1049	60	2436	111
Grp Sat Flow(s),veh/h/ln	1794	0	1568	1781	0	1611	1728	1702	1862	1781	1702	1572
Q Serve(g_s), s	17.5	0.0	15.6	4.9	0.0	7.8	8.5	69.6	69.6	4.3	60.2	5.0
Cycle Q Clear(g_c), s	17.5	0.0	15.6	4.9	0.0	7.8	8.5	69.6	69.6	4.3	60.2	5.0
Prop In Lane	0.85		1.00	1.00		0.71	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	293	0	256	179	0	161	280	1818	995	77	2523	777
V/C Ratio(X)	0.85	0.00	0.76	0.40	0.00	0.63	0.81	1.05	1.05	0.78	0.97	0.14
Avail Cap(c_a), veh/h	475	0	415	471	0	426	528	1818	995	276	2554	786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.9	0.0	52.1	55.0	0.0	56.3	58.9	30.4	30.4	61.7	31.9	18.0
Incr Delay (d2), s/veh	3.9	0.0	1.8	0.5	0.0	1.5	2.2	35.7	44.1	6.2	10.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	0.0	6.3	2.2	0.0	3.3	3.7	35.0	40.6	2.1	25.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.8	0.0	53.9	55.5	0.0	57.8	61.1	66.1	74.5	68.0	42.7	18.0
LnGrp LOS	E	A	D	E	A	E	E	F	F	E	D	B
Approach Vol, veh/h		444			172			3187			2607	
Approach Delay, s/veh		55.5			56.8			68.5			42.2	
Approach LOS		E			E			E			D	

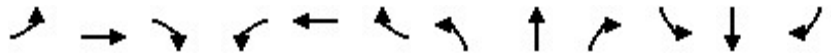
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.7	69.3		26.8	10.4	74.5		18.6
Change Period (Y+Rc), s	* 5.1	* 4.9		5.5	* 4.8	* 4.9		5.5
Max Green Setting (Gmax), s	* 20	* 65		34.5	* 20	* 65		34.5
Max Q Clear Time (g_c+I1), s	10.5	62.2		19.5	6.3	71.6		9.8
Green Ext Time (p_c), s	0.1	2.2		0.6	0.0	0.0		0.2

Intersection Summary	
HCM 6th Ctrl Delay	56.6
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	315	0	312	0	2659	458	0	1284	1099
Future Volume (veh/h)	0	0	0	315	0	312	0	2659	458	0	1284	1099
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				354	0	351	0	2890	0	0	1352	0
Peak Hour Factor				0.89	0.89	0.89	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				506	0	408	0	4178		0	3802	
Arrive On Green				0.15	0.00	0.15	0.00	0.74	0.00	0.00	0.74	0.00
Sat Flow, veh/h				3456	0	2790	0	5611	1585	0	5274	2790
Grp Volume(v), veh/h				354	0	351	0	2890	0	0	1352	0
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1870	1585	0	1702	1395
Q Serve(g_s), s				10.7	0.0	13.5	0.0	29.8	0.0	0.0	10.1	0.0
Cycle Q Clear(g_c), s				10.7	0.0	13.5	0.0	29.8	0.0	0.0	10.1	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				506	0	408	0	4178		0	3802	
V/C Ratio(X)				0.70	0.00	0.86	0.00	0.69		0.00	0.36	
Avail Cap(c_a), veh/h				1037	0	837	0	4178		0	3802	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				44.7	0.0	45.9	0.0	7.4	0.0	0.0	4.9	0.0
Incr Delay (d2), s/veh				0.7	0.0	2.1	0.0	1.0	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.6	0.0	4.8	0.0	8.8	0.0	0.0	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.3	0.0	48.0	0.0	8.4	0.0	0.0	5.1	0.0
LnGrp LOS				D	A	D	A	A		A	A	
Approach Vol, veh/h					705			2890	A		1352	A
Approach Delay, s/veh					46.6			8.4			5.1	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	86.9		86.9		23.1			
Change Period (Y+Rc), s	* 5		5.0		7.0			
Max Green Setting (Gmax), s	* 65		65.0		33.0			
Max Q Clear Time (g_c+I1), s	12.1		31.8		15.5			
Green Ext Time (p_c), s	3.6		13.1		0.6			

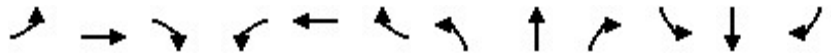
Intersection Summary		
HCM 6th Ctrl Delay		12.9
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1163	0	327	0	0	0	0	1990	432	0	1256	347
Future Volume (veh/h)	1163	0	327	0	0	0	0	1990	432	0	1256	347
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1292	0	363				0	2187	0	0	1295	0
Peak Hour Factor	0.90	0.90	0.90				0.91	0.91	0.91	0.97	0.97	0.97
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1393	0	774				0	4631		0	3473	
Arrive On Green	0.28	0.00	0.28				0.00	0.62	0.00	0.00	0.62	0.00
Sat Flow, veh/h	5023	0	2790				0	7481	1585	0	5611	1585
Grp Volume(v), veh/h	1292	0	363				0	2187	0	0	1295	0
Grp Sat Flow(s),veh/h/ln	1674	0	1395				0	1870	1585	0	1870	1585
Q Serve(g_s), s	27.5	0.0	11.9				0.0	17.3	0.0	0.0	12.6	0.0
Cycle Q Clear(g_c), s	27.5	0.0	11.9				0.0	17.3	0.0	0.0	12.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1393	0	774				0	4631		0	3473	
V/C Ratio(X)	0.93	0.00	0.47				0.00	0.47		0.00	0.37	
Avail Cap(c_a), veh/h	1521	0	845				0	4631		0	3473	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	38.7	0.0	33.0				0.0	11.3	0.0	0.0	10.4	0.0
Incr Delay (d2), s/veh	9.3	0.0	0.2				0.0	0.3	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	0.0	4.0				0.0	6.4	0.0	0.0	4.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	0.0	33.2				0.0	11.6	0.0	0.0	10.7	0.0
LnGrp LOS	D	A	C				A	B		A	B	
Approach Vol, veh/h		1655						2187	A		1295	A
Approach Delay, s/veh		44.7						11.6			10.7	
Approach LOS		D						B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	72.8	37.2	72.8
Change Period (Y+Rc), s	* 4.7	6.7	4.7
Max Green Setting (Gmax), s	* 66	33.3	65.3
Max Q Clear Time (g_c+I1), s	14.6	29.5	19.3
Green Ext Time (p_c), s	3.4	1.0	7.7

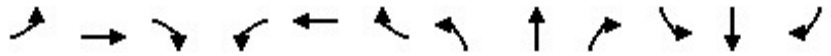
Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	347	107	206	244	252	121	1639	225	241	1122	245
Future Volume (veh/h)	422	347	107	206	244	252	121	1639	225	241	1122	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	431	354	109	231	234	309	132	1782	245	265	1233	269
Peak Hour Factor	0.98	0.98	0.98	0.89	0.89	0.89	0.92	0.92	0.92	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	489	878	384	293	352	582	193	2418	588	325	2113	654
Arrive On Green	0.14	0.25	0.25	0.08	0.19	0.19	0.06	0.38	0.38	0.09	0.41	0.41
Sat Flow, veh/h	3456	3554	1555	3563	1870	3096	3456	6434	1564	3456	5106	1579
Grp Volume(v), veh/h	431	354	109	231	234	309	132	1782	245	265	1233	269
Grp Sat Flow(s),veh/h/ln	1728	1777	1555	1781	1870	1548	1728	1609	1564	1728	1702	1579
Q Serve(g_s), s	13.9	9.5	6.4	7.2	13.2	10.2	4.3	27.1	13.2	8.5	21.2	13.7
Cycle Q Clear(g_c), s	13.9	9.5	6.4	7.2	13.2	10.2	4.3	27.1	13.2	8.5	21.2	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	489	878	384	293	352	582	193	2418	588	325	2113	654
V/C Ratio(X)	0.88	0.40	0.28	0.79	0.67	0.53	0.68	0.74	0.42	0.82	0.58	0.41
Avail Cap(c_a), veh/h	593	1067	467	612	560	927	593	3638	884	593	2896	896
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	35.7	34.6	51.1	42.8	41.6	52.6	30.6	26.2	50.5	25.7	23.5
Incr Delay (d2), s/veh	11.3	0.4	0.6	1.8	3.7	1.3	2.6	0.3	0.3	1.9	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	4.2	2.5	3.3	6.4	4.0	1.9	10.0	4.9	3.7	8.2	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.1	36.2	35.2	52.9	46.5	42.9	55.2	30.9	26.5	52.4	26.2	24.4
LnGrp LOS	E	D	D	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		894			774			2159			1767	
Approach Delay, s/veh		47.1			47.0			31.9			29.9	
Approach LOS		D			D			C			C	

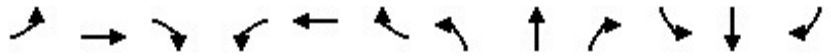
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	52.8	21.6	27.4	16.2	48.5	14.8	34.1
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	* 6
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.0	19.5	* 64	19.5	* 34
Max Q Clear Time (g_c+I1), s	6.3	23.2	15.9	15.2	10.5	29.1	9.2	11.5
Green Ext Time (p_c), s	0.2	23.2	0.2	4.3	0.1	13.5	0.1	3.9

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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



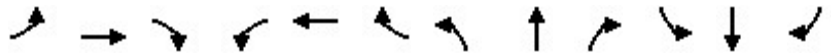
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	548	226	208	333	212	303	939	197	253	1230	118
Future Volume (veh/h)	308	548	226	208	333	212	303	939	197	253	1230	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	380	677	279	267	427	272	340	1055	221	261	1268	122
Peak Hour Factor	0.81	0.81	0.81	0.78	0.78	0.78	0.89	0.89	0.89	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	893	396	305	1163	360	376	1753	542	299	1640	506
Arrive On Green	0.12	0.28	0.28	0.10	0.25	0.25	0.12	0.38	0.38	0.10	0.36	0.36
Sat Flow, veh/h	3110	3198	1417	3110	4595	1423	3110	4595	1420	3110	4595	1419
Grp Volume(v), veh/h	380	677	279	267	427	272	340	1055	221	261	1268	122
Grp Sat Flow(s),veh/h/ln	1555	1599	1417	1555	1532	1423	1555	1532	1420	1555	1532	1419
Q Serve(g_s), s	19.2	30.4	27.7	13.3	12.0	27.7	17.0	29.0	17.9	13.0	38.5	9.5
Cycle Q Clear(g_c), s	19.2	30.4	27.7	13.3	12.0	27.7	17.0	29.0	17.9	13.0	38.5	9.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	893	396	305	1163	360	376	1753	542	299	1640	506
V/C Ratio(X)	0.98	0.76	0.70	0.88	0.37	0.75	0.91	0.60	0.41	0.87	0.77	0.24
Avail Cap(c_a), veh/h	386	1303	577	386	1163	360	386	1884	582	386	1878	580
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.7	51.8	50.8	69.9	48.3	54.2	68.2	39.0	35.6	70.1	44.9	35.6
Incr Delay (d2), s/veh	41.4	2.8	4.6	14.4	0.7	12.1	23.1	0.8	1.0	13.6	2.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	12.3	10.2	5.8	4.6	11.0	7.8	10.8	6.3	5.7	14.7	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	110.1	54.6	55.4	84.3	49.0	66.3	91.3	39.8	36.6	83.6	47.2	36.1
LnGrp LOS	F	D	E	F	D	E	F	D	D	F	D	D
Approach Vol, veh/h		1336			966			1616			1651	
Approach Delay, s/veh		70.5			63.6			50.2			52.1	
Approach LOS		E			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.5	61.9	25.0	45.8	20.6	65.7	20.9	49.9
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.0	19.5	* 64	19.5	64.0
Max Q Clear Time (g_c+I1), s	19.0	40.5	21.2	29.7	15.0	31.0	15.3	32.4
Green Ext Time (p_c), s	0.0	15.5	0.0	2.5	0.1	17.1	0.1	11.5

Intersection Summary	
HCM 6th Ctrl Delay	58.0
HCM 6th LOS	E

Notes

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



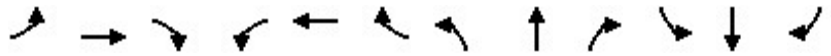
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	301	15	62	205	251	4	53	39	609	150	349
Future Volume (veh/h)	76	301	15	62	205	251	4	53	39	609	150	349
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	327	16	65	216	264	5	69	51	648	160	371
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.77	0.77	0.77	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	779	38	81	383	325	7	108	80	775	615	521
Arrive On Green	0.06	0.23	0.23	0.05	0.20	0.20	0.00	0.11	0.11	0.22	0.33	0.33
Sat Flow, veh/h	1781	3444	168	1781	1870	1585	1781	999	738	3456	1870	1585
Grp Volume(v), veh/h	83	168	175	65	216	264	5	0	120	648	160	371
Grp Sat Flow(s),veh/h/ln	1781	1777	1835	1781	1870	1585	1781	0	1737	1728	1870	1585
Q Serve(g_s), s	2.4	4.2	4.2	1.9	5.4	8.3	0.1	0.0	3.4	9.3	3.3	10.7
Cycle Q Clear(g_c), s	2.4	4.2	4.2	1.9	5.4	8.3	0.1	0.0	3.4	9.3	3.3	10.7
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	106	402	415	81	383	325	7	0	188	775	615	521
V/C Ratio(X)	0.79	0.42	0.42	0.80	0.56	0.81	0.70	0.00	0.64	0.84	0.26	0.71
Avail Cap(c_a), veh/h	667	2221	2294	681	2341	1984	667	0	2175	1294	2330	1975
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	17.2	17.2	24.6	18.6	19.8	25.9	0.0	22.2	19.3	12.8	15.3
Incr Delay (d2), s/veh	4.8	0.3	0.3	6.6	0.5	1.9	36.7	0.0	1.3	1.0	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.4	1.4	0.8	1.9	2.7	0.1	0.0	1.3	3.2	1.1	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	17.5	17.5	31.2	19.1	21.7	62.6	0.0	23.6	20.2	12.9	16.0
LnGrp LOS	C	B	B	C	B	C	E	A	C	C	B	B
Approach Vol, veh/h		426			545			125			1179	
Approach Delay, s/veh		19.7			21.8			25.1			17.9	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	15.6	5.7	22.2	7.5	16.7	17.2	10.7
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	19.5	* 65	19.5	* 65	* 20	* 65	19.5	* 65
Max Q Clear Time (g_c+I1), s	4.4	10.3	2.1	12.7	3.9	6.2	11.3	5.4
Green Ext Time (p_c), s	0.0	0.4	0.0	0.4	0.0	0.5	0.4	0.2

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

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



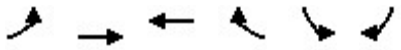
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	460	373	109	138	144	210	538	81	262	1633	131
Future Volume (veh/h)	161	460	373	109	138	144	210	538	81	262	1633	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	523	424	120	152	158	228	585	88	285	1775	142
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	1410	438	174	914	403	284	1869	573	341	1953	606
Arrive On Green	0.07	0.28	0.28	0.05	0.26	0.26	0.08	0.37	0.37	0.10	0.38	0.38
Sat Flow, veh/h	3456	5106	1585	3456	3554	1565	3456	5106	1565	3456	5106	1585
Grp Volume(v), veh/h	183	523	424	120	152	158	228	585	88	285	1775	142
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1565	1728	1702	1565	1728	1702	1585
Q Serve(g_s), s	6.3	10.0	31.9	4.1	4.0	10.1	7.8	9.9	4.6	9.8	39.7	7.3
Cycle Q Clear(g_c), s	6.3	10.0	31.9	4.1	4.0	10.1	7.8	9.9	4.6	9.8	39.7	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	239	1410	438	174	914	403	284	1869	573	341	1953	606
V/C Ratio(X)	0.77	0.37	0.97	0.69	0.17	0.39	0.80	0.31	0.15	0.84	0.91	0.23
Avail Cap(c_a), veh/h	559	1410	438	559	978	431	559	2655	814	559	2651	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	35.2	43.1	56.3	34.7	37.0	54.4	27.4	25.7	53.4	35.3	25.3
Incr Delay (d2), s/veh	1.9	0.1	34.6	1.8	0.0	0.2	2.0	0.0	0.0	2.6	3.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	3.9	15.9	1.8	1.7	3.7	3.3	3.8	1.6	4.2	15.7	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	35.3	77.8	58.2	34.8	37.2	56.4	27.4	25.7	56.0	38.6	25.3
LnGrp LOS	E	D	E	E	C	D	E	C	C	E	D	C
Approach Vol, veh/h		1130			430			901			2202	
Approach Delay, s/veh		54.7			42.2			34.6			40.0	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	51.5	11.6	40.1	15.4	53.5	13.8	37.8
Change Period (Y+Rc), s	5.5	* 7.4	5.5	* 6.8	5.5	* 7.4	5.5	6.8
Max Green Setting (Gmax), s	19.5	* 63	19.5	* 33	19.5	* 63	19.5	33.2
Max Q Clear Time (g_c+I1), s	11.9	6.1	33.9	9.8	41.7	8.3	12.1	
Green Ext Time (p_c), s	0.1	1.2	0.0	0.0	0.1	4.4	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

Notes

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



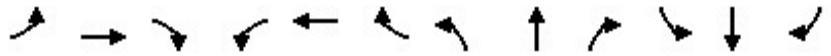
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	98	310	177	1	5	53
Future Volume (veh/h)	98	310	177	1	5	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	117	369	239	1	7	74
Peak Hour Factor	0.84	0.84	0.74	0.74	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	145	1586	546	244	219	195
Arrive On Green	0.08	0.45	0.15	0.15	0.12	0.12
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	117	369	239	1	7	74
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	1.6	1.6	1.6	0.0	0.1	1.1
Cycle Q Clear(g_c), s	1.6	1.6	1.6	0.0	0.1	1.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	145	1586	546	244	219	195
V/C Ratio(X)	0.81	0.23	0.44	0.00	0.03	0.38
Avail Cap(c_a), veh/h	1367	8974	8988	4009	2371	2110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	4.4	9.8	9.2	9.9	10.3
Incr Delay (d2), s/veh	4.0	0.0	0.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.3	0.0	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.6	4.4	10.0	9.2	9.9	10.8
LnGrp LOS	B	A	B	A	A	B
Approach Vol, veh/h		486	240		81	
Approach Delay, s/veh		7.1	10.0		10.7	
Approach LOS		A	B		B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.5	9.4		8.6		16.9
Change Period (Y+Rc), s	* 5.4	* 5.5		5.5		* 5.5
Max Green Setting (Gmax), s	26	* 65		34.0		* 65
Max Q Clear Time (g_c+I1), s	3.6	3.6		3.1		3.6
Green Ext Time (p_c), s	0.0	0.4		0.0		0.7

Intersection Summary	
HCM 6th Ctrl Delay	8.3
HCM 6th LOS	A

Notes

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



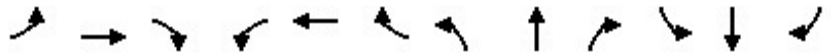
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	414	6	36	222	120	3	337	62	277	947	75
Future Volume (veh/h)	85	414	6	36	222	120	3	337	62	277	947	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	436	6	45	278	150	3	370	68	295	1007	80
Peak Hour Factor	0.95	0.95	0.95	0.80	0.80	0.80	0.91	0.91	0.91	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	464	393	58	408	346	43	555	102	319	965	917
Arrive On Green	0.06	0.25	0.25	0.03	0.22	0.22	0.02	0.36	0.36	0.18	0.52	0.52
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1537	282	1781	1870	1585
Grp Volume(v), veh/h	89	436	6	45	278	150	3	0	438	295	1007	80
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	0	1820	1781	1870	1585
Q Serve(g_s), s	6.1	28.3	0.4	3.1	16.9	10.1	0.2	0.0	25.1	20.2	64.0	2.8
Cycle Q Clear(g_c), s	6.1	28.3	0.4	3.1	16.9	10.1	0.2	0.0	25.1	20.2	64.0	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.16	1.00		1.00
Lane Grp Cap(c), veh/h	111	464	393	58	408	346	43	0	657	319	965	917
V/C Ratio(X)	0.80	0.94	0.02	0.78	0.68	0.43	0.07	0.00	0.67	0.92	1.04	0.09
Avail Cap(c_a), veh/h	294	501	424	294	501	424	294	0	933	352	965	917
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.4	45.7	35.2	59.5	44.5	41.9	59.1	0.0	33.3	50.1	30.0	11.6
Incr Delay (d2), s/veh	4.9	24.2	0.0	8.0	1.7	0.3	0.2	0.0	0.4	26.9	40.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	15.6	0.1	1.5	7.7	3.8	0.1	0.0	10.5	11.0	36.2	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.2	69.9	35.2	67.6	46.2	42.2	59.4	0.0	33.8	76.9	70.9	11.6
LnGrp LOS	E	E	D	E	D	D	E	A	C	E	F	B
Approach Vol, veh/h		531			473			441			1382	
Approach Delay, s/veh		68.2			47.0			34.0			68.7	
Approach LOS		E			D			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	33.9	7.5	70.4	8.5	37.6	26.7	51.2
Change Period (Y+Rc), s	4.5	6.8	4.5	* 6.4	4.5	6.8	4.5	6.4
Max Green Setting (Gmax), s	20.5	33.2	20.5	* 64	20.5	33.2	24.5	63.6
Max Q Clear Time (g_c+I1), s	8.1	18.9	2.2	66.0	5.1	30.3	22.2	27.1
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	0.4	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	59.6
HCM 6th LOS	E

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	684	0	57	334	40	3	273	58	37	323	51
Future Volume (veh/h)	59	684	0	57	334	40	3	273	58	37	323	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	64	743	0	67	393	47	4	329	70	42	363	57
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.83	0.83	0.83	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	688	0	84	604	72	4	325	69	37	316	50
Arrive On Green	0.05	0.37	0.00	0.05	0.37	0.37	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	1870	0	1781	1635	196	18	1480	315	166	1431	225
Grp Volume(v), veh/h	64	743	0	67	0	440	403	0	0	462	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	0	1830	1813	0	0	1822	0	0
Q Serve(g_s), s	6.2	63.6	0.0	6.4	0.0	34.5	38.0	0.0	0.0	38.2	0.0	0.0
Cycle Q Clear(g_c), s	6.2	63.6	0.0	6.4	0.0	34.5	38.0	0.0	0.0	38.2	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.11	0.01		0.17	0.09		0.12
Lane Grp Cap(c), veh/h	80	688	0	84	0	676	398	0	0	402	0	0
V/C Ratio(X)	0.80	1.08	0.00	0.80	0.00	0.65	1.01	0.00	0.00	1.15	0.00	0.00
Avail Cap(c_a), veh/h	263	688	0	211	0	676	398	0	0	402	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	81.8	54.7	0.0	81.7	0.0	45.3	67.5	0.0	0.0	67.4	0.0	0.0
Incr Delay (d2), s/veh	6.6	58.2	0.0	6.5	0.0	1.8	48.2	0.0	0.0	92.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	39.8	0.0	3.1	0.0	15.5	22.4	0.0	0.0	27.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.4	112.9	0.0	88.1	0.0	47.0	115.7	0.0	0.0	159.5	0.0	0.0
LnGrp LOS	F	F	A	F	A	D	F	A	A	F	A	A
Approach Vol, veh/h		807			507			403			462	
Approach Delay, s/veh		111.0			52.5			115.7			159.5	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.3	70.7		45.0	12.6	70.4		45.0
Change Period (Y+Rc), s	4.5	6.8		6.8	4.5	* 6.8		7.0
Max Green Setting (Gmax), s	25.5	63.2		38.2	20.5	* 64		38.0
Max Q Clear Time (g_c+I1), s	8.2	36.5		40.2	8.4	65.6		40.0
Green Ext Time (p_c), s	0.0	1.4		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	108.5
HCM 6th LOS	F

Notes

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

Intersection	
Intersection Delay, s/veh	17.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	0	23	0	33	2	356	0	145	393	4
Future Vol, veh/h	2	2	0	23	0	33	2	356	0	145	393	4
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	3	0	33	0	47	2	391	0	156	423	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	9.8	13.2	20.8
HCM LOS	A	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	50%	41%	27%
Vol Thru, %	99%	50%	0%	73%
Vol Right, %	0%	0%	59%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	358	4	56	542
LT Vol	2	2	23	145
Through Vol	356	2	0	393
RT Vol	0	0	33	4
Lane Flow Rate	393	6	80	583
Geometry Grp	1	1	1	1
Degree of Util (X)	0.526	0.01	0.131	0.756
Departure Headway (Hd)	4.817	6.504	5.913	4.667
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	744	553	610	769
Service Time	2.888	4.508	3.913	2.73
HCM Lane V/C Ratio	0.528	0.011	0.131	0.758
HCM Control Delay	13.2	9.6	9.8	20.8
HCM Lane LOS	B	A	A	C
HCM 95th-tile Q	3.1	0	0.4	7.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	144	101	20	365	432	163
Future Volume (veh/h)	144	101	20	365	432	163
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	123	24	435	480	181
Peak Hour Factor	0.82	0.82	0.84	0.84	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	267	237	32	924	606	513
Arrive On Green	0.15	0.15	0.02	0.49	0.32	0.32
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	176	123	24	435	480	181
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	2.8	2.2	0.4	4.6	7.1	2.6
Cycle Q Clear(g_c), s	2.8	2.2	0.4	4.6	7.1	2.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	267	237	32	924	606	513
V/C Ratio(X)	0.66	0.52	0.74	0.47	0.79	0.35
Avail Cap(c_a), veh/h	2075	1847	1199	3963	3944	3343
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	11.9	14.8	5.1	9.3	7.8
Incr Delay (d2), s/veh	1.0	0.7	11.8	0.1	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.5	0.2	0.2	1.2	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.2	12.5	26.6	5.2	10.2	8.0
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	299			459	661	
Approach Delay, s/veh	12.9			6.3	9.6	
Approach LOS	B			A	A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.1	15.9			21.1	9.2
Change Period (Y+Rc), s	* 4.6	* 6.1			* 6.1	4.7
Max Green Setting (Gmax), s	* 28	* 64			* 64	35.3
Max Q Clear Time (g_c+I1), s	2.4	9.1			6.6	4.8
Green Ext Time (p_c), s	0.0	0.7			0.6	0.1

Intersection Summary	
HCM 6th Ctrl Delay	9.2
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	2	3	542	670	29
Future Vol, veh/h	16	2	3	542	670	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	98	98	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	4	3	553	728	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1303	744	760	0	-	0
Stage 1	744	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	177	415	852	-	-	-
Stage 1	470	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	176	415	852	-	-	-
Mov Cap-2 Maneuver	176	-	-	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	572	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.1	0.1	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	852	-	188	-	-
HCM Lane V/C Ratio	0.004	-	0.171	-	-
HCM Control Delay (s)	9.2	-	28.1	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	601	18	8	564	0	673	51
Future Volume (veh/h)	601	18	8	564	0	673	51
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	724	22	9	606		716	54
Peak Hour Factor	0.83	0.83	0.93	0.93		0.94	0.94
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	903	426	13	1491		963	844
Arrive On Green	0.26	0.26	0.01	0.42		0.27	0.27
Sat Flow, veh/h	3456	1585	1781	3647		3647	1585
Grp Volume(v), veh/h	724	22	9	606		716	54
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777		1777	1585
Q Serve(g_s), s	7.6	0.4	0.2	4.6		7.2	0.6
Cycle Q Clear(g_c), s	7.6	0.4	0.2	4.6		7.2	0.6
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	903	426	13	1491		963	844
V/C Ratio(X)	0.80	0.05	0.71	0.41		0.74	0.06
Avail Cap(c_a), veh/h	4845	2234	894	4882		4854	2580
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	13.4	10.5	19.3	7.9		12.9	4.4
Incr Delay (d2), s/veh	0.6	0.0	23.2	0.1		0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.4	0.1	0.8		1.8	0.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	14.1	10.6	42.5	8.0		13.4	4.4
LnGrp LOS	B	B	D	A		B	A
Approach Vol, veh/h	746			615		770	
Approach Delay, s/veh	13.9			8.5		12.7	
Approach LOS	B			A		B	

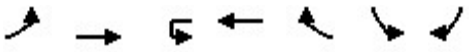
Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	5.8	17.4		15.7		23.2	
Change Period (Y+Rc), s	5.5	* 6.9		5.5		* 6.9	
Max Green Setting (Gmax), s	19.5	* 53		54.5		* 53	
Max Q Clear Time (g_c+I1), s	2.2	9.2		9.6		6.6	
Green Ext Time (p_c), s	0.0	1.4		0.6		1.1	

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	387	789	0	340	96	104	375
Future Volume (veh/h)	387	789	0	340	96	104	375
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	450	917		362	102	114	412
Peak Hour Factor	0.86	0.86		0.94	0.94	0.91	0.91
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	497	1806		504	225	512	456
Arrive On Green	0.28	0.51		0.14	0.14	0.29	0.29
Sat Flow, veh/h	1781	3647		3647	1585	1781	1585
Grp Volume(v), veh/h	450	917		362	102	114	412
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1781	1585
Q Serve(g_s), s	14.6	10.2		5.8	3.5	2.9	14.9
Cycle Q Clear(g_c), s	14.6	10.2		5.8	3.5	2.9	14.9
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	497	1806		504	225	512	456
V/C Ratio(X)	0.90	0.51		0.72	0.45	0.22	0.90
Avail Cap(c_a), veh/h	888	3771		3765	1679	1029	915
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.8	9.7		24.5	23.5	16.2	20.5
Incr Delay (d2), s/veh	3.0	0.1		0.7	0.5	0.1	2.8
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	2.6		2.1	1.1	1.0	4.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	23.7	9.8		25.2	24.0	16.3	23.3
LnGrp LOS	C	A		C	C	B	C
Approach Vol, veh/h		1367		464		526	
Approach Delay, s/veh		14.4		25.0		21.8	
Approach LOS		B		C		C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	21.9	15.2			37.1	22.7
Change Period (Y+Rc), s	* 5.2	* 6.7			* 6.7	5.5
Max Green Setting (Gmax), s	* 36	* 63			* 63	34.5
Max Q Clear Time (g_c+I1), s	16.6	7.8			12.2	16.9
Green Ext Time (p_c), s	0.1	0.7			1.9	0.2

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

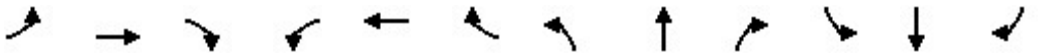
Notes

User approved ignoring U-Turning movement.

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

Appendix C

Analysis Worksheets for
Existing (2019) plus Proposed Project Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	978	0	240	0	740	450	0	755	390
Future Volume (veh/h)	0	0	0	978	0	240	0	740	450	0	755	390
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				700	594	276	0	771	0	0	803	0
Peak Hour Factor				0.87	0.87	0.87	0.96	0.96	0.96	0.94	0.94	0.94
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				568	384	178	0	2869		0	2869	
Arrive On Green				0.32	0.32	0.32	0.00	0.81	0.00	0.00	0.81	0.00
Sat Flow, veh/h				1781	1203	559	0	3741	0	0	3741	0
Grp Volume(v), veh/h				700	0	870	0	771	0	0	803	0
Grp Sat Flow(s),veh/h/ln				1781	0	1762	0	1777	0	0	1777	0
Q Serve(g_s), s				35.1	0.0	35.1	0.0	5.9	0.0	0.0	6.2	0.0
Cycle Q Clear(g_c), s				35.1	0.0	35.1	0.0	5.9	0.0	0.0	6.2	0.0
Prop In Lane				1.00		0.32	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				568	0	562	0	2869		0	2869	
V/C Ratio(X)				1.23	0.00	1.55	0.00	0.27		0.00	0.28	
Avail Cap(c_a), veh/h				568	0	562	0	2869		0	2869	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				37.4	0.0	37.5	0.0	2.6	0.0	0.0	2.6	0.0
Incr Delay (d2), s/veh				118.9	0.0	255.2	0.0	0.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				33.7	0.0	54.6	0.0	1.2	0.0	0.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				156.4	0.0	292.7	0.0	2.8	0.0	0.0	2.9	0.0
LnGrp LOS				F	A	F	A	A		A	A	
Approach Vol, veh/h					1570			771	A		803	A
Approach Delay, s/veh					231.9			2.8			2.9	
Approach LOS					F			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	94.5		94.5		40.0			
Change Period (Y+Rc), s	* 5		5.0		4.9			
Max Green Setting (Gmax), s	* 66		65.0		35.1			
Max Q Clear Time (g_c+I1), s	8.2		7.9		37.1			
Green Ext Time (p_c), s	1.8		1.7		0.0			

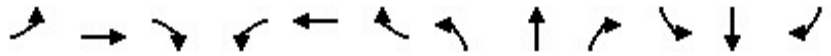
Intersection Summary	
HCM 6th Ctrl Delay	117.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	0	1173	0	0	0	0	880	333	0	1419	317
Future Volume (veh/h)	312	0	1173	0	0	0	0	880	333	0	1419	317
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	219	0	1352				0	926	0	0	1526	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	560	0	994				0	3806		0	2649	
Arrive On Green	0.31	0.00	0.31				0.00	0.75	0.00	0.00	0.75	0.00
Sat Flow, veh/h	1781	0	3160				0	5443	0	0	3647	1585
Grp Volume(v), veh/h	219	0	1352				0	926	0	0	1526	0
Grp Sat Flow(s),veh/h/ln	1781	0	1580				0	1702	0	0	1777	1585
Q Serve(g_s), s	10.6	0.0	34.6				0.0	6.2	0.0	0.0	21.1	0.0
Cycle Q Clear(g_c), s	10.6	0.0	34.6				0.0	6.2	0.0	0.0	21.1	0.0
Prop In Lane	1.00		1.00				0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	560	0	994				0	3806		0	2649	
V/C Ratio(X)	0.39	0.00	1.36				0.00	0.24		0.00	0.58	
Avail Cap(c_a), veh/h	560	0	994				0	3806		0	2649	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	29.5	0.0	37.7				0.0	4.4	0.0	0.0	6.2	0.0
Incr Delay (d2), s/veh	0.2	0.0	168.7				0.0	0.2	0.0	0.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	36.4				0.0	1.6	0.0	0.0	6.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	0.0	206.4				0.0	4.5	0.0	0.0	7.2	0.0
LnGrp LOS	C	A	F				A	A		A	A	
Approach Vol, veh/h		1571						926	A		1526	A
Approach Delay, s/veh		181.7						4.5			7.2	
Approach LOS		F						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	87.5	40.0	87.5
Change Period (Y+Rc), s	* 5	* 5.4	5.0
Max Green Setting (Gmax), s	* 66	* 35	65.0
Max Q Clear Time (g_c+I1), s	23.1	36.6	8.2
Green Ext Time (p_c), s	4.3	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	74.7
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	931	819	116	672	279	47
Future Volume (veh/h)	931	819	116	672	279	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1108	0	141	820	317	53
Peak Hour Factor	0.84	0.84	0.82	0.82	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2661		180	3655	443	203
Arrive On Green	0.52	0.00	0.10	0.72	0.13	0.13
Sat Flow, veh/h	5443	0	1781	5274	3456	1585
Grp Volume(v), veh/h	1108	0	141	820	317	53
Grp Sat Flow(s),veh/h/ln	1702	0	1781	1702	1728	1585
Q Serve(g_s), s	7.2	0.0	4.2	3.0	4.8	1.6
Cycle Q Clear(g_c), s	7.2	0.0	4.2	3.0	4.8	1.6
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2661		180	3655	443	203
V/C Ratio(X)	0.42		0.78	0.22	0.72	0.26
Avail Cap(c_a), veh/h	6088		650	6088	2314	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	0.0	23.9	2.6	22.8	21.4
Incr Delay (d2), s/veh	0.2	0.0	2.8	0.1	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.7	0.3	1.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	0.0	26.7	2.7	23.6	21.7
LnGrp LOS	A		C	A	C	C
Approach Vol, veh/h	1108	A		961	370	
Approach Delay, s/veh	8.2			6.2	23.3	
Approach LOS	A			A	C	

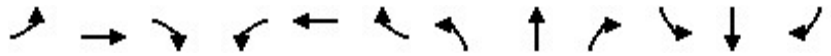
Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	44.0		10.6	33.4	10.5
Change Period (Y+Rc), s	5.0		* 5.1	5.0	3.5
Max Green Setting (Gmax), s	65.0		* 20	65.0	36.5
Max Q Clear Time (g_c+I1), s	5.0		6.2	9.2	6.8
Green Ext Time (p_c), s	12.7		0.0	19.2	0.2

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

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

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1073	0	212	0	963	564	0	728	330
Future Volume (veh/h)	0	0	0	1073	0	212	0	963	564	0	728	330
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				1248	0	247	0	1024	0	0	751	0
Peak Hour Factor				0.86	0.86	0.86	0.94	0.94	0.94	0.97	0.97	0.97
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				1292	0	593	0	2731		0	1900	
Arrive On Green				0.37	0.00	0.37	0.00	0.53	0.00	0.00	0.53	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	2790	0	3647	1585
Grp Volume(v), veh/h				1248	0	247	0	1024	0	0	751	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1395	0	1777	1585
Q Serve(g_s), s				44.2	0.0	14.4	0.0	14.6	0.0	0.0	15.6	0.0
Cycle Q Clear(g_c), s				44.2	0.0	14.4	0.0	14.6	0.0	0.0	15.6	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1292	0	593	0	2731		0	1900	
V/C Ratio(X)				0.97	0.00	0.42	0.00	0.38		0.00	0.40	
Avail Cap(c_a), veh/h				1333	0	611	0	2731		0	1900	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				38.3	0.0	29.0	0.0	16.9	0.0	0.0	17.2	0.0
Incr Delay (d2), s/veh				16.6	0.0	0.2	0.0	0.4	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				21.4	0.0	5.5	0.0	5.5	0.0	0.0	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				55.0	0.0	29.2	0.0	17.3	0.0	0.0	17.8	0.0
LnGrp LOS				D	A	C	A	B		A	B	
Approach Vol, veh/h					1495			1024	A		751	A
Approach Delay, s/veh					50.7			17.3			17.8	
Approach LOS					D			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	71.4		71.4		53.6			
Change Period (Y+Rc), s	4.6		4.6		6.8			
Max Green Setting (Gmax), s	65.4		65.4		48.2			
Max Q Clear Time (g_c+I1), s	17.6		16.6		46.2			
Green Ext Time (p_c), s	1.7		2.5		0.5			

Intersection Summary		
HCM 6th Ctrl Delay	32.7	
HCM 6th LOS	C	

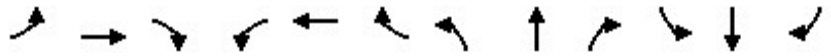
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL2	EBL	EBT	EBR	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	377	1	849	1103	102	27	1016	469	15	1686	201
Future Volume (vph)	377	1	849	1103	102	27	1016	469	15	1686	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8	6.8	4.9		4.6			4.6	4.0
Lane Util. Factor		0.91	0.86	0.91	0.88		0.86			0.95	1.00
Frpb, ped/bikes		1.00	0.99	0.98	0.99		0.99			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.94	0.85	0.85		0.95			1.00	0.85
Flt Protected		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		1603	3008	1417	2747		6071			3539	1545
Flt Permitted		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		1603	3008	1417	2747		6071			3539	1545
Peak-hour factor, PHF	0.87	0.92	0.87	0.87	0.90	0.92	0.89	0.92	0.89	0.91	0.91
Adj. Flow (vph)	433	1	976	1268	113	29	1142	510	17	1853	221
RTOR Reduction (vph)	0	0	5	9	16	0	1	0	0	0	0
Lane Group Flow (vph)	0	434	1542	688	126	0	1668	0	0	1853	221
Confl. Peds. (#/hr)	6			6	3				3		6
Confl. Bikes (#/hr)									2		3
Turn Type	Split	Perm	NA	Perm	Perm		NA			NA	Free
Protected Phases	4		4				6			2	
Permitted Phases		4		4	8						Free
Actuated Green, G (s)		48.2	48.2	48.2	50.1		65.4			65.4	125.0
Effective Green, g (s)		48.2	48.2	48.2	50.1		65.4			65.4	125.0
Actuated g/C Ratio		0.39	0.39	0.39	0.40		0.52			0.52	1.00
Clearance Time (s)		6.8	6.8	6.8	4.9		4.6			4.6	
Vehicle Extension (s)		1.0	1.0	1.0	3.0		1.0			1.0	
Lane Grp Cap (vph)		618	1159	546	1100		3176			1851	1545
v/s Ratio Prot							0.27			c0.52	
v/s Ratio Perm		0.27	0.51	0.49	0.05						0.14
v/c Ratio		0.70	1.33	1.26	0.11		0.53			1.00	0.14
Uniform Delay, d1		32.4	38.4	38.4	23.5		19.6			29.8	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.00			1.25	1.00
Incremental Delay, d2		3.0	154.7	131.6	0.0		0.6			17.6	0.1
Delay (s)		35.3	193.1	170.0	23.6		20.2			54.8	0.1
Level of Service		D	F	F	C		C			D	A
Approach Delay (s)			161.5				20.2			48.9	
Approach LOS			F				C			D	

Intersection Summary			
HCM 2000 Control Delay	87.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	11.4
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 (veh/h)	215	101	30	25	87	272	40	1008	18	760	1373	658
Future Volume (veh/h)	215	101	30	25	87	272	40	1008	18	760	1373	658
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	117	35	29	101	316	44	1108	20	817	1476	708
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.91	0.91	0.91	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	933	255	60	299	1286	80	1364	25	868	2512	766
Arrive On Green	0.09	0.24	0.24	0.02	0.16	0.16	0.02	0.26	0.26	0.25	0.49	0.49
Sat Flow, veh/h	3456	3961	1085	3563	1870	3069	3456	5163	93	3456	5106	1557
Grp Volume(v), veh/h	250	99	53	29	101	316	44	730	398	817	1476	708
Grp Sat Flow(s),veh/h/ln	1728	1702	1642	1781	1870	1535	1728	1702	1852	1728	1702	1557
Q Serve(g_s), s	6.9	2.2	2.5	0.8	4.7	6.6	1.2	19.6	19.6	22.6	20.2	41.3
Cycle Q Clear(g_c), s	6.9	2.2	2.5	0.8	4.7	6.6	1.2	19.6	19.6	22.6	20.2	41.3
Prop In Lane	1.00		0.66	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	319	802	387	60	299	1286	80	899	489	868	2512	766
V/C Ratio(X)	0.78	0.12	0.14	0.49	0.34	0.25	0.55	0.81	0.81	0.94	0.59	0.92
Avail Cap(c_a), veh/h	691	2233	1077	712	1236	2825	691	2264	1232	868	3365	1026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	29.4	29.5	47.6	36.4	18.9	47.2	33.6	33.6	35.8	17.7	23.1
Incr Delay (d2), s/veh	1.6	0.0	0.1	2.3	0.2	0.0	2.2	0.7	1.3	17.8	0.1	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.9	0.9	0.4	2.1	2.2	0.5	7.8	8.6	11.1	7.1	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	29.4	29.5	49.8	36.7	18.9	49.3	34.3	34.9	53.6	17.8	32.7
LnGrp LOS	D	C	C	D	D	B	D	C	C	D	B	C
Approach Vol, veh/h		402			446			1172			3001	
Approach Delay, s/veh		39.1			24.9			35.1			31.1	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	53.7	14.5	21.6	30.0	31.5	7.1	29.0
Change Period (Y+Rc), s	5.5	* 5.7	5.5	* 6	5.5	* 5.7	5.5	* 6
Max Green Setting (Gmax), s	19.5	* 64	19.5	* 65	24.5	* 65	19.5	* 64
Max Q Clear Time (g_c+I1), s	3.2	43.3	8.9	8.6	24.6	21.6	2.8	4.5
Green Ext Time (p_c), s	0.0	4.3	0.1	0.4	0.0	2.6	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	32.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

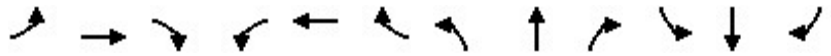
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	337	63	92	367	101	266	872	102	148	426	259
Future Volume (veh/h)	116	337	63	92	367	101	266	872	102	148	426	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	132	383	72	108	432	119	274	899	105	174	501	305
Peak Hour Factor	0.88	0.88	0.88	0.85	0.85	0.85	0.97	0.97	0.97	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	653	119	185	722	220	655	1841	570	270	848	389
Arrive On Green	0.06	0.15	0.15	0.05	0.14	0.14	0.19	0.36	0.36	0.08	0.25	0.25
Sat Flow, veh/h	3456	4328	788	3456	5106	1554	3456	5106	1581	3456	3404	1563
Grp Volume(v), veh/h	132	299	156	108	432	119	274	899	105	174	501	305
Grp Sat Flow(s),veh/h/ln	1728	1702	1712	1728	1702	1554	1728	1702	1581	1728	1702	1563
Q Serve(g_s), s	2.3	5.1	5.4	1.9	5.0	4.5	4.4	8.6	2.9	3.1	8.1	11.4
Cycle Q Clear(g_c), s	2.3	5.1	5.4	1.9	5.0	4.5	4.4	8.6	2.9	3.1	8.1	11.4
Prop In Lane	1.00		0.46	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	514	258	185	722	220	655	1841	570	270	848	389
V/C Ratio(X)	0.61	0.58	0.61	0.58	0.60	0.54	0.42	0.49	0.18	0.64	0.59	0.78
Avail Cap(c_a), veh/h	1074	1855	933	1074	2782	847	1074	5239	1622	1074	3492	1603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	24.8	24.9	29.0	25.3	25.1	22.4	15.6	13.7	28.1	20.8	22.0
Incr Delay (d2), s/veh	1.0	0.4	0.9	1.1	0.3	0.8	0.2	0.1	0.1	1.0	0.2	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.9	2.0	0.8	1.8	1.5	1.6	2.8	0.9	1.2	2.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	25.2	25.8	30.1	25.6	25.8	22.5	15.7	13.8	29.0	21.0	23.3
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	C	C
Approach Vol, veh/h		587			659			1278			980	
Approach Delay, s/veh		26.3			26.4			17.0			23.1	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	21.2	9.5	14.7	10.4	28.2	8.9	15.3
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.2	19.5	* 64	19.5	34.2
Max Q Clear Time (g_c+I1), s	6.4	13.4	4.3	7.0	5.1	10.6	3.9	7.4
Green Ext Time (p_c), s	0.1	1.8	0.1	1.0	0.1	2.2	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	14	263	37	20	32	302	2230	10	32	3207	77
Future Volume (veh/h)	111	14	263	37	20	32	302	2230	10	32	3207	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	128	134	223	45	24	39	311	2299	10	35	3486	84
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	155	262	100	36	58	363	3102	13	45	2598	786
Arrive On Green	0.17	0.17	0.17	0.06	0.06	0.06	0.11	0.59	0.59	0.03	0.51	0.51
Sat Flow, veh/h	892	934	1574	1781	639	1038	3456	5247	23	1781	5106	1545
Grp Volume(v), veh/h	262	0	223	45	0	63	311	1491	818	35	3486	84
Grp Sat Flow(s),veh/h/ln	1826	0	1574	1781	0	1677	1728	1702	1866	1781	1702	1545
Q Serve(g_s), s	17.9	0.0	17.6	3.1	0.0	4.7	11.3	40.8	40.9	2.5	65.2	3.6
Cycle Q Clear(g_c), s	17.9	0.0	17.6	3.1	0.0	4.7	11.3	40.8	40.9	2.5	65.2	3.6
Prop In Lane	0.49		1.00	1.00		0.62	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	304	0	262	100	0	94	363	2013	1103	45	2598	786
V/C Ratio(X)	0.86	0.00	0.85	0.45	0.00	0.67	0.86	0.74	0.74	0.78	1.34	0.11
Avail Cap(c_a), veh/h	492	0	424	480	0	451	537	2013	1103	281	2598	786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.0	0.0	51.9	58.6	0.0	59.3	56.4	19.1	19.1	62.1	31.5	16.3
Incr Delay (d2), s/veh	4.9	0.0	4.8	1.2	0.0	3.1	6.1	1.3	2.4	10.5	156.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	7.3	1.5	0.0	2.1	5.1	14.9	16.7	1.2	62.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.9	0.0	56.6	59.8	0.0	62.4	62.5	20.4	21.5	72.7	187.9	16.4
LnGrp LOS	E	A	E	E	A	E	E	C	C	E	F	B
Approach Vol, veh/h		485			108			2620			3605	
Approach Delay, s/veh		56.8			61.3			25.7			182.8	
Approach LOS		E			E			C			F	

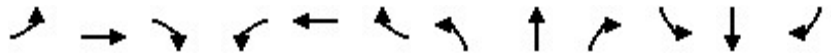
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.6	70.1		26.8	8.0	80.7		12.7
Change Period (Y+Rc), s	* 5.1	* 4.9		5.5	* 4.8	* 4.9		5.5
Max Green Setting (Gmax), s	* 20	* 65		34.5	* 20	* 65		34.5
Max Q Clear Time (g_c+I1), s	13.3	67.2		19.9	4.5	42.9		6.7
Green Ext Time (p_c), s	0.1	0.0		0.6	0.0	6.3		0.1

Intersection Summary	
HCM 6th Ctrl Delay	111.6
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	501	0	440	0	2078	269	0	1958	1594
Future Volume (veh/h)	0	0	0	501	0	440	0	2078	269	0	1958	1594
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				589	0	518	0	2165	0	0	1998	0
Peak Hour Factor				0.85	0.85	0.85	0.96	0.96	0.96	0.98	0.98	0.98
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				716	0	578	0	3837		0	3491	
Arrive On Green				0.21	0.00	0.21	0.00	0.68	0.00	0.00	0.68	0.00
Sat Flow, veh/h				3456	0	2790	0	5611	1585	0	5274	2790
Grp Volume(v), veh/h				589	0	518	0	2165	0	0	1998	0
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1870	1585	0	1702	1395
Q Serve(g_s), s				17.9	0.0	19.9	0.0	21.9	0.0	0.0	22.4	0.0
Cycle Q Clear(g_c), s				17.9	0.0	19.9	0.0	21.9	0.0	0.0	22.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				716	0	578	0	3837		0	3491	
V/C Ratio(X)				0.82	0.00	0.90	0.00	0.56		0.00	0.57	
Avail Cap(c_a), veh/h				1037	0	837	0	3837		0	3491	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				41.7	0.0	42.5	0.0	9.0	0.0	0.0	9.0	0.0
Incr Delay (d2), s/veh				2.3	0.0	7.0	0.0	0.6	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.8	0.0	7.4	0.0	7.4	0.0	0.0	6.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.0	0.0	49.5	0.0	9.6	0.0	0.0	9.7	0.0
LnGrp LOS				D	A	D	A	A		A	A	
Approach Vol, veh/h					1107			2165	A		1998	A
Approach Delay, s/veh					46.6			9.6			9.7	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	80.2		80.2		29.8			
Change Period (Y+Rc), s	* 5		5.0		7.0			
Max Green Setting (Gmax), s	* 65		65.0		33.0			
Max Q Clear Time (g_c+I1), s	24.4		23.9		21.9			
Green Ext Time (p_c), s	6.5		7.5		0.9			

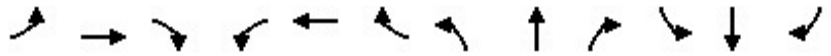
Intersection Summary		
HCM 6th Ctrl Delay		17.4
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1198	0	601	0	0	0	0	1132	459	0	2109	362
Future Volume (veh/h)	1198	0	601	0	0	0	0	1132	459	0	2109	362
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1235	0	620				0	1384	0	0	2152	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.98	0.98	0.98
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1349	0	749				0	4696		0	3522	
Arrive On Green	0.27	0.00	0.27				0.00	0.63	0.00	0.00	0.63	0.00
Sat Flow, veh/h	5023	0	2790				0	7481	1585	0	5611	1585
Grp Volume(v), veh/h	1235	0	620				0	1384	0	0	2152	0
Grp Sat Flow(s),veh/h/ln	1674	0	1395				0	1870	1585	0	1870	1585
Q Serve(g_s), s	26.2	0.0	23.0				0.0	9.3	0.0	0.0	25.5	0.0
Cycle Q Clear(g_c), s	26.2	0.0	23.0				0.0	9.3	0.0	0.0	25.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1349	0	749				0	4696		0	3522	
V/C Ratio(X)	0.92	0.00	0.83				0.00	0.29		0.00	0.61	
Avail Cap(c_a), veh/h	1521	0	845				0	4696		0	3522	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	39.0	0.0	37.8				0.0	9.4	0.0	0.0	12.4	0.0
Incr Delay (d2), s/veh	7.8	0.0	5.5				0.0	0.2	0.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	8.3				0.0	3.4	0.0	0.0	9.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	0.0	43.3				0.0	9.5	0.0	0.0	13.2	0.0
LnGrp LOS	D	A	D				A	A		A	B	
Approach Vol, veh/h		1855						1384	A		2152	A
Approach Delay, s/veh		45.7						9.5			13.2	
Approach LOS		D						A			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	73.7	36.3	73.7
Change Period (Y+Rc), s	* 4.7	6.7	4.7
Max Green Setting (Gmax), s	* 66	33.3	65.3
Max Q Clear Time (g_c+I1), s	27.5	28.2	11.3
Green Ext Time (p_c), s	7.4	1.3	3.7

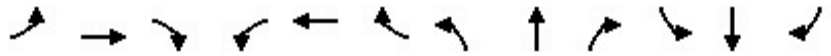
Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	213	171	93	274	216	129	72	1272	108	230	2138	309
Future Volume (veh/h)	213	171	93	274	216	129	72	1272	108	230	2138	309
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	192	104	308	266	129	76	1339	114	240	2227	322
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.95	0.95	0.95	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	561	244	365	655	267	124	3016	741	295	2647	814
Arrive On Green	0.09	0.16	0.16	0.10	0.18	0.18	0.04	0.47	0.47	0.09	0.52	0.52
Sat Flow, veh/h	3456	3554	1546	3563	3741	1524	3456	6434	1581	3456	5106	1571
Grp Volume(v), veh/h	239	192	104	308	266	129	76	1339	114	240	2227	322
Grp Sat Flow(s),veh/h/ln	1728	1777	1546	1781	1870	1524	1728	1609	1581	1728	1702	1571
Q Serve(g_s), s	8.4	5.9	7.5	10.4	7.8	9.4	2.7	17.2	5.1	8.4	45.8	15.3
Cycle Q Clear(g_c), s	8.4	5.9	7.5	10.4	7.8	9.4	2.7	17.2	5.1	8.4	45.8	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	295	561	244	365	655	267	124	3016	741	295	2647	814
V/C Ratio(X)	0.81	0.34	0.43	0.84	0.41	0.48	0.61	0.44	0.15	0.81	0.84	0.40
Avail Cap(c_a), veh/h	548	986	429	565	1035	422	548	3361	826	548	2676	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	46.1	46.7	54.2	45.0	45.7	58.4	21.9	18.7	55.2	25.3	17.9
Incr Delay (d2), s/veh	2.1	0.5	1.7	4.1	0.7	2.3	3.0	0.1	0.1	2.1	2.8	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.7	3.0	4.9	3.7	3.7	1.2	6.2	1.9	3.7	17.6	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	46.6	48.5	58.3	45.7	48.0	61.4	22.0	18.7	57.3	28.1	18.6
LnGrp LOS	E	D	D	E	D	D	E	C	B	E	C	B
Approach Vol, veh/h		535			703			1529			2789	
Approach Delay, s/veh		51.7			51.6			23.7			29.5	
Approach LOS		D			D			C			C	

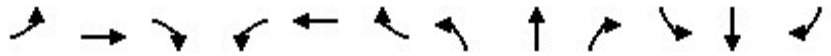
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	69.5	16.0	27.5	16.0	63.4	18.1	25.4
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	* 6
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.0	19.5	* 64	19.5	* 34
Max Q Clear Time (g_c+I1), s	4.7	47.8	10.4	11.4	10.4	19.2	12.4	9.5
Green Ext Time (p_c), s	0.1	15.9	0.1	3.6	0.1	8.7	0.2	2.3

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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



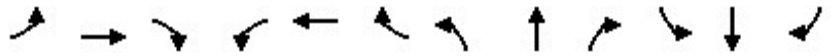
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	219	75	148	306	151	333	1085	82	264	851	254
Future Volume (veh/h)	166	219	75	148	306	151	333	1085	82	264	851	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	173	228	78	163	336	166	362	1179	89	275	886	265
Peak Hour Factor	0.96	0.96	0.96	0.91	0.91	0.91	0.92	0.92	0.92	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	230	612	268	220	865	267	419	1893	579	333	1766	540
Arrive On Green	0.07	0.19	0.19	0.07	0.19	0.19	0.13	0.41	0.41	0.11	0.38	0.38
Sat Flow, veh/h	3110	3198	1400	3110	4595	1420	3110	4595	1407	3110	4595	1404
Grp Volume(v), veh/h	173	228	78	163	336	166	362	1179	89	275	886	265
Grp Sat Flow(s),veh/h/ln	1555	1599	1400	1555	1532	1420	1555	1532	1407	1555	1532	1404
Q Serve(g_s), s	5.7	6.5	5.0	5.4	6.7	11.2	11.9	21.1	4.1	9.0	15.3	14.9
Cycle Q Clear(g_c), s	5.7	6.5	5.0	5.4	6.7	11.2	11.9	21.1	4.1	9.0	15.3	14.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	230	612	268	220	865	267	419	1893	579	333	1766	540
V/C Ratio(X)	0.75	0.37	0.29	0.74	0.39	0.62	0.86	0.62	0.15	0.83	0.50	0.49
Avail Cap(c_a), veh/h	582	1965	860	582	1500	463	582	2841	870	582	2832	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	36.7	36.1	47.5	37.0	38.9	44.1	24.2	19.2	45.6	24.5	24.3
Incr Delay (d2), s/veh	1.9	0.8	1.2	1.8	1.0	7.9	7.4	0.7	0.2	2.0	0.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.5	1.7	2.1	2.5	4.3	4.8	7.2	1.3	3.5	5.3	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	37.4	37.3	49.3	38.0	46.7	51.6	24.9	19.5	47.6	24.9	25.7
LnGrp LOS	D	D	D	D	D	D	D	C	B	D	C	C
Approach Vol, veh/h		479			665			1630			1426	
Approach Delay, s/veh		41.6			43.0			30.5			29.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.5	45.8	13.2	25.6	16.6	48.7	12.9	25.9
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	14.0	* 64	19.5	34.0	19.5	* 64	19.5	64.0
Max Q Clear Time (g_c+I1), s	13.9	17.3	7.7	13.2	11.0	23.1	7.4	8.5
Green Ext Time (p_c), s	0.1	17.0	0.1	5.9	0.1	19.8	0.1	3.4

Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Notes

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



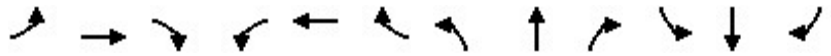
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	186	2	15	341	444	6	179	45	175	27	72
Future Volume (veh/h)	304	186	2	15	341	444	6	179	45	175	27	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	323	198	2	18	406	529	7	218	55	194	30	80
Peak Hour Factor	0.94	0.94	0.94	0.84	0.84	0.84	0.82	0.82	0.82	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	338	1950	20	21	672	557	9	247	62	259	451	383
Arrive On Green	0.19	0.54	0.54	0.01	0.36	0.36	0.01	0.17	0.17	0.08	0.24	0.24
Sat Flow, veh/h	1781	3604	36	1781	1870	1550	1781	1441	364	3456	1870	1585
Grp Volume(v), veh/h	323	98	102	18	406	529	7	0	273	194	30	80
Grp Sat Flow(s),veh/h/ln	1781	1777	1864	1781	1870	1550	1781	0	1805	1728	1870	1585
Q Serve(g_s), s	18.4	2.7	2.7	1.0	18.3	34.1	0.4	0.0	15.2	5.7	1.3	4.1
Cycle Q Clear(g_c), s	18.4	2.7	2.7	1.0	18.3	34.1	0.4	0.0	15.2	5.7	1.3	4.1
Prop In Lane	1.00		0.02	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	338	961	1008	21	672	557	9	0	310	259	451	383
V/C Ratio(X)	0.96	0.10	0.10	0.85	0.60	0.95	0.74	0.00	0.88	0.75	0.07	0.21
Avail Cap(c_a), veh/h	338	1125	1180	345	1186	983	338	0	1145	656	1181	1001
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	11.5	11.5	50.7	26.9	32.0	51.0	0.0	41.6	46.6	30.1	31.2
Incr Delay (d2), s/veh	37.0	0.0	0.0	27.5	0.3	7.0	34.2	0.0	3.3	1.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	0.9	1.0	0.6	7.5	12.9	0.3	0.0	6.7	2.4	0.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	78.2	11.5	11.5	78.2	27.3	39.0	85.2	0.0	44.8	48.2	30.1	31.3
LnGrp LOS	E	B	B	E	C	D	F	A	D	D	C	C
Approach Vol, veh/h		523			953			280			304	
Approach Delay, s/veh		52.7			34.7			45.8			42.0	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	41.8	6.0	29.9	6.3	60.5	13.2	22.7
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	19.5	* 65	19.5	* 65	* 20	* 65	19.5	* 65
Max Q Clear Time (g_c+I1), s	20.4	36.1	2.4	6.1	3.0	4.7	7.7	17.2
Green Ext Time (p_c), s	0.0	0.8	0.0	0.1	0.0	0.3	0.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	41.9
HCM 6th LOS	D

Notes

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



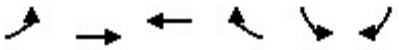
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	113	129	84	318	217	456	1398	64	89	487	58
Future Volume (veh/h)	256	113	129	84	318	217	456	1398	64	89	487	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	115	132	95	361	247	518	1589	73	100	547	65
Peak Hour Factor	0.98	0.98	0.98	0.88	0.88	0.88	0.88	0.88	0.88	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	343	1210	376	159	653	291	598	1843	565	165	1204	374
Arrive On Green	0.10	0.24	0.24	0.05	0.18	0.18	0.17	0.36	0.36	0.05	0.24	0.24
Sat Flow, veh/h	3456	5106	1585	3456	3554	1585	3456	5106	1565	3456	5106	1585
Grp Volume(v), veh/h	261	115	132	95	361	247	518	1589	73	100	547	65
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1585	1728	1702	1565	1728	1702	1585
Q Serve(g_s), s	6.0	1.4	5.7	2.2	7.5	12.3	11.9	23.6	2.6	2.3	7.5	2.7
Cycle Q Clear(g_c), s	6.0	1.4	5.7	2.2	7.5	12.3	11.9	23.6	2.6	2.3	7.5	2.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	343	1210	376	159	653	291	598	1843	565	165	1204	374
V/C Ratio(X)	0.76	0.10	0.35	0.60	0.55	0.85	0.87	0.86	0.13	0.60	0.45	0.17
Avail Cap(c_a), veh/h	824	2079	645	824	1443	644	824	3915	1200	824	3909	1213
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	24.3	26.0	38.3	30.3	32.3	32.9	24.2	17.5	38.2	26.7	24.9
Incr Delay (d2), s/veh	1.3	0.0	0.2	1.3	0.3	2.7	5.7	0.5	0.0	1.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.5	1.9	0.9	2.9	4.5	5.0	8.2	0.8	0.9	2.7	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	24.4	26.2	39.6	30.6	34.9	38.5	24.7	17.5	39.5	26.8	25.0
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		508			703			2180			712	
Approach Delay, s/veh		31.4			33.3			27.8			28.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.4	36.9	9.3	26.2	19.6	26.7	13.6	21.8
Change Period (Y+Rc), s	5.5	* 7.4	5.5	* 6.8	5.5	* 7.4	5.5	6.8
Max Green Setting (Gmax), s	19.5	* 63	19.5	* 33	19.5	* 63	19.5	33.2
Max Q Clear Time (g_c+I1), s	14.3	25.6	4.2	7.7	13.9	9.5	8.0	14.3
Green Ext Time (p_c), s	0.0	3.9	0.0	0.2	0.2	1.1	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	63	197	89	5	5	91
Future Volume (veh/h)	63	197	89	5	5	91
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	72	226	99	6	6	118
Peak Hour Factor	0.87	0.87	0.90	0.90	0.77	0.77
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	85	1369	396	177	275	245
Arrive On Green	0.05	0.39	0.11	0.11	0.15	0.15
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	72	226	99	6	6	118
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	1.0	1.0	0.6	0.1	0.1	1.6
Cycle Q Clear(g_c), s	1.0	1.0	0.6	0.1	0.1	1.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	85	1369	396	177	275	245
V/C Ratio(X)	0.85	0.17	0.25	0.03	0.02	0.48
Avail Cap(c_a), veh/h	1461	9590	9605	4284	2534	2255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	4.8	9.7	9.5	8.6	9.2
Incr Delay (d2), s/veh	8.4	0.0	0.1	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.1	0.0	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.7	4.8	9.8	9.5	8.6	9.8
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h		298	105		124	
Approach Delay, s/veh		8.4	9.8		9.7	
Approach LOS		A	A		A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	6.5	8.2		9.2		14.7
Change Period (Y+Rc), s	* 5.4	* 5.5		5.5		* 5.5
Max Green Setting (Gmax), s	* 2.8	* 65		34.0		* 65
Max Q Clear Time (g_c+I1), s	3.0	2.6		3.6		3.0
Green Ext Time (p_c), s	0.0	0.2		0.1		0.4

Intersection Summary	
HCM 6th Ctrl Delay	9.0
HCM 6th LOS	A

Notes

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

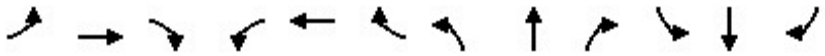
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	194	6	37	366	278	4	856	46	95	502	85
Future Volume (veh/h)	73	194	6	37	366	278	4	856	46	95	502	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	86	228	7	41	407	309	4	941	51	116	612	104
Peak Hour Factor	0.85	0.85	0.85	0.90	0.90	0.90	0.91	0.91	0.91	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	491	416	53	434	368	39	820	44	141	979	925
Arrive On Green	0.06	0.26	0.26	0.03	0.23	0.23	0.02	0.47	0.47	0.08	0.52	0.52
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1758	95	1781	1870	1585
Grp Volume(v), veh/h	86	228	7	41	407	309	4	0	992	116	612	104
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	0	1853	1781	1870	1585
Q Serve(g_s), s	6.5	14.0	0.4	3.1	29.1	25.4	0.3	0.0	63.6	8.8	31.6	4.0
Cycle Q Clear(g_c), s	6.5	14.0	0.4	3.1	29.1	25.4	0.3	0.0	63.6	8.8	31.6	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	107	491	416	53	434	368	39	0	864	141	979	925
V/C Ratio(X)	0.80	0.46	0.02	0.78	0.94	0.84	0.10	0.00	1.15	0.82	0.63	0.11
Avail Cap(c_a), veh/h	268	491	416	268	455	386	268	0	864	320	979	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	42.3	37.3	65.7	51.4	50.0	65.4	0.0	36.4	61.9	23.0	12.7
Incr Delay (d2), s/veh	5.2	0.3	0.0	8.7	26.2	13.7	0.4	0.0	80.1	4.5	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	6.2	0.2	1.5	16.2	11.0	0.1	0.0	45.5	4.0	13.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.5	42.5	37.3	74.5	77.6	63.7	65.8	0.0	116.5	66.4	24.0	12.7
LnGrp LOS	E	D	D	E	E	E	E	A	F	E	C	B
Approach Vol, veh/h		321			757			996			832	
Approach Delay, s/veh		49.4			71.8			116.3			28.5	
Approach LOS		D			E			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	38.4	7.5	77.8	8.5	42.6	15.3	70.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 6.4	4.5	6.8	4.5	6.4
Max Green Setting (Gmax), s	20.5	33.2	20.5	* 64	20.5	33.2	24.5	63.6
Max Q Clear Time (g_c+I1), s	8.5	31.1	2.3	33.6	5.1	16.0	10.8	65.6
Green Ext Time (p_c), s	0.0	0.5	0.0	2.2	0.0	0.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	72.2
HCM 6th LOS	E

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	259	0	36	640	34	3	324	16	23	245	76
Future Volume (veh/h)	87	259	0	36	640	34	3	324	16	23	245	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	278	0	40	711	38	3	360	18	26	275	85
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	739	0	52	635	34	3	376	19	26	279	86
Arrive On Green	0.06	0.39	0.00	0.03	0.36	0.36	0.21	0.21	0.21	0.22	0.22	0.22
Sat Flow, veh/h	1781	1870	0	1781	1759	94	15	1752	88	121	1278	395
Grp Volume(v), veh/h	94	278	0	40	0	749	381	0	0	386	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	0	1853	1854	0	0	1793	0	0
Q Serve(g_s), s	9.1	18.5	0.0	3.9	0.0	63.2	35.6	0.0	0.0	37.6	0.0	0.0
Cycle Q Clear(g_c), s	9.1	18.5	0.0	3.9	0.0	63.2	35.6	0.0	0.0	37.6	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.05	0.01		0.05	0.07		0.22
Lane Grp Cap(c), veh/h	112	739	0	52	0	669	398	0	0	391	0	0
V/C Ratio(X)	0.84	0.38	0.00	0.78	0.00	1.12	0.96	0.00	0.00	0.99	0.00	0.00
Avail Cap(c_a), veh/h	259	739	0	208	0	669	402	0	0	391	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	81.2	37.7	0.0	84.5	0.0	56.0	68.0	0.0	0.0	68.3	0.0	0.0
Incr Delay (d2), s/veh	6.1	0.1	0.0	8.9	0.0	72.8	33.3	0.0	0.0	41.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	8.3	0.0	1.9	0.0	41.9	20.1	0.0	0.0	21.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.2	37.8	0.0	93.4	0.0	128.8	101.2	0.0	0.0	110.2	0.0	0.0
LnGrp LOS	F	D	A	F	A	F	F	A	A	F	A	A
Approach Vol, veh/h		372			789			381			386	
Approach Delay, s/veh		50.3			127.0			101.2			110.2	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.6	70.0		45.0	9.6	76.0		44.6
Change Period (Y+Rc), s	4.5	6.8		6.8	4.5	* 6.8		7.0
Max Green Setting (Gmax), s	25.5	63.2		38.2	20.5	* 64		38.0
Max Q Clear Time (g_c+I1), s	11.1	65.2		39.6	5.9	20.5		37.6
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.8		0.1

Intersection Summary		
HCM 6th Ctrl Delay	103.7	
HCM 6th LOS	F	

Notes

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

Intersection	
Intersection Delay, s/veh	19.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	0	0	13	0	170	1	451	15	61	326	0
Future Vol, veh/h	1	0	0	13	0	170	1	451	15	61	326	0
Peak Hour Factor	0.70	0.70	0.70	0.84	0.84	0.84	0.96	0.96	0.96	0.79	0.79	0.79
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	0	0	15	0	202	1	470	16	77	413	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.3	12	20.4	21.1
HCM LOS	B	B	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	100%	7%	16%
Vol Thru, %	97%	0%	0%	84%
Vol Right, %	3%	0%	93%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	467	1	183	387
LT Vol	1	1	13	61
Through Vol	451	0	0	326
RT Vol	15	0	170	0
Lane Flow Rate	486	1	218	490
Geometry Grp	1	1	1	1
Degree of Util (X)	0.713	0.003	0.35	0.724
Departure Headway (Hd)	5.279	7.191	5.786	5.32
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	686	494	619	681
Service Time	3.322	5.285	3.845	3.362
HCM Lane V/C Ratio	0.708	0.002	0.352	0.72
HCM Control Delay	20.4	10.3	12	21.1
HCM Lane LOS	C	B	B	C
HCM 95th-tile Q	6	0	1.6	6.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	196	22	94	497	349	72
Future Volume (veh/h)	196	22	94	497	349	72
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	280	31	108	571	397	82
Peak Hour Factor	0.70	0.70	0.87	0.87	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	356	317	136	904	508	431
Arrive On Green	0.20	0.20	0.08	0.48	0.27	0.27
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	280	31	108	571	397	82
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	5.1	0.5	2.0	7.7	6.7	1.4
Cycle Q Clear(g_c), s	5.1	0.5	2.0	7.7	6.7	1.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	356	317	136	904	508	431
V/C Ratio(X)	0.79	0.10	0.80	0.63	0.78	0.19
Avail Cap(c_a), veh/h	1846	1643	1067	3525	3509	2974
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	11.1	15.5	6.5	11.5	9.5
Incr Delay (d2), s/veh	1.5	0.0	3.9	0.3	1.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.1	0.7	0.8	1.6	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.4	11.2	19.4	6.8	12.5	9.6
LnGrp LOS	B	B	B	A	B	A
Approach Vol, veh/h	311			679	479	
Approach Delay, s/veh	14.1			8.8	12.0	
Approach LOS	B			A	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.2	15.4			22.6	11.5
Change Period (Y+Rc), s	* 4.6	* 6.1			* 6.1	4.7
Max Green Setting (Gmax), s	* 26	* 64			* 64	35.3
Max Q Clear Time (g_c+I1), s	4.0	8.7			9.7	7.1
Green Ext Time (p_c), s	0.0	0.6			0.8	0.1

Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Notes

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

Intersection	
Int Delay, s/veh	146.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	215	51	19	699	400	73
Future Vol, veh/h	215	51	19	699	400	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	62	62	86	86	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	347	82	22	813	435	79

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1332	475	514	0	-	0
Stage 1	475	-	-	-	-	-
Stage 2	857	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 170	590	1052	-	-	-
Stage 1	626	-	-	-	-	-
Stage 2	416	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 166	590	1052	-	-	-
Mov Cap-2 Maneuver	~ 166	-	-	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	416	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 606	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	193	-	-
HCM Lane V/C Ratio	0.021	-	2.223	-	-
HCM Control Delay (s)	8.5	-	$ 606	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.1	-	34.2	-	-

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

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	42	41	108	870	0	429	296
Future Volume (veh/h)	42	41	108	870	0	429	296
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	53	52	123	989		452	312
Peak Hour Factor	0.79	0.79	0.88	0.88		0.95	0.95
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	201	230	155	1889		933	508
Arrive On Green	0.06	0.06	0.09	0.53		0.26	0.26
Sat Flow, veh/h	3456	1585	1781	3647		3647	1585
Grp Volume(v), veh/h	53	52	123	989		452	312
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777		1777	1585
Q Serve(g_s), s	0.4	0.9	2.0	5.5		3.2	5.0
Cycle Q Clear(g_c), s	0.4	0.9	2.0	5.5		3.2	5.0
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	201	230	155	1889		933	508
V/C Ratio(X)	0.26	0.23	0.79	0.52		0.48	0.61
Avail Cap(c_a), veh/h	6233	2996	1149	6280		6245	2877
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	13.6	11.4	13.5	4.6		9.4	8.7
Incr Delay (d2), s/veh	0.3	0.2	3.5	0.1		0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.6	0.0		0.6	0.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	13.9	11.6	17.0	4.7		9.6	9.1
LnGrp LOS	B	B	B	A		A	A
Approach Vol, veh/h	105			1112		764	
Approach Delay, s/veh	12.7			6.0		9.4	
Approach LOS	B			A		A	

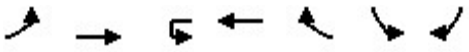
Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	8.1	14.8		7.3		23.0	
Change Period (Y+Rc), s	5.5	* 6.9		5.5		* 6.9	
Max Green Setting (Gmax), s	19.5	* 53		54.5		* 53	
Max Q Clear Time (g_c+I1), s	4.0	7.0		2.9		7.5	
Green Ext Time (p_c), s	0.0	0.9		0.1		2.0	

Intersection Summary	
HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	486	410	0	426	109	31	263
Future Volume (veh/h)	486	410	0	426	109	31	263
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	534	451		520	133	37	313
Peak Hour Factor	0.91	0.91		0.82	0.82	0.84	0.84
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	575	2091		659	294	399	355
Arrive On Green	0.32	0.59		0.19	0.19	0.22	0.22
Sat Flow, veh/h	1781	3647		3647	1585	1781	1585
Grp Volume(v), veh/h	534	451		520	133	37	313
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1781	1585
Q Serve(g_s), s	18.8	3.9		9.1	4.8	1.1	12.4
Cycle Q Clear(g_c), s	18.8	3.9		9.1	4.8	1.1	12.4
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	575	2091		659	294	399	355
V/C Ratio(X)	0.93	0.22		0.79	0.45	0.09	0.88
Avail Cap(c_a), veh/h	817	3466		3461	1544	945	841
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	6.3		25.3	23.5	20.0	24.4
Incr Delay (d2), s/veh	11.0	0.0		0.8	0.4	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	0.9		3.3	1.6	0.4	4.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	32.2	6.3		26.1	23.9	20.0	27.3
LnGrp LOS	C	A		C	C	C	C
Approach Vol, veh/h		985		653		350	
Approach Delay, s/veh		20.4		25.6		26.5	
Approach LOS		C		C		C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	26.2	18.8			45.0	20.0
Change Period (Y+Rc), s	* 5.2	* 6.7			* 6.7	5.5
Max Green Setting (Gmax), s	* 36	* 63			* 63	34.5
Max Q Clear Time (g_c+I1), s	20.8	11.1			5.9	14.4
Green Ext Time (p_c), s	0.2	1.0			0.8	0.2

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	401	0	353	0	1148	966	0	583	359
Future Volume (veh/h)	0	0	0	401	0	353	0	1148	966	0	583	359
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				448	40	420	0	1171	0	0	678	0
Peak Hour Factor				0.84	0.84	0.84	0.98	0.98	0.98	0.86	0.86	0.86
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				547	42	442	0	2143		0	2143	
Arrive On Green				0.31	0.31	0.31	0.00	0.60	0.00	0.00	0.60	0.00
Sat Flow, veh/h				1781	137	1441	0	3741	0	0	3741	0
Grp Volume(v), veh/h				448	0	460	0	1171	0	0	678	0
Grp Sat Flow(s),veh/h/ln				1781	0	1579	0	1777	0	0	1777	0
Q Serve(g_s), s				25.6	0.0	31.4	0.0	21.5	0.0	0.0	10.3	0.0
Cycle Q Clear(g_c), s				25.6	0.0	31.4	0.0	21.5	0.0	0.0	10.3	0.0
Prop In Lane				1.00		0.91	0.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				547	0	484	0	2143		0	2143	
V/C Ratio(X)				0.82	0.00	0.95	0.00	0.55		0.00	0.32	
Avail Cap(c_a), veh/h				568	0	504	0	2143		0	2143	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				35.3	0.0	37.3	0.0	12.9	0.0	0.0	10.7	0.0
Incr Delay (d2), s/veh				8.3	0.0	26.9	0.0	1.0	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.2	0.0	15.5	0.0	7.8	0.0	0.0	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.6	0.0	64.2	0.0	13.9	0.0	0.0	11.1	0.0
LnGrp LOS				D	A	E	A	B		A	B	
Approach Vol, veh/h					908			1171	A		678	A
Approach Delay, s/veh					54.0			13.9			11.1	
Approach LOS					D			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	71.3		71.3		38.7			
Change Period (Y+Rc), s	* 5		5.0		4.9			
Max Green Setting (Gmax), s	* 66		65.0		35.1			
Max Q Clear Time (g_c+I1), s	12.3		23.5		33.4			
Green Ext Time (p_c), s	1.5		2.9		0.4			

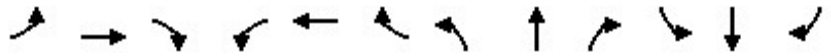
Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	534	0	585	0	0	0	0	1571	715	0	744	231
Future Volume (veh/h)	534	0	585	0	0	0	0	1571	715	0	744	231
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	832	0	438				0	1689	0	0	800	0
Peak Hour Factor	0.87	0.87	0.87				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	1047	0	464				0	3123		0	2174	
Arrive On Green	0.29	0.00	0.29				0.00	0.61	0.00	0.00	0.61	0.00
Sat Flow, veh/h	3563	0	1580				0	5443	0	0	3647	1585
Grp Volume(v), veh/h	832	0	438				0	1689	0	0	800	0
Grp Sat Flow(s),veh/h/ln	1781	0	1580				0	1702	0	0	1777	1585
Q Serve(g_s), s	23.7	0.0	29.8				0.0	21.1	0.0	0.0	12.4	0.0
Cycle Q Clear(g_c), s	23.7	0.0	29.8				0.0	21.1	0.0	0.0	12.4	0.0
Prop In Lane	1.00		1.00				0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	1047	0	464				0	3123		0	2174	
V/C Ratio(X)	0.79	0.00	0.94				0.00	0.54		0.00	0.37	
Avail Cap(c_a), veh/h	1121	0	497				0	3123		0	2174	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	35.8	0.0	38.0				0.0	12.4	0.0	0.0	10.7	0.0
Incr Delay (d2), s/veh	3.4	0.0	25.3				0.0	0.7	0.0	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	14.6				0.0	7.2	0.0	0.0	4.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	63.3				0.0	13.1	0.0	0.0	11.2	0.0
LnGrp LOS	D	A	E				A	B		A	B	
Approach Vol, veh/h		1270						1689	A		800	A
Approach Delay, s/veh		47.5						13.1			11.2	
Approach LOS		D						B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	72.3	37.7	72.3
Change Period (Y+Rc), s	* 5	* 5.4	5.0
Max Green Setting (Gmax), s	* 66	* 35	65.0
Max Q Clear Time (g_c+I1), s	14.4	31.8	23.1
Green Ext Time (p_c), s	1.8	0.5	5.0

Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	781	224	109	1047	677	96
Future Volume (veh/h)	781	224	109	1047	677	96
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	849	0	124	1190	967	137
Peak Hour Factor	0.92	0.92	0.88	0.88	0.70	0.70
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1912		159	2796	1079	495
Arrive On Green	0.37	0.00	0.09	0.55	0.31	0.31
Sat Flow, veh/h	5443	0	1781	5274	3456	1585
Grp Volume(v), veh/h	849	0	124	1190	967	137
Grp Sat Flow(s),veh/h/ln	1702	0	1781	1702	1728	1585
Q Serve(g_s), s	7.6	0.0	4.1	8.3	16.2	3.9
Cycle Q Clear(g_c), s	7.6	0.0	4.1	8.3	16.2	3.9
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1912		159	2796	1079	495
V/C Ratio(X)	0.44		0.78	0.43	0.90	0.28
Avail Cap(c_a), veh/h	5473		585	5473	2080	954
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	27.0	8.1	19.9	15.7
Incr Delay (d2), s/veh	0.3	0.0	3.1	0.2	1.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	1.7	2.1	5.6	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.6	0.0	30.2	8.3	21.0	15.8
LnGrp LOS	B		C	A	C	B
Approach Vol, veh/h	849	A		1314	1104	
Approach Delay, s/veh	14.6			10.4	20.4	
Approach LOS	B			B	C	

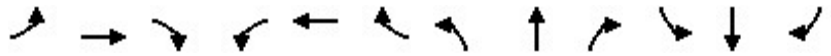
Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	38.2		10.5	27.7	22.4
Change Period (Y+Rc), s	5.0		* 5.1	5.0	3.5
Max Green Setting (Gmax), s	65.0		* 20	65.0	36.5
Max Q Clear Time (g_c+I1), s	10.3		6.1	9.6	18.2
Green Ext Time (p_c), s	21.1		0.0	13.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

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

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	394	0	310	0	1660	1740	0	783	567
Future Volume (veh/h)	0	0	0	394	0	310	0	1660	1740	0	783	567
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				464	0	365	0	1694	0	0	816	0
Peak Hour Factor				0.85	0.85	0.85	0.98	0.98	0.98	0.96	0.96	0.96
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				850	0	390	0	3384		0	2355	
Arrive On Green				0.25	0.00	0.25	0.00	0.66	0.00	0.00	0.66	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	2790	0	3647	1585
Grp Volume(v), veh/h				464	0	365	0	1694	0	0	816	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1395	0	1777	1585
Q Serve(g_s), s				14.6	0.0	28.2	0.0	20.9	0.0	0.0	12.6	0.0
Cycle Q Clear(g_c), s				14.6	0.0	28.2	0.0	20.9	0.0	0.0	12.6	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				850	0	390	0	3384		0	2355	
V/C Ratio(X)				0.55	0.00	0.94	0.00	0.50		0.00	0.35	
Avail Cap(c_a), veh/h				1333	0	611	0	3384		0	2355	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				41.0	0.0	46.2	0.0	10.6	0.0	0.0	9.2	0.0
Incr Delay (d2), s/veh				0.2	0.0	12.2	0.0	0.5	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.3	0.0	12.4	0.0	7.1	0.0	0.0	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				41.2	0.0	58.4	0.0	11.2	0.0	0.0	9.6	0.0
LnGrp LOS				D	A	E	A	B		A	A	
Approach Vol, veh/h					829			1694	A		816	A
Approach Delay, s/veh					48.8			11.2			9.6	
Approach LOS					D			B			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	87.4		87.4		37.6			
Change Period (Y+Rc), s	4.6		4.6		6.8			
Max Green Setting (Gmax), s	65.4		65.4		48.2			
Max Q Clear Time (g_c+I1), s	14.6		22.9		30.2			
Green Ext Time (p_c), s	1.9		5.0		0.6			

Intersection Summary		
HCM 6th Ctrl Delay	20.1	
HCM 6th LOS	C	

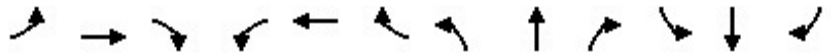
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL2	EBL	EBT	EBR	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	702	0	130	702	736	127	1958	464	7	1065	114
Future Volume (vph)	702	0	130	702	736	127	1958	464	7	1065	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8	6.8	4.6		4.6			4.6	4.0
Lane Util. Factor		0.91	0.86	0.91	0.88		0.86			0.95	1.00
Frpb, ped/bikes		1.00	0.99	0.98	1.00		1.00			1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.89	0.85	0.85		0.97			1.00	0.85
Flt Protected		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		1610	2811	1411	2787		6187			3539	1540
Flt Permitted		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		1610	2811	1411	2787		6187			3539	1540
Peak-hour factor, PHF	0.97	0.92	0.97	0.97	0.89	0.92	0.98	0.92	0.98	0.87	0.87
Adj. Flow (vph)	724	0	134	724	827	138	1998	504	7	1224	131
RTOR Reduction (vph)	0	0	27	27	16	0	0	0	0	0	0
Lane Group Flow (vph)	0	724	469	335	949	0	2509	0	0	1224	131
Confl. Peds. (#/hr)	11			11	3				3		11
Confl. Bikes (#/hr)									8		5
Turn Type	Split	Split	NA	Perm	Prot		NA			NA	Free
Protected Phases	4	4	4		2!		6!			2	
Permitted Phases				4	2						Free
Actuated Green, G (s)		48.2	48.2	48.2	65.4		65.4			65.4	125.0
Effective Green, g (s)		48.2	48.2	48.2	65.4		65.4			65.4	125.0
Actuated g/C Ratio		0.39	0.39	0.39	0.52		0.52			0.52	1.00
Clearance Time (s)		6.8	6.8	6.8	4.6		4.6			4.6	
Vehicle Extension (s)		1.0	1.0	1.0	1.0		1.0			1.0	
Lane Grp Cap (vph)		620	1083	544	1458		3237			1851	1540
v/s Ratio Prot		c0.45	0.17		0.34		c0.41			0.35	
v/s Ratio Perm				0.24							0.09
v/c Ratio		1.17	0.43	0.62	0.65		0.77			0.66	0.09
Uniform Delay, d1		38.4	28.3	30.9	21.5		23.9			21.7	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.00			1.18	1.00
Incremental Delay, d2		92.1	0.1	1.5	2.3		1.9			1.8	0.1
Delay (s)		130.5	28.4	32.4	23.8		25.8			27.4	0.1
Level of Service		F	C	C	C		C			C	A
Approach Delay (s)			76.0				25.8			24.7	
Approach LOS			E				C			C	

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	125.0	Sum of lost time (s)	11.4
Intersection Capacity Utilization	119.1%	ICU Level of Service	H
Analysis Period (min)	15		

! Phase conflict between lane groups.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	605	173	42	42	124	716	59	1128	19	390	1129	263
Future Volume (veh/h)	605	173	42	42	124	716	59	1128	19	390	1129	263
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	624	178	43	45	133	770	61	1163	20	406	1176	274
Peak Hour Factor	0.97	0.97	0.97	0.93	0.93	0.93	0.97	0.97	0.97	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	582	1608	366	81	453	1171	104	1338	23	464	1855	570
Arrive On Green	0.17	0.39	0.39	0.02	0.24	0.24	0.03	0.26	0.26	0.13	0.36	0.36
Sat Flow, veh/h	3456	4149	945	3563	1870	3077	3456	5168	89	3456	5106	1569
Grp Volume(v), veh/h	624	144	77	45	133	770	61	766	417	406	1176	274
Grp Sat Flow(s),veh/h/ln	1728	1702	1690	1781	1870	1539	1728	1702	1852	1728	1702	1569
Q Serve(g_s), s	19.5	3.1	3.4	1.4	6.7	24.1	2.0	24.9	24.9	13.3	22.0	15.6
Cycle Q Clear(g_c), s	19.5	3.1	3.4	1.4	6.7	24.1	2.0	24.9	24.9	13.3	22.0	15.6
Prop In Lane	1.00		0.56	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	582	1319	655	81	453	1171	104	882	480	464	1855	570
V/C Ratio(X)	1.07	0.11	0.12	0.55	0.29	0.66	0.59	0.87	0.87	0.87	0.63	0.48
Avail Cap(c_a), veh/h	582	1883	935	600	1043	2141	582	1909	1039	732	2837	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	22.7	22.7	55.9	35.8	30.0	55.4	41.0	41.0	49.1	30.5	28.4
Incr Delay (d2), s/veh	57.9	0.0	0.0	2.2	0.1	0.2	2.0	1.1	1.9	4.5	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	1.2	1.3	0.7	3.0	8.5	0.9	10.2	11.3	5.9	8.6	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	106.0	22.7	22.8	58.1	35.9	30.3	57.4	42.1	42.9	53.6	30.6	28.6
LnGrp LOS	F	C	C	E	D	C	E	D	D	D	C	C
Approach Vol, veh/h		845			948			1244			1856	
Approach Delay, s/veh		84.2			32.4			43.1			35.4	
Approach LOS		F			C			D			D	

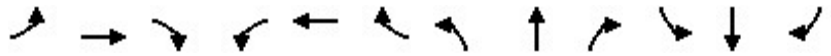
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	47.7	25.0	34.0	21.0	35.7	8.1	50.9
Change Period (Y+Rc), s	5.5	* 5.7	5.5	* 6	5.5	* 5.7	5.5	* 6
Max Green Setting (Gmax), s	19.5	* 64	19.5	* 65	24.5	* 65	19.5	* 64
Max Q Clear Time (g_c+I1), s	14.0	24.0	21.5	26.1	15.3	26.9	3.4	5.4
Green Ext Time (p_c), s	0.0	3.1	0.0	1.0	0.2	2.7	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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



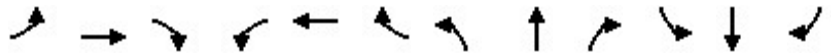
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	498	232	181	354	115	124	448	54	175	864	128
Future Volume (veh/h)	305	498	232	181	354	115	124	448	54	175	864	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	332	541	252	218	427	139	133	482	58	199	982	145
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.93	0.93	0.93	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	411	808	362	297	1040	309	466	1706	515	277	1249	184
Arrive On Green	0.12	0.24	0.24	0.09	0.20	0.20	0.13	0.33	0.33	0.08	0.28	0.28
Sat Flow, veh/h	3456	3411	1530	3456	5106	1519	3456	5106	1543	3456	4473	658
Grp Volume(v), veh/h	332	540	253	218	427	139	133	482	58	199	747	380
Grp Sat Flow(s),veh/h/ln	1728	1702	1536	1728	1702	1519	1728	1702	1543	1728	1702	1727
Q Serve(g_s), s	8.0	12.2	12.8	5.2	6.2	6.8	2.9	5.9	2.2	4.8	17.2	17.3
Cycle Q Clear(g_c), s	8.0	12.2	12.8	5.2	6.2	6.8	2.9	5.9	2.2	4.8	17.2	17.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.38
Lane Grp Cap(c), veh/h	411	807	364	297	1040	309	466	1706	515	277	951	482
V/C Ratio(X)	0.81	0.67	0.70	0.73	0.41	0.45	0.29	0.28	0.11	0.72	0.79	0.79
Avail Cap(c_a), veh/h	791	1367	617	791	2051	610	791	3861	1167	791	2574	1306
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	29.5	29.7	38.0	29.5	29.7	33.1	20.9	19.6	38.2	28.3	28.4
Incr Delay (d2), s/veh	1.4	0.4	0.9	1.3	0.1	0.4	0.1	0.0	0.0	1.3	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.7	4.5	2.2	2.4	2.4	1.2	2.2	0.7	2.0	6.5	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	29.8	30.6	39.3	29.6	30.1	33.3	20.9	19.7	39.5	28.9	29.5
LnGrp LOS	D	C	C	D	C	C	C	C	B	D	C	C
Approach Vol, veh/h		1125			784			673			1326	
Approach Delay, s/veh		32.4			32.4			23.2			30.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	29.4	15.6	23.2	12.3	34.0	12.8	26.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.2	19.5	* 64	19.5	34.2
Max Q Clear Time (g_c+I1), s	14.9	19.3	10.0	8.8	6.8	7.9	7.2	14.8
Green Ext Time (p_c), s	0.1	2.5	0.2	1.0	0.1	1.1	0.1	1.7

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	32	176	59	24	60	214	2777	22	52	2148	97
Future Volume (veh/h)	191	32	176	59	24	60	214	2777	22	52	2148	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	36	196	71	29	72	228	2954	23	60	2469	111
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.94	0.94	0.94	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	43	256	178	46	115	280	2798	22	77	2530	779
Arrive On Green	0.16	0.16	0.16	0.10	0.10	0.10	0.08	0.54	0.54	0.04	0.50	0.50
Sat Flow, veh/h	1533	260	1568	1781	462	1148	3456	5226	41	1781	5106	1572
Grp Volume(v), veh/h	248	0	196	71	0	101	228	1921	1056	60	2469	111
Grp Sat Flow(s),veh/h/ln	1794	0	1568	1781	0	1611	1728	1702	1862	1781	1702	1572
Q Serve(g_s), s	17.6	0.0	15.7	4.9	0.0	7.9	8.5	70.2	70.2	4.4	61.9	5.0
Cycle Q Clear(g_c), s	17.6	0.0	15.7	4.9	0.0	7.9	8.5	70.2	70.2	4.4	61.9	5.0
Prop In Lane	0.85		1.00	1.00		0.71	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	293	0	256	178	0	161	280	1823	997	77	2530	779
V/C Ratio(X)	0.85	0.00	0.77	0.40	0.00	0.63	0.82	1.05	1.06	0.78	0.98	0.14
Avail Cap(c_a), veh/h	472	0	413	469	0	424	525	1823	997	274	2539	782
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.2	0.0	52.4	55.3	0.0	56.6	59.3	30.5	30.5	62.1	32.3	18.0
Incr Delay (d2), s/veh	4.0	0.0	1.8	0.5	0.0	1.5	2.2	37.0	45.4	6.2	12.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.0	6.3	2.2	0.0	3.3	3.7	35.6	41.3	2.1	26.6	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.3	0.0	54.2	55.8	0.0	58.1	61.5	67.5	75.8	68.3	45.0	18.0
LnGrp LOS	E	A	D	E	A	E	E	F	F	E	D	B
Approach Vol, veh/h		444			172			3205			2640	
Approach Delay, s/veh		55.9			57.2			69.8			44.4	
Approach LOS		E			E			E			D	

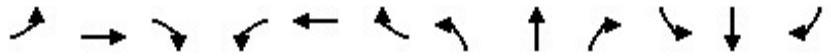
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.7	69.8		26.9	10.5	75.1		18.6
Change Period (Y+Rc), s	* 5.1	* 4.9		5.5	* 4.8	* 4.9		5.5
Max Green Setting (Gmax), s	* 20	* 65		34.5	* 20	* 65		34.5
Max Q Clear Time (g_c+I1), s	10.5	63.9		19.6	6.4	72.2		9.9
Green Ext Time (p_c), s	0.1	1.0		0.6	0.0	0.0		0.2

Intersection Summary	
HCM 6th Ctrl Delay	58.1
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	315	0	312	0	2676	458	0	1313	1099
Future Volume (veh/h)	0	0	0	315	0	312	0	2676	458	0	1313	1099
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				354	0	351	0	2909	0	0	1382	0
Peak Hour Factor				0.89	0.89	0.89	0.92	0.92	0.92	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				506	0	408	0	4178		0	3802	
Arrive On Green				0.15	0.00	0.15	0.00	0.74	0.00	0.00	0.74	0.00
Sat Flow, veh/h				3456	0	2790	0	5611	1585	0	5274	2790
Grp Volume(v), veh/h				354	0	351	0	2909	0	0	1382	0
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1870	1585	0	1702	1395
Q Serve(g_s), s				10.7	0.0	13.5	0.0	30.2	0.0	0.0	10.4	0.0
Cycle Q Clear(g_c), s				10.7	0.0	13.5	0.0	30.2	0.0	0.0	10.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				506	0	408	0	4178		0	3802	
V/C Ratio(X)				0.70	0.00	0.86	0.00	0.70		0.00	0.36	
Avail Cap(c_a), veh/h				1037	0	837	0	4178		0	3802	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				44.7	0.0	45.9	0.0	7.4	0.0	0.0	4.9	0.0
Incr Delay (d2), s/veh				0.7	0.0	2.1	0.0	1.0	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.6	0.0	4.8	0.0	8.9	0.0	0.0	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.3	0.0	48.0	0.0	8.4	0.0	0.0	5.2	0.0
LnGrp LOS				D	A	D	A	A		A	A	
Approach Vol, veh/h					705			2909	A		1382	A
Approach Delay, s/veh					46.6			8.4			5.2	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	86.9		86.9		23.1			
Change Period (Y+Rc), s	* 5		5.0		7.0			
Max Green Setting (Gmax), s	* 65		65.0		33.0			
Max Q Clear Time (g_c+I1), s	12.4		32.2		15.5			
Green Ext Time (p_c), s	3.7		13.3		0.6			

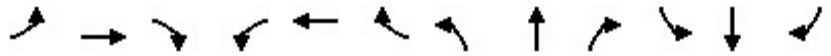
Intersection Summary		
HCM 6th Ctrl Delay	12.9	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1163	0	327	0	0	0	0	2007	432	0	1285	347
Future Volume (veh/h)	1163	0	327	0	0	0	0	2007	432	0	1285	347
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1292	0	363				0	2205	0	0	1325	0
Peak Hour Factor	0.90	0.90	0.90				0.91	0.91	0.91	0.97	0.97	0.97
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1393	0	774				0	4631		0	3473	
Arrive On Green	0.28	0.00	0.28				0.00	0.62	0.00	0.00	0.62	0.00
Sat Flow, veh/h	5023	0	2790				0	7481	1585	0	5611	1585
Grp Volume(v), veh/h	1292	0	363				0	2205	0	0	1325	0
Grp Sat Flow(s),veh/h/ln	1674	0	1395				0	1870	1585	0	1870	1585
Q Serve(g_s), s	27.5	0.0	11.9				0.0	17.5	0.0	0.0	13.0	0.0
Cycle Q Clear(g_c), s	27.5	0.0	11.9				0.0	17.5	0.0	0.0	13.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1393	0	774				0	4631		0	3473	
V/C Ratio(X)	0.93	0.00	0.47				0.00	0.48		0.00	0.38	
Avail Cap(c_a), veh/h	1521	0	845				0	4631		0	3473	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	38.7	0.0	33.0				0.0	11.3	0.0	0.0	10.5	0.0
Incr Delay (d2), s/veh	9.3	0.0	0.2				0.0	0.4	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	4.0				0.0	6.4	0.0	0.0	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.9	0.0	33.2				0.0	11.7	0.0	0.0	10.8	0.0
LnGrp LOS	D	A	C				A	B		A	B	
Approach Vol, veh/h		1655						2205	A		1325	A
Approach Delay, s/veh		44.7						11.7			10.8	
Approach LOS		D						B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	72.8	37.2	72.8
Change Period (Y+Rc), s	* 4.7	6.7	4.7
Max Green Setting (Gmax), s	* 66	33.3	65.3
Max Q Clear Time (g_c+I1), s	15.0	29.5	19.5
Green Ext Time (p_c), s	3.5	1.0	7.9

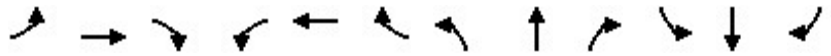
Intersection Summary	
HCM 6th Ctrl Delay	22.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	422	347	107	211	244	252	121	1656	228	241	1151	245
Future Volume (veh/h)	422	347	107	211	244	252	121	1656	228	241	1151	245
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	431	354	109	237	234	309	132	1800	248	265	1265	269
Peak Hour Factor	0.98	0.98	0.98	0.89	0.89	0.89	0.92	0.92	0.92	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	488	870	381	299	351	580	193	2435	592	324	2126	658
Arrive On Green	0.14	0.24	0.24	0.08	0.19	0.19	0.06	0.38	0.38	0.09	0.42	0.42
Sat Flow, veh/h	3456	3554	1555	3563	1870	3096	3456	6434	1564	3456	5106	1579
Grp Volume(v), veh/h	431	354	109	237	234	309	132	1800	248	265	1265	269
Grp Sat Flow(s),veh/h/ln	1728	1777	1555	1781	1870	1548	1728	1609	1564	1728	1702	1579
Q Serve(g_s), s	14.0	9.6	6.5	7.5	13.3	10.3	4.3	27.6	13.4	8.6	22.0	13.7
Cycle Q Clear(g_c), s	14.0	9.6	6.5	7.5	13.3	10.3	4.3	27.6	13.4	8.6	22.0	13.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	488	870	381	299	351	580	193	2435	592	324	2126	658
V/C Ratio(X)	0.88	0.41	0.29	0.79	0.67	0.53	0.68	0.74	0.42	0.82	0.59	0.41
Avail Cap(c_a), veh/h	589	1058	463	607	555	919	589	3608	877	589	2872	888
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.2	36.3	35.1	51.5	43.2	42.0	53.1	30.7	26.3	50.9	25.9	23.5
Incr Delay (d2), s/veh	11.6	0.5	0.6	1.8	3.7	1.3	2.6	0.3	0.3	1.9	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	4.2	2.5	3.4	6.5	4.0	1.9	10.2	5.0	3.7	8.5	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	36.7	35.7	53.3	46.9	43.3	55.7	31.0	26.6	52.9	26.5	24.3
LnGrp LOS	E	D	D	D	D	D	E	C	C	D	C	C
Approach Vol, veh/h		894			780			2180			1799	
Approach Delay, s/veh		47.7			47.4			32.0			30.0	
Approach LOS		D			D			C			C	

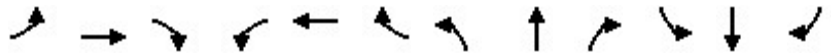
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	53.5	21.7	27.5	16.2	49.1	15.1	34.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	* 6
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.0	19.5	* 64	19.5	* 34
Max Q Clear Time (g_c+I1), s	6.3	24.0	16.0	15.3	10.6	29.6	9.5	11.6
Green Ext Time (p_c), s	0.2	23.5	0.2	4.3	0.1	13.7	0.1	3.9

Intersection Summary	
HCM 6th Ctrl Delay	36.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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



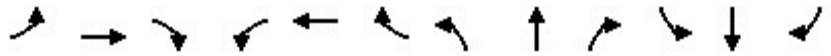
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	593	226	208	359	235	303	939	197	292	1230	118
Future Volume (veh/h)	308	593	226	208	359	235	303	939	197	292	1230	118
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	380	732	279	267	460	301	340	1055	221	301	1268	122
Peak Hour Factor	0.81	0.81	0.81	0.78	0.78	0.78	0.89	0.89	0.89	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	372	939	416	303	1248	386	372	1659	513	336	1607	496
Arrive On Green	0.12	0.29	0.29	0.10	0.27	0.27	0.12	0.36	0.36	0.11	0.35	0.35
Sat Flow, veh/h	3110	3198	1418	3110	4595	1423	3110	4595	1419	3110	4595	1419
Grp Volume(v), veh/h	380	732	279	267	460	301	340	1055	221	301	1268	122
Grp Sat Flow(s),veh/h/ln	1555	1599	1418	1555	1532	1423	1555	1532	1419	1555	1532	1419
Q Serve(g_s), s	19.5	34.2	28.2	13.8	13.2	31.9	17.6	31.1	19.2	15.6	40.4	10.0
Cycle Q Clear(g_c), s	19.5	34.2	28.2	13.8	13.2	31.9	17.6	31.1	19.2	15.6	40.4	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	372	939	416	303	1248	386	372	1659	513	336	1607	496
V/C Ratio(X)	1.02	0.78	0.67	0.88	0.37	0.78	0.91	0.64	0.43	0.89	0.79	0.25
Avail Cap(c_a), veh/h	372	1255	556	372	1248	386	372	1814	560	372	1808	558
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.8	52.8	50.7	72.7	48.1	54.9	71.0	43.2	39.4	71.8	47.6	37.7
Incr Delay (d2), s/veh	52.5	3.5	3.8	16.2	0.6	12.9	26.1	1.0	1.2	20.6	2.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	14.0	10.3	6.1	5.1	12.6	8.3	11.7	6.8	7.1	15.5	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	124.3	56.3	54.5	88.9	48.7	67.8	97.1	44.2	40.6	92.5	50.4	38.3
LnGrp LOS	F	E	D	F	D	E	F	D	D	F	D	D
Approach Vol, veh/h		1391			1028			1616			1691	
Approach Delay, s/veh		74.5			64.8			54.8			57.0	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	62.9	25.0	50.3	23.1	64.7	21.4	53.9
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	19.5	* 64	19.5	34.0	19.5	* 64	19.5	64.0
Max Q Clear Time (g_c+I1), s	19.5	42.4	21.5	33.9	17.6	33.1	15.8	36.2
Green Ext Time (p_c), s	0.0	14.6	0.0	0.1	0.1	16.5	0.1	11.7

Intersection Summary	
HCM 6th Ctrl Delay	62.0
HCM 6th LOS	E

Notes

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



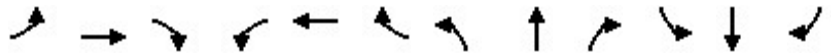
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	304	15	63	207	251	4	53	41	609	150	349
Future Volume (veh/h)	76	304	15	63	207	251	4	53	41	609	150	349
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	83	330	16	66	218	264	5	69	53	648	160	371
Peak Hour Factor	0.92	0.92	0.92	0.95	0.95	0.95	0.77	0.77	0.77	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	776	37	83	383	324	7	108	83	775	617	523
Arrive On Green	0.06	0.23	0.23	0.05	0.20	0.20	0.00	0.11	0.11	0.22	0.33	0.33
Sat Flow, veh/h	1781	3446	166	1781	1870	1585	1781	981	754	3456	1870	1585
Grp Volume(v), veh/h	83	170	176	66	218	264	5	0	122	648	160	371
Grp Sat Flow(s),veh/h/ln	1781	1777	1836	1781	1870	1585	1781	0	1735	1728	1870	1585
Q Serve(g_s), s	2.4	4.3	4.3	1.9	5.5	8.3	0.1	0.0	3.5	9.3	3.3	10.7
Cycle Q Clear(g_c), s	2.4	4.3	4.3	1.9	5.5	8.3	0.1	0.0	3.5	9.3	3.3	10.7
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.43	1.00		1.00
Lane Grp Cap(c), veh/h	106	400	413	83	383	324	7	0	190	775	617	523
V/C Ratio(X)	0.79	0.42	0.43	0.80	0.57	0.81	0.70	0.00	0.64	0.84	0.26	0.71
Avail Cap(c_a), veh/h	665	2215	2288	679	2335	1979	665	0	2166	1290	2324	1970
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	17.3	17.3	24.7	18.7	19.8	26.0	0.0	22.3	19.3	12.8	15.3
Incr Delay (d2), s/veh	4.8	0.3	0.3	6.5	0.5	1.9	36.7	0.0	1.3	1.0	0.1	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.4	1.4	0.8	1.9	2.7	0.1	0.0	1.3	3.2	1.1	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	17.6	17.6	31.1	19.2	21.7	62.6	0.0	23.6	20.3	12.9	16.0
LnGrp LOS	C	B	B	C	B	C	E	A	C	C	B	B
Approach Vol, veh/h		429			548			127			1179	
Approach Delay, s/veh		19.8			21.8			25.1			17.9	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	15.6	5.7	22.3	7.5	16.7	17.2	10.8
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	19.5	* 65	19.5	* 65	* 20	* 65	19.5	* 65
Max Q Clear Time (g_c+I1), s	4.4	10.3	2.1	12.7	3.9	6.3	11.3	5.5
Green Ext Time (p_c), s	0.0	0.4	0.0	0.4	0.0	0.5	0.4	0.2

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

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



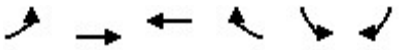
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	465	373	111	141	145	210	538	84	265	1633	131
Future Volume (veh/h)	161	465	373	111	141	145	210	538	84	265	1633	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	183	528	424	122	155	159	228	585	91	288	1775	142
Peak Hour Factor	0.88	0.88	0.88	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	1409	437	176	915	403	284	1864	571	344	1952	606
Arrive On Green	0.07	0.28	0.28	0.05	0.26	0.26	0.08	0.37	0.37	0.10	0.38	0.38
Sat Flow, veh/h	3456	5106	1585	3456	3554	1565	3456	5106	1565	3456	5106	1585
Grp Volume(v), veh/h	183	528	424	122	155	159	228	585	91	288	1775	142
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1777	1565	1728	1702	1565	1728	1702	1585
Q Serve(g_s), s	6.3	10.1	31.9	4.2	4.1	10.1	7.8	9.9	4.7	9.9	39.7	7.3
Cycle Q Clear(g_c), s	6.3	10.1	31.9	4.2	4.1	10.1	7.8	9.9	4.7	9.9	39.7	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	239	1409	437	176	915	403	284	1864	571	344	1952	606
V/C Ratio(X)	0.77	0.37	0.97	0.69	0.17	0.39	0.80	0.31	0.16	0.84	0.91	0.23
Avail Cap(c_a), veh/h	558	1409	437	558	977	430	558	2652	813	558	2648	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.2	35.3	43.2	56.4	34.8	37.0	54.4	27.5	25.8	53.4	35.3	25.3
Incr Delay (d2), s/veh	1.9	0.1	34.9	1.8	0.0	0.2	2.0	0.0	0.0	2.9	3.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.0	16.0	1.8	1.7	3.7	3.3	3.8	1.7	4.2	15.7	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.2	35.4	78.1	58.2	34.8	37.3	56.5	27.5	25.9	56.3	38.7	25.4
LnGrp LOS	E	D	E	E	C	D	E	C	C	E	D	C
Approach Vol, veh/h		1135			436			904			2205	
Approach Delay, s/veh		54.9			42.3			34.6			40.1	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	51.5	11.6	40.1	15.4	53.6	13.8	37.9
Change Period (Y+Rc), s	5.5	* 7.4	5.5	* 6.8	5.5	* 7.4	5.5	6.8
Max Green Setting (Gmax), s	12.5	* 63	19.5	* 33	19.5	* 63	19.5	33.2
Max Q Clear Time (g_c+I1), s	11.9	11.9	6.2	33.9	9.8	41.7	8.3	12.1
Green Ext Time (p_c), s	0.1	1.2	0.1	0.0	0.1	4.4	0.1	0.3

Intersection Summary	
HCM 6th Ctrl Delay	42.8
HCM 6th LOS	D

Notes

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



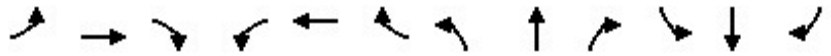
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	119	310	177	1	5	65
Future Volume (veh/h)	119	310	177	1	5	65
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	142	369	239	1	7	90
Peak Hour Factor	0.84	0.84	0.74	0.74	0.72	0.72
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	179	1617	536	239	231	206
Arrive On Green	0.10	0.46	0.15	0.15	0.13	0.13
Sat Flow, veh/h	1781	3647	3647	1585	1781	1585
Grp Volume(v), veh/h	142	369	239	1	7	90
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1781	1585
Q Serve(g_s), s	2.1	1.7	1.6	0.0	0.1	1.4
Cycle Q Clear(g_c), s	2.1	1.7	1.6	0.0	0.1	1.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	179	1617	536	239	231	206
V/C Ratio(X)	0.79	0.23	0.45	0.00	0.03	0.44
Avail Cap(c_a), veh/h	1318	8650	8663	3864	2286	2034
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	4.4	10.2	9.6	10.1	10.6
Incr Delay (d2), s/veh	3.0	0.0	0.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.3	0.0	0.0	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.7	4.4	10.5	9.6	10.1	11.2
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h		511	240		97	
Approach Delay, s/veh		7.3	10.5		11.1	
Approach LOS		A	B		B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.1	9.5		8.9		17.6
Change Period (Y+Rc), s	* 5.4	* 5.5		5.5		* 5.5
Max Green Setting (Gmax), s	* 2.8	* 65		34.0		* 65
Max Q Clear Time (g_c+I1), s	4.1	3.6		3.4		3.7
Green Ext Time (p_c), s	0.0	0.4		0.1		0.7

Intersection Summary	
HCM 6th Ctrl Delay	8.6
HCM 6th LOS	A

Notes

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



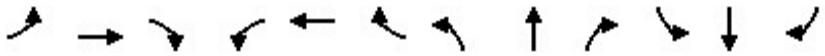
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	419	6	41	225	120	3	337	70	277	947	75
Future Volume (veh/h)	85	419	6	41	225	120	3	337	70	277	947	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	441	6	51	281	150	3	370	77	295	1007	80
Peak Hour Factor	0.95	0.95	0.95	0.80	0.80	0.80	0.91	0.91	0.91	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	468	397	66	420	356	43	535	111	319	957	910
Arrive On Green	0.06	0.25	0.25	0.04	0.22	0.22	0.02	0.36	0.36	0.18	0.51	0.51
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	1502	312	1781	1870	1585
Grp Volume(v), veh/h	89	441	6	51	281	150	3	0	447	295	1007	80
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	0	1814	1781	1870	1585
Q Serve(g_s), s	6.2	28.9	0.4	3.6	17.2	10.1	0.2	0.0	26.3	20.4	64.0	2.8
Cycle Q Clear(g_c), s	6.2	28.9	0.4	3.6	17.2	10.1	0.2	0.0	26.3	20.4	64.0	2.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.17	1.00		1.00
Lane Grp Cap(c), veh/h	111	468	397	66	420	356	43	0	646	319	957	910
V/C Ratio(X)	0.80	0.94	0.02	0.78	0.67	0.42	0.07	0.00	0.69	0.92	1.05	0.09
Avail Cap(c_a), veh/h	292	496	421	292	496	421	292	0	922	349	957	910
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.9	46.0	35.3	59.7	44.3	41.5	59.7	0.0	34.4	50.5	30.6	12.0
Incr Delay (d2), s/veh	4.9	25.3	0.0	7.1	1.7	0.3	0.3	0.0	0.5	27.4	44.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	16.0	0.1	1.7	7.8	3.8	0.1	0.0	11.0	11.1	37.1	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.8	71.3	35.3	66.8	46.0	41.8	60.0	0.0	34.9	77.9	74.5	12.0
LnGrp LOS	E	E	D	E	D	D	E	A	C	E	F	B
Approach Vol, veh/h		536			482			450			1382	
Approach Delay, s/veh		69.5			46.9			35.1			71.6	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	34.9	7.5	70.4	9.1	38.1	26.9	51.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 6.4	4.5	6.8	4.5	6.4
Max Green Setting (Gmax), s	20.5	33.2	20.5	* 64	20.5	33.2	24.5	63.6
Max Q Clear Time (g_c+I1), s	8.2	19.2	2.2	66.0	5.6	30.9	22.4	28.3
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	0.4	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	61.3
HCM 6th LOS	E

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	684	0	57	334	40	3	302	58	37	340	59
Future Volume (veh/h)	72	684	0	57	334	40	3	302	58	37	340	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	743	0	67	393	47	4	364	70	42	382	66
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.83	0.83	0.83	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	96	688	0	84	590	71	4	332	64	34	313	54
Arrive On Green	0.05	0.37	0.00	0.05	0.36	0.36	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	1870	0	1781	1635	196	17	1510	290	156	1418	245
Grp Volume(v), veh/h	78	743	0	67	0	440	438	0	0	490	0	0
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	0	1830	1817	0	0	1818	0	0
Q Serve(g_s), s	7.5	63.6	0.0	6.4	0.0	35.0	38.0	0.0	0.0	38.2	0.0	0.0
Cycle Q Clear(g_c), s	7.5	63.6	0.0	6.4	0.0	35.0	38.0	0.0	0.0	38.2	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.11	0.01		0.16	0.09		0.13
Lane Grp Cap(c), veh/h	96	688	0	84	0	660	399	0	0	401	0	0
V/C Ratio(X)	0.82	1.08	0.00	0.80	0.00	0.67	1.10	0.00	0.00	1.22	0.00	0.00
Avail Cap(c_a), veh/h	263	688	0	211	0	669	399	0	0	401	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	81.0	54.7	0.0	81.7	0.0	46.5	67.5	0.0	0.0	67.4	0.0	0.0
Incr Delay (d2), s/veh	6.2	58.2	0.0	6.5	0.0	2.0	74.0	0.0	0.0	119.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	39.8	0.0	3.1	0.0	15.8	25.3	0.0	0.0	30.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.2	112.9	0.0	88.1	0.0	48.5	141.5	0.0	0.0	187.2	0.0	0.0
LnGrp LOS	F	F	A	F	A	D	F	A	A	F	A	A
Approach Vol, veh/h		821			507			438			490	
Approach Delay, s/veh		110.5			53.8			141.5			187.2	
Approach LOS		F			D			F			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.8	69.2		45.0	12.6	70.4		45.0
Change Period (Y+Rc), s	4.5	6.8		6.8	4.5	* 6.8		7.0
Max Green Setting (Gmax), s	25.5	63.2		38.2	20.5	* 64		38.0
Max Q Clear Time (g_c+I1), s	9.5	37.0		40.2	8.4	65.6		40.0
Green Ext Time (p_c), s	0.0	1.4		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	120.4
HCM 6th LOS	F

Notes

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

Intersection	
Intersection Delay, s/veh	20.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	0	23	0	46	2	398	0	152	418	4
Future Vol, veh/h	2	2	0	23	0	46	2	398	0	152	418	4
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.91	0.91	0.91	0.93	0.93	0.93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	3	0	33	0	66	2	437	0	163	449	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	10.3	15.3	26.1
HCM LOS	A	B	C	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	1%	50%	33%	26%
Vol Thru, %	99%	50%	0%	73%
Vol Right, %	0%	0%	67%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	400	4	69	574
LT Vol	2	2	23	152
Through Vol	398	2	0	418
RT Vol	0	0	46	4
Lane Flow Rate	440	6	99	617
Geometry Grp	1	1	1	1
Degree of Util (X)	0.602	0.011	0.166	0.821
Departure Headway (Hd)	4.933	6.798	6.063	4.79
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	721	529	595	747
Service Time	3.029	4.805	4.063	2.878
HCM Lane V/C Ratio	0.61	0.011	0.166	0.826
HCM Control Delay	15.3	9.9	10.3	26.1
HCM Lane LOS	C	A	B	D
HCM 95th-tile Q	4.1	0	0.6	8.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	144	101	20	420	464	163
Future Volume (veh/h)	144	101	20	420	464	163
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	176	123	24	500	516	181
Peak Hour Factor	0.82	0.82	0.84	0.84	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	265	236	32	946	637	540
Arrive On Green	0.15	0.15	0.02	0.51	0.34	0.34
Sat Flow, veh/h	1781	1585	1781	1870	1870	1585
Grp Volume(v), veh/h	176	123	24	500	516	181
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1870	1870	1585
Q Serve(g_s), s	2.9	2.2	0.4	5.6	7.9	2.7
Cycle Q Clear(g_c), s	2.9	2.2	0.4	5.6	7.9	2.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	265	236	32	946	637	540
V/C Ratio(X)	0.66	0.52	0.75	0.53	0.81	0.34
Avail Cap(c_a), veh/h	2010	1789	1162	3839	3821	3238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.6	12.3	15.3	5.2	9.4	7.7
Incr Delay (d2), s/veh	1.1	0.7	11.9	0.2	0.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.5	0.2	0.2	1.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.6	12.9	27.2	5.4	10.3	7.8
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	299			524	697	
Approach Delay, s/veh	13.4			6.4	9.7	
Approach LOS	B			A	A	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.2	16.8			21.9	9.4
Change Period (Y+Rc), s	* 4.6	* 6.1			* 6.1	4.7
Max Green Setting (Gmax), s	* 26	* 64			* 64	35.3
Max Q Clear Time (g_c+I1), s	2.4	9.9			7.6	4.9
Green Ext Time (p_c), s	0.0	0.8			0.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	84.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	126	34	58	542	670	215
Future Vol, veh/h	126	34	58	542	670	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	98	98	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	225	61	59	553	728	234

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1516	845	962	0	-	0
Stage 1	845	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 131	363	715	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 120	363	715	-	-	-
Mov Cap-2 Maneuver	~ 120	-	-	-	-	-
Stage 1	386	-	-	-	-	-
Stage 2	508	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 545	1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	715	-	140	-	-
HCM Lane V/C Ratio	0.083	-	2.041	-	-
HCM Control Delay (s)	10.5	-	$ 545	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.3	-	22.9	-	-

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

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	601	107	60	622	0	770	51
Future Volume (veh/h)	601	107	60	622	0	770	51
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	724	129	65	669		819	54
Peak Hour Factor	0.83	0.83	0.93	0.93		0.94	0.94
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	886	478	80	1645		1043	872
Arrive On Green	0.26	0.26	0.04	0.46		0.29	0.29
Sat Flow, veh/h	3456	1585	1781	3647		3647	1585
Grp Volume(v), veh/h	724	129	65	669		819	54
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777		1777	1585
Q Serve(g_s), s	8.7	2.7	1.6	5.5		9.3	0.7
Cycle Q Clear(g_c), s	8.7	2.7	1.6	5.5		9.3	0.7
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	886	478	80	1645		1043	872
V/C Ratio(X)	0.82	0.27	0.81	0.41		0.79	0.06
Avail Cap(c_a), veh/h	4263	2027	786	4296		4271	2312
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	15.5	11.7	20.9	7.8		14.3	4.6
Incr Delay (d2), s/veh	0.7	0.1	7.2	0.1		0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	2.7	0.7	1.1		2.6	0.3
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	16.2	11.8	28.1	7.9		14.8	4.6
LnGrp LOS	B	B	C	A		B	A
Approach Vol, veh/h	853			734		873	
Approach Delay, s/veh	15.5			9.7		14.2	
Approach LOS	B			A		B	

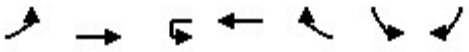
Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	7.5	19.9		16.8		27.4	
Change Period (Y+Rc), s	5.5	* 6.9		5.5		* 6.9	
Max Green Setting (Gmax), s	19.5	* 53		54.5		* 53	
Max Q Clear Time (g_c+I1), s	3.6	11.3		10.7		7.5	
Green Ext Time (p_c), s	0.0	1.6		0.6		1.3	

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	422	812	0	379	96	104	433
Future Volume (veh/h)	422	812	0	379	96	104	433
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	491	944		403	102	114	476
Peak Hour Factor	0.86	0.86		0.94	0.94	0.91	0.91
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	528	1824		520	232	573	510
Arrive On Green	0.30	0.51		0.15	0.15	0.32	0.32
Sat Flow, veh/h	1781	3647		3647	1585	1781	1585
Grp Volume(v), veh/h	491	944		403	102	114	476
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1781	1585
Q Serve(g_s), s	19.8	13.0		8.1	4.3	3.4	21.5
Cycle Q Clear(g_c), s	19.8	13.0		8.1	4.3	3.4	21.5
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	528	1824		520	232	573	510
V/C Ratio(X)	0.93	0.52		0.77	0.44	0.20	0.93
Avail Cap(c_a), veh/h	718	3048		3043	1357	831	740
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.2	11.9		30.4	28.8	18.2	24.3
Incr Delay (d2), s/veh	13.2	0.1		0.9	0.5	0.1	12.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	3.9		3.1	1.5	1.2	8.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	38.5	12.0		31.3	29.3	18.2	36.4
LnGrp LOS	D	B		C	C	B	D
Approach Vol, veh/h		1435		505		590	
Approach Delay, s/veh		21.1		30.9		32.9	
Approach LOS		C		C		C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	27.1	17.5			44.6	29.3
Change Period (Y+Rc), s	* 5.2	* 6.7			* 6.7	5.5
Max Green Setting (Gmax), s	* 38	* 63			* 63	34.5
Max Q Clear Time (g_c+I1), s	21.8	10.1			15.0	23.5
Green Ext Time (p_c), s	0.1	0.7			1.9	0.3

Intersection Summary	
HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

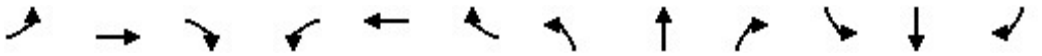
Notes

User approved ignoring U-Turning movement.

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

Appendix D

Analysis Worksheets for
Cumulative (2035) Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1120	0	300	0	1230	1080	0	1460	650
Future Volume (veh/h)	0	0	0	1120	0	300	0	1230	1080	0	1460	650
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				772	624	326	0	1337	0	0	1587	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				979	634	331	0	1531		0	1531	
Arrive On Green				0.55	0.55	0.55	0.00	0.30	0.00	0.00	0.30	0.00
Sat Flow, veh/h				1781	1154	603	0	5274	1585	0	5274	1585
Grp Volume(v), veh/h				772	0	950	0	1337	0	0	1587	0
Grp Sat Flow(s),veh/h/ln				1781	0	1757	0	1702	1585	0	1702	1585
Q Serve(g_s), s				22.6	0.0	34.9	0.0	16.3	0.0	0.0	19.7	0.0
Cycle Q Clear(g_c), s				22.6	0.0	34.9	0.0	16.3	0.0	0.0	19.7	0.0
Prop In Lane				1.00		0.34	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				979	0	965	0	1531		0	1531	
V/C Ratio(X)				0.79	0.00	0.98	0.00	0.87		0.00	1.04	
Avail Cap(c_a), veh/h				979	0	965	0	1531		0	1531	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.8	0.0	14.5	0.0	21.8	0.0	0.0	23.0	0.0
Incr Delay (d2), s/veh				4.0	0.0	25.0	0.0	5.7	0.0	0.0	33.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.3	0.0	17.7	0.0	6.4	0.0	0.0	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				15.8	0.0	39.5	0.0	27.5	0.0	0.0	56.0	0.0
LnGrp LOS				B	A	D	A	C		A	F	
Approach Vol, veh/h					1722			1337	A		1587	A
Approach Delay, s/veh					28.9			27.5			56.0	
Approach LOS					C			C			E	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	24.7		24.7		41.0			
Change Period (Y+Rc), s	* 5		5.0		4.9			
Max Green Setting (Gmax), s	* 20		19.0		36.1			
Max Q Clear Time (g_c+I1), s	21.7		18.3		36.9			
Green Ext Time (p_c), s	0.0		0.3		0.0			

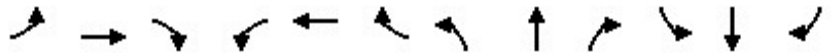
Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	0	1170	0	0	0	0	1670	420	0	2010	480
Future Volume (veh/h)	310	0	1170	0	0	0	0	1670	420	0	2010	480
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	225	0	1392				0	1815	0	0	2185	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	784	0	1394				0	2322		0	2322	
Arrive On Green	0.44	0.00	0.44				0.00	0.45	0.00	0.00	0.45	0.00
Sat Flow, veh/h	1781	0	3166				0	5443	0	0	5274	1585
Grp Volume(v), veh/h	225	0	1392				0	1815	0	0	2185	0
Grp Sat Flow(s),veh/h/ln	1781	0	1583				0	1702	0	0	1702	1585
Q Serve(g_s), s	8.0	0.0	43.5				0.0	29.8	0.0	0.0	40.4	0.0
Cycle Q Clear(g_c), s	8.0	0.0	43.5				0.0	29.8	0.0	0.0	40.4	0.0
Prop In Lane	1.00		1.00				0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	784	0	1394				0	2322		0	2322	
V/C Ratio(X)	0.29	0.00	1.00				0.00	0.78		0.00	0.94	
Avail Cap(c_a), veh/h	784	0	1394				0	2372		0	2398	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.8	0.0	27.7				0.0	22.8	0.0	0.0	25.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	23.7				0.0	1.6	0.0	0.0	8.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	20.1				0.0	11.1	0.0	0.0	16.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	51.4				0.0	24.4	0.0	0.0	33.7	0.0
LnGrp LOS	B	A	D				A	C		A	C	
Approach Vol, veh/h		1617						1815	A		2185	A
Approach Delay, s/veh		46.8						24.4			33.7	
Approach LOS		D						C			C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	50.0	49.0	50.0
Change Period (Y+Rc), s	* 5	* 5.4	5.0
Max Green Setting (Gmax), s	* 47	* 44	46.0
Max Q Clear Time (g_c+I1), s	42.4	45.5	31.8
Green Ext Time (p_c), s	2.6	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2110	1220	420	1910	450	70
Future Volume (veh/h)	2110	1220	420	1910	450	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2293	0	457	2076	489	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2809		353	4005	537	246
Arrive On Green	0.55	0.00	0.20	0.78	0.16	0.16
Sat Flow, veh/h	5443	0	1781	5274	3456	1585
Grp Volume(v), veh/h	2293	0	457	2076	489	76
Grp Sat Flow(s),veh/h/ln	1702	0	1781	1702	1728	1585
Q Serve(g_s), s	51.7	0.0	27.9	20.8	19.6	6.0
Cycle Q Clear(g_c), s	51.7	0.0	27.9	20.8	19.6	6.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2809		353	4005	537	246
V/C Ratio(X)	0.82		1.30	0.52	0.91	0.31
Avail Cap(c_a), veh/h	2879		353	4075	711	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	56.5	5.5	58.6	52.8
Incr Delay (d2), s/veh	2.1	0.0	152.8	0.2	11.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.1	0.0	27.2	5.8	9.3	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.0	0.0	209.4	5.7	69.9	53.1
LnGrp LOS	C		F	A	E	D
Approach Vol, veh/h	2293	A		2533	565	
Approach Delay, s/veh	28.0			42.5	67.6	
Approach LOS	C			D	E	

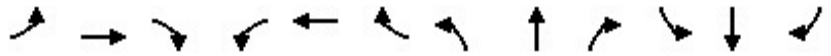
Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	115.6		33.0	82.6	25.4
Change Period (Y+Rc), s	5.0		* 5.1	5.0	3.5
Max Green Setting (Gmax), s	112.5		* 28	79.5	29.0
Max Q Clear Time (g_c+I1), s	22.8		29.9	53.7	21.6
Green Ext Time (p_c), s	62.7		0.0	23.9	0.3

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

Notes

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

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1570	0	370	0	1300	840	0	950	360
Future Volume (veh/h)	0	0	0	1570	0	370	0	1300	840	0	950	360
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				1707	0	402	0	1413	0	0	1033	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				1732	0	795	0	1667		0	1667	
Arrive On Green				0.50	0.00	0.50	0.00	0.33	0.00	0.00	0.33	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	2790	0	5274	1585
Grp Volume(v), veh/h				1707	0	402	0	1413	0	0	1033	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1395	0	1702	1585
Q Serve(g_s), s				25.7	0.0	9.0	0.0	13.6	0.0	0.0	9.0	0.0
Cycle Q Clear(g_c), s				25.7	0.0	9.0	0.0	13.6	0.0	0.0	9.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1732	0	795	0	1667		0	1667	
V/C Ratio(X)				0.99	0.00	0.51	0.00	0.85		0.00	0.62	
Avail Cap(c_a), veh/h				1732	0	795	0	1874		0	1874	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				13.0	0.0	8.8	0.0	16.6	0.0	0.0	15.0	0.0
Incr Delay (d2), s/veh				18.2	0.0	0.5	0.0	3.1	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.9	0.0	2.5	0.0	4.6	0.0	0.0	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.1	0.0	9.3	0.0	19.7	0.0	0.0	15.3	0.0
LnGrp LOS				C	A	A	A	B		A	B	
Approach Vol, veh/h					2109			1413	A		1033	A
Approach Delay, s/veh					27.0			19.7			15.3	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	21.9		21.9		31.0			
Change Period (Y+Rc), s	4.6		4.6		4.5			
Max Green Setting (Gmax), s	19.4		19.4		26.5			
Max Q Clear Time (g_c+I1), s	15.6		11.0		27.7			
Green Ext Time (p_c), s	1.6		1.9		0.0			

Intersection Summary		
HCM 6th Ctrl Delay		22.1
HCM 6th LOS		C

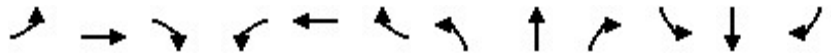
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL2	EBL	EBT	EBR	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	500	10	950	1270	100	30	1510	530	80	1770	230
Future Volume (vph)	500	10	950	1270	100	30	1510	530	80	1770	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8	6.8	4.5		4.6			4.6	4.0
Lane Util. Factor		0.91	0.86	0.91	0.88		0.86			0.91	1.00
Frpb, ped/bikes		1.00	0.99	0.98	1.00		0.99			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.94	0.85	0.85		0.96			1.00	0.85
Flt Protected		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		1610	3006	1418	2787		6100			5085	1545
Flt Permitted		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		1610	3006	1418	2787		6100			5085	1545
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
Adj. Flow (vph)	543	11	1033	1380	109	33	1641	576	87	1924	250
RTOR Reduction (vph)	0	0	1	30	72	0	5	0	0	0	0
Lane Group Flow (vph)	0	553	1654	729	70	0	2299	0	0	1924	250
Confl. Peds. (#/hr)	6			6	3				3		6
Confl. Bikes (#/hr)									2		3
Turn Type	Split	Split	NA	Perm	Prot		NA			NA	Free
Protected Phases	4	4	4		5		6			2	
Permitted Phases				4							Free
Actuated Green, G (s)		55.2	55.2	55.2	6.3		42.4			53.2	119.8
Effective Green, g (s)		55.2	55.2	55.2	6.3		42.4			53.2	119.8
Actuated g/C Ratio		0.46	0.46	0.46	0.05		0.35			0.44	1.00
Clearance Time (s)		6.8	6.8	6.8	4.5		4.6			4.6	
Vehicle Extension (s)		1.0	1.0	1.0	3.0		1.0			1.0	
Lane Grp Cap (vph)		741	1385	653	146		2158			2258	1545
v/s Ratio Prot		0.34	c0.55		0.03		c0.38			c0.38	
v/s Ratio Perm				0.51							0.16
v/c Ratio		0.75	1.19	1.12	0.48		1.16dr			0.85	0.16
Uniform Delay, d1		26.5	32.3	32.3	55.2		38.7			29.8	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2		3.6	94.7	71.9	2.5		39.6			3.2	0.2
Delay (s)		30.1	127.0	104.2	57.6		78.3			33.0	0.2
Level of Service		C	F	F	E		E			C	A
Approach Delay (s)			103.1				78.3			29.2	
Approach LOS			F				E			C	

Intersection Summary			
HCM 2000 Control Delay	73.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	119.8	Sum of lost time (s)	15.9
Intersection Capacity Utilization	96.8%	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 (veh/h)	230	170	30	50	250	430	40	1420	80	910	1950	740
Future Volume (veh/h)	230	170	30	50	250	430	40	1420	80	910	1950	740
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	185	33	54	272	467	43	1543	87	989	2120	804
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	863	147	93	341	1382	76	1692	95	895	2958	903
Arrive On Green	0.04	0.20	0.20	0.03	0.18	0.18	0.02	0.34	0.34	0.26	0.58	0.58
Sat Flow, veh/h	3456	4373	743	3563	1870	3077	3456	4943	279	3456	5106	1558
Grp Volume(v), veh/h	250	142	76	54	272	467	43	1063	567	989	2120	804
Grp Sat Flow(s),veh/h/ln	1728	1702	1711	1781	1870	1539	1728	1702	1817	1728	1702	1558
Q Serve(g_s), s	5.3	4.5	4.8	1.9	18.0	12.9	1.6	38.6	38.6	33.5	38.6	58.0
Cycle Q Clear(g_c), s	5.3	4.5	4.8	1.9	18.0	12.9	1.6	38.6	38.6	33.5	38.6	58.0
Prop In Lane	1.00		0.43	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	142	672	338	93	341	1382	76	1165	622	895	2958	903
V/C Ratio(X)	1.77	0.21	0.23	0.58	0.80	0.34	0.57	0.91	0.91	1.11	0.72	0.89
Avail Cap(c_a), veh/h	142	737	370	204	442	1548	131	1420	758	895	3235	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.1	43.5	43.6	62.3	50.6	23.8	62.7	40.7	40.7	48.0	19.6	23.7
Incr Delay (d2), s/veh	372.1	0.1	0.1	2.1	5.7	0.1	2.5	7.2	12.3	63.3	0.6	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	1.9	2.0	0.9	8.8	4.6	0.7	16.9	18.9	21.8	14.1	21.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	434.1	43.6	43.8	64.4	56.3	23.9	65.2	47.9	53.0	111.3	20.1	32.7
LnGrp LOS	F	D	D	E	E	C	E	D	D	F	C	C
Approach Vol, veh/h		468			793			1673			3913	
Approach Delay, s/veh		252.2			37.8			50.1			45.8	
Approach LOS		F			D			D			D	

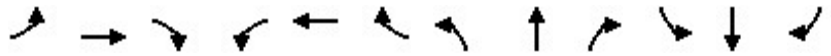
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	80.7	10.8	29.6	39.0	50.0	8.9	31.5
Change Period (Y+Rc), s	5.5	* 5.7	5.5	* 6	5.5	* 5.7	5.5	* 6
Max Green Setting (Gmax), s	4.3	* 82	5.3	* 31	33.5	* 54	7.4	* 28
Max Q Clear Time (g_c+I1), s	3.6	60.0	7.3	20.0	35.5	40.6	3.9	6.8
Green Ext Time (p_c), s	0.0	7.4	0.0	0.8	0.0	3.7	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	60.0
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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



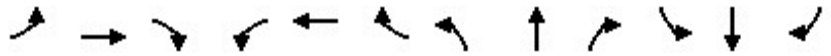
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	960	540	790	1430	130	1270	1500	480	180	1040	620
Future Volume (veh/h)	260	960	540	790	1430	130	1270	1500	480	180	1040	620
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	283	1043	587	859	1554	141	1380	1630	522	196	1130	674
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	779	357	393	1486	454	798	2211	685	241	925	425
Arrive On Green	0.05	0.23	0.23	0.11	0.29	0.29	0.23	0.43	0.43	0.07	0.27	0.27
Sat Flow, veh/h	3456	3404	1560	3456	5106	1560	3456	5106	1582	3456	3404	1563
Grp Volume(v), veh/h	283	1043	587	859	1554	141	1380	1630	522	196	1130	674
Grp Sat Flow(s),veh/h/ln	1728	1702	1560	1728	1702	1560	1728	1702	1582	1728	1702	1563
Q Serve(g_s), s	7.5	33.2	33.2	16.5	42.2	10.2	33.5	38.6	40.5	8.1	39.4	39.4
Cycle Q Clear(g_c), s	7.5	33.2	33.2	16.5	42.2	10.2	33.5	38.6	40.5	8.1	39.4	39.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	779	357	393	1486	454	798	2211	685	241	925	425
V/C Ratio(X)	1.58	1.34	1.64	2.18	1.05	0.31	1.73	0.74	0.76	0.81	1.22	1.59
Avail Cap(c_a), veh/h	179	779	357	393	1486	454	798	2211	685	265	925	425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.8	55.9	55.9	64.3	51.4	40.1	55.8	34.2	34.8	66.5	52.8	52.8
Incr Delay (d2), s/veh	287.4	160.8	301.7	541.3	36.3	0.1	333.1	1.2	4.5	14.4	109.5	275.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	31.3	42.7	36.7	22.4	3.9	51.2	15.6	15.9	4.0	30.4	47.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	356.2	216.7	357.6	605.6	87.7	40.2	388.8	35.4	39.3	81.0	162.3	327.9
LnGrp LOS	F	F	F	F	F	D	F	D	D	F	F	F
Approach Vol, veh/h		1913			2554			3532			2000	
Approach Delay, s/veh		280.6			259.2			174.1			210.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.0	45.0	13.0	48.0	15.6	68.4	22.0	39.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	33.5	* 39	7.5	42.2	11.1	* 62	16.5	33.2
Max Q Clear Time (g_c+I1), s	35.5	41.4	9.5	44.2	10.1	42.5	18.5	35.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	223.4
HCM 6th LOS	F

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	10	320	40	20	30	350	2780	10	150	3800	80
Future Volume (veh/h)	110	10	320	40	20	30	350	2780	10	150	3800	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	174	240	43	22	33	380	3022	11	163	4130	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	203	295	94	35	53	256	2618	10	120	2498	756
Arrive On Green	0.19	0.19	0.19	0.05	0.05	0.05	0.07	0.50	0.50	0.07	0.49	0.49
Sat Flow, veh/h	748	1085	1575	1781	673	1009	3456	5252	19	1781	5106	1545
Grp Volume(v), veh/h	294	0	240	43	0	55	380	1957	1076	163	4130	87
Grp Sat Flow(s),veh/h/ln	1833	0	1575	1781	0	1682	1728	1702	1867	1781	1702	1545
Q Serve(g_s), s	16.6	0.0	15.6	2.5	0.0	3.4	7.9	53.2	53.2	7.2	52.2	3.3
Cycle Q Clear(g_c), s	16.6	0.0	15.6	2.5	0.0	3.4	7.9	53.2	53.2	7.2	52.2	3.3
Prop In Lane	0.41		1.00	1.00		0.60	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	343	0	295	94	0	89	256	1697	931	120	2498	756
V/C Ratio(X)	0.86	0.00	0.81	0.46	0.00	0.62	1.49	1.15	1.16	1.36	1.65	0.12
Avail Cap(c_a), veh/h	550	0	472	534	0	504	256	1697	931	120	2498	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	0.0	41.6	49.1	0.0	49.5	49.4	26.8	26.8	49.8	27.3	14.8
Incr Delay (d2), s/veh	4.2	0.0	2.5	1.3	0.0	2.6	238.2	76.3	82.3	204.9	295.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.0	6.2	1.1	0.0	1.5	11.8	37.1	42.3	9.9	87.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	0.0	44.0	50.4	0.0	52.1	287.6	103.0	109.0	254.7	323.2	14.8
LnGrp LOS	D	A	D	D	A	D	F	F	F	F	F	B
Approach Vol, veh/h		534			98			3413			4380	
Approach Delay, s/veh		45.2			51.3			125.5			314.5	
Approach LOS		D			D			F			F	

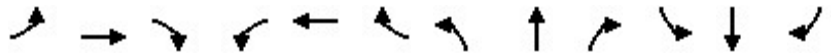
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	57.1		25.5	12.0	58.1		11.1
Change Period (Y+Rc), s	* 5.1	* 4.9		5.5	* 4.8	* 4.9		5.5
Max Green Setting (Gmax), s	* 7.9	* 52		32.0	* 7.2	* 53		32.0
Max Q Clear Time (g_c+I1), s	9.9	54.2		18.6	9.2	55.2		5.4
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.0		0.1

Intersection Summary	
HCM 6th Ctrl Delay	217.8
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	500	0	450	0	2490	350	0	2520	1720
Future Volume (veh/h)	0	0	0	500	0	450	0	2490	350	0	2520	1720
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				543	0	489	0	2707	0	0	2739	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				774	0	625	0	3549		0	3229	
Arrive On Green				0.22	0.00	0.22	0.00	0.63	0.00	0.00	0.63	0.00
Sat Flow, veh/h				3456	0	2790	0	5611	1585	0	5274	2790
Grp Volume(v), veh/h				543	0	489	0	2707	0	0	2739	0
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1870	1585	0	1702	1395
Q Serve(g_s), s				9.6	0.0	10.9	0.0	22.7	0.0	0.0	28.1	0.0
Cycle Q Clear(g_c), s				9.6	0.0	10.9	0.0	22.7	0.0	0.0	28.1	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				774	0	625	0	3549		0	3229	
V/C Ratio(X)				0.70	0.00	0.78	0.00	0.76		0.00	0.85	
Avail Cap(c_a), veh/h				914	0	738	0	5368		0	4862	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				23.6	0.0	24.2	0.0	8.6	0.0	0.0	9.6	0.0
Incr Delay (d2), s/veh				2.0	0.0	4.7	0.0	0.1	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.9	0.0	3.8	0.0	5.6	0.0	0.0	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.6	0.0	28.8	0.0	8.8	0.0	0.0	10.2	0.0
LnGrp LOS				C	A	C	A	A		A	B	
Approach Vol, veh/h					1032			2707	A		2739	A
Approach Delay, s/veh					27.1			8.8			10.2	
Approach LOS					C			A			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	46.8		46.8		19.3			
Change Period (Y+Rc), s	* 5		5.0		4.5			
Max Green Setting (Gmax), s	* 63		63.0		17.5			
Max Q Clear Time (g_c+I1), s	24.7		30.1		12.9			
Green Ext Time (p_c), s	11.9		11.7		1.9			

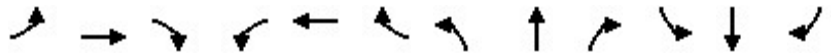
Intersection Summary								
HCM 6th Ctrl Delay	12.3							
HCM 6th LOS	B							

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1200	0	600	0	0	0	0	2270	560	0	2140	450
Future Volume (veh/h)	1200	0	600	0	0	0	0	2270	560	0	2140	450
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1304	0	652				0	2467	0	0	2326	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1688	0	937				0	3619		0	2715	
Arrive On Green	0.34	0.00	0.34				0.00	0.48	0.00	0.00	0.48	0.00
Sat Flow, veh/h	5023	0	2790				0	7481	1585	0	5611	1585
Grp Volume(v), veh/h	1304	0	652				0	2467	0	0	2326	0
Grp Sat Flow(s),veh/h/ln	1674	0	1395				0	1870	1585	0	1870	1585
Q Serve(g_s), s	11.9	0.0	10.3				0.0	13.0	0.0	0.0	18.7	0.0
Cycle Q Clear(g_c), s	11.9	0.0	10.3				0.0	13.0	0.0	0.0	18.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1688	0	937				0	3619		0	2715	
V/C Ratio(X)	0.77	0.00	0.70				0.00	0.68		0.00	0.86	
Avail Cap(c_a), veh/h	1820	0	1011				0	4059		0	3000	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.2	0.0	14.7				0.0	10.2	0.0	0.0	11.6	0.0
Incr Delay (d2), s/veh	2.0	0.0	1.9				0.0	0.3	0.0	0.0	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	3.0				0.0	3.5	0.0	0.0	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	0.0	16.6				0.0	10.4	0.0	0.0	13.9	0.0
LnGrp LOS	B	A	B				A	B		A	B	
Approach Vol, veh/h		1956						2467	A		2326	A
Approach Delay, s/veh		17.0						10.4			13.9	
Approach LOS		B						B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	29.4	21.7	29.4
Change Period (Y+Rc), s	* 4.7	4.5	4.7
Max Green Setting (Gmax), s	* 28	18.5	27.3
Max Q Clear Time (g_c+I1), s	15.0	13.9	20.7
Green Ext Time (p_c), s	6.6	3.3	4.0

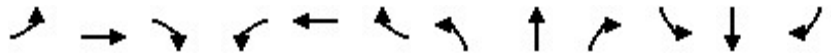
Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	310	130	370	330	140	100	1710	110	230	2170	320
Future Volume (veh/h)	250	310	130	370	330	140	100	1710	110	230	2170	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	272	337	141	402	359	152	109	1859	120	250	2359	348
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	688	301	327	712	291	115	2807	690	305	2507	771
Arrive On Green	0.10	0.19	0.19	0.09	0.19	0.19	0.03	0.44	0.44	0.09	0.49	0.49
Sat Flow, veh/h	3456	3554	1553	3563	3741	1528	3456	6434	1581	3456	5106	1571
Grp Volume(v), veh/h	272	337	141	402	359	152	109	1859	120	250	2359	348
Grp Sat Flow(s),veh/h/ln	1728	1777	1553	1781	1870	1528	1728	1609	1581	1728	1702	1571
Q Serve(g_s), s	9.3	10.1	9.6	11.0	10.3	10.7	3.8	27.4	5.5	8.5	52.4	17.4
Cycle Q Clear(g_c), s	9.3	10.1	9.6	11.0	10.3	10.7	3.8	27.4	5.5	8.5	52.4	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	688	301	327	712	291	115	2807	690	305	2507	771
V/C Ratio(X)	0.83	0.49	0.47	1.23	0.50	0.52	0.94	0.66	0.17	0.82	0.94	0.45
Avail Cap(c_a), veh/h	505	1145	500	327	999	408	115	2807	690	363	2510	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	43.1	42.9	54.4	43.5	43.6	57.8	26.8	20.6	53.7	28.8	19.9
Incr Delay (d2), s/veh	3.8	0.8	1.7	127.1	0.9	2.5	66.1	0.5	0.1	10.2	8.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	4.5	3.9	10.7	4.9	4.3	2.7	10.0	2.1	4.0	21.4	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	43.9	44.5	181.5	44.4	46.1	123.9	27.3	20.7	63.9	37.0	20.8
LnGrp LOS	E	D	D	F	D	D	F	C	C	E	D	C
Approach Vol, veh/h		750			913			2088			2957	
Approach Delay, s/veh		48.8			105.1			32.0			37.4	
Approach LOS		D			F			C			D	

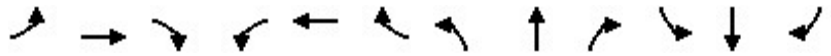
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	64.6	16.9	28.8	16.1	58.1	16.5	29.2
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	* 6
Max Green Setting (Gmax), s	4.0	* 59	17.5	32.0	12.6	* 50	11.0	* 39
Max Q Clear Time (g_c+I1), s	5.8	54.4	11.3	12.7	10.5	29.4	13.0	12.1
Green Ext Time (p_c), s	0.0	4.5	0.1	4.5	0.0	10.9	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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



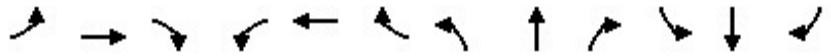
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	490	80	600	940	250	530	1380	100	260	970	260
Future Volume (veh/h)	170	490	80	600	940	250	530	1380	100	260	970	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	185	533	87	652	1022	272	576	1500	109	283	1054	283
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	227	619	271	664	1536	475	582	1553	475	296	1132	345
Arrive On Green	0.07	0.19	0.19	0.21	0.33	0.33	0.19	0.34	0.34	0.10	0.25	0.25
Sat Flow, veh/h	3110	3198	1400	3110	4595	1423	3110	4595	1406	3110	4595	1401
Grp Volume(v), veh/h	185	533	87	652	1022	272	576	1500	109	283	1054	283
Grp Sat Flow(s),veh/h/ln	1555	1599	1400	1555	1532	1423	1555	1532	1406	1555	1532	1401
Q Serve(g_s), s	8.4	23.0	7.6	29.8	27.2	22.5	26.4	45.8	7.9	12.9	32.0	27.2
Cycle Q Clear(g_c), s	8.4	23.0	7.6	29.8	27.2	22.5	26.4	45.8	7.9	12.9	32.0	27.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	619	271	664	1536	475	582	1553	475	296	1132	345
V/C Ratio(X)	0.82	0.86	0.32	0.98	0.67	0.57	0.99	0.97	0.23	0.96	0.93	0.82
Avail Cap(c_a), veh/h	316	672	294	664	1536	475	582	1554	476	296	1132	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.2	55.7	49.5	55.9	40.7	39.1	57.9	46.5	33.9	64.3	52.6	50.8
Incr Delay (d2), s/veh	7.7	11.7	1.4	30.1	1.9	3.9	34.8	15.6	0.5	40.0	13.8	15.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	10.1	2.7	14.2	10.3	8.2	13.0	19.1	2.7	6.7	13.4	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.9	67.4	50.9	86.0	42.6	43.0	92.7	62.1	34.4	104.3	66.4	66.7
LnGrp LOS	E	E	D	F	D	D	F	E	C	F	E	E
Approach Vol, veh/h		805			1946			2185			1620	
Approach Delay, s/veh		66.9			57.2			68.7			73.1	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.2	41.0	15.9	53.7	19.1	54.1	36.0	33.6
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	26.7	* 35	14.5	46.0	13.6	* 48	30.5	30.0
Max Q Clear Time (g_c+I1), s	28.4	34.0	10.4	29.2	14.9	47.8	31.8	25.0
Green Ext Time (p_c), s	0.0	0.8	0.0	12.6	0.0	0.5	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	66.2
HCM 6th LOS	E

Notes

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



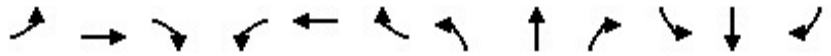
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	580	520	30	250	590	1290	10	790	90	470	230	120
Future Volume (veh/h)	580	520	30	250	590	1290	10	790	90	470	230	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	630	565	33	272	641	1402	11	859	98	511	250	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	1392	81	316	1942	595	13	495	57	218	1266	565
Arrive On Green	0.12	0.41	0.41	0.09	0.38	0.38	0.01	0.30	0.30	0.06	0.36	0.36
Sat Flow, veh/h	1781	3412	199	3456	5106	1564	1781	1648	188	3456	3554	1585
Grp Volume(v), veh/h	630	294	304	272	641	1402	11	0	957	511	250	130
Grp Sat Flow(s),veh/h/ln	1781	1777	1835	1728	1702	1564	1781	0	1837	1728	1777	1585
Q Serve(g_s), s	17.5	17.6	17.7	11.7	13.4	57.2	0.9	0.0	45.2	9.5	7.3	8.6
Cycle Q Clear(g_c), s	17.5	17.6	17.7	11.7	13.4	57.2	0.9	0.0	45.2	9.5	7.3	8.6
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	207	725	748	316	1942	595	13	0	552	218	1266	565
V/C Ratio(X)	3.04	0.41	0.41	0.86	0.33	2.36	0.84	0.00	1.73	2.34	0.20	0.23
Avail Cap(c_a), veh/h	207	725	748	423	1942	595	83	0	552	218	1266	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	31.6	31.6	67.4	33.0	46.6	74.6	0.0	52.6	70.5	33.5	33.9
Incr Delay (d2), s/veh	930.6	0.1	0.1	10.4	0.0	615.7	37.9	0.0	337.8	617.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	61.3	7.3	7.6	5.5	5.4	123.2	0.6	0.0	72.0	22.9	3.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	997.0	31.7	31.7	77.7	33.1	662.3	112.5	0.0	390.4	688.0	33.5	34.0
LnGrp LOS	F	C	C	E	C	F	F	A	F	F	C	C
Approach Vol, veh/h		1228			2315			968			891	
Approach Delay, s/veh		527.0			419.4			387.2			408.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	62.1	6.6	58.7	18.9	66.2	15.0	50.3
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	17.5	* 57	7.0	* 47	* 18	* 57	9.5	* 45
Max Q Clear Time (g_c+I1), s	19.5	59.2	2.9	10.6	13.7	19.7	11.5	47.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.1	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	436.4
HCM 6th LOS	F

Notes

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



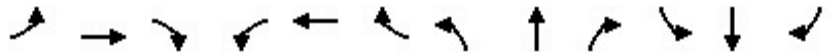
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	490	240	90	1180	460	970	2170	130	200	1060	310
Future Volume (veh/h)	470	490	240	90	1180	460	970	2170	130	200	1060	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	511	533	261	98	1283	500	1054	2359	141	217	1152	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1539	478	142	1168	363	798	2206	676	179	1291	401
Arrive On Green	0.11	0.30	0.30	0.04	0.23	0.23	0.23	0.43	0.43	0.05	0.25	0.25
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1565	3456	5106	1585
Grp Volume(v), veh/h	511	533	261	98	1283	500	1054	2359	141	217	1152	337
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1565	1728	1702	1585
Q Serve(g_s), s	16.5	11.8	20.0	4.1	33.2	33.2	33.5	62.7	8.2	7.5	31.6	29.3
Cycle Q Clear(g_c), s	16.5	11.8	20.0	4.1	33.2	33.2	33.5	62.7	8.2	7.5	31.6	29.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	1539	478	142	1168	363	798	2206	676	179	1291	401
V/C Ratio(X)	1.30	0.35	0.55	0.69	1.10	1.38	1.32	1.07	0.21	1.21	0.89	0.84
Avail Cap(c_a), veh/h	393	1539	478	202	1168	363	798	2206	676	179	1291	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.3	39.5	42.4	68.7	56.0	56.0	55.8	41.2	25.7	68.8	52.3	51.4
Incr Delay (d2), s/veh	152.7	0.0	0.7	2.2	57.4	186.9	153.2	40.8	0.1	136.9	7.9	14.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.4	4.8	7.6	1.8	19.9	31.6	31.0	32.8	2.9	6.6	13.9	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	217.0	39.6	43.1	70.9	113.4	242.8	209.0	82.0	25.8	205.7	60.2	65.4
LnGrp LOS	F	D	D	E	F	F	F	F	C	F	E	E
Approach Vol, veh/h		1305			1881			3554			1706	
Approach Delay, s/veh		109.8			145.6			117.4			79.8	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	70.1	11.5	50.5	39.0	44.1	22.0	40.0
Change Period (Y+Rc), s	5.5	* 7.4	5.5	* 6.8	5.5	* 7.4	5.5	6.8
Max Green Setting (Gmax), s	7.5	* 63	8.5	* 41	33.5	* 37	16.5	33.2
Max Q Clear Time (g_c+I1), s	9.5	64.7	6.1	22.0	35.5	33.6	18.5	35.2
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	1.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	114.9
HCM 6th LOS	F

Notes

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



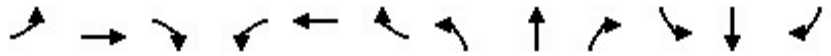
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	430	50	70	420	140	110	310	80	40	80	140
Future Volume (veh/h)	130	430	50	70	420	140	110	310	80	40	80	140
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	467	54	76	457	152	120	337	87	43	87	152
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	795	355	117	634	283	188	419	355	114	344	291
Arrive On Green	0.09	0.22	0.22	0.07	0.18	0.18	0.11	0.22	0.22	0.06	0.18	0.18
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	141	467	54	76	457	152	120	337	87	43	87	152
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	3.9	5.8	1.4	2.1	6.0	4.3	3.2	8.5	2.2	1.1	2.0	4.3
Cycle Q Clear(g_c), s	3.9	5.8	1.4	2.1	6.0	4.3	3.2	8.5	2.2	1.1	2.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	795	355	117	634	283	188	419	355	114	344	291
V/C Ratio(X)	0.85	0.59	0.15	0.65	0.72	0.54	0.64	0.81	0.25	0.38	0.25	0.52
Avail Cap(c_a), veh/h	165	1798	802	180	1769	789	826	867	735	934	980	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	17.2	15.5	22.6	19.2	18.5	21.3	18.2	15.8	22.3	17.3	18.3
Incr Delay (d2), s/veh	31.4	0.3	0.1	6.0	0.6	0.6	1.3	1.4	0.1	0.8	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	1.8	0.4	0.9	2.0	1.5	1.3	3.4	0.7	0.5	0.8	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.6	17.5	15.5	28.7	19.8	19.1	22.6	19.6	15.9	23.1	17.5	18.8
LnGrp LOS	D	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		662			685			544			282	
Approach Delay, s/veh		25.0			20.6			19.7			19.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	14.3	10.6	14.6	7.7	16.6	8.7	16.6
Change Period (Y+Rc), s	* 5.4	* 5.5	5.4	* 5.5	4.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	* 4.6	* 25	23.0	* 26	5.0	* 25	26.0	* 23
Max Q Clear Time (g_c+I1), s	5.9	8.0	5.2	6.3	4.1	7.8	3.1	10.5
Green Ext Time (p_c), s	0.0	0.8	0.0	0.2	0.0	0.8	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

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



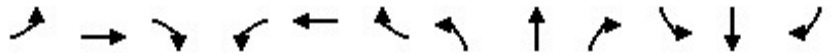
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	320	20	140	760	330	10	1620	210	100	1180	520
Future Volume (veh/h)	240	320	20	140	760	330	10	1620	210	100	1180	520
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	348	22	152	826	359	11	1761	228	109	1283	565
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	597	506	176	609	516	39	1220	544	134	1409	774
Arrive On Green	0.09	0.32	0.32	0.10	0.33	0.33	0.02	0.34	0.34	0.08	0.40	0.40
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	261	348	22	152	826	359	11	1761	228	109	1283	565
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	12.5	21.1	1.3	11.4	44.2	26.8	0.8	46.6	15.0	8.2	46.3	38.4
Cycle Q Clear(g_c), s	12.5	21.1	1.3	11.4	44.2	26.8	0.8	46.6	15.0	8.2	46.3	38.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	597	506	176	609	516	39	1220	544	134	1409	774
V/C Ratio(X)	1.59	0.58	0.04	0.87	1.36	0.70	0.28	1.44	0.42	0.81	0.91	0.73
Avail Cap(c_a), veh/h	164	597	506	221	609	516	249	1220	544	322	1409	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.6	38.6	31.9	60.3	45.8	39.9	65.3	44.6	34.2	61.8	38.7	27.6
Incr Delay (d2), s/veh	292.7	1.0	0.0	20.9	170.7	3.4	1.4	204.1	0.2	4.5	8.9	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	9.4	0.5	6.0	48.2	10.4	0.4	53.9	5.6	3.7	20.5	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	354.3	39.6	31.9	81.2	216.5	43.3	66.7	248.6	34.4	66.3	47.6	30.6
LnGrp LOS	F	D	C	F	F	D	E	F	C	E	D	C
Approach Vol, veh/h		631			1337			2000			1957	
Approach Delay, s/veh		169.5			154.6			223.2			43.7	
Approach LOS		F			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	51.0	7.5	60.2	17.9	50.1	14.7	53.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 6.4	4.5	6.8	4.5	6.4
Max Green Setting (Gmax), s	12.5	44.2	19.0	* 53	16.8	39.9	24.5	46.6
Max Q Clear Time (g_c+I1), s	14.5	46.2	2.8	48.3	13.4	23.1	10.2	48.6
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	142.7
HCM 6th LOS	F

Notes

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



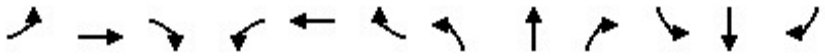
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	370	10	80	920	220	10	940	50	130	720	340
Future Volume (veh/h)	280	370	10	80	920	220	10	940	50	130	720	340
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	304	402	11	87	1000	239	11	1022	54	141	783	370
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	914	25	107	673	161	13	778	41	101	647	305
Arrive On Green	0.10	0.50	0.50	0.06	0.46	0.46	0.01	0.23	0.23	0.06	0.28	0.28
Sat Flow, veh/h	1781	1812	50	1781	1459	349	1781	3433	181	1781	2344	1105
Grp Volume(v), veh/h	304	0	413	87	0	1239	11	529	547	141	593	560
Grp Sat Flow(s),veh/h/ln	1781	0	1861	1781	0	1808	1781	1777	1838	1781	1777	1672
Q Serve(g_s), s	15.5	0.0	21.2	7.2	0.0	69.2	0.9	34.0	34.0	8.5	41.4	41.4
Cycle Q Clear(g_c), s	15.5	0.0	21.2	7.2	0.0	69.2	0.9	34.0	34.0	8.5	41.4	41.4
Prop In Lane	1.00		0.03	1.00		0.19	1.00		0.10	1.00		0.66
Lane Grp Cap(c), veh/h	184	0	939	107	0	834	13	403	417	101	490	461
V/C Ratio(X)	1.65	0.00	0.44	0.81	0.00	1.49	0.84	1.31	1.31	1.40	1.21	1.21
Avail Cap(c_a), veh/h	184	0	939	177	0	834	59	403	417	101	490	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	0.0	23.7	69.7	0.0	40.4	74.4	58.0	58.0	70.7	54.3	54.3
Incr Delay (d2), s/veh	316.2	0.0	0.1	5.5	0.0	225.0	37.8	157.7	157.3	227.8	112.1	114.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.0	0.0	8.9	3.4	0.0	80.7	0.6	32.3	33.4	10.2	33.0	31.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	383.4	0.0	23.8	75.2	0.0	265.4	112.2	215.7	215.3	298.5	166.4	169.1
LnGrp LOS	F	A	C	E	A	F	F	F	F	F	F	F
Approach Vol, veh/h		717			1326			1087			1294	
Approach Delay, s/veh		176.3			252.9			214.4			181.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	76.0	5.6	48.4	13.5	82.5	13.0	41.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 7	4.5	* 6.8	4.5	7.0
Max Green Setting (Gmax), s	15.5	69.2	5.0	* 38	14.9	* 70	8.5	34.0
Max Q Clear Time (g_c+I1), s	17.5	71.2	2.9	43.4	9.2	23.2	10.5	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	210.3
HCM 6th LOS	F

Notes

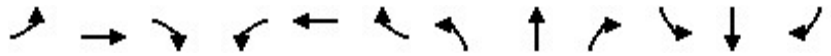
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	10	190	20	20	170	180	1050	20	50	900	120
Future Volume (veh/h)	190	10	190	20	20	170	180	1050	20	50	900	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	11	207	22	22	185	196	1141	22	54	978	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	384	326	45	282	239	277	1425	636	143	1425	636
Arrive On Green	0.08	0.21	0.21	0.03	0.15	0.15	0.08	0.40	0.40	0.08	0.40	0.40
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	207	11	207	22	22	185	196	1141	22	54	978	130
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.7	0.3	7.5	0.8	0.6	7.0	3.5	17.7	0.5	1.8	14.2	3.3
Cycle Q Clear(g_c), s	3.7	0.3	7.5	0.8	0.6	7.0	3.5	17.7	0.5	1.8	14.2	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	277	384	326	45	282	239	277	1425	636	143	1425	636
V/C Ratio(X)	0.75	0.03	0.64	0.49	0.08	0.77	0.71	0.80	0.03	0.38	0.69	0.20
Avail Cap(c_a), veh/h	277	539	457	143	539	457	277	1763	786	513	2503	1116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	19.8	22.7	30.0	22.8	25.5	28.0	16.5	11.4	27.3	15.5	12.2
Incr Delay (d2), s/veh	10.7	0.0	2.1	7.9	0.1	5.3	8.1	2.2	0.0	1.7	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.1	2.6	0.4	0.3	2.7	1.5	5.8	0.2	0.7	4.4	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.8	19.9	24.7	37.9	22.9	30.8	36.1	18.7	11.4	28.9	16.1	12.4
LnGrp LOS	D	B	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		425			229			1359			1162	
Approach Delay, s/veh		31.5			30.7			21.1			16.2	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	29.6	6.1	17.3	9.5	29.6	9.5	13.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	44.0	5.0	18.0	18.0	31.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	5.5	16.2	2.8	9.5	3.8	19.7	5.7	9.0
Green Ext Time (p_c), s	0.0	7.1	0.0	0.5	0.1	5.4	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	21.4
HCM 6th LOS	C



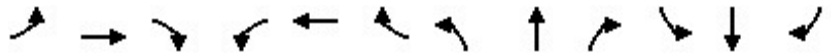
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	400	120	110	60	250	50	240	1400	80	30	1020	200
Future Volume (veh/h)	400	120	110	60	250	50	240	1400	80	30	1020	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	435	130	120	65	272	54	261	1522	87	33	1109	217
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	469	245	226	84	280	56	328	1606	716	53	1371	612
Arrive On Green	0.14	0.27	0.27	0.05	0.18	0.18	0.10	0.45	0.45	0.03	0.39	0.39
Sat Flow, veh/h	3456	895	826	1781	1515	301	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	435	0	250	65	0	326	261	1522	87	33	1109	217
Grp Sat Flow(s),veh/h/ln	1728	0	1722	1781	0	1816	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	12.5	0.0	12.4	3.6	0.0	17.9	7.4	41.1	3.2	1.8	27.9	9.8
Cycle Q Clear(g_c), s	12.5	0.0	12.4	3.6	0.0	17.9	7.4	41.1	3.2	1.8	27.9	9.8
Prop In Lane	1.00		0.48	1.00		0.17	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	469	0	471	84	0	335	328	1606	716	53	1371	612
V/C Ratio(X)	0.93	0.00	0.53	0.78	0.00	0.97	0.79	0.95	0.12	0.62	0.81	0.35
Avail Cap(c_a), veh/h	469	0	471	119	0	335	690	1724	769	89	1371	612
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	0.0	30.9	47.2	0.0	40.6	44.4	26.3	15.9	48.0	27.5	21.9
Incr Delay (d2), s/veh	24.7	0.0	0.6	18.2	0.0	41.5	1.7	10.9	0.0	11.1	3.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	0.0	4.8	2.0	0.0	11.7	3.1	17.4	1.0	0.9	11.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.5	0.0	31.5	65.5	0.0	82.1	46.0	37.2	15.9	59.1	30.9	22.0
LnGrp LOS	E	A	C	E	A	F	D	D	B	E	C	C
Approach Vol, veh/h		685			391			1870			1359	
Approach Delay, s/veh		54.4			79.3			37.4			30.2	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	44.8	18.1	23.2	7.5	51.4	9.2	32.1
Change Period (Y+Rc), s	* 4.6	* 6.1	4.5	* 4.7	4.5	* 6.1	4.5	* 4.7
Max Green Setting (Gmax), s	* 28	* 33	13.6	* 19	5.0	* 49	6.7	* 25
Max Q Clear Time (g_c+I1), s	19.4	29.9	14.5	19.9	3.8	43.1	5.6	14.4
Green Ext Time (p_c), s	0.1	1.1	0.0	0.0	0.0	2.1	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	30	140	80	20	290	120	1840	90	240	1090	170
Future Volume (veh/h)	360	30	140	80	20	290	120	1840	90	240	1090	170
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	391	33	152	87	22	315	130	2000	98	261	1185	185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	24	111	172	44	190	152	1469	655	184	1533	684
Arrive On Green	0.24	0.24	0.24	0.12	0.12	0.12	0.09	0.41	0.41	0.10	0.43	0.43
Sat Flow, veh/h	1174	99	456	1436	363	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	576	0	0	109	0	315	130	2000	98	261	1185	185
Grp Sat Flow(s),veh/h/ln	1730	0	0	1799	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	36.5	0.0	0.0	8.5	0.0	18.0	10.8	62.0	5.8	15.5	42.7	11.3
Cycle Q Clear(g_c), s	36.5	0.0	0.0	8.5	0.0	18.0	10.8	62.0	5.8	15.5	42.7	11.3
Prop In Lane	0.68		0.26	0.80		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	421	0	0	216	0	190	152	1469	655	184	1533	684
V/C Ratio(X)	1.37	0.00	0.00	0.51	0.00	1.66	0.86	1.36	0.15	1.42	0.77	0.27
Avail Cap(c_a), veh/h	421	0	0	216	0	190	178	1469	655	184	1533	684
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	0.0	0.0	61.8	0.0	66.0	67.7	44.0	27.5	67.3	36.4	27.5
Incr Delay (d2), s/veh	180.5	0.0	0.0	1.9	0.0	317.5	28.1	167.2	0.1	216.9	2.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.0	0.0	0.0	4.0	0.0	24.1	6.0	59.7	2.2	17.9	18.1	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	237.2	0.0	0.0	63.7	0.0	383.5	95.8	211.2	27.6	284.1	38.9	27.7
LnGrp LOS	F	A	A	E	A	F	F	F	C	F	D	C
Approach Vol, veh/h		576			424			2228			1631	
Approach Delay, s/veh		237.2			301.3			196.4			76.9	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	20.0	66.5		41.0	17.3	69.2		22.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	15.5	62.0		36.5	15.0	62.5		18.0
Max Q Clear Time (g_c+I1), s	17.5	64.0		38.5	12.8	44.7		20.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.1	7.8		0.0

Intersection Summary		
HCM 6th Ctrl Delay	170.3	
HCM 6th LOS	F	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	480	250	430	2130	1260	1280
Future Volume (veh/h)	480	250	430	2130	1260	1280
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	522	272	467	2315	1370	1391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	593	655	430	2527	1484	934
Arrive On Green	0.17	0.17	0.24	0.71	0.42	0.42
Sat Flow, veh/h	3456	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	522	272	467	2315	1370	1391
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777	1777	1585
Q Serve(g_s), s	15.6	12.8	25.5	57.0	38.6	44.1
Cycle Q Clear(g_c), s	15.6	12.8	25.5	57.0	38.6	44.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	593	655	430	2527	1484	934
V/C Ratio(X)	0.88	0.42	1.09	0.92	0.92	1.49
Avail Cap(c_a), veh/h	1391	1021	430	2537	1484	934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	22.0	40.1	12.6	29.2	18.0
Incr Delay (d2), s/veh	1.7	0.2	68.5	5.7	9.8	226.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	18.5	16.9	16.6	82.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.4	22.1	108.5	18.3	38.9	244.1
LnGrp LOS	D	C	F	B	D	F
Approach Vol, veh/h	794			2782	2761	
Approach Delay, s/veh	36.8			33.5	142.3	
Approach LOS	D			C	F	

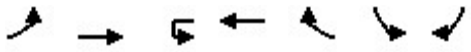
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	31.0	51.0		23.6		82.0
Change Period (Y+Rc), s	5.5	* 6.9		5.5		* 6.9
Max Green Setting (Gmax), s	25.5	* 44		42.5		* 75
Max Q Clear Time (g_c+I1), s	27.5	46.1		17.6		59.0
Green Ext Time (p_c), s	0.0	0.0		0.5		6.5

Intersection Summary	
HCM 6th Ctrl Delay	81.3
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	1000	1600	0	1860	360	80	630
Future Volume (veh/h)	1000	1600	0	1860	360	80	630
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	1087	1739		2022	391	87	685
Peak Hour Factor	0.92	0.92		0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	917	2684		1618	722	291	259
Arrive On Green	0.27	0.76		0.46	0.46	0.16	0.16
Sat Flow, veh/h	3456	3647		3647	1585	1781	1585
Grp Volume(v), veh/h	1087	1739		2022	391	87	685
Grp Sat Flow(s),veh/h/ln	1728	1777		1777	1585	1781	1585
Q Serve(g_s), s	39.8	35.2		68.3	26.8	6.4	24.5
Cycle Q Clear(g_c), s	39.8	35.2		68.3	26.8	6.4	24.5
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	917	2684		1618	722	291	259
V/C Ratio(X)	1.19	0.65		1.25	0.54	0.30	2.65
Avail Cap(c_a), veh/h	917	2684		1618	722	291	259
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	8.8		40.9	29.5	55.2	62.8
Incr Delay (d2), s/veh	94.5	0.4		117.6	0.5	0.2	751.7
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.6	10.7		54.2	9.8	2.8	63.6
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	149.6	9.2		158.5	30.0	55.4	814.4
LnGrp LOS	F	A		F	C	E	F
Approach Vol, veh/h		2826		2413		772	
Approach Delay, s/veh		63.2		137.7		728.9	
Approach LOS		E		F		F	

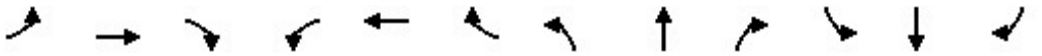
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	45.0	75.0			120.0	30.0
Change Period (Y+Rc), s	* 5.2	* 6.7			* 6.7	5.5
Max Green Setting (Gmax), s	* 40	* 68			* 1E2	24.5
Max Q Clear Time (g_c+I1), s	41.8	70.3			37.2	26.5
Green Ext Time (p_c), s	0.0	0.0			4.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	178.6
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	590	0	490	0	1300	1670	0	960	620
Future Volume (veh/h)	0	0	0	590	0	490	0	1300	1670	0	960	620
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				587	76	533	0	1413	0	0	1043	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				727	81	570	0	1848		0	1848	
Arrive On Green				0.41	0.41	0.41	0.00	0.36	0.00	0.00	0.36	0.00
Sat Flow, veh/h				1781	199	1397	0	5274	1585	0	5274	1585
Grp Volume(v), veh/h				587	0	609	0	1413	0	0	1043	0
Grp Sat Flow(s),veh/h/ln				1781	0	1596	0	1702	1585	0	1702	1585
Q Serve(g_s), s				12.5	0.0	15.7	0.0	10.5	0.0	0.0	7.1	0.0
Cycle Q Clear(g_c), s				12.5	0.0	15.7	0.0	10.5	0.0	0.0	7.1	0.0
Prop In Lane				1.00		0.88	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				727	0	652	0	1848		0	1848	
V/C Ratio(X)				0.81	0.00	0.93	0.00	0.76		0.00	0.56	
Avail Cap(c_a), veh/h				727	0	652	0	2666		0	2749	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.2	0.0	12.2	0.0	12.1	0.0	0.0	11.0	0.0
Incr Delay (d2), s/veh				6.2	0.0	20.5	0.0	0.4	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.9	0.0	7.8	0.0	2.7	0.0	0.0	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.5	0.0	32.7	0.0	12.6	0.0	0.0	11.1	0.0
LnGrp LOS				B	A	C	A	B		A	B	
Approach Vol, veh/h					1196			1413	A		1043	A
Approach Delay, s/veh					25.2			12.6			11.1	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	20.6		20.6		22.5			
Change Period (Y+Rc), s	* 5		5.0		4.9			
Max Green Setting (Gmax), s	* 23		22.5		17.6			
Max Q Clear Time (g_c+I1), s	9.1		12.5		17.7			
Green Ext Time (p_c), s	2.3		3.0		0.0			

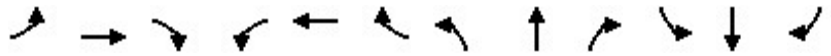
Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	580	0	820	0	0	0	0	2320	890	0	1050	300
Future Volume (veh/h)	580	0	820	0	0	0	0	2320	890	0	1050	300
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	948	0	550				0	2522	0	0	1141	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	1255	0	557				0	2810		0	2810	
Arrive On Green	0.35	0.00	0.35				0.00	0.55	0.00	0.00	0.55	0.00
Sat Flow, veh/h	3563	0	1581				0	5443	0	0	5274	1585
Grp Volume(v), veh/h	948	0	550				0	2522	0	0	1141	0
Grp Sat Flow(s),veh/h/ln	1781	0	1581				0	1702	0	0	1702	1585
Q Serve(g_s), s	25.1	0.0	36.9				0.0	46.8	0.0	0.0	13.8	0.0
Cycle Q Clear(g_c), s	25.1	0.0	36.9				0.0	46.8	0.0	0.0	13.8	0.0
Prop In Lane	1.00		1.00				0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	1255	0	557				0	2810		0	2810	
V/C Ratio(X)	0.76	0.00	0.99				0.00	0.90		0.00	0.41	
Avail Cap(c_a), veh/h	1255	0	557				0	3922		0	3946	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	30.5	0.0	34.3				0.0	21.3	0.0	0.0	13.9	0.0
Incr Delay (d2), s/veh	2.4	0.0	34.8				0.0	1.9	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	19.1				0.0	16.7	0.0	0.0	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	0.0	69.1				0.0	23.2	0.0	0.0	13.9	0.0
LnGrp LOS	C	A	E				A	C		A	B	
Approach Vol, veh/h		1498						2522	A		1141	A
Approach Delay, s/veh		46.2						23.2			13.9	
Approach LOS		D						C			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	63.7	43.0	63.7
Change Period (Y+Rc), s	* 5	* 5.4	5.0
Max Green Setting (Gmax), s	* 83	* 38	82.0
Max Q Clear Time (g_c+I1), s	15.8	38.9	48.8
Green Ext Time (p_c), s	2.9	0.0	9.9

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1840	250	210	2410	690	290
Future Volume (veh/h)	1840	250	210	2410	690	290
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2000	0	228	2620	750	315
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2382		261	3413	826	379
Arrive On Green	0.47	0.00	0.15	0.67	0.24	0.24
Sat Flow, veh/h	5443	0	1781	5274	3456	1585
Grp Volume(v), veh/h	2000	0	228	2620	750	315
Grp Sat Flow(s),veh/h/ln	1702	0	1781	1702	1728	1585
Q Serve(g_s), s	31.6	0.0	11.5	32.1	19.4	17.4
Cycle Q Clear(g_c), s	31.6	0.0	11.5	32.1	19.4	17.4
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2382		261	3413	826	379
V/C Ratio(X)	0.84		0.87	0.77	0.91	0.83
Avail Cap(c_a), veh/h	2420		265	3463	1093	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	38.4	10.4	34.0	33.2
Incr Delay (d2), s/veh	3.1	0.0	24.6	1.3	7.6	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	6.6	9.2	8.5	7.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.6	0.0	63.0	11.6	41.7	40.0
LnGrp LOS	C		E	B	D	D
Approach Vol, veh/h	2000	A		2848	1065	
Approach Delay, s/veh	24.6			15.7	41.2	
Approach LOS	C			B	D	

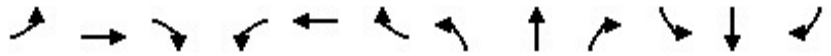
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	66.5			18.6	47.9	25.5
Change Period (Y+Rc), s	5.0			* 5.1	5.0	3.5
Max Green Setting (Gmax), s	62.4			* 14	43.6	29.1
Max Q Clear Time (g_c+I1), s	34.1			13.5	33.6	21.4
Green Ext Time (p_c), s	27.1			0.0	9.3	0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Notes

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

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	790	0	450	0	1860	1750	0	1130	620
Future Volume (veh/h)	0	0	0	790	0	450	0	1860	1750	0	1130	620
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				859	0	489	0	2022	0	0	1228	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				1200	0	550	0	2275		0	2275	
Arrive On Green				0.35	0.00	0.35	0.00	0.45	0.00	0.00	0.45	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	2790	0	5274	1585
Grp Volume(v), veh/h				859	0	489	0	2022	0	0	1228	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1395	0	1702	1585
Q Serve(g_s), s				9.5	0.0	12.8	0.0	16.0	0.0	0.0	7.7	0.0
Cycle Q Clear(g_c), s				9.5	0.0	12.8	0.0	16.0	0.0	0.0	7.7	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1200	0	550	0	2275		0	2275	
V/C Ratio(X)				0.72	0.00	0.89	0.00	0.89		0.00	0.54	
Avail Cap(c_a), veh/h				1221	0	560	0	2374		0	2374	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				12.4	0.0	13.5	0.0	11.2	0.0	0.0	8.9	0.0
Incr Delay (d2), s/veh				2.0	0.0	15.9	0.0	4.2	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.2	0.0	6.0	0.0	4.5	0.0	0.0	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.4	0.0	29.4	0.0	15.4	0.0	0.0	9.0	0.0
LnGrp LOS				B	A	C	A	B		A	A	
Approach Vol, veh/h					1348			2022	A		1228	A
Approach Delay, s/veh					19.9			15.4			9.0	
Approach LOS					B			B			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	24.1		24.1		19.7			
Change Period (Y+Rc), s	4.6		4.6		4.5			
Max Green Setting (Gmax), s	20.4		20.4		15.5			
Max Q Clear Time (g_c+I1), s	18.0		9.7		14.8			
Green Ext Time (p_c), s	1.6		2.6		0.5			

Intersection Summary		
HCM 6th Ctrl Delay		15.0
HCM 6th LOS		B

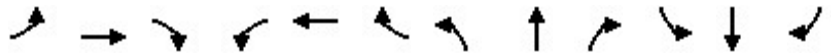
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL2	EBL	EBT	EBR	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	900	10	160	960	740	130	2020	460	10	1350	140
Future Volume (vph)	900	10	160	960	740	130	2020	460	10	1350	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8	6.8	4.5		4.6			4.6	4.0
Lane Util. Factor		0.91	0.86	0.91	0.88		0.86			0.91	1.00
Frpb, ped/bikes		1.00	0.98	0.98	1.00		1.00			1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.89	0.85	0.85		0.97			1.00	0.85
Flt Protected		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		1610	2799	1409	2787		6201			5085	1540
Flt Permitted		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		1610	2799	1409	2787		6201			5085	1540
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
Adj. Flow (vph)	978	11	174	1043	804	141	2196	500	11	1467	152
RTOR Reduction (vph)	0	0	26	38	59	0	1	0	0	0	0
Lane Group Flow (vph)	0	979	680	483	886	0	2706	0	0	1467	152
Confl. Peds. (#/hr)	11			11	3				3		11
Confl. Bikes (#/hr)									8		5
Turn Type	Split	Split	NA	Perm	Prot		NA			NA	Free
Protected Phases	4	4	4		5		6			2	
Permitted Phases				4							Free
Actuated Green, G (s)		37.2	37.2	37.2	26.5		40.4			71.4	120.0
Effective Green, g (s)		37.2	37.2	37.2	26.5		40.4			71.4	120.0
Actuated g/C Ratio		0.31	0.31	0.31	0.22		0.34			0.60	1.00
Clearance Time (s)		6.8	6.8	6.8	4.5		4.6			4.6	
Vehicle Extension (s)		1.0	1.0	1.0	3.0		1.0			1.0	
Lane Grp Cap (vph)		499	867	436	615		2087			3025	1540
v/s Ratio Prot		c0.61	0.24		c0.32		c0.44			0.29	
v/s Ratio Perm				0.34							0.10
v/c Ratio		1.96	1.12dr	1.11	1.44		1.30			0.48	0.10
Uniform Delay, d1		41.4	37.8	41.4	46.8		39.8			13.8	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2		440.1	4.3	75.7	207.3		137.2			0.0	0.1
Delay (s)		481.5	42.1	117.1	254.0		177.0			13.9	0.1
Level of Service		F	D	F	F		F			B	A
Approach Delay (s)			254.8				177.0			12.6	
Approach LOS			F				F			B	

Intersection Summary			
HCM 2000 Control Delay	174.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.9
Intersection Capacity Utilization	113.4%	ICU Level of Service	H
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 (veh/h)	690	300	40	170	190	700	70	1270	20	510	1660	310
Future Volume (veh/h)	690	300	40	170	190	700	70	1270	20	510	1660	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	750	326	43	185	207	761	76	1380	22	554	1804	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	538	1399	180	235	405	1215	118	1501	24	600	2192	675
Arrive On Green	0.16	0.31	0.31	0.07	0.22	0.22	0.03	0.29	0.29	0.17	0.43	0.43
Sat Flow, veh/h	3456	4573	588	3563	1870	3071	3456	5175	83	3456	5106	1572
Grp Volume(v), veh/h	750	241	128	185	207	761	76	908	494	554	1804	337
Grp Sat Flow(s),veh/h/ln	1728	1702	1756	1781	1870	1535	1728	1702	1854	1728	1702	1572
Q Serve(g_s), s	21.5	7.3	7.6	7.1	13.5	27.8	3.0	35.7	35.7	21.8	43.1	21.5
Cycle Q Clear(g_c), s	21.5	7.3	7.6	7.1	13.5	27.8	3.0	35.7	35.7	21.8	43.1	21.5
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	538	1042	537	235	405	1215	118	987	538	600	2192	675
V/C Ratio(X)	1.39	0.23	0.24	0.79	0.51	0.63	0.64	0.92	0.92	0.92	0.82	0.50
Avail Cap(c_a), veh/h	538	1042	537	436	406	1217	130	1119	609	663	2444	752
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.3	35.8	35.9	63.5	47.7	34.2	65.9	47.5	47.5	56.2	34.8	28.6
Incr Delay (d2), s/veh	188.5	0.0	0.1	2.2	0.5	0.8	6.2	10.5	17.0	17.0	1.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.3	3.0	3.2	3.2	6.2	10.2	1.4	16.2	18.6	10.7	17.4	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	246.8	35.8	36.0	65.7	48.1	34.9	72.0	58.0	64.4	73.2	36.7	28.8
LnGrp LOS	F	D	D	E	D	C	E	E	E	E	D	C
Approach Vol, veh/h		1119			1153			1478			2695	
Approach Delay, s/veh		177.3			42.2			60.8			43.2	
Approach LOS		F			D			E			D	

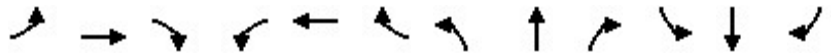
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	65.0	27.0	35.9	29.5	45.8	14.6	48.3
Change Period (Y+Rc), s	5.5	* 5.7	5.5	* 6	5.5	* 5.7	5.5	* 6
Max Green Setting (Gmax), s	5.3	* 66	21.5	* 30	26.5	* 45	16.9	* 34
Max Q Clear Time (g_c+I1), s	15.6	45.1	23.5	29.8	23.8	37.7	9.1	9.6
Green Ext Time (p_c), s	0.0	5.3	0.0	0.1	0.2	2.4	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	70.4
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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



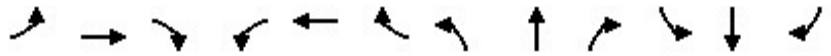
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	590	1430	760	970	970	210	1220	950	440	180	1520	420
Future Volume (veh/h)	590	1430	760	970	970	210	1220	950	440	180	1520	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	641	1554	826	1054	1054	228	1326	1033	478	196	1652	457
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	541	920	416	369	1127	336	679	2034	616	241	1078	292
Arrive On Green	0.16	0.27	0.27	0.11	0.22	0.22	0.20	0.40	0.40	0.07	0.27	0.27
Sat Flow, veh/h	3456	3404	1539	3456	5106	1522	3456	5106	1547	3456	3966	1074
Grp Volume(v), veh/h	641	1554	826	1054	1054	228	1326	1033	478	196	1413	696
Grp Sat Flow(s),veh/h/ln	1728	1702	1539	1728	1702	1522	1728	1702	1547	1728	1702	1636
Q Serve(g_s), s	22.7	39.2	39.2	15.5	29.4	19.9	28.5	22.1	39.0	8.1	39.4	39.4
Cycle Q Clear(g_c), s	22.7	39.2	39.2	15.5	29.4	19.9	28.5	22.1	39.0	8.1	39.4	39.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	541	920	416	369	1127	336	679	2034	616	241	925	445
V/C Ratio(X)	1.18	1.69	1.99	2.85	0.94	0.68	1.95	0.51	0.78	0.81	1.53	1.57
Avail Cap(c_a), veh/h	541	920	416	369	1127	336	679	2034	616	274	925	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.2	52.9	52.9	64.8	55.5	51.8	58.3	32.9	38.0	66.5	52.8	52.8
Incr Delay (d2), s/veh	100.8	314.6	452.0	841.4	13.8	4.5	433.9	0.1	5.6	13.3	242.8	265.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	56.5	67.0	49.9	13.7	7.9	53.1	8.9	15.3	4.0	47.6	48.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	161.9	367.5	504.9	906.1	69.3	56.3	492.1	33.0	43.6	79.8	295.6	318.3
LnGrp LOS	F	F	F	F	E	E	F	C	D	E	F	F
Approach Vol, veh/h		3021			2336			2837			2305	
Approach Delay, s/veh		361.5			445.6			249.4			284.1	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	45.0	28.2	37.8	15.6	63.4	21.0	45.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	28.5	* 39	22.7	32.0	11.5	* 56	15.5	39.2
Max Q Clear Time (g_c+I1), s	30.5	41.4	24.7	31.4	10.1	41.0	17.5	41.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	2.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	332.9
HCM 6th LOS	F

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	30	180	60	20	60	360	3220	20	70	2860	120
Future Volume (veh/h)	190	30	180	60	20	60	360	3220	20	70	2860	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	33	196	65	22	65	391	3500	22	76	3109	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	255	41	258	173	39	116	280	2630	16	84	2380	732
Arrive On Green	0.16	0.16	0.16	0.10	0.10	0.10	0.08	0.50	0.50	0.05	0.47	0.47
Sat Flow, veh/h	1546	247	1568	1781	404	1195	3456	5235	33	1781	5106	1571
Grp Volume(v), veh/h	240	0	196	65	0	87	391	2273	1249	76	3109	130
Grp Sat Flow(s),veh/h/ln	1793	0	1568	1781	0	1599	1728	1702	1864	1781	1702	1571
Q Serve(g_s), s	14.2	0.0	13.1	3.8	0.0	5.7	8.9	55.2	55.2	4.7	51.2	5.3
Cycle Q Clear(g_c), s	14.2	0.0	13.1	3.8	0.0	5.7	8.9	55.2	55.2	4.7	51.2	5.3
Prop In Lane	0.86		1.00	1.00		0.75	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	295	0	258	173	0	155	280	1710	937	84	2380	732
V/C Ratio(X)	0.81	0.00	0.76	0.38	0.00	0.56	1.40	1.33	1.33	0.90	1.31	0.18
Avail Cap(c_a), veh/h	522	0	457	519	0	466	280	1710	937	84	2380	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	0.0	43.8	46.5	0.0	47.4	50.5	27.3	27.3	52.1	29.3	17.1
Incr Delay (d2), s/veh	2.1	0.0	1.7	0.5	0.0	1.2	198.8	152.2	157.4	64.9	141.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	5.2	1.7	0.0	2.3	11.5	56.1	62.8	3.5	50.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	0.0	45.5	47.0	0.0	48.5	249.3	179.5	184.8	116.9	170.4	17.1
LnGrp LOS	D	A	D	D	A	D	F	F	F	F	F	B
Approach Vol, veh/h		436			152			3913			3315	
Approach Delay, s/veh		45.9			47.9			188.1			163.1	
Approach LOS		D			D			F			F	

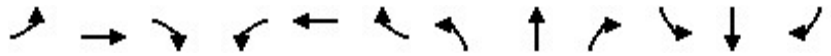
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	56.1		23.6	10.0	60.1		16.2
Change Period (Y+Rc), s	* 5.1	* 4.9		5.5	* 4.8	* 4.9		5.5
Max Green Setting (Gmax), s	* 8.9	* 51		32.0	* 5.2	* 55		32.0
Max Q Clear Time (g_c+I1), s	10.9	53.2		16.2	6.7	57.2		7.7
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	0.0		0.2

Intersection Summary	
HCM 6th Ctrl Delay	166.9
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	320	0	450	0	2990	530	0	1800	1270
Future Volume (veh/h)	0	0	0	320	0	450	0	2990	530	0	1800	1270
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				348	0	489	0	3250	0	0	1957	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				782	0	631	0	3592		0	3269	
Arrive On Green				0.23	0.00	0.23	0.00	0.64	0.00	0.00	0.64	0.00
Sat Flow, veh/h				3456	0	2790	0	5611	1585	0	5274	2790
Grp Volume(v), veh/h				348	0	489	0	3250	0	0	1957	0
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1870	1585	0	1702	1395
Q Serve(g_s), s				6.2	0.0	11.7	0.0	35.2	0.0	0.0	15.9	0.0
Cycle Q Clear(g_c), s				6.2	0.0	11.7	0.0	35.2	0.0	0.0	15.9	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				782	0	631	0	3592		0	3269	
V/C Ratio(X)				0.45	0.00	0.77	0.00	0.90		0.00	0.60	
Avail Cap(c_a), veh/h				1093	0	882	0	3810		0	3445	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				23.7	0.0	25.8	0.0	10.9	0.0	0.0	7.5	0.0
Incr Delay (d2), s/veh				0.4	0.0	2.9	0.0	3.2	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.4	0.0	3.9	0.0	10.2	0.0	0.0	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.1	0.0	28.7	0.0	14.2	0.0	0.0	7.6	0.0
LnGrp LOS				C	A	C	A	B		A	A	
Approach Vol, veh/h					837			3250	A		1957	A
Approach Delay, s/veh					26.8			14.2			7.6	
Approach LOS					C			B			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	50.5		50.5		20.6			
Change Period (Y+Rc), s	* 5		5.0		4.5			
Max Green Setting (Gmax), s	* 48		48.0		22.5			
Max Q Clear Time (g_c+I1), s	37.2		17.9		13.7			
Green Ext Time (p_c), s	8.3		6.1		2.4			

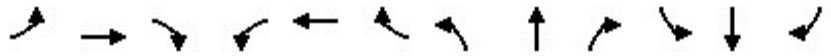
Intersection Summary		
HCM 6th Ctrl Delay		13.8
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1160	0	330	0	0	0	0	2860	520	0	1260	380
Future Volume (veh/h)	1160	0	330	0	0	0	0	2860	520	0	1260	380
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1261	0	359				0	3109	0	0	1370	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1698	0	943				0	3614		0	2711	
Arrive On Green	0.34	0.00	0.34				0.00	0.48	0.00	0.00	0.48	0.00
Sat Flow, veh/h	5023	0	2790				0	7481	1585	0	5611	1585
Grp Volume(v), veh/h	1261	0	359				0	3109	0	0	1370	0
Grp Sat Flow(s),veh/h/ln	1674	0	1395				0	1870	1585	0	1870	1585
Q Serve(g_s), s	11.4	0.0	5.0				0.0	18.9	0.0	0.0	8.6	0.0
Cycle Q Clear(g_c), s	11.4	0.0	5.0				0.0	18.9	0.0	0.0	8.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1698	0	943				0	3614		0	2711	
V/C Ratio(X)	0.74	0.00	0.38				0.00	0.86		0.00	0.51	
Avail Cap(c_a), veh/h	2001	0	1112				0	3737		0	2759	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.0	0.0	12.9				0.0	11.8	0.0	0.0	9.1	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.3				0.0	2.0	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	1.4				0.0	5.6	0.0	0.0	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	0.0	13.2				0.0	13.8	0.0	0.0	9.1	0.0
LnGrp LOS	B	A	B				A	B		A	A	
Approach Vol, veh/h		1620						3109	A		1370	A
Approach Delay, s/veh		15.6						13.8			9.1	
Approach LOS		B						B			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	29.6	21.9	29.6
Change Period (Y+Rc), s	* 4.7	4.5	4.7
Max Green Setting (Gmax), s	* 26	20.5	25.3
Max Q Clear Time (g_c+I1), s	20.9	13.4	10.6
Green Ext Time (p_c), s	3.9	4.0	3.3

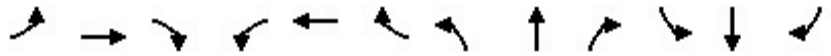
Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	550	540	130	210	380	250	140	1820	270	250	1360	250
Future Volume (veh/h)	550	540	130	210	380	250	140	1820	270	250	1360	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	598	587	141	228	478	228	152	1978	293	272	1478	272
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	925	405	300	871	361	162	2017	490	342	1867	577
Arrive On Green	0.11	0.26	0.26	0.08	0.23	0.23	0.05	0.31	0.31	0.10	0.37	0.37
Sat Flow, veh/h	3456	3554	1556	3563	3741	1552	3456	6434	1563	3456	5106	1579
Grp Volume(v), veh/h	598	587	141	228	478	228	152	1978	293	272	1478	272
Grp Sat Flow(s),veh/h/ln	1728	1777	1556	1781	1870	1552	1728	1609	1563	1728	1702	1579
Q Serve(g_s), s	10.5	13.7	6.9	5.9	10.6	12.4	4.1	28.6	14.9	7.2	24.3	12.4
Cycle Q Clear(g_c), s	10.5	13.7	6.9	5.9	10.6	12.4	4.1	28.6	14.9	7.2	24.3	12.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	925	405	300	871	361	162	2017	490	342	1867	577
V/C Ratio(X)	1.55	0.63	0.35	0.76	0.55	0.63	0.94	0.98	0.60	0.79	0.79	0.47
Avail Cap(c_a), veh/h	386	1215	532	398	1275	529	162	2017	490	497	1930	597
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	30.8	28.2	42.1	31.7	32.4	44.6	32.0	27.2	41.4	26.6	22.8
Incr Delay (d2), s/veh	259.0	1.1	0.8	3.9	0.9	3.1	52.5	15.6	1.6	3.3	2.6	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	5.9	2.6	2.7	4.8	4.9	2.9	12.4	5.6	3.1	9.4	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	300.7	31.8	29.0	46.0	32.6	35.5	97.1	47.6	28.9	44.6	29.2	24.0
LnGrp LOS	F	C	C	D	C	D	F	D	C	D	C	C
Approach Vol, veh/h		1326			934			2423			2022	
Approach Delay, s/veh		152.8			36.6			48.4			30.6	
Approach LOS		F			D			D			C	

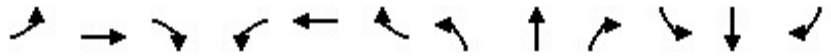
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	40.1	16.0	27.9	14.8	35.2	13.4	30.5
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	* 6
Max Green Setting (Gmax), s	4.4	* 36	10.5	32.0	13.5	* 26	10.5	* 32
Max Q Clear Time (g_c+I1), s	6.1	26.3	12.5	14.4	9.2	30.6	7.9	15.7
Green Ext Time (p_c), s	0.0	8.1	0.0	6.0	0.1	0.0	0.1	5.7

Intersection Summary	
HCM 6th Ctrl Delay	62.0
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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



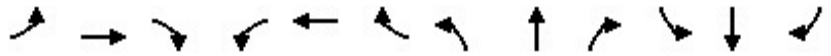
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	410	1270	300	500	670	490	300	1000	200	460	1540	130
Future Volume (veh/h)	410	1270	300	500	670	490	300	1000	200	460	1540	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	446	1380	326	543	728	533	326	1087	217	500	1674	141
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	474	1081	480	375	1407	436	247	1242	383	354	1401	432
Arrive On Green	0.15	0.34	0.34	0.12	0.31	0.31	0.08	0.27	0.27	0.11	0.30	0.30
Sat Flow, veh/h	3110	3198	1419	3110	4595	1424	3110	4595	1417	3110	4595	1418
Grp Volume(v), veh/h	446	1380	326	543	728	533	326	1087	217	500	1674	141
Grp Sat Flow(s),veh/h/ln	1555	1599	1419	1555	1532	1424	1555	1532	1417	1555	1532	1418
Q Serve(g_s), s	20.6	49.0	28.6	17.5	18.9	44.4	11.5	32.8	19.1	16.5	44.2	11.1
Cycle Q Clear(g_c), s	20.6	49.0	28.6	17.5	18.9	44.4	11.5	32.8	19.1	16.5	44.2	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	474	1081	480	375	1407	436	247	1242	383	354	1401	432
V/C Ratio(X)	0.94	1.28	0.68	1.45	0.52	1.22	1.32	0.87	0.57	1.41	1.20	0.33
Avail Cap(c_a), veh/h	474	1081	480	375	1407	436	247	1249	385	354	1401	432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.8	48.0	41.3	63.8	41.5	50.3	66.7	50.6	45.6	64.3	50.4	38.9
Incr Delay (d2), s/veh	26.8	131.8	4.9	215.5	1.0	119.2	170.2	7.6	3.1	201.8	95.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	38.6	10.4	18.0	7.2	29.8	10.3	13.1	6.9	16.3	28.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.6	179.8	46.2	279.2	42.5	169.5	237.0	58.2	48.7	266.0	145.4	39.8
LnGrp LOS	F	F	D	F	D	F	F	E	D	F	F	D
Approach Vol, veh/h		2152			1804			1630			2315	
Approach Delay, s/veh		140.5			151.3			92.7			165.0	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	50.0	27.6	50.4	22.0	45.0	23.0	55.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	11.5	* 44	22.1	44.4	16.5	* 39	17.5	49.0
Max Q Clear Time (g_c+I1), s	13.5	46.2	22.6	46.4	18.5	34.8	19.5	51.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	140.3
HCM 6th LOS	F

Notes

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



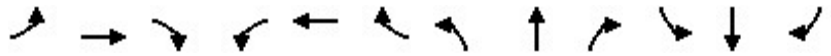
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	520	30	150	550	590	20	270	250	1430	730	610
Future Volume (veh/h)	130	520	30	150	550	590	20	270	250	1430	730	610
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	565	33	163	598	641	22	293	272	1554	793	663
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	859	50	188	1229	382	27	233	216	1022	1923	858
Arrive On Green	0.06	0.25	0.25	0.05	0.24	0.24	0.02	0.26	0.26	0.30	0.54	0.54
Sat Flow, veh/h	1781	3407	199	3456	5106	1585	1781	893	829	3456	3554	1585
Grp Volume(v), veh/h	141	294	304	163	598	641	22	0	565	1554	793	663
Grp Sat Flow(s),veh/h/ln	1781	1777	1829	1728	1702	1585	1781	0	1721	1728	1777	1585
Q Serve(g_s), s	9.5	22.3	22.4	7.0	15.1	36.2	1.9	0.0	39.2	44.5	19.8	49.6
Cycle Q Clear(g_c), s	9.5	22.3	22.4	7.0	15.1	36.2	1.9	0.0	39.2	44.5	19.8	49.6
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	113	448	461	188	1229	382	27	0	449	1022	1923	858
V/C Ratio(X)	1.25	0.66	0.66	0.87	0.49	1.68	0.80	0.00	1.26	1.52	0.41	0.77
Avail Cap(c_a), veh/h	113	448	461	188	1229	382	72	0	449	1022	1923	858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	50.4	50.5	70.6	49.1	57.1	73.8	0.0	55.6	53.0	20.4	27.2
Incr Delay (d2), s/veh	167.7	2.8	2.8	30.6	0.1	317.3	17.7	0.0	133.7	239.0	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	10.0	10.3	3.8	6.3	47.8	1.0	0.0	33.3	52.7	8.0	18.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	238.2	53.2	53.2	101.2	49.2	374.4	91.6	0.0	189.3	291.9	20.4	31.2
LnGrp LOS	F	D	D	F	D	F	F	A	F	F	C	C
Approach Vol, veh/h		739			1402			587			3010	
Approach Delay, s/veh		88.5			203.9			185.7			163.0	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	41.1	7.8	86.5	13.3	42.8	50.0	44.3
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	9.5	* 36	6.1	* 77	* 8.2	* 38	44.5	* 39
Max Q Clear Time (g_c+I1), s	11.5	38.2	3.9	51.6	9.0	24.4	46.5	41.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	165.7
HCM 6th LOS	F

Notes

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



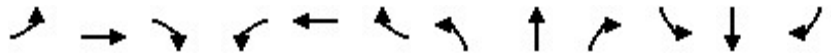
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	610	1270	630	190	550	320	450	1030	80	370	2680	220
Future Volume (veh/h)	610	1270	630	190	550	320	450	1030	80	370	2680	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	663	1380	685	207	598	348	489	1120	87	402	2913	239
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1517	471	155	1165	357	298	1813	556	448	2034	631
Arrive On Green	0.11	0.30	0.30	0.04	0.23	0.23	0.09	0.35	0.35	0.13	0.40	0.40
Sat Flow, veh/h	3456	5106	1585	3456	5106	1564	3456	5106	1565	3456	5106	1585
Grp Volume(v), veh/h	663	1380	685	207	598	348	489	1120	87	402	2913	239
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1564	1728	1702	1565	1728	1702	1585
Q Serve(g_s), s	16.5	37.8	43.1	6.5	14.9	32.0	12.5	26.3	5.5	16.6	57.8	15.5
Cycle Q Clear(g_c), s	16.5	37.8	43.1	6.5	14.9	32.0	12.5	26.3	5.5	16.6	57.8	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	1517	471	155	1165	357	298	1813	556	448	2034	631
V/C Ratio(X)	1.69	0.91	1.45	1.34	0.51	0.98	1.64	0.62	0.16	0.90	1.43	0.38
Avail Cap(c_a), veh/h	393	1517	471	155	1165	357	298	1813	556	588	2034	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.3	49.1	51.0	69.3	49.0	55.6	66.3	38.7	32.0	62.2	43.6	30.9
Incr Delay (d2), s/veh	320.1	8.3	216.3	188.8	0.2	40.7	303.9	0.5	0.0	11.8	197.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.5	16.5	44.6	6.9	6.1	16.2	17.9	10.6	2.0	7.8	60.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	384.4	57.4	267.3	258.1	49.1	96.3	370.2	39.1	32.0	74.0	241.0	31.1
LnGrp LOS	F	E	F	F	D	F	F	D	C	E	F	C
Approach Vol, veh/h		2728			1153			1696			3554	
Approach Delay, s/veh		189.6			100.9			134.2			208.0	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.3	58.9	12.0	49.9	18.0	65.2	22.0	39.9
Change Period (Y+Rc), s	5.5	* 7.4	5.5	* 6.8	5.5	* 7.4	5.5	6.8
Max Green Setting (Gmax), s	24.7	* 46	6.5	* 43	12.5	* 58	16.5	33.0
Max Q Clear Time (g_c+I1), s	18.6	28.3	8.5	45.1	14.5	59.8	18.5	34.0
Green Ext Time (p_c), s	0.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	175.3
HCM 6th LOS	F

Notes

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



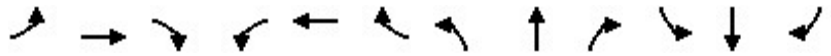
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	660	100	70	420	30	50	100	80	140	310	220
Future Volume (veh/h)	280	660	100	70	420	30	50	100	80	140	310	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	304	717	109	76	457	33	54	109	87	152	337	239
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	1140	509	105	597	266	111	302	256	207	406	344
Arrive On Green	0.20	0.32	0.32	0.06	0.17	0.17	0.06	0.16	0.16	0.12	0.22	0.22
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	304	717	109	76	457	33	54	109	87	152	337	239
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	10.1	10.5	3.1	2.6	7.5	1.1	1.8	3.2	3.0	5.1	10.5	8.5
Cycle Q Clear(g_c), s	10.1	10.5	3.1	2.6	7.5	1.1	1.8	3.2	3.0	5.1	10.5	8.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	1140	509	105	597	266	111	302	256	207	406	344
V/C Ratio(X)	0.86	0.63	0.21	0.72	0.77	0.12	0.49	0.36	0.34	0.74	0.83	0.70
Avail Cap(c_a), veh/h	453	1896	846	215	1374	613	668	702	595	756	793	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	17.7	15.2	28.3	24.4	21.7	27.8	22.9	22.8	26.2	22.9	22.1
Incr Delay (d2), s/veh	10.9	0.2	0.1	8.9	0.8	0.1	1.2	0.3	0.3	1.9	1.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	3.4	1.0	1.2	2.7	0.4	0.8	1.3	1.1	2.1	4.5	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	17.9	15.3	37.2	25.1	21.7	29.0	23.2	23.1	28.1	24.6	23.1
LnGrp LOS	C	B	B	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1130			566			250			728	
Approach Delay, s/veh		22.2			26.6			24.4			24.8	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	15.8	9.2	18.8	8.1	25.2	12.6	15.4
Change Period (Y+Rc), s	* 5.4	* 5.5	5.4	* 5.5	4.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	16	* 24	23.0	* 26	7.4	* 33	26.0	* 23
Max Q Clear Time (g_c+I1), s	12.1	9.5	3.8	12.5	4.6	12.5	7.1	5.2
Green Ext Time (p_c), s	0.0	0.8	0.0	0.7	0.0	1.4	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	24.0
HCM 6th LOS	C

Notes

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



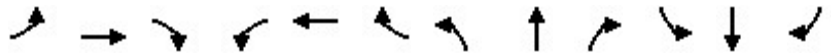
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	500	830	20	180	380	200	10	960	170	300	1680	290
Future Volume (veh/h)	500	830	20	180	380	200	10	960	170	300	1680	290
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	543	902	22	196	413	217	11	1043	185	326	1826	315
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	279	632	536	113	458	388	36	997	445	303	1530	931
Arrive On Green	0.16	0.34	0.34	0.06	0.24	0.24	0.02	0.28	0.28	0.17	0.43	0.43
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	543	902	22	196	413	217	11	1043	185	326	1826	315
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	23.5	50.7	1.4	9.5	32.1	18.0	0.9	42.1	14.3	25.5	64.6	15.4
Cycle Q Clear(g_c), s	23.5	50.7	1.4	9.5	32.1	18.0	0.9	42.1	14.3	25.5	64.6	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	632	536	113	458	388	36	997	445	303	1530	931
V/C Ratio(X)	1.95	1.43	0.04	1.74	0.90	0.56	0.31	1.05	0.42	1.08	1.19	0.34
Avail Cap(c_a), veh/h	279	632	536	113	458	388	226	997	445	303	1530	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	49.7	33.3	70.3	54.9	49.6	72.5	53.9	43.9	62.2	42.7	15.9
Incr Delay (d2), s/veh	438.5	201.2	0.0	365.9	20.4	1.1	1.8	41.2	0.2	73.6	93.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	44.3	57.8	0.5	15.7	17.1	7.0	0.4	23.7	5.5	17.3	46.4	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	501.7	250.8	33.3	436.1	75.3	50.7	74.3	95.1	44.2	135.8	136.3	16.0
LnGrp LOS	F	F	C	F	E	D	E	F	D	F	F	B
Approach Vol, veh/h		1467			826			1239			2467	
Approach Delay, s/veh		340.4			154.5			87.3			120.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	43.5	7.5	71.0	14.0	57.5	30.0	48.5
Change Period (Y+Rc), s	4.5	6.8	4.5	* 6.4	4.5	6.8	4.5	6.4
Max Green Setting (Gmax), s	23.5	36.7	19.0	* 49	9.5	50.7	25.5	42.1
Max Q Clear Time (g_c+I1), s	25.5	34.1	2.9	66.6	11.5	52.7	27.5	44.1
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	172.3
HCM 6th LOS	F

Notes

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



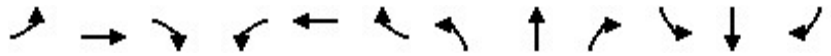
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	970	10	100	420	140	10	740	100	240	890	240
Future Volume (veh/h)	310	970	10	100	420	140	10	740	100	240	890	240
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	337	1054	11	109	457	152	11	804	109	261	967	261
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	880	9	89	469	156	13	669	91	195	872	235
Arrive On Green	0.18	0.48	0.48	0.05	0.35	0.35	0.01	0.21	0.21	0.11	0.32	0.32
Sat Flow, veh/h	1781	1848	19	1781	1338	445	1781	3144	426	1781	2768	745
Grp Volume(v), veh/h	337	0	1065	109	0	609	11	454	459	261	620	608
Grp Sat Flow(s),veh/h/ln	1781	0	1867	1781	0	1784	1781	1777	1794	1781	1777	1736
Q Serve(g_s), s	26.4	0.0	71.6	7.5	0.0	50.7	0.9	32.0	32.0	16.5	47.4	47.4
Cycle Q Clear(g_c), s	26.4	0.0	71.6	7.5	0.0	50.7	0.9	32.0	32.0	16.5	47.4	47.4
Prop In Lane	1.00		0.01	1.00		0.25	1.00		0.24	1.00		0.43
Lane Grp Cap(c), veh/h	313	0	889	89	0	625	13	378	382	195	560	547
V/C Ratio(X)	1.08	0.00	1.20	1.23	0.00	0.97	0.84	1.20	1.20	1.34	1.11	1.11
Avail Cap(c_a), veh/h	313	0	889	89	0	625	59	378	382	195	560	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.0	0.0	39.4	71.4	0.0	48.2	74.6	59.2	59.2	66.9	51.5	51.5
Incr Delay (d2), s/veh	73.2	0.0	100.1	168.6	0.0	29.4	37.9	113.5	113.4	181.5	70.6	73.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.9	0.0	55.0	7.5	0.0	26.5	0.6	25.8	26.0	17.1	31.1	30.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	135.2	0.0	139.5	240.0	0.0	77.6	112.5	172.7	172.6	248.5	122.1	124.5
LnGrp LOS	F	A	F	F	A	E	F	F	F	F	F	F
Approach Vol, veh/h		1402			718			924			1489	
Approach Delay, s/veh		138.5			102.3			171.9			145.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.9	59.5	5.6	54.4	12.0	78.4	21.0	39.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 7	4.5	* 6.8	4.5	7.0
Max Green Setting (Gmax), s	26.4	52.3	5.0	* 44	7.5	* 72	16.5	32.0
Max Q Clear Time (g_c+I1), s	28.4	52.7	2.9	49.4	9.5	73.6	18.5	34.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	141.8
HCM 6th LOS	F

Notes

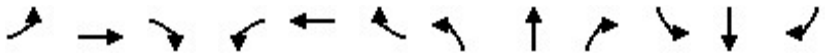
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	10	190	20	10	30	180	920	10	280	980	200
Future Volume (veh/h)	130	10	190	20	10	30	180	920	10	280	980	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	11	207	22	11	33	196	1000	11	304	1065	217
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	235	302	256	44	221	187	252	1250	558	355	1699	758
Arrive On Green	0.07	0.16	0.16	0.02	0.12	0.12	0.07	0.35	0.35	0.20	0.48	0.48
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	141	11	207	22	11	33	196	1000	11	304	1065	217
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.7	0.3	8.6	0.8	0.4	1.3	3.8	17.4	0.3	11.3	15.3	5.7
Cycle Q Clear(g_c), s	2.7	0.3	8.6	0.8	0.4	1.3	3.8	17.4	0.3	11.3	15.3	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	235	302	256	44	221	187	252	1250	558	355	1699	758
V/C Ratio(X)	0.60	0.04	0.81	0.49	0.05	0.18	0.78	0.80	0.02	0.86	0.63	0.29
Avail Cap(c_a), veh/h	252	491	416	130	491	416	252	1607	717	468	2282	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	24.3	27.7	33.0	26.8	27.2	31.2	20.0	14.5	26.5	13.3	10.8
Incr Delay (d2), s/veh	3.5	0.0	6.1	8.3	0.1	0.4	14.2	2.3	0.0	11.5	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.2	3.4	0.4	0.2	0.5	1.9	6.2	0.1	5.2	4.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	24.3	33.8	41.2	26.9	27.7	45.4	22.3	14.5	38.0	13.7	11.0
LnGrp LOS	C	C	C	D	C	C	D	C	B	D	B	B
Approach Vol, veh/h		359			66			1207			1586	
Approach Delay, s/veh		33.8			32.1			26.0			18.0	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	37.3	6.2	15.5	18.2	28.6	9.2	12.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	44.0	5.0	18.0	18.0	31.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	5.8	17.3	2.8	10.6	13.3	19.4	4.7	3.3
Green Ext Time (p_c), s	0.0	8.2	0.0	0.4	0.4	4.7	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	23.1
HCM 6th LOS	C



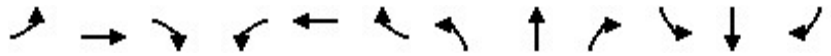
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	480	240	250	80	130	30	70	1060	60	50	1340	360
Future Volume (veh/h)	480	240	250	80	130	30	70	1060	60	50	1340	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	522	261	272	87	141	33	76	1152	65	54	1457	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	591	263	275	108	299	70	122	1520	678	70	1531	683
Arrive On Green	0.17	0.31	0.31	0.06	0.20	0.20	0.04	0.43	0.43	0.04	0.43	0.43
Sat Flow, veh/h	3456	839	874	1781	1466	343	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	522	0	533	87	0	174	76	1152	65	54	1457	391
Grp Sat Flow(s),veh/h/ln	1728	0	1713	1781	0	1809	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	18.5	0.0	38.8	6.0	0.0	10.6	2.7	34.3	3.1	3.8	49.5	23.3
Cycle Q Clear(g_c), s	18.5	0.0	38.8	6.0	0.0	10.6	2.7	34.3	3.1	3.8	49.5	23.3
Prop In Lane	1.00		0.51	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	591	0	538	108	0	369	122	1520	678	70	1531	683
V/C Ratio(X)	0.88	0.00	0.99	0.80	0.00	0.47	0.62	0.76	0.10	0.77	0.95	0.57
Avail Cap(c_a), veh/h	715	0	538	108	0	369	552	1948	869	142	1653	737
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.6	0.0	42.7	58.0	0.0	43.9	59.5	30.3	21.4	59.6	34.3	26.9
Incr Delay (d2), s/veh	11.0	0.0	36.2	34.1	0.0	0.9	1.9	0.9	0.0	16.5	11.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	0.0	20.8	3.7	0.0	4.9	1.2	13.7	1.1	2.0	22.0	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.6	0.0	78.9	92.1	0.0	44.8	61.5	31.2	21.4	76.0	46.1	27.4
LnGrp LOS	E	A	E	F	A	D	E	C	C	E	D	C
Approach Vol, veh/h		1055			261			1293			1902	
Approach Delay, s/veh		70.4			60.6			32.5			43.1	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	60.0	25.9	30.2	9.4	59.6	12.1	44.0
Change Period (Y+Rc), s	* 4.6	* 6.1	4.5	* 4.7	4.5	* 6.1	4.5	* 4.7
Max Green Setting (Gmax), s	* 28	* 58	25.9	* 21	10.0	* 69	7.6	* 39
Max Q Clear Time (g_c+I1), s	14.7	51.5	20.5	12.6	5.8	36.3	8.0	40.8
Green Ext Time (p_c), s	0.0	2.4	0.9	0.5	0.0	2.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	30	130	100	30	260	140	1270	80	300	1790	330
Future Volume (veh/h)	190	30	130	100	30	260	140	1270	80	300	1790	330
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	33	141	109	33	283	152	1380	87	326	1946	359
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	170	27	116	171	52	195	137	1419	633	310	1765	787
Arrive On Green	0.18	0.18	0.18	0.12	0.12	0.12	0.08	0.40	0.40	0.17	0.50	0.50
Sat Flow, veh/h	929	148	633	1383	419	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	381	0	0	142	0	283	152	1380	87	326	1946	359
Grp Sat Flow(s),veh/h/ln	1710	0	0	1801	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	27.5	0.0	0.0	11.3	0.0	18.5	11.5	57.2	5.2	26.1	74.5	22.1
Cycle Q Clear(g_c), s	27.5	0.0	0.0	11.3	0.0	18.5	11.5	57.2	5.2	26.1	74.5	22.1
Prop In Lane	0.54		0.37	0.77		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	0	0	222	0	195	137	1419	633	310	1765	787
V/C Ratio(X)	1.22	0.00	0.00	0.64	0.00	1.45	1.11	0.97	0.14	1.05	1.10	0.46
Avail Cap(c_a), veh/h	313	0	0	222	0	195	137	1419	633	310	1765	787
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	0.0	0.0	62.6	0.0	65.8	69.2	44.2	28.6	62.0	37.8	24.6
Incr Delay (d2), s/veh	122.5	0.0	0.0	6.0	0.0	227.8	110.6	17.7	0.1	65.4	55.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.6	0.0	0.0	5.6	0.0	19.9	9.3	27.2	1.9	17.0	43.3	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	183.8	0.0	0.0	68.6	0.0	293.5	179.8	61.9	28.7	127.3	93.0	25.0
LnGrp LOS	F	A	A	E	A	F	F	E	C	F	F	C
Approach Vol, veh/h		381			425			1619			2631	
Approach Delay, s/veh		183.8			218.4			71.2			88.0	
Approach LOS		F			F			E			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.6	64.4		32.0	16.0	79.0		23.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	26.1	59.9		27.5	11.5	74.5		18.5
Max Q Clear Time (g_c+I1), s	28.1	59.2		29.5	13.5	76.5		20.5
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	0.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	100.8
HCM 6th LOS	F

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1480	380	250	1480	2030	560
Future Volume (veh/h)	1480	380	250	1480	2030	560
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1609	413	272	1609	2207	609
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1163	687	172	2064	1590	709
Arrive On Green	0.34	0.34	0.10	0.58	0.45	0.45
Sat Flow, veh/h	3456	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	1609	413	272	1609	2207	609
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777	1777	1585
Q Serve(g_s), s	50.5	30.0	14.5	52.0	67.1	51.7
Cycle Q Clear(g_c), s	50.5	30.0	14.5	52.0	67.1	51.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1163	687	172	2064	1590	709
V/C Ratio(X)	1.38	0.60	1.58	0.78	1.39	0.86
Avail Cap(c_a), veh/h	1163	687	172	2071	1590	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	32.6	67.8	24.1	41.5	37.2
Incr Delay (d2), s/veh	177.8	1.0	286.7	1.8	178.7	9.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	50.4	27.1	20.1	20.3	66.8	20.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	227.5	33.6	354.5	25.9	220.2	47.1
LnGrp LOS	F	C	F	C	F	D
Approach Vol, veh/h	2022			1881	2816	
Approach Delay, s/veh	187.9			73.4	182.7	
Approach LOS	F			E	F	

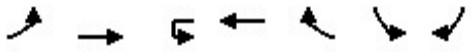
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	20.0	74.0		56.0		94.0
Change Period (Y+Rc), s	5.5	* 6.9		5.5		* 6.9
Max Green Setting (Gmax), s	14.5	* 67		50.5		* 87
Max Q Clear Time (g_c+I1), s	16.5	69.1		52.5		54.0
Green Ext Time (p_c), s	0.0	0.0		0.0		4.0

Intersection Summary	
HCM 6th Ctrl Delay	153.7
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	1300	2110	0	1590	450	230	990
Future Volume (veh/h)	1300	2110	0	1590	450	230	990
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	1413	2293		1728	489	250	1076
Peak Hour Factor	0.92	0.92		0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	1055	2424		1215	542	422	375
Arrive On Green	0.31	0.68		0.34	0.34	0.24	0.24
Sat Flow, veh/h	3456	3647		3647	1585	1781	1585
Grp Volume(v), veh/h	1413	2293		1728	489	250	1076
Grp Sat Flow(s),veh/h/ln	1728	1777		1777	1585	1781	1585
Q Serve(g_s), s	45.8	86.8		51.3	44.0	18.7	35.5
Cycle Q Clear(g_c), s	45.8	86.8		51.3	44.0	18.7	35.5
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1055	2424		1215	542	422	375
V/C Ratio(X)	1.34	0.95		1.42	0.90	0.59	2.87
Avail Cap(c_a), veh/h	1055	2424		1215	542	422	375
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	21.4		49.3	47.0	50.8	57.3
Incr Delay (d2), s/veh	159.1	8.7		194.7	17.8	1.5	848.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	42.2	32.8		54.5	19.2	8.3	102.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	211.2	30.0		244.0	64.8	52.4	905.3
LnGrp LOS	F	C		F	E	D	F
Approach Vol, veh/h		3706		2217		1326	
Approach Delay, s/veh		99.1		204.5		744.5	
Approach LOS		F		F		F	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	51.0	58.0			109.0	41.0
Change Period (Y+Rc), s	* 5.2	* 6.7			* 6.7	5.5
Max Green Setting (Gmax), s	* 46	* 51			* 93	35.5
Max Q Clear Time (g_c+I1), s	47.8	53.3			88.8	37.5
Green Ext Time (p_c), s	0.0	0.0			2.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	249.4
HCM 6th LOS	F

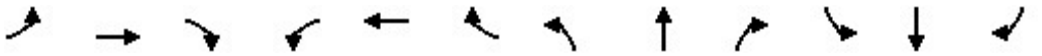
Notes

User approved ignoring U-Turning movement.

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

Appendix E

Analysis Worksheets for
Cumulative (2035) plus Proposed Project Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1120	0	300	0	1230	1080	0	1460	650
Future Volume (veh/h)	0	0	0	1120	0	300	0	1230	1080	0	1460	650
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				772	624	326	0	1337	0	0	1587	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				979	634	331	0	1531		0	1531	
Arrive On Green				0.55	0.55	0.55	0.00	0.30	0.00	0.00	0.30	0.00
Sat Flow, veh/h				1781	1154	603	0	5274	1585	0	5274	1585
Grp Volume(v), veh/h				772	0	950	0	1337	0	0	1587	0
Grp Sat Flow(s),veh/h/ln				1781	0	1757	0	1702	1585	0	1702	1585
Q Serve(g_s), s				22.6	0.0	34.9	0.0	16.3	0.0	0.0	19.7	0.0
Cycle Q Clear(g_c), s				22.6	0.0	34.9	0.0	16.3	0.0	0.0	19.7	0.0
Prop In Lane				1.00		0.34	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				979	0	965	0	1531		0	1531	
V/C Ratio(X)				0.79	0.00	0.98	0.00	0.87		0.00	1.04	
Avail Cap(c_a), veh/h				979	0	965	0	1531		0	1531	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.8	0.0	14.5	0.0	21.8	0.0	0.0	23.0	0.0
Incr Delay (d2), s/veh				4.0	0.0	25.0	0.0	5.7	0.0	0.0	33.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.3	0.0	17.7	0.0	6.4	0.0	0.0	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				15.8	0.0	39.5	0.0	27.5	0.0	0.0	56.0	0.0
LnGrp LOS				B	A	D	A	C		A	F	
Approach Vol, veh/h					1722			1337	A		1587	A
Approach Delay, s/veh					28.9			27.5			56.0	
Approach LOS					C			C			E	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	24.7		24.7		41.0			
Change Period (Y+Rc), s	* 5		5.0		4.9			
Max Green Setting (Gmax), s	* 20		19.0		36.1			
Max Q Clear Time (g_c+I1), s	21.7		18.3		36.9			
Green Ext Time (p_c), s	0.0		0.3		0.0			

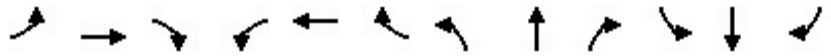
Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	0	1170	0	0	0	0	1670	420	0	2010	480
Future Volume (veh/h)	310	0	1170	0	0	0	0	1670	420	0	2010	480
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	225	0	1392				0	1815	0	0	2185	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	784	0	1394				0	2322		0	2322	
Arrive On Green	0.44	0.00	0.44				0.00	0.45	0.00	0.00	0.45	0.00
Sat Flow, veh/h	1781	0	3166				0	5443	0	0	5274	1585
Grp Volume(v), veh/h	225	0	1392				0	1815	0	0	2185	0
Grp Sat Flow(s),veh/h/ln	1781	0	1583				0	1702	0	0	1702	1585
Q Serve(g_s), s	8.0	0.0	43.5				0.0	29.8	0.0	0.0	40.4	0.0
Cycle Q Clear(g_c), s	8.0	0.0	43.5				0.0	29.8	0.0	0.0	40.4	0.0
Prop In Lane	1.00		1.00				0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	784	0	1394				0	2322		0	2322	
V/C Ratio(X)	0.29	0.00	1.00				0.00	0.78		0.00	0.94	
Avail Cap(c_a), veh/h	784	0	1394				0	2372		0	2398	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.8	0.0	27.7				0.0	22.8	0.0	0.0	25.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	23.7				0.0	1.6	0.0	0.0	8.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.0	20.1				0.0	11.1	0.0	0.0	16.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	51.4				0.0	24.4	0.0	0.0	33.7	0.0
LnGrp LOS	B	A	D				A	C		A	C	
Approach Vol, veh/h		1617						1815	A		2185	A
Approach Delay, s/veh		46.8						24.4			33.7	
Approach LOS		D						C			C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	50.0	49.0	50.0
Change Period (Y+Rc), s	* 5	* 5.4	5.0
Max Green Setting (Gmax), s	* 47	* 44	46.0
Max Q Clear Time (g_c+I1), s	42.4	45.5	31.8
Green Ext Time (p_c), s	2.6	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	2110	1220	420	1910	450	70
Future Volume (veh/h)	2110	1220	420	1910	450	70
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2293	0	457	2076	489	76
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2809		353	4005	537	246
Arrive On Green	0.55	0.00	0.20	0.78	0.16	0.16
Sat Flow, veh/h	5443	0	1781	5274	3456	1585
Grp Volume(v), veh/h	2293	0	457	2076	489	76
Grp Sat Flow(s),veh/h/ln	1702	0	1781	1702	1728	1585
Q Serve(g_s), s	51.7	0.0	27.9	20.8	19.6	6.0
Cycle Q Clear(g_c), s	51.7	0.0	27.9	20.8	19.6	6.0
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2809		353	4005	537	246
V/C Ratio(X)	0.82		1.30	0.52	0.91	0.31
Avail Cap(c_a), veh/h	2879		353	4075	711	326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	0.0	56.5	5.5	58.6	52.8
Incr Delay (d2), s/veh	2.1	0.0	152.8	0.2	11.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	20.1	0.0	27.2	5.8	9.3	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.0	0.0	209.4	5.7	69.9	53.1
LnGrp LOS	C		F	A	E	D
Approach Vol, veh/h	2293	A		2533	565	
Approach Delay, s/veh	28.0			42.5	67.6	
Approach LOS	C			D	E	

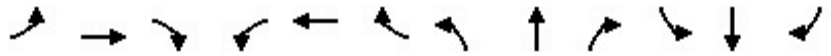
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	115.6			33.0	82.6	25.4
Change Period (Y+Rc), s	5.0			* 5.1	5.0	3.5
Max Green Setting (Gmax), s	112.5			* 28	79.5	29.0
Max Q Clear Time (g_c+I1), s	22.8			29.9	53.7	21.6
Green Ext Time (p_c), s	62.7			0.0	23.9	0.3

Intersection Summary	
HCM 6th Ctrl Delay	39.0
HCM 6th LOS	D

Notes

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

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1570	0	370	0	1302	859	0	951	360
Future Volume (veh/h)	0	0	0	1570	0	370	0	1302	859	0	951	360
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				1707	0	402	0	1415	0	0	1034	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				1732	0	794	0	1668		0	1668	
Arrive On Green				0.50	0.00	0.50	0.00	0.33	0.00	0.00	0.33	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	2790	0	5274	1585
Grp Volume(v), veh/h				1707	0	402	0	1415	0	0	1034	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1395	0	1702	1585
Q Serve(g_s), s				25.7	0.0	9.0	0.0	13.6	0.0	0.0	9.0	0.0
Cycle Q Clear(g_c), s				25.7	0.0	9.0	0.0	13.6	0.0	0.0	9.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1732	0	794	0	1668		0	1668	
V/C Ratio(X)				0.99	0.00	0.51	0.00	0.85		0.00	0.62	
Avail Cap(c_a), veh/h				1732	0	794	0	1873		0	1873	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				13.0	0.0	8.8	0.0	16.6	0.0	0.0	15.0	0.0
Incr Delay (d2), s/veh				18.2	0.0	0.5	0.0	3.2	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.9	0.0	2.5	0.0	4.6	0.0	0.0	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.2	0.0	9.3	0.0	19.7	0.0	0.0	15.3	0.0
LnGrp LOS				C	A	A	A	B		A	B	
Approach Vol, veh/h					2109			1415	A		1034	A
Approach Delay, s/veh					27.1			19.7			15.3	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	21.9		21.9		31.0			
Change Period (Y+Rc), s	4.6		4.6		4.5			
Max Green Setting (Gmax), s	19.4		19.4		26.5			
Max Q Clear Time (g_c+I1), s	15.6		11.0		27.7			
Green Ext Time (p_c), s	1.6		1.9		0.0			

Intersection Summary		
HCM 6th Ctrl Delay		22.1
HCM 6th LOS		C

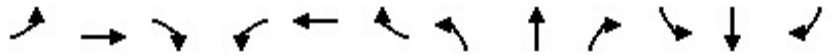
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL2	EBL	EBT	EBR	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	500	10	950	1276	100	30	1531	530	80	1771	230
Future Volume (vph)	500	10	950	1276	100	30	1531	530	80	1771	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8	6.8	4.5		4.6			4.6	4.0
Lane Util. Factor		0.91	0.86	0.91	0.88		0.86			0.91	1.00
Frpb, ped/bikes		1.00	0.99	0.98	1.00		0.99			1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.94	0.85	0.85		0.96			1.00	0.85
Flt Protected		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		1610	3002	1418	2787		6103			5085	1545
Flt Permitted		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		1610	3002	1418	2787		6103			5085	1545
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
Adj. Flow (vph)	543	11	1033	1387	109	33	1664	576	87	1925	250
RTOR Reduction (vph)	0	0	1	30	72	0	5	0	0	0	0
Lane Group Flow (vph)	0	553	1671	719	70	0	2322	0	0	1925	250
Confl. Peds. (#/hr)	6			6	3				3		6
Confl. Bikes (#/hr)									2		3
Turn Type	Split	Split	NA	Perm	Prot		NA			NA	Free
Protected Phases	4	4	4		5		6			2	
Permitted Phases				4							Free
Actuated Green, G (s)		55.2	55.2	55.2	6.3		42.4			53.2	119.8
Effective Green, g (s)		55.2	55.2	55.2	6.3		42.4			53.2	119.8
Actuated g/C Ratio		0.46	0.46	0.46	0.05		0.35			0.44	1.00
Clearance Time (s)		6.8	6.8	6.8	4.5		4.6			4.6	
Vehicle Extension (s)		1.0	1.0	1.0	3.0		1.0			1.0	
Lane Grp Cap (vph)		741	1383	653	146		2159			2258	1545
v/s Ratio Prot		0.34	c0.56		0.03		c0.38			c0.38	
v/s Ratio Perm				0.51							0.16
v/c Ratio		0.75	1.21	1.10	0.48		1.16dr			0.85	0.16
Uniform Delay, d1		26.5	32.3	32.3	55.2		38.7			29.8	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2		3.6	100.7	66.3	2.5		43.4			3.2	0.2
Delay (s)		30.1	133.0	98.6	57.6		82.1			33.0	0.2
Level of Service		C	F	F	E		F			C	A
Approach Delay (s)			105.2				82.1			29.2	
Approach LOS			F				F			C	

Intersection Summary			
HCM 2000 Control Delay	75.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	119.8	Sum of lost time (s)	15.9
Intersection Capacity Utilization	97.0%	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 (veh/h)	230	170	30	50	250	451	40	1420	80	917	1950	740
Future Volume (veh/h)	230	170	30	50	250	451	40	1420	80	917	1950	740
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	250	185	33	54	272	490	43	1543	87	997	2120	804
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	142	863	147	93	341	1382	76	1692	95	894	2958	903
Arrive On Green	0.04	0.20	0.20	0.03	0.18	0.18	0.02	0.34	0.34	0.26	0.58	0.58
Sat Flow, veh/h	3456	4373	743	3563	1870	3077	3456	4943	279	3456	5106	1558
Grp Volume(v), veh/h	250	142	76	54	272	490	43	1063	567	997	2120	804
Grp Sat Flow(s),veh/h/ln	1728	1702	1711	1781	1870	1539	1728	1702	1817	1728	1702	1558
Q Serve(g_s), s	5.3	4.5	4.8	1.9	18.0	13.7	1.6	38.6	38.6	33.5	38.7	58.1
Cycle Q Clear(g_c), s	5.3	4.5	4.8	1.9	18.0	13.7	1.6	38.6	38.6	33.5	38.7	58.1
Prop In Lane	1.00		0.43	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	142	672	338	93	341	1382	76	1165	622	894	2958	903
V/C Ratio(X)	1.77	0.21	0.23	0.58	0.80	0.35	0.57	0.91	0.91	1.11	0.72	0.89
Avail Cap(c_a), veh/h	142	736	370	204	442	1548	131	1420	758	894	3235	987
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.1	43.5	43.6	62.3	50.6	24.0	62.7	40.7	40.7	48.0	19.6	23.7
Incr Delay (d2), s/veh	372.2	0.1	0.1	2.1	5.7	0.1	2.5	7.2	12.3	66.8	0.6	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.6	1.9	2.0	0.9	8.8	4.8	0.7	16.9	18.9	22.2	14.1	21.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	434.3	43.6	43.8	64.4	56.3	24.1	65.2	47.9	53.0	114.7	20.1	32.7
LnGrp LOS	F	D	D	E	E	C	E	D	D	F	C	C
Approach Vol, veh/h		468			816			1673			3921	
Approach Delay, s/veh		252.3			37.5			50.1			46.8	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	80.7	10.8	29.6	39.0	50.0	8.9	31.5
Change Period (Y+Rc), s	5.5	* 5.7	5.5	* 6	5.5	* 5.7	5.5	* 6
Max Green Setting (Gmax), s	4.3	* 82	5.3	* 31	33.5	* 54	7.4	* 28
Max Q Clear Time (g_c+I1), s	3.6	60.1	7.3	20.0	35.5	40.6	3.9	6.8
Green Ext Time (p_c), s	0.0	7.4	0.0	0.8	0.0	3.7	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	60.5
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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

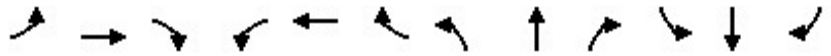
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	960	540	790	1430	130	1270	1500	480	180	1040	620
Future Volume (veh/h)	260	960	540	790	1430	130	1270	1500	480	180	1040	620
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	283	1043	587	859	1554	141	1380	1630	522	196	1130	674
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	179	779	357	393	1486	454	798	2211	685	241	925	425
Arrive On Green	0.05	0.23	0.23	0.11	0.29	0.29	0.23	0.43	0.43	0.07	0.27	0.27
Sat Flow, veh/h	3456	3404	1560	3456	5106	1560	3456	5106	1582	3456	3404	1563
Grp Volume(v), veh/h	283	1043	587	859	1554	141	1380	1630	522	196	1130	674
Grp Sat Flow(s),veh/h/ln	1728	1702	1560	1728	1702	1560	1728	1702	1582	1728	1702	1563
Q Serve(g_s), s	7.5	33.2	33.2	16.5	42.2	10.2	33.5	38.6	40.5	8.1	39.4	39.4
Cycle Q Clear(g_c), s	7.5	33.2	33.2	16.5	42.2	10.2	33.5	38.6	40.5	8.1	39.4	39.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	179	779	357	393	1486	454	798	2211	685	241	925	425
V/C Ratio(X)	1.58	1.34	1.64	2.18	1.05	0.31	1.73	0.74	0.76	0.81	1.22	1.59
Avail Cap(c_a), veh/h	179	779	357	393	1486	454	798	2211	685	265	925	425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	68.8	55.9	55.9	64.3	51.4	40.1	55.8	34.2	34.8	66.5	52.8	52.8
Incr Delay (d2), s/veh	287.4	160.8	301.7	541.3	36.3	0.1	333.1	1.2	4.5	14.4	109.5	275.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	31.3	42.7	36.7	22.4	3.9	51.2	15.6	15.9	4.0	30.4	47.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	356.2	216.7	357.6	605.6	87.7	40.2	388.8	35.4	39.3	81.0	162.3	327.9
LnGrp LOS	F	F	F	F	F	D	F	D	D	F	F	F
Approach Vol, veh/h		1913			2554			3532			2000	
Approach Delay, s/veh		280.6			259.2			174.1			210.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.0	45.0	13.0	48.0	15.6	68.4	22.0	39.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	33.5	* 39	7.5	42.2	11.1	* 62	16.5	33.2
Max Q Clear Time (g_c+I1), s	35.5	41.4	9.5	44.2	10.1	42.5	18.5	35.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	4.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	223.4
HCM 6th LOS	F

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	10	320	40	20	30	350	2789	10	150	3803	80
Future Volume (veh/h)	110	10	320	40	20	30	350	2789	10	150	3803	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	174	240	43	22	33	380	3032	11	163	4134	87
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	140	203	295	94	35	53	256	2618	9	120	2498	756
Arrive On Green	0.19	0.19	0.19	0.05	0.05	0.05	0.07	0.50	0.50	0.07	0.49	0.49
Sat Flow, veh/h	748	1085	1575	1781	673	1009	3456	5252	19	1781	5106	1545
Grp Volume(v), veh/h	294	0	240	43	0	55	380	1964	1079	163	4134	87
Grp Sat Flow(s),veh/h/ln	1833	0	1575	1781	0	1682	1728	1702	1867	1781	1702	1545
Q Serve(g_s), s	16.6	0.0	15.6	2.5	0.0	3.4	7.9	53.2	53.2	7.2	52.2	3.3
Cycle Q Clear(g_c), s	16.6	0.0	15.6	2.5	0.0	3.4	7.9	53.2	53.2	7.2	52.2	3.3
Prop In Lane	0.41		1.00	1.00		0.60	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	343	0	295	94	0	89	256	1697	931	120	2498	756
V/C Ratio(X)	0.86	0.00	0.81	0.46	0.00	0.62	1.49	1.16	1.16	1.36	1.66	0.12
Avail Cap(c_a), veh/h	550	0	472	534	0	504	256	1697	931	120	2498	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	0.0	41.6	49.1	0.0	49.5	49.4	26.8	26.8	49.8	27.3	14.8
Incr Delay (d2), s/veh	4.2	0.0	2.5	1.3	0.0	2.6	238.2	77.9	83.8	204.9	296.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.8	0.0	6.2	1.1	0.0	1.5	11.8	37.5	42.7	9.9	87.5	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	0.0	44.0	50.4	0.0	52.1	287.6	104.6	110.5	254.7	323.9	14.8
LnGrp LOS	D	A	D	D	A	D	F	F	F	F	F	B
Approach Vol, veh/h		534			98			3423			4384	
Approach Delay, s/veh		45.2			51.3			126.8			315.2	
Approach LOS		D			D			F			F	

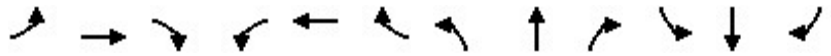
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.0	57.1		25.5	12.0	58.1		11.1
Change Period (Y+Rc), s	* 5.1	* 4.9		5.5	* 4.8	* 4.9		5.5
Max Green Setting (Gmax), s	* 7.9	* 52		32.0	* 7.2	* 53		32.0
Max Q Clear Time (g_c+I1), s	9.9	54.2		18.6	9.2	55.2		5.4
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.0		0.1

Intersection Summary	
HCM 6th Ctrl Delay	218.6
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	500	0	450	0	2499	350	0	2523	1720
Future Volume (veh/h)	0	0	0	500	0	450	0	2499	350	0	2523	1720
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				543	0	489	0	2716	0	0	2742	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				774	0	624	0	3551		0	3231	
Arrive On Green				0.22	0.00	0.22	0.00	0.63	0.00	0.00	0.63	0.00
Sat Flow, veh/h				3456	0	2790	0	5611	1585	0	5274	2790
Grp Volume(v), veh/h				543	0	489	0	2716	0	0	2742	0
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1870	1585	0	1702	1395
Q Serve(g_s), s				9.6	0.0	10.9	0.0	22.8	0.0	0.0	28.2	0.0
Cycle Q Clear(g_c), s				9.6	0.0	10.9	0.0	22.8	0.0	0.0	28.2	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				774	0	624	0	3551		0	3231	
V/C Ratio(X)				0.70	0.00	0.78	0.00	0.76		0.00	0.85	
Avail Cap(c_a), veh/h				912	0	737	0	5359		0	4853	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				23.7	0.0	24.2	0.0	8.7	0.0	0.0	9.6	0.0
Incr Delay (d2), s/veh				2.0	0.0	4.7	0.0	0.2	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.9	0.0	3.8	0.0	5.7	0.0	0.0	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.7	0.0	28.9	0.0	8.8	0.0	0.0	10.3	0.0
LnGrp LOS				C	A	C	A	A		A	B	
Approach Vol, veh/h					1032			2716	A		2742	A
Approach Delay, s/veh					27.2			8.8			10.3	
Approach LOS					C			A			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	46.9		46.9		19.3			
Change Period (Y+Rc), s	* 5		5.0		4.5			
Max Green Setting (Gmax), s	* 63		63.0		17.5			
Max Q Clear Time (g_c+I1), s	24.8		30.2		12.9			
Green Ext Time (p_c), s	11.9		11.7		1.9			

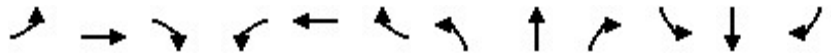
Intersection Summary								
HCM 6th Ctrl Delay	12.4							
HCM 6th LOS	B							

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1200	0	600	0	0	0	0	2279	560	0	2143	450
Future Volume (veh/h)	1200	0	600	0	0	0	0	2279	560	0	2143	450
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1304	0	652				0	2477	0	0	2329	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1687	0	937				0	3621		0	2716	
Arrive On Green	0.34	0.00	0.34				0.00	0.48	0.00	0.00	0.48	0.00
Sat Flow, veh/h	5023	0	2790				0	7481	1585	0	5611	1585
Grp Volume(v), veh/h	1304	0	652				0	2477	0	0	2329	0
Grp Sat Flow(s),veh/h/ln	1674	0	1395				0	1870	1585	0	1870	1585
Q Serve(g_s), s	11.9	0.0	10.3				0.0	13.0	0.0	0.0	18.7	0.0
Cycle Q Clear(g_c), s	11.9	0.0	10.3				0.0	13.0	0.0	0.0	18.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1687	0	937				0	3621		0	2716	
V/C Ratio(X)	0.77	0.00	0.70				0.00	0.68		0.00	0.86	
Avail Cap(c_a), veh/h	1819	0	1010				0	4056		0	2998	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.2	0.0	14.7				0.0	10.2	0.0	0.0	11.6	0.0
Incr Delay (d2), s/veh	2.0	0.0	1.9				0.0	0.3	0.0	0.0	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	3.0				0.0	3.6	0.0	0.0	5.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	0.0	16.6				0.0	10.5	0.0	0.0	13.9	0.0
LnGrp LOS	B	A	B				A	B		A	B	
Approach Vol, veh/h		1956						2477	A		2329	A
Approach Delay, s/veh		17.0						10.5			13.9	
Approach LOS		B						B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	29.4	21.7	29.4
Change Period (Y+Rc), s	* 4.7	4.5	4.7
Max Green Setting (Gmax), s	* 28	18.5	27.3
Max Q Clear Time (g_c+I1), s	15.0	13.9	20.7
Green Ext Time (p_c), s	6.6	3.3	4.0

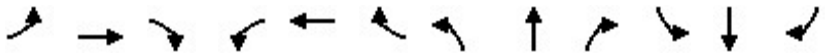
Intersection Summary	
HCM 6th Ctrl Delay	13.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	250	310	130	370	330	140	100	1719	110	230	2173	320
Future Volume (veh/h)	250	310	130	370	330	140	100	1719	110	230	2173	320
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	272	337	141	402	359	152	109	1868	120	250	2362	348
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	688	301	327	712	291	115	2807	690	305	2507	771
Arrive On Green	0.10	0.19	0.19	0.09	0.19	0.19	0.03	0.44	0.44	0.09	0.49	0.49
Sat Flow, veh/h	3456	3554	1553	3563	3741	1528	3456	6434	1581	3456	5106	1571
Grp Volume(v), veh/h	272	337	141	402	359	152	109	1868	120	250	2362	348
Grp Sat Flow(s),veh/h/ln	1728	1777	1553	1781	1870	1528	1728	1609	1581	1728	1702	1571
Q Serve(g_s), s	9.3	10.1	9.7	11.0	10.3	10.7	3.8	27.6	5.5	8.5	52.5	17.4
Cycle Q Clear(g_c), s	9.3	10.1	9.7	11.0	10.3	10.7	3.8	27.6	5.5	8.5	52.5	17.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	688	301	327	712	291	115	2807	690	305	2507	771
V/C Ratio(X)	0.83	0.49	0.47	1.23	0.50	0.52	0.94	0.67	0.17	0.82	0.94	0.45
Avail Cap(c_a), veh/h	505	1145	500	327	999	408	115	2807	690	363	2510	772
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	43.1	42.9	54.4	43.5	43.6	57.8	26.8	20.6	53.7	28.9	19.9
Incr Delay (d2), s/veh	3.8	0.8	1.7	127.1	0.9	2.5	66.1	0.5	0.1	10.2	8.3	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	4.5	3.9	10.7	4.9	4.3	2.7	10.1	2.1	4.0	21.5	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	43.9	44.5	181.5	44.4	46.1	123.9	27.4	20.7	63.9	37.2	20.8
LnGrp LOS	E	D	D	F	D	D	F	C	C	E	D	C
Approach Vol, veh/h		750			913			2097			2960	
Approach Delay, s/veh		48.8			105.1			32.0			37.5	
Approach LOS		D			F			C			D	

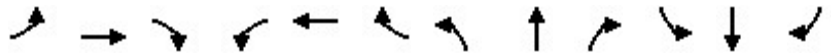
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	64.6	16.9	28.8	16.1	58.1	16.5	29.2
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	* 6
Max Green Setting (Gmax), s	4.0	* 59	17.5	32.0	12.6	* 50	11.0	* 39
Max Q Clear Time (g_c+I1), s	5.8	54.5	11.3	12.7	10.5	29.6	13.0	12.1
Green Ext Time (p_c), s	0.0	4.3	0.1	4.5	0.0	10.9	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	46.2
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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



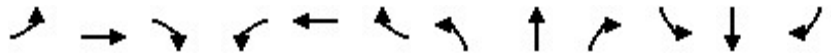
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	498	80	600	964	259	530	1380	100	263	970	260
Future Volume (veh/h)	170	498	80	600	964	259	530	1380	100	263	970	260
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	185	541	87	652	1048	282	576	1500	109	286	1054	283
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	227	623	273	663	1541	477	580	1551	474	296	1130	345
Arrive On Green	0.07	0.19	0.19	0.21	0.34	0.34	0.19	0.34	0.34	0.10	0.25	0.25
Sat Flow, veh/h	3110	3198	1400	3110	4595	1423	3110	4595	1406	3110	4595	1401
Grp Volume(v), veh/h	185	541	87	652	1048	282	576	1500	109	286	1054	283
Grp Sat Flow(s),veh/h/ln	1555	1599	1400	1555	1532	1423	1555	1532	1406	1555	1532	1401
Q Serve(g_s), s	8.4	23.4	7.6	29.9	28.1	23.5	26.4	45.9	8.0	13.1	32.1	27.3
Cycle Q Clear(g_c), s	8.4	23.4	7.6	29.9	28.1	23.5	26.4	45.9	8.0	13.1	32.1	27.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	227	623	273	663	1541	477	580	1551	474	296	1130	345
V/C Ratio(X)	0.82	0.87	0.32	0.98	0.68	0.59	0.99	0.97	0.23	0.97	0.93	0.82
Avail Cap(c_a), veh/h	315	671	294	663	1541	477	580	1552	475	296	1130	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.4	55.8	49.4	56.0	41.0	39.4	58.1	46.6	34.0	64.5	52.8	51.0
Incr Delay (d2), s/veh	7.7	12.3	1.4	30.6	2.0	4.2	35.3	15.9	0.5	43.1	14.0	16.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	10.3	2.7	14.2	10.6	8.6	13.0	19.2	2.8	6.9	13.5	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.1	68.1	50.8	86.6	43.0	43.6	93.3	62.5	34.5	107.6	66.8	67.0
LnGrp LOS	E	E	D	F	D	D	F	E	C	F	E	E
Approach Vol, veh/h		813			1982			2185			1623	
Approach Delay, s/veh		67.4			57.4			69.2			74.0	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	41.0	15.9	54.0	19.1	54.1	36.0	33.9
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	26.7	* 35	14.5	46.0	13.6	* 48	30.5	30.0
Max Q Clear Time (g_c+I1), s	28.4	34.1	10.4	30.1	15.1	47.9	31.9	25.4
Green Ext Time (p_c), s	0.0	0.8	0.0	12.3	0.0	0.3	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	66.6
HCM 6th LOS	E

Notes

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



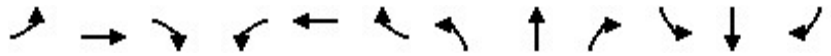
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	580	521	30	252	592	1290	10	790	91	470	230	120
Future Volume (veh/h)	580	521	30	252	592	1290	10	790	91	470	230	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	630	566	33	274	643	1402	11	859	99	511	250	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	1390	81	318	1942	595	13	495	57	218	1266	565
Arrive On Green	0.12	0.41	0.41	0.09	0.38	0.38	0.01	0.30	0.30	0.06	0.36	0.36
Sat Flow, veh/h	1781	3413	199	3456	5106	1564	1781	1646	190	3456	3554	1585
Grp Volume(v), veh/h	630	294	305	274	643	1402	11	0	958	511	250	130
Grp Sat Flow(s),veh/h/ln	1781	1777	1835	1728	1702	1564	1781	0	1836	1728	1777	1585
Q Serve(g_s), s	17.5	17.7	17.8	11.8	13.4	57.2	0.9	0.0	45.2	9.5	7.3	8.6
Cycle Q Clear(g_c), s	17.5	17.7	17.8	11.8	13.4	57.2	0.9	0.0	45.2	9.5	7.3	8.6
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	207	724	747	318	1942	595	13	0	552	218	1266	565
V/C Ratio(X)	3.04	0.41	0.41	0.86	0.33	2.36	0.84	0.00	1.74	2.34	0.20	0.23
Avail Cap(c_a), veh/h	207	724	747	423	1942	595	83	0	552	218	1266	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.5	31.7	31.7	67.3	33.0	46.6	74.6	0.0	52.6	70.5	33.5	33.9
Incr Delay (d2), s/veh	930.6	0.1	0.1	10.6	0.0	615.7	37.9	0.0	338.7	617.5	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	61.3	7.4	7.6	5.5	5.4	123.2	0.6	0.0	72.2	22.9	3.1	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	997.0	31.8	31.8	77.9	33.1	662.3	112.5	0.0	391.3	688.0	33.5	34.0
LnGrp LOS	F	C	C	E	C	F	F	A	F	F	C	C
Approach Vol, veh/h		1229			2319			969			891	
Approach Delay, s/veh		526.6			418.8			388.2			408.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	62.1	6.6	58.7	18.9	66.2	15.0	50.3
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	17.5	* 57	7.0	* 47	* 18	* 57	9.5	* 45
Max Q Clear Time (g_c+I1), s	19.5	59.2	2.9	10.6	13.8	19.8	11.5	47.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.1	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	436.2
HCM 6th LOS	F

Notes

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



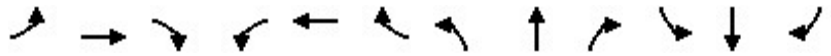
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	493	240	90	1189	460	970	2170	130	200	1060	310
Future Volume (veh/h)	470	493	240	90	1189	460	970	2170	130	200	1060	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	511	536	261	98	1292	500	1054	2359	141	217	1152	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1539	478	142	1168	363	798	2206	676	179	1291	401
Arrive On Green	0.11	0.30	0.30	0.04	0.23	0.23	0.23	0.43	0.43	0.05	0.25	0.25
Sat Flow, veh/h	3456	5106	1585	3456	5106	1585	3456	5106	1565	3456	5106	1585
Grp Volume(v), veh/h	511	536	261	98	1292	500	1054	2359	141	217	1152	337
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1585	1728	1702	1565	1728	1702	1585
Q Serve(g_s), s	16.5	11.9	20.0	4.1	33.2	33.2	33.5	62.7	8.2	7.5	31.6	29.3
Cycle Q Clear(g_c), s	16.5	11.9	20.0	4.1	33.2	33.2	33.5	62.7	8.2	7.5	31.6	29.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	1539	478	142	1168	363	798	2206	676	179	1291	401
V/C Ratio(X)	1.30	0.35	0.55	0.69	1.11	1.38	1.32	1.07	0.21	1.21	0.89	0.84
Avail Cap(c_a), veh/h	393	1539	478	202	1168	363	798	2206	676	179	1291	401
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.3	39.6	42.4	68.7	56.0	56.0	55.8	41.2	25.7	68.8	52.3	51.4
Incr Delay (d2), s/veh	152.7	0.0	0.7	2.2	60.3	186.9	153.2	40.8	0.1	136.9	7.9	14.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.4	4.8	7.6	1.8	20.2	31.6	31.0	32.8	2.9	6.6	13.9	12.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	217.0	39.6	43.1	70.9	116.3	242.8	209.0	82.0	25.8	205.7	60.2	65.4
LnGrp LOS	F	D	D	E	F	F	F	F	C	F	E	E
Approach Vol, veh/h		1308			1890			3554			1706	
Approach Delay, s/veh		109.6			147.4			117.4			79.8	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	70.1	11.5	50.5	39.0	44.1	22.0	40.0
Change Period (Y+Rc), s	5.5	* 7.4	5.5	* 6.8	5.5	* 7.4	5.5	6.8
Max Green Setting (Gmax), s	7.5	* 63	8.5	* 41	33.5	* 37	16.5	33.2
Max Q Clear Time (g_c+I1), s	9.5	64.7	6.1	22.0	35.5	33.6	18.5	35.2
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	1.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	115.3
HCM 6th LOS	F

Notes

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



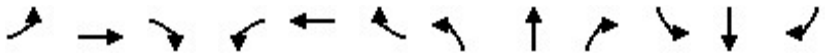
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	430	50	70	420	140	110	310	80	40	80	180
Future Volume (veh/h)	143	430	50	70	420	140	110	310	80	40	80	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	155	467	54	76	457	152	120	337	87	43	87	196
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	165	795	355	117	634	283	188	419	355	114	344	291
Arrive On Green	0.09	0.22	0.22	0.07	0.18	0.18	0.11	0.22	0.22	0.06	0.18	0.18
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	155	467	54	76	457	152	120	337	87	43	87	196
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	4.3	5.8	1.4	2.1	6.0	4.3	3.2	8.5	2.2	1.1	2.0	5.7
Cycle Q Clear(g_c), s	4.3	5.8	1.4	2.1	6.0	4.3	3.2	8.5	2.2	1.1	2.0	5.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	795	355	117	634	283	188	419	355	114	344	291
V/C Ratio(X)	0.94	0.59	0.15	0.65	0.72	0.54	0.64	0.81	0.25	0.38	0.25	0.67
Avail Cap(c_a), veh/h	165	1798	802	180	1769	789	826	867	735	934	980	831
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	17.2	15.5	22.6	19.2	18.5	21.3	18.2	15.8	22.3	17.3	18.9
Incr Delay (d2), s/veh	51.5	0.3	0.1	6.0	0.6	0.6	1.3	1.4	0.1	0.8	0.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	1.8	0.4	0.9	2.0	1.5	1.3	3.4	0.7	0.5	0.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.9	17.5	15.5	28.7	19.8	19.1	22.6	19.6	15.9	23.1	17.5	19.9
LnGrp LOS	E	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		676			685			544			326	
Approach Delay, s/veh		30.2			20.6			19.7			19.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	14.3	10.6	14.6	7.7	16.6	8.7	16.6
Change Period (Y+Rc), s	* 5.4	* 5.5	5.4	* 5.5	4.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	* 4.6	* 25	23.0	* 26	5.0	* 25	26.0	* 23
Max Q Clear Time (g_c+I1), s	6.3	8.0	5.2	7.7	4.1	7.8	3.1	10.5
Green Ext Time (p_c), s	0.0	0.8	0.0	0.3	0.0	0.8	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes

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



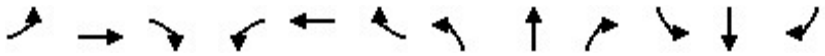
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	321	20	145	765	330	10	1620	212	100	1180	520
Future Volume (veh/h)	240	321	20	145	765	330	10	1620	212	100	1180	520
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	261	349	22	158	832	359	11	1761	230	109	1283	565
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	164	591	501	182	609	516	39	1220	544	134	1409	774
Arrive On Green	0.09	0.32	0.32	0.10	0.33	0.33	0.02	0.34	0.34	0.08	0.40	0.40
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	261	349	22	158	832	359	11	1761	230	109	1283	565
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	12.5	21.3	1.3	11.9	44.2	26.8	0.8	46.6	15.1	8.2	46.3	38.4
Cycle Q Clear(g_c), s	12.5	21.3	1.3	11.9	44.2	26.8	0.8	46.6	15.1	8.2	46.3	38.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	164	591	501	182	609	516	39	1220	544	134	1409	774
V/C Ratio(X)	1.59	0.59	0.04	0.87	1.37	0.70	0.28	1.44	0.42	0.81	0.91	0.73
Avail Cap(c_a), veh/h	164	591	501	221	609	516	249	1220	544	322	1409	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.6	39.0	32.2	60.0	45.8	39.9	65.3	44.6	34.2	61.8	38.7	27.6
Incr Delay (d2), s/veh	292.7	1.1	0.0	22.8	175.0	3.4	1.4	204.1	0.2	4.5	8.9	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	9.5	0.5	6.3	49.0	10.4	0.4	53.9	5.6	3.7	20.5	14.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	354.3	40.1	32.2	82.8	220.7	43.3	66.7	248.6	34.4	66.3	47.6	30.6
LnGrp LOS	F	D	C	F	F	D	E	F	C	E	D	C
Approach Vol, veh/h		632			1349			2002			1957	
Approach Delay, s/veh		169.6			157.4			223.0			43.7	
Approach LOS		F			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	51.0	7.5	60.2	18.3	49.7	14.7	53.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 6.4	4.5	6.8	4.5	6.4
Max Green Setting (Gmax), s	12.5	44.2	19.0	* 53	16.8	39.9	24.5	46.6
Max Q Clear Time (g_c+I1), s	14.5	46.2	2.8	48.3	13.9	23.3	10.2	48.6
Green Ext Time (p_c), s	0.0	0.0	0.0	2.6	0.0	1.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	143.4
HCM 6th LOS	F

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	370	10	80	920	221	10	943	50	132	729	350
Future Volume (veh/h)	283	370	10	80	920	221	10	943	50	132	729	350
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	308	402	11	87	1000	240	11	1025	54	143	792	380
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	914	25	107	672	161	13	778	41	101	643	308
Arrive On Green	0.10	0.50	0.50	0.06	0.46	0.46	0.01	0.23	0.23	0.06	0.28	0.28
Sat Flow, veh/h	1781	1812	50	1781	1458	350	1781	3434	181	1781	2332	1115
Grp Volume(v), veh/h	308	0	413	87	0	1240	11	530	549	143	603	569
Grp Sat Flow(s),veh/h/ln	1781	0	1861	1781	0	1807	1781	1777	1838	1781	1777	1670
Q Serve(g_s), s	15.5	0.0	21.2	7.2	0.0	69.2	0.9	34.0	34.0	8.5	41.4	41.4
Cycle Q Clear(g_c), s	15.5	0.0	21.2	7.2	0.0	69.2	0.9	34.0	34.0	8.5	41.4	41.4
Prop In Lane	1.00		0.03	1.00		0.19	1.00		0.10	1.00		0.67
Lane Grp Cap(c), veh/h	184	0	939	107	0	834	13	403	417	101	490	461
V/C Ratio(X)	1.67	0.00	0.44	0.81	0.00	1.49	0.84	1.32	1.32	1.42	1.23	1.24
Avail Cap(c_a), veh/h	184	0	939	177	0	834	59	403	417	101	490	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	0.0	23.7	69.7	0.0	40.4	74.4	58.0	58.0	70.7	54.3	54.3
Incr Delay (d2), s/veh	325.6	0.0	0.1	5.5	0.0	225.6	37.8	159.2	158.8	235.7	120.2	123.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.5	0.0	8.9	3.4	0.0	80.8	0.6	32.5	33.6	10.4	34.1	32.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	392.9	0.0	23.8	75.2	0.0	266.0	112.2	217.2	216.8	306.5	174.5	177.7
LnGrp LOS	F	A	C	E	A	F	F	F	F	F	F	F
Approach Vol, veh/h		721			1327			1090			1315	
Approach Delay, s/veh		181.4			253.5			215.9			190.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	76.0	5.6	48.4	13.5	82.5	13.0	41.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 7	4.5	* 6.8	4.5	7.0
Max Green Setting (Gmax), s	15.5	69.2	5.0	* 38	14.9	* 70	8.5	34.0
Max Q Clear Time (g_c+I1), s	17.5	71.2	2.9	43.4	9.2	23.2	10.5	36.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay	214.0	
HCM 6th LOS	F	

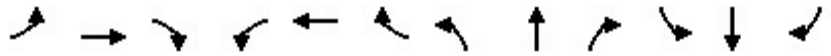
Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	10	190	20	20	170	180	1057	20	50	921	125
Future Volume (veh/h)	192	10	190	20	20	170	180	1057	20	50	921	125
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	209	11	207	22	22	185	196	1149	22	54	1001	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	276	384	325	45	282	239	276	1430	638	142	1430	638
Arrive On Green	0.08	0.21	0.21	0.03	0.15	0.15	0.08	0.40	0.40	0.08	0.40	0.40
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	209	11	207	22	22	185	196	1149	22	54	1001	136
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	3.7	0.3	7.5	0.8	0.6	7.0	3.5	17.9	0.5	1.8	14.7	3.5
Cycle Q Clear(g_c), s	3.7	0.3	7.5	0.8	0.6	7.0	3.5	17.9	0.5	1.8	14.7	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	276	384	325	45	282	239	276	1430	638	142	1430	638
V/C Ratio(X)	0.76	0.03	0.64	0.49	0.08	0.77	0.71	0.80	0.03	0.38	0.70	0.21
Avail Cap(c_a), veh/h	276	537	455	142	537	455	276	1758	784	512	2495	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	19.9	22.8	30.1	22.9	25.6	28.1	16.5	11.3	27.4	15.6	12.2
Incr Delay (d2), s/veh	11.5	0.0	2.1	7.9	0.1	5.3	8.3	2.3	0.0	1.7	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.1	2.6	0.4	0.3	2.7	1.6	5.9	0.2	0.7	4.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	19.9	24.8	38.0	23.0	30.9	36.4	18.8	11.4	29.0	16.2	12.4
LnGrp LOS	D	B	C	D	C	C	D	B	B	C	B	B
Approach Vol, veh/h		427			229			1367			1191	
Approach Delay, s/veh		32.0			30.8			21.2			16.4	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	29.7	6.1	17.4	9.5	29.7	9.5	14.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	44.0	5.0	18.0	18.0	31.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	5.5	16.7	2.8	9.5	3.8	19.9	5.7	9.0
Green Ext Time (p_c), s	0.0	7.3	0.0	0.5	0.1	5.3	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C



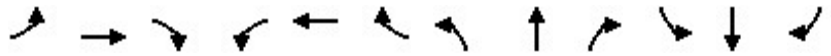
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	400	120	110	60	250	58	240	1412	80	56	1055	200
Future Volume (veh/h)	400	120	110	60	250	58	240	1412	80	56	1055	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	435	130	120	65	272	63	261	1535	87	61	1147	217
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	456	237	219	84	264	61	327	1607	717	78	1424	635
Arrive On Green	0.13	0.26	0.26	0.05	0.18	0.18	0.09	0.45	0.45	0.04	0.40	0.40
Sat Flow, veh/h	3456	895	826	1781	1469	340	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	435	0	250	65	0	335	261	1535	87	61	1147	217
Grp Sat Flow(s),veh/h/ln	1728	0	1722	1781	0	1809	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	12.9	0.0	12.9	3.7	0.0	18.5	7.6	42.9	3.3	3.5	29.4	9.8
Cycle Q Clear(g_c), s	12.9	0.0	12.9	3.7	0.0	18.5	7.6	42.9	3.3	3.5	29.4	9.8
Prop In Lane	1.00		0.48	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	456	0	456	84	0	325	327	1607	717	78	1424	635
V/C Ratio(X)	0.95	0.00	0.55	0.78	0.00	1.03	0.80	0.96	0.12	0.78	0.81	0.34
Avail Cap(c_a), veh/h	456	0	456	116	0	325	671	1677	748	86	1424	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	0.0	32.6	48.5	0.0	42.2	45.7	27.2	16.4	48.7	27.3	21.4
Incr Delay (d2), s/veh	30.5	0.0	0.8	19.6	0.0	58.1	1.7	12.5	0.0	32.7	3.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	0.0	5.1	2.1	0.0	13.4	3.2	18.6	1.1	2.2	11.8	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.8	0.0	33.4	68.1	0.0	100.4	47.4	39.7	16.4	81.4	30.6	21.6
LnGrp LOS	E	A	C	E	A	F	D	D	B	F	C	C
Approach Vol, veh/h		685			400			1883			1425	
Approach Delay, s/veh		59.7			95.1			39.7			31.4	
Approach LOS		E			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	47.4	18.1	23.2	9.0	52.7	9.3	32.0
Change Period (Y+Rc), s	* 4.6	* 6.1	4.5	* 4.7	4.5	* 6.1	4.5	* 4.7
Max Green Setting (Gmax), s	* 28	* 33	13.6	* 19	5.0	* 49	6.7	* 25
Max Q Clear Time (g_c+I1), s	19.6	31.4	14.9	20.5	5.5	44.9	5.7	14.9
Green Ext Time (p_c), s	0.1	0.7	0.0	0.0	0.0	1.7	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	45.2
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	494	30	201	80	20	290	140	1840	90	240	1090	215
Future Volume (veh/h)	494	30	201	80	20	290	140	1840	90	240	1090	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	537	33	218	87	22	315	152	2000	98	261	1185	234
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	18	116	172	44	190	174	1469	655	184	1490	664
Arrive On Green	0.24	0.24	0.24	0.12	0.12	0.12	0.10	0.41	0.41	0.10	0.42	0.42
Sat Flow, veh/h	1176	72	477	1436	363	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	788	0	0	109	0	315	152	2000	98	261	1185	234
Grp Sat Flow(s),veh/h/ln	1726	0	0	1799	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	36.5	0.0	0.0	8.5	0.0	18.0	12.6	62.0	5.8	15.5	43.6	15.1
Cycle Q Clear(g_c), s	36.5	0.0	0.0	8.5	0.0	18.0	12.6	62.0	5.8	15.5	43.6	15.1
Prop In Lane	0.68		0.28	0.80		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	0	0	216	0	190	174	1469	655	184	1490	664
V/C Ratio(X)	1.88	0.00	0.00	0.51	0.00	1.66	0.88	1.36	0.15	1.42	0.80	0.35
Avail Cap(c_a), veh/h	420	0	0	216	0	190	178	1469	655	184	1490	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.8	0.0	0.0	61.8	0.0	66.0	66.8	44.0	27.5	67.3	38.0	29.7
Incr Delay (d2), s/veh	403.5	0.0	0.0	1.9	0.0	317.5	34.7	167.2	0.1	216.9	3.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	62.9	0.0	0.0	4.0	0.0	24.1	7.3	59.7	2.2	17.9	18.6	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	460.2	0.0	0.0	63.7	0.0	383.5	101.5	211.2	27.6	284.1	41.0	30.0
LnGrp LOS	F	A	A	E	A	F	F	F	C	F	D	C
Approach Vol, veh/h		788			424			2250			1680	
Approach Delay, s/veh		460.2			301.3			195.8			77.3	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.0	66.5		41.0	19.1	67.4		22.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	15.5	62.0		36.5	15.0	62.5		18.0
Max Q Clear Time (g_c+I1), s	17.5	64.0		38.5	14.6	45.6		20.0
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	7.7		0.0

Intersection Summary		
HCM 6th Ctrl Delay	206.3	
HCM 6th LOS	F	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	480	277	510	2184	1278	1280
Future Volume (veh/h)	480	277	510	2184	1278	1280
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	522	301	554	2374	1389	1391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	593	655	430	2526	1484	934
Arrive On Green	0.17	0.17	0.24	0.71	0.42	0.42
Sat Flow, veh/h	3456	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	522	301	554	2374	1389	1391
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777	1777	1585
Q Serve(g_s), s	15.6	14.5	25.5	61.4	39.5	44.1
Cycle Q Clear(g_c), s	15.6	14.5	25.5	61.4	39.5	44.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	593	655	430	2526	1484	934
V/C Ratio(X)	0.88	0.46	1.29	0.94	0.94	1.49
Avail Cap(c_a), veh/h	1390	1020	430	2537	1484	934
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	22.5	40.1	13.3	29.4	18.0
Incr Delay (d2), s/veh	1.7	0.2	146.4	7.6	11.3	226.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.0	27.8	18.7	17.2	82.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.4	22.6	186.4	20.9	40.7	244.0
LnGrp LOS	D	C	F	C	D	F
Approach Vol, veh/h	823			2928	2780	
Approach Delay, s/veh	36.5			52.2	142.4	
Approach LOS	D			D	F	

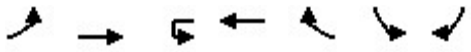
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	31.0	51.0		23.6		82.0
Change Period (Y+Rc), s	5.5	* 6.9		5.5		* 6.9
Max Green Setting (Gmax), s	25.5	* 44		42.5		* 75
Max Q Clear Time (g_c+I1), s	27.5	46.1		17.6		63.4
Green Ext Time (p_c), s	0.0	0.0		0.6		5.8

Intersection Summary	
HCM 6th Ctrl Delay	88.6
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	1021	1633	0	1871	360	80	637
Future Volume (veh/h)	1021	1633	0	1871	360	80	637
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	1110	1775		2034	391	87	692
Peak Hour Factor	0.92	0.92		0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	917	2684		1618	722	291	259
Arrive On Green	0.27	0.76		0.46	0.46	0.16	0.16
Sat Flow, veh/h	3456	3647		3647	1585	1781	1585
Grp Volume(v), veh/h	1110	1775		2034	391	87	692
Grp Sat Flow(s),veh/h/ln	1728	1777		1777	1585	1781	1585
Q Serve(g_s), s	39.8	36.6		68.3	26.8	6.4	24.5
Cycle Q Clear(g_c), s	39.8	36.6		68.3	26.8	6.4	24.5
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	917	2684		1618	722	291	259
V/C Ratio(X)	1.21	0.66		1.26	0.54	0.30	2.67
Avail Cap(c_a), veh/h	917	2684		1618	722	291	259
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	9.0		40.9	29.5	55.2	62.8
Incr Delay (d2), s/veh	105.0	0.5		120.9	0.5	0.2	763.8
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	30.0	11.2		54.9	9.8	2.8	64.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	160.1	9.5		161.7	30.0	55.4	826.5
LnGrp LOS	F	A		F	C	E	F
Approach Vol, veh/h		2885		2425		779	
Approach Delay, s/veh		67.4		140.5		740.4	
Approach LOS		E		F		F	

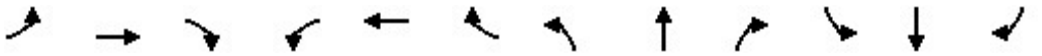
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	45.0	75.0			120.0	30.0
Change Period (Y+Rc), s	* 5.2	* 6.7			* 6.7	5.5
Max Green Setting (Gmax), s	* 40	* 68			* 1E2	24.5
Max Q Clear Time (g_c+I1), s	41.8	70.3			38.6	26.5
Green Ext Time (p_c), s	0.0	0.0			4.8	0.0

Intersection Summary	
HCM 6th Ctrl Delay	182.6
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	590	0	490	0	1300	1670	0	960	620
Future Volume (veh/h)	0	0	0	590	0	490	0	1300	1670	0	960	620
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				587	76	533	0	1413	0	0	1043	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				727	81	570	0	1848		0	1848	
Arrive On Green				0.41	0.41	0.41	0.00	0.36	0.00	0.00	0.36	0.00
Sat Flow, veh/h				1781	199	1397	0	5274	1585	0	5274	1585
Grp Volume(v), veh/h				587	0	609	0	1413	0	0	1043	0
Grp Sat Flow(s),veh/h/ln				1781	0	1596	0	1702	1585	0	1702	1585
Q Serve(g_s), s				12.5	0.0	15.7	0.0	10.5	0.0	0.0	7.1	0.0
Cycle Q Clear(g_c), s				12.5	0.0	15.7	0.0	10.5	0.0	0.0	7.1	0.0
Prop In Lane				1.00		0.88	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				727	0	652	0	1848		0	1848	
V/C Ratio(X)				0.81	0.00	0.93	0.00	0.76		0.00	0.56	
Avail Cap(c_a), veh/h				727	0	652	0	2666		0	2749	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				11.2	0.0	12.2	0.0	12.1	0.0	0.0	11.0	0.0
Incr Delay (d2), s/veh				6.2	0.0	20.5	0.0	0.4	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.9	0.0	7.8	0.0	2.7	0.0	0.0	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.5	0.0	32.7	0.0	12.6	0.0	0.0	11.1	0.0
LnGrp LOS				B	A	C	A	B		A	B	
Approach Vol, veh/h					1196			1413	A		1043	A
Approach Delay, s/veh					25.2			12.6			11.1	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	20.6		20.6		22.5			
Change Period (Y+Rc), s	* 5		5.0		4.9			
Max Green Setting (Gmax), s	* 23		22.5		17.6			
Max Q Clear Time (g_c+I1), s	9.1		12.5		17.7			
Green Ext Time (p_c), s	2.3		3.0		0.0			

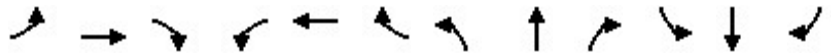
Intersection Summary	
HCM 6th Ctrl Delay	16.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	580	0	820	0	0	0	0	2320	890	0	1050	300
Future Volume (veh/h)	580	0	820	0	0	0	0	2320	890	0	1050	300
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	948	0	550				0	2522	0	0	1141	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	0	2	2
Cap, veh/h	1255	0	557				0	2810		0	2810	
Arrive On Green	0.35	0.00	0.35				0.00	0.55	0.00	0.00	0.55	0.00
Sat Flow, veh/h	3563	0	1581				0	5443	0	0	5274	1585
Grp Volume(v), veh/h	948	0	550				0	2522	0	0	1141	0
Grp Sat Flow(s),veh/h/ln	1781	0	1581				0	1702	0	0	1702	1585
Q Serve(g_s), s	25.1	0.0	36.9				0.0	46.8	0.0	0.0	13.8	0.0
Cycle Q Clear(g_c), s	25.1	0.0	36.9				0.0	46.8	0.0	0.0	13.8	0.0
Prop In Lane	1.00		1.00				0.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h	1255	0	557				0	2810		0	2810	
V/C Ratio(X)	0.76	0.00	0.99				0.00	0.90		0.00	0.41	
Avail Cap(c_a), veh/h	1255	0	557				0	3922		0	3946	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	30.5	0.0	34.3				0.0	21.3	0.0	0.0	13.9	0.0
Incr Delay (d2), s/veh	2.4	0.0	34.8				0.0	1.9	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	19.1				0.0	16.7	0.0	0.0	4.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.9	0.0	69.1				0.0	23.2	0.0	0.0	13.9	0.0
LnGrp LOS	C	A	E				A	C		A	B	
Approach Vol, veh/h		1498						2522	A		1141	A
Approach Delay, s/veh		46.2						23.2			13.9	
Approach LOS		D						C			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	63.7	43.0	63.7
Change Period (Y+Rc), s	* 5	* 5.4	5.0
Max Green Setting (Gmax), s	* 83	* 38	82.0
Max Q Clear Time (g_c+I1), s	15.8	38.9	48.8
Green Ext Time (p_c), s	2.9	0.0	9.9

Intersection Summary	
HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1840	250	210	2410	690	290
Future Volume (veh/h)	1840	250	210	2410	690	290
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2000	0	228	2620	750	315
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2382		261	3413	826	379
Arrive On Green	0.47	0.00	0.15	0.67	0.24	0.24
Sat Flow, veh/h	5443	0	1781	5274	3456	1585
Grp Volume(v), veh/h	2000	0	228	2620	750	315
Grp Sat Flow(s),veh/h/ln	1702	0	1781	1702	1728	1585
Q Serve(g_s), s	31.6	0.0	11.5	32.1	19.4	17.4
Cycle Q Clear(g_c), s	31.6	0.0	11.5	32.1	19.4	17.4
Prop In Lane		0.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2382		261	3413	826	379
V/C Ratio(X)	0.84		0.87	0.77	0.91	0.83
Avail Cap(c_a), veh/h	2420		265	3463	1093	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	38.4	10.4	34.0	33.2
Incr Delay (d2), s/veh	3.1	0.0	24.6	1.3	7.6	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	6.6	9.2	8.5	7.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.6	0.0	63.0	11.6	41.7	40.0
LnGrp LOS	C		E	B	D	D
Approach Vol, veh/h	2000	A		2848	1065	
Approach Delay, s/veh	24.6			15.7	41.2	
Approach LOS	C			B	D	

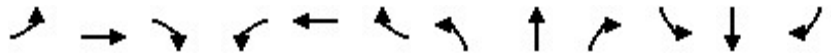
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	66.5			18.6	47.9	25.5
Change Period (Y+Rc), s	5.0			* 5.1	5.0	3.5
Max Green Setting (Gmax), s	62.4			* 14	43.6	29.1
Max Q Clear Time (g_c+I1), s	34.1			13.5	33.6	21.4
Green Ext Time (p_c), s	27.1			0.0	9.3	0.6

Intersection Summary	
HCM 6th Ctrl Delay	23.3
HCM 6th LOS	C

Notes

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

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	790	0	450	0	1862	1762	0	1133	620
Future Volume (veh/h)	0	0	0	790	0	450	0	1862	1762	0	1133	620
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				859	0	489	0	2024	0	0	1232	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				1200	0	550	0	2275		0	2275	
Arrive On Green				0.35	0.00	0.35	0.00	0.45	0.00	0.00	0.45	0.00
Sat Flow, veh/h				3456	0	1585	0	5274	2790	0	5274	1585
Grp Volume(v), veh/h				859	0	489	0	2024	0	0	1232	0
Grp Sat Flow(s),veh/h/ln				1728	0	1585	0	1702	1395	0	1702	1585
Q Serve(g_s), s				9.5	0.0	12.8	0.0	16.0	0.0	0.0	7.7	0.0
Cycle Q Clear(g_c), s				9.5	0.0	12.8	0.0	16.0	0.0	0.0	7.7	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1200	0	550	0	2275		0	2275	
V/C Ratio(X)				0.72	0.00	0.89	0.00	0.89		0.00	0.54	
Avail Cap(c_a), veh/h				1220	0	560	0	2373		0	2373	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				12.5	0.0	13.5	0.0	11.2	0.0	0.0	8.9	0.0
Incr Delay (d2), s/veh				2.0	0.0	15.9	0.0	4.3	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.2	0.0	6.0	0.0	4.5	0.0	0.0	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.4	0.0	29.4	0.0	15.5	0.0	0.0	9.0	0.0
LnGrp LOS				B	A	C	A	B		A	A	
Approach Vol, veh/h					1348			2024	A		1232	A
Approach Delay, s/veh					19.9			15.5			9.0	
Approach LOS					B			B			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	24.2		24.2		19.7			
Change Period (Y+Rc), s	4.6		4.6		4.5			
Max Green Setting (Gmax), s	20.4		20.4		15.5			
Max Q Clear Time (g_c+I1), s	18.0		9.7		14.8			
Green Ext Time (p_c), s	1.6		2.6		0.5			

Intersection Summary		
HCM 6th Ctrl Delay		15.0
HCM 6th LOS		B

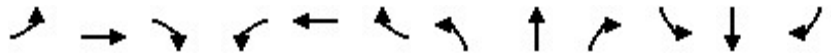
Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL2	EBL	EBT	EBR	WBR	WBR2	NBT	NBR	NBR2	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	900	10	160	981	740	130	2034	460	10	1353	140
Future Volume (vph)	900	10	160	981	740	130	2034	460	10	1353	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.8	6.8	6.8	4.5		4.6			4.6	4.0
Lane Util. Factor		0.91	0.86	0.91	0.88		0.86			0.91	1.00
Frpb, ped/bikes		1.00	0.98	0.98	1.00		1.00			1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Frt		1.00	0.89	0.85	0.85		0.97			1.00	0.85
Flt Protected		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (prot)		1610	2797	1409	2787		6202			5085	1540
Flt Permitted		0.95	1.00	1.00	1.00		1.00			1.00	1.00
Satd. Flow (perm)		1610	2797	1409	2787		6202			5085	1540
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
Adj. Flow (vph)	978	11	174	1066	804	141	2211	500	11	1471	152
RTOR Reduction (vph)	0	0	26	38	59	0	1	0	0	0	0
Lane Group Flow (vph)	0	979	691	495	886	0	2721	0	0	1471	152
Confl. Peds. (#/hr)	11			11	3				3		11
Confl. Bikes (#/hr)									8		5
Turn Type	Split	Split	NA	Perm	Prot		NA			NA	Free
Protected Phases	4	4	4		5		6			2	
Permitted Phases				4							Free
Actuated Green, G (s)		37.2	37.2	37.2	26.5		40.4			71.4	120.0
Effective Green, g (s)		37.2	37.2	37.2	26.5		40.4			71.4	120.0
Actuated g/C Ratio		0.31	0.31	0.31	0.22		0.34			0.60	1.00
Clearance Time (s)		6.8	6.8	6.8	4.5		4.6			4.6	
Vehicle Extension (s)		1.0	1.0	1.0	3.0		1.0			1.0	
Lane Grp Cap (vph)		499	867	436	615		2088			3025	1540
v/s Ratio Prot		c0.61	0.25		c0.32		c0.44			0.29	
v/s Ratio Perm				0.35							0.10
v/c Ratio		1.96	1.15dr	1.14	1.44		1.30			0.49	0.10
Uniform Delay, d1		41.4	37.9	41.4	46.8		39.8			13.8	0.0
Progression Factor		1.00	1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2		440.1	4.8	85.6	207.3		140.1			0.0	0.1
Delay (s)		481.5	42.8	127.0	254.0		179.9			13.9	0.1
Level of Service		F	D	F	F		F			B	A
Approach Delay (s)			255.6				179.9			12.6	
Approach LOS			F				F			B	

Intersection Summary			
HCM 2000 Control Delay	175.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.9
Intersection Capacity Utilization	113.8%	ICU Level of Service	H
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 (veh/h)	690	300	40	170	190	714	70	1270	20	534	1660	310
Future Volume (veh/h)	690	300	40	170	190	714	70	1270	20	534	1660	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	750	326	43	185	207	776	76	1380	22	580	1804	337
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	531	1382	178	235	401	1230	118	1497	24	623	2224	685
Arrive On Green	0.15	0.30	0.30	0.07	0.21	0.21	0.03	0.29	0.29	0.18	0.44	0.44
Sat Flow, veh/h	3456	4572	588	3563	1870	3070	3456	5175	83	3456	5106	1572
Grp Volume(v), veh/h	750	241	128	185	207	776	76	908	494	580	1804	337
Grp Sat Flow(s),veh/h/ln	1728	1702	1756	1781	1870	1535	1728	1702	1854	1728	1702	1572
Q Serve(g_s), s	21.5	7.4	7.7	7.2	13.7	28.6	3.0	36.2	36.2	23.1	43.1	21.6
Cycle Q Clear(g_c), s	21.5	7.4	7.7	7.2	13.7	28.6	3.0	36.2	36.2	23.1	43.1	21.6
Prop In Lane	1.00		0.33	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	531	1029	531	235	401	1230	118	985	536	623	2224	685
V/C Ratio(X)	1.41	0.23	0.24	0.79	0.52	0.63	0.64	0.92	0.92	0.93	0.81	0.49
Avail Cap(c_a), veh/h	531	1029	531	430	401	1230	128	1105	601	654	2412	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.2	36.7	36.8	64.4	48.5	34.3	66.7	48.2	48.2	56.5	34.5	28.4
Incr Delay (d2), s/veh	196.6	0.0	0.1	2.2	0.5	0.8	6.6	11.0	17.7	19.0	1.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.7	3.1	3.3	3.3	6.3	10.5	1.4	16.5	19.0	11.5	17.4	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	255.8	36.7	36.8	66.6	49.1	35.1	73.3	59.2	65.8	75.5	36.3	28.6
LnGrp LOS	F	D	D	E	D	D	E	E	E	E	D	C
Approach Vol, veh/h		1119			1168			1478			2721	
Approach Delay, s/veh		183.5			42.6			62.1			43.7	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	66.6	27.0	36.0	30.7	46.2	14.7	48.3
Change Period (Y+Rc), s	5.5	* 5.7	5.5	* 6	5.5	* 5.7	5.5	* 6
Max Green Setting (Gmax), s	5.3	* 66	21.5	* 30	26.5	* 45	16.9	* 34
Max Q Clear Time (g_c+I1), s	5.0	45.1	23.5	30.6	25.1	38.2	9.2	9.7
Green Ext Time (p_c), s	0.0	5.3	0.0	0.0	0.1	2.3	0.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	71.8
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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

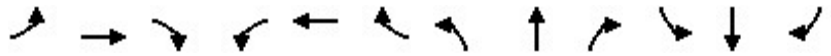
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	590	1430	760	970	970	210	1220	950	440	180	1520	420
Future Volume (veh/h)	590	1430	760	970	970	210	1220	950	440	180	1520	420
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	641	1554	826	1054	1054	228	1326	1033	478	196	1652	457
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	541	920	416	369	1127	336	679	2034	616	241	1078	292
Arrive On Green	0.16	0.27	0.27	0.11	0.22	0.22	0.20	0.40	0.40	0.07	0.27	0.27
Sat Flow, veh/h	3456	3404	1539	3456	5106	1522	3456	5106	1547	3456	3966	1074
Grp Volume(v), veh/h	641	1554	826	1054	1054	228	1326	1033	478	196	1413	696
Grp Sat Flow(s),veh/h/ln	1728	1702	1539	1728	1702	1522	1728	1702	1547	1728	1702	1636
Q Serve(g_s), s	22.7	39.2	39.2	15.5	29.4	19.9	28.5	22.1	39.0	8.1	39.4	39.4
Cycle Q Clear(g_c), s	22.7	39.2	39.2	15.5	29.4	19.9	28.5	22.1	39.0	8.1	39.4	39.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.66
Lane Grp Cap(c), veh/h	541	920	416	369	1127	336	679	2034	616	241	925	445
V/C Ratio(X)	1.18	1.69	1.99	2.85	0.94	0.68	1.95	0.51	0.78	0.81	1.53	1.57
Avail Cap(c_a), veh/h	541	920	416	369	1127	336	679	2034	616	274	925	445
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.2	52.9	52.9	64.8	55.5	51.8	58.3	32.9	38.0	66.5	52.8	52.8
Incr Delay (d2), s/veh	100.8	314.6	452.0	841.4	13.8	4.5	433.9	0.1	5.6	13.3	242.8	265.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.3	56.5	67.0	49.9	13.7	7.9	53.1	8.9	15.3	4.0	47.6	48.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	161.9	367.5	504.9	906.1	69.3	56.3	492.1	33.0	43.6	79.8	295.6	318.3
LnGrp LOS	F	F	F	F	E	E	F	C	D	E	F	F
Approach Vol, veh/h		3021			2336			2837			2305	
Approach Delay, s/veh		361.5			445.6			249.4			284.1	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	45.0	28.2	37.8	15.6	63.4	21.0	45.0
Change Period (Y+Rc), s	5.5	* 5.6	5.5	5.8	5.5	* 5.6	5.5	5.8
Max Green Setting (Gmax), s	28.5	* 39	22.7	32.0	11.5	* 56	15.5	39.2
Max Q Clear Time (g_c+I1), s	30.5	41.4	24.7	31.4	10.1	41.0	17.5	41.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	2.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	332.9
HCM 6th LOS	F

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	30	180	60	20	60	360	3226	20	70	2870	120
Future Volume (veh/h)	190	30	180	60	20	60	360	3226	20	70	2870	120
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	207	33	196	65	22	65	391	3507	22	76	3120	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	255	41	258	173	39	116	280	2631	16	84	2380	732
Arrive On Green	0.16	0.16	0.16	0.10	0.10	0.10	0.08	0.50	0.50	0.05	0.47	0.47
Sat Flow, veh/h	1546	247	1568	1781	404	1195	3456	5235	33	1781	5106	1571
Grp Volume(v), veh/h	240	0	196	65	0	87	391	2278	1251	76	3120	130
Grp Sat Flow(s),veh/h/ln	1793	0	1568	1781	0	1599	1728	1702	1864	1781	1702	1571
Q Serve(g_s), s	14.2	0.0	13.1	3.8	0.0	5.7	8.9	55.2	55.2	4.7	51.2	5.3
Cycle Q Clear(g_c), s	14.2	0.0	13.1	3.8	0.0	5.7	8.9	55.2	55.2	4.7	51.2	5.3
Prop In Lane	0.86		1.00	1.00		0.75	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	295	0	258	173	0	155	280	1710	937	84	2380	732
V/C Ratio(X)	0.81	0.00	0.76	0.38	0.00	0.56	1.40	1.33	1.34	0.90	1.31	0.18
Avail Cap(c_a), veh/h	522	0	457	519	0	466	280	1710	937	84	2380	732
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.2	0.0	43.8	46.5	0.0	47.4	50.5	27.3	27.3	52.1	29.3	17.1
Incr Delay (d2), s/veh	2.1	0.0	1.7	0.5	0.0	1.2	198.8	153.3	158.6	64.9	143.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	5.2	1.7	0.0	2.3	11.5	56.4	63.1	3.5	50.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	0.0	45.5	47.0	0.0	48.5	249.3	180.6	185.9	116.9	172.4	17.1
LnGrp LOS	D	A	D	D	A	D	F	F	F	F	F	B
Approach Vol, veh/h		436			152			3920			3326	
Approach Delay, s/veh		45.9			47.9			189.2			165.1	
Approach LOS		D			D			F			F	

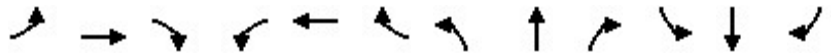
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	56.1		23.6	10.0	60.1		16.2
Change Period (Y+Rc), s	* 5.1	* 4.9		5.5	* 4.8	* 4.9		5.5
Max Green Setting (Gmax), s	* 8.9	* 51		32.0	* 5.2	* 55		32.0
Max Q Clear Time (g_c+I1), s	10.9	53.2		16.2	6.7	57.2		7.7
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	0.0		0.2

Intersection Summary	
HCM 6th Ctrl Delay	168.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	320	0	450	0	2996	530	0	1810	1270
Future Volume (veh/h)	0	0	0	320	0	450	0	2996	530	0	1810	1270
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				348	0	489	0	3257	0	0	1967	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				781	0	631	0	3594		0	3271	
Arrive On Green				0.23	0.00	0.23	0.00	0.64	0.00	0.00	0.64	0.00
Sat Flow, veh/h				3456	0	2790	0	5611	1585	0	5274	2790
Grp Volume(v), veh/h				348	0	489	0	3257	0	0	1967	0
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1870	1585	0	1702	1395
Q Serve(g_s), s				6.2	0.0	11.7	0.0	35.4	0.0	0.0	16.0	0.0
Cycle Q Clear(g_c), s				6.2	0.0	11.7	0.0	35.4	0.0	0.0	16.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				781	0	631	0	3594		0	3271	
V/C Ratio(X)				0.45	0.00	0.78	0.00	0.91		0.00	0.60	
Avail Cap(c_a), veh/h				1091	0	881	0	3803		0	3440	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				23.7	0.0	25.9	0.0	11.0	0.0	0.0	7.5	0.0
Incr Delay (d2), s/veh				0.4	0.0	2.9	0.0	3.3	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	0.0	3.9	0.0	10.3	0.0	0.0	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.1	0.0	28.8	0.0	14.3	0.0	0.0	7.7	0.0
LnGrp LOS				C	A	C	A	B		A	A	
Approach Vol, veh/h					837			3257	A		1967	A
Approach Delay, s/veh					26.8			14.3			7.7	
Approach LOS					C			B			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	50.6		50.6		20.6			
Change Period (Y+Rc), s	* 5		5.0		4.5			
Max Green Setting (Gmax), s	* 48		48.0		22.5			
Max Q Clear Time (g_c+I1), s	37.4		18.0		13.7			
Green Ext Time (p_c), s	8.2		6.2		2.4			

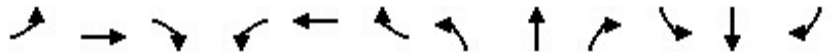
Intersection Summary		
HCM 6th Ctrl Delay		13.9
HCM 6th LOS		B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1160	0	330	0	0	0	0	2866	520	0	1270	380
Future Volume (veh/h)	1160	0	330	0	0	0	0	2866	520	0	1270	380
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1261	0	359				0	3115	0	0	1380	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1698	0	943				0	3616		0	2712	
Arrive On Green	0.34	0.00	0.34				0.00	0.48	0.00	0.00	0.48	0.00
Sat Flow, veh/h	5023	0	2790				0	7481	1585	0	5611	1585
Grp Volume(v), veh/h	1261	0	359				0	3115	0	0	1380	0
Grp Sat Flow(s),veh/h/ln	1674	0	1395				0	1870	1585	0	1870	1585
Q Serve(g_s), s	11.4	0.0	5.0				0.0	19.0	0.0	0.0	8.7	0.0
Cycle Q Clear(g_c), s	11.4	0.0	5.0				0.0	19.0	0.0	0.0	8.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1698	0	943				0	3616		0	2712	
V/C Ratio(X)	0.74	0.00	0.38				0.00	0.86		0.00	0.51	
Avail Cap(c_a), veh/h	2000	0	1111				0	3735		0	2758	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.1	0.0	12.9				0.0	11.8	0.0	0.0	9.1	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.3				0.0	2.1	0.0	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	1.4				0.0	5.6	0.0	0.0	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	0.0	13.2				0.0	13.9	0.0	0.0	9.2	0.0
LnGrp LOS	B	A	B				A	B		A	A	
Approach Vol, veh/h		1620						3115	A		1380	A
Approach Delay, s/veh		15.6						13.9			9.2	
Approach LOS		B						B			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	29.6	21.9	29.6
Change Period (Y+Rc), s	* 4.7	4.5	4.7
Max Green Setting (Gmax), s	* 26	20.5	25.3
Max Q Clear Time (g_c+I1), s	21.0	13.4	10.7
Green Ext Time (p_c), s	3.9	4.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

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

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	550	540	130	210	380	250	140	1826	270	250	1370	250
Future Volume (veh/h)	550	540	130	210	380	250	140	1826	270	250	1370	250
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	598	587	141	228	478	228	152	1985	293	272	1489	272
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	925	405	300	871	361	162	2020	491	342	1870	578
Arrive On Green	0.11	0.26	0.26	0.08	0.23	0.23	0.05	0.31	0.31	0.10	0.37	0.37
Sat Flow, veh/h	3456	3554	1556	3563	3741	1552	3456	6434	1563	3456	5106	1579
Grp Volume(v), veh/h	598	587	141	228	478	228	152	1985	293	272	1489	272
Grp Sat Flow(s),veh/h/ln	1728	1777	1556	1781	1870	1552	1728	1609	1563	1728	1702	1579
Q Serve(g_s), s	10.5	13.8	6.9	5.9	10.6	12.4	4.1	28.8	14.9	7.2	24.5	12.4
Cycle Q Clear(g_c), s	10.5	13.8	6.9	5.9	10.6	12.4	4.1	28.8	14.9	7.2	24.5	12.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	925	405	300	871	361	162	2020	491	342	1870	578
V/C Ratio(X)	1.55	0.63	0.35	0.76	0.55	0.63	0.94	0.98	0.60	0.79	0.80	0.47
Avail Cap(c_a), veh/h	386	1214	531	398	1274	528	162	2020	491	496	1929	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.7	30.8	28.3	42.1	31.7	32.4	44.7	32.0	27.2	41.4	26.7	22.8
Incr Delay (d2), s/veh	259.6	1.1	0.8	3.9	0.9	3.1	52.7	16.1	1.6	3.3	2.7	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	5.9	2.6	2.7	4.8	4.9	2.9	12.6	5.6	3.1	9.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	301.3	31.9	29.0	46.0	32.6	35.5	97.4	48.1	28.8	44.7	29.4	24.0
LnGrp LOS	F	C	C	D	C	D	F	D	C	D	C	C
Approach Vol, veh/h		1326			934			2430			2033	
Approach Delay, s/veh		153.1			36.6			48.8			30.7	
Approach LOS		F			D			D			C	

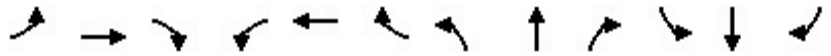
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	40.2	16.0	27.9	14.8	35.3	13.4	30.5
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	* 6
Max Green Setting (Gmax), s	4.4	* 36	10.5	32.0	13.5	* 26	10.5	* 32
Max Q Clear Time (g_c+I1), s	6.1	26.5	12.5	14.4	9.2	30.8	7.9	15.8
Green Ext Time (p_c), s	0.0	7.9	0.0	6.0	0.1	0.0	0.1	5.7

Intersection Summary	
HCM 6th Ctrl Delay	62.2
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

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



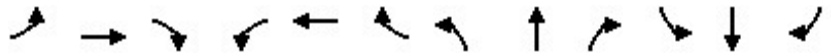
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	410	1296	300	500	685	496	300	1000	200	470	1540	130
Future Volume (veh/h)	410	1296	300	500	685	496	300	1000	200	470	1540	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683	1683
Adj Flow Rate, veh/h	446	1409	326	543	745	539	326	1087	217	511	1674	141
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	474	1081	480	375	1407	436	247	1242	383	354	1401	432
Arrive On Green	0.15	0.34	0.34	0.12	0.31	0.31	0.08	0.27	0.27	0.11	0.30	0.30
Sat Flow, veh/h	3110	3198	1419	3110	4595	1424	3110	4595	1417	3110	4595	1418
Grp Volume(v), veh/h	446	1409	326	543	745	539	326	1087	217	511	1674	141
Grp Sat Flow(s),veh/h/ln	1555	1599	1419	1555	1532	1424	1555	1532	1417	1555	1532	1418
Q Serve(g_s), s	20.6	49.0	28.6	17.5	19.5	44.4	11.5	32.8	19.1	16.5	44.2	11.1
Cycle Q Clear(g_c), s	20.6	49.0	28.6	17.5	19.5	44.4	11.5	32.8	19.1	16.5	44.2	11.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	474	1081	480	375	1407	436	247	1242	383	354	1401	432
V/C Ratio(X)	0.94	1.30	0.68	1.45	0.53	1.24	1.32	0.87	0.57	1.44	1.20	0.33
Avail Cap(c_a), veh/h	474	1081	480	375	1407	436	247	1249	385	354	1401	432
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.8	48.0	41.3	63.8	41.6	50.3	66.7	50.6	45.6	64.3	50.4	38.9
Incr Delay (d2), s/veh	26.8	143.5	4.9	215.5	1.1	124.8	170.2	7.6	3.1	215.1	95.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	40.4	10.4	18.0	7.4	30.4	10.3	13.1	6.9	17.0	28.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.6	191.5	46.2	279.2	42.7	175.1	237.0	58.2	48.7	279.4	145.4	39.8
LnGrp LOS	F	F	D	F	D	F	F	E	D	F	F	D
Approach Vol, veh/h		2181			1827			1630			2326	
Approach Delay, s/veh		148.5			152.1			92.7			168.4	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	50.0	27.6	50.4	22.0	45.0	23.0	55.0
Change Period (Y+Rc), s	5.5	* 5.8	5.5	6.0	5.5	* 5.8	5.5	6.0
Max Green Setting (Gmax), s	11.5	* 44	22.1	44.4	16.5	* 39	17.5	49.0
Max Q Clear Time (g_c+I1), s	13.5	46.2	22.6	46.4	18.5	34.8	19.5	51.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	143.7
HCM 6th LOS	F

Notes

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



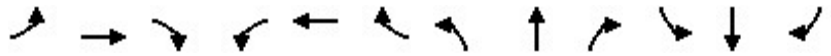
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	523	30	151	552	590	20	270	253	1430	730	610
Future Volume (veh/h)	130	523	30	151	552	590	20	270	253	1430	730	610
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	568	33	164	600	641	22	293	275	1554	793	663
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	859	50	188	1229	382	27	231	217	1022	1923	858
Arrive On Green	0.06	0.25	0.25	0.05	0.24	0.24	0.02	0.26	0.26	0.30	0.54	0.54
Sat Flow, veh/h	1781	3408	198	3456	5106	1585	1781	887	833	3456	3554	1585
Grp Volume(v), veh/h	141	296	305	164	600	641	22	0	568	1554	793	663
Grp Sat Flow(s),veh/h/ln	1781	1777	1829	1728	1702	1585	1781	0	1720	1728	1777	1585
Q Serve(g_s), s	9.5	22.5	22.5	7.1	15.2	36.2	1.9	0.0	39.2	44.5	19.8	49.6
Cycle Q Clear(g_c), s	9.5	22.5	22.5	7.1	15.2	36.2	1.9	0.0	39.2	44.5	19.8	49.6
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	113	448	461	188	1229	382	27	0	448	1022	1923	858
V/C Ratio(X)	1.25	0.66	0.66	0.87	0.49	1.68	0.80	0.00	1.27	1.52	0.41	0.77
Avail Cap(c_a), veh/h	113	448	461	188	1229	382	72	0	448	1022	1923	858
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	50.5	50.5	70.6	49.1	57.1	73.8	0.0	55.6	53.0	20.4	27.2
Incr Delay (d2), s/veh	167.7	2.9	2.8	31.7	0.1	317.3	17.7	0.0	136.7	239.0	0.1	4.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	10.0	10.3	3.9	6.3	47.8	1.0	0.0	33.6	52.7	8.0	18.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	238.2	53.3	53.4	102.2	49.2	374.4	91.6	0.0	192.3	291.9	20.4	31.2
LnGrp LOS	F	D	D	F	D	F	F	A	F	F	C	C
Approach Vol, veh/h		742			1405			590			3010	
Approach Delay, s/veh		88.5			203.8			188.6			163.0	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	41.1	7.8	86.5	13.3	42.8	50.0	44.3
Change Period (Y+Rc), s	5.5	* 4.9	5.5	* 5.1	* 5.1	* 4.9	5.5	* 5.1
Max Green Setting (Gmax), s	9.5	* 36	6.1	* 77	* 8.2	* 38	44.5	* 39
Max Q Clear Time (g_c+I1), s	11.5	38.2	3.9	51.6	9.1	24.5	46.5	41.2
Green Ext Time (p_c), s	0.0	0.0	0.0	2.0	0.0	0.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	166.0
HCM 6th LOS	F

Notes

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



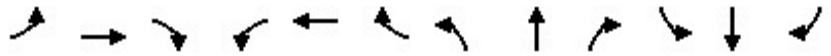
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	610	1281	630	190	556	320	450	1030	80	370	2680	220
Future Volume (veh/h)	610	1281	630	190	556	320	450	1030	80	370	2680	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	663	1392	685	207	604	348	489	1120	87	402	2913	239
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	393	1517	471	155	1165	357	298	1813	556	448	2034	631
Arrive On Green	0.11	0.30	0.30	0.04	0.23	0.23	0.09	0.35	0.35	0.13	0.40	0.40
Sat Flow, veh/h	3456	5106	1585	3456	5106	1564	3456	5106	1565	3456	5106	1585
Grp Volume(v), veh/h	663	1392	685	207	604	348	489	1120	87	402	2913	239
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1702	1564	1728	1702	1565	1728	1702	1585
Q Serve(g_s), s	16.5	38.2	43.1	6.5	15.0	32.0	12.5	26.3	5.5	16.6	57.8	15.5
Cycle Q Clear(g_c), s	16.5	38.2	43.1	6.5	15.0	32.0	12.5	26.3	5.5	16.6	57.8	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	1517	471	155	1165	357	298	1813	556	448	2034	631
V/C Ratio(X)	1.69	0.92	1.45	1.34	0.52	0.98	1.64	0.62	0.16	0.90	1.43	0.38
Avail Cap(c_a), veh/h	393	1517	471	155	1165	357	298	1813	556	588	2034	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	64.3	49.3	51.0	69.3	49.0	55.6	66.3	38.7	32.0	62.2	43.6	30.9
Incr Delay (d2), s/veh	320.1	9.0	216.3	188.8	0.2	40.7	303.9	0.5	0.0	11.8	197.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	24.5	16.8	44.6	6.9	6.2	16.2	17.9	10.6	2.0	7.8	60.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	384.4	58.3	267.3	258.1	49.2	96.3	370.2	39.1	32.0	74.0	241.0	31.1
LnGrp LOS	F	E	F	F	D	F	F	D	C	E	F	C
Approach Vol, veh/h		2740			1159			1696			3554	
Approach Delay, s/veh		189.5			100.7			134.2			208.0	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.3	58.9	12.0	49.9	18.0	65.2	22.0	39.9
Change Period (Y+Rc), s	5.5	* 7.4	5.5	* 6.8	5.5	* 7.4	5.5	6.8
Max Green Setting (Gmax), s	24.7	* 46	6.5	* 43	12.5	* 58	16.5	33.0
Max Q Clear Time (g_c+I1), s	18.6	28.3	8.5	45.1	14.5	59.8	18.5	34.0
Green Ext Time (p_c), s	0.2	2.4	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	175.2
HCM 6th LOS	F

Notes

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



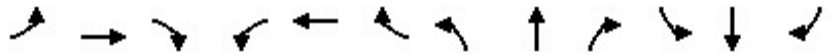
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	325	660	100	70	420	30	50	100	80	140	310	246
Future Volume (veh/h)	325	660	100	70	420	30	50	100	80	140	310	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	353	717	109	76	457	33	54	109	87	152	337	267
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	397	1226	547	102	589	263	108	298	253	204	402	341
Arrive On Green	0.22	0.34	0.34	0.06	0.17	0.17	0.06	0.16	0.16	0.11	0.21	0.21
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1870	1585	1781	1870	1585
Grp Volume(v), veh/h	353	717	109	76	457	33	54	109	87	152	337	267
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1870	1585	1781	1870	1585
Q Serve(g_s), s	12.5	10.7	3.1	2.7	8.0	1.2	1.9	3.4	3.2	5.4	11.2	10.3
Cycle Q Clear(g_c), s	12.5	10.7	3.1	2.7	8.0	1.2	1.9	3.4	3.2	5.4	11.2	10.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	397	1226	547	102	589	263	108	298	253	204	402	341
V/C Ratio(X)	0.89	0.58	0.20	0.74	0.78	0.13	0.50	0.37	0.34	0.75	0.84	0.78
Avail Cap(c_a), veh/h	428	1791	799	203	1298	579	632	663	562	714	750	635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	17.4	14.9	30.1	25.9	23.1	29.5	24.3	24.2	27.8	24.4	24.0
Incr Delay (d2), s/veh	18.0	0.2	0.1	10.1	0.8	0.1	1.3	0.3	0.3	2.0	1.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	3.5	1.1	1.3	3.0	0.4	0.8	1.4	1.1	2.3	4.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	17.6	15.0	40.2	26.8	23.1	30.9	24.6	24.5	29.9	26.2	25.5
LnGrp LOS	D	B	B	D	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1179			566			250			756	
Approach Delay, s/veh		24.8			28.3			25.9			26.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	16.2	9.3	19.4	8.2	27.9	12.9	15.8
Change Period (Y+Rc), s	* 5.4	* 5.5	5.4	* 5.5	4.5	* 5.5	5.5	* 5.5
Max Green Setting (Gmax), s	4.6	* 24	23.0	* 26	7.4	* 33	26.0	* 23
Max Q Clear Time (g_c+I1), s	14.5	10.0	3.9	13.2	4.7	12.7	7.4	5.4
Green Ext Time (p_c), s	0.0	0.8	0.0	0.8	0.0	1.4	0.1	0.2

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

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



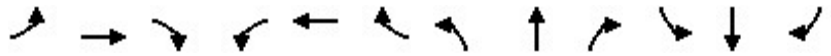
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	500	835	20	183	383	200	10	960	175	300	1680	290
Future Volume (veh/h)	500	835	20	183	383	200	10	960	175	300	1680	290
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	543	908	22	199	416	217	11	1043	190	326	1826	315
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	279	632	536	113	458	388	36	997	445	303	1530	931
Arrive On Green	0.16	0.34	0.34	0.06	0.24	0.24	0.02	0.28	0.28	0.17	0.43	0.43
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	543	908	22	199	416	217	11	1043	190	326	1826	315
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	23.5	50.7	1.4	9.5	32.4	18.0	0.9	42.1	14.7	25.5	64.6	15.4
Cycle Q Clear(g_c), s	23.5	50.7	1.4	9.5	32.4	18.0	0.9	42.1	14.7	25.5	64.6	15.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	632	536	113	458	388	36	997	445	303	1530	931
V/C Ratio(X)	1.95	1.44	0.04	1.76	0.91	0.56	0.31	1.05	0.43	1.08	1.19	0.34
Avail Cap(c_a), veh/h	279	632	536	113	458	388	226	997	445	303	1530	931
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.3	49.7	33.3	70.3	55.0	49.6	72.5	53.9	44.1	62.2	42.7	15.9
Incr Delay (d2), s/veh	438.5	205.3	0.0	377.3	21.5	1.1	1.8	41.2	0.2	73.6	93.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	44.3	58.6	0.5	16.0	17.4	7.0	0.4	23.7	5.6	17.3	46.4	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	501.7	254.9	33.3	447.6	76.5	50.7	74.3	95.1	44.3	135.8	136.3	16.0
LnGrp LOS	F	F	C	F	E	D	E	F	D	F	F	B
Approach Vol, veh/h		1473			832			1244			2467	
Approach Delay, s/veh		342.6			158.5			87.2			120.9	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	43.5	7.5	71.0	14.0	57.5	30.0	48.5
Change Period (Y+Rc), s	4.5	6.8	4.5	* 6.4	4.5	6.8	4.5	6.4
Max Green Setting (Gmax), s	13.5	36.7	19.0	* 49	9.5	50.7	25.5	42.1
Max Q Clear Time (g_c+I1), s	25.5	34.4	2.9	66.6	11.5	52.7	27.5	44.1
Green Ext Time (p_c), s	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	173.4
HCM 6th LOS	F

Notes

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



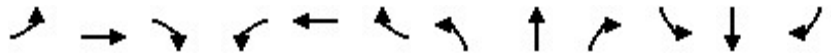
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	970	10	100	420	143	10	751	100	242	896	246
Future Volume (veh/h)	320	970	10	100	420	143	10	751	100	242	896	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	348	1054	11	109	457	155	11	816	109	263	974	267
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	880	9	89	466	158	13	670	90	195	869	237
Arrive On Green	0.18	0.48	0.48	0.05	0.35	0.35	0.01	0.21	0.21	0.11	0.32	0.32
Sat Flow, veh/h	1781	1848	19	1781	1331	451	1781	3151	421	1781	2758	753
Grp Volume(v), veh/h	348	0	1065	109	0	612	11	460	465	263	626	615
Grp Sat Flow(s),veh/h/ln	1781	0	1867	1781	0	1782	1781	1777	1795	1781	1777	1735
Q Serve(g_s), s	26.4	0.0	71.6	7.5	0.0	51.1	0.9	32.0	32.0	16.5	47.4	47.4
Cycle Q Clear(g_c), s	26.4	0.0	71.6	7.5	0.0	51.1	0.9	32.0	32.0	16.5	47.4	47.4
Prop In Lane	1.00		0.01	1.00		0.25	1.00		0.23	1.00		0.43
Lane Grp Cap(c), veh/h	313	0	889	89	0	625	13	378	382	195	560	547
V/C Ratio(X)	1.11	0.00	1.20	1.23	0.00	0.98	0.84	1.22	1.22	1.35	1.12	1.12
Avail Cap(c_a), veh/h	313	0	889	89	0	625	59	378	382	195	560	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.0	0.0	39.4	71.4	0.0	48.3	74.6	59.2	59.2	66.9	51.5	51.5
Incr Delay (d2), s/veh	84.8	0.0	100.1	168.6	0.0	30.8	37.9	119.6	119.4	185.7	74.9	77.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.9	0.0	55.0	7.5	0.0	26.9	0.6	26.4	26.7	17.4	31.8	31.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	146.8	0.0	139.5	240.0	0.0	79.1	112.5	178.8	178.6	252.6	126.4	129.1
LnGrp LOS	F	A	F	F	A	E	F	F	F	F	F	F
Approach Vol, veh/h		1413			721			936			1504	
Approach Delay, s/veh		141.3			103.4			177.9			149.6	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.9	59.5	5.6	54.4	12.0	78.4	21.0	39.0
Change Period (Y+Rc), s	4.5	6.8	4.5	* 7	4.5	* 6.8	4.5	7.0
Max Green Setting (Gmax), s	26.4	52.3	5.0	* 44	7.5	* 72	16.5	32.0
Max Q Clear Time (g_c+I1), s	28.4	53.1	2.9	49.4	9.5	73.6	18.5	34.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	145.5
HCM 6th LOS	F

Notes

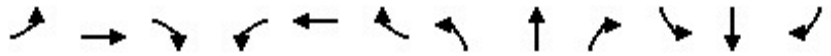
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	10	190	20	10	30	180	944	10	280	994	203
Future Volume (veh/h)	135	10	190	20	10	30	180	944	10	280	994	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	147	11	207	22	11	33	196	1026	11	304	1080	221
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	301	255	44	221	187	248	1268	565	354	1719	767
Arrive On Green	0.07	0.16	0.16	0.02	0.12	0.12	0.07	0.36	0.36	0.20	0.48	0.48
Sat Flow, veh/h	3456	1870	1585	1781	1870	1585	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	147	11	207	22	11	33	196	1026	11	304	1080	221
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	1781	1870	1585	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	2.9	0.3	8.8	0.8	0.4	1.3	3.9	18.2	0.3	11.5	15.7	5.8
Cycle Q Clear(g_c), s	2.9	0.3	8.8	0.8	0.4	1.3	3.9	18.2	0.3	11.5	15.7	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	301	255	44	221	187	248	1268	565	354	1719	767
V/C Ratio(X)	0.63	0.04	0.81	0.50	0.05	0.18	0.79	0.81	0.02	0.86	0.63	0.29
Avail Cap(c_a), veh/h	248	484	410	128	484	410	248	1584	707	461	2248	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	24.6	28.2	33.5	27.2	27.6	31.8	20.2	14.5	26.9	13.3	10.8
Incr Delay (d2), s/veh	4.6	0.0	6.4	8.3	0.1	0.4	15.6	2.6	0.0	12.1	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	3.5	0.4	0.2	0.5	2.0	6.5	0.1	5.4	4.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	24.7	34.5	41.8	27.3	28.1	47.3	22.9	14.5	39.0	13.7	11.0
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	B	B
Approach Vol, veh/h		365			66			1233			1605	
Approach Delay, s/veh		34.9			32.5			26.7			18.1	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	38.1	6.2	15.7	18.3	29.3	9.2	12.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	44.0	5.0	18.0	18.0	31.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	5.9	17.7	2.8	10.8	13.5	20.2	4.9	3.3
Green Ext Time (p_c), s	0.0	8.3	0.0	0.4	0.4	4.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C



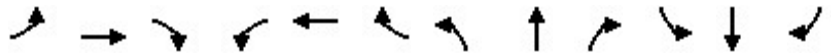
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	480	240	250	80	130	59	70	1099	60	67	1363	360
Future Volume (veh/h)	480	240	250	80	130	59	70	1099	60	67	1363	360
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	522	261	272	87	141	64	76	1195	65	73	1482	391
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	590	261	272	107	244	111	121	1492	665	93	1550	691
Arrive On Green	0.17	0.31	0.31	0.06	0.20	0.20	0.04	0.42	0.42	0.05	0.44	0.44
Sat Flow, veh/h	3456	839	874	1781	1218	553	3456	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	522	0	533	87	0	205	76	1195	65	73	1482	391
Grp Sat Flow(s),veh/h/ln	1728	0	1713	1781	0	1771	1728	1777	1585	1781	1777	1585
Q Serve(g_s), s	18.6	0.0	39.3	6.1	0.0	13.2	2.7	37.1	3.1	5.1	51.0	23.3
Cycle Q Clear(g_c), s	18.6	0.0	39.3	6.1	0.0	13.2	2.7	37.1	3.1	5.1	51.0	23.3
Prop In Lane	1.00		0.51	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	590	0	533	107	0	355	121	1492	665	93	1550	691
V/C Ratio(X)	0.88	0.00	1.00	0.81	0.00	0.58	0.63	0.80	0.10	0.79	0.96	0.57
Avail Cap(c_a), veh/h	708	0	533	107	0	355	547	1930	861	141	1637	730
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.2	0.0	43.5	58.7	0.0	45.7	60.1	32.0	22.2	59.2	34.5	26.7
Incr Delay (d2), s/veh	11.3	0.0	39.1	35.9	0.0	2.3	2.0	1.4	0.0	14.9	12.7	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	21.4	3.8	0.0	6.1	1.2	15.0	1.1	2.6	22.8	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	0.0	82.6	94.6	0.0	48.0	62.1	33.5	22.2	74.1	47.2	27.2
LnGrp LOS	E	A	F	F	A	D	E	C	C	E	D	C
Approach Vol, veh/h		1055			292			1336			1946	
Approach Delay, s/veh		72.6			61.9			34.5			44.2	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	61.2	26.1	30.0	11.1	59.1	12.1	44.0
Change Period (Y+Rc), s	* 4.6	* 6.1	4.5	* 4.7	4.5	* 6.1	4.5	* 4.7
Max Green Setting (Gmax), s	* 28	* 58	25.9	* 21	10.0	* 69	7.6	* 39
Max Q Clear Time (g_c+I1), s	4.7	53.0	20.6	15.2	7.1	39.1	8.1	41.3
Green Ext Time (p_c), s	0.0	2.1	0.9	0.5	0.0	2.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	49.0
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	30	170	100	30	260	208	1270	80	300	1790	479
Future Volume (veh/h)	278	30	170	100	30	260	208	1270	80	300	1790	479
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	33	185	109	33	283	226	1380	87	326	1946	521
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	182	20	112	171	52	195	137	1419	633	310	1765	787
Arrive On Green	0.18	0.18	0.18	0.12	0.12	0.12	0.08	0.40	0.40	0.17	0.50	0.50
Sat Flow, veh/h	994	109	609	1383	419	1585	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	520	0	0	142	0	283	226	1380	87	326	1946	521
Grp Sat Flow(s),veh/h/ln	1711	0	0	1801	0	1585	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	27.5	0.0	0.0	11.3	0.0	18.5	11.5	57.2	5.2	26.1	74.5	37.0
Cycle Q Clear(g_c), s	27.5	0.0	0.0	11.3	0.0	18.5	11.5	57.2	5.2	26.1	74.5	37.0
Prop In Lane	0.58		0.36	0.77		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	314	0	0	222	0	195	137	1419	633	310	1765	787
V/C Ratio(X)	1.66	0.00	0.00	0.64	0.00	1.45	1.65	0.97	0.14	1.05	1.10	0.66
Avail Cap(c_a), veh/h	314	0	0	222	0	195	137	1419	633	310	1765	787
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	61.3	0.0	0.0	62.6	0.0	65.8	69.2	44.2	28.6	62.0	37.8	28.3
Incr Delay (d2), s/veh	309.8	0.0	0.0	6.0	0.0	227.8	324.9	17.7	0.1	65.4	55.3	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	68.9	0.0	0.0	5.6	0.0	19.9	17.4	27.2	1.9	17.0	43.3	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	371.0	0.0	0.0	68.6	0.0	293.5	394.2	61.9	28.7	127.3	93.0	30.4
LnGrp LOS	F	A	A	E	A	F	F	E	C	F	F	C
Approach Vol, veh/h		520			425			1693			2793	
Approach Delay, s/veh		371.0			218.4			104.6			85.4	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.6	64.4		32.0	16.0	79.0		23.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	26.1	59.9		27.5	11.5	74.5		18.5
Max Q Clear Time (g_c+I1), s	28.1	59.2		29.5	13.5	76.5		20.5
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	0.0		0.0

Intersection Summary		
HCM 6th Ctrl Delay	129.1	
HCM 6th LOS	F	

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1480	469	302	1516	2090	560
Future Volume (veh/h)	1480	469	302	1516	2090	560
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1609	510	328	1648	2272	609
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1163	687	172	2064	1590	709
Arrive On Green	0.34	0.34	0.10	0.58	0.45	0.45
Sat Flow, veh/h	3456	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	1609	510	328	1648	2272	609
Grp Sat Flow(s),veh/h/ln	1728	1585	1781	1777	1777	1585
Q Serve(g_s), s	50.5	40.3	14.5	54.4	67.1	51.7
Cycle Q Clear(g_c), s	50.5	40.3	14.5	54.4	67.1	51.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1163	687	172	2064	1590	709
V/C Ratio(X)	1.38	0.74	1.90	0.80	1.43	0.86
Avail Cap(c_a), veh/h	1163	687	172	2071	1590	709
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	35.5	67.8	24.6	41.5	37.2
Incr Delay (d2), s/veh	177.8	3.8	428.1	2.1	196.8	9.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	50.4	34.0	26.9	21.3	70.8	20.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	227.5	39.4	495.9	26.7	238.3	47.1
LnGrp LOS	F	D	F	C	F	D
Approach Vol, veh/h	2119			1976	2881	
Approach Delay, s/veh	182.2			104.6	197.9	
Approach LOS	F			F	F	

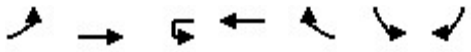
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	30.0	74.0		56.0		94.0
Change Period (Y+Rc), s	5.5	* 6.9		5.5		* 6.9
Max Green Setting (Gmax), s	24.5	* 67		50.5		* 87
Max Q Clear Time (g_c+I1), s	16.5	69.1		52.5		56.4
Green Ext Time (p_c), s	0.0	0.0		0.0		4.2

Intersection Summary	
HCM 6th Ctrl Delay	166.7
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	1314	2132	0	1627	450	230	1013
Future Volume (veh/h)	1314	2132	0	1627	450	230	1013
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	1428	2317		1768	489	250	1101
Peak Hour Factor	0.92	0.92		0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	1055	2424		1215	542	422	375
Arrive On Green	0.31	0.68		0.34	0.34	0.24	0.24
Sat Flow, veh/h	3456	3647		3647	1585	1781	1585
Grp Volume(v), veh/h	1428	2317		1768	489	250	1101
Grp Sat Flow(s),veh/h/ln	1728	1777		1777	1585	1781	1585
Q Serve(g_s), s	45.8	89.4		51.3	44.0	18.7	35.5
Cycle Q Clear(g_c), s	45.8	89.4		51.3	44.0	18.7	35.5
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1055	2424		1215	542	422	375
V/C Ratio(X)	1.35	0.96		1.45	0.90	0.59	2.93
Avail Cap(c_a), veh/h	1055	2424		1215	542	422	375
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	21.8		49.3	47.0	50.8	57.3
Incr Delay (d2), s/veh	165.3	9.9		209.3	17.8	1.5	878.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	43.1	34.1		56.9	19.2	8.3	105.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	217.4	31.7		258.6	64.8	52.4	935.2
LnGrp LOS	F	C		F	E	D	F
Approach Vol, veh/h		3745		2257		1351	
Approach Delay, s/veh		102.5		216.6		771.8	
Approach LOS		F		F		F	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	51.0	58.0			109.0	41.0
Change Period (Y+Rc), s	* 5.2	* 6.7			* 6.7	5.5
Max Green Setting (Gmax), s	* 46	* 51			* 93	35.5
Max Q Clear Time (g_c+I1), s	47.8	53.3			91.4	37.5
Green Ext Time (p_c), s	0.0	0.0			1.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	260.5
HCM 6th LOS	F

Notes

User approved ignoring U-Turning movement.

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

Appendix F

Analysis Worksheets for Mitigated Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	259	0	36	640	34	3	324	16	23	245	76
Future Volume (veh/h)	87	259	0	36	640	34	3	324	16	23	245	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	278	0	40	711	38	3	360	18	26	275	85
Peak Hour Factor	0.93	0.93	0.93	0.90	0.90	0.90	0.90	0.90	0.90	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	114	810	0	50	698	37	4	408	20	31	337	104
Arrive On Green	0.06	0.43	0.00	0.03	0.40	0.40	0.00	0.23	0.23	0.02	0.25	0.25
Sat Flow, veh/h	1781	1870	0	1781	1759	94	1781	1766	88	1781	1371	424
Grp Volume(v), veh/h	94	278	0	40	0	749	3	0	378	26	0	360
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	0	1853	1781	0	1854	1781	0	1794
Q Serve(g_s), s	4.1	7.8	0.0	1.7	0.0	31.1	0.1	0.0	15.4	1.1	0.0	14.8
Cycle Q Clear(g_c), s	4.1	7.8	0.0	1.7	0.0	31.1	0.1	0.0	15.4	1.1	0.0	14.8
Prop In Lane	1.00		0.00	1.00		0.05	1.00		0.05	1.00		0.24
Lane Grp Cap(c), veh/h	114	810	0	50	0	736	4	0	428	31	0	441
V/C Ratio(X)	0.83	0.34	0.00	0.81	0.00	1.02	0.70	0.00	0.88	0.84	0.00	0.82
Avail Cap(c_a), veh/h	114	810	0	114	0	736	114	0	570	114	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.3	14.8	0.0	37.9	0.0	23.6	39.1	0.0	29.1	38.4	0.0	27.9
Incr Delay (d2), s/veh	35.5	0.1	0.0	10.8	0.0	37.8	54.6	0.0	10.1	19.6	0.0	10.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.7	0.0	0.8	0.0	18.8	0.1	0.0	7.2	0.6	0.0	6.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.7	14.9	0.0	48.7	0.0	61.5	93.7	0.0	39.2	58.0	0.0	38.5
LnGrp LOS	E	B	A	D	A	F	F	A	D	E	A	D
Approach Vol, veh/h		372			789			381			386	
Approach Delay, s/veh		29.3			60.8			39.6			39.8	
Approach LOS		C			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	37.9	4.7	26.3	6.7	40.7	5.9	25.1
Change Period (Y+Rc), s	4.5	6.8	4.5	* 7	4.5	* 6.8	4.5	7.0
Max Green Setting (Gmax), s	5.0	31.1	5.0	* 16	5.0	* 32	5.0	24.1
Max Q Clear Time (g_c+I1), s	6.1	33.1	2.1	16.8	3.7	9.8	3.1	17.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	46.3
HCM 6th LOS	D

Notes

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

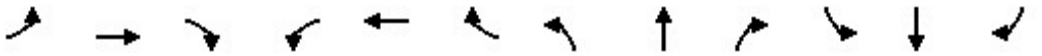
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	215	51	19	699	400	73
Future Volume (veh/h)	215	51	19	699	400	73
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	347	82	22	813	435	79
Peak Hour Factor	0.62	0.62	0.86	0.86	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	405	96	47	984	627	114
Arrive On Green	0.29	0.29	0.03	0.53	0.41	0.41
Sat Flow, veh/h	1404	332	1781	1870	1540	280
Grp Volume(v), veh/h	430	0	22	813	0	514
Grp Sat Flow(s),veh/h/ln	1740	0	1781	1870	0	1820
Q Serve(g_s), s	11.3	0.0	0.6	17.7	0.0	11.3
Cycle Q Clear(g_c), s	11.3	0.0	0.6	17.7	0.0	11.3
Prop In Lane	0.81	0.19	1.00			0.15
Lane Grp Cap(c), veh/h	502	0	47	984	0	740
V/C Ratio(X)	0.86	0.00	0.47	0.83	0.00	0.69
Avail Cap(c_a), veh/h	657	0	195	2419	0	1986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	23.3	9.6	0.0	11.9
Incr Delay (d2), s/veh	8.7	0.0	7.0	1.8	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.3	3.9	0.0	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.0	0.0	30.3	11.5	0.0	13.1
LnGrp LOS	C	A	C	B	A	B
Approach Vol, veh/h	430			835	514	
Approach Delay, s/veh	25.0			12.0	13.1	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.0		18.5	5.8	24.2
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		62.7		18.3	5.3	52.9
Max Q Clear Time (g_c+I1), s		19.7		13.3	2.6	13.3
Green Ext Time (p_c), s		5.8		0.7	0.0	3.0

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	684	0	57	334	40	3	302	58	37	340	59
Future Volume (veh/h)	72	684	0	57	334	40	3	302	58	37	340	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	743	0	67	393	47	4	364	70	42	382	66
Peak Hour Factor	0.92	0.92	0.92	0.85	0.85	0.85	0.83	0.83	0.83	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	790	0	86	678	81	6	398	76	53	447	77
Arrive On Green	0.06	0.42	0.00	0.05	0.41	0.41	0.00	0.26	0.26	0.03	0.29	0.29
Sat Flow, veh/h	1781	1870	0	1781	1635	196	1781	1524	293	1781	1554	268
Grp Volume(v), veh/h	78	743	0	67	0	440	4	0	434	42	0	448
Grp Sat Flow(s),veh/h/ln	1781	1870	0	1781	0	1830	1781	0	1818	1781	0	1822
Q Serve(g_s), s	4.1	36.4	0.0	3.6	0.0	17.7	0.2	0.0	22.1	2.2	0.0	22.2
Cycle Q Clear(g_c), s	4.1	36.4	0.0	3.6	0.0	17.7	0.2	0.0	22.1	2.2	0.0	22.2
Prop In Lane	1.00		0.00	1.00		0.11	1.00		0.16	1.00		0.15
Lane Grp Cap(c), veh/h	100	790	0	86	0	759	6	0	474	53	0	524
V/C Ratio(X)	0.78	0.94	0.00	0.78	0.00	0.58	0.71	0.00	0.92	0.79	0.00	0.86
Avail Cap(c_a), veh/h	242	932	0	196	0	857	196	0	571	196	0	614
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.5	26.4	0.0	44.9	0.0	21.6	47.6	0.0	34.3	46.0	0.0	32.1
Incr Delay (d2), s/veh	4.9	14.6	0.0	5.5	0.0	0.3	46.2	0.0	16.2	9.3	0.0	9.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	17.1	0.0	1.6	0.0	6.7	0.2	0.0	11.0	1.1	0.0	10.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.3	41.1	0.0	50.5	0.0	21.9	93.8	0.0	50.4	55.3	0.0	41.1
LnGrp LOS	D	D	A	D	A	C	F	A	D	E	A	D
Approach Vol, veh/h		821			507			438			490	
Approach Delay, s/veh		41.9			25.7			50.8			42.3	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	46.4	4.8	34.5	9.1	47.1	7.3	31.9
Change Period (Y+Rc), s	4.5	6.8	4.5	* 7	4.5	* 6.8	4.5	7.0
Max Green Setting (Gmax), s	13.0	44.7	10.5	* 32	10.5	* 48	10.5	30.0
Max Q Clear Time (g_c+I1), s	6.1	19.7	2.2	24.2	5.6	38.4	4.2	24.1
Green Ext Time (p_c), s	0.0	1.4	0.0	1.0	0.0	2.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

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

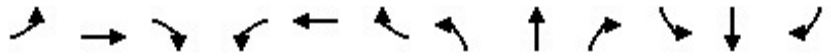
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	126	34	58	542	670	215
Future Volume (veh/h)	126	34	58	542	670	215
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	225	61	59	553	728	234
Peak Hour Factor	0.56	0.56	0.98	0.98	0.92	0.92
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	260	70	84	1291	792	255
Arrive On Green	0.19	0.19	0.05	0.69	0.58	0.58
Sat Flow, veh/h	1361	369	1781	1870	1356	436
Grp Volume(v), veh/h	287	0	59	553	0	962
Grp Sat Flow(s),veh/h/ln	1736	0	1781	1870	0	1792
Q Serve(g_s), s	12.1	0.0	2.5	9.8	0.0	36.5
Cycle Q Clear(g_c), s	12.1	0.0	2.5	9.8	0.0	36.5
Prop In Lane	0.78	0.21	1.00			0.24
Lane Grp Cap(c), veh/h	331	0	84	1291	0	1047
V/C Ratio(X)	0.87	0.00	0.71	0.43	0.00	0.92
Avail Cap(c_a), veh/h	419	0	125	1548	0	1251
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.7	0.0	35.6	5.2	0.0	14.2
Incr Delay (d2), s/veh	14.4	0.0	10.4	0.2	0.0	9.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	0.0	1.2	2.0	0.0	12.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	44.1	0.0	45.9	5.4	0.0	24.0
LnGrp LOS	D	A	D	A	A	C
Approach Vol, veh/h	287			612	962	
Approach Delay, s/veh	44.1			9.3	24.0	
Approach LOS	D			A	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		56.8		19.0	8.1	48.8
Change Period (Y+Rc), s		4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		62.7		18.3	5.3	52.9
Max Q Clear Time (g_c+I1), s		11.8		14.1	4.5	38.5
Green Ext Time (p_c), s		3.3		0.4	0.0	5.7

Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

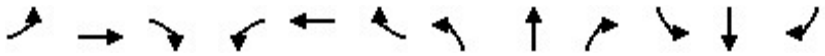
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	494	30	201	80	20	290	140	1840	90	240	1090	215
Future Volume (veh/h)	494	30	201	80	20	290	140	1840	90	240	1090	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	537	33	218	87	22	315	152	2000	98	261	1185	234
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	581	34	226	111	104	344	185	2117	657	287	1677	1014
Arrive On Green	0.17	0.16	0.16	0.06	0.06	0.06	0.10	0.41	0.41	0.16	0.47	0.47
Sat Flow, veh/h	3456	213	1405	1781	1870	1585	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	537	0	251	87	22	315	152	2000	98	261	1185	234
Grp Sat Flow(s),veh/h/ln	1728	0	1617	1781	1870	1585	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	13.8	0.0	13.8	4.3	1.0	5.0	7.5	33.9	3.5	12.9	23.7	5.6
Cycle Q Clear(g_c), s	13.8	0.0	13.8	4.3	1.0	5.0	7.5	33.9	3.5	12.9	23.7	5.6
Prop In Lane	1.00		0.87	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	581	0	261	111	104	344	185	2117	657	287	1677	1014
V/C Ratio(X)	0.92	0.00	0.96	0.78	0.21	0.92	0.82	0.94	0.15	0.91	0.71	0.23
Avail Cap(c_a), veh/h	581	0	261	143	104	344	222	2126	660	287	1677	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	37.4	41.5	40.5	34.4	39.4	25.3	16.4	37.0	18.8	6.8
Incr Delay (d2), s/veh	20.8	0.0	45.3	18.8	1.0	28.2	18.2	9.6	0.1	30.4	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	8.6	2.5	0.5	9.2	4.0	13.5	1.2	7.6	8.5	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	0.0	82.7	60.3	41.5	62.6	57.7	34.9	16.5	67.5	20.2	6.9
LnGrp LOS	E	A	F	E	D	E	E	C	B	E	C	A
Approach Vol, veh/h		788			424			2250			1680	
Approach Delay, s/veh		65.6			61.1			35.6			25.7	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	41.7	10.1	19.0	13.9	46.9	19.6	9.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	4.5	37.4	7.2	12.9	11.2	40.7	15.1	5.0
Max Q Clear Time (g_c+I1), s	4.9	35.9	6.3	15.8	9.5	25.7	15.8	7.0
Green Ext Time (p_c), s	0.0	1.4	0.0	0.0	0.1	7.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	30	170	100	30	260	208	1270	80	300	1790	479
Future Volume (veh/h)	278	30	170	100	30	260	208	1270	80	300	1790	479
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	302	33	185	109	33	283	226	1380	87	326	1946	521
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	336	18	101	125	87	395	235	2501	776	361	1992	1043
Arrive On Green	0.10	0.07	0.07	0.07	0.05	0.05	0.13	0.49	0.49	0.20	0.56	0.56
Sat Flow, veh/h	3456	246	1377	1781	1870	1585	1781	5106	1585	1781	3554	1585
Grp Volume(v), veh/h	302	0	218	109	33	283	226	1380	87	326	1946	521
Grp Sat Flow(s),veh/h/ln	1728	0	1623	1781	1870	1585	1781	1702	1585	1781	1777	1585
Q Serve(g_s), s	9.5	0.0	8.1	6.7	1.9	5.1	13.9	20.8	3.3	19.6	58.5	18.4
Cycle Q Clear(g_c), s	9.5	0.0	8.1	6.7	1.9	5.1	13.9	20.8	3.3	19.6	58.5	18.4
Prop In Lane	1.00		0.85	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	336	0	120	125	87	395	235	2501	776	361	1992	1043
V/C Ratio(X)	0.90	0.00	1.82	0.87	0.38	0.72	0.96	0.55	0.11	0.90	0.98	0.50
Avail Cap(c_a), veh/h	336	0	120	125	87	395	235	2501	776	507	1995	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	0.0	50.9	50.6	50.9	37.7	47.4	19.6	15.1	42.8	23.5	9.6
Incr Delay (d2), s/veh	25.4	0.0	401.3	44.7	2.7	6.1	47.9	0.3	0.1	15.1	15.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	16.6	4.5	0.9	7.6	8.9	7.3	1.2	9.6	24.4	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.5	0.0	452.2	95.4	53.6	43.8	95.3	19.9	15.2	57.9	38.5	10.0
LnGrp LOS	E	A	F	F	D	D	F	B	B	E	D	A
Approach Vol, veh/h		520			425			1693			2793	
Approach Delay, s/veh		232.8			57.8			29.7			35.4	
Approach LOS		F			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.8	58.3	12.2	12.6	19.0	66.1	15.2	9.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.3	44.9	7.7	8.1	14.5	61.7	10.7	5.1
Max Q Clear Time (g_c+I1), s	21.6	22.8	8.7	10.1	15.9	60.5	11.5	7.1
Green Ext Time (p_c), s	0.7	9.5	0.0	0.0	0.0	1.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	54.3
HCM 6th LOS	D

Appendix G

Analysis Worksheets for Signal Warrants

Kimley»Horn

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2014 California Supplement

Scenario: Existing Conditions AM
Intersection: Grant Line Rd AND Kiefer Blvd
Comments:

	PART A or PART B	SATISFIED	**YES**

PART A
(All parts 1, 2, and 3 below must be satisfied) — SATISFIED **NO**

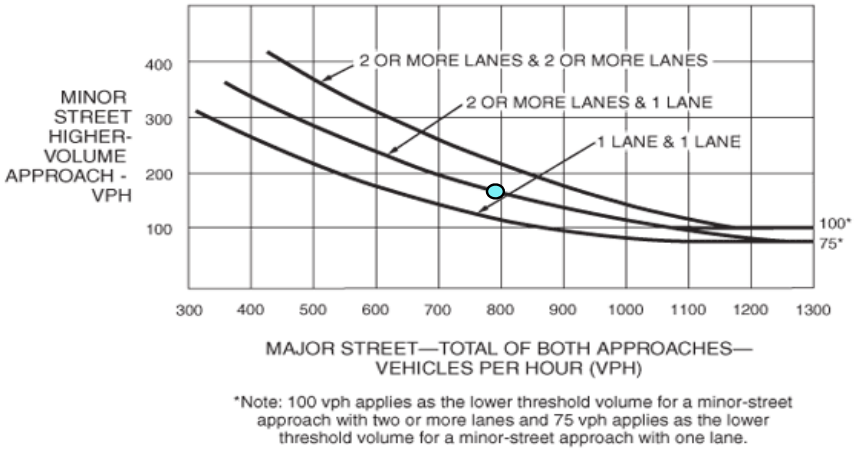
1.	The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND	No
2.	The volume on the same minor street approach equals or exceeds 75 vph for one moving lane of traffic or 100 vph for two moving lanes; AND	Yes
3.	The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.	Yes

PART B — SATISFIED **YES**

APPROACH LANES	One	2 or More
Both Approaches - Major Street	793	
Highest Approache - Minor Street	179	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Kimley»Horn

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2014 California Supplement

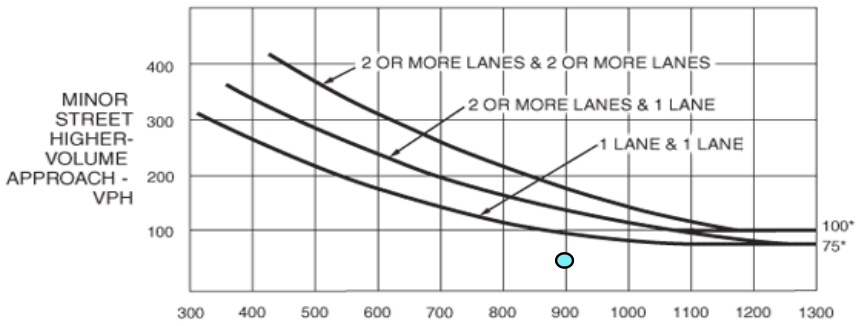
Scenario: Existing Conditions PM
Intersection: Grant Line Rd AND Kiefer Blvd
Comments:

	PART A or PART B	SATISFIED	**NO**
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 75 vph for one moving lane of traffic or 100 vph for two moving lanes; AND			No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			Yes
PART B		SATISFIED	**NO**

APPROACH LANES	One	2 or More
Both Approaches - Major Street	900	
Highest Approache - Minor Street	56	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Kimley»Horn

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2014 California Supplement

Scenario: Existing plus Proposed Project Conditions AM
Intersection: Grant Line Rd AND Kiefer Blvd
Comments:

	PART A or PART B	SATISFIED	**YES**

PART A
(All parts 1, 2, and 3 below must be satisfied) — SATISFIED **NO**

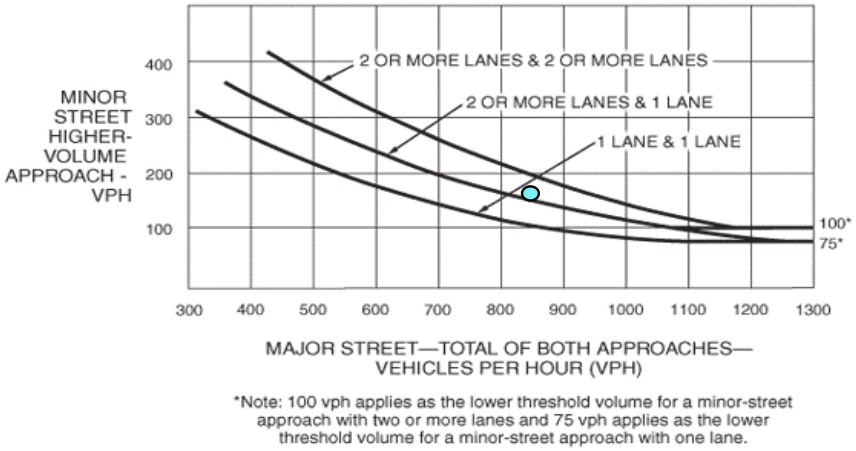
1.	The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND	No
2.	The volume on the same minor street approach equals or exceeds 75 vph for one moving lane of traffic or 100 vph for two moving lanes; AND	Yes
3.	The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.	Yes

PART B — SATISFIED **YES**

APPROACH LANES	One	2 or More
Both Approaches - Major Street	854	
Highest Approach - Minor Street	183	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Kimley»Horn

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2014 California Supplement

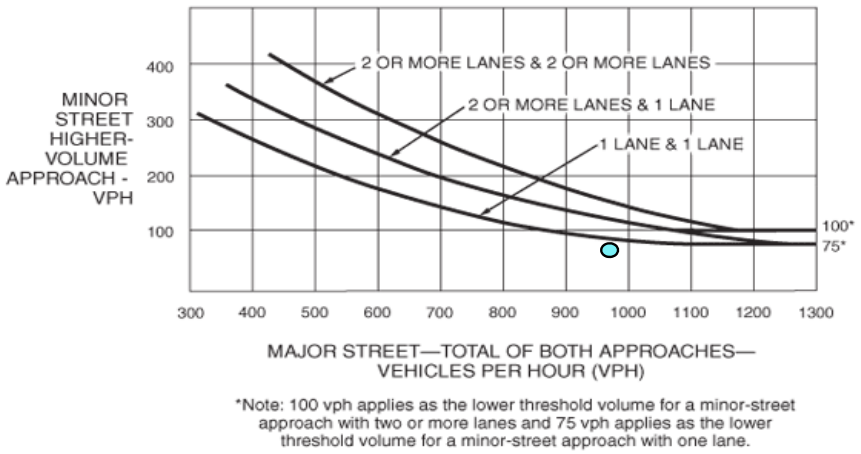
Scenario: Existing plus Proposed Project Conditions PM
Intersection: Grant Line Rd AND Kiefer Blvd
Comments:

	PART A or PART B	SATISFIED	**NO**
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 75 vph for one moving lane of traffic or 100 vph for two moving lanes; AND			No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			Yes
PART B		SATISFIED	**NO**

APPROACH LANES	One	2 or More
Both Approaches - Major Street	974	
Highest Approach - Minor Street	69	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Kimley»Horn

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2014 California Supplement

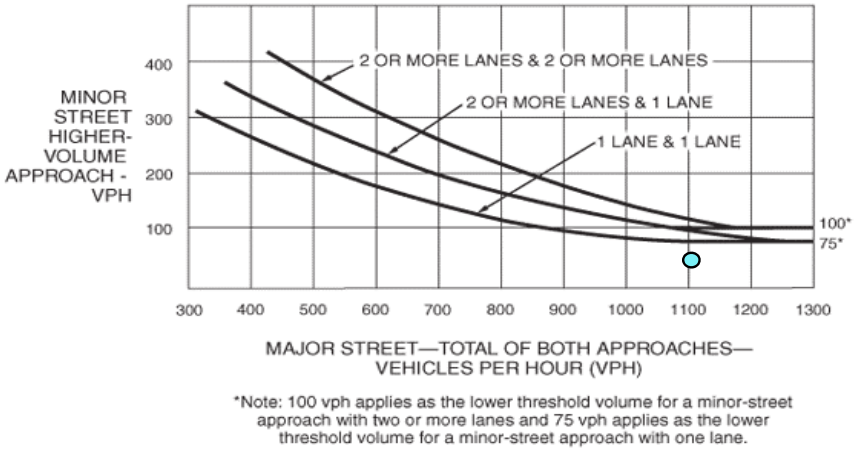
Scenario: Existing Conditions AM
Intersection: Grant Line Rd AND Raymer Way
Comments:

	PART A or PART B	SATISFIED	**NO**
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 75 vph for one moving lane of traffic or 100 vph for two moving lanes; AND			No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			Yes
PART B		SATISFIED	**NO**

APPROACH LANES	One	2 or More
Both Approaches - Major Street	1119	
Highest Approache - Minor Street	50	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Kimley»Horn

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2014 California Supplement

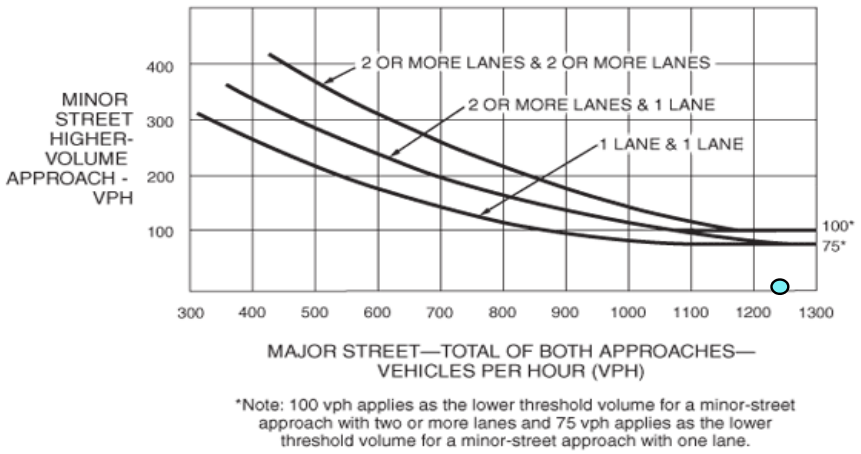
Scenario: Existing Conditions PM
Intersection: Grant Line Rd AND Raymer Way
Comments:

	PART A or PART B	SATISFIED	NO
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 75 vph for one moving lane of traffic or 100 vph for two moving lanes; AND			No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			Yes
PART B		SATISFIED	**NO**

APPROACH LANES	One	2 or More
Both Approaches - Major Street	1244	
Highest Approache - Minor Street	18	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Kimley»Horn

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2014 California Supplement

Scenario: Existing plus Proposed Project Conditions AM
Intersection: Grant Line Rd AND Kiefer Blvd
Comments:

	PART A or PART B	SATISFIED	**YES**

PART A
(All parts 1, 2, and 3 below must be satisfied) — SATISFIED **NO**

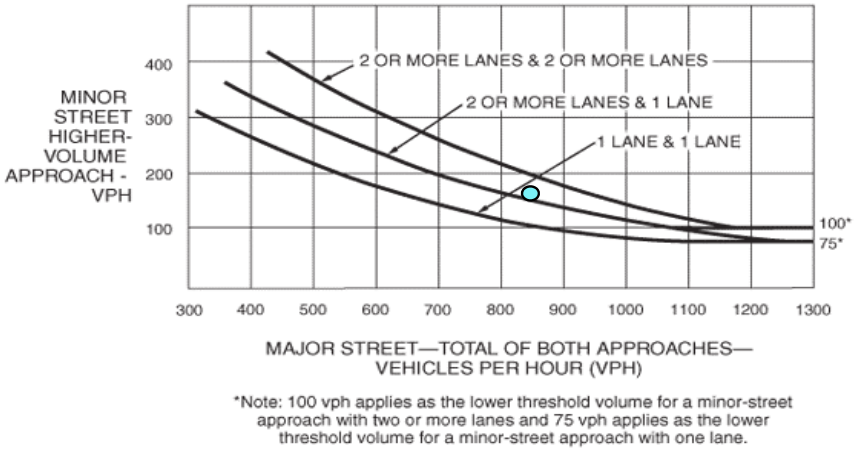
1.	The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND	No
2.	The volume on the same minor street approach equals or exceeds 75 vph for one moving lane of traffic or 100 vph for two moving lanes; AND	Yes
3.	The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.	Yes

PART B — SATISFIED **YES**

APPROACH LANES	One	2 or More
Both Approaches - Major Street	854	
Highest Approach - Minor Street	183	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-4.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Kimley»Horn

Traffic Signal Warrants Worksheet
Warrant 3: Peak Hour
Source: MUTCD 2014 California Supplement

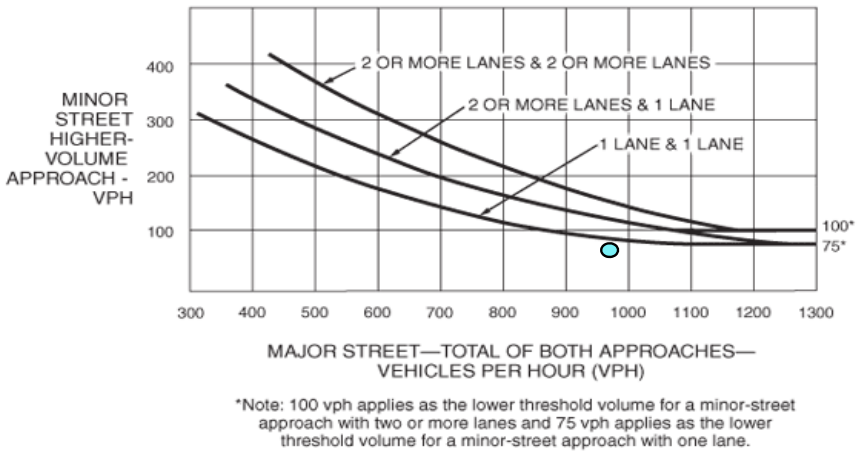
Scenario: Existing plus Proposed Project Conditions PM
Intersection: Grant Line Rd AND Kiefer Blvd
Comments:

	PART A or PART B	SATISFIED	**NO**
PART A (All parts 1, 2, and 3 below must be satisfied)		SATISFIED	**NO**
1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND			No
2. The volume on the same minor street approach equals or exceeds 75 vph for one moving lane of traffic or 100 vph for two moving lanes; AND			No
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.			Yes
PART B		SATISFIED	**NO**

APPROACH LANES	One	2 or More
Both Approaches - Major Street	974	
Highest Approach - Minor Street	69	

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Kimley»Horn

Memorandum

To: George Carpenter
Grantline Road, LLC
c/o Winn Communities

From: Chris Gregerson, P.E., T.E., PTOE, PTP
Matt Weir, P.E., T.E., PTOE, RSP_1

Re: The Preserve
Vehicle Miles Traveled (VMT) Evaluation

Date: August 16, 2021

As requested, we have prepared this memorandum to document our evaluation of Vehicle Miles Traveled (VMT) for your residential development project located just west of the Raymer Way intersection with Grant Line Road in Rancho Cordova.

Overview

The primary purpose of this evaluation was to document the Vehicle Miles Traveled (VMT) per capita for The Preserve residential development and compare it to the VMT per capita value calculated for the City of Rancho Cordova, Sacramento County, and the SACOG region. Kimley-Horn understands that the proposed Project consists of 436 single-family detached units on the vacant parcels. A VMT analysis is required to determine if the addition of the proposed project results in a significant impact for CEQA purposes.

VMT Analysis Methodology

A CEQA VMT analysis was completed using the City's version of SACOG's SACSIM19 travel demand model for consistency of evaluation with the calculated values for the SACOG region. In addition, the analysis was tour-based, meaning that the analysis fully accounts for the entire trip length, including the length outside of the model area. While generally tour-based approaches include trips that are linked to trips that start or end at the project, for consistency with direction provided by City staff, the VMT analysis documented in this memorandum only estimates VMT based on all trips that have one end in a project location. This clarification means that intermediate trips, such as those occurring after someone has left the project area, such as a trip to pick-up lunch while at work, are not included in this analysis. Furthermore, consistent with the California Governor's Office of Planning and Research (OPR) guidelines[1] only automobile trips are considered as a part of this analysis. Heavy vehicle trips and alternative mode trips are not included in VMT analyses.

Kimley-Horn used the City's recently developed travel demand model with a base year of 2016 to perform the VMT analysis. A Traffic Analysis Zone (TAZ) representing the project area with no other land use was used to isolate the proposed project from all surrounding land uses. The 436 residential units were added to the project's TAZ to represent the project. Using the socioeconomic characteristics of developments in the immediate vicinity of the project to develop a profile of the households and persons expected to live in the proposed project, a population of 1,333 was estimated for the proposed project. Using the output trip table from the travel demand model, automobile trips either starting or ending in the proposed project were selected. These trips were factored based on the auto occupancy; single occupancy trips were multiplied by one, two-person vehicle trips were multiplied by 0.5, and three or more person trips

[1] *Technical Advisory on Evaluating Transportation Impacts in CEQA*.

were multiplied by 0.3, in a manner consistent with the methodology outlined by SACOG in its recent VMT analysis guidelines[2]. Each trip was multiplied by the model-determined distance based on the model's skim matrix determining the distance between each TAZ during the peak periods to determine that trip's VMT. Each trip's VMT was totaled to determine the total internal-internal VMT related to the proposed project.

External-internal and internal-external VMT was also calculated based on the methodologies outlined in SACOG's guidelines. A script file provided by SACOG and included in their model for VMT post-processing was run, which determined the VMT for trips that either start or end outside of the model area by TAZ. As the project was separated into its own TAZ, the VMT for the project's TAZ was added to the internal-internal total VMT to determine the total VMT associated with the proposed project. This VMT was then divided by the population of the project to determine a VMT per capita associated with the proposed project. This value was then compared to the Regional VMT Threshold for Residential land use types (15-percent below the Regional Average) to determine whether the project results in a significant impact.

VMT Analysis Results

Using the methodology described above, the VMT per Capita for the proposed Project was calculated. As shown Table 1 below, the proposed Project results in a VMT per capita value of 23.3.

Table 1 – Existing VMT Analysis Results Summary for the Proposed Project

Trip Type	Internal VMT	External VMT	Total VMT
Origin	15,157	610	15,767
Destination	14,677	604	15,281
Total	29,834	1,214	31,048
		Total Population	1,333
		VMT per Capita	**23.3**

In order to place the Project's VMT per Capita value in context, the average VMT per Capita was calculated for the entire SACOG region. The VMT per capita average for the SACOG region was calculated using the same methodology that was used to calculate the Project's average VMT per capita.

As shown Table 2 below, the average VMT per capita in the SACOG region is 23.2. Using the state's guidance, absent other substantial evidence, thresholds should be set 15-percent below the average VMT per capita. Thus, based on the analysis summarized in the tables below, the threshold for the SACOG region would be 19.7 VMT per capita, respectively.

Table 2 – Existing VMT Analysis Results Summary for the SACOG Region

Trip Type	Internal VMT	External VMT	Total VMT
Origin	18,765,997	8,788,214	27,554,210
Destination	18,765,997	8,788,214	27,554,210
Total	37,531,994	17,576,427	55,108,421
		Total Population	2,376,311
		VMT per Capita	**23.2**

Based on the analysis provided above, the project is expected to result in a finding of a significant impact based on the SACOG regional threshold as the project exceeds the threshold by approximately 15-percent.

[2] *VMT computation Procedures (DRAFT)*. Sacramento Area Council of Governments (SACOG). September 30, 2020.

VMT Mitigation Strategies

In an attempt to mitigate the Project's significant impact to less than significant, SACOG's SB 743 guidance document[3] was used to help determine what mitigation strategies would be appropriate for the Project and how much those strategies would reduce the Project's VMT per Capita. SACOG's guidance relies heavily on the information provided by the California Air Pollution Control Officers Association (CAPCOA) guidance document for quantifying VMT reduction measures[4] and both documents were used to determine the strategies that could be implemented to reduce the Project's VMT per Capita.

Based on the CAPCOA guidance, the maximum VMT reduction that can be reasonably be obtained for Projects in a suburban setting is 15-percent, but this includes reductions related to commute trips. After a review of the mitigation strategies, many of the proposed strategies were found to not be applicable for the project as they are based on projects in urban locations or are applicable only to non-residential projects. The mitigation strategies that were considered include those related to parking, reducing work commute trips, or are related to transit. As the Project is located in a developing area with only vacant land and other residential communities surrounding it, there are limited alternatives to driving for work or shopping needs and no restrictions are placed on parking. In addition, the limited access to transit and the inability to implement strategies related to employment and commuting further restricts the Project's ability to reduce its VMT per Capita.

The two feasible mitigation strategies the Project is implementing include constructing a portion of the regional trail system that is planned in the vicinity of the Project and providing monetary support for transit related services through the City of Rancho Cordova's Transit Related Services Special Tax.

The Transit Related Services Special Tax will fund transportation services as determined appropriate by the City Council. Supplemental transportation services may include, but are not limited to, the following:

- Transit Shuttle – shuttle for residents and/or employees between residential areas, employment centers, shopping and service centers and light rail stations and/or other public transit options.
- Guaranteed Ride Home – free taxi rides and rental cars for ride sharers in case of an emergency.
- Transit Subsidies – financial assistance to encourage residents and employees to use transit or other alternative transportation measures.
- Transportation Plans for employers and/or resident groups – plans which guide employers and resident groups on the implementation of trip reduction programs, such as ride share matching or other similar programs.
- Education Programs – various programs such as education of transit options, home office set up, alternative commute opportunities.
- Infrastructure Support – additional bike racks and lockers, transportation alternative and ride share informational boards/kiosks, and transit facilities.
- Transportation Coordinator Training and Support – instruction in mobility (transportation alternatives) for residential groups and work site coordinators.
- Bicycle and Alternative Fuel Vehicle Incentives – incentives for purchasing new bicycles or alternative fuel vehicles.

Based on the CAPCOA guidance, these two measures combined would provide a maximum VMT reduction of 4.5-percent, but the reduction realized would likely be lower. Even with the maximum reduction applied, the VMT per Capita for the project would continue to exceed the regional threshold and therefore the impact would remain significant and unavoidable.

[3] *Senate Bill 743 Implementation Tools*. Sacramento Area Council of Governments (SACOG). June 2020.
[4] *Quantifying Greenhouse Gas Mitigation Measures*. California Air Pollution Control Officers Association. August 2010.

Kimley»Horn

Memorandum

To: George Carpenter
Grantline Road, LLC
c/o Winn Communities

From: Chris Gregerson, P.E., T.E., PTOE, PTP
Matt Weir, P.E., T.E., PTOE, RSP_1

Re: The Preserve
Supplemental Analysis for Six Additional Units

Date: February 8, 2021

As requested, we have prepared this memorandum to document the effect of adding six (6) additional units to the Proposed Project. These findings are compared against the Level of Service (LOS) and Vehicle Miles Traveled (VMT) analyses completed previously for your residential development project located west of the Raymer Way intersection with Grant Line Road in Rancho Cordova.

Overview

The primary purpose of this evaluation is to document the effect of adding six (6) additional units to the Proposed Project. Kimley-Horn understands that the Proposed Project previously consisted of 434 single-family detached units on three vacant parcels. The six (6) additional units results in a revised total of 440 single-family detached units.

Trip Generation

To determine the number of additional trips that result from the addition of the Proposed Project (six additional units), a trip generation comparison was completed. The number of trips anticipated to be generated by the Proposed Project was approximated using data included in the *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE). As shown in **Table 1**, the six additional units are estimated to generate 50 additional new daily trips, with four additional trips occurring during the AM peak-hour and five additional trips occurring during the PM peak-hour.

Table 1 – Trip Generation Summary

Land Use (ITE Code)	Size (Dwelling Units)	Daily Trips	AM Peak-Hour					PM Peak-Hour				
			Total Trips	In		Out		Total Trips	In		Out	
				%	Trips	%	Trips		%	Trips	%	Trips
Single-Family Detached Housing (210)[1]	434	4,014	313	25%	78	75%	235	416	63%	262	37%	154
Single-Family Detached Housing (210)[1]	440	4,064	317	25%	79	75%	238	421	63%	265	37%	156
New Project Trips		**50**	**4**		**1**		**3**	**5**		**3**		**2**

[1] *Trip generation based on Institute of Transporation Engineers (ITE), Trip Generation Manual, (10th Edition) equations for Single-Family Detached Housing (Land Use Code 210)*
Daily: Ln(T) = 0.92Ln(X) + 2.71
AM Peak Hour: T = 0.71(X) + 4.80
PM Peak Hour: Ln(T) = 0.96Ln(X) + 0.2
Where: T = trips generated, X = dwelling units

Level of Service (LOS) Analysis Comparison

The following guidelines were used when evaluating whether the Proposed Project results in a LOS deficiency:

Roadways/Signalized Intersections: A project is considered to have a significant effect if it would:

- result in a roadway or a signalized intersection operating at an acceptable LOS to deteriorate to an unacceptable LOS; or
- increase the V/C ratio by more than 0.05 at a roadway or at a signalized intersection that is operating at an unacceptable LOS without the project.

Unsignalized Intersections: A project is considered to have a significant effect if it would:

- result in an unsignalized intersection movement/approach operating at an acceptable LOS to deteriorate to an unacceptable LOS, and also cause the intersection to meet a traffic signal warrant; or
- for an unsignalized intersection that meets a signal warrant, increase the delay by more than 5 seconds at a movement/approach that is operating at an unacceptable LOS without the project.

Previously, the addition of the Proposed Project to the Existing (2019) Conditions resulted in a deficiency at two (2) study intersections. The addition of the Proposed Project to Cumulative (2035) Conditions resulted in a deficiency at three (3) study intersections. The addition of the Proposed Project did not result in a deficiency at any of the study roadway segments for Existing (2019) or Cumulative (2035) Conditions.

A review was undertaken to determine whether the six (6) project units would result in additional deficiencies. Only intersections and roadway segments that were identified as being close to becoming deficient or were already deficient without the addition of the project, were included in this supplemental review. Specifically, if an intersection was within five (5) seconds of delay to becoming deficient or if a roadway segment had a volume to capacity ratio (V/C ratio) within 0.05 of capacity or was already over capacity it was included in the review.

The additional 50 daily trips, with four new trips occurring during the AM peak-hour, and five new trips occurring during the PM peak-hour, were distributed to the selected study intersections and roadway segments based on the previously developed Existing (2019) and Cumulative (2035) trip distributions. It was determined that the additional trips did not result in any intersections or roadway segments currently operating acceptably to become deficient, nor did the additional trips result in any intersections or roadway segments currently operating at deficient levels to exceed the guidelines described above.

VMT Analysis Conclusions Comparison

As shown in **Table 2** below, the proposed Project resulted in a VMT per capita value of 23.3.

Table 2 – Existing VMT Analysis Results Summary for the Proposed Project

Trip Type	Internal VMT	External VMT	Total VMT
Origin	15,157	610	15,767
Destination	14,677	604	15,281
Total	29,834	1,214	31,048
		Total Population	1,333
		VMT per Capita	**23.3**

In order to place the Project's VMT per Capita value in context, the average VMT per Capita was calculated for the City of Rancho Cordova, Sacramento County, and the entire SACOG region.

Based on the previously completed analysis, the project is expected to result in a finding of a significant impact only if the City's threshold were to be based on Sacramento County or SACOG regional data as the project would exceed the threshold based on these data sources. However, the project would be expected to result in a finding of less than significant impact if the City's threshold were to be based on only City of Rancho Cordova data.

As the character of the additional six units would be consistent in terms of size and socioeconomic distribution of the residents of the other 434 units in the Proposed Project, it is reasonable to assume that the distribution and length of trips resulting from the additional units would be consistent with the rest of the units comprising the Proposed Project because the City's travel demand model is used to complete the VMT analysis. The trips generated, distributed, and assigned to the model roadway network would only increase in magnitude with the additional units and the pattern of the trips would remain consistent. While the additional six units would increase the total daily VMT generated by the Proposed Project, there would be a commensurate increase in the Proposed Project's population leading to a VMT per capita value that is consistent with the analysis performed previously.

Conclusions

As noted above, the six units are estimated to generate 50 additional new daily trips, with four additional new trips occurring during the AM peak-hour, and five additional new trips occurring during the PM peak-hour. It was determined that the additional trips do not result in any intersections or roadway segments currently operating acceptably to become deficient, nor did the additional trips result in any intersections or roadway segments currently operating at deficient levels to exceed the guidelines described above. In addition, while the additional six units would increase the total daily VMT generated by the Proposed Project, there would be a commensurate increase in the Proposed Project's population leading to a VMT per capita value that is consistent with the analysis performed previously.

Kimley»Horn

Memorandum

To: Albert Stricker, P.E.
Public Works Director, City of Rancho Cordova

From: Chris Gregerson, P.E., T.E., PTOE, PTP
Matt Weir, P.E., T.E., PTOE, RSP_1

Re: The Preserve
Centennial Drive Considerations

Date: August 16, 2021

Project Understanding

We understand that the City is currently assessing the potential of removing the extension of Centennial Drive to Grant Line Road/Capital SouthEast Connector (thereby removing the link between Rio Del Oro and Grant Line Road/the Capital SouthEast Connector). This memorandum summarizes the efforts that have been undertaken to date to analyze the removal of the extension of Centennial Drive.

Travel Demand Modeling

The initial effort occurred in April 2019 and was documented in a memorandum completed by Kimley-Horn[1]. At that time, the City provided their currently adopted Travel Demand Model (TDM) for the Forecast Year (2035) and provided two roadway network modifications to be assumed as a part of this effort[2]. The two network modifications were as follows:

1) Douglas Road – reduced from 6 lanes to 4 lanes between Rancho Cordova Parkway and Grant Line Road
2) Rancho Cordova Parkway – reduced from 6 lanes to 4 lanes between Chrysanthy Boulevard and Villagio Drive

Two versions of the model were run once these roadway network modifications were completed. The first version of the model did not have any modifications to Centennial Drive and it was assumed to connect between Americanos Boulevard and Grant Line Road. A second version of the model was run with Centennial Drive between Americanos Boulevard and Grant Line Road removed and the centroid connector that previously connected to this portion of Centennial Drive was moved to connect directly to Grant Line Road. The resulting volumes from the two model runs were compared and a difference was taken between the model run without the Centennial Drive connection and the model run with the Centennial Drive connection. The volume difference is displayed graphically in **Exhibit 1**. As shown in **Exhibit 1**, the largest daily volume increase is along White Rock Road immediately west of Grant Line Road while the largest daily volume decrease is along Centennial Drive immediately west of Americanos Boulevard. Minimal daily volume differences occur along Sunrise Boulevard and Rancho Cordova Parkway.

Roadway Segment Volumes and Levels of Service (LOS)

In addition to the volume comparison, a Level of Service (LOS) analysis was completed for select roadways in the vicinity of Centennial Drive, both with and without the Centennial Drive connection between Americanos Boulevard and Grant Line Road. The results of the LOS analysis are shown in **Table**

[1] *The Preserve DRAFT Centennial Drive Assessment*. Kimley-Horn. April 9, 2019.
[2] Email from Mark Thomas, City of Rancho Cordova, March 25, 2019.

1, below. As shown in Table 1, no roadway is expected to operate unacceptably (LOS E or worse) either with or without the Centennial Drive connection between Americanos Boulevard and Grant Line Road.

Table 1 – Roadway Segment Analysis Results

ID	Roadway	Segment		2035 with Centennial Drive					2035 without Centennial Drive				
		From	To	Travel Lanes	Facility Type	Daily Volume	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type	Daily Volume	Volume / Capacity Ratio	Level of Service
1	Douglas Rd	Mather Blvd	Sunrise Blvd	6	Arterial M	36,880	0.68	B	6	Arterial M	36,840	0.68	B
2	Douglas Rd	Rancho Cordova Pkwy	Americanos Blvd	4	Arterial M	17,550	0.49	A	4	Arterial M	18,230	0.51	A
3	Douglas Rd	Americanos Blvd	Grant Line Rd	4	Arterial M	15,770	0.44	A	4	Arterial M	17,250	0.48	A
4	White Rock Rd	Sunrise Blvd	Rancho Cordova Pkwy	6	Arterial M	31,510	0.58	A	6	Arterial M	32,080	0.59	A
5	White Rock Rd	Americanos Blvd	Grant Line Rd	6	Arterial M	22,940	0.42	A	6	Arterial M	27,500	0.51	A
6	White Rock Rd	Grant Line Rd	Prairie City Rd	4	Expressway	59,900	0.83	D	4	Expressway	52,540	0.73	C
7	Sunrise Blvd	White Rock Rd	Douglas Rd	6	Arterial M	47,780	0.88	C	6	Arterial M	47,760	0.88	C
8	Grant Line Rd	White Rock Rd	Douglas Rd	4	Expressway	48,230	0.67	B	4	Expressway	51,600	0.72	C
9	Rancho Cordova Pkwy	White Rock Rd	Rio Del Oro Pkwy	6	Arterial M	33,170	0.61	B	6	Arterial M	33,170	0.61	B
10	Rancho Cordova Pkwy	Rio Del Oro Pkwy	Douglas Rd	4	Arterial M	17,680	0.49	A	4	Arterial M	17,790	0.49	A
11	Americanos Blvd	International Rd	Centennial Dr	2	Arterial M	11,170	0.62	B	2	Arterial M	8,330	0.46	A
12	Americanos Blvd	Centennial Dr	Douglas Rd	2	Arterial M	10,070	0.56	A	2	Arterial M	10,240	0.57	A

Note: **Bold** represents unacceptable operations.

The number of lanes assumed for each roadway segment were taken directly from the City's TDM with the exception of Segment #6 and Segment #8 (White Rock Road between Grant Line Road and Prairie City Road, and Grant Line Road between White Rock Road and Douglas Road). While these roadway segments are assumed to be six (6) lanes in the model, they were analyzed as four-lane expressways, consistent with guidelines for the Capital SouthEast Connector.

Roadway Segment Volumes and Levels of Service (LOS) Follow Up

On July 22, 2019, Kimley-Horn met with City Staff where they requested a follow up roadway segment analysis for Baseline and Cumulative conditions based on the Rio del Oro traffic study. The No Project and Plus Project scenarios for Baseline and Cumulative Conditions from the traffic study, as well as the volumes and LOS when the rerouted volumes are taken into account based on the removal of Centennial Drive, are summarized in Exhibit 2 and Exhibit 3, respectively. As shown in Exhibit 2 and Exhibit 3, no additional impacts that haven't been previously identified were shown as a result of the removal of the Centennial Drive extension. In addition, one impact was removed in the Cumulative scenario as a result of the removal of the Centennial Drive extension.

Vehicle Miles Traveled (VMT) Assessment

In addition to the roadway segment analysis, a Vehicle Miles Traveled assessment was also completed. The regional (SACOG) VMT totaled for the two model runs, with and without the Centennial Drive extension. The assessment indicated that VMT was reduced by 6,820 without the Centennial, however it should be noted that the difference reflects a 0.008-percent difference in regional VMT. As the model used to perform this analysis includes an iterative process for assigning traffic to the model network there is inherent randomness introduced and thus this difference should be considered as indication that the removal of Centennial Drive results in a negligible difference to regional VMT.

Physical Constraints

The adopted South Sacramento Habitat Conservation Plan (SSHCP) has created conflicts with both the previously planned development of Heritage Falls and the potential construction of Centennial Drive. A review was completed in June 2019 that looked at alternative alignments for Centennial Drive that would run south of the current Centennial Drive alignment, cross the Rio Del Oro preserve and extend through the proposed Project to Grant Line Road. This was documented in a memorandum that was submitted to

the City[3]. The following reasons were cited as to why these alternative alignments were deemed infeasible:

1. The needed road crossing of the Rio Del Oro preserve is not allowed under the project's Biological Opinion and would require an amendment. The environmental consultant to the Rio Del Oro developers indicates that the developers have made it clear on several occasions that they are not interested in amending or revisiting the Biological Opinion, which was controversial and took many years to obtain.

2. Agency approval of an additional crossing through the Rio Del Oro preserve is speculative at best. This stretch of the Rio Del Oro preserve is full of resources and is a linkage preserve intended as a wildlife corridor. It seems unlikely that the USFWS would support an additional crossing.
3. The City's threshold for a collector road with frontage is fewer than 8,000 daily vehicles. The travel demand model states that the estimated traffic volume in the future along Centennial Drive would be 10,250 daily vehicles which would disallow front on driveway access. The high volume of thru-traffic would create a crossing hazard separating the existing neighborhoods of North Douglas and the future The Preserve neighborhood south of the Centennial extension from the planned park and open space amenities in conflict with the design concept for the project. The mere possibility of the future connection to Rio Del Oro would interfere with project design whether or not the connection was ever completed.

Conclusions

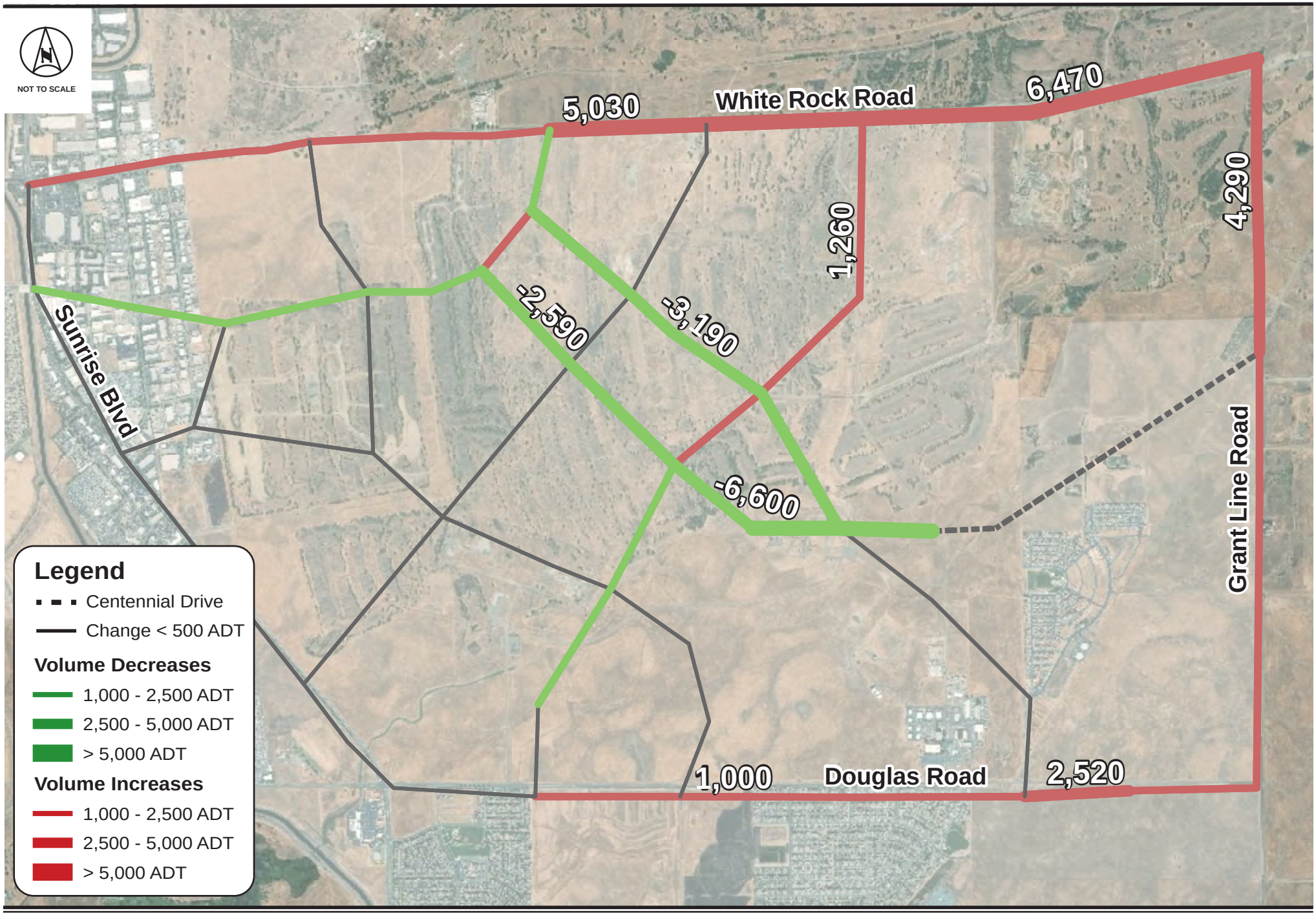
As shown in **Exhibit 1** and **Table 1**, the removal of the Centennial Drive connection between Americanos Boulevard and Grant Line Road is not expected to significantly impact the surrounding roadway network. While volumes are expected to fluctuate between increasing by almost 6,500 daily vehicles to decreasing by 6,600 daily vehicles, the change in daily volumes does not impact any roadway segment. When applying these fluctuating volumes to the Rio del Oro roadway segment analysis, no impacts were created that weren't previously identified and one impact for Cumulative (2030) Conditions was removed, as shown in **Exhibit 2** and **Exhibit 3**. In addition, the removal of the Centennial Drive extension has a negligible effect on regional VMT. Finally, when considering alternative alignments for the Centennial Drive extension, three alignments were reviewed and all were deemed infeasible.

Attachments:

Exhibit 1 – 2035 Daily Volume Change without Centennial Drive
Exhibit 2 – Baseline Roadway Segment Analysis and Volume Shift
Exhibit 3 – Cumulative (2030) Roadway Segment Analysis and Volume Shift

[3] *Centennial Drive Alternatives*. Bob Shattuck, Shattuck Community Planning. June 10, 2019.

The Preserve - Centennial Drive Assessment



Kimley»Horn

Exhibit 1
2035 Daily Volume Change without Centennial Drive

Baseline Roadway Segment Analysis and Volume Shift

ID	Roadway	Segment		Existing						Baseline (No Project)						LOS Threshold
		From	To	Travel Lanes	Facility Type	Daily Volume	LOS Threshold	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type	Daily Volume	LOS Threshold	Volume / Capacity Ratio	Level of Service	
1	SR 16	Excelsior Rd	Eagles Nest Road	2	Arterial Moderate	11,400	18,000	0.63	B	2	Arterial Moderate	12,100	18,000	0.67	B	D
2	SR 16	Sunrise Blvd	Grant Line Road	2	Arterial Moderate	15,400	18,000	0.86	D	2	Arterial Moderate	16,000	18,000	0.89	D	E
3	Kiefer Blvd	Grant Line Rd	SR 16	2	Rural Two-Lane	1,800	17,000	0.11	B	2	Rural Two-Lane	1,900	17,000	0.11	B	E
4	Mather Blvd	Femoyer St	Douglas Road	2	Arterial Moderate	6,000	18,000	0.33	A	2	Arterial Moderate	17,400	18,000	**0.97**	**E**	D
5	Douglas Rd	Mather Blvd	Sunrise Blvd	2	Arterial Moderate	5,000	18,000	0.28	A	2	Arterial Moderate	18,200	18,000	**1.01**	**F**	D
6	Douglas Rd	Sunrise Blvd	Grant Line Road	2	Arterial Moderate	2,300	18,000	0.13	A	See Segments #22 and #23						D
7	International Dr	South White Rock Rd	Zinfandel Dr	4	Arterial Moderate	12,000	36,000	0.33	A	4	Arterial Moderate	13,700	36,000	0.38	A	D
8	International Dr	Zinfandel Dr	Kilgore Road	4	Arterial Moderate	6,800	36,000	0.19	A	4	Arterial Moderate	8,900	36,000	0.25	A	D
9	White Rock Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial Moderate	17,900	54,000	0.33	A	6	Arterial Moderate	23,200	54,000	0.43	A	D
10	White Rock Rd	Sunrise Blvd	Grant Line Road	2	Arterial Moderate	4,400	18,000	0.24	A	2	Arterial Moderate	8,200	18,000	0.46	A	D
11	Zinfandel Dr	White Rock Rd	International Dr	6	Arterial Moderate	19,700	54,000	0.36	A	6	Arterial Moderate	23,000	54,000	0.43	A	D
12	Sunrise Blvd	Gold Country Blvd	Coloma Rd	6	Arterial Moderate	75,800	54,000	**1.40**	**F**	6	Arterial Moderate	77,600	54,000	**1.44**	**F**	D
13	Sunrise Blvd	Coloma Rd	US 50	6	Arterial Moderate	82,400	54,000	**1.53**	**F**	6	Arterial Moderate	85,000	54,000	**1.57**	**F**	D
14	Sunrise Blvd	US 50	Folsom Blvd	6	Arterial Moderate	52,100	54,000	**0.96**	**E**	6	Arterial Moderate	58,600	54,000	**1.09**	**F**	D
15	Sunrise Blvd	Folsom Blvd	White Rock Rd	6	Arterial Moderate	37,200	54,000	0.69	B	6	Arterial Moderate	49,500	54,000	**0.92**	**E**	D
16	Sunrise Blvd	White Rock Rd	Douglas Road	4	Arterial Moderate	24,600	36,000	0.68	B	4	Arterial Moderate	36,700	36,000	1.02	B	D
17	Sunrise Blvd	Douglas Rd	SR 16	2	Arterial High	20,000	20,000	**1.00**	**E**	See Segments #24 and #25						D
18	Sunrise Blvd	SR 16	Grant Line Road	2	Arterial Moderate	13,600	18,000	0.76	C	2	Arterial Moderate	15,000	18,000	0.83	D	E
19	Grant Line Road	White Rock Rd	Douglas Road	2	Arterial Moderate	6,000	18,000	0.33	A	2	Arterial Moderate	8,900	18,000	0.49	A	D
20	Grant Line Road	Douglas Rd	SR 16	2	Arterial Moderate	6,700	18,000	0.37	A	2	Arterial Moderate	7,100	18,000	0.39	A	D
21	Grant Line Road	SR 16	Sunrise Blvd	2	Arterial Moderate	5,600	18,000	0.31	A	2	Arterial Moderate	6,100	18,000	0.34	A	E
22	Douglas Rd	Sunrise Blvd	Jaeger Rd	See Segment #6						4	Arterial Moderate	21,400	36,000	0.59	A	D
23	Douglas Rd	Americanos Blvd	Grant Line Road							2	Arterial Moderate	5,700	18,000	0.32	A	D
24	Sunrise Blvd	Douglas Rd	Keifer Blvd	See Segment #17						4	Arterial Moderate	25,000	36,000	0.69	B	D
25	Sunrise Blvd	Keifer Blvd	SR 16							4	Arterial Moderate	23,100	36,000	0.64	B	D

Note: **Bold** represents unacceptable operations. Shaded indicates significant impact

ID	Roadway	Segment		Baseline plus Proposed Project						Baseline plus Proposed Project - REROUTED							LOS Threshold	Comments
		From	To	Travel Lanes	Facility Type	Daily Volume	LOS Threshold	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type	Daily Volume	Volume Difference	LOS Threshold	Volume / Capacity Ratio	Level of Service		
1	SR 16	Excelsior Rd	Eagles Nest Road	2	Arterial Moderate	12,900	18,000	0.72	C	2	Arterial Moderate	12,950	50	18,000	0.72	C	D	
2	SR 16	Sunrise Blvd	Grant Line Road	2	Arterial Moderate	17,500	18,000	0.97	E	2	Arterial Moderate	17,550	50	18,000	0.98	E	E	
3	Kiefer Blvd	Grant Line Rd	SR 16	2	Rural Two-Lane	2,100	17,000	0.12	B	2	Rural Two-Lane Rd (NS)	2,100	0	17,000	0.12	B	E	
4	Mather Blvd	Femoyer St	Douglas Road	2	Arterial Moderate	20,500	18,000	**1.14**	**F**	2	Arterial Moderate	20,590	90	18,000	**1.14**	**F**	D	
5	Douglas Rd	Mather Blvd	Sunrise Blvd	2	Arterial Moderate	25,400	18,000	**1.41**	**F**	2	Arterial Moderate	25,350	-50	18,000	**1.41**	**F**	D	
7	International Dr	South White Rock Rd	Zinfandel Dr	4	Arterial Moderate	17,800	36,000	0.49	A	4	Arterial Moderate	14,800	-3,000	36,000	0.41	A	D	
8	International Dr	Zinfandel Dr	Kilgore Road	4	Arterial Moderate	14,200	36,000	0.39	A	4	Arterial Moderate	13,700	-500	36,000	0.38	A	D	
9	White Rock Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial Moderate	45,100	54,000	0.84	D	6	Arterial Moderate	45,500	400	54,000	0.84	D	D	
10	White Rock Rd	Sunrise Blvd	Grant Line Road	2	Arterial Moderate	20,900	18,000	**1.16**	**F**	2	Arterial Moderate	27,370	6,470	18,000	**1.52**	**F**	D	**LOS C with identified mitigation**
11	Zinfandel Dr	White Rock Rd	International Dr	6	Arterial Moderate	23,200	54,000	0.43	A	6	Arterial Moderate	22,700	-500	54,000	0.42	A	D	
12	Sunrise Blvd	Gold Country Blvd	Coloma Rd	6	Arterial Moderate	92,500	54,000	**1.71**	**F**	6	Arterial Moderate	92,440	-60	54,000	**1.71**	**F**	D	
13	Sunrise Blvd	Coloma Rd	US 50	6	Arterial Moderate	102,500	54,000	**1.90**	**F**	6	Arterial Moderate	102,470	-30	54,000	**1.90**	**F**	D	
14	Sunrise Blvd	US 50	Folsom Blvd	6	Arterial Moderate	82,900	54,000	**1.54**	**F**	6	Arterial Moderate	82,960	60	54,000	**1.54**	**F**	D	
15	Sunrise Blvd	Folsom Blvd	White Rock Rd	6	Arterial Moderate	77,300	54,000	**1.43**	**F**	6	Arterial Moderate	77,450	150	54,000	**1.43**	**F**	D	
16	Sunrise Blvd	White Rock Rd	Douglas Road	4	Arterial Moderate	65,600	36,000	**1.82**	**F**	4	Arterial Moderate	65,540	-60	36,000	**1.82**	**F**	D	
18	Sunrise Blvd	SR 16	Grant Line Road	2	Arterial Moderate	22,400	18,000	**1.24**	**F**	2	Arterial Moderate	22,450	50	18,000	**1.25**	**F**	E	
19	Grant Line Road	White Rock Rd	Douglas Road	2	Arterial Moderate	10,500	18,000	0.58	A	2	Arterial Moderate	15,290	4,790	18,000	0.85	D	D	**LOS Increase, but not impacted**
20	Grant Line Road	Douglas Rd	SR 16	2	Arterial Moderate	7,800	18,000	0.43	A	2	Arterial Moderate	8,100	300	18,000	0.45	A	D	
21	Grant Line Road	SR 16	Sunrise Blvd	2	Arterial Moderate	6,200	18,000	0.34	A	2	Arterial Moderate	6,210	10	18,000	0.35	A	E	
22	Douglas Rd	Sunrise Blvd	Jaeger Rd	4	Arterial Moderate	29,700	36,000	0.83	D	4	Arterial Moderate	30,500	800	36,000	0.85	D	D	
23	Douglas Rd	Americanos Blvd	Grant Line Road	2	Arterial Moderate	6,500	18,000	0.36	A	2	Arterial Moderate	9,020	2,520	18,000	0.50	A	D	
24	Sunrise Blvd	Douglas Rd	Keifer Blvd	4	Arterial Moderate	39,900	36,000	**1.11**	**F**	4	Arterial Moderate	40,020	120	36,000	**1.11**	**F**	D	
25	Sunrise Blvd	Keifer Blvd	SR 16	4	Arterial Moderate	33,800	36,000	**0.94**	**E**	4	Arterial Moderate	33,870	70	36,000	**0.94**	**E**	D	

Note: **Bold** represents unacceptable operations. Shaded indicates significant impact

Kimley»Horn

Cumulative (2030) Roadway Segment Analysis and Volume Shift

ID	Roadway	Segment		Cumulative (2030) No Project						Cumulative (2030) plus Proposed Project						Cumulative (2030) plus Proposed Project - REROUTED							LOS Threshold	Comments
		From	To	Travel Lanes	Facility Type	Daily Volume	LOS Threshold	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type	Daily Volume	LOS Threshold	Volume / Capacity Ratio	Level of Service	Travel Lanes	Facility Type	Daily Volume	Difference	LOS Threshold	Volume / Capacity Ratio	Level of Service		
1	SR 16	Excelsior Rd	Eagles Nest Road	4	Arterial Moderate	19,200	36,000	0.53	A	4	Arterial Moderate	19,200	36,000	0.53	A	4	Arterial Moderate	19,250	50	36,000	0.53	A	E	
2	SR 16	Sunrise Blvd	Grant Line Road	4	Arterial Moderate	19,700	36,000	0.55	A	4	Arterial Moderate	19,900	36,000	0.55	A	4	Arterial Moderate	19,950	50	36,000	0.55	A	D	
3	Kiefer Blvd	Grant Line Rd	SR 16	2	Rural Two-Lane	13,300	17,000	0.78	E	2	Rural Two-Lane	15,300	17,000	0.90	E	2	Rural Two-Lane	15,300	0	17,000	0.90	E	E	
4	Mather Blvd	Femoyer St	Douglas Road	4	Arterial Moderate	19,600	36,000	0.54	A	4	Arterial Moderate	20,800	36,000	0.58	A	4	Arterial Moderate	20,890	90	36,000	0.58	A	E	
5	Douglas Rd	Mather Blvd	Sunrise Blvd	6	Arterial Moderate	18,100	54,000	0.34	A	6	Arterial Moderate	23,300	54,000	0.43	A	6	Arterial Moderate	23,250	-50	54,000	0.43	B	D	**LOS increase, but no impact**
6	International Dr	South White Rock Rd	Zinfandel Dr	6	Expressway	53,900	81,000	0.67	C	6	Expressway	73,500	81,000	**0.91**	**E**	6	Expressway	70,500	-3,000	81,000	0.87	D	D	**LOS decrease, removal of impact**
7	International Dr	Zinfandel Dr	Kilgore Road	6	Expressway	38,300	81,000	0.47	B	6	Expressway	68,400	81,000	0.84	D	6	Expressway	67,900	-500	81,000	0.84	D	D	
8	White Rock Rd	Zinfandel Dr	Sunrise Blvd	6	Arterial Moderate	19,700	54,000	0.36	A	6	Arterial Moderate	30,300	54,000	0.56	A	6	Arterial Moderate	30,700	400	54,000	0.57	A	D	
9	White Rock Rd	Sunrise Blvd	Grant Line Road	6	Arterial High	20,900	60,000	0.35	A	6	Arterial High	36,100	60,000	0.60	B	6	Arterial High	42,570	6,470	60,000	0.71	C	D	**LOS increase, but no impact**
16	Zinfandel Dr	White Rock Rd	International Dr	6	Arterial Moderate	42,400	54,000	0.79	C	6	Arterial Moderate	46,100	54,000	0.85	D	6	Arterial Moderate	45,600	-500	54,000	0.84	D	D	
17	Sunrise Blvd	Gold Country Blvd	Coloma Rd	6	Arterial High	84,400	60,000	**1.41**	**F**	6	Arterial High	95,300	60,000	**1.59**	**F**	6	Arterial High	95,240	-60	60,000	**1.59**	**F**	D	
18	Sunrise Blvd	Coloma Rd	US 50	6	Arterial High	95,500	60,000	**1.59**	**F**	6	Arterial High	108,700	60,000	**1.81**	**F**	6	Arterial High	108,670	-30	60,000	**1.81**	**F**	D	
19	Sunrise Blvd	US 50	Folsom Blvd	6	Arterial High	49,600	60,000	0.83	D	6	Arterial High	63,000	60,000	**1.05**	**F**	6	Arterial High	63,060	60	60,000	**1.05**	**F**	D	
20	Sunrise Blvd	Folsom Blvd	White Rock Rd	6	Arterial High	40,000	60,000	0.67	B	6	Arterial High	55,800	60,000	**0.93**	**E**	6	Arterial High	55,950	150	60,000	**0.93**	**E**	D	
21	Sunrise Blvd	White Rock Rd	Douglas Road	6	Arterial Moderate	33,700	54,000	0.62	B	6	Arterial Moderate	44,900	54,000	0.83	D	6	Arterial Moderate	44,840	-60	54,000	0.83	D	D	
22	Sunrise Blvd	SR 16	Grant Line Road	6	Arterial Moderate	28,100	54,000	0.52	A	6	Arterial Moderate	32,200	54,000	0.60	A	6	Arterial Moderate	32,250	50	54,000	0.60	A	E	
24	Grant Line Road	White Rock Rd	Douglas Road	6	Expressway	26,700	81,000	0.33	B	6	Expressway	27,500	81,000	0.34	B	6	Expressway	32,290	4,790	81,000	0.40	B	D	
25	Grant Line Road	Douglas Rd	SR 16	6	Expressway	21,200	81,000	0.26	A	6	Expressway	21,600	81,000	0.27	A	6	Expressway	21,900	300	81,000	0.27	A	D	
26	Grant Line Road	SR 16	Sunrise Blvd	6	Arterial High	15,100	60,000	0.25	A	6	Arterial High	16,500	60,000	0.28	A	6	Arterial High	16,510	10	60,000	0.28	A	E	
32	Douglas Rd	Sunrise Blvd	Jaeger Rd	6	Arterial Moderate	22,500	54,000	0.42	A	6	Arterial Moderate	27,300	54,000	0.51	A	6	Arterial Moderate	28,100	800	54,000	0.52	A	D	
33	Douglas Rd	Americanos Blvd	Grant Line Road	4	Arterial Moderate	11,700	36,000	0.33	A	4	Arterial Moderate	14,600	36,000	0.41	A	4	Arterial Moderate	17,120	2,520	36,000	0.48	A	D	
34	Douglas Rd	Jaeger Rd	Americanos Blvd	6	Arterial Moderate	11,500	54,000	0.21	A	6	Arterial Moderate	14,600	54,000	0.27	A	6	Arterial Moderate	15,600	1,000	54,000	0.29	A	D	
35	Chrysanthy Blvd	Sunrise Blvd	Jaeger Rd	4	Arterial Moderate	8,400	36,000	0.23	A	4	Arterial Moderate	9,600	36,000	0.27	A	4	Arterial Moderate	9,550	-50	36,000	0.27	A	D	
36	Chrysanthy Blvd	Jaeger Rd	Americanos Blvd	4	Arterial Moderate	13,100	36,000	0.36	A	4	Arterial Moderate	16,200	36,000	0.45	A	4	Arterial Moderate	16,130	-70	36,000	0.45	A	D	
37	Keifer Blvd	Eagles Nest Rd	Sunrise Blvd	2	Arterial Moderate	17,000	18,000	**0.94**	**E**	2	Arterial Moderate	17,100	18,000	**0.95**	**E**	2	Arterial Moderate	17,150	50	18,000	**0.95**	**E**	D	
38	Keifer Blvd	Sunrise Blvd	Jaeger Rd	4	Arterial Moderate	9,100	36,000	0.25	A	4	Arterial Moderate	9,300	36,000	0.26	A	4	Arterial Moderate	9,470	170	36,000	0.26	A	D	
39	Eagles Nest Road	Mather Blvd	Douglas Road	6	Arterial Moderate	34,800	54,000	0.64	B	6	Arterial Moderate	36,100	54,000	0.67	B	6	Arterial Moderate	36,190	90	54,000	0.67	B	E	
40	Eagles Nest Road	Douglas Rd	Keifer Blvd	4	Arterial Moderate	14,000	36,000	0.39	A	4	Arterial Moderate	14,400	36,000	0.40	A	4	Arterial Moderate	14,400	0	36,000	0.40	A	E	
41	Eagles Nest Road	Keifer Blvd	SR 16	4	Arterial Moderate	9,400	36,000	0.26	A	4	Arterial Moderate	9,700	36,000	0.27	A	4	Arterial Moderate	9,690	-10	36,000	0.27	A	E	
42	Sunrise Blvd	Douglas Rd	Chrysanthy Blvd	6	Arterial Moderate	47,000	54,000	0.87	D	6	Arterial Moderate	59,400	54,000	**1.10**	**F**	6	Arterial Moderate	59,450	50	54,000	**1.10**	**F**	D	
43	Sunrise Blvd	Chrysanthy Blvd	Keifer Blvd	6	Arterial Moderate	35,000	54,000	0.65	B	6	Arterial Moderate	43,700	54,000	0.81	D	6	Arterial Moderate	43,820	120	54,000	0.81	D	D	
44	Sunrise Blvd	Keifer Blvd	SR 16	6	Arterial Moderate	40,700	54,000	0.75	C	6	Arterial Moderate	47,200	54,000	0.87	D	6	Arterial Moderate	47,270	70	54,000	0.88	D	D	
45	Rancho Cordova Pkwy	US 50	Easton Valley Pkwy	6	Expressway	49,600	81,000	0.61	C	6	Expressway	67,800	81,000	0.84	D	6	Expressway	67,960	160	81,000	0.84	D	D	
46	Rancho Cordova Pkwy	Easton Valley Pkwy	White Rock Rd	6	Arterial Moderate	40,600	60,000	0.68	B	6	Arterial Moderate	63,900	60,000	**1.07**	**F**	6	Arterial Moderate	64,050	150	60,000	**1.07**	**F**	D	
47	Rancho Cordova Pkwy	White Rock Rd	Douglas Road	6	Arterial Moderate	23,000	54,000	0.43	A	6	Arterial Moderate	47,300	54,000	0.88	D	6	Arterial Moderate	47,380	80	54,000	0.88	D	D	
48	Jaeger Rd	Douglas Rd	Chrysanthy Blvd	6	Arterial Moderate	19,800	54,000	0.37	A	6	Arterial Moderate	35,100	54,000	0.65	B	6	Arterial Moderate	35,130	30	54,000	0.65	B	D	
49	Jaeger Rd	Chrysanthy Blvd	Keifer Blvd	4	Arterial Moderate	9,900	36,000	0.28	A	4	Arterial Moderate	15,400	36,000	0.43	A	4	Arterial Moderate	15,470	70	36,000	0.43	A	D	
50	Americanos Blvd	White Rock Rd	Douglas Road	4	Arterial Moderate	18,100	36,000	0.50	A	4	Arterial Moderate	30,400	36,000	0.84	D	4	Arterial Moderate	27,560	-2,840	36,000	0.77	C	D	**LOS decrease**
51	Americanos Blvd	Douglas Rd	Chrysanthy Blvd	4	Arterial Moderate	15,600	36,000	0.43	A	4	Arterial Moderate	21,800	36,000	0.61	B	4	Arterial Moderate	21,500	-300	36,000	0.60	A	D	**LOS decrease**
52	Excelsior Rd	north of SR 16		2	Arterial Moderate	7,800	18,000	0.43	A	2	Arterial Moderate	10,400	18,000	0.58	A	2	Arterial Moderate	10,420	20	18,000	0.58	A	E	
53	SR 16	west of Excelsior Rd		6	Arterial High	18,800	60,000	0.31	A	6	Arterial High	19,000	60,000	0.32	A	6	Arterial High	18,710	-290	60,000	0.31	A	E	

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