TRAFFIC IMPACT STUDY FOR

PROJECT ROCKET DRI 2807
WEST PARK PLACE
GWINNETT COUNTY, GA

DATE:
May 29, 2018

LOCATION:
Gwinnett County, GA

PREPARED FOR:
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Executive Summary

A warehouse/processing center is proposed on a now vacant tract of land that straddles the Gwinnett/DeKalb County line in the Stone Mountain area. The building footprint will be 640,000 sq.ft. and contain 2,560,000 sq. ft. of floor space. Because of the automated nature of the business, the number of employees used is less than what would be expected by a similarly sized center. There will be two shifts and approximately 1800 parking spaces. The site is expected to be operational by 2020.

The West Park Place Boulevard / Rockbridge Road corridors are a busy commute paths. Access to the Stone Mountain Freeway (US 78) makes it an attractive area for motorists. As such, there existing congestion on the roadway. The following summarizes the existing and near future conditions.

- The AM Peak has much worse traffic conditions than the PM peak.
- In the AM, the Stone Mountain Freeway is the main culprit for the West Park Place and Bermuda Rd traffic problems.
- The intersection of Rockbridge Road / Annistown Rd at Deshong Rd is the pinch point for the AM and PM traffic southeast of the site. Some of the problem is caused by the traffic coming from Stone Road intersection that is between Deshong Road and West Park Place Blvd.
- Bermuda Road is a cut-through path for traffic from the east trying to avoid the congestion on Rockbridge Road.

The following improvements are recommended to accommodate the existing deficiencies:

- West Park Place Blvd at Bermuda Road – Restripe EB lanes to be left and shared left/right lane.
- West Park Place Blvd at Rockbridge Road – Re-time the traffic signal for the PM peak hour to even out delay
- N. Deshong Road at Rockbridge Road/Annistown Rd – Re-stripe approximately 750 feet of N Deshong Road to remove TWTL and add a receiving lane for a free-flow EB right; extend the eastbound right turn lane to 400 feet
- N. Deshong Road at Bermuda Road – Install a roundabout or traffic signal
- Stewart Mill Road at Bermuda Road – Add a 200 foot, southbound left turn lane on Bermuda Road

The same improvements are needed for the background growth in traffic.

The site's AM peak traffic will, for the most part, occur before the congestion on the surrounding roads so it will have little impact on the road network. The site's PM related traffic will occur during the road network's peak hour.

The following improvements are recommended to accommodate the site traffic – in addition to those needed for existing and background traffic:

- West Park Place Blvd at Centre Park Ct / Driveway 2 – Install a traffic signal; construct an eastbound right turn deceleration lane; re-stripe the two-way, center turn lane for dedicated left turn bays; add a northbound left turn lane and a shared northbound left/thru/right lane
- West Park Place Blvd at Rockbridge Road – Re-time the traffic signal to even out delay
- Stewart Mill Road at Bermuda Rd – Add a westbound right turn lane that is continuous from Driveway 3 to Stewart Mill Road.
- West Park Place Blvd at Driveway 1 – Construct an eastbound right turn deceleration lane on West Park Place Blvd; re-stripe the two-way, center turn lane for a dedicated westbound left turn bay; build separate northbound left and right turn lanes exiting the site.
- Bermuda Rd at Driveway 3 – No turn lanes required by analysis. DeKalb County will likely require left and right turn lanes on Bermuda Road.

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1. Introduction

A new 640,000 sq. ft. (footprint), multi-story (4 floors) warehouse/distribution center is proposed along West Park Place Boulevard in the Stone Mountain area of Gwinnett County, Georgia with some property extending into DeKalb County. The building will contain 2,560,000 sq. ft. of usable space. Vehicular access will be provided via three driveways: two on West Park Place Blvd and one on Bermuda Road.

The facility is expected to be completed in 2020 – analyzed to be built as a single phase.

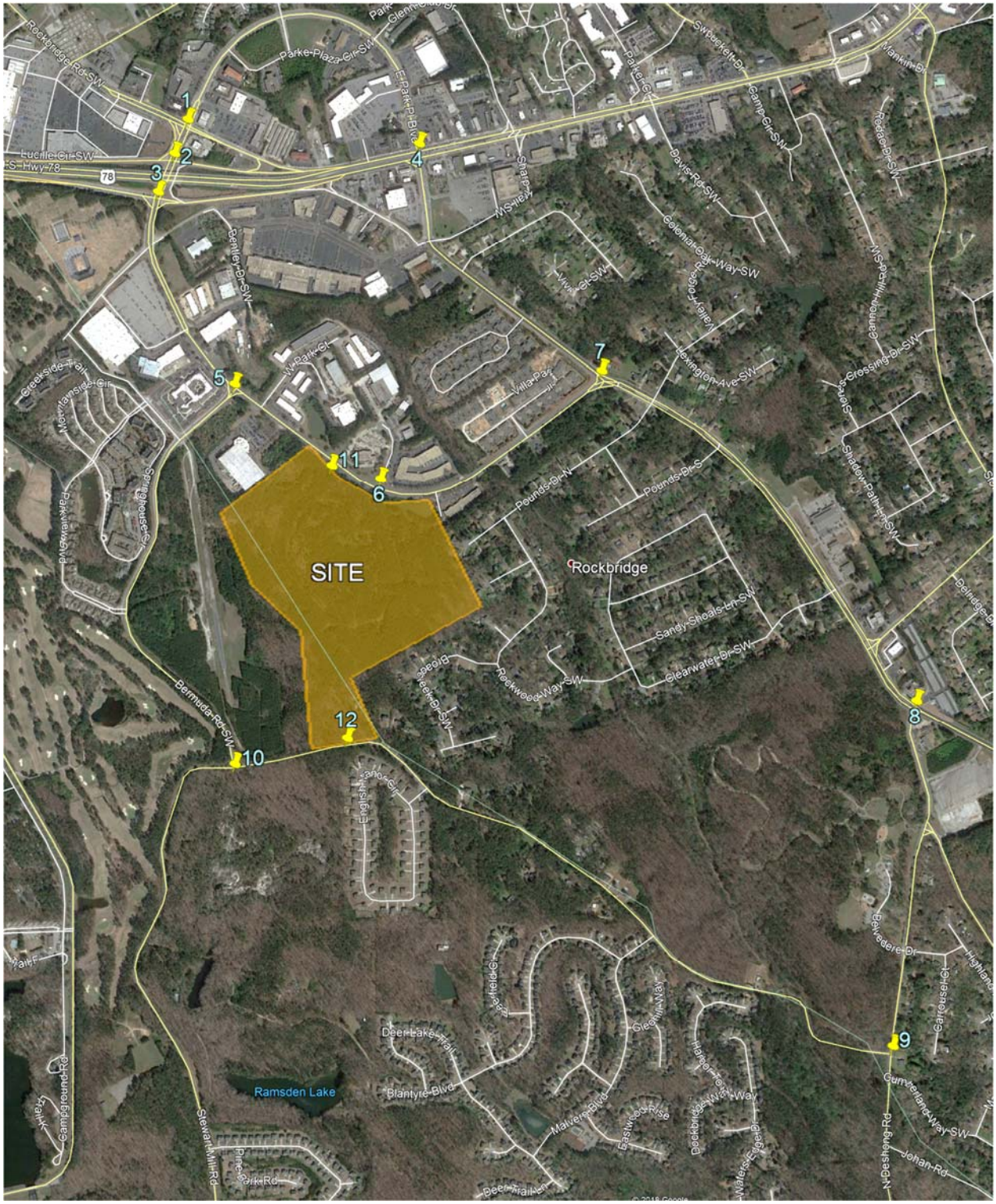
The 92 acre site location facilitates approximately 1,800 employee parking spaces and 207 tractor trailer parking spaces. The site spans across two counties—DeKalb (to the southwest) and Gwinnett (to the east). The majority of the proposed site including the building will reside within the boundaries of Gwinnett County. The land is currently zoned for Light Industry (M-1) in Gwinnett County. A Special-Use Permit is required for a building height variance in M-1.

The traffic analysis is for a single phase of construction. The purpose of this report is to identify the traffic expected to be generated by new vehicular trips generated when the development is completed. The study includes existing (2018) traffic volumes, future traffic volumes (2020), trip generation, directional distribution, and traffic impacts at the following intersections:

1. East Park Place Blvd at Rockbridge Road (North Intersection)
2. West Park Place Boulevard at US 78 (Stone Mountain Highway) Westbound ramp
3. West Park Place Boulevard at US 78 (Stone Mountain Highway) Eastbound ramp
4. US 78 at East Park Place Blvd (For informational purposes only)
5. West Park Boulevard at Bermuda Road
6. West Park Place Blvd at Proposed Site Dwy 2/ Centre Park Court
7. West Park Place Boulevard at Rockbridge Road
8. Rockbridge Road/Annistown Road at North Deshong Road
9. Bermuda Road at Deshong Road
10. Bermuda Road at Stewart Mill Road (For informational purposes only)
11. West Park Place Blvd at Site Dwy 1
12. Bermuda Road at Site Dwy 3

Figure 1 shows the site location on an aerial along with the study intersections. The site plan is included in the Appendix.

Figure 1: Study Locations



1.1. Planned and Programmed Improvements

According to ARC's Transportation Improvement Program, the Regional Transportation Plan (Atlanta Region's Plan), GDOT's construction work programs, Gwinnett and DeKalb Counties' programmed projects, and the GA STIP, the following projects are programmed in the general area of the development:

1. GDOT: Short-Term (complete 2018) GW-390A ATMS/ITS Infrastructure expansion Rockbridge Rd at Five Forks Trickum Rd (and 6.7 miles to Sugarloaf Pkwy) GDOT PI 0013143 $1,859,171-total cost, $1,296,311-Federal, $562,860-Local/Private
2. GDOT: Short-Term (complete 2021) GW-414 ITS enhancements Five Forks Trickum Rd to DeKalb County line (includes multiple SW Gwinnett County locations) no GDOT PI $4,687,500 total cost, $3,750,000-Federal, $937,500-Local/Private
3. GDOT: Short-Term (network year 2020) GW-331 North Evermore Pkwy parallel roadway to US 78 between Hewatt Rd and Britt Rd GDOT PI 0007535 $16,740,196-total cost, $8,334,376-Federal, $876,449-State, $7,529,371-Local/Private
4. GDOT/Gwinnett DOT: Short Term (final funding 2018) Signal Upgrades at 9 locations GDOT PI 0012814 $2,217,631-total cost all Federal funds
5. Gwinnett DOT: Mid Term (est. 2020) GW-SPLOST Intersection Improvement Rockbridge Rd at West Park Place Blvd – budget unknown
6. Long Term (2052 construction funding) Rockbridge Rd (CR 494) CRX RR Grade Separation GDOT PI 0001815 $5,280,000-total cost—no funding breakdown

Only line items #4 and #5 are within the study area and are relevant to the traffic impact study. The Rockbridge Road at West Park Place Blvd intersection improvement has yet to be defined; therefore, any improvements identified for existing or future conditions may be considered by Gwinnett DOT in their project development.

2. Existing Conditions

2.1. Transportation Facilities

US 78 (Stone Mountain Freeway/ Stone Mountain Highway) is a six-lane divided roadway classified as a Freeway (Principal Arterial-Freeway, [GDOT]) with a posted speed limit of 55 MPH to the west of its intersection with East Park Place Blvd and a Major Arterial (Principal Arterial- Other [GDOT]) with a posted speed limit of 45 MPH to the east. The roadway facilitates driveway access to retail land uses as a major arterial and has limited/restricted access to land use as a freeway. Traffic signal control is present at its intersection with East Park Place Blvd. The roadway overpasses, and provides ramp access to West Park Place Blvd.

Rockbridge Road is a 4-lane divided minor arterial near the proposed site. The roadway runs north/south intersecting N. Deshong Road, West Park Place Blvd, and US 78/ Stone Mountain Hwy. The roadway changes names to East Park Place Blvd at its intersection with US 78 where it incurs brief discontinuity before heading northwest of US 78.

West Park Place Blvd is 4-lane major collector, divided by a two-way, left turn lane with a 45 MPH posted speed limit. The roadway runs north /south north of its intersection with Bermuda Rd and east/west south of its intersection with Bermuda Rd. The roadway contains access to industrial and commercial and some residential land uses. Traffic control signals are present at its intersections with US 78 (freeway ramps), an unnamed commercial access driveway, Bermuda Road, and Rockbridge Road. The roadway changes name to East Park Place Blvd at its intersection with Rockbridge Road, north of US 78. The roadway terminates to the south of the proposed site (south of US 78) at a skewed signalized 3-way intersection with Rockbridge Road.

East Park Place Blvd is an east/west 4-lane major collector divided by a Two-Way Left Turn Lane providing driveway access to retail, commercial and residential land uses. The roadway contains three signalized intersections at Rockbridge Road, Eastford Trace/Parke Plaza Drive, and US 78 (Stone Mountain Hwy) and has a posted speed limit of 45 MPH. The roadway changes name to West Park Place Blvd beyond its intersection with Rockbridge Road.

Bermuda Road is a 2-lane undivided roadway classified as a major collector with a posted speed of 35 MPH to the west and a local road/street with a posted speed of 25 MPH to the south of the site. The roadway changes name to Stewart Mill Road at the southwest corner of the proposed site. There is only one traffic control signal present at the roadway's intersection with West Park Place Blvd with left and right turn lanes from each approach to and from the roadway.

2.2. Bicycle, Pedestrian and Transit Facilities

There are no pedestrian accommodations adjacent to the site. As part of the development process, Gwinnett County will require sidewalk to be constructed along the site frontage on West Park Place Blvd. Similarly, DeKalb County will require sidewalk along Bermuda Road.

There is sidewalk on both sides of Rockbridge Road/East Park Place Blvd. There are no bike lanes in the study area.

GRTA Xpress Route 419 services the Stone Mountain Park-and-Ride lot located at US 78 and East Park Place Blvd approximately one mile from the proposed development. Route 419 runs to/from downtown Atlanta with stops at the Stone Mountain Park-and Ride, the Hewatt Road Park-and-Ride, and the Snellville Park-and-Ride. There is no transit service by either MARTA or Gwinnett County Transit near the proposed development location.

2.3. Land Use

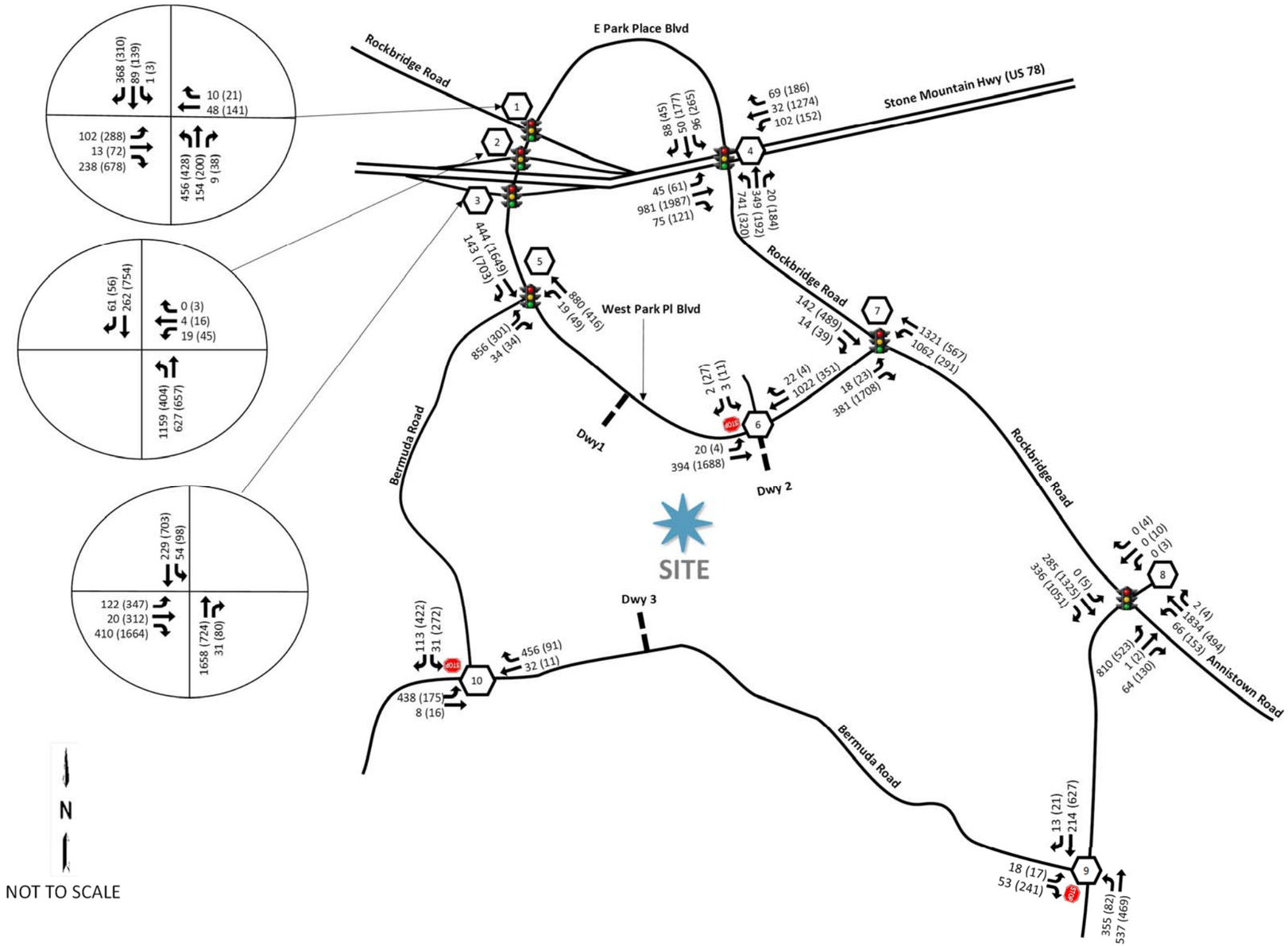
The land uses surrounding the site are a mixture of residential, industrial, office, and institutional. There is a closed airfield adjacent to the site.

2.4. Traffic Volumes

Traffic counts were collected in April and May, 2018. The turning movement counts were taken from 7 to 9 AM and 4 to 6 PM during a typical weekday when schools were in session. Counts at West Park Place Blvd and Centre Park Court were taken from 6 AM to 7 PM to allow for a signal warrant study to be conducted. From the counts, the peak hour for the AM turning movements is 7:00-8:00 AM and the peak hour for the PM turning movements is 4:30 – 5:30 PM on the surrounding road network.

The existing peak hour turning movement counts at the study intersections are shown in Figure 2. The count worksheets are included in the Appendix.

Figure 2: Existing Traffic Volumes



2.5. *Existing Capacity Analysis*

The results of the intersection capacity analysis at the existing intersections are shown in Table 1 for existing counted volumes. Average vehicular delays are calculated and reported as Levels of Service (LOS) as defined by the Highway Capacity Manual (HCM), 6th Ed.

The following summarizes the existing conditions at the study locations:

- The AM Peak has much worse traffic conditions than the PM peak.
- In the AM, the Stone Mountain Freeway is the main culprit for the West Park Place and Bermuda Rd traffic problems.
- The intersection of Rockbridge Road / Annistown Rd at Deshong Rd is the pinch point for the AM and PM traffic southeast of the site.

Table 1: Existing Capacity Analysis

Intersection	Control	Approach	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
1. West Park Place Blvd at Rockbridge Rd	Signal	EB	63.7	E	59.0	E
		WB	69.8	E	65.6	E
		NB	9.5	A	13.3	B
		SB	34.4	C	34.8	C
		Overall	23.7	C	35.2	D
2. West Park Place Blvd at US 78 WB Ramp	Signal	WB	69.3	E	66.1	E
		NB	17.4	B	22.7	C
		SB	35.9	D	28.1	C
		Overall	21.0	C	26.7	C
3. West Park Place Blvd at US 78 EB Ramp	Signal	EB	63.7	E	51.2	D
		NB	9.6	A	18.6	B
		SB	14.3	B	8.2	A
		Overall	14.5	B	25.9	C
4. East Park Place Blvd at US 78/ Stone Mtn Hwy	Signal	EB	23.3	C	42.8	D
		WB	557.4	E	47.5	D
		NB	161.2	F	116.7	F
		SB	260.4	F	110.7	F
		Overall	108.1	F	59.5	D
5. West Park Place Blvd at Bermuda Rd.	Signal	EB	72.8	E	92.5	F
		NB	35.0	C	8.5	A
		SB	33.3	C	24.9	C
		Overall	48.0	D	29.0	C

Intersection	Control	Approach	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
6. West Park Place Blvd at Centre Park Ct	One-Way Stop	SB	18.9	C	13.9	B
7. West Park Place Blvd at Rockbridge Rd	Signal	EB	5.2	A	20.2	C
		WB	14.5	A	23.3	C
		SB	63.6	E	65.2	E
		Overall	17.0	B	29.8	C
8. N. Deshong Rd at Rockbridge Rd/ Annistown Rd	Signal	EB	26.7	C	80.4	F
		WB	58.5	E	23.0	C
		NB	35.6	D	58.1	E
		SB	0.0	A	77.0	E
		Overall	46.3	D	66.4	E
9. N. Deshong Rd at Bermuda Rd	One- Way Stop	EB	38.3	E	74.9	F
10. Stewart Mill Rd at Bermuda Rd	One-Way Stop	SB	32.6	D	94.9	F

Figure 3: AM Existing Conditions

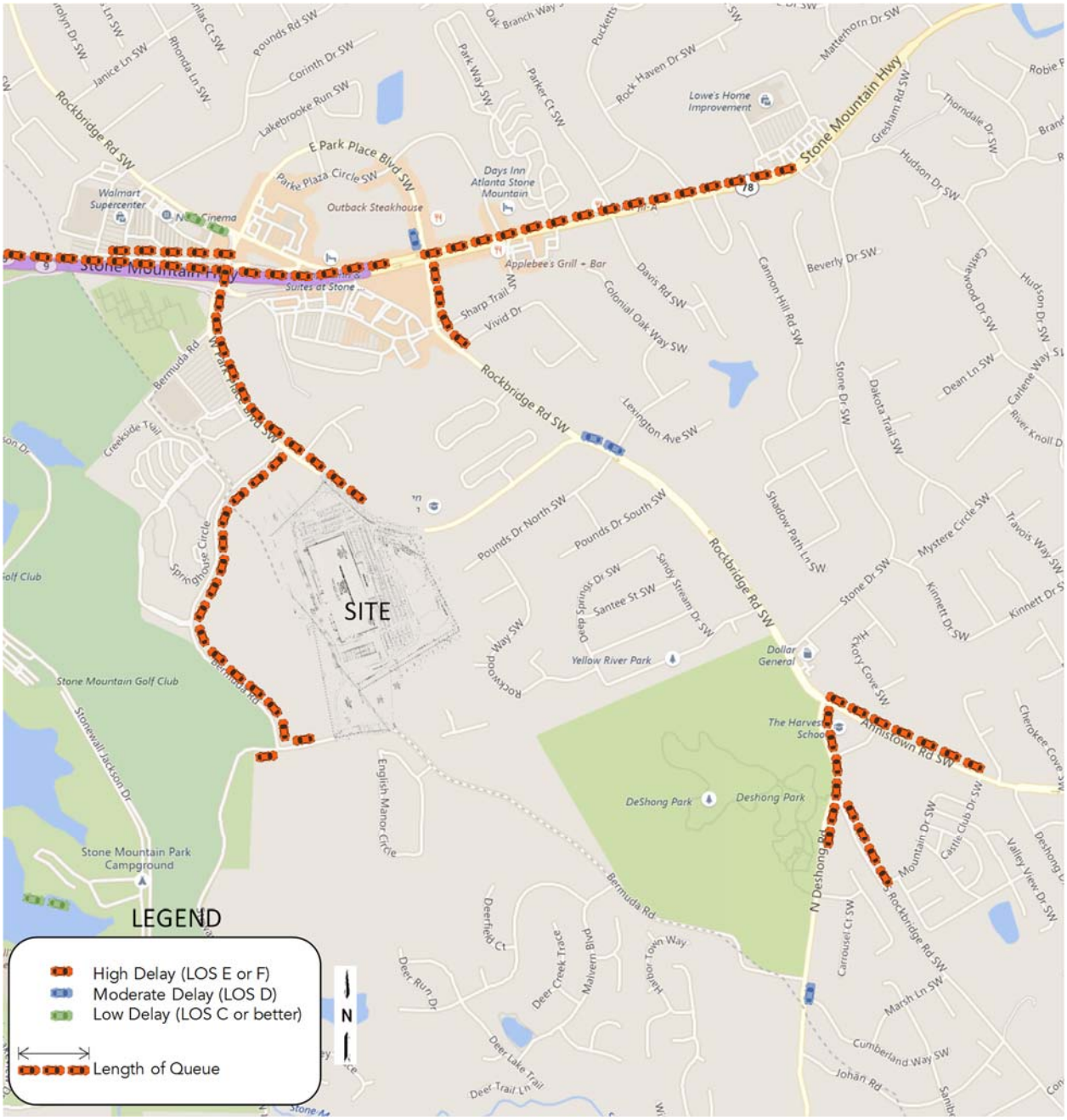


Figure 4: PM Existing Conditions

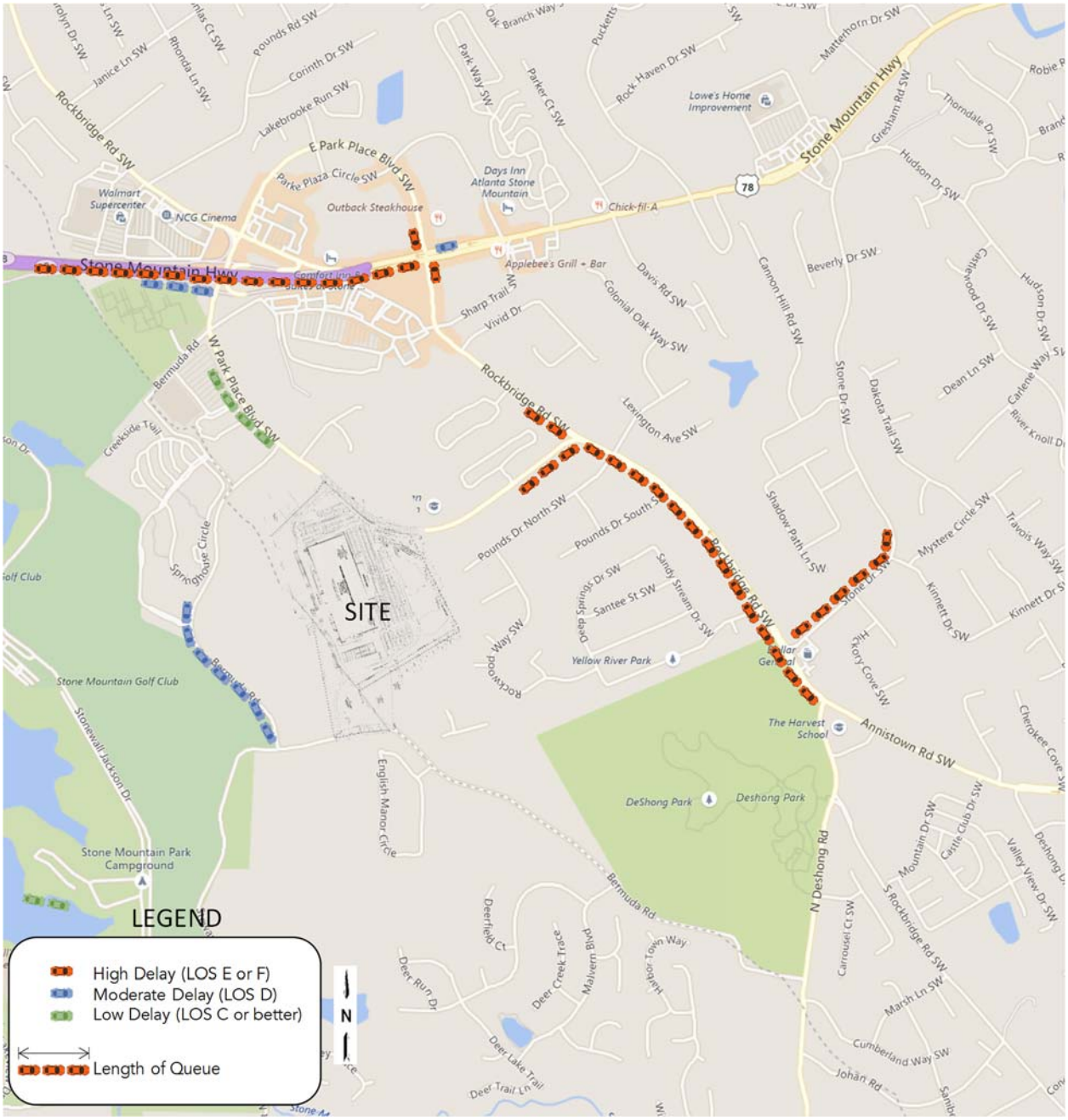


Table 2 identifies possible solutions at the study locations and the resulting new levels of service. Note, some locations may show a poor level of service but that is mostly due to the very long cycle lengths used to manage traffic. Only where queues are excessively long (defined as longer than can be served in a single cycle) are there mitigation measures proposed.

Table 2: Existing Conditions Mitigation

Intersection	Approach	Mitigation	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
1. West Park Place Blvd at Rockbridge Rd	EB	Do nothing. Vehicles are not queued excessively	63.7	E	59.0	E
	WB		69.8	E	65.6	E
	NB		9.5	A	13.3	B
	SB		34.4	C	34.8	C
	Overall		23.7	C	35.2	D
2. West Park Place Blvd at US 78 WB Ramp	WB	Do nothing. Volume on WB off ramp is small and not queued excessively	69.3	E	66.1	E
	NB		17.4	B	22.7	C
	SB		35.9	D	28.1	C
	Overall		21.0	C	26.7	C
3. West Park Place Blvd at US 78 EB Ramp	EB	Do nothing. In AM, volume on EB off ramp is not queued excessively.	63.7	E	51.2	D
	NB		9.6	A	18.6	B
	SB		14.3	B	8.2	A
	Overall		14.5	B	25.9	C
4. East Park Place Blvd at US 78/ Stone Mtn Hwy	EB	Adding right turn lanes in all directions would improve overall LOS but it would create signficant impacts.	23.3	C	42.8	D
	WB		557.4	E	47.5	D
	NB		161.2	F	116.7	F
	SB		260.4	F	110.7	F
	Overall		108.1	F	59.5	D
5. West Park Place Blvd at Bermuda Rd.	EB	Restripe EB lanes to be left and shared left/right lane.	47.9	D	60.9	E
	NB		14.9	B	4.8	A
	SB		16.0	B	14.3	B
	Overall		27.1	C	17.5	B
6. West Park Place Blvd at Centre Park Ct	EBL	Do nothing	11.4	B	0.0	A
	SB		18.9	C	13.9	B
7. West Park Place Blvd at Rockbridge Rd	EB	Retime signal in PM to even out delay; no change in AM - SBL is not queued excessively	5.2	A	21.6	C
	WB		14.5	A	23.9	C
	SB		63.6	E	53.5	D
	Overall		17.0	B	28.4	C
8. N. Deshong Rd at Rockbridge	EB	Restripe for approx 750 feet N Deshong Rd to remove TWTL and add a receiving lane for a free-flow	21.1	C	24.2	C
	WB		50.3	D	14.4	B
	NB		37.7	D	54.8	D

Intersection	Approach	Mitigation		AM		PM	
				Delay (s)	LOS	Delay (s)	LOS
Rd/ Annistown Rd	SB	EB right Extend EB Right turn lane to 400 FT total storage length		0.0	A	77.0	E
	Overall			43.6	D	29.5	C
9. N. Deshong Rd at Bermuda Rd	EB	Install a roundabout or traffic signal; signal not likely to meet warrants	Signal	4.9	A	15.7	B
	NBL		Roundabout	11.6	B	11.0	B
10. Stewart Mill Rd at Bermuda Rd	EBL	Add 200' SB left turn lane on Bermuda Rd		11.9	B	7.9	A
	SB			23.1	C	17.4	C

3. Background Growth Conditions

To establish the future conditions, background traffic was calculated for the study area. Both historic trends and forecasted estimates were considered when establishing a yearly growth rate. As directed by GRTA staff, an annual growth rate of 1.5% growth per year was used to calculate the background traffic in 2020. The background peak hour traffic volumes are shown in Figure 5.

3.1. Background Growth Capacity Analysis

The results of the intersection capacity analysis are shown in Table 3 for background volumes. Because the growth is only for two years and conditions will remain unchanged over that time, the same observations for existing traffic conditions apply to the background conditions. Table 4 shows the results of the same mitigation measures as in the existing conditions.

Table 3: Background Growth Capacity Analysis

Intersection	Control	Movement	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
1. West Park Place Blvd at Rockbridge Rd	Signal	EB	63.7	E	59.2	E
		WB	69.8	E	65.5	E
		NB	9.6	A	13.8	C
		SB	34.4	C	34.9	B
		Overall	23.7	C	35.5	D
2. West Park Place Blvd at US 78 WB Ramp	Signal	WB	69.4	E	66.0	E
		NB	16.7	B	22.6	C
		SB	36.9	D	28.8	C
		Overall	20.6	C	26.9	C
3. West Park Place Blvd at US 78 EB Ramp	Signal	EB	63.6	E	51.2	D
		NB	10.4	A	19.5	B
		SB	14.4	B	8.2	A
		Overall	15.1	B	26.2	C
4. East Park Place Blvd at US 78/ Stone Mtn Hwy	Signal	EB	23.4	C	48.3	D
		WB	58.4	E	49.3	D
		NB	172.3	F	121.9	F
		SB	274.4	F	114.8	F
		Overall	114.4	F	63.6	E
5. West Park Place Blvd at Bermuda Rd.	Signal	EB	82.5	F	92.5	F
		NB	35.8	C	8.5	A
		SB	33.7	C	24.9	C
		Overall	51.9	D	29.0	C

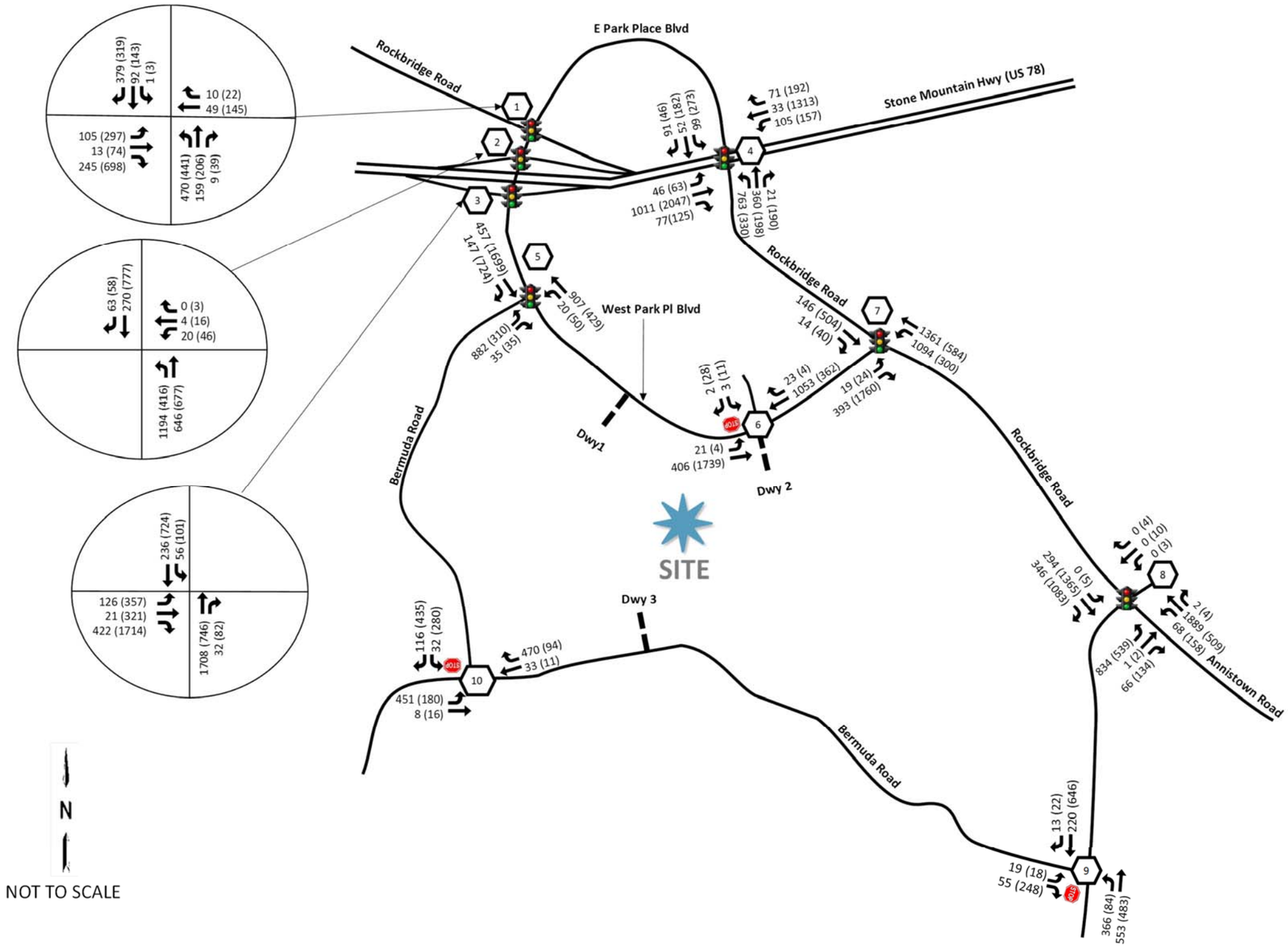
Intersection	Control	Movement	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
6. West Park Place Blvd at Centre Park Ct	One-Way Stop	EBL	11.4	B	0.0	A
		SB	19.6	C	14.1	B
7. West Park Place Blvd at Rockbridge Rd	Signal	EB	5.3	A	22.9	C
		WB	14.9	B	23.7	C
		SB	63.5	E	66.1	E
		Overall	17.3	B	31.9	C
8. N. Deshong Rd at Rockbridge Rd/ Annistown Rd	Signal	EB	27.1	C	90.3	F
		WB	66.4	E	27.1	C
		NB	36.1	D	58.3	E
		SB	0.0	A	77.0	E
		Overall	50.7	D	71.9	E
9. N. Deshong Rd at Bermuda Rd	One- Way Stop	EB	47.4	E	95.6	F
		NBL	3.7	A	10.3	B
10. Stewart Mill Rd at Bermuda Rd	One-Way Stop	EBL	12.3	B	7.3	A
		SB	39.1	E	114.5	F

Table 4: Background Growth Conditions Mitigation

Intersection	Approach	Mitigation	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
1. West Park Place Blvd at Rockbridge Rd	EB	Do nothing. Vehicles are not queued excessively	63.7	E	59.2	E
	WB		69.8	E	65.5	E
	NB		9.6	A	13.8	C
	SB		34.4	C	34.9	B
	Overall		23.7	C	35.5	D
2. West Park Place Blvd at US 78 WB Ramp	WB	Do nothing. Volume on WB off ramp is small and not queued excessively	69.4	E	66.0	E
	NB		16.7	B	22.6	C
	SB		36.9	D	28.8	C
	Overall		20.6	C	26.9	C
3. West Park Place Blvd at US 78 EB Ramp	EB	Retime signal to even out delay	63.6	E	51.2	D
	NB		10.4	B	19.5	B
	SB		14.4	B	8.2	A
	Overall		15.1	B	26.2	C
4. East Park Place Blvd at US 78/ Stone Mtn Hwy	EB	Adding right turn lanes in all directions would improve overall LOS but it would create signficant impacts.	23.4	C	48.3	D
	WB		58.4	E	49.3	D
	NB		172.3	F	121.9	F
	SB		274.4	F	114.8	F
	Overall		114.4	F	63.6	E
	EB		47.6	D	61.6	E

Intersection	Approach	Mitigation		AM		PM	
				Delay (s)	LOS	Delay (s)	LOS
5. West Park Place Blvd at Bermuda Rd.	NB	Restripe EB lanes to be left and shared left/right lane.		15.8	B	5.7	A
	SB			16.8	B	16.9	B
	Overall			27.5	C	20.0	C
6. West Park Place Blvd at Centre Park Ct	EBL	Do nothing		11.4	B	0.0	A
	SB			19.6	C	14.1	B
7. West Park Place Blvd at Rockbridge Rd	EB	Retime signal to even out delay; queing on Rockbridge is not excessive		5.3	A	22.9	C
	WB			14.9	B	23.7	C
	SB			63.5	E	66.1	E
	Overall			17.3	B	31.9	C
8. N. Deshong Rd at Rockbridge Rd/ Annistown Rd	EB	Restripe for approx 750 feet N Deshong Rd to remove TWTL and add a receiving lane for a free-flow EB right Extend EB Right turn lane to 400 FT total storage length		21.2	C	24.5	C
	WB			57.4	E	15.3	B
	NB			38.3	D	58.3	E
	SB			-	-	77.0	E
	Overall			48.1	D	30.7	C
9. N. Deshong Rd at Bermuda Rd	EB	Install a roundabout or traffic signal; signal not likely to meet warrants	Signal	5.6	A	17.6	A
	NBL		Roundabout	6.4	A	11.8	B
10. Stewart Mill Rd at Bermuda Rd	EBL	Add 200' SB left turn lane on Bermuda Rd		12.1	B	7.9	A
	SB			25.9	D	18.5	C

Figure 5: Background Traffic Volumes



4. Site Development Traffic

The existing site is vacant. The new development will include a warehouse/distribution center. The building footprint will be 640,000 sq. ft. and will be four floors. The development will have three (3) vehicular site access points: two (2) on West Park Place Blvd and one (1) on Bermuda Drive.

4.1. Trip Generation

The proposed facility constitutes a unique type of land use. Trip generation for a similar type of facility for both Peak and Non-Peak seasonal facility usage was provided by the expected user. Table 5 depicts both the project provided trip generation for peak and non-peak season. The peak season traffic was used in the analysis. Table 6 shows the hourly distribution of traffic for the site.

The site operations are unique in that it relies heavily on automation for the distribution activities and includes a higher storage volume than is typical for similar sites. The data provided by the site user has been used in similar studies around the country and is deemed adequate in lieu of ITE Trip Generation trips.

Table 5: Trip Generation

User Provided Trip Generation (Non-Peak Season)

		Total	In	Out
Personal Vehicles	Daily	**5,047**	**2,524**	**2,523**
	AM Peak Hour	568	562	6
	PM Peak Hour	1,144	546	598
Trucks	Daily	**214**	**107**	**107**
	AM Peak Hour	12	6	6
	PM Peak Hour	10	5	5
Total	Daily	**5,261**	**2,631**	**2,630**
	AM Peak Hour	580	568	12
	PM Peak Hour	1,154	551	603

User Provided Trip Generation (Peak Season)

		Total	In	Out
Personal Vehicles	Daily	**6,542**	**3,271**	**3,271**
	AM Peak Hour	721	8	18
	PM Peak Hour	1,483	715	767
Trucks	Daily	**357**	**179**	**179**
	AM Peak Hour	20	10	10
	PM Peak Hour	16	8	8
Total	Daily	**6,899**	**3,450**	**3,450**
	AM Peak Hour	749	731	18
	PM Peak Hour	1,498	723	775

Table 6: Hourly Total Trips Generation

Hour	In	Out	Total
00:00	15	14	29
01:00	13	12	25
02:00	14	14	28
03:00	9	9	17
04:00	14	715	729
05:00	103	726	830
06:00	726	13	740
07:00	**731**	**18**	**749**
08:00	34	34	69
09:00	31	31	62
10:00	30	30	60
11:00	34	34	68
12:00	57	57	114
13:00	30	30	60
14:00	31	31	61
15:00	31	31	61
16:00	29	29	58
17:00	**723**	**775**	**1,498**
18:00	723	775	1,497
19:00	15	15	29
20:00	13	13	26
21:00	15	15	30
22:00	14	14	28
23:00	14	14	28

It is noteworthy that the shift nature of the distribution center results in an outbound traffic flow very early in the morning, prior to the AM peak hour. While the PM peak hour begins at 4:30 PM, the entire 5:00 PM shift traffic was used in the analysis.

4.2. Pedestrian and Bicycle Facility Trip Reduction

Although sidewalks will be provided adjacent to the site no reduction in trips was taken for alternate transportation modes.

4.3. Transit Trip Reduction

Since there is no existing public transit running alongside the site, no reduction in trips was taken for alternate transportation modes.

4.4. Trip Distribution and Assignment

The directional distribution of the new project trips is expected to be as follows:

Personal Vehicles:

- 30% to/from east of site via US 78/ Stone Mountain Hwy)
- 5% to/from north of site via Pounds Rd (via Rockbridge Rd and West Park Place Blvd)
- 10% to/from north of site via Rockbridge Rd (via West Park Place Blvd)
- 25% to/from west of site via US 78/ Stone Mountain Frwy
- 8% to/from south of site via Stewart Mill Rd (via Bermuda Rd west of site)
- 12% to/from south of site via N. Deshong Rd (via Bermuda Rd east of site, and via Rockbridge Rd and West Park Place Blvd east of the site)
- 10% to/from south and east of site via Annistown Rd (via West Park Place Blvd east of the site and Rockbridge Rd)

Trucks:

- 20% to/from east of site via US 78/ Stone Mountain Hwy
- 5% to/from north of site via Rockbridge Rd (via West Park Place Blvd)
- 50% to/from west of site via US 78/ Stone Mountain Frwy to/from I-295
- 15% to/from south of site via Rockbridge Rd (via N Deshong Rd, Rockbridge Rd and West Park Place Blvd east of site) to/from SR 124 and I-20
- 10% to/from south and east of site via Annistown Rd (via Rockbridge Rd and West Park Place Blvd east of site) to/from SR 124 and I-20

Figure 6 summarizes the distribution used at each of study intersections and the site driveway. Figure 7 depicts the total project trips as distributed throughout the study area.

Figure 6: Directional Distribution

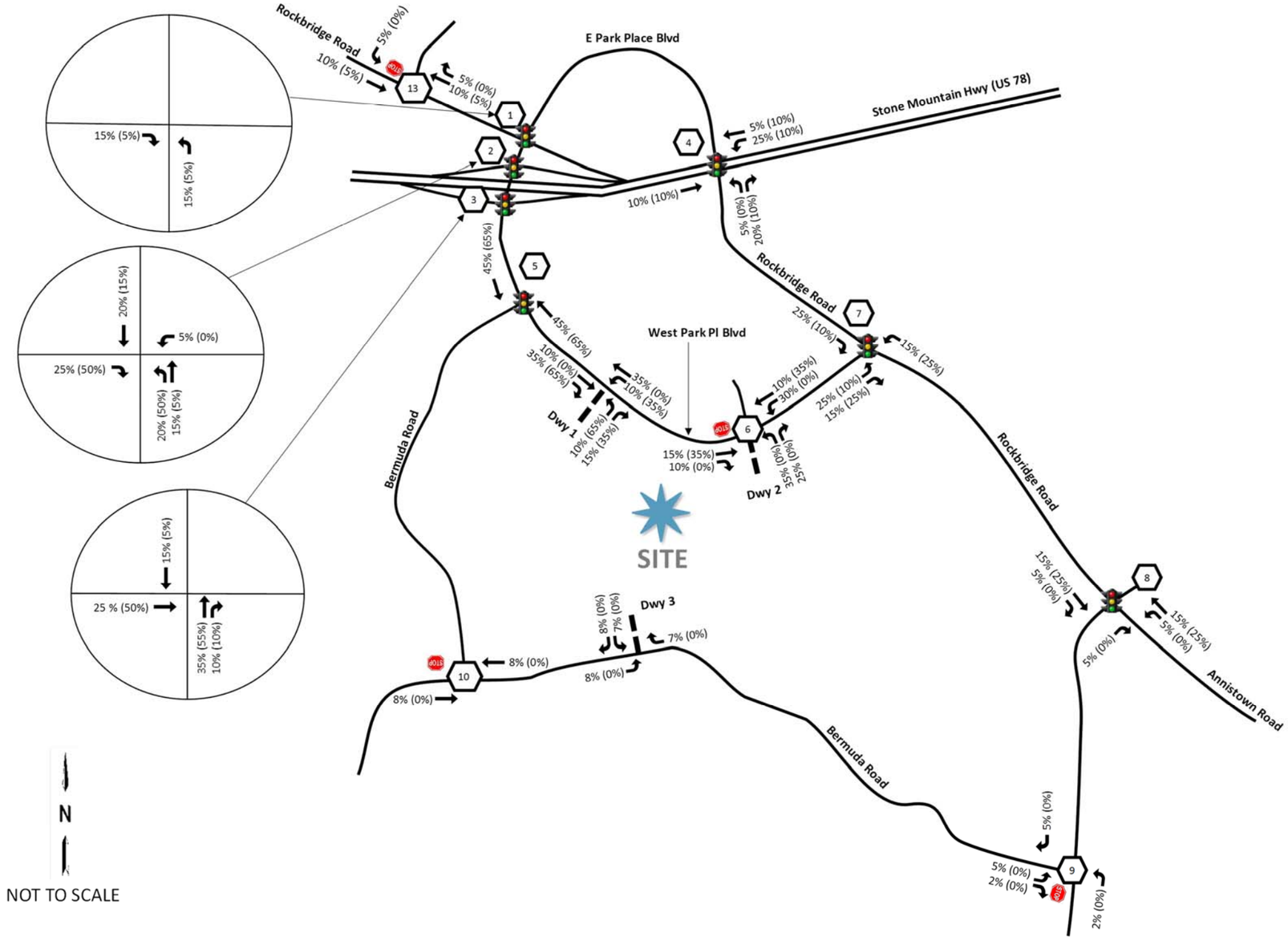
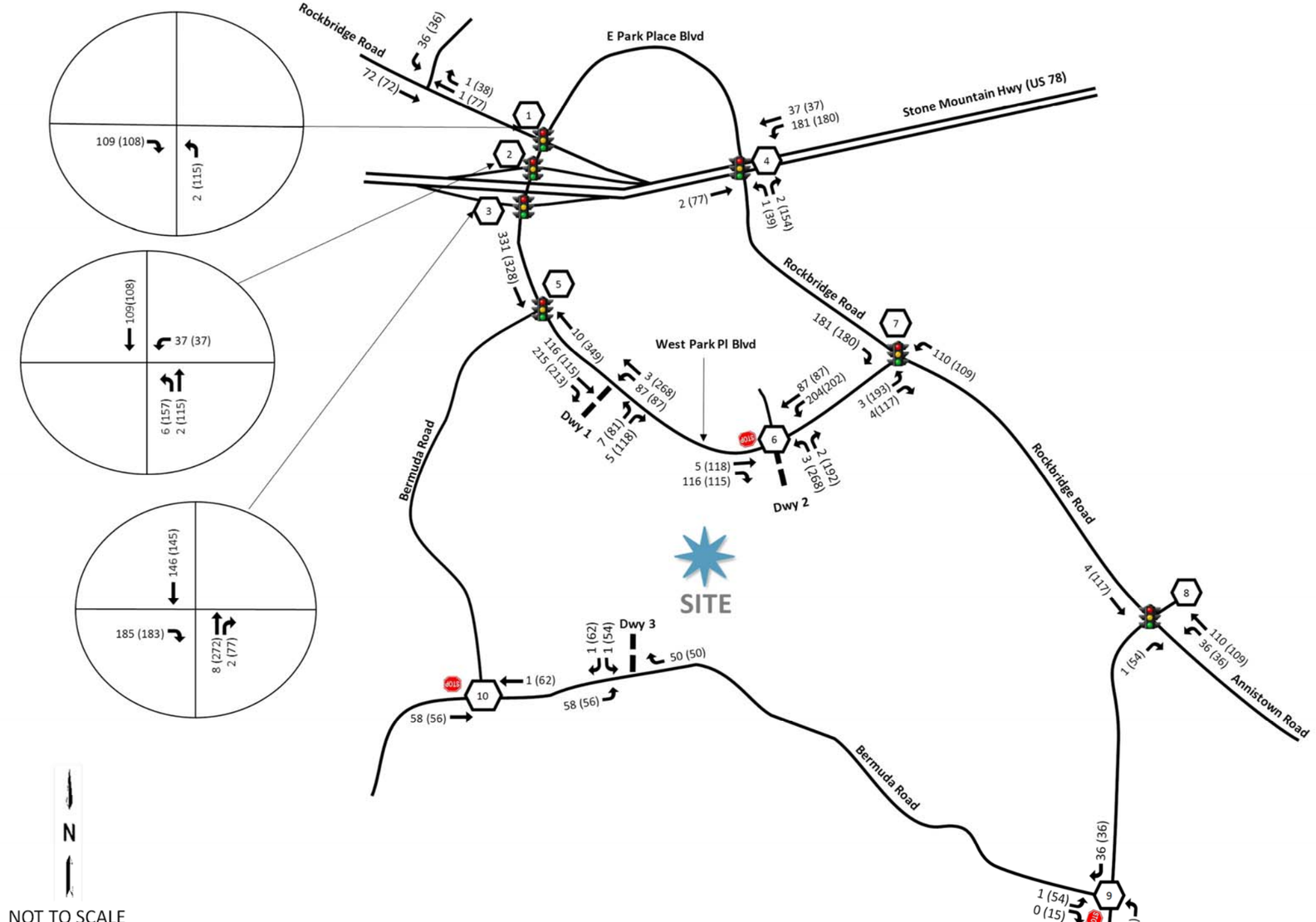


Figure 7: Project Volumes



5. Future Conditions

The build condition was analyzed including the background traffic and the proposed project trips. The results of the intersection capacity analysis for future conditions are shown in Table 7 for existing plus background growth plus project traffic. The associated full build out volumes are shown in Figure 8.

Table 7: Full Build-out Conditions Capacity Analysis

Intersection	Control	Movement	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
1. West Park Place Blvd at Rockbridge Rd	Signal	EB	63.7	E	59.2	E
		WB	69.8	E	65.5	E
		NB	9.6	A	15.5	B
		SB	34.4	C	34.9	C
		Overall	23.7	C	34.7	C
2. West Park Place Blvd at US 78 WB Ramp	Signal	WB	66.5	E	64.3	E
		NB	16.6	B	20.9	C
		SB	40.5	D	35.2	D
		Overall	22.7	C	28.7	C
3. West Park Place Blvd at US 78 EB Ramp	Signal	EB	63.6	E	51.2	D
		NB	10.4	A	22.7	C
		SB	9.4	B	7.0	A
		Overall	14.1	B	25.4	C
4. East Park Place Blvd at US 78/ Stone Mtn Hwy	Signal	EB	23.4	C	94.5	F
		WB	365.9	F	176.1	F
		NB	172.3	F	168.3	F
		SB	274.4	F	110.5	F
		Overall	154.2	F	133.5	F
5. West Park Place Blvd at Bermuda Rd.	Signal	EB	82.5	F	100.9	F
		NB	36.2	D	9.1	A
		SB	42.7	D	74.9	E
		Overall	51.4	D	59.8	E
6. West Park Place Blvd at Centre Park Ct	One-Way Stop	EBL	0.5	A	8.4	A
		WBL	1.4	A	70.6	F
		NB	44.2	E	>999	F
		SB	88.9	F	>999	B
7. West Park Place Blvd at Rockbridge Rd	Signal	EB	5.3	A	90.5	F
		WB	14.9	C	13.3	B
		SB	63.5	E	66.3	E
		Overall	17.3	C	77.2	E

Intersection	Control	Movement	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
8. N. Deshong Rd at Rockbridge Rd/ Annistown Rd	Signal	EB	27.1	C	89.2	F
		WB	66.4	F	49.5	D
		NB	36.1	D	58.5	E
		SB	0.0	A	77.0	E
		Overall	50.7	E	74.8	E
9. N. Deshong Rd at Bermuda Rd	One- Way Stop	EB	47.4	F	430.4	F
		NBL	3.7	A	10.6	B
10. Stewart Mill Rd at Bermuda Rd	One-Way Stop	EBL	12.3	B	8.1	A
		SB	39.1	E	205.3	F
11. West Park Place Blvd at Driveway 1	One-Way Stop	WBL	10.1	B	31.4	D
		NB	16.4	C	282.6	F
12. Bermuda Rd at Driveway 3	One-Way Stop	EBL	8.9	A	7.7	A
		SB	13.6	B	12.2	B

The mitigation necessary to create acceptable conditions are shown in Table 8.

Table 8: Full Build-out Conditions Mitigation

Intersection	Approach	Mitigation	AM		PM	
			Delay (s)	LOS	Delay (s)	LOS
1. West Park Place Blvd at Rockbridge Rd	EB	Do nothing. Vehicles are not queued excessively	63.7	E	59.2	E
	WB		69.8	E	65.5	E
	NB		9.6	A	15.5	B
	SB		34.4	C	34.9	C
	Overall		23.7	C	34.7	C
2. West Park Place Blvd at US 78 WB Ramp	WB	Do nothing. Volume on WB off ramp is small and not queued excessively	66.5	E	64.3	E
	NB		16.6	B	20.9	C
	SB		40.5	D	35.2	D
	Overall		22.7	C	28.7	C
3. West Park Place Blvd at US 78 EB Ramp	EB	Do nothing. Vehicles are not queued excessively	63.6	E	51.2	D
	NB		10.4	A	22.7	C
	SB		9.4	B	7.0	A
	Overall		14.1	B	25.4	C
4. East Park Place Blvd at US 78/ Stone Mtn Hwy	EB	Adding right turn lanes in all directions would improve overall LOS but it would create significant impacts. Retime signal for increased WB Left traffic in AM. Some traffic bound for the east will likely use Sharp Trail to avoid congestion	35.3	D	54.7	D
	WB		53.4	D	75.3	E
	NB		172.3	F	168.3	F
	SB		274.4	F	110.5	F
	Overall		114.3	F	133.5	F
	EB		51.8	D	59.2	E

Intersection	Approach	Mitigation		AM		PM	
				Delay (s)	LOS	Delay (s)	LOS
5. West Park Place Blvd at Bermuda Rd.	NB	Restripe EB lanes to be left and shared left/right lane.		15.5	B	6.9	A
	SB			19.6	B	40.0	D
	Overall			28.1	C	33.3	C
6. West Park Place Blvd at Centre Park Ct	EBL	Add traffic signal - split phased Add EB Right turn decel lane Re-stripe WB left turn lane for dedicated left turn Add NB left turn lanes and shared NB left/thru/right lane		15.9	B	41.6	D
	WBL			1.9	A	32.2	C
	NB			34.8	C	54.6	D
	SB			34.9	C	41.9	D
	Overall			6.1	A	40.8	D
7. West Park Place Blvd at Rockbridge Rd	EB	Retime signal to even out delay; LOS E in AM does not result in long queue		16.2	B	6.8	A
	WB			27.6	C	20.8	C
	SB			63.3	E	54.7	D
	Overall			28.1	C	17.0	B
8. N. Deshong Rd at Rockbridge Rd/ Annistown Rd	EB	Restripe for approx 750 feet N Deshong Rd to remove TWTL and add a receiving lane for a free-flow EB right. Extend EB Right turn lane to 400 FT total storage length. SB movement is very low volume		17.1	B	31.7	C
	WB			41.1	D	22.4	C
	NB			49.5	D	54.6	D
	SB			0.0	A	77.0	E
	Overall			40.8	D	34.7	C
9. N. Deshong Rd at Bermuda Rd	EB	Install a roundabout or traffic signal; signal not likely to meet warrants	Signal	12.8	B	20.5	C
	NBL		Roundabout	12.4	B	10.9	B
10. Stewart Mill Rd at Bermuda Rd	EBL	Add 200' SB left turn lane on Bermuda Rd		8.4	A	5.6	A
	SB			14.9	C	22.4	C
11. West Park Place Blvd at Driveway 1	WBL	Construct EB right turn deceleration lane on West Park Pl; re-stripe WB left turn lane for dedicated left turn; separate NB left and right turn lanes		0.0	A	23.7	C
	NB			16.3	C	43.5	E*
12. Bermuda Rd at Driveway 3	EBL	No turn lanes required by analysis. DeKalb County likely to require left and right turn lanes on Bermuda.		8.9	A	7.7	A
	SB			13.6	B	12.2	B

*Traffic from Driveway 1 is metered by the upstream signal at Bermuda Rd. Delay is simulated traffic conditions.

5.1. Signal Warrant Analysis

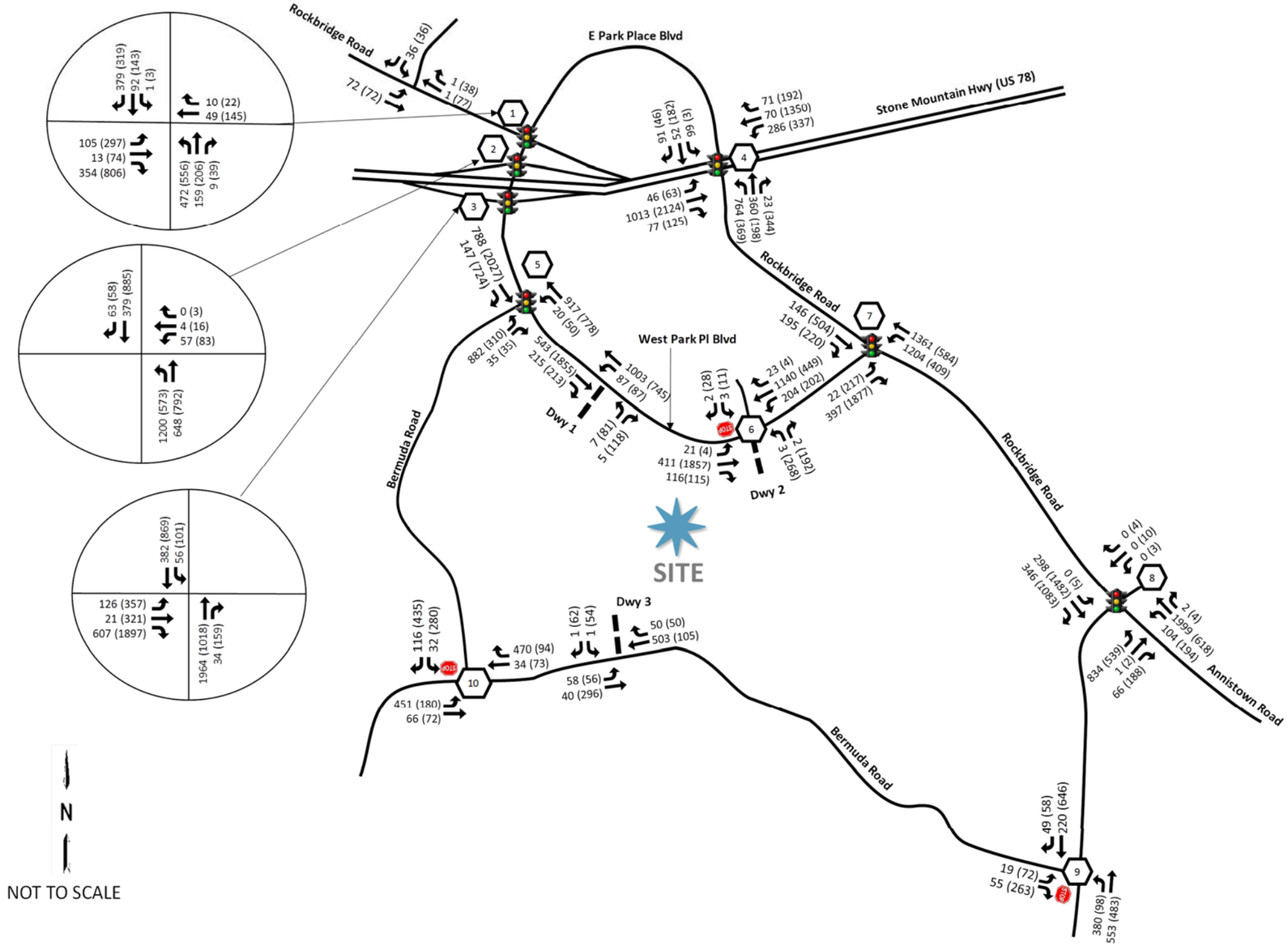
The intersection of West Park Place Blvd and Centre Park Ct / Driveway 2 was checked for adherence to the traffic signal warrants in the Manual on Uniform Traffic Control Devices, FHWA. Centre Park Court is a minor contributor to the intersection volume; therefore, the volume for the new site takes precedence. The daily volume for the site was derived from the trip generation provided by the expected development user and based on the trip distribution described in Section 4.4. Table 8 shows the results of the signal warrant study.

Table 9: Signal Warrant Results

Existing	West Park Place Blvd	Dwy 2	WARRANT 1A Major Street Condition Met? Major>420 Minor >105	WARRANT 1B Major Street Condition Met? Major>630 Minor >53	WARRANT 2 Conditions Met?	WARRANT 3 Conditions Met?
Hour Beginning	Combined Approach Volume	Approach Volume w/Right Turns				
4:00	413	429	NO	NO	YES	YES
5:00	843	429	YES	YES	YES	YES
6:00	1827	5	NO	NO	NO	NO
7:00	1883	5	NO	NO	NO	NO
8:00	1421	14	NO	NO	NO	NO
9:00	1105	14	NO	NO	NO	NO
10:00	968	14	NO	NO	NO	NO
11:00	904	14	NO	NO	NO	NO
12:00	1046	28	NO	NO	NO	NO
13:00	1098	14	NO	NO	NO	NO
14:00	1249	14	NO	NO	NO	NO
15:00	1603	14	NO	NO	NO	NO
16:00	1998	14	NO	NO	NO	NO
17:00	2520	460	YES	YES	YES	YES
18:00	2316	460	YES	YES	YES	YES
Number of Hours Required			8	8	4	1
Number of Hours Met			3	3	4	2

A traffic signal is warranted based on the four-hour and the peak hour warrant. During the peak hours, the intersection will experience extreme delay and queuing if a traffic signal is not installed.

Figure 8: Build Volumes



6. Conclusions

The following improvements are recommended to accommodate the existing deficiencies:

- West Park Place Blvd at Bermuda Road – Restripe EB lanes to be left and shared left/right lane.
- West Park Place Blvd at Rockbridge Road – Re-time the traffic signal for the PM peak hour to even out delay
- N. Deshong Road at Rockbridge Road/Annistown Rd – Re-stripe approximately 750 feet of N Deshong Road to remove TWTL and add a receiving lane for a free-flow EB right; extend the eastbound right turn lane to 400 feet
- N. Deshong Road at Bermuda Road – Install a roundabout or traffic signal
- Stewart Mill Road at Bermuda Road – Add a 200 foot, southbound left turn lane on Bermuda Road

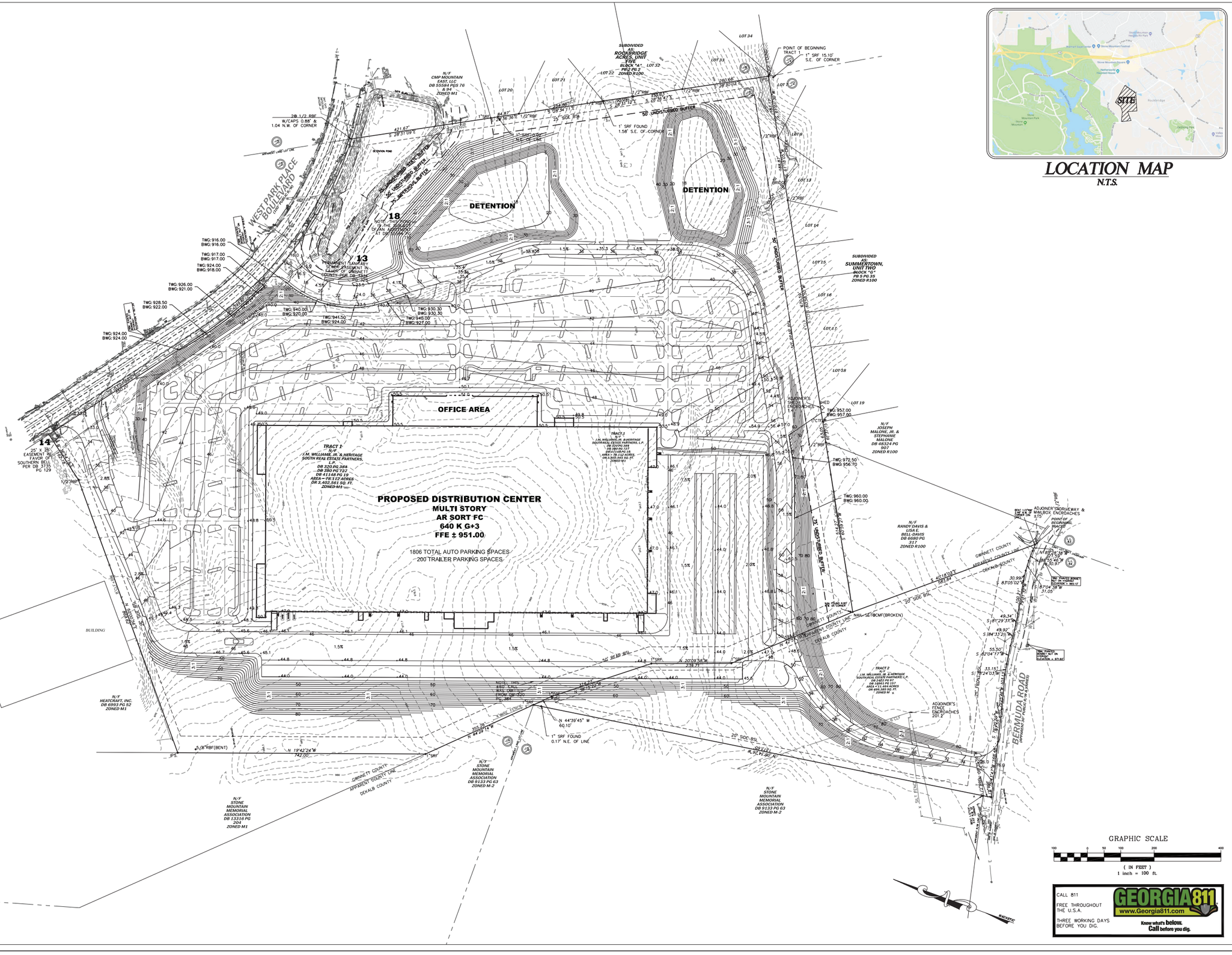
The same improvements are needed for the background growth in traffic.

The site's AM peak traffic will, for the most part, occur before the congestion on the surrounding roads so it will have little impact on the road network. The site's PM related traffic will occur during the road network's peak hour.

The following improvements are recommended to accommodate the site traffic – in addition to those needed for existing and background traffic:

- West Park Place Blvd at Centre Park Ct / Driveway 2 – Install a traffic signal; construct an eastbound right turn deceleration lane; re-stripe the two-way, center turn lane for dedicated left turn bays; add a northbound left turn lane and a shared northbound left/thru/right lane
- West Park Place Blvd at Rockbridge Road – Re-time the traffic signal to even out delay
- Stewart Mill Road at Bermuda Rd – Add a westbound right turn lane that is continuous from Driveway 3 to Stewart Mill Road.
- West Park Place Blvd at Driveway 1 – Construct an eastbound right turn deceleration lane on West Park Place Blvd; re-stripe the two-way, center turn lane for a dedicated westbound left turn bay; build separate northbound left and right turn lanes exiting the site.
- Bermuda Rd at Driveway 3 – No turn lanes required by analysis. DeKalb County will likely require left and right turn lanes on Bermuda Road.

Appendix



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STONE MOUNTAIN
GEORGIA

REVISIONS:

GRADING PLAN

SCALE:	1" = 100'
DATE:	04/30/2018
DRAWN BY:	D. LEE
PROJECT MANAGER:	A. SAMPLE
QA/QC CHECK:	M. WRIGHT

PROJECT NO.
18-025

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HCM 6th Signalized Intersection Summary
1: West Park Pl & Rockbridge Rd

05/14/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	13	238	0	48	10	456	154	9	1	89	368
Future Volume (veh/h)	102	13	238	0	48	10	456	154	9	1	89	368
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	14	0	0	60	12	480	162	9	1	96	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	164	251		0	105	20	1439	2417	133	2	1055	
Arrive On Green	0.05	0.13	0.00	0.00	0.04	0.04	0.70	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3060	576	3456	3424	189	1781	3554	1585
Grp Volume(v), veh/h	110	14	0	0	35	37	480	84	87	1	96	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1767	1728	1777	1836	1781	1777	1585
Q Serve(g_s), s	4.1	0.8	0.0	0.0	2.5	2.7	7.2	0.0	0.0	0.1	2.5	0.0
Cycle Q Clear(g_c), s	4.1	0.8	0.0	0.0	2.5	2.7	7.2	0.0	0.0	0.1	2.5	0.0
Prop In Lane	1.00		1.00	0.00		0.33	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	164	251		0	63	62	1439	1254	1296	2	1055	
V/C Ratio(X)	0.67	0.06		0.00	0.56	0.59	0.33	0.07	0.07	0.41	0.09	
Avail Cap(c_a), veh/h	486	555		0	186	185	1439	1254	1296	107	1055	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	0.00
Uniform Delay (d), s/veh	60.9	49.1	0.0	0.0	61.7	61.8	12.6	0.0	0.0	64.9	33.0	0.0
Incr Delay (d2), s/veh	4.7	0.1	0.0	0.0	7.6	8.5	0.1	0.1	0.1	84.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	0.0	0.0	1.3	1.3	2.4	0.0	0.0	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	49.2	0.0	0.0	69.3	70.3	12.8	0.1	0.1	149.6	33.2	0.0
LnGrp LOS	E	D		A	E	E	B	A	A	F	C	
Approach Vol, veh/h		124	A		72			651			97	A
Approach Delay, s/veh		63.7			69.8			9.5			34.4	
Approach LOS		E			E			A			C	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	61.1	45.0		23.9	7.4	98.8	12.9	11.0
Change Period (Y+Rc), s	* 7	6.4		* 6.4	7.2	* 7	* 6.7	* 6.4
Max Green Setting (Gmax), s	* 33	38.6		* 39	7.8	* 64	* 18	* 14
Max Q Clear Time (g_c+I1), s	9.2	4.5		2.8	2.1	2.0	6.1	4.7
Green Ext Time (p_c), s	1.6	0.5		0.0	0.0	0.9	0.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

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

Unsignalized Delay for [EBR, 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)	0	0	0	19	4	0	1159	627	0	0	262	61
Future Volume (veh/h)	0	0	0	19	4	0	1159	627	0	0	262	61
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	0	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				25	5	0	1246	674	0	0	288	67
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	0	2	2	0	0	2	2
Cap, veh/h				53	29	0	1325	3147	0	0	1293	296
Arrive On Green				0.02	0.02	0.00	0.64	1.00	0.00	0.00	0.15	0.15
Sat Flow, veh/h				3456	1870	0	3456	3647	0	0	2965	657
Grp Volume(v), veh/h				25	5	0	1246	674	0	0	176	179
Grp Sat Flow(s),veh/h/ln				1728	1870	0	1728	1777	0	0	1777	1752
Q Serve(g_s), s				0.9	0.3	0.0	42.4	0.0	0.0	0.0	11.4	11.7
Cycle Q Clear(g_c), s				0.9	0.3	0.0	42.4	0.0	0.0	0.0	11.4	11.7
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				53	29	0	1325	3147	0	0	800	789
V/C Ratio(X)				0.47	0.18	0.00	0.94	0.21	0.00	0.00	0.22	0.23
Avail Cap(c_a), veh/h				221	119	0	1948	3147	0	0	800	789
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	0.00	0.61	0.61	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh				63.5	63.2	0.0	22.0	0.0	0.0	0.0	35.3	35.4
Incr Delay (d2), s/veh				6.5	2.9	0.0	4.8	0.1	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				0.5	0.2	0.0	11.9	0.0	0.0	0.0	5.4	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				70.0	66.1	0.0	26.8	0.1	0.0	0.0	35.8	36.0
LnGrp LOS				E	E	A	C	A	A	A	D	D
Approach Vol, veh/h					30			1920			355	
Approach Delay, s/veh					69.3			17.4			35.9	
Approach LOS					E			B			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	56.6	64.8		8.7		121.3						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 73	* 29		* 8.3		* 1.1E2						
Max Q Clear Time (g_c+I1), s	44.4	13.7		2.9		2.0						
Green Ext Time (p_c), s	5.5	1.6		0.0		4.8						

Intersection Summary	
HCM 6th Ctrl Delay	21.0
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)	122	20	410	0	0	0	0	1658	31	54	229	0
Future Volume (veh/h)	122	20	410	0	0	0	0	1658	31	54	229	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	163	27	0				0	1906	0	61	260	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	221	119					0	2703		79	3012	0
Arrive On Green	0.06	0.06	0.00				0.00	0.76	0.00	0.06	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	163	27	0				0	1906	0	61	260	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	6.0	1.8	0.0				0.0	36.0	0.0	4.4	0.0	0.0
Cycle Q Clear(g_c), s	6.0	1.8	0.0				0.0	36.0	0.0	4.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	221	119					0	2703		79	3012	0
V/C Ratio(X)	0.74	0.23					0.00	0.71		0.78	0.09	0.00
Avail Cap(c_a), veh/h	369	200					0	2703		197	3012	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	59.8	57.8	0.0				0.0	8.0	0.0	60.6	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.9	0.0				0.0	1.6	0.0	14.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.9	0.0				0.0	11.1	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	58.7	0.0				0.0	9.6	0.0	75.3	0.1	0.0
LnGrp LOS	E	E					A	A		E	A	A
Approach Vol, veh/h		190	A					1906	A		321	
Approach Delay, s/veh		63.7						9.6			14.3	
Approach LOS		E						A			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.3	104.3	14.4	115.6
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	14.4	* 85	13.9	* 1E2
Max Q Clear Time (g_c+I1), s	6.4	38.0	8.0	2.0
Green Ext Time (p_c), s	0.1	23.2	0.3	1.6

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

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

Unsignalized Delay for [NBR, 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)	45	981	75	102	32	69	741	349	20	96	50	88
Future Volume (veh/h)	45	981	75	102	32	69	741	349	20	96	50	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	1066	0	104	33	70	756	356	20	122	63	111
Peak Hour Factor	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2959		150	2796	918	599	588	33	159	70	63
Arrive On Green	0.04	0.58	0.00	0.04	0.58	0.58	0.17	0.17	0.17	0.05	0.04	0.04
Sat Flow, veh/h	3456	5106	1585	3456	4826	1585	3456	3421	192	3456	1777	1585
Grp Volume(v), veh/h	49	1066	0	104	33	70	756	184	192	122	63	111
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1728	1777	1836	1728	1777	1585
Q Serve(g_s), s	2.5	20.0	0.0	5.3	0.5	3.5	31.2	17.3	17.4	6.3	6.4	7.1
Cycle Q Clear(g_c), s	2.5	20.0	0.0	5.3	0.5	3.5	31.2	17.3	17.4	6.3	6.4	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	150	2959		150	2796	918	599	305	315	159	70	63
V/C Ratio(X)	0.33	0.36		0.69	0.01	0.08	1.26	0.60	0.61	0.77	0.90	1.78
Avail Cap(c_a), veh/h	161	2959		150	2796	918	599	305	315	175	70	63
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	83.6	20.1	0.0	84.9	16.0	16.7	74.4	68.9	68.9	84.9	86.1	86.5
Incr Delay (d2), s/veh	1.3	0.3	0.0	13.0	0.0	0.2	131.0	3.3	3.4	16.9	73.5	405.6
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	1.1	7.9	0.0	2.6	0.2	1.3	24.6	8.1	8.4	3.2	4.3	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.8	20.5	0.0	97.9	16.0	16.8	205.4	72.2	72.3	101.8	159.6	492.1
LnGrp LOS	F	C		F	B	B	F	E	E	F	F	F
Approach Vol, veh/h		1115	A		207			1132			296	
Approach Delay, s/veh		23.3			57.4			161.2			260.4	
Approach LOS		C			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	111.0	39.0	15.0	15.0	111.0	15.2	38.8
Change Period (Y+Rc), s	7.2	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 1E2	31.2	7.1	7.8	104.3	9.1	30.1
Max Q Clear Time (g_c+I1), s	4.5	5.5	33.2	9.1	7.3	22.0	8.3	19.4
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.0	8.8	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	108.1
HCM 6th LOS	F

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	856	34	19	880	444	143
Future Volume (veh/h)	856	34	19	880	444	143
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	911	0	23	1086	555	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	880		294	1479	1257	
Arrive On Green	0.49	0.00	0.02	0.42	0.35	0.00
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	911	0	23	1086	555	0
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	64.2	0.0	1.0	33.4	15.6	0.0
Cycle Q Clear(g_c), s	64.2	0.0	1.0	33.4	15.6	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	880		294	1479	1257	
V/C Ratio(X)	1.04		0.08	0.73	0.44	
Avail Cap(c_a), veh/h	880		388	1479	1257	
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	0.00
Uniform Delay (d), s/veh	32.9	0.0	25.7	31.9	32.2	0.0
Incr Delay (d2), s/veh	39.9	0.0	0.1	3.3	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	36.1	0.0	0.4	14.4	6.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	72.8	0.0	25.8	35.2	33.3	0.0
LnGrp LOS	F		C	D	C	
Approach Vol, veh/h	911	A		1109	555	A
Approach Delay, s/veh	72.8			35.0	33.3	
Approach LOS	E			C	C	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	60.0		8.1	51.9	70.0
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 54		* 9.7	* 39	64.2
Max Q Clear Time (g_c+I1), s	35.4		3.0	17.6	66.2
Green Ext Time (p_c), s	7.0		0.0	3.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	48.0
HCM 6th LOS	D

Notes

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

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

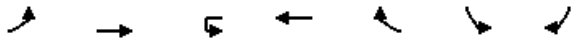
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	394	1022	22	3	2
Future Vol, veh/h	20	394	1022	22	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	91	91	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	505	1123	24	4	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1147	0	-	0	1440	574
Stage 1	-	-	-	-	1135	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	605	-	-	-	124	462
Stage 1	-	-	-	-	269	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	605	-	-	-	117	462
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	605	-	-	-	266
HCM Lane V/C Ratio	0.042	-	-	-	0.025
HCM Control Delay (s)	11.2	0.3	-	-	18.9
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	18	381	0	1062	1321	142	14
Future Volume (veh/h)	18	381	0	1062	1321	142	14
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	23	482		1130	0	189	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	50	2959		2700		251	
Arrive On Green	0.03	0.83		0.51	0.00	0.07	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	23	482		1130	0	189	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	1.7	3.4		25.8	0.0	7.0	0.0
Cycle Q Clear(g_c), s	1.7	3.4		25.8	0.0	7.0	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	50	2959		2700		251	
V/C Ratio(X)	0.46	0.16		0.42		0.75	
Avail Cap(c_a), veh/h	126	2959		2700		641	
HCM Platoon Ratio	1.00	1.00		0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	62.2	2.1		14.0	0.0	59.1	0.0
Incr Delay (d2), s/veh	6.4	0.1		0.5	0.0	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.7		11.2	0.0	3.1	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	68.6	2.2		14.5	0.0	63.6	0.0
LnGrp LOS	E	A		B		E	
Approach Vol, veh/h		505		1130	A	189	A
Approach Delay, s/veh		5.2		14.5		63.6	
Approach LOS		A		B		E	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	9.5	105.2		15.4		114.6	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	78.6		* 24		93.6	
Max Q Clear Time (g_c+I1), s	3.7	27.8		9.0		5.4	
Green Ext Time (p_c), s	0.0	9.7		0.5		3.2	

Intersection Summary		
HCM 6th Ctrl Delay		17.0
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.

Unsignalized Delay for [EBT, WBR, 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)	0	285	336	66	1834	2	810	1	64	0	0	0
Future Volume (veh/h)	0	285	336	66	1834	2	810	1	64	0	0	0
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	0	356	420	70	1951	2	853	1	67	0	0	0
Peak Hour Factor	0.80	0.80	0.80	0.94	0.94	0.94	0.95	0.95	0.95	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	1594	711	387	1945	2	1281	693	588	0	1	0
Arrive On Green	0.00	0.45	0.45	0.04	0.53	0.53	0.37	0.37	0.37	0.00	0.00	0.00
Sat Flow, veh/h	225	3554	1585	1781	3643	4	3456	1870	1585	0	1870	0
Grp Volume(v), veh/h	0	356	420	70	951	1002	853	1	67	0	0	0
Grp Sat Flow(s),veh/h/ln	225	1777	1585	1781	1777	1870	1728	1870	1585	0	1870	0
Q Serve(g_s), s	0.0	8.0	25.8	2.7	69.4	69.4	26.8	0.0	3.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.0	25.8	2.7	69.4	69.4	26.8	0.0	3.6	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	55	1594	711	387	949	998	1281	693	588	0	1	0
V/C Ratio(X)	0.00	0.22	0.59	0.18	1.00	1.00	0.67	0.00	0.11	0.00	0.00	0.00
Avail Cap(c_a), veh/h	55	1594	711	441	949	998	1281	693	588	0	132	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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	22.0	26.9	17.4	30.3	30.3	34.2	25.7	26.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	3.6	0.2	30.0	29.3	2.7	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	10.1	1.1	34.9	36.5	11.7	0.0	1.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.3	30.5	17.6	60.3	59.6	36.9	25.8	27.3	0.0	0.0	0.0
LnGrp LOS	A	C	C	B	F	F	D	C	C	A	A	A
Approach Vol, veh/h		776			2023			921			0	
Approach Delay, s/veh		26.7			58.5			36.2			0.0	
Approach LOS		C			E			D				

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	75.0	0.0	11.1	63.9	55.0
Change Period (Y+Rc), s	* 5.6	* 5.8	* 6.5	* 5.6	6.8
Max Green Setting (Gmax), s	* 54	* 9.2	* 8.5	* 39	48.2
Max Q Clear Time (g_c+I1), s	71.4	0.0	4.7	27.8	28.8
Green Ext Time (p_c), s	0.0	0.0	0.0	2.9	3.6

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.

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	53	355	537	214	13
Future Vol, veh/h	18	53	355	537	214	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	62	390	590	278	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1657	287	295	0	-	0
Stage 1	287	-	-	-	-	-
Stage 2	1370	-	-	-	-	-
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	108	752	1266	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	59	752	1266	-	-	-
Mov Cap-2 Maneuver	59	-	-	-	-	-
Stage 1	413	-	-	-	-	-
Stage 2	236	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	38.3	3.6	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1266	-	189	-	-
HCM Lane V/C Ratio	0.308	-	0.442	-	-
HCM Control Delay (s)	9.1	0	38.3	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	1.3	-	2.1	-	-

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	438	8	32	456	31	113
Future Vol, veh/h	438	8	32	456	31	113
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	86	86	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	487	9	37	530	37	135

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	567	0	-	0	1285	302
Stage 1	-	-	-	-	302	-
Stage 2	-	-	-	-	983	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1005	-	-	-	182	738
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	362	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1005	-	-	-	93	738
Mov Cap-2 Maneuver	-	-	-	-	93	-
Stage 1	-	-	-	-	385	-
Stage 2	-	-	-	-	362	-

Approach	EB	WB	SB
HCM Control Delay, s	11.7	0	32.6
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1005	-	-	-	296
HCM Lane V/C Ratio	0.484	-	-	-	0.579
HCM Control Delay (s)	11.9	0	-	-	32.6
HCM Lane LOS	B	A	-	-	D
HCM 95th %tile Q(veh)	2.7	-	-	-	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	288	72	678	0	141	21	428	200	38	3	139	310
Future Volume (veh/h)	288	72	678	0	141	21	428	200	38	3	139	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		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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	310	77	0	0	176	26	451	211	40	3	149	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	374	427		0	243	35	1178	1916	357	7	1066	
Arrive On Green	0.11	0.23	0.00	0.00	0.08	0.08	0.57	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3207	453	3456	2990	557	1781	3554	1585
Grp Volume(v), veh/h	310	77	0	0	99	103	451	124	127	3	149	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1789	1728	1777	1770	1781	1777	1585
Q Serve(g_s), s	11.4	4.3	0.0	0.0	7.1	7.3	9.3	0.0	0.0	0.2	4.0	0.0
Cycle Q Clear(g_c), s	11.4	4.3	0.0	0.0	7.1	7.3	9.3	0.0	0.0	0.2	4.0	0.0
Prop In Lane	1.00		1.00	0.00		0.25	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	374	427		0	138	139	1178	1139	1134	7	1066	
V/C Ratio(X)	0.83	0.18		0.00	0.72	0.74	0.38	0.11	0.11	0.43	0.14	
Avail Cap(c_a), veh/h	550	712		0	318	321	1178	1139	1134	130	1066	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	40.4	0.0	0.0	58.5	58.6	20.5	0.0	0.0	64.6	33.2	0.0
Incr Delay (d2), s/veh	6.8	0.2	0.0	0.0	6.8	7.4	0.2	0.2	0.2	36.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.0	0.0	0.0	3.4	3.6	3.3	0.1	0.1	0.2	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	40.6	0.0	0.0	65.3	66.0	20.7	0.2	0.2	100.7	33.5	0.0
LnGrp LOS	E	D		A	E	E	C	A	A	F	C	
Approach Vol, veh/h		387	A		202			702			152	A
Approach Delay, s/veh		59.0			65.6			13.3			34.8	
Approach LOS		E			E			B			C	

Timer - Assigned Phs	1	2		4	5	6	7	8
Phs Duration (G+Y+Rc), s	49.8	45.0		35.2	6.0	88.8	19.6	15.6
Change Period (Y+Rc), s	5.5	6.0		5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	24.5	39.0		49.5	9.5	54.5	20.7	23.3
Max Q Clear Time (g_c+I1), s	11.3	6.0		6.3	2.2	2.0	13.4	9.3
Green Ext Time (p_c), s	1.3	0.8		0.4	0.0	1.4	0.6	0.8

Intersection Summary	
HCM 6th Ctrl Delay	35.2
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, 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)	0	0	0	45	16	3	404	657	0	0	754	56
Future Volume (veh/h)	0	0	0	45	16	3	404	657	0	0	754	56
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				60	21	4	434	706	0	0	829	62
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				112	49	9	515	3086	0	0	2238	167
Arrive On Green				0.03	0.03	0.03	0.15	0.87	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3456	1527	291	3456	3647	0	0	3445	251
Grp Volume(v), veh/h				60	0	25	434	706	0	0	439	452
Grp Sat Flow(s),veh/h/ln				1728	0	1818	1728	1777	0	0	1777	1825
Q Serve(g_s), s				2.2	0.0	1.8	15.9	4.2	0.0	0.0	27.3	27.3
Cycle Q Clear(g_c), s				2.2	0.0	1.8	15.9	4.2	0.0	0.0	27.3	27.3
Prop In Lane				1.00		0.16	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h				112	0	59	515	3086	0	0	1187	1219
V/C Ratio(X)				0.54	0.00	0.43	0.84	0.23	0.00	0.00	0.37	0.37
Avail Cap(c_a), veh/h				486	0	256	1151	3086	0	0	1187	1219
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.87	0.87	0.00	0.00	0.71	0.71
Uniform Delay (d), s/veh				61.9	0.0	61.7	53.8	1.4	0.0	0.0	27.5	27.5
Incr Delay (d2), s/veh				4.0	0.0	4.8	3.4	0.2	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				1.0	0.0	0.9	7.0	0.6	0.0	0.0	13.1	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				65.9	0.0	66.5	57.2	1.6	0.0	0.0	28.1	28.1
LnGrp LOS				E	A	E	E	A	A	A	C	C
Approach Vol, veh/h					85			1140			891	
Approach Delay, s/veh					66.1			22.7			28.1	
Approach LOS					E			C			C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.1	93.0		10.9		119.1						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 13	* 49		* 18		* 99						
Max Q Clear Time (g_c+I1), s	17.9	29.3		4.2		6.2						
Green Ext Time (p_c), s	1.5	5.0		0.2		5.1						

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	347	312	1664	0	0	0	0	724	80	98	703	0
Future Volume (veh/h)	347	312	1664	0	0	0	0	724	80	98	703	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	463	416	0				0	832	0	111	799	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	868	470					0	1923		136	2347	0
Arrive On Green	0.25	0.25	0.00				0.00	0.54	0.00	0.15	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	463	416	0				0	832	0	111	799	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	15.1	27.8	0.0				0.0	18.2	0.0	7.8	0.0	0.0
Cycle Q Clear(g_c), s	15.1	27.8	0.0				0.0	18.2	0.0	7.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	868	470					0	1923		136	2347	0
V/C Ratio(X)	0.53	0.89					0.00	0.43		0.82	0.34	0.00
Avail Cap(c_a), veh/h	1034	560					0	1923		471	2347	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.93	0.93	0.00
Uniform Delay (d), s/veh	42.1	46.9	0.0				0.0	17.9	0.0	54.2	0.0	0.0
Incr Delay (d2), s/veh	0.5	14.0	0.0				0.0	0.7	0.0	10.5	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	14.4	0.0				0.0	7.3	0.0	3.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	60.8	0.0				0.0	18.6	0.0	64.8	0.4	0.0
LnGrp LOS	D	E					A	B		E	A	A
Approach Vol, veh/h		879	A					832	A		910	
Approach Delay, s/veh		51.2						18.6			8.2	
Approach LOS		D						B			A	

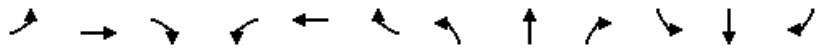
Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	15.5	75.7	38.7	91.3
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	24.4	* 40	38.9	* 80
Max Q Clear Time (g_c+I1), s	9.8	20.2	29.8	2.0
Green Ext Time (p_c), s	0.3	5.2	2.8	6.0

Intersection Summary	
HCM 6th Ctrl Delay	25.9
HCM 6th LOS	C

Notes

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

Unsignalized Delay for [NBR, 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)	61	1987	121	152	1274	186	320	192	184	265	177	45
Future Volume (veh/h)	61	1987	121	152	1274	186	320	192	184	265	177	45
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	84	2722	0	179	1499	219	352	211	202	273	182	46
Peak Hour Factor	0.73	0.73	0.73	0.85	0.85	0.85	0.91	0.91	0.91	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	349	2928		150	2961	432	330	259	231	271	348	86
Arrive On Green	0.10	0.57	0.00	0.04	0.52	0.52	0.10	0.15	0.15	0.08	0.12	0.12
Sat Flow, veh/h	3456	5106	1585	3456	5712	834	3456	1777	1585	3456	2825	696
Grp Volume(v), veh/h	84	2722	0	179	1266	452	352	211	202	273	113	115
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1720	1728	1777	1585	1728	1777	1745
Q Serve(g_s), s	4.0	87.7	0.0	7.8	30.8	30.9	17.2	20.7	22.5	14.1	10.7	11.2
Cycle Q Clear(g_c), s	4.0	87.7	0.0	7.8	30.8	30.9	17.2	20.7	22.5	14.1	10.7	11.2
Prop In Lane	1.00		1.00	1.00		0.48	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	349	2928		150	2501	892	330	259	231	271	219	215
V/C Ratio(X)	0.24	0.93		1.20	0.51	0.51	1.07	0.82	0.88	1.01	0.51	0.54
Avail Cap(c_a), veh/h	349	2928		150	2501	892	330	356	318	271	317	311
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	74.5	35.1	0.0	86.1	28.3	28.3	81.4	74.6	75.3	82.9	73.9	74.1
Incr Delay (d2), s/veh	0.4	6.7	0.0	135.6	0.7	2.1	68.1	9.9	17.8	56.9	1.9	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	1.8	36.3	0.0	6.3	11.9	13.1	10.7	10.1	10.2	8.4	5.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.9	41.8	0.0	221.7	29.0	30.4	149.5	84.5	93.2	139.8	75.7	76.1
LnGrp LOS	E	D		F	C	C	F	F	F	F	E	E
Approach Vol, veh/h		2806	A		1897			765			501	
Approach Delay, s/veh		42.8			47.5			116.7			110.7	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.9	100.0	25.0	30.1	15.0	109.9	21.0	34.1
Change Period (Y+Rc), s	6.7	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	18.4	* 93	17.2	32.1	7.8	93.3	14.1	36.1
Max Q Clear Time (g_c+I1), s	16.0	32.9	19.2	13.2	9.8	89.7	16.1	24.5
Green Ext Time (p_c), s	0.0	17.5	0.0	1.0	0.0	3.5	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	59.5
HCM 6th LOS	E

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	301	34	49	416	1649	703
Future Volume (veh/h)	301	34	49	416	1649	703
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	320	0	60	514	2061	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	332		149	2572	2306	
Arrive On Green	0.19	0.00	0.03	0.72	0.65	0.00
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	320	0	60	514	2061	0
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	23.2	0.0	1.4	6.1	63.0	0.0
Cycle Q Clear(g_c), s	23.2	0.0	1.4	6.1	63.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	332		149	2572	2306	
V/C Ratio(X)	0.97		0.40	0.20	0.89	
Avail Cap(c_a), veh/h	332		222	2572	2306	
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	0.00
Uniform Delay (d), s/veh	52.5	0.0	28.9	5.8	19.1	0.0
Incr Delay (d2), s/veh	40.0	0.0	1.7	0.2	5.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	1.3	2.0	24.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	92.5	0.0	30.6	6.0	24.9	0.0
LnGrp LOS	F		C	A	C	
Approach Vol, veh/h	320	A		574	2061	A
Approach Delay, s/veh	92.5			8.5	24.9	
Approach LOS	F			A	C	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	100.0		9.7	90.3	30.0
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 94		* 9.7	* 79	24.2
Max Q Clear Time (g_c+I1), s	8.1		3.4	65.0	25.2
Green Ext Time (p_c), s	3.5		0.0	11.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

Notes

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

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

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1688	351	4	11	27
Future Vol, veh/h	4	1688	351	4	11	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	91	91	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	2164	386	4	15	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	390	0	-	0	1480	195
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	1092	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1165	-	-	-	116	814
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	283	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1165	-	-	-	116	814
Mov Cap-2 Maneuver	-	-	-	-	220	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	283	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1165	-	-	-	457
HCM Lane V/C Ratio	0.004	-	-	-	0.111
HCM Control Delay (s)	8.1	0	-	-	13.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	23	1708	0	291	567	489	39
Future Volume (veh/h)	23	1708	0	291	567	489	39
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	29	2162		310	0	652	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	56	2484		2214		713	
Arrive On Green	0.03	0.70		0.21	0.00	0.21	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	29	2162		310	0	652	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	2.1	60.8		9.3	0.0	24.0	0.0
Cycle Q Clear(g_c), s	2.1	60.8		9.3	0.0	24.0	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	56	2484		2214		713	
V/C Ratio(X)	0.52	0.87		0.14		0.91	
Avail Cap(c_a), veh/h	126	2484		2214		774	
HCM Platoon Ratio	1.00	1.00		0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	15.0		23.2	0.0	50.5	0.0
Incr Delay (d2), s/veh	7.2	4.5		0.1	0.0	14.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	21.8		4.1	0.0	11.5	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	69.2	19.5		23.3	0.0	65.2	0.0
LnGrp LOS	E	B		C		E	
Approach Vol, veh/h		2191		310	A	652	A
Approach Delay, s/veh		20.2		23.3		65.2	
Approach LOS		C		C		E	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	9.9	87.4		32.7		97.3	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	73.6		* 29		88.6	
Max Q Clear Time (g_c+I1), s	4.1	11.3		26.0		62.8	
Green Ext Time (p_c), s	0.0	2.0		0.8		19.1	

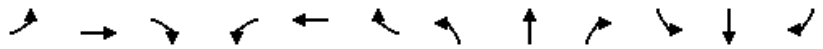
Intersection Summary		
HCM 6th Ctrl Delay		29.8
HCM 6th LOS		C

Notes

User approved ignoring U-Turning movement.

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

Unsignalized Delay for [EBT, WBR, 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)	5	1325	1051	153	494	4	523	2	130	3	10	4
Future Volume (veh/h)	5	1325	1051	153	494	4	523	2	130	3	10	4
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	5	1366	1084	187	602	5	568	2	141	4	14	6
Peak Hour Factor	0.97	0.97	0.97	0.82	0.82	0.82	0.92	0.92	0.92	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	497	1928	860	207	2377	20	647	350	297	7	23	10
Arrive On Green	0.54	0.54	0.54	0.07	0.66	0.66	0.19	0.19	0.19	0.02	0.02	0.02
Sat Flow, veh/h	813	3554	1585	1781	3612	30	3456	1870	1585	296	1036	444
Grp Volume(v), veh/h	5	1366	1084	187	296	311	568	2	141	24	0	0
Grp Sat Flow(s),veh/h/ln	813	1777	1585	1781	1777	1865	1728	1870	1585	1776	0	0
Q Serve(g_s), s	0.4	37.1	70.5	6.8	8.9	8.9	20.8	0.1	10.3	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.4	37.1	70.5	6.8	8.9	8.9	20.8	0.1	10.3	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.17		0.25
Lane Grp Cap(c), veh/h	497	1928	860	207	1169	1227	647	350	297	40	0	0
V/C Ratio(X)	0.01	0.71	1.26	0.90	0.25	0.25	0.88	0.01	0.47	0.61	0.00	0.00
Avail Cap(c_a), veh/h	497	1928	860	207	1169	1227	776	420	356	126	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	22.1	29.7	31.4	9.1	9.1	51.4	43.0	47.1	63.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.2	126.5	36.8	0.5	0.5	9.8	0.0	1.2	14.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	15.0	54.6	5.2	3.3	3.5	9.9	0.1	4.2	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	24.3	156.2	68.2	9.6	9.6	61.1	43.0	48.3	77.0	0.0	0.0
LnGrp LOS	B	C	F	E	A	A	E	D	D	E	A	A
Approach Vol, veh/h		2455			794			711			24	
Approach Delay, s/veh		82.5			23.4			58.5			77.0	
Approach LOS		F			C			E			E	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	91.1	8.7	15.0	76.1	30.2
Change Period (Y+Rc), s	* 5.6	* 5.8	* 6.5	* 5.6	5.8
Max Green Setting (Gmax), s	* 74	* 9.2	* 8.5	* 59	29.2
Max Q Clear Time (g_c+I1), s	10.9	3.7	8.8	72.5	22.8
Green Ext Time (p_c), s	3.6	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	66.4
HCM 6th LOS	E

Notes

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

Intersection	
Int Delay, s/veh	13.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	241	82	469	627	21
Future Vol, veh/h	17	241	82	469	627	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	284	90	515	814	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1523	828	841	0	-	0
Stage 1	828	-	-	-	-	-
Stage 2	695	-	-	-	-	-
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	130	371	794	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	371	794	-	-	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	361	-	-	-	-	-
Stage 2	495	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	74.9	1.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	794	-	320	-	-
HCM Lane V/C Ratio	0.113	-	0.949	-	-
HCM Control Delay (s)	10.1	0	74.9	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.4	-	9.7	-	-

Intersection	
Int Delay, s/veh	66.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	175	16	11	91	272	422
Future Vol, veh/h	175	16	11	91	272	422
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	77	77	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	201	18	14	118	299	464

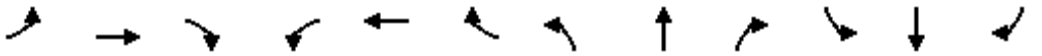
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	132	0	-	0	493	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	420	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1453	-	-	-	535	989
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1453	-	-	-	460	989
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	663	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	94.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1453	-	-	-	682
HCM Lane V/C Ratio	0.138	-	-	-	1.118
HCM Control Delay (s)	7.9	0	-	-	94.9
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	22.7

HCM 6th Signalized Intersection Summary
1: West Park Pl & Rockbridge Rd

05/29/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	13	238	0	48	10	456	154	9	1	89	368
Future Volume (veh/h)	102	13	238	0	48	10	456	154	9	1	89	368
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	14	0	0	60	12	480	162	9	1	96	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	164	251		0	105	20	1439	2417	133	2	1055	
Arrive On Green	0.05	0.13	0.00	0.00	0.04	0.04	0.70	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3060	576	3456	3424	189	1781	3554	1585
Grp Volume(v), veh/h	110	14	0	0	35	37	480	84	87	1	96	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1767	1728	1777	1836	1781	1777	1585
Q Serve(g_s), s	4.1	0.8	0.0	0.0	2.5	2.7	7.2	0.0	0.0	0.1	2.5	0.0
Cycle Q Clear(g_c), s	4.1	0.8	0.0	0.0	2.5	2.7	7.2	0.0	0.0	0.1	2.5	0.0
Prop In Lane	1.00		1.00	0.00		0.33	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	164	251		0	63	62	1439	1254	1296	2	1055	
V/C Ratio(X)	0.67	0.06		0.00	0.56	0.59	0.33	0.07	0.07	0.41	0.09	
Avail Cap(c_a), veh/h	486	555		0	186	185	1439	1254	1296	107	1055	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	0.00
Uniform Delay (d), s/veh	60.9	49.1	0.0	0.0	61.7	61.8	12.6	0.0	0.0	64.9	33.0	0.0
Incr Delay (d2), s/veh	4.7	0.1	0.0	0.0	7.6	8.5	0.1	0.1	0.1	84.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	0.0	0.0	1.3	1.3	2.4	0.0	0.0	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.6	49.2	0.0	0.0	69.3	70.3	12.8	0.1	0.1	149.6	33.2	0.0
LnGrp LOS	E	D		A	E	E	B	A	A	F	C	
Approach Vol, veh/h		124	A		72			651			97	A
Approach Delay, s/veh		63.7			69.8			9.5			34.4	
Approach LOS		E			E			A			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	61.1	45.0		23.9	7.4	98.8	12.9	11.0				
Change Period (Y+Rc), s	* 7	6.4		* 6.4	7.2	* 7	* 6.7	* 6.4				
Max Green Setting (Gmax), s	* 33	38.6		* 39	7.8	* 64	* 18	* 14				
Max Q Clear Time (g_c+I1), s	9.2	4.5		2.8	2.1	2.0	6.1	4.7				
Green Ext Time (p_c), s	1.6	0.5		0.0	0.0	0.9	0.2	0.1				

Intersection Summary		
HCM 6th Ctrl Delay		23.7
HCM 6th LOS		C

Notes

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

Unsignalized Delay for [EBR, 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)	0	0	0	19	4	0	1159	627	0	0	262	61
Future Volume (veh/h)	0	0	0	19	4	0	1159	627	0	0	262	61
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	0	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				25	5	0	1246	674	0	0	288	67
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	0	2	2	0	0	2	2
Cap, veh/h				53	29	0	1325	3147	0	0	1293	296
Arrive On Green				0.02	0.02	0.00	0.64	1.00	0.00	0.00	0.15	0.15
Sat Flow, veh/h				3456	1870	0	3456	3647	0	0	2965	657
Grp Volume(v), veh/h				25	5	0	1246	674	0	0	176	179
Grp Sat Flow(s),veh/h/ln				1728	1870	0	1728	1777	0	0	1777	1752
Q Serve(g_s), s				0.9	0.3	0.0	42.4	0.0	0.0	0.0	11.4	11.7
Cycle Q Clear(g_c), s				0.9	0.3	0.0	42.4	0.0	0.0	0.0	11.4	11.7
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				53	29	0	1325	3147	0	0	800	789
V/C Ratio(X)				0.47	0.18	0.00	0.94	0.21	0.00	0.00	0.22	0.23
Avail Cap(c_a), veh/h				221	119	0	1948	3147	0	0	800	789
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	0.00	0.61	0.61	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh				63.5	63.2	0.0	22.0	0.0	0.0	0.0	35.3	35.4
Incr Delay (d2), s/veh				6.5	2.9	0.0	4.8	0.1	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				0.5	0.2	0.0	11.9	0.0	0.0	0.0	5.4	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				70.0	66.1	0.0	26.8	0.1	0.0	0.0	35.8	36.0
LnGrp LOS				E	E	A	C	A	A	A	D	D
Approach Vol, veh/h					30			1920			355	
Approach Delay, s/veh					69.3			17.4			35.9	
Approach LOS					E			B			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	56.6	64.8		8.7		121.3						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 73	* 29		* 8.3		* 1.1E2						
Max Q Clear Time (g_c+I1), s	44.4	13.7		2.9		2.0						
Green Ext Time (p_c), s	5.5	1.6		0.0		4.8						

Intersection Summary	
HCM 6th Ctrl Delay	21.0
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)	122	20	410	0	0	0	0	1658	31	54	229	0
Future Volume (veh/h)	122	20	410	0	0	0	0	1658	31	54	229	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	163	27	0				0	1906	0	61	260	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	221	119					0	2703		79	3012	0
Arrive On Green	0.06	0.06	0.00				0.00	0.76	0.00	0.06	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	163	27	0				0	1906	0	61	260	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	6.0	1.8	0.0				0.0	36.0	0.0	4.4	0.0	0.0
Cycle Q Clear(g_c), s	6.0	1.8	0.0				0.0	36.0	0.0	4.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	221	119					0	2703		79	3012	0
V/C Ratio(X)	0.74	0.23					0.00	0.71		0.78	0.09	0.00
Avail Cap(c_a), veh/h	369	200					0	2703		197	3012	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	59.8	57.8	0.0				0.0	8.0	0.0	60.6	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.9	0.0				0.0	1.6	0.0	14.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.9	0.0				0.0	11.1	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.6	58.7	0.0				0.0	9.6	0.0	75.3	0.1	0.0
LnGrp LOS	E	E					A	A		E	A	A
Approach Vol, veh/h		190	A					1906	A		321	
Approach Delay, s/veh		63.7						9.6			14.3	
Approach LOS		E						A			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.3	104.3	14.4	115.6
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	14.4	* 85	13.9	* 1E2
Max Q Clear Time (g_c+I1), s	10.4	38.0	8.0	2.0
Green Ext Time (p_c), s	0.1	23.2	0.3	1.6

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

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

Unsignalized Delay for [NBR, 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)	45	981	75	102	32	69	741	349	20	96	50	88
Future Volume (veh/h)	45	981	75	102	32	69	741	349	20	96	50	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	1066	0	104	33	70	756	356	20	122	63	111
Peak Hour Factor	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2959		150	2796	918	599	588	33	159	70	63
Arrive On Green	0.04	0.58	0.00	0.04	0.58	0.58	0.17	0.17	0.17	0.05	0.04	0.04
Sat Flow, veh/h	3456	5106	1585	3456	4826	1585	3456	3421	192	3456	1777	1585
Grp Volume(v), veh/h	49	1066	0	104	33	70	756	184	192	122	63	111
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1728	1777	1836	1728	1777	1585
Q Serve(g_s), s	2.5	20.0	0.0	5.3	0.5	3.5	31.2	17.3	17.4	6.3	6.4	7.1
Cycle Q Clear(g_c), s	2.5	20.0	0.0	5.3	0.5	3.5	31.2	17.3	17.4	6.3	6.4	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	150	2959		150	2796	918	599	305	315	159	70	63
V/C Ratio(X)	0.33	0.36		0.69	0.01	0.08	1.26	0.60	0.61	0.77	0.90	1.78
Avail Cap(c_a), veh/h	161	2959		150	2796	918	599	305	315	175	70	63
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	83.6	20.1	0.0	84.9	16.0	16.7	74.4	68.9	68.9	84.9	86.1	86.5
Incr Delay (d2), s/veh	1.3	0.3	0.0	13.0	0.0	0.2	131.0	3.3	3.4	16.9	73.5	405.6
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	1.1	7.9	0.0	2.6	0.2	1.3	24.6	8.1	8.4	3.2	4.3	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.8	20.5	0.0	97.9	16.0	16.8	205.4	72.2	72.3	101.8	159.6	492.1
LnGrp LOS	F	C		F	B	B	F	E	E	F	F	F
Approach Vol, veh/h		1115	A		207			1132			296	
Approach Delay, s/veh		23.3			57.4			161.2			260.4	
Approach LOS		C			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	111.0	39.0	15.0	15.0	111.0	15.2	38.8
Change Period (Y+Rc), s	7.2	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 1E2	31.2	7.1	7.8	104.3	9.1	30.1
Max Q Clear Time (g_c+I1), s	4.5	5.5	33.2	9.1	7.3	22.0	8.3	19.4
Green Ext Time (p_c), s	0.0	0.6	0.0	0.0	0.0	8.8	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	108.1
HCM 6th LOS	F

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	856	34	19	880	444	143
Future Volume (veh/h)	856	34	19	880	444	143
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	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	945	0	23	1086	555	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	1063		492	2174	1952	
Arrive On Green	0.30	0.00	0.02	0.61	0.55	0.00
Sat Flow, veh/h	3563	1610	1781	3647	3647	1585
Grp Volume(v), veh/h	945	0	23	1086	555	0
Grp Sat Flow(s),veh/h/ln	1781	1610	1781	1777	1777	1585
Q Serve(g_s), s	32.9	0.0	0.7	22.2	10.8	0.0
Cycle Q Clear(g_c), s	32.9	0.0	0.7	22.2	10.8	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1063		492	2174	1952	
V/C Ratio(X)	0.89		0.05	0.50	0.28	
Avail Cap(c_a), veh/h	1622		586	2174	1952	
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	0.00
Uniform Delay (d), s/veh	43.6	0.0	11.9	14.1	15.7	0.0
Incr Delay (d2), s/veh	4.3	0.0	0.0	0.8	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	14.9	0.0	0.3	8.4	4.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.9	0.0	12.0	14.9	16.0	0.0
LnGrp LOS	D		B	B	B	
Approach Vol, veh/h	945	A		1109	555	A
Approach Delay, s/veh	47.9			14.9	16.0	
Approach LOS	D			B	B	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	85.4		8.1	77.3	44.6
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 59		* 9.7	* 44	59.2
Max Q Clear Time (g_c+I1), s	24.2		2.7	12.8	34.9
Green Ext Time (p_c), s	8.6		0.0	3.6	3.8

Intersection Summary	
HCM 6th Ctrl Delay	27.1
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.

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

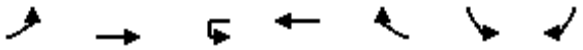
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	394	1022	22	3	2
Future Vol, veh/h	20	394	1022	22	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	91	91	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	505	1123	24	4	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1147	0	-	0	1440	574
Stage 1	-	-	-	-	1135	-
Stage 2	-	-	-	-	305	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	605	-	-	-	124	462
Stage 1	-	-	-	-	269	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	605	-	-	-	117	462
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	253	-
Stage 2	-	-	-	-	721	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	605	-	-	-	266
HCM Lane V/C Ratio	0.042	-	-	-	0.025
HCM Control Delay (s)	11.2	0.3	-	-	18.9
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	18	381	0	1062	1321	142	14
Future Volume (veh/h)	18	381	0	1062	1321	142	14
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	23	482		1130	0	189	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	50	2959		2700		251	
Arrive On Green	0.03	0.83		0.51	0.00	0.07	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	23	482		1130	0	189	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	1.7	3.4		25.8	0.0	7.0	0.0
Cycle Q Clear(g_c), s	1.7	3.4		25.8	0.0	7.0	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	50	2959		2700		251	
V/C Ratio(X)	0.46	0.16		0.42		0.75	
Avail Cap(c_a), veh/h	126	2959		2700		641	
HCM Platoon Ratio	1.00	1.00		0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	62.2	2.1		14.0	0.0	59.1	0.0
Incr Delay (d2), s/veh	6.4	0.1		0.5	0.0	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.7		11.2	0.0	3.1	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	68.6	2.2		14.5	0.0	63.6	0.0
LnGrp LOS	E	A		B		E	
Approach Vol, veh/h		505		1130	A	189	A
Approach Delay, s/veh		5.2		14.5		63.6	
Approach LOS		A		B		E	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	9.5	105.2		15.4		114.6	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	78.6		* 24		93.6	
Max Q Clear Time (g_c+I1), s	3.7	27.8		9.0		5.4	
Green Ext Time (p_c), s	0.0	9.7		0.5		3.2	

Intersection Summary	
HCM 6th Ctrl Delay	17.0
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.

Unsignalized Delay for [EBT, WBR, 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)	0	285	336	66	1834	2	810	1	64	0	0	0
Future Volume (veh/h)	0	285	336	66	1834	2	810	1	64	0	0	0
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	0	356	0	70	1951	2	854	0	67	0	0	0
Peak Hour Factor	0.80	0.80	0.80	0.94	0.94	0.94	0.95	0.95	0.95	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	1648		533	2001	2	1266	0	563	0	1	0
Arrive On Green	0.00	0.46	0.00	0.04	0.55	0.55	0.36	0.00	0.36	0.00	0.00	0.00
Sat Flow, veh/h	225	3554	1585	1781	3643	4	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	356	0	70	951	1002	854	0	67	0	0	0
Grp Sat Flow(s),veh/h/ln	225	1777	1585	1781	1777	1870	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	7.8	0.0	2.6	67.6	67.6	26.4	0.0	3.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.8	0.0	2.6	67.6	67.6	26.4	0.0	3.7	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	55	1648		533	976	1027	1266	0	563	0	1	0
V/C Ratio(X)	0.00	0.22		0.13	0.97	0.98	0.67	0.00	0.12	0.00	0.00	0.00
Avail Cap(c_a), veh/h	55	1648		586	976	1027	1266	0	563	0	132	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)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	20.8	0.0	16.3	28.4	28.4	35.5	0.0	28.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.1	23.4	22.7	2.9	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	0.0	1.0	32.4	33.9	12.0	0.0	1.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.1	0.0	16.4	51.8	51.2	38.4	0.0	28.6	0.0	0.0	0.0
LnGrp LOS	A	C		B	D	D	D	A	C	A	A	A
Approach Vol, veh/h		356	A		2023			921			0	
Approach Delay, s/veh		21.1			50.3			37.7			0.0	
Approach LOS		C			D			D				

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		77.0		0.0	11.1	65.9		53.0				
Change Period (Y+Rc), s		* 5.6		* 5.8	* 6.5	* 5.6		6.8				
Max Green Setting (Gmax), s		* 56		* 9.2	* 8.5	* 41		46.2				
Max Q Clear Time (g_c+I1), s		69.6		0.0	4.6	9.8		28.4				
Green Ext Time (p_c), s		0.0		0.0	0.0	2.2		3.5				

Intersection Summary		
HCM 6th Ctrl Delay		43.6
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 [EBR] is excluded from calculations of the approach delay and intersection delay.

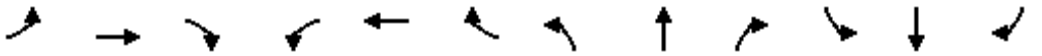
Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	83	980	295
Demand Flow Rate, veh/h	83	992	301
Vehicles Circulating, veh/h	284	21	390
Vehicles Exiting, veh/h	407	346	623
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.2	13.4	7.5
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	83	992	301
Cap Entry Lane, veh/h	1033	1351	927
Entry HV Adj Factor	1.000	0.988	0.981
Flow Entry, veh/h	83	980	295
Cap Entry, veh/h	1033	1335	910
V/C Ratio	0.080	0.734	0.325
Control Delay, s/veh	4.2	13.4	7.5
LOS	A	B	A
95th %tile Queue, veh	0	7	1

HCM 6th Signalized Intersection Summary
1: West Park Pl & Rockbridge Rd

05/29/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	288	72	678	0	141	21	428	200	38	3	139	310
Future Volume (veh/h)	288	72	678	0	141	21	428	200	38	3	139	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		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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	310	77	0	0	176	26	451	211	40	3	149	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	374	427		0	243	35	1311	1916	357	7	929	
Arrive On Green	0.11	0.23	0.00	0.00	0.08	0.08	0.63	1.00	1.00	0.00	0.26	0.00
Sat Flow, veh/h	3456	1870	1585	0	3207	453	3456	2990	557	1781	3554	1585
Grp Volume(v), veh/h	310	77	0	0	99	103	451	124	127	3	149	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1789	1728	1777	1770	1781	1777	1585
Q Serve(g_s), s	11.4	4.3	0.0	0.0	7.1	7.3	8.0	0.0	0.0	0.2	4.2	0.0
Cycle Q Clear(g_c), s	11.4	4.3	0.0	0.0	7.1	7.3	8.0	0.0	0.0	0.2	4.2	0.0
Prop In Lane	1.00		1.00	0.00		0.25	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	374	427		0	138	139	1311	1139	1134	7	929	
V/C Ratio(X)	0.83	0.18		0.00	0.72	0.74	0.34	0.11	0.11	0.43	0.16	
Avail Cap(c_a), veh/h	550	712		0	318	321	1311	1139	1134	130	929	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	40.4	0.0	0.0	58.5	58.6	16.2	0.0	0.0	64.6	37.0	0.0
Incr Delay (d2), s/veh	6.8	0.2	0.0	0.0	6.8	7.4	0.2	0.2	0.2	36.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	2.0	0.0	0.0	3.4	3.6	2.7	0.1	0.1	0.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.6	40.6	0.0	0.0	65.3	66.0	16.4	0.2	0.2	100.7	37.4	0.0
LnGrp LOS	E	D		A	E	E	B	A	A	F	D	
Approach Vol, veh/h		387	A		202			702			152	A
Approach Delay, s/veh		59.0			65.6			10.6			38.6	
Approach LOS		E			E			B			D	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	54.8	40.0		35.2	6.0	88.8	19.6	15.6				
Change Period (Y+Rc), s	5.5	6.0		5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	29.5	34.0		49.5	9.5	54.5	20.7	23.3				
Max Q Clear Time (g_c+I1), s	10.0	6.2		6.3	2.2	2.0	13.4	9.3				
Green Ext Time (p_c), s	1.5	0.8		0.4	0.0	1.4	0.6	0.8				

Intersection Summary			
HCM 6th Ctrl Delay		34.2	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [EBR, 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)	0	0	0	45	16	3	404	657	0	0	754	56
Future Volume (veh/h)	0	0	0	45	16	3	404	657	0	0	754	56
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				60	21	4	434	706	0	0	829	62
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				112	49	9	515	3086	0	0	2238	167
Arrive On Green				0.03	0.03	0.03	0.15	0.87	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3456	1527	291	3456	3647	0	0	3445	251
Grp Volume(v), veh/h				60	0	25	434	706	0	0	439	452
Grp Sat Flow(s),veh/h/ln				1728	0	1818	1728	1777	0	0	1777	1825
Q Serve(g_s), s				2.2	0.0	1.8	15.9	4.2	0.0	0.0	27.3	27.3
Cycle Q Clear(g_c), s				2.2	0.0	1.8	15.9	4.2	0.0	0.0	27.3	27.3
Prop In Lane				1.00		0.16	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h				112	0	59	515	3086	0	0	1187	1219
V/C Ratio(X)				0.54	0.00	0.43	0.84	0.23	0.00	0.00	0.37	0.37
Avail Cap(c_a), veh/h				486	0	256	1151	3086	0	0	1187	1219
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.87	0.87	0.00	0.00	0.71	0.71
Uniform Delay (d), s/veh				61.9	0.0	61.7	53.8	1.4	0.0	0.0	27.5	27.5
Incr Delay (d2), s/veh				4.0	0.0	4.8	3.4	0.2	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				1.0	0.0	0.9	7.0	0.6	0.0	0.0	13.1	13.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				65.9	0.0	66.5	57.2	1.6	0.0	0.0	28.1	28.1
LnGrp LOS				E	A	E	E	A	A	A	C	C
Approach Vol, veh/h					85			1140			891	
Approach Delay, s/veh					66.1			22.7			28.1	
Approach LOS					E			C			C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	26.1	93.0		10.9		119.1						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 13	* 49		* 18		* 99						
Max Q Clear Time (g_c+I1), s	17.9	29.3		4.2		6.2						
Green Ext Time (p_c), s	1.5	5.0		0.2		5.1						

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	347	312	1664	0	0	0	0	724	80	98	703	0
Future Volume (veh/h)	347	312	1664	0	0	0	0	724	80	98	703	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	463	416	0				0	832	0	111	799	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	854	462					0	1937		136	2361	0
Arrive On Green	0.25	0.25	0.00				0.00	0.55	0.00	0.15	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	463	416	0				0	832	0	111	799	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	15.1	28.0	0.0				0.0	18.1	0.0	7.8	0.0	0.0
Cycle Q Clear(g_c), s	15.1	28.0	0.0				0.0	18.1	0.0	7.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	854	462					0	1937		136	2361	0
V/C Ratio(X)	0.54	0.90					0.00	0.43		0.82	0.34	0.00
Avail Cap(c_a), veh/h	1034	560					0	1937		471	2361	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.93	0.93	0.00
Uniform Delay (d), s/veh	42.6	47.4	0.0				0.0	17.6	0.0	54.2	0.0	0.0
Incr Delay (d2), s/veh	0.5	15.6	0.0				0.0	0.7	0.0	10.5	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	6.4	14.6	0.0				0.0	7.2	0.0	3.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	63.0	0.0				0.0	18.3	0.0	64.8	0.4	0.0
LnGrp LOS	D	E					A	B		E	A	A
Approach Vol, veh/h		879	A					832	A		910	
Approach Delay, s/veh		52.5						18.3			8.2	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	15.5	76.3	38.2	91.8
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	34.4	* 40	38.9	* 80
Max Q Clear Time (g_c+I1), s	19.8	20.1	30.0	2.0
Green Ext Time (p_c), s	0.3	5.2	2.1	6.0

Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Notes

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

Unsignalized Delay for [NBR, 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)	61	1987	121	152	1274	186	320	192	184	265	177	45
Future Volume (veh/h)	61	1987	121	152	1274	186	320	192	184	265	177	45
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	84	2722	0	179	1499	219	352	211	202	273	182	46
Peak Hour Factor	0.73	0.73	0.73	0.85	0.85	0.85	0.91	0.91	0.91	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	666	3112		150	2978	734	399	340	152	318	239	107
Arrive On Green	0.19	0.61	0.00	0.04	0.46	0.46	0.12	0.10	0.10	0.09	0.07	0.07
Sat Flow, veh/h	3456	5106	1585	3456	6434	1585	3456	3554	1585	3456	3554	1585
Grp Volume(v), veh/h	84	2722	0	179	1499	219	352	211	202	273	182	46
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1728	1777	1585	1728	1777	1585
Q Serve(g_s), s	3.6	80.3	0.0	7.8	29.4	9.8	18.1	10.3	12.0	14.0	9.1	5.0
Cycle Q Clear(g_c), s	3.6	80.3	0.0	7.8	29.4	9.8	18.1	10.3	12.0	14.0	9.1	5.0
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	666	3112		150	2978	734	399	340	152	318	239	107
V/C Ratio(X)	0.13	0.87		1.20	0.50	0.30	0.88	0.62	1.33	0.86	0.76	0.43
Avail Cap(c_a), veh/h	666	3112		150	2978	734	522	713	318	463	634	283
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	60.1	29.4	0.0	86.1	33.9	12.2	78.4	78.2	39.6	80.6	82.5	80.6
Incr Delay (d2), s/veh	0.1	3.8	0.0	135.6	0.6	1.0	13.3	1.9	167.6	10.5	4.9	2.7
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	1.6	32.1	0.0	6.3	11.5	3.6	8.7	4.8	11.7	6.7	4.3	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.2	33.2	0.0	221.7	34.5	13.2	91.7	80.1	207.2	91.0	87.4	83.4
LnGrp LOS	E	C		F	C	B	F	F	F	F	F	F
Approach Vol, veh/h		2806	A		1897			765			501	
Approach Delay, s/veh		34.0			49.7			119.0			89.0	
Approach LOS		C			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.4	90.0	28.6	20.0	15.0	116.4	23.5	25.1
Change Period (Y+Rc), s	6.7	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	34.7	* 83	27.2	32.1	7.8	83.3	24.1	36.1
Max Q Clear Time (g_c+I1), s	15.6	31.4	20.1	11.1	9.8	82.3	16.0	14.0
Green Ext Time (p_c), s	0.0	12.5	0.7	1.1	0.0	1.0	0.6	1.8

Intersection Summary	
HCM 6th Ctrl Delay	54.5
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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	301	34	49	416	1649	703
Future Volume (veh/h)	301	34	49	416	1649	703
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	1900	1870	1870	1900
Adj Flow Rate, veh/h	354	0	60	514	2061	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	0	0	0	2	2	0
Cap, veh/h	426		184	2815	2549	
Arrive On Green	0.12	0.00	0.03	0.79	0.72	0.00
Sat Flow, veh/h	3619	1610	1810	3647	3647	1610
Grp Volume(v), veh/h	354	0	60	514	2061	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1777	1777	1610
Q Serve(g_s), s	12.4	0.0	1.0	4.6	50.7	0.0
Cycle Q Clear(g_c), s	12.4	0.0	1.0	4.6	50.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	426		184	2815	2549	
V/C Ratio(X)	0.83		0.33	0.18	0.81	
Avail Cap(c_a), veh/h	674		258	2815	2549	
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	0.00
Uniform Delay (d), s/veh	56.1	0.0	18.7	3.3	12.4	0.0
Incr Delay (d2), s/veh	5.0	0.0	1.0	0.1	2.9	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	5.9	0.0	1.0	1.2	17.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.0	0.0	19.8	3.4	15.2	0.0
LnGrp LOS	E		B	A	B	
Approach Vol, veh/h	354	A		574	2061	A
Approach Delay, s/veh	61.0			5.1	15.2	
Approach LOS	E			A	B	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	108.9		9.7	99.2	21.1
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 94		* 9.7	* 79	24.2
Max Q Clear Time (g_c+I1), s	6.6		3.0	52.7	14.4
Green Ext Time (p_c), s	3.5		0.0	18.4	0.9

Intersection Summary	
HCM 6th Ctrl Delay	18.7
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 [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

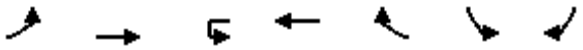
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1688	351	4	11	27
Future Vol, veh/h	4	1688	351	4	11	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	91	91	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	2164	386	4	15	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	390	0	-	0	1480	195
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	1092	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1165	-	-	-	116	814
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	283	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1165	-	-	-	116	814
Mov Cap-2 Maneuver	-	-	-	-	220	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	283	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1165	-	-	-	457
HCM Lane V/C Ratio	0.004	-	-	-	0.111
HCM Control Delay (s)	8.1	0	-	-	13.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	23	1708	0	291	567	489	39
Future Volume (veh/h)	23	1708	0	291	567	489	39
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	29	2162		310	0	652	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	56	2458		2188		738	
Arrive On Green	0.03	0.69		1.00	0.00	0.21	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	29	2162		310	0	652	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	2.1	62.3		0.0	0.0	23.8	0.0
Cycle Q Clear(g_c), s	2.1	62.3		0.0	0.0	23.8	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	56	2458		2188		738	
V/C Ratio(X)	0.52	0.88		0.14		0.88	
Avail Cap(c_a), veh/h	126	2458		2188		1225	
HCM Platoon Ratio	1.00	1.00		1.67	1.67	1.00	1.00
Upstream Filter(I)	1.00	1.00		0.97	0.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	15.8		0.0	0.0	49.5	0.0
Incr Delay (d2), s/veh	7.2	4.9		0.1	0.0	4.5	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	1.0	22.6		0.0	0.0	10.4	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	69.2	20.7		0.1	0.0	54.0	0.0
LnGrp LOS	E	C		A		D	
Approach Vol, veh/h		2191		310	A	652	A
Approach Delay, s/veh		21.3		0.1		54.0	
Approach LOS		C		A		D	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	9.9	86.4		33.7		96.3	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	56.6		* 46		71.6	
Max Q Clear Time (g_c+I1), s	4.1	2.0		25.8		64.3	
Green Ext Time (p_c), s	0.0	2.0		2.0		6.5	

Intersection Summary		
HCM 6th Ctrl Delay	26.0	
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.

Unsignalized Delay for [EBT, WBR, 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)	5	1325	1051	153	494	4	523	2	130	3	10	4
Future Volume (veh/h)	5	1325	1051	153	494	4	523	2	130	3	10	4
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	5	1366	0	187	602	5	569	0	141	4	14	6
Peak Hour Factor	0.97	0.97	0.97	0.82	0.82	0.82	0.92	0.92	0.92	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	501	1948		268	2377	20	667	0	297	7	23	10
Arrive On Green	0.55	0.55	0.00	0.06	0.66	0.66	0.19	0.00	0.19	0.02	0.02	0.02
Sat Flow, veh/h	813	3554	1585	1781	3612	30	3563	0	1585	296	1036	444
Grp Volume(v), veh/h	5	1366	0	187	296	311	569	0	141	24	0	0
Grp Sat Flow(s),veh/h/ln	813	1777	1585	1781	1777	1865	1781	0	1585	1776	0	0
Q Serve(g_s), s	0.4	36.7	0.0	5.7	8.9	8.9	20.1	0.0	10.3	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.4	36.7	0.0	5.7	8.9	8.9	20.1	0.0	10.3	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.17		0.25
Lane Grp Cap(c), veh/h	501	1948		268	1169	1227	667	0	297	40	0	0
V/C Ratio(X)	0.01	0.70		0.70	0.25	0.25	0.85	0.00	0.47	0.61	0.00	0.00
Avail Cap(c_a), veh/h	501	1948		278	1169	1227	965	0	429	126	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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.3	21.5	0.0	21.1	9.1	9.1	51.1	0.0	47.1	63.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.1	0.0	7.2	0.5	0.5	5.2	0.0	1.2	14.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	14.7	0.0	3.1	3.3	3.5	9.4	0.0	4.2	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.4	23.7	0.0	28.3	9.6	9.6	56.3	0.0	48.3	77.0	0.0	0.0
LnGrp LOS	B	C		C	A	A	E	A	D	E	A	A
Approach Vol, veh/h		1371	A		794			710			24	
Approach Delay, s/veh		23.6			14.0			54.7			77.0	
Approach LOS		C			B			D			E	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	91.1	8.7	14.3	76.9	30.2
Change Period (Y+Rc), s	* 5.6	* 5.8	* 6.5	* 5.6	5.8
Max Green Setting (Gmax), s	* 68	* 9.2	* 8.5	* 53	35.2
Max Q Clear Time (g_c+I1), s	10.9	3.7	7.7	38.7	22.1
Green Ext Time (p_c), s	3.6	0.0	0.0	8.0	2.3

Intersection Summary	
HCM 6th Ctrl Delay	29.1
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.

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

Intersection	
Intersection Delay, s/veh	11.0
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	304	605	841
Demand Flow Rate, veh/h	304	617	858
Vehicles Circulating, veh/h	830	20	92
Vehicles Exiting, veh/h	120	1114	545
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	14.9	7.3	12.4
Approach LOS	B	A	B

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	304	617	858
Cap Entry Lane, veh/h	592	1352	1256
Entry HV Adj Factor	1.000	0.980	0.980
Flow Entry, veh/h	304	605	841
Cap Entry, veh/h	592	1325	1231
V/C Ratio	0.514	0.456	0.683
Control Delay, s/veh	14.9	7.3	12.4
LOS	B	A	B
95th %tile Queue, veh	3	2	6

Intersection	
Int Delay, s/veh	13.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	175	16	11	91	272	422
Future Vol, veh/h	175	16	11	91	272	422
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	77	77	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	201	18	14	118	299	464

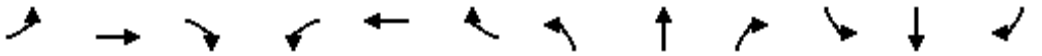
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	132	0	-	0	493	73
Stage 1	-	-	-	-	73	-
Stage 2	-	-	-	-	420	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1453	-	-	-	535	989
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1453	-	-	-	460	989
Mov Cap-2 Maneuver	-	-	-	-	460	-
Stage 1	-	-	-	-	817	-
Stage 2	-	-	-	-	663	-

Approach	EB	WB	SB
HCM Control Delay, s	7.2	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1453	-	-	-	460	989
HCM Lane V/C Ratio	0.138	-	-	-	0.65	0.469
HCM Control Delay (s)	7.9	0	-	-	26.2	11.8
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.5	-	-	-	4.5	2.6

HCM 6th Signalized Intersection Summary
1: West Park Pl & Rockbridge Rd

05/29/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	13	245	0	49	10	470	159	9	1	92	379
Future Volume (veh/h)	105	13	245	0	49	10	470	159	9	1	92	379
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	14	0	0	61	12	495	167	9	1	99	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	167	254		0	106	20	1434	2417	129	2	1055	
Arrive On Green	0.05	0.14	0.00	0.00	0.04	0.04	0.69	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3069	569	3456	3430	184	1781	3554	1585
Grp Volume(v), veh/h	113	14	0	0	36	37	495	86	90	1	99	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1768	1728	1777	1837	1781	1777	1585
Q Serve(g_s), s	4.2	0.8	0.0	0.0	2.6	2.7	7.5	0.0	0.0	0.1	2.6	0.0
Cycle Q Clear(g_c), s	4.2	0.8	0.0	0.0	2.6	2.7	7.5	0.0	0.0	0.1	2.6	0.0
Prop In Lane	1.00		1.00	0.00		0.32	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	167	254		0	63	63	1434	1252	1294	2	1055	
V/C Ratio(X)	0.67	0.06		0.00	0.56	0.59	0.35	0.07	0.07	0.41	0.09	
Avail Cap(c_a), veh/h	486	555		0	186	185	1434	1252	1294	107	1055	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00
Uniform Delay (d), s/veh	60.8	48.9	0.0	0.0	61.7	61.7	12.8	0.0	0.0	64.9	33.1	0.0
Incr Delay (d2), s/veh	4.7	0.1	0.0	0.0	7.6	8.5	0.1	0.1	0.1	84.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	0.0	0.0	1.3	1.4	2.5	0.0	0.0	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	49.0	0.0	0.0	69.3	70.2	13.0	0.1	0.1	149.6	33.2	0.0
LnGrp LOS	E	D		A	E	E	B	A	A	F	C	
Approach Vol, veh/h		127	A		73			671			100	A
Approach Delay, s/veh		63.7			69.8			9.6			34.4	
Approach LOS		E			E			A			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	61.0	45.0		24.0	7.4	98.6	13.0	11.0				
Change Period (Y+Rc), s	* 7	6.4		* 6.4	7.2	* 7	* 6.7	* 6.4				
Max Green Setting (Gmax), s	* 33	38.6		* 39	7.8	* 64	* 18	* 14				
Max Q Clear Time (g_c+I1), s	9.5	4.6		2.8	2.1	2.0	6.2	4.7				
Green Ext Time (p_c), s	1.7	0.5		0.0	0.0	0.9	0.2	0.2				

Intersection Summary			
HCM 6th Ctrl Delay		23.7	
HCM 6th LOS		C	

Notes

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

Unsignalized Delay for [EBR, 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)	0	0	0	20	4	0	1194	646	0	0	270	63
Future Volume (veh/h)	0	0	0	20	4	0	1194	646	0	0	270	63
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	0	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				27	5	0	1284	695	0	0	297	69
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	0	2	2	0	0	2	2
Cap, veh/h				55	30	0	1362	3145	0	0	1261	289
Arrive On Green				0.02	0.02	0.00	0.66	1.00	0.00	0.00	0.14	0.14
Sat Flow, veh/h				3456	1870	0	3456	3647	0	0	2965	657
Grp Volume(v), veh/h				27	5	0	1284	695	0	0	182	184
Grp Sat Flow(s),veh/h/ln				1728	1870	0	1728	1777	0	0	1777	1752
Q Serve(g_s), s				1.0	0.3	0.0	43.5	0.0	0.0	0.0	11.8	12.1
Cycle Q Clear(g_c), s				1.0	0.3	0.0	43.5	0.0	0.0	0.0	11.8	12.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				55	30	0	1362	3145	0	0	780	770
V/C Ratio(X)				0.49	0.17	0.00	0.94	0.22	0.00	0.00	0.23	0.24
Avail Cap(c_a), veh/h				221	119	0	1948	3145	0	0	780	770
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	0.00	0.57	0.57	0.00	0.00	0.91	0.91
Uniform Delay (d), s/veh				63.4	63.1	0.0	20.9	0.0	0.0	0.0	36.2	36.3
Incr Delay (d2), s/veh				6.6	2.6	0.0	4.9	0.1	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				0.5	0.2	0.0	11.8	0.0	0.0	0.0	5.6	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				70.1	65.7	0.0	25.8	0.1	0.0	0.0	36.8	37.0
LnGrp LOS				E	E	A	C	A	A	A	D	D
Approach Vol, veh/h					32			1979			366	
Approach Delay, s/veh					69.4			16.7			36.9	
Approach LOS					E			B			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	57.9	63.3		8.8		121.2						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 73	* 29		* 8.3		* 1.1E2						
Max Q Clear Time (g_c+I1), s	45.5	14.1		3.0		2.0						
Green Ext Time (p_c), s	5.7	1.6		0.0		5.0						

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	21	422	0	0	0	0	1708	32	56	236	0
Future Volume (veh/h)	126	21	422	0	0	0	0	1708	32	56	236	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	168	28	0				0	1963	0	64	268	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	226	122					0	2690		82	3007	0
Arrive On Green	0.07	0.07	0.00				0.00	0.76	0.00	0.06	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	168	28	0				0	1963	0	64	268	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	6.2	1.8	0.0				0.0	39.0	0.0	4.6	0.0	0.0
Cycle Q Clear(g_c), s	6.2	1.8	0.0				0.0	39.0	0.0	4.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	226	122					0	2690		82	3007	0
V/C Ratio(X)	0.74	0.23					0.00	0.73		0.78	0.09	0.00
Avail Cap(c_a), veh/h	369	200					0	2690		197	3007	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	59.7	57.6	0.0				0.0	8.6	0.0	60.4	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.9	0.0				0.0	1.8	0.0	14.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.9	0.0				0.0	12.1	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	58.6	0.0				0.0	10.4	0.0	74.5	0.1	0.0
LnGrp LOS	E	E					A	B		E	A	A
Approach Vol, veh/h		196	A					1963	A		332	
Approach Delay, s/veh		63.6						10.4			14.4	
Approach LOS		E						B			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.6	103.8	14.6	115.4
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	14.4	* 85	13.9	* 1E2
Max Q Clear Time (g_c+I1), s	10.6	41.0	8.2	2.0
Green Ext Time (p_c), s	0.1	23.6	0.3	1.7

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

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

Unsignalized Delay for [NBR, 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)	46	1011	77	105	33	71	763	360	21	99	52	91
Future Volume (veh/h)	46	1011	77	105	33	71	763	360	21	99	52	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	1099	0	107	34	72	779	367	21	125	66	115
Peak Hour Factor	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2959		150	2796	918	599	584	33	162	70	63
Arrive On Green	0.04	0.58	0.00	0.04	0.58	0.58	0.17	0.17	0.17	0.05	0.04	0.04
Sat Flow, veh/h	3456	5106	1585	3456	4826	1585	3456	3417	195	3456	1777	1585
Grp Volume(v), veh/h	50	1099	0	107	34	72	779	190	198	125	66	115
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1728	1777	1835	1728	1777	1585
Q Serve(g_s), s	2.5	20.8	0.0	5.5	0.5	3.6	31.2	17.9	18.0	6.4	6.7	7.1
Cycle Q Clear(g_c), s	2.5	20.8	0.0	5.5	0.5	3.6	31.2	17.9	18.0	6.4	6.7	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	150	2959		150	2796	918	599	304	314	162	70	63
V/C Ratio(X)	0.33	0.37		0.71	0.01	0.08	1.30	0.63	0.63	0.77	0.94	1.84
Avail Cap(c_a), veh/h	161	2959		150	2796	918	599	304	314	175	70	63
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	83.6	20.3	0.0	85.0	16.0	16.7	74.4	69.3	69.3	84.8	86.2	86.5
Incr Delay (d2), s/veh	1.3	0.4	0.0	14.9	0.0	0.2	147.2	4.0	4.0	17.7	87.2	432.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.2	0.0	2.8	0.2	1.4	25.9	8.4	8.8	3.3	4.7	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.9	20.6	0.0	99.9	16.0	16.8	221.6	73.3	73.4	102.5	173.4	519.2
LnGrp LOS	F	C		F	B	B	F	E	E	F	F	F
Approach Vol, veh/h		1149	A		213			1167			306	
Approach Delay, s/veh		23.4			58.4			172.3			274.4	
Approach LOS		C			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	111.0	39.0	15.0	15.0	111.0	15.3	38.7
Change Period (Y+Rc), s	7.2	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 1E2	31.2	7.1	7.8	104.3	9.1	30.1
Max Q Clear Time (g_c+I1), s	4.5	5.6	33.2	9.1	7.5	22.8	8.4	20.0
Green Ext Time (p_c), s	0.0	0.7	0.0	0.0	0.0	9.2	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	114.4
HCM 6th LOS	F

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	882	35	20	907	457	147
Future Volume (veh/h)	882	35	20	907	457	147
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	938	0	25	1120	571	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	880		288	1479	1253	
Arrive On Green	0.49	0.00	0.02	0.42	0.35	0.00
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	938	0	25	1120	571	0
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	64.2	0.0	1.1	34.9	16.1	0.0
Cycle Q Clear(g_c), s	64.2	0.0	1.1	34.9	16.1	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	880		288	1479	1253	
V/C Ratio(X)	1.07		0.09	0.76	0.46	
Avail Cap(c_a), veh/h	880		381	1479	1253	
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	0.00
Uniform Delay (d), s/veh	32.9	0.0	25.8	32.4	32.5	0.0
Incr Delay (d2), s/veh	49.6	0.0	0.1	3.7	1.2	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	38.5	0.0	0.5	15.1	6.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	82.5	0.0	25.9	36.0	33.7	0.0
LnGrp LOS	F		C	D	C	
Approach Vol, veh/h	938	A		1145	571	A
Approach Delay, s/veh	82.5			35.8	33.7	
Approach LOS	F			D	C	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	60.0		8.3	51.7	70.0
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 54		* 9.7	* 39	64.2
Max Q Clear Time (g_c+I1), s	36.9		3.1	18.1	66.2
Green Ext Time (p_c), s	7.0		0.0	3.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

Notes

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

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

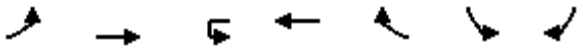
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	406	1053	23	3	2
Future Vol, veh/h	21	406	1053	23	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	91	91	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	521	1157	25	4	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1182	0	-	0	1485	591
Stage 1	-	-	-	-	1170	-
Stage 2	-	-	-	-	315	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	587	-	-	-	115	450
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	587	-	-	-	108	450
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	713	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	587	-	-	-	254
HCM Lane V/C Ratio	0.046	-	-	-	0.026
HCM Control Delay (s)	11.4	0.3	-	-	19.6
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	19	393	0	1094	1361	146	14
Future Volume (veh/h)	19	393	0	1094	1361	146	14
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	24	497		1164	0	195	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	51	2953		2692		258	
Arrive On Green	0.03	0.83		0.51	0.00	0.07	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	24	497		1164	0	195	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	1.7	3.6		26.9	0.0	7.2	0.0
Cycle Q Clear(g_c), s	1.7	3.6		26.9	0.0	7.2	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	51	2953		2692		258	
V/C Ratio(X)	0.47	0.17		0.43		0.76	
Avail Cap(c_a), veh/h	126	2953		2692		641	
HCM Platoon Ratio	1.00	1.00		0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	62.2	2.2		14.4	0.0	59.0	0.0
Incr Delay (d2), s/veh	6.5	0.1		0.5	0.0	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.8		11.7	0.0	3.2	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	68.7	2.3		14.9	0.0	63.5	0.0
LnGrp LOS	E	A		B		E	
Approach Vol, veh/h		521		1164	A	195	A
Approach Delay, s/veh		5.3		14.9		63.5	
Approach LOS		A		B		E	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	9.5	104.9		15.6		114.4	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	78.6		* 24		93.6	
Max Q Clear Time (g_c+I1), s	3.7	28.9		9.2		5.6	
Green Ext Time (p_c), s	0.0	10.1		0.5		3.3	

Intersection Summary	
HCM 6th Ctrl Delay	17.3
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.

Unsignalized Delay for [EBT, WBR, 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)	0	294	346	68	1889	2	834	1	66	0	0	0
Future Volume (veh/h)	0	294	346	68	1889	2	834	1	66	0	0	0
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	0	368	432	72	2010	2	879	0	69	0	0	0
Peak Hour Factor	0.80	0.80	0.80	0.94	0.94	0.94	0.95	0.95	0.95	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	1593	710	380	1945	2	1321	0	588	0	1	0
Arrive On Green	0.00	0.45	0.45	0.04	0.53	0.53	0.37	0.00	0.37	0.00	0.00	0.00
Sat Flow, veh/h	213	3554	1585	1781	3643	4	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	368	432	72	980	1032	879	0	69	0	0	0
Grp Sat Flow(s),veh/h/ln	213	1777	1585	1781	1777	1870	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	8.3	26.9	2.7	69.4	69.4	26.8	0.0	3.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.3	26.9	2.7	69.4	69.4	26.8	0.0	3.7	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	55	1593	710	380	949	998	1321	0	588	0	1	0
V/C Ratio(X)	0.00	0.23	0.61	0.19	1.03	1.03	0.67	0.00	0.12	0.00	0.00	0.00
Avail Cap(c_a), veh/h	55	1593	710	433	949	998	1321	0	588	0	132	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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	22.1	27.2	17.4	30.3	30.3	34.2	0.0	26.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	3.8	0.2	38.1	37.5	2.7	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	10.5	1.1	37.0	38.8	12.0	0.0	1.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.4	31.0	17.7	68.4	67.8	36.8	0.0	27.3	0.0	0.0	0.0
LnGrp LOS	A	C	C	B	F	F	D	A	C	A	A	A
Approach Vol, veh/h		800			2084			948			0	
Approach Delay, s/veh		27.1			66.4			36.1			0.0	
Approach LOS		C			E			D				

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	75.0	0.0	11.1	63.9	55.0
Change Period (Y+Rc), s	* 5.6	* 5.8	* 6.5	* 5.6	6.8
Max Green Setting (Gmax), s	* 54	* 9.2	* 8.5	* 39	48.2
Max Q Clear Time (g_c+I1), s	71.4	0.0	4.7	28.9	28.8
Green Ext Time (p_c), s	0.0	0.0	0.0	2.8	3.7

Intersection Summary	
HCM 6th Ctrl Delay	50.7
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.

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	55	366	553	220	13
Future Vol, veh/h	19	55	366	553	220	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	65	402	608	286	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1707	295	303	0	-	0
Stage 1	295	-	-	-	-	-
Stage 2	1412	-	-	-	-	-
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	100	744	1258	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	52	744	1258	-	-	-
Mov Cap-2 Maneuver	52	-	-	-	-	-
Stage 1	391	-	-	-	-	-
Stage 2	225	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	47.4	3.7	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1258	-	168	-	-
HCM Lane V/C Ratio	0.32	-	0.518	-	-
HCM Control Delay (s)	9.2	0	47.4	-	-
HCM Lane LOS	A	A	E	-	-
HCM 95th %tile Q(veh)	1.4	-	2.6	-	-

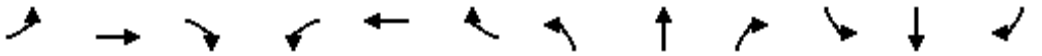
Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	451	8	33	470	32	116
Future Vol, veh/h	451	8	33	470	32	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	86	86	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	501	9	38	547	38	138

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	585	0	-	0	1323	312
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	1011	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	990	-	-	-	172	728
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	352	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	990	-	-	-	84	728
Mov Cap-2 Maneuver	-	-	-	-	84	-
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	352	-

Approach	EB	WB	SB
HCM Control Delay, s	12.1	0	39.1
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	990	-	-	-	274
HCM Lane V/C Ratio	0.506	-	-	-	0.643
HCM Control Delay (s)	12.3	0	-	-	39.1
HCM Lane LOS	B	A	-	-	E
HCM 95th %tile Q(veh)	2.9	-	-	-	4.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	74	698	0	145	22	441	206	39	3	143	319
Future Volume (veh/h)	297	74	698	0	145	22	441	206	39	3	143	319
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	319	80	0	0	181	28	464	217	41	3	154	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	383	436		0	248	38	1161	1903	353	7	1066	
Arrive On Green	0.11	0.23	0.00	0.00	0.08	0.08	0.56	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3185	471	3456	2992	556	1781	3554	1585
Grp Volume(v), veh/h	319	80	0	0	103	106	464	127	131	3	154	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1786	1728	1777	1770	1781	1777	1585
Q Serve(g_s), s	11.8	4.5	0.0	0.0	7.3	7.6	9.9	0.0	0.0	0.2	4.1	0.0
Cycle Q Clear(g_c), s	11.8	4.5	0.0	0.0	7.3	7.6	9.9	0.0	0.0	0.2	4.1	0.0
Prop In Lane	1.00		1.00	0.00		0.26	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	383	436		0	142	143	1161	1130	1126	7	1066	
V/C Ratio(X)	0.83	0.18		0.00	0.72	0.74	0.40	0.11	0.12	0.43	0.14	
Avail Cap(c_a), veh/h	550	712		0	318	320	1161	1130	1126	130	1066	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.6	39.9	0.0	0.0	58.4	58.5	21.1	0.0	0.0	64.6	33.3	0.0
Incr Delay (d2), s/veh	7.3	0.2	0.0	0.0	6.7	7.4	0.2	0.2	0.2	36.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.1	0.0	0.0	3.5	3.7	3.5	0.1	0.1	0.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	40.1	0.0	0.0	65.1	65.8	21.3	0.2	0.2	100.7	33.6	0.0
LnGrp LOS	E	D		A	E	E	C	A	A	F	C	
Approach Vol, veh/h		399	A		209			722			157	A
Approach Delay, s/veh		59.2			65.5			13.8			34.9	
Approach LOS		E			E			B			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	49.2	45.0		35.8	6.0	88.2	19.9	15.9				
Change Period (Y+Rc), s	5.5	6.0		5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	24.5	39.0		49.5	9.5	54.5	20.7	23.3				
Max Q Clear Time (g_c+I1), s	11.9	6.1		6.5	2.2	2.0	13.8	9.6				
Green Ext Time (p_c), s	1.3	0.9		0.4	0.0	1.4	0.6	0.9				

Intersection Summary			
HCM 6th Ctrl Delay		35.5	
HCM 6th LOS		D	

Notes

Unsignalized Delay for [EBR, 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)	0	0	0	46	16	3	416	677	0	0	777	58
Future Volume (veh/h)	0	0	0	46	16	3	416	677	0	0	777	58
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				61	21	4	447	728	0	0	854	64
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				113	50	10	529	3085	0	0	2223	167
Arrive On Green				0.03	0.03	0.03	0.15	0.87	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3456	1527	291	3456	3647	0	0	3444	251
Grp Volume(v), veh/h				61	0	25	447	728	0	0	453	465
Grp Sat Flow(s),veh/h/ln				1728	0	1818	1728	1777	0	0	1777	1825
Q Serve(g_s), s				2.3	0.0	1.8	16.4	4.4	0.0	0.0	28.3	28.3
Cycle Q Clear(g_c), s				2.3	0.0	1.8	16.4	4.4	0.0	0.0	28.3	28.3
Prop In Lane				1.00		0.16	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h				113	0	59	529	3085	0	0	1179	1211
V/C Ratio(X)				0.54	0.00	0.42	0.85	0.24	0.00	0.00	0.38	0.38
Avail Cap(c_a), veh/h				486	0	256	1151	3085	0	0	1179	1211
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.86	0.86	0.00	0.00	0.71	0.71
Uniform Delay (d), s/veh				61.9	0.0	61.7	53.6	1.4	0.0	0.0	28.1	28.1
Incr Delay (d2), s/veh				4.0	0.0	4.7	3.3	0.2	0.0	0.0	0.7	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.0	0.0	0.9	7.2	0.6	0.0	0.0	13.6	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				65.9	0.0	66.3	56.9	1.6	0.0	0.0	28.8	28.8
LnGrp LOS				E	A	E	E	A	A	A	C	C
Approach Vol, veh/h					86			1175			918	
Approach Delay, s/veh					66.0			22.6			28.8	
Approach LOS					E			C			C	

Timer - Assigned Phs	1	2		4		6			
Phs Duration (G+Y+Rc), s	26.6	92.5		10.9		119.1			
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2			
Max Green Setting (Gmax), s	* 13	* 49		* 18		* 99			
Max Q Clear Time (g_c+I1), s	19.4	30.3		4.3		6.4			
Green Ext Time (p_c), s	1.5	5.1		0.2		5.3			

Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	357	321	1714	0	0	0	0	746	82	101	724	0
Future Volume (veh/h)	357	321	1714	0	0	0	0	746	82	101	724	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	476	428	0				0	857	0	115	823	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	888	480					0	1894		140	2326	0
Arrive On Green	0.26	0.26	0.00				0.00	0.53	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	476	428	0				0	857	0	115	823	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	15.4	28.7	0.0				0.0	19.3	0.0	8.1	0.0	0.0
Cycle Q Clear(g_c), s	15.4	28.7	0.0				0.0	19.3	0.0	8.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	888	480					0	1894		140	2326	0
V/C Ratio(X)	0.54	0.89					0.00	0.45		0.82	0.35	0.00
Avail Cap(c_a), veh/h	1034	560					0	1894		471	2326	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	41.6	46.5	0.0				0.0	18.7	0.0	53.9	0.0	0.0
Incr Delay (d2), s/veh	0.5	14.8	0.0				0.0	0.8	0.0	10.4	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	6.5	14.9	0.0				0.0	7.7	0.0	3.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	61.4	0.0				0.0	19.5	0.0	64.3	0.4	0.0
LnGrp LOS	D	E					A	B		E	A	A
Approach Vol, veh/h		904	A					857	A		938	
Approach Delay, s/veh		51.2						19.5			8.2	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	15.8	74.7	39.5	90.5
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	34.4	* 40	38.9	* 80
Max Q Clear Time (g_c+I1), s	10.1	21.3	30.7	2.0
Green Ext Time (p_c), s	0.3	5.2	2.7	6.2

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.

Unsignalized Delay for [NBR, 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)	63	2047	125	157	1313	192	330	198	190	273	182	46
Future Volume (veh/h)	63	2047	125	157	1313	192	330	198	190	273	182	46
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	2804	0	185	1545	226	363	218	209	281	188	47
Peak Hour Factor	0.73	0.73	0.73	0.85	0.85	0.85	0.91	0.91	0.91	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	2905		150	2960	433	330	266	238	271	362	88
Arrive On Green	0.10	0.57	0.00	0.04	0.52	0.52	0.10	0.15	0.15	0.08	0.13	0.13
Sat Flow, veh/h	3456	5106	1585	3456	5711	835	3456	1777	1585	3456	2832	691
Grp Volume(v), veh/h	86	2804	0	185	1305	466	363	218	209	281	116	119
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1720	1728	1777	1585	1728	1777	1746
Q Serve(g_s), s	4.1	94.5	0.0	7.8	32.2	32.2	17.2	21.4	23.2	14.1	11.0	11.5
Cycle Q Clear(g_c), s	4.1	94.5	0.0	7.8	32.2	32.2	17.2	21.4	23.2	14.1	11.0	11.5
Prop In Lane	1.00		1.00	1.00		0.49	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	334	2905		150	2501	892	330	266	238	271	227	223
V/C Ratio(X)	0.26	0.97		1.24	0.52	0.52	1.10	0.82	0.88	1.04	0.51	0.53
Avail Cap(c_a), veh/h	334	2905		150	2501	892	330	356	318	271	317	311
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.3	37.1	0.0	86.1	28.6	28.6	81.4	74.1	74.9	82.9	73.3	73.5
Incr Delay (d2), s/veh	0.4	10.3	0.0	150.4	0.8	2.2	78.9	10.6	19.0	65.0	1.8	2.0
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	1.9	40.1	0.0	6.6	12.4	13.6	11.2	10.5	10.6	8.7	5.1	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	47.4	0.0	236.5	29.4	30.8	160.3	84.7	93.9	147.9	75.1	75.5
LnGrp LOS	E	D		F	C	C	F	F	F	F	E	E
Approach Vol, veh/h		2890	A		1956			790			516	
Approach Delay, s/veh		48.3			49.3			121.9			114.8	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.1	100.0	25.0	30.9	15.0	109.1	21.0	34.9
Change Period (Y+Rc), s	6.7	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 93	17.2	32.1	7.8	93.3	14.1	36.1
Max Q Clear Time (g_c+I1), s	16.1	34.2	19.2	13.5	9.8	96.5	16.1	25.2
Green Ext Time (p_c), s	0.0	18.4	0.0	1.1	0.0	0.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	63.6
HCM 6th LOS	E

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	310	35	50	429	1699	724
Future Volume (veh/h)	310	35	50	429	1699	724
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	330	0	62	530	2124	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	332		141	2572	2305	
Arrive On Green	0.19	0.00	0.03	0.72	0.65	0.00
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	330	0	62	530	2124	0
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	24.1	0.0	1.4	6.3	67.8	0.0
Cycle Q Clear(g_c), s	24.1	0.0	1.4	6.3	67.8	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	332		141	2572	2305	
V/C Ratio(X)	1.00		0.44	0.21	0.92	
Avail Cap(c_a), veh/h	332		212	2572	2305	
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	0.00
Uniform Delay (d), s/veh	52.8	0.0	31.6	5.8	19.9	0.0
Incr Delay (d2), s/veh	48.0	0.0	2.2	0.2	7.5	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	15.1	0.0	1.4	2.1	26.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	100.9	0.0	33.7	6.0	27.5	0.0
LnGrp LOS	F		C	A	C	
Approach Vol, veh/h	330	A		592	2124	A
Approach Delay, s/veh	100.9			8.9	27.5	
Approach LOS	F			A	C	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	100.0		9.8	90.2	30.0
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 94		* 9.7	* 79	24.2
Max Q Clear Time (g_c+I1), s	8.3		3.4	69.8	26.1
Green Ext Time (p_c), s	3.6		0.0	7.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

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

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

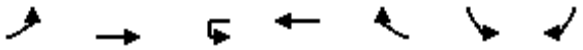
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1739	362	4	11	28
Future Vol, veh/h	4	1739	362	4	11	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	91	91	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	2229	398	4	15	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	402	0	-	0	1525	201
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	1125	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1153	-	-	-	109	806
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	272	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1153	-	-	-	109	806
Mov Cap-2 Maneuver	-	-	-	-	211	-
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	272	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1153	-	-	-	449
HCM Lane V/C Ratio	0.004	-	-	-	0.116
HCM Control Delay (s)	8.1	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	24	1760	0	300	584	504	40
Future Volume (veh/h)	24	1760	0	300	584	504	40
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	30	2228		319	0	672	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	57	2467		2195		729	
Arrive On Green	0.03	0.69		0.20	0.00	0.21	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	30	2228		319	0	672	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	2.2	66.8		9.6	0.0	24.8	0.0
Cycle Q Clear(g_c), s	2.2	66.8		9.6	0.0	24.8	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	57	2467		2195		729	
V/C Ratio(X)	0.53	0.90		0.15		0.92	
Avail Cap(c_a), veh/h	126	2467		2195		774	
HCM Platoon Ratio	1.00	1.00		0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00		0.90	0.00	1.00	0.00
Uniform Delay (d), s/veh	61.9	16.3		23.6	0.0	50.2	0.0
Incr Delay (d2), s/veh	7.3	6.0		0.1	0.0	15.9	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	1.1	24.4		4.2	0.0	12.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	69.2	22.3		23.7	0.0	66.1	0.0
LnGrp LOS	E	C		C		E	
Approach Vol, veh/h		2258		319	A	672	A
Approach Delay, s/veh		22.9		23.7		66.1	
Approach LOS		C		C		E	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	10.0	86.7		33.3		96.7	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	73.6		* 29		88.6	
Max Q Clear Time (g_c+I1), s	4.2	11.6		26.8		68.8	
Green Ext Time (p_c), s	0.0	2.0		0.7		15.9	

Intersection Summary	
HCM 6th Ctrl Delay	31.9
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.

Unsignalized Delay for [EBT, WBR, 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)	5	1365	1083	158	509	4	539	2	134	3	10	4
Future Volume (veh/h)	5	1365	1083	158	509	4	539	2	134	3	10	4
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	5	1407	1116	193	621	5	587	0	146	4	14	6
Peak Hour Factor	0.97	0.97	0.97	0.82	0.82	0.82	0.92	0.92	0.92	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	489	1926	859	203	2375	19	670	0	298	7	23	10
Arrive On Green	0.54	0.54	0.54	0.07	0.66	0.66	0.19	0.00	0.19	0.02	0.02	0.02
Sat Flow, veh/h	799	3554	1585	1781	3613	29	3563	0	1585	296	1036	444
Grp Volume(v), veh/h	5	1407	1116	193	305	321	587	0	146	24	0	0
Grp Sat Flow(s),veh/h/ln	799	1777	1585	1781	1777	1865	1781	0	1585	1776	0	0
Q Serve(g_s), s	0.4	39.0	70.5	7.7	9.2	9.2	20.8	0.0	10.7	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.4	39.0	70.5	7.7	9.2	9.2	20.8	0.0	10.7	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.17		0.25
Lane Grp Cap(c), veh/h	489	1926	859	203	1168	1226	670	0	298	40	0	0
V/C Ratio(X)	0.01	0.73	1.30	0.95	0.26	0.26	0.88	0.00	0.49	0.61	0.00	0.00
Avail Cap(c_a), veh/h	489	1926	859	203	1168	1226	800	0	356	126	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	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.7	22.6	29.8	34.2	9.2	9.2	51.3	0.0	47.2	63.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.5	143.2	49.3	0.5	0.5	9.5	0.0	1.2	14.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	15.8	58.5	8.9	3.4	3.6	10.2	0.0	4.4	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	25.1	172.9	83.5	9.8	9.7	60.8	0.0	48.4	77.0	0.0	0.0
LnGrp LOS	B	C	F	F	A	A	E	A	D	E	A	A
Approach Vol, veh/h		2528			819			733			24	
Approach Delay, s/veh		90.3			27.1			58.3			77.0	
Approach LOS		F			C			E			E	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	91.1	8.7	15.0	76.1	30.2
Change Period (Y+Rc), s	* 5.6	* 5.8	* 6.5	* 5.6	5.8
Max Green Setting (Gmax), s	* 74	* 9.2	* 8.5	* 59	29.2
Max Q Clear Time (g_c+I1), s	11.2	3.7	9.7	72.5	22.8
Green Ext Time (p_c), s	3.7	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	71.9
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.

Intersection	
Int Delay, s/veh	17.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	248	84	483	646	22
Future Vol, veh/h	18	248	84	483	646	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	292	92	531	839	29

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1569	854	868	0	-	0
Stage 1	854	-	-	-	-	-
Stage 2	715	-	-	-	-	-
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	122	358	776	-	-	-
Stage 1	417	-	-	-	-	-
Stage 2	485	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	102	358	776	-	-	-
Mov Cap-2 Maneuver	102	-	-	-	-	-
Stage 1	347	-	-	-	-	-
Stage 2	485	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	95.6	1.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	776	-	306	-	-
HCM Lane V/C Ratio	0.119	-	1.023	-	-
HCM Control Delay (s)	10.3	0	95.6	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.4	-	11.3	-	-

Intersection	
Int Delay, s/veh	79.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	180	16	11	94	280	435
Future Vol, veh/h	180	16	11	94	280	435
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	77	77	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	18	14	122	308	478

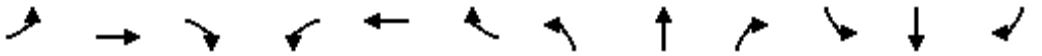
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	136	0	-	0	507	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	432	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1448	-	-	-	525	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1448	-	-	-	449	986
Mov Cap-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	114.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1448	-	-	-	671
HCM Lane V/C Ratio	0.143	-	-	-	1.171
HCM Control Delay (s)	7.9	0	-	-	114.5
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	25.8

HCM 6th Signalized Intersection Summary
1: West Park Pl & Rockbridge Rd

05/29/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	13	245	0	49	10	470	159	9	1	92	379
Future Volume (veh/h)	105	13	245	0	49	10	470	159	9	1	92	379
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	14	0	0	61	12	495	167	9	1	99	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	167	254		0	106	20	1434	2417	129	2	1055	
Arrive On Green	0.05	0.14	0.00	0.00	0.04	0.04	0.69	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3069	569	3456	3430	184	1781	3554	1585
Grp Volume(v), veh/h	113	14	0	0	36	37	495	86	90	1	99	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1768	1728	1777	1837	1781	1777	1585
Q Serve(g_s), s	4.2	0.8	0.0	0.0	2.6	2.7	7.5	0.0	0.0	0.1	2.6	0.0
Cycle Q Clear(g_c), s	4.2	0.8	0.0	0.0	2.6	2.7	7.5	0.0	0.0	0.1	2.6	0.0
Prop In Lane	1.00		1.00	0.00		0.32	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	167	254		0	63	63	1434	1252	1294	2	1055	
V/C Ratio(X)	0.67	0.06		0.00	0.56	0.59	0.35	0.07	0.07	0.41	0.09	
Avail Cap(c_a), veh/h	486	555		0	186	185	1434	1252	1294	107	1055	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00
Uniform Delay (d), s/veh	60.8	48.9	0.0	0.0	61.7	61.7	12.8	0.0	0.0	64.9	33.1	0.0
Incr Delay (d2), s/veh	4.7	0.1	0.0	0.0	7.6	8.5	0.1	0.1	0.1	84.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	0.0	0.0	1.3	1.4	2.5	0.0	0.0	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	49.0	0.0	0.0	69.3	70.2	13.0	0.1	0.1	149.6	33.2	0.0
LnGrp LOS	E	D		A	E	E	B	A	A	F	C	
Approach Vol, veh/h		127	A		73			671			100	A
Approach Delay, s/veh		63.7			69.8			9.6			34.4	
Approach LOS		E			E			A			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	61.0	45.0		24.0	7.4	98.6	13.0	11.0				
Change Period (Y+Rc), s	* 7	6.4		* 6.4	7.2	* 7	* 6.7	* 6.4				
Max Green Setting (Gmax), s	* 33	38.6		* 39	7.8	* 64	* 18	* 14				
Max Q Clear Time (g_c+I1), s	9.5	4.6		2.8	2.1	2.0	6.2	4.7				
Green Ext Time (p_c), s	1.7	0.5		0.0	0.0	0.9	0.2	0.2				

Intersection Summary		
HCM 6th Ctrl Delay		23.7
HCM 6th LOS		C

Notes

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

Unsignalized Delay for [EBR, 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)	0	0	0	20	4	0	1194	646	0	0	270	63
Future Volume (veh/h)	0	0	0	20	4	0	1194	646	0	0	270	63
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	0	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				27	5	0	1284	695	0	0	297	69
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	0	2	2	0	0	2	2
Cap, veh/h				55	30	0	1362	3145	0	0	1261	289
Arrive On Green				0.02	0.02	0.00	0.66	1.00	0.00	0.00	0.14	0.14
Sat Flow, veh/h				3456	1870	0	3456	3647	0	0	2965	657
Grp Volume(v), veh/h				27	5	0	1284	695	0	0	182	184
Grp Sat Flow(s),veh/h/ln				1728	1870	0	1728	1777	0	0	1777	1752
Q Serve(g_s), s				1.0	0.3	0.0	43.5	0.0	0.0	0.0	11.8	12.1
Cycle Q Clear(g_c), s				1.0	0.3	0.0	43.5	0.0	0.0	0.0	11.8	12.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				55	30	0	1362	3145	0	0	780	770
V/C Ratio(X)				0.49	0.17	0.00	0.94	0.22	0.00	0.00	0.23	0.24
Avail Cap(c_a), veh/h				221	119	0	1948	3145	0	0	780	770
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	0.00	0.57	0.57	0.00	0.00	0.91	0.91
Uniform Delay (d), s/veh				63.4	63.1	0.0	20.9	0.0	0.0	0.0	36.2	36.3
Incr Delay (d2), s/veh				6.6	2.6	0.0	4.9	0.1	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				0.5	0.2	0.0	11.8	0.0	0.0	0.0	5.6	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				70.1	65.7	0.0	25.8	0.1	0.0	0.0	36.8	37.0
LnGrp LOS				E	E	A	C	A	A	A	D	D
Approach Vol, veh/h					32			1979			366	
Approach Delay, s/veh					69.4			16.7			36.9	
Approach LOS					E			B			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	57.9	63.3		8.8		121.2						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 73	* 29		* 8.3		* 1.1E2						
Max Q Clear Time (g_c+I1), s	45.5	14.1		3.0		2.0						
Green Ext Time (p_c), s	5.7	1.6		0.0		5.0						

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	21	422	0	0	0	0	1708	32	56	236	0
Future Volume (veh/h)	126	21	422	0	0	0	0	1708	32	56	236	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	168	28	0				0	1963	0	64	268	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	226	122					0	2690		82	3007	0
Arrive On Green	0.07	0.07	0.00				0.00	0.76	0.00	0.06	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	168	28	0				0	1963	0	64	268	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	6.2	1.8	0.0				0.0	39.0	0.0	4.6	0.0	0.0
Cycle Q Clear(g_c), s	6.2	1.8	0.0				0.0	39.0	0.0	4.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	226	122					0	2690		82	3007	0
V/C Ratio(X)	0.74	0.23					0.00	0.73		0.78	0.09	0.00
Avail Cap(c_a), veh/h	369	200					0	2690		197	3007	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.97	0.97	0.00
Uniform Delay (d), s/veh	59.7	57.6	0.0				0.0	8.6	0.0	60.4	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.9	0.0				0.0	1.8	0.0	14.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.9	0.0				0.0	12.1	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	58.6	0.0				0.0	10.4	0.0	74.5	0.1	0.0
LnGrp LOS	E	E					A	B		E	A	A
Approach Vol, veh/h		196	A					1963	A		332	
Approach Delay, s/veh		63.6						10.4			14.4	
Approach LOS		E						B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	11.6	103.8		14.6		115.4						
Change Period (Y+Rc), s	5.6	* 5.4		6.1		* 5.4						
Max Green Setting (Gmax), s	14.4	* 85		13.9		* 1E2						
Max Q Clear Time (g_c+I1), s	10.6	41.0		8.2		2.0						
Green Ext Time (p_c), s	0.1	23.6		0.3		1.7						

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

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

Unsignalized Delay for [NBR, 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)	46	1011	77	105	33	71	763	360	21	99	52	91
Future Volume (veh/h)	46	1011	77	105	33	71	763	360	21	99	52	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	1099	0	107	34	72	779	367	21	125	66	115
Peak Hour Factor	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2959		150	2796	918	599	584	33	162	70	63
Arrive On Green	0.04	0.58	0.00	0.04	0.58	0.58	0.17	0.17	0.17	0.05	0.04	0.04
Sat Flow, veh/h	3456	5106	1585	3456	4826	1585	3456	3417	195	3456	1777	1585
Grp Volume(v), veh/h	50	1099	0	107	34	72	779	190	198	125	66	115
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1728	1777	1835	1728	1777	1585
Q Serve(g_s), s	2.5	20.8	0.0	5.5	0.5	3.6	31.2	17.9	18.0	6.4	6.7	7.1
Cycle Q Clear(g_c), s	2.5	20.8	0.0	5.5	0.5	3.6	31.2	17.9	18.0	6.4	6.7	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	150	2959		150	2796	918	599	304	314	162	70	63
V/C Ratio(X)	0.33	0.37		0.71	0.01	0.08	1.30	0.63	0.63	0.77	0.94	1.84
Avail Cap(c_a), veh/h	161	2959		150	2796	918	599	304	314	175	70	63
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	83.6	20.3	0.0	85.0	16.0	16.7	74.4	69.3	69.3	84.8	86.2	86.5
Incr Delay (d2), s/veh	1.3	0.4	0.0	14.9	0.0	0.2	147.2	4.0	4.0	17.7	87.2	432.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.2	0.0	2.8	0.2	1.4	25.9	8.4	8.8	3.3	4.7	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.9	20.6	0.0	99.9	16.0	16.8	221.6	73.3	73.4	102.5	173.4	519.2
LnGrp LOS	F	C		F	B	B	F	E	E	F	F	F
Approach Vol, veh/h		1149	A		213			1167			306	
Approach Delay, s/veh		23.4			58.4			172.3			274.4	
Approach LOS		C			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	111.0	39.0	15.0	15.0	111.0	15.3	38.7
Change Period (Y+Rc), s	7.2	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 1E2	31.2	7.1	7.8	104.3	9.1	30.1
Max Q Clear Time (g_c+I1), s	4.5	5.6	33.2	9.1	7.5	22.8	8.4	20.0
Green Ext Time (p_c), s	0.0	0.7	0.0	0.0	0.0	9.2	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	114.4
HCM 6th LOS	F

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	882	35	20	907	457	147
Future Volume (veh/h)	882	35	20	907	457	147
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	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	973	0	25	1120	571	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	1092		476	2145	1919	
Arrive On Green	0.31	0.00	0.02	0.60	0.54	0.00
Sat Flow, veh/h	3563	1610	1781	3647	3647	1585
Grp Volume(v), veh/h	973	0	25	1120	571	0
Grp Sat Flow(s),veh/h/ln	1781	1610	1781	1777	1777	1585
Q Serve(g_s), s	33.9	0.0	0.8	23.7	11.5	0.0
Cycle Q Clear(g_c), s	33.9	0.0	0.8	23.7	11.5	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1092		476	2145	1919	
V/C Ratio(X)	0.89		0.05	0.52	0.30	
Avail Cap(c_a), veh/h	1622		568	2145	1919	
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	0.00
Uniform Delay (d), s/veh	43.0	0.0	12.4	14.9	16.4	0.0
Incr Delay (d2), s/veh	4.6	0.0	0.0	0.9	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	15.4	0.0	0.3	9.1	4.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.6	0.0	12.5	15.8	16.8	0.0
LnGrp LOS	D		B	B	B	
Approach Vol, veh/h	973	A		1145	571	A
Approach Delay, s/veh	47.6			15.8	16.8	
Approach LOS	D			B	B	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	84.4		8.3	76.1	45.6
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 59		* 9.7	* 44	59.2
Max Q Clear Time (g_c+I1), s	25.7		2.8	13.5	35.9
Green Ext Time (p_c), s	8.9		0.0	3.7	4.0

Intersection Summary	
HCM 6th Ctrl Delay	27.5
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 [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

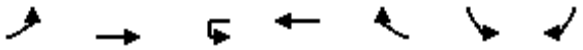
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	406	1053	23	3	2
Future Vol, veh/h	21	406	1053	23	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	91	91	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	521	1157	25	4	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1182	0	-	0	1485	591
Stage 1	-	-	-	-	1170	-
Stage 2	-	-	-	-	315	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	587	-	-	-	115	450
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	713	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	587	-	-	-	108	450
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	240	-
Stage 2	-	-	-	-	713	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	587	-	-	-	254
HCM Lane V/C Ratio	0.046	-	-	-	0.026
HCM Control Delay (s)	11.4	0.3	-	-	19.6
HCM Lane LOS	B	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	19	393	0	1094	1361	146	14
Future Volume (veh/h)	19	393	0	1094	1361	146	14
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	24	497		1164	0	195	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	51	2953		2692		258	
Arrive On Green	0.03	0.83		0.51	0.00	0.07	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	24	497		1164	0	195	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	1.7	3.6		26.9	0.0	7.2	0.0
Cycle Q Clear(g_c), s	1.7	3.6		26.9	0.0	7.2	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	51	2953		2692		258	
V/C Ratio(X)	0.47	0.17		0.43		0.76	
Avail Cap(c_a), veh/h	126	2953		2692		641	
HCM Platoon Ratio	1.00	1.00		0.67	0.67	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	62.2	2.2		14.4	0.0	59.0	0.0
Incr Delay (d2), s/veh	6.5	0.1		0.5	0.0	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.8		11.7	0.0	3.2	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	68.7	2.3		14.9	0.0	63.5	0.0
LnGrp LOS	E	A		B		E	
Approach Vol, veh/h		521		1164	A	195	A
Approach Delay, s/veh		5.3		14.9		63.5	
Approach LOS		A		B		E	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	9.5	104.9		15.6		114.4	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	78.6		* 24		93.6	
Max Q Clear Time (g_c+I1), s	3.7	28.9		9.2		5.6	
Green Ext Time (p_c), s	0.0	10.1		0.5		3.3	

Intersection Summary	
HCM 6th Ctrl Delay	17.3
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.

Unsignalized Delay for [EBT, WBR, 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)	0	294	346	68	1889	2	834	1	66	0	0	0
Future Volume (veh/h)	0	294	346	68	1889	2	834	1	66	0	0	0
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	0	368	0	72	2010	2	879	0	69	0	0	0
Peak Hour Factor	0.80	0.80	0.80	0.94	0.94	0.94	0.95	0.95	0.95	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	1648		526	2001	2	1266	0	563	0	1	0
Arrive On Green	0.00	0.46	0.00	0.04	0.55	0.55	0.36	0.00	0.36	0.00	0.00	0.00
Sat Flow, veh/h	213	3554	1585	1781	3643	4	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	368	0	72	980	1032	879	0	69	0	0	0
Grp Sat Flow(s),veh/h/ln	213	1777	1585	1781	1777	1870	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	8.1	0.0	2.7	71.4	71.4	27.4	0.0	3.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.1	0.0	2.7	71.4	71.4	27.4	0.0	3.8	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	55	1648		526	976	1027	1266	0	563	0	1	0
V/C Ratio(X)	0.00	0.22		0.14	1.00	1.00	0.69	0.00	0.12	0.00	0.00	0.00
Avail Cap(c_a), veh/h	55	1648		579	976	1027	1266	0	563	0	132	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)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	20.9	0.0	16.4	29.3	29.3	35.9	0.0	28.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.1	29.9	29.2	3.2	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	0.0	1.1	35.6	37.3	12.4	0.0	1.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.2	0.0	16.5	59.2	58.5	39.0	0.0	28.7	0.0	0.0	0.0
LnGrp LOS	A	C		B	F	F	D	A	C	A	A	A
Approach Vol, veh/h		368	A		2084			948			0	
Approach Delay, s/veh		21.2			57.4			38.3			0.0	
Approach LOS		C			E			D				

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		77.0		0.0	11.1	65.9		53.0				
Change Period (Y+Rc), s		* 5.6		* 5.8	* 6.5	* 5.6		6.8				
Max Green Setting (Gmax), s		* 56		* 9.2	* 8.5	* 41		46.2				
Max Q Clear Time (g_c+I1), s		73.4		0.0	4.7	10.1		29.4				
Green Ext Time (p_c), s		0.0		0.0	0.0	2.3		3.5				

Intersection Summary		
HCM 6th Ctrl Delay		48.1
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 [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	6.4
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	2	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	87	1010	303
Demand Flow Rate, veh/h	87	1022	309
Vehicles Circulating, veh/h	292	22	402
Vehicles Exiting, veh/h	419	357	642
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.3	6.2	7.7
Approach LOS	A	A	A

Lane	Left	Left	Right	Left
Designated Moves	LR	L	TR	TR
Assumed Moves	LR	L	TR	TR
RT Channelized				
Lane Util	1.000	0.393	0.607	1.000
Follow-Up Headway, s	2.609	2.535	2.535	2.609
Critical Headway, s	4.976	4.544	4.544	4.976
Entry Flow, veh/h	87	402	620	309
Cap Entry Lane, veh/h	1024	1392	1392	916
Entry HV Adj Factor	1.000	1.000	0.980	0.981
Flow Entry, veh/h	87	402	608	303
Cap Entry, veh/h	1024	1392	1365	899
V/C Ratio	0.085	0.289	0.445	0.337
Control Delay, s/veh	4.3	5.1	7.0	7.7
LOS	A	A	A	A
95th %tile Queue, veh	0	1	2	1

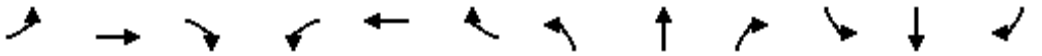
Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	451	8	33	470	32	116
Future Vol, veh/h	451	8	33	470	32	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	200	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	86	86	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	501	9	38	547	38	138

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	585	0	-	0	1323	312
Stage 1	-	-	-	-	312	-
Stage 2	-	-	-	-	1011	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	990	-	-	-	172	728
Stage 1	-	-	-	-	742	-
Stage 2	-	-	-	-	352	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	990	-	-	-	84	728
Mov Cap-2 Maneuver	-	-	-	-	84	-
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	352	-

Approach	EB	WB	SB
HCM Control Delay, s	12.1	0	25.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	990	-	-	-	84	728
HCM Lane V/C Ratio	0.506	-	-	-	0.454	0.19
HCM Control Delay (s)	12.3	0	-	-	79.4	11.1
HCM Lane LOS	B	A	-	-	F	B
HCM 95th %tile Q(veh)	2.9	-	-	-	1.9	0.7



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	74	698	0	145	22	441	206	39	3	143	319
Future Volume (veh/h)	297	74	698	0	145	22	441	206	39	3	143	319
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	319	80	0	0	181	28	464	217	41	3	154	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	383	436		0	248	38	1161	1903	353	7	1066	
Arrive On Green	0.11	0.23	0.00	0.00	0.08	0.08	0.56	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3185	471	3456	2992	556	1781	3554	1585
Grp Volume(v), veh/h	319	80	0	0	103	106	464	127	131	3	154	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1786	1728	1777	1770	1781	1777	1585
Q Serve(g_s), s	11.8	4.5	0.0	0.0	7.3	7.6	9.9	0.0	0.0	0.2	4.1	0.0
Cycle Q Clear(g_c), s	11.8	4.5	0.0	0.0	7.3	7.6	9.9	0.0	0.0	0.2	4.1	0.0
Prop In Lane	1.00		1.00	0.00		0.26	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	383	436		0	142	143	1161	1130	1126	7	1066	
V/C Ratio(X)	0.83	0.18		0.00	0.72	0.74	0.40	0.11	0.12	0.43	0.14	
Avail Cap(c_a), veh/h	550	712		0	318	320	1161	1130	1126	130	1066	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.6	39.9	0.0	0.0	58.4	58.5	21.1	0.0	0.0	64.6	33.3	0.0
Incr Delay (d2), s/veh	7.3	0.2	0.0	0.0	6.7	7.4	0.2	0.2	0.2	36.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.1	0.0	0.0	3.5	3.7	3.5	0.1	0.1	0.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	40.1	0.0	0.0	65.1	65.8	21.3	0.2	0.2	100.7	33.6	0.0
LnGrp LOS	E	D		A	E	E	C	A	A	F	C	
Approach Vol, veh/h		399	A		209			722			157	A
Approach Delay, s/veh		59.2			65.5			13.8			34.9	
Approach LOS		E			E			B			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	49.2	45.0		35.8	6.0	88.2	19.9	15.9				
Change Period (Y+Rc), s	5.5	6.0		5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	24.5	39.0		49.5	9.5	54.5	20.7	23.3				
Max Q Clear Time (g_c+I1), s	11.9	6.1		6.5	2.2	2.0	13.8	9.6				
Green Ext Time (p_c), s	1.3	0.9		0.4	0.0	1.4	0.6	0.9				

Intersection Summary			
HCM 6th Ctrl Delay		35.5	
HCM 6th LOS		D	

Notes

Unsignalized Delay for [EBR, 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)	0	0	0	46	16	3	416	677	0	0	777	58
Future Volume (veh/h)	0	0	0	46	16	3	416	677	0	0	777	58
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				61	21	4	447	728	0	0	854	64
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				113	50	10	529	3085	0	0	2223	167
Arrive On Green				0.03	0.03	0.03	0.15	0.87	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3456	1527	291	3456	3647	0	0	3444	251
Grp Volume(v), veh/h				61	0	25	447	728	0	0	453	465
Grp Sat Flow(s),veh/h/ln				1728	0	1818	1728	1777	0	0	1777	1825
Q Serve(g_s), s				2.3	0.0	1.8	16.4	4.4	0.0	0.0	28.3	28.3
Cycle Q Clear(g_c), s				2.3	0.0	1.8	16.4	4.4	0.0	0.0	28.3	28.3
Prop In Lane				1.00		0.16	1.00		0.00	0.00		0.14
Lane Grp Cap(c), veh/h				113	0	59	529	3085	0	0	1179	1211
V/C Ratio(X)				0.54	0.00	0.42	0.85	0.24	0.00	0.00	0.38	0.38
Avail Cap(c_a), veh/h				486	0	256	1151	3085	0	0	1179	1211
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.86	0.86	0.00	0.00	0.71	0.71
Uniform Delay (d), s/veh				61.9	0.0	61.7	53.6	1.4	0.0	0.0	28.1	28.1
Incr Delay (d2), s/veh				4.0	0.0	4.7	3.3	0.2	0.0	0.0	0.7	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.0	0.0	0.9	7.2	0.6	0.0	0.0	13.6	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				65.9	0.0	66.3	56.9	1.6	0.0	0.0	28.8	28.8
LnGrp LOS				E	A	E	E	A	A	A	C	C
Approach Vol, veh/h					86			1175			918	
Approach Delay, s/veh					66.0			22.6			28.8	
Approach LOS					E			C			C	

Timer - Assigned Phs	1	2		4		6			
Phs Duration (G+Y+Rc), s	26.6	92.5		10.9		119.1			
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2			
Max Green Setting (Gmax), s	* 13	* 49		* 18		* 99			
Max Q Clear Time (g_c+I1), s	19.4	30.3		4.3		6.4			
Green Ext Time (p_c), s	1.5	5.1		0.2		5.3			

Intersection Summary	
HCM 6th Ctrl Delay	26.9
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	357	321	1714	0	0	0	0	746	82	101	724	0
Future Volume (veh/h)	357	321	1714	0	0	0	0	746	82	101	724	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	476	428	0				0	857	0	115	823	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	888	480					0	1894		140	2326	0
Arrive On Green	0.26	0.26	0.00				0.00	0.53	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	476	428	0				0	857	0	115	823	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	15.4	28.7	0.0				0.0	19.3	0.0	8.1	0.0	0.0
Cycle Q Clear(g_c), s	15.4	28.7	0.0				0.0	19.3	0.0	8.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	888	480					0	1894		140	2326	0
V/C Ratio(X)	0.54	0.89					0.00	0.45		0.82	0.35	0.00
Avail Cap(c_a), veh/h	1034	560					0	1894		471	2326	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	41.6	46.5	0.0				0.0	18.7	0.0	53.9	0.0	0.0
Incr Delay (d2), s/veh	0.5	14.8	0.0				0.0	0.8	0.0	10.4	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	6.5	14.9	0.0				0.0	7.7	0.0	3.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	61.4	0.0				0.0	19.5	0.0	64.3	0.4	0.0
LnGrp LOS	D	E					A	B		E	A	A
Approach Vol, veh/h		904	A					857	A		938	
Approach Delay, s/veh		51.2						19.5			8.2	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	15.8	74.7	39.5	90.5
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	34.4	* 40	38.9	* 80
Max Q Clear Time (g_c+I1), s	10.1	21.3	30.7	2.0
Green Ext Time (p_c), s	0.3	5.2	2.7	6.2

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.

Unsignalized Delay for [NBR, 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)	63	2047	125	157	1313	192	330	198	190	273	182	46
Future Volume (veh/h)	63	2047	125	157	1313	192	330	198	190	273	182	46
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	2804	0	185	1545	226	363	218	209	281	188	47
Peak Hour Factor	0.73	0.73	0.73	0.85	0.85	0.85	0.91	0.91	0.91	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	2905		150	2960	433	330	266	238	271	362	88
Arrive On Green	0.10	0.57	0.00	0.04	0.52	0.52	0.10	0.15	0.15	0.08	0.13	0.13
Sat Flow, veh/h	3456	5106	1585	3456	5711	835	3456	1777	1585	3456	2832	691
Grp Volume(v), veh/h	86	2804	0	185	1305	466	363	218	209	281	116	119
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1720	1728	1777	1585	1728	1777	1746
Q Serve(g_s), s	4.1	94.5	0.0	7.8	32.2	32.2	17.2	21.4	23.2	14.1	11.0	11.5
Cycle Q Clear(g_c), s	4.1	94.5	0.0	7.8	32.2	32.2	17.2	21.4	23.2	14.1	11.0	11.5
Prop In Lane	1.00		1.00	1.00		0.49	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	334	2905		150	2501	892	330	266	238	271	227	223
V/C Ratio(X)	0.26	0.97		1.24	0.52	0.52	1.10	0.82	0.88	1.04	0.51	0.53
Avail Cap(c_a), veh/h	334	2905		150	2501	892	330	356	318	271	317	311
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	75.3	37.1	0.0	86.1	28.6	28.6	81.4	74.1	74.9	82.9	73.3	73.5
Incr Delay (d2), s/veh	0.4	10.3	0.0	150.4	0.8	2.2	78.9	10.6	19.0	65.0	1.8	2.0
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	1.9	40.1	0.0	6.6	12.4	13.6	11.2	10.5	10.6	8.7	5.1	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.7	47.4	0.0	236.5	29.4	30.8	160.3	84.7	93.9	147.9	75.1	75.5
LnGrp LOS	E	D		F	C	C	F	F	F	F	E	E
Approach Vol, veh/h		2890	A		1956			790			516	
Approach Delay, s/veh		48.3			49.3			121.9			114.8	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.1	100.0	25.0	30.9	15.0	109.1	21.0	34.9
Change Period (Y+Rc), s	6.7	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 93	17.2	32.1	7.8	93.3	14.1	36.1
Max Q Clear Time (g_c+I1), s	16.1	34.2	19.2	13.5	9.8	96.5	16.1	25.2
Green Ext Time (p_c), s	0.0	18.4	0.0	1.1	0.0	0.0	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	63.6
HCM 6th LOS	E

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	310	35	50	429	1699	724
Future Volume (veh/h)	310	35	50	429	1699	724
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	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	365	0	62	530	2124	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	436		171	2799	2532	
Arrive On Green	0.12	0.00	0.03	0.79	0.71	0.00
Sat Flow, veh/h	3563	1610	1781	3647	3647	1585
Grp Volume(v), veh/h	365	0	62	530	2124	0
Grp Sat Flow(s),veh/h/ln	1781	1610	1781	1777	1777	1585
Q Serve(g_s), s	13.0	0.0	1.1	4.8	55.5	0.0
Cycle Q Clear(g_c), s	13.0	0.0	1.1	4.8	55.5	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	436		171	2799	2532	
V/C Ratio(X)	0.84		0.36	0.19	0.84	
Avail Cap(c_a), veh/h	663		243	2799	2532	
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	0.00
Uniform Delay (d), s/veh	55.8	0.0	22.7	3.4	13.4	0.0
Incr Delay (d2), s/veh	5.8	0.0	1.3	0.2	3.5	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	6.2	0.0	1.2	1.3	19.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.6	0.0	24.0	3.6	16.9	0.0
LnGrp LOS	E		C	A	B	
Approach Vol, veh/h	365	A		592	2124	A
Approach Delay, s/veh	61.6			5.7	16.9	
Approach LOS	E			A	B	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	108.3		9.8	98.5	21.7
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 94		* 9.7	* 79	24.2
Max Q Clear Time (g_c+I1), s	6.8		3.1	57.5	15.0
Green Ext Time (p_c), s	3.6		0.0	16.3	0.9

Intersection Summary	
HCM 6th Ctrl Delay	20.0
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 [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

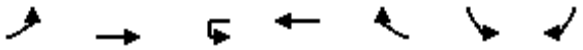
Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	1739	362	4	11	28
Future Vol, veh/h	4	1739	362	4	11	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	91	91	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	2229	398	4	15	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	402	0	-	0	1525	201
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	1125	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1153	-	-	-	109	806
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	272	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1153	-	-	-	109	806
Mov Cap-2 Maneuver	-	-	-	-	211	-
Stage 1	-	-	-	-	646	-
Stage 2	-	-	-	-	272	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1153	-	-	-	449
HCM Lane V/C Ratio	0.004	-	-	-	0.116
HCM Control Delay (s)	8.1	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	24	1760	0	300	584	504	40
Future Volume (veh/h)	24	1760	0	300	584	504	40
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	30	2228		319	0	672	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	57	2467		2195		729	
Arrive On Green	0.03	0.69		0.20	0.00	0.21	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	30	2228		319	0	672	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	2.2	66.8		9.6	0.0	24.8	0.0
Cycle Q Clear(g_c), s	2.2	66.8		9.6	0.0	24.8	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	57	2467		2195		729	
V/C Ratio(X)	0.53	0.90		0.15		0.92	
Avail Cap(c_a), veh/h	126	2467		2195		774	
HCM Platoon Ratio	1.00	1.00		0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00		0.90	0.00	1.00	0.00
Uniform Delay (d), s/veh	61.9	16.3		23.6	0.0	50.2	0.0
Incr Delay (d2), s/veh	7.3	6.0		0.1	0.0	15.9	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	1.1	24.4		4.2	0.0	12.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	69.2	22.3		23.7	0.0	66.1	0.0
LnGrp LOS	E	C		C		E	
Approach Vol, veh/h		2258		319	A	672	A
Approach Delay, s/veh		22.9		23.7		66.1	
Approach LOS		C		C		E	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	10.0	86.7		33.3		96.7	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	73.6		* 29		88.6	
Max Q Clear Time (g_c+I1), s	4.2	11.6		26.8		68.8	
Green Ext Time (p_c), s	0.0	2.0		0.7		15.9	

Intersection Summary	
HCM 6th Ctrl Delay	31.9
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.

Unsignalized Delay for [EBT, WBR, 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)	5	1365	1083	158	509	4	539	2	134	3	10	4
Future Volume (veh/h)	5	1365	1083	158	509	4	539	2	134	3	10	4
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	5	1407	0	193	621	5	587	0	146	4	14	6
Peak Hour Factor	0.97	0.97	0.97	0.82	0.82	0.82	0.92	0.92	0.92	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	492	1940		260	2375	19	670	0	298	7	23	10
Arrive On Green	0.55	0.55	0.00	0.06	0.66	0.66	0.19	0.00	0.19	0.02	0.02	0.02
Sat Flow, veh/h	799	3554	1585	1781	3613	29	3563	0	1585	296	1036	444
Grp Volume(v), veh/h	5	1407	0	193	305	321	587	0	146	24	0	0
Grp Sat Flow(s),veh/h/ln	799	1777	1585	1781	1777	1865	1781	0	1585	1776	0	0
Q Serve(g_s), s	0.4	38.7	0.0	6.0	9.2	9.2	20.8	0.0	10.7	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.4	38.7	0.0	6.0	9.2	9.2	20.8	0.0	10.7	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		1.00	0.17		0.25
Lane Grp Cap(c), veh/h	492	1940		260	1168	1226	670	0	298	40	0	0
V/C Ratio(X)	0.01	0.73		0.74	0.26	0.26	0.88	0.00	0.49	0.61	0.00	0.00
Avail Cap(c_a), veh/h	492	1940		267	1168	1226	800	0	356	126	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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.5	22.2	0.0	22.9	9.2	9.2	51.3	0.0	47.2	63.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.4	0.0	10.4	0.5	0.5	9.5	0.0	1.2	14.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	15.6	0.0	3.8	3.4	3.6	10.2	0.0	4.4	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.5	24.6	0.0	33.3	9.8	9.7	60.8	0.0	48.4	77.0	0.0	0.0
LnGrp LOS	B	C		C	A	A	E	A	D	E	A	A
Approach Vol, veh/h		1412	A		819			733			24	
Approach Delay, s/veh		24.5			15.3			58.3			77.0	
Approach LOS		C			B			E			E	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	91.1	8.7	14.5	76.6	30.2
Change Period (Y+Rc), s	* 5.6	* 5.8	* 6.5	* 5.6	5.8
Max Green Setting (Gmax), s	* 74	* 9.2	* 8.5	* 59	29.2
Max Q Clear Time (g_c+I1), s	11.2	3.7	8.0	40.7	22.8
Green Ext Time (p_c), s	3.7	0.0	0.0	9.5	1.6

Intersection Summary	
HCM 6th Ctrl Delay	30.7
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 [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	313	623	868
Demand Flow Rate, veh/h	319	636	886
Vehicles Circulating, veh/h	856	21	94
Vehicles Exiting, veh/h	124	1154	563
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	16.7	7.5	13.2
Approach LOS	C	A	B

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	319	636	886
Cap Entry Lane, veh/h	576	1351	1254
Entry HV Adj Factor	0.981	0.980	0.980
Flow Entry, veh/h	313	623	868
Cap Entry, veh/h	566	1324	1229
V/C Ratio	0.553	0.471	0.707
Control Delay, s/veh	16.7	7.5	13.2
LOS	C	A	B
95th %tile Queue, veh	3	3	6

Intersection	
Int Delay, s/veh	14.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	180	16	11	94	280	435
Future Vol, veh/h	180	16	11	94	280	435
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	150	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	77	77	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	18	14	122	308	478

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	136	0	-	0	507	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	432	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1448	-	-	-	525	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1448	-	-	-	449	986
Mov Cap-2 Maneuver	-	-	-	-	449	-
Stage 1	-	-	-	-	811	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1448	-	-	-	449	986
HCM Lane V/C Ratio	0.143	-	-	-	0.685	0.485
HCM Control Delay (s)	7.9	0	-	-	28.7	12
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.5	-	-	-	5.1	2.7

HCM 6th Signalized Intersection Summary
1: West Park Pl & Rockbridge Rd

05/29/2018

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	13	354	0	49	10	472	159	9	1	92	379
Future Volume (veh/h)	105	13	354	0	49	10	472	159	9	1	92	379
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	14	0	0	61	12	497	167	9	1	99	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	167	254		0	106	20	1434	2417	129	2	1055	
Arrive On Green	0.05	0.14	0.00	0.00	0.04	0.04	0.69	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3069	569	3456	3430	184	1781	3554	1585
Grp Volume(v), veh/h	113	14	0	0	36	37	497	86	90	1	99	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1768	1728	1777	1837	1781	1777	1585
Q Serve(g_s), s	4.2	0.8	0.0	0.0	2.6	2.7	7.6	0.0	0.0	0.1	2.6	0.0
Cycle Q Clear(g_c), s	4.2	0.8	0.0	0.0	2.6	2.7	7.6	0.0	0.0	0.1	2.6	0.0
Prop In Lane	1.00		1.00	0.00		0.32	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	167	254		0	63	63	1434	1252	1294	2	1055	
V/C Ratio(X)	0.67	0.06		0.00	0.56	0.59	0.35	0.07	0.07	0.41	0.09	
Avail Cap(c_a), veh/h	486	555		0	186	185	1434	1252	1294	107	1055	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00
Uniform Delay (d), s/veh	60.8	48.9	0.0	0.0	61.7	61.7	12.8	0.0	0.0	64.9	33.1	0.0
Incr Delay (d2), s/veh	4.7	0.1	0.0	0.0	7.6	8.5	0.1	0.1	0.1	84.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	0.0	0.0	1.3	1.4	2.5	0.0	0.0	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	49.0	0.0	0.0	69.3	70.2	13.0	0.1	0.1	149.6	33.2	0.0
LnGrp LOS	E	D		A	E	E	B	A	A	F	C	
Approach Vol, veh/h		127	A		73			673			100	A
Approach Delay, s/veh		63.7			69.8			9.6			34.4	
Approach LOS		E			E			A			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	61.0	45.0		24.0	7.4	98.6	13.0	11.0				
Change Period (Y+Rc), s	* 7	6.4		* 6.4	7.2	* 7	* 6.7	* 6.4				
Max Green Setting (Gmax), s	* 33	38.6		* 39	7.8	* 64	* 18	* 14				
Max Q Clear Time (g_c+I1), s	9.6	4.6		2.8	2.1	2.0	6.2	4.7				
Green Ext Time (p_c), s	1.7	0.5		0.0	0.0	0.9	0.2	0.2				

Intersection Summary		
HCM 6th Ctrl Delay		23.7
HCM 6th LOS		C

Notes

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

Unsignalized Delay for [EBR, 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)	0	0	0	57	4	0	1200	648	0	0	379	63
Future Volume (veh/h)	0	0	0	57	4	0	1200	648	0	0	379	63
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	0	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				76	5	0	1290	697	0	0	416	69
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	0	2	2	0	0	2	2
Cap, veh/h				122	66	0	1368	3075	0	0	1277	210
Arrive On Green				0.04	0.04	0.00	0.66	1.00	0.00	0.00	0.14	0.14
Sat Flow, veh/h				3456	1870	0	3456	3647	0	0	3147	503
Grp Volume(v), veh/h				76	5	0	1290	697	0	0	241	244
Grp Sat Flow(s),veh/h/ln				1728	1870	0	1728	1777	0	0	1777	1780
Q Serve(g_s), s				2.8	0.3	0.0	43.7	0.0	0.0	0.0	15.9	16.1
Cycle Q Clear(g_c), s				2.8	0.3	0.0	43.7	0.0	0.0	0.0	15.9	16.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.28
Lane Grp Cap(c), veh/h				122	66	0	1368	3075	0	0	743	744
V/C Ratio(X)				0.62	0.08	0.00	0.94	0.23	0.00	0.00	0.32	0.33
Avail Cap(c_a), veh/h				221	119	0	1948	3075	0	0	743	744
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	0.00	0.56	0.56	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh				61.8	60.6	0.0	20.7	0.0	0.0	0.0	39.5	39.5
Incr Delay (d2), s/veh				5.1	0.5	0.0	4.8	0.1	0.0	0.0	1.0	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
%ile BackOfQ(50%),veh/ln				1.3	0.2	0.0	11.7	0.0	0.0	0.0	7.8	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				66.9	61.1	0.0	25.6	0.1	0.0	0.0	40.4	40.5
LnGrp LOS				E	E	A	C	A	A	A	D	D
Approach Vol, veh/h					81			1987			485	
Approach Delay, s/veh					66.5			16.6			40.5	
Approach LOS					E			B			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	58.1	60.6		11.3		118.7						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 73	* 29		* 8.3		* 1.1E2						
Max Q Clear Time (g_c+I1), s	45.7	18.1		4.8		2.0						
Green Ext Time (p_c), s	5.7	1.9		0.0		5.0						

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	21	607	0	0	0	0	1716	34	56	382	0
Future Volume (veh/h)	126	21	607	0	0	0	0	1716	34	56	382	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	168	28	0				0	1972	0	64	434	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	226	122					0	2691		82	3007	0
Arrive On Green	0.07	0.07	0.00				0.00	0.76	0.00	0.09	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	168	28	0				0	1972	0	64	434	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	6.2	1.8	0.0				0.0	39.4	0.0	4.6	0.0	0.0
Cycle Q Clear(g_c), s	6.2	1.8	0.0				0.0	39.4	0.0	4.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	226	122					0	2691		82	3007	0
V/C Ratio(X)	0.74	0.23					0.00	0.73		0.78	0.14	0.00
Avail Cap(c_a), veh/h	369	200					0	2691		197	3007	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	59.7	57.6	0.0				0.0	8.6	0.0	58.4	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.9	0.0				0.0	1.8	0.0	13.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.9	0.0				0.0	12.2	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	58.6	0.0				0.0	10.4	0.0	72.2	0.1	0.0
LnGrp LOS	E	E					A	B		E	A	A
Approach Vol, veh/h		196	A					1972	A		498	
Approach Delay, s/veh		63.6						10.4			9.4	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	11.6	103.8		14.6		115.4						
Change Period (Y+Rc), s	5.6	* 5.4		6.1		* 5.4						
Max Green Setting (Gmax), s	14.4	* 85		13.9		* 1E2						
Max Q Clear Time (g_c+I1), s	10.6	41.4		8.2		2.0						
Green Ext Time (p_c), s	0.1	23.7		0.3		2.9						

Intersection Summary	
HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

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

Unsignalized Delay for [NBR, 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)	46	1013	77	286	70	71	764	360	23	99	52	91
Future Volume (veh/h)	46	1013	77	286	70	71	764	360	23	99	52	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	1101	0	292	71	72	780	367	23	125	66	115
Peak Hour Factor	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2959		150	2796	918	599	580	36	162	70	63
Arrive On Green	0.04	0.58	0.00	0.04	0.58	0.58	0.17	0.17	0.17	0.05	0.04	0.04
Sat Flow, veh/h	3456	5106	1585	3456	4826	1585	3456	3397	212	3456	1777	1585
Grp Volume(v), veh/h	50	1101	0	292	71	72	780	191	199	125	66	115
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1728	1777	1832	1728	1777	1585
Q Serve(g_s), s	2.5	20.8	0.0	7.8	1.1	3.6	31.2	18.0	18.2	6.4	6.7	7.1
Cycle Q Clear(g_c), s	2.5	20.8	0.0	7.8	1.1	3.6	31.2	18.0	18.2	6.4	6.7	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	150	2959		150	2796	918	599	304	313	162	70	63
V/C Ratio(X)	0.33	0.37		1.95	0.03	0.08	1.30	0.63	0.63	0.77	0.94	1.84
Avail Cap(c_a), veh/h	161	2959		150	2796	918	599	304	313	175	70	63
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	83.6	20.3	0.0	86.1	16.2	16.7	74.4	69.3	69.4	84.8	86.2	86.5
Incr Delay (d2), s/veh	1.3	0.4	0.0	450.9	0.0	0.2	147.9	4.1	4.2	17.7	87.2	432.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	8.3	0.0	12.8	0.4	1.4	26.0	8.5	8.8	3.3	4.7	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.9	20.7	0.0	537.0	16.2	16.8	222.3	73.5	73.6	102.5	173.4	519.2
LnGrp LOS	F	C		F	B	B	F	E	E	F	F	F
Approach Vol, veh/h		1151	A		435			1170			306	
Approach Delay, s/veh		23.4			365.9			172.7			274.4	
Approach LOS		C			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	111.0	39.0	15.0	15.0	111.0	15.3	38.7
Change Period (Y+Rc), s	7.2	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 1E2	31.2	7.1	7.8	104.3	9.1	30.1
Max Q Clear Time (g_c+I1), s	4.5	5.6	33.2	9.1	9.8	22.8	8.4	20.2
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.0	9.2	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	154.2
HCM 6th LOS	F

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	882	35	20	917	788	147
Future Volume (veh/h)	882	35	20	917	788	147
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	938	0	25	1132	985	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	880		156	1479	1253	
Arrive On Green	0.49	0.00	0.02	0.42	0.35	0.00
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	938	0	25	1132	985	0
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	64.2	0.0	1.1	35.5	32.3	0.0
Cycle Q Clear(g_c), s	64.2	0.0	1.1	35.5	32.3	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	880		156	1479	1253	
V/C Ratio(X)	1.07		0.16	0.77	0.79	
Avail Cap(c_a), veh/h	880		248	1479	1253	
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	0.00
Uniform Delay (d), s/veh	32.9	0.0	29.2	32.5	37.7	0.0
Incr Delay (d2), s/veh	49.6	0.0	0.5	3.8	5.0	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	38.5	0.0	0.5	15.3	14.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	82.5	0.0	29.7	36.3	42.7	0.0
LnGrp LOS	F		C	D	D	
Approach Vol, veh/h	938	A		1157	985	A
Approach Delay, s/veh	82.5			36.2	42.7	
Approach LOS	F			D	D	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	60.0		8.3	51.7	70.0
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 54		* 9.7	* 39	64.2
Max Q Clear Time (g_c+I1), s	37.5		3.1	34.3	66.2
Green Ext Time (p_c), s	6.9		0.0	2.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	52.4
HCM 6th LOS	D

Notes

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

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

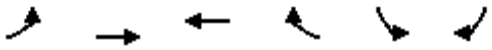
Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	411	116	204	1140	23	3	0	2	3	0	2
Future Vol, veh/h	21	411	116	204	1140	23	3	0	2	3	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	447	126	222	1239	25	3	0	2	3	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1264	0	0	573	0	0	1557	2201	224	1966	2315	632
Stage 1	-	-	-	-	-	-	493	493	-	1696	1696	-
Stage 2	-	-	-	-	-	-	1064	1708	-	270	619	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	546	-	-	996	-	-	76	44	779	37	37	423
Stage 1	-	-	-	-	-	-	526	545	-	96	147	-
Stage 2	-	-	-	-	-	-	238	145	-	713	478	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	546	-	-	996	-	-	61	33	779	30	28	423
Mov Cap-2 Maneuver	-	-	-	-	-	-	61	33	-	30	28	-
Stage 1	-	-	-	-	-	-	504	522	-	92	114	-
Stage 2	-	-	-	-	-	-	184	113	-	681	458	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	1.4	44.2	88.9
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	61	779	546	-	-	996	-	-	30	423
HCM Lane V/C Ratio	0.053	0.003	0.042	-	-	0.223	-	-	0.109	0.005
HCM Control Delay (s)	67.3	9.6	11.9	-	-	9.6	-	-	139.1	13.6
HCM Lane LOS	F	A	B	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0.2	0	0.1	-	-	0.9	-	-	0.3	0



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	397	1204	1361	146	195
Future Volume (veh/h)	22	397	1204	1361	146	195
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	28	503	1281	0	195	0
Peak Hour Factor	0.79	0.79	0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	55	2953	2684		258	
Arrive On Green	0.03	0.83	0.25	0.00	0.07	0.00
Sat Flow, veh/h	1781	3647	3647	1585	3456	1585
Grp Volume(v), veh/h	28	503	1281	0	195	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1728	1585
Q Serve(g_s), s	2.0	3.6	39.9	0.0	7.2	0.0
Cycle Q Clear(g_c), s	2.0	3.6	39.9	0.0	7.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	55	2953	2684		258	
V/C Ratio(X)	0.51	0.17	0.48		0.76	
Avail Cap(c_a), veh/h	126	2953	2684		641	
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	62.0	2.2	26.9	0.0	59.0	0.0
Incr Delay (d2), s/veh	7.1	0.1	0.6	0.0	4.5	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	1.0	0.8	19.1	0.0	3.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	69.1	2.3	27.5	0.0	63.5	0.0
LnGrp LOS	E	A	C		E	
Approach Vol, veh/h		531	1281	A	195	A
Approach Delay, s/veh		5.8	27.5		63.5	
Approach LOS		A	C		E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.8	104.6		15.6		114.4
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4
Max Green Setting (Gmax), s	* 9.2	78.6		* 24		93.6
Max Q Clear Time (g_c+I1), s	4.0	41.9		9.2		5.6
Green Ext Time (p_c), s	0.0	11.1		0.5		3.4

Intersection Summary	
HCM 6th Ctrl Delay	25.3
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.

Unsignalized Delay for [EBT, WBR, 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)	0	298	346	104	1999	2	834	1	66	0	0	0
Future Volume (veh/h)	0	298	346	104	1999	2	834	1	66	0	0	0
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	0	372	432	111	2127	2	879	0	69	0	0	0
Peak Hour Factor	0.80	0.80	0.80	0.94	0.94	0.94	0.95	0.95	0.95	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	1548	691	391	1945	2	1321	0	588	0	1	0
Arrive On Green	0.00	0.44	0.44	0.05	0.53	0.53	0.37	0.00	0.37	0.00	0.00	0.00
Sat Flow, veh/h	190	3554	1585	1781	3643	3	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	372	432	111	1037	1092	879	0	69	0	0	0
Grp Sat Flow(s),veh/h/ln	190	1777	1585	1781	1777	1870	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	8.6	27.5	4.3	69.4	69.4	26.8	0.0	3.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	8.6	27.5	4.3	69.4	69.4	26.8	0.0	3.7	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	55	1548	691	391	949	998	1321	0	588	0	1	0
V/C Ratio(X)	0.00	0.24	0.63	0.28	1.09	1.09	0.67	0.00	0.12	0.00	0.00	0.00
Avail Cap(c_a), veh/h	55	1548	691	422	949	998	1321	0	588	0	132	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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	23.1	28.5	17.9	30.3	30.3	34.2	0.0	26.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	4.2	0.4	58.1	57.6	2.7	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.6	10.8	1.8	42.3	44.4	12.0	0.0	1.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.5	32.7	18.3	88.4	87.9	36.8	0.0	27.3	0.0	0.0	0.0
LnGrp LOS	A	C	C	B	F	F	D	A	C	A	A	A
Approach Vol, veh/h		804			2240			948			0	
Approach Delay, s/veh		28.4			84.7			36.1			0.0	
Approach LOS		C			F			D				

Timer - Assigned Phs	2		4	5	6		8					
Phs Duration (G+Y+Rc), s	75.0		0.0	12.8	62.2		55.0					
Change Period (Y+Rc), s	* 5.6		* 5.8	* 6.5	* 5.6		6.8					
Max Green Setting (Gmax), s	* 54		* 9.2	* 8.5	* 39		48.2					
Max Q Clear Time (g_c+I1), s	71.4		0.0	6.3	29.5		28.8					
Green Ext Time (p_c), s	0.0		0.0	0.0	2.8		3.7					

Intersection Summary		
HCM 6th Ctrl Delay	61.8	
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.

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	55	380	553	220	49
Future Vol, veh/h	19	55	380	553	220	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	65	418	608	286	64

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1762	318	350	0	-	0
Stage 1	318	-	-	-	-	-
Stage 2	1444	-	-	-	-	-
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	93	723	1209	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	44	723	1209	-	-	-
Mov Cap-2 Maneuver	44	-	-	-	-	-
Stage 1	353	-	-	-	-	-
Stage 2	217	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	60.8	3.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1209	-	146	-	-
HCM Lane V/C Ratio	0.345	-	0.596	-	-
HCM Control Delay (s)	9.5	0	60.8	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	1.6	-	3.1	-	-

Intersection	
Int Delay, s/veh	10.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	451	66	34	470	32	116
Future Vol, veh/h	451	66	34	470	32	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	86	86	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	501	73	40	547	38	138

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	587	0	-	0	1389	314
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	1075	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	988	-	-	-	157	726
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	328	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	988	-	-	-	74	726
Mov Cap-2 Maneuver	-	-	-	-	74	-
Stage 1	-	-	-	-	349	-
Stage 2	-	-	-	-	328	-

Approach	EB	WB	SB
HCM Control Delay, s	10.8	0	47.7
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	988	-	-	-	250
HCM Lane V/C Ratio	0.507	-	-	-	0.705
HCM Control Delay (s)	12.3	0	-	-	47.7
HCM Lane LOS	B	A	-	-	E
HCM 95th %tile Q(veh)	2.9	-	-	-	4.7

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	543	215	87	1003	7	5
Future Vol, veh/h	543	215	87	1003	7	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	200	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	590	234	95	1090	8	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	824	0	1325	295
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	735	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	802	-	147	701
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	435	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	802	-	130	701
Mov Cap-2 Maneuver	-	-	-	-	235	-
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	435	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	235	701	-	-	802	-
HCM Lane V/C Ratio	0.032	0.008	-	-	0.118	-
HCM Control Delay (s)	20.8	10.2	-	-	10.1	-
HCM Lane LOS	C	B	-	-	B	-
HCM 95th %tile Q(veh)	0.1	0	-	-	0.4	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	58	40	503	50	1	1
Future Vol, veh/h	58	40	503	50	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	43	547	54	1	1

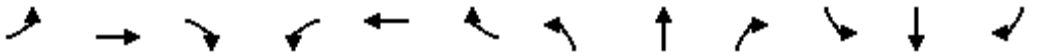
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	601	0	-	0	743	574
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	169	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	976	-	-	-	383	518
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	861	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	976	-	-	-	358	518
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	861	-

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	976	-	-	-	423
HCM Lane V/C Ratio	0.065	-	-	-	0.005
HCM Control Delay (s)	8.9	0	-	-	13.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0

HCM 6th Signalized Intersection Summary
1: West Park Pl & Rockbridge Rd

05/29/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	74	806	0	145	22	556	206	39	3	143	319
Future Volume (veh/h)	297	74	806	0	145	22	556	206	39	3	143	319
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	319	80	0	0	181	28	585	217	41	3	154	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	383	436		0	248	38	1161	1903	353	7	1066	
Arrive On Green	0.11	0.23	0.00	0.00	0.08	0.08	0.56	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3185	471	3456	2992	556	1781	3554	1585
Grp Volume(v), veh/h	319	80	0	0	103	106	585	127	131	3	154	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1786	1728	1777	1770	1781	1777	1585
Q Serve(g_s), s	11.8	4.5	0.0	0.0	7.3	7.6	13.5	0.0	0.0	0.2	4.1	0.0
Cycle Q Clear(g_c), s	11.8	4.5	0.0	0.0	7.3	7.6	13.5	0.0	0.0	0.2	4.1	0.0
Prop In Lane	1.00		1.00	0.00		0.26	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	383	436		0	142	143	1161	1130	1126	7	1066	
V/C Ratio(X)	0.83	0.18		0.00	0.72	0.74	0.50	0.11	0.12	0.43	0.14	
Avail Cap(c_a), veh/h	550	712		0	318	320	1161	1130	1126	130	1066	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.6	39.9	0.0	0.0	58.4	58.5	21.9	0.0	0.0	64.6	33.3	0.0
Incr Delay (d2), s/veh	7.3	0.2	0.0	0.0	6.7	7.4	0.3	0.2	0.2	36.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.1	0.0	0.0	3.5	3.7	4.5	0.1	0.1	0.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	40.1	0.0	0.0	65.1	65.8	22.2	0.2	0.2	100.7	33.6	0.0
LnGrp LOS	E	D		A	E	E	C	A	A	F	C	
Approach Vol, veh/h		399	A		209			843			157	A
Approach Delay, s/veh		59.2			65.5			15.5			34.9	
Approach LOS		E			E			B			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	49.2	45.0		35.8	6.0	88.2	19.9	15.9				
Change Period (Y+Rc), s	5.5	6.0		5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	24.5	39.0		49.5	9.5	54.5	20.7	23.3				
Max Q Clear Time (g_c+I1), s	15.5	6.1		6.5	2.2	2.0	13.8	9.6				
Green Ext Time (p_c), s	1.5	0.9		0.4	0.0	1.4	0.6	0.9				

Intersection Summary		
HCM 6th Ctrl Delay		34.7
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR, 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)	0	0	0	83	16	3	573	792	0	0	885	58
Future Volume (veh/h)	0	0	0	83	16	3	573	792	0	0	885	58
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				111	21	4	616	852	0	0	973	64
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				169	75	14	699	3027	0	0	2024	133
Arrive On Green				0.05	0.05	0.05	0.27	1.00	0.00	0.00	0.20	0.20
Sat Flow, veh/h				3456	1527	291	3456	3647	0	0	3478	223
Grp Volume(v), veh/h				111	0	25	616	852	0	0	511	526
Grp Sat Flow(s),veh/h/ln				1728	0	1818	1728	1777	0	0	1777	1830
Q Serve(g_s), s				4.1	0.0	1.7	22.2	0.0	0.0	0.0	33.1	33.1
Cycle Q Clear(g_c), s				4.1	0.0	1.7	22.2	0.0	0.0	0.0	33.1	33.1
Prop In Lane				1.00		0.16	1.00		0.00	0.00		0.12
Lane Grp Cap(c), veh/h				169	0	89	699	3027	0	0	1062	1094
V/C Ratio(X)				0.66	0.00	0.28	0.88	0.28	0.00	0.00	0.48	0.48
Avail Cap(c_a), veh/h				486	0	256	1151	3027	0	0	1062	1094
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.00	0.00	0.59	0.59
Uniform Delay (d), s/veh				60.7	0.0	59.6	46.0	0.0	0.0	0.0	34.3	34.3
Incr Delay (d2), s/veh				4.3	0.0	1.7	3.5	0.2	0.0	0.0	0.9	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.9	0.0	0.8	9.1	0.1	0.0	0.0	16.0	16.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				65.0	0.0	61.3	49.5	0.2	0.0	0.0	35.2	35.2
LnGrp LOS				E	A	E	D	A	A	A	D	D
Approach Vol, veh/h					136			1468			1037	
Approach Delay, s/veh					64.3			20.9			35.2	
Approach LOS					E			C			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.0	83.9		13.1		116.9						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 13	* 49		* 18		* 99						
Max Q Clear Time (g_c+I1), s	24.2	35.1		6.1		2.0						
Green Ext Time (p_c), s	2.1	5.2		0.3		6.5						

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	357	321	1897	0	0	0	0	1018	159	101	869	0
Future Volume (veh/h)	357	321	1897	0	0	0	0	1018	159	101	869	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	476	428	0				0	1170	0	115	988	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	888	480					0	1894		140	2326	0
Arrive On Green	0.26	0.26	0.00				0.00	0.53	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	476	428	0				0	1170	0	115	988	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	15.4	28.7	0.0				0.0	29.8	0.0	8.1	0.0	0.0
Cycle Q Clear(g_c), s	15.4	28.7	0.0				0.0	29.8	0.0	8.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	888	480					0	1894		140	2326	0
V/C Ratio(X)	0.54	0.89					0.00	0.62		0.82	0.42	0.00
Avail Cap(c_a), veh/h	1034	560					0	1894		471	2326	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	41.6	46.5	0.0				0.0	21.1	0.0	53.9	0.0	0.0
Incr Delay (d2), s/veh	0.5	14.8	0.0				0.0	1.5	0.0	9.6	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	6.5	14.9	0.0				0.0	12.0	0.0	3.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	61.4	0.0				0.0	22.7	0.0	63.4	0.5	0.0
LnGrp LOS	D	E					A	C		E	A	A
Approach Vol, veh/h		904	A					1170	A		1103	
Approach Delay, s/veh		51.2						22.7			7.0	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	15.8	74.7	39.5	90.5
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	34.4	* 40	38.9	* 80
Max Q Clear Time (g_c+I1), s	10.1	31.8	30.7	2.0
Green Ext Time (p_c), s	0.3	4.4	2.7	8.0

Intersection Summary	
HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C

Notes

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

Unsignalized Delay for [NBR, 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)	63	2124	125	337	1350	192	369	198	344	273	182	46
Future Volume (veh/h)	63	2124	125	337	1350	192	369	198	344	273	182	46
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	2910	0	396	1588	226	405	218	378	281	188	47
Peak Hour Factor	0.73	0.73	0.73	0.85	0.85	0.85	0.91	0.91	0.91	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	2647		150	2972	423	330	356	318	271	505	123
Arrive On Green	0.05	0.52	0.00	0.04	0.52	0.52	0.10	0.20	0.20	0.08	0.18	0.18
Sat Flow, veh/h	3456	5106	1585	3456	5733	816	3456	1777	1585	3456	2832	691
Grp Volume(v), veh/h	86	2910	0	396	1336	478	405	218	378	281	116	119
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1724	1728	1777	1585	1728	1777	1746
Q Serve(g_s), s	4.4	93.3	0.0	7.8	33.2	33.2	17.2	20.1	36.1	14.1	10.4	10.8
Cycle Q Clear(g_c), s	4.4	93.3	0.0	7.8	33.2	33.2	17.2	20.1	36.1	14.1	10.4	10.8
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	159	2647		150	2501	893	330	356	318	271	317	311
V/C Ratio(X)	0.54	1.10		2.64	0.53	0.53	1.23	0.61	1.19	1.04	0.37	0.38
Avail Cap(c_a), veh/h	161	2647		150	2501	893	330	356	318	271	317	311
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	84.0	43.3	0.0	86.1	28.9	28.9	81.4	65.6	72.0	82.9	65.0	65.2
Incr Delay (d2), s/veh	3.5	51.3	0.0	758.9	0.8	2.3	125.8	3.1	112.1	65.0	0.7	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	2.0	50.1	0.0	19.2	12.8	14.1	13.4	9.3	24.4	8.7	4.7	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	87.5	94.7	0.0	845.0	29.7	31.2	207.2	68.6	184.1	147.9	65.7	66.0
LnGrp LOS	F	F		F	C	C	F	E	F	F	E	E
Approach Vol, veh/h		2996	A		2210			1001			516	
Approach Delay, s/veh		94.5			176.1			168.3			110.5	
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	100.0	25.0	40.0	15.0	100.0	21.0	44.0
Change Period (Y+Rc), s	6.7	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 93	17.2	32.1	7.8	93.3	14.1	36.1
Max Q Clear Time (g_c+I1), s	10.4	35.2	19.2	12.8	9.8	95.3	16.1	38.1
Green Ext Time (p_c), s	0.0	19.1	0.0	1.1	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	133.5
HCM 6th LOS	F

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	310	35	50	778	2027	724
Future Volume (veh/h)	310	35	50	778	2027	724
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	330	0	62	960	2534	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	332		117	2572	2305	
Arrive On Green	0.19	0.00	0.03	0.72	0.65	0.00
Sat Flow, veh/h	1781	1585	1781	3647	3647	1585
Grp Volume(v), veh/h	330	0	62	960	2534	0
Grp Sat Flow(s),veh/h/ln	1781	1585	1781	1777	1777	1585
Q Serve(g_s), s	24.1	0.0	1.4	13.3	84.3	0.0
Cycle Q Clear(g_c), s	24.1	0.0	1.4	13.3	84.3	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	332		117	2572	2305	
V/C Ratio(X)	1.00		0.53	0.37	1.10	
Avail Cap(c_a), veh/h	332		188	2572	2305	
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	0.00
Uniform Delay (d), s/veh	52.8	0.0	34.8	6.8	22.8	0.0
Incr Delay (d2), s/veh	48.0	0.0	3.7	0.4	52.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.1	0.0	1.4	4.4	46.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	100.9	0.0	38.5	7.2	74.9	0.0
LnGrp LOS	F		D	A	F	
Approach Vol, veh/h	330	A		1022	2534	A
Approach Delay, s/veh	100.9			9.1	74.9	
Approach LOS	F			A	E	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	100.0		9.8	90.2	30.0
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 94		* 9.7	* 79	24.2
Max Q Clear Time (g_c+I1), s	15.3		3.4	86.3	26.1
Green Ext Time (p_c), s	7.7		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	59.8
HCM 6th LOS	E

Notes

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

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

Intersection	
Int Delay, s/veh	5927.3

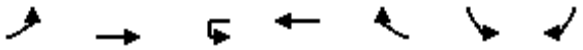
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1857	115	202	449	4	268	0	192	11	0	28
Future Vol, veh/h	4	1857	115	202	449	4	268	0	192	11	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	200	-	200	200	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	1	1	2	2	1	1	1	2	1	2
Mvmt Flow	4	2018	125	220	488	4	291	0	209	12	0	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	492	0	0	2143	0	0	2710	2958	1009	1947	3081	246
Stage 1	-	-	-	-	-	-	2026	2026	-	930	930	-
Stage 2	-	-	-	-	-	-	684	932	-	1017	2151	-
Critical Hdwy	4.14	-	-	4.12	-	-	7.52	6.52	6.92	7.54	6.52	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.52	5.52	-	6.54	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.52	5.52	-	6.54	5.52	-
Follow-up Hdwy	2.22	-	-	2.21	-	-	3.51	4.01	3.31	3.52	4.01	3.32
Pot Cap-1 Maneuver	1068	-	-	252	-	-	~ 10	14	240	39	12	754
Stage 1	-	-	-	-	-	-	~ 60	101	-	287	346	-
Stage 2	-	-	-	-	-	-	407	346	-	254	87	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1068	-	-	252	-	-	~ 2	2	240	~ 1	2	754
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 2	2	-	~ 1	2	-
Stage 1	-	-	-	-	-	-	~ 60	101	-	286	44	-
Stage 2	-	-	-	-	-	-	~ 50	44	-	33	87	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	21.8	$ 40034.1	$ 3142.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	2	240	1068	-	-	252	-	-	1	754
HCM Lane V/C Ratio	145.652	0.87	0.004	-	-	0.871	-	-	-11.957	0.04
HCM Control Delay (s)	$ 68663.1	72.7	8.4	-	-	70.6	-	-	$ 11114.7	10
HCM Lane LOS	F	F	A	-	-	F	-	-	F	B
HCM 95th %tile Q(veh)	39	7.1	0	-	-	7.3	-	-	2.9	0.1

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	217	1877	0	409	584	504	220
Future Volume (veh/h)	217	1877	0	409	584	504	220
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	275	2376		435	0	672	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	126	2469		2059		728	
Arrive On Green	0.07	0.69		0.58	0.00	0.21	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	275	2376		435	0	672	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	9.2	80.1		7.6	0.0	24.8	0.0
Cycle Q Clear(g_c), s	9.2	80.1		7.6	0.0	24.8	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	126	2469		2059		728	
V/C Ratio(X)	2.18	0.96		0.21		0.92	
Avail Cap(c_a), veh/h	126	2469		2059		774	
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		0.96	0.00	1.00	0.00
Uniform Delay (d), s/veh	60.4	18.3		13.1	0.0	50.3	0.0
Incr Delay (d2), s/veh	556.8	11.2		0.2	0.0	16.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.6	30.6		2.9	0.0	12.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	617.2	29.5		13.3	0.0	66.3	0.0
LnGrp LOS	F	C		B		E	
Approach Vol, veh/h		2651		435	A	672	A
Approach Delay, s/veh		90.5		13.3		66.3	
Approach LOS		F		B		E	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	15.0	81.7		33.3		96.7	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 9.2	73.6		* 29		88.6	
Max Q Clear Time (g_c+I1), s	11.2	9.6		26.8		82.1	
Green Ext Time (p_c), s	0.0	2.9		0.6		6.0	

Intersection Summary		
HCM 6th Ctrl Delay		77.2
HCM 6th LOS		E

Notes

User approved ignoring U-Turning movement.

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

Unsignalized Delay for [EBT, WBR, 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)	5	1482	1083	194	618	4	539	2	188	3	10	4
Future Volume (veh/h)	5	1482	1083	194	618	4	539	2	188	3	10	4
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	5	1528	1116	237	754	5	587	0	204	4	14	6
Peak Hour Factor	0.97	0.97	0.97	0.82	0.82	0.82	0.92	0.92	0.92	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	437	1923	858	194	2376	16	673	0	299	7	23	10
Arrive On Green	0.54	0.54	0.54	0.07	0.66	0.66	0.19	0.00	0.19	0.02	0.02	0.02
Sat Flow, veh/h	706	3554	1585	1781	3619	24	3563	0	1585	296	1036	444
Grp Volume(v), veh/h	5	1528	1116	237	370	389	587	0	204	24	0	0
Grp Sat Flow(s),veh/h/ln	706	1777	1585	1781	1777	1866	1781	0	1585	1776	0	0
Q Serve(g_s), s	0.4	45.0	70.3	8.5	11.8	11.8	20.8	0.0	15.6	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.4	45.0	70.3	8.5	11.8	11.8	20.8	0.0	15.6	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.17		0.25
Lane Grp Cap(c), veh/h	437	1923	858	194	1166	1225	673	0	299	40	0	0
V/C Ratio(X)	0.01	0.79	1.30	1.22	0.32	0.32	0.87	0.00	0.68	0.61	0.00	0.00
Avail Cap(c_a), veh/h	437	1923	858	194	1166	1225	800	0	356	126	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	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.8	24.0	29.8	38.0	9.7	9.7	51.2	0.0	49.1	63.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.5	144.1	137.0	0.7	0.7	9.2	0.0	4.1	14.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	18.4	58.6	13.6	4.4	4.6	10.1	0.0	6.5	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	27.5	173.9	174.9	10.4	10.4	60.3	0.0	53.2	77.0	0.0	0.0
LnGrp LOS	B	C	F	F	B	B	E	A	D	E	A	A
Approach Vol, veh/h		2649			996			791			24	
Approach Delay, s/veh		89.2			49.5			58.5			77.0	
Approach LOS		F			D			E			E	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	90.9	8.7	15.0	75.9	30.4
Change Period (Y+Rc), s	* 5.6	* 5.8	* 6.5	* 5.6	5.8
Max Green Setting (Gmax), s	* 74	* 9.2	* 8.5	* 59	29.2
Max Q Clear Time (g_c+I1), s	13.8	3.7	10.5	72.3	22.8
Green Ext Time (p_c), s	4.8	0.0	0.0	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	74.8
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.

Intersection	
Int Delay, s/veh	87.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	72	263	98	483	646	58
Future Vol, veh/h	72	263	98	483	646	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	91	91	77	77
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	85	309	108	531	839	75

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1624	877	914	0	-	0
Stage 1	877	-	-	-	-	-
Stage 2	747	-	-	-	-	-
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	113	348	746	-	-	-
Stage 1	407	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	90	348	746	-	-	-
Mov Cap-2 Maneuver	90	-	-	-	-	-
Stage 1	324	-	-	-	-	-
Stage 2	468	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 430.4	1.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	746	-	215	-	-
HCM Lane V/C Ratio	0.144	-	1.833	-	-
HCM Control Delay (s)	10.6	0	$ 430.4	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.5	-	27.7	-	-

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

Intersection	
Int Delay, s/veh	126.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	180	72	73	94	280	435
Future Vol, veh/h	180	72	73	94	280	435
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	77	77	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	83	95	122	308	478

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	217	0	-	0	653	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	497	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1353	-	-	-	432	890
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1353	-	-	-	363	890
Mov Cap-2 Maneuver	-	-	-	-	363	-
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	611	-

Approach	EB	WB	SB
HCM Control Delay, s	5.8	0	205.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1353	-	-	-	567
HCM Lane V/C Ratio	0.153	-	-	-	1.386
HCM Control Delay (s)	8.1	0	-	-	205.3
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.5	-	-	-	35.6

Intersection	
Int Delay, s/veh	19

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1855	213	87	745	81	118
Future Vol, veh/h	1855	213	87	745	81	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	200	200	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	2016	232	95	810	88	128

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	2248	0	2611	1008
Stage 1	-	-	-	-	2016	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	-	-	4.12	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.21	-	3.51	3.31
Pot Cap-1 Maneuver	-	-	229	-	~ 20	240
Stage 1	-	-	-	-	90	-
Stage 2	-	-	-	-	517	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	229	-	~ 12	240
Mov Cap-2 Maneuver	-	-	-	-	~ 45	-
Stage 1	-	-	-	-	~ 53	-
Stage 2	-	-	-	-	517	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	282.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	45	240	-	-	229	-
HCM Lane V/C Ratio	1.957	0.534	-	-	0.413	-
HCM Control Delay (s)	$ 641.9	36	-	-	31.4	-
HCM Lane LOS	F	E	-	-	D	-
HCM 95th %tile Q(veh)	9	2.9	-	-	1.9	-

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

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	56	296	105	50	54	62
Future Vol, veh/h	56	296	105	50	54	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	61	322	114	54	59	67

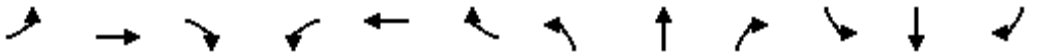
Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	168	0	-	0	585	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	444	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1416	-	-	-	475	910
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	649	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1416	-	-	-	450	910
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	649	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	12.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1416	-	-	-	617
HCM Lane V/C Ratio	0.043	-	-	-	0.204
HCM Control Delay (s)	7.7	0	-	-	12.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

HCM 6th Signalized Intersection Summary
1: West Park Pl & Rockbridge Rd

05/29/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	13	354	0	49	10	472	159	9	1	92	379
Future Volume (veh/h)	105	13	354	0	49	10	472	159	9	1	92	379
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	113	14	0	0	61	12	497	167	9	1	99	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	167	254		0	106	20	1434	2417	129	2	1055	
Arrive On Green	0.05	0.14	0.00	0.00	0.04	0.04	0.69	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3069	569	3456	3430	184	1781	3554	1585
Grp Volume(v), veh/h	113	14	0	0	36	37	497	86	90	1	99	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1768	1728	1777	1837	1781	1777	1585
Q Serve(g_s), s	4.2	0.8	0.0	0.0	2.6	2.7	7.6	0.0	0.0	0.1	2.6	0.0
Cycle Q Clear(g_c), s	4.2	0.8	0.0	0.0	2.6	2.7	7.6	0.0	0.0	0.1	2.6	0.0
Prop In Lane	1.00		1.00	0.00		0.32	1.00		0.10	1.00		1.00
Lane Grp Cap(c), veh/h	167	254		0	63	63	1434	1252	1294	2	1055	
V/C Ratio(X)	0.67	0.06		0.00	0.56	0.59	0.35	0.07	0.07	0.41	0.09	
Avail Cap(c_a), veh/h	486	555		0	186	185	1434	1252	1294	107	1055	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	0.00
Uniform Delay (d), s/veh	60.8	48.9	0.0	0.0	61.7	61.7	12.8	0.0	0.0	64.9	33.1	0.0
Incr Delay (d2), s/veh	4.7	0.1	0.0	0.0	7.6	8.5	0.1	0.1	0.1	84.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.4	0.0	0.0	1.3	1.4	2.5	0.0	0.0	0.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.5	49.0	0.0	0.0	69.3	70.2	13.0	0.1	0.1	149.6	33.2	0.0
LnGrp LOS	E	D		A	E	E	B	A	A	F	C	
Approach Vol, veh/h		127	A		73			673			100	A
Approach Delay, s/veh		63.7			69.8			9.6			34.4	
Approach LOS		E			E			A			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	61.0	45.0		24.0	7.4	98.6	13.0	11.0				
Change Period (Y+Rc), s	* 7	6.4		* 6.4	7.2	* 7	* 6.7	* 6.4				
Max Green Setting (Gmax), s	* 33	38.6		* 39	7.8	* 64	* 18	* 14				
Max Q Clear Time (g_c+I1), s	9.6	4.6		2.8	2.1	2.0	6.2	4.7				
Green Ext Time (p_c), s	1.7	0.5		0.0	0.0	0.9	0.2	0.2				

Intersection Summary			
HCM 6th Ctrl Delay		23.7	
HCM 6th LOS		C	

Notes

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

Unsignalized Delay for [EBR, 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)	0	0	0	57	4	0	1200	648	0	0	379	63
Future Volume (veh/h)	0	0	0	57	4	0	1200	648	0	0	379	63
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	0	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				76	5	0	1290	697	0	0	416	69
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	0	2	2	0	0	2	2
Cap, veh/h				122	66	0	1368	3075	0	0	1277	210
Arrive On Green				0.04	0.04	0.00	0.66	1.00	0.00	0.00	0.14	0.14
Sat Flow, veh/h				3456	1870	0	3456	3647	0	0	3147	503
Grp Volume(v), veh/h				76	5	0	1290	697	0	0	241	244
Grp Sat Flow(s),veh/h/ln				1728	1870	0	1728	1777	0	0	1777	1780
Q Serve(g_s), s				2.8	0.3	0.0	43.7	0.0	0.0	0.0	15.9	16.1
Cycle Q Clear(g_c), s				2.8	0.3	0.0	43.7	0.0	0.0	0.0	15.9	16.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.28
Lane Grp Cap(c), veh/h				122	66	0	1368	3075	0	0	743	744
V/C Ratio(X)				0.62	0.08	0.00	0.94	0.23	0.00	0.00	0.32	0.33
Avail Cap(c_a), veh/h				221	119	0	1948	3075	0	0	743	744
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	1.00	0.00	0.56	0.56	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh				61.8	60.6	0.0	20.7	0.0	0.0	0.0	39.5	39.5
Incr Delay (d2), s/veh				5.1	0.5	0.0	4.8	0.1	0.0	0.0	1.0	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
%ile BackOfQ(50%),veh/ln				1.3	0.2	0.0	11.7	0.0	0.0	0.0	7.8	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				66.9	61.1	0.0	25.6	0.1	0.0	0.0	40.4	40.5
LnGrp LOS				E	E	A	C	A	A	A	D	D
Approach Vol, veh/h					81			1987			485	
Approach Delay, s/veh					66.5			16.6			40.5	
Approach LOS					E			B			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	58.1	60.6		11.3		118.7						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 73	* 29		* 8.3		* 1.1E2						
Max Q Clear Time (g_c+I1), s	45.7	18.1		4.8		2.0						
Green Ext Time (p_c), s	5.7	1.9		0.0		5.0						

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	21	607	0	0	0	0	1716	34	56	382	0
Future Volume (veh/h)	126	21	607	0	0	0	0	1716	34	56	382	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	168	28	0				0	1972	0	64	434	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	226	122					0	2691		82	3007	0
Arrive On Green	0.07	0.07	0.00				0.00	0.76	0.00	0.09	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	168	28	0				0	1972	0	64	434	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	6.2	1.8	0.0				0.0	39.4	0.0	4.6	0.0	0.0
Cycle Q Clear(g_c), s	6.2	1.8	0.0				0.0	39.4	0.0	4.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	226	122					0	2691		82	3007	0
V/C Ratio(X)	0.74	0.23					0.00	0.73		0.78	0.14	0.00
Avail Cap(c_a), veh/h	369	200					0	2691		197	3007	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	59.7	57.6	0.0				0.0	8.6	0.0	58.4	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.9	0.0				0.0	1.8	0.0	13.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.9	0.0				0.0	12.2	0.0	2.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	58.6	0.0				0.0	10.4	0.0	72.2	0.1	0.0
LnGrp LOS	E	E					A	B		E	A	A
Approach Vol, veh/h		196	A					1972	A		498	
Approach Delay, s/veh		63.6						10.4			9.4	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	11.6	103.8		14.6		115.4						
Change Period (Y+Rc), s	5.6	* 5.4		6.1		* 5.4						
Max Green Setting (Gmax), s	14.4	* 85		13.9		* 1E2						
Max Q Clear Time (g_c+I1), s	10.6	41.4		8.2		2.0						
Green Ext Time (p_c), s	0.1	23.7		0.3		2.9						

Intersection Summary	
HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

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

Unsignalized Delay for [NBR, 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)	46	1013	77	286	70	71	764	360	23	99	52	91
Future Volume (veh/h)	46	1013	77	286	70	71	764	360	23	99	52	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	50	1101	0	292	71	72	780	367	23	125	66	115
Peak Hour Factor	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	0.98	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	2391		534	2796	918	599	580	36	162	70	63
Arrive On Green	0.04	0.47	0.00	0.15	0.58	0.58	0.17	0.17	0.17	0.05	0.04	0.04
Sat Flow, veh/h	3456	5106	1585	3456	4826	1585	3456	3397	212	3456	1777	1585
Grp Volume(v), veh/h	50	1101	0	292	71	72	780	191	199	125	66	115
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1585	1728	1777	1832	1728	1777	1585
Q Serve(g_s), s	2.5	26.3	0.0	14.0	1.1	3.6	31.2	18.0	18.2	6.4	6.7	7.1
Cycle Q Clear(g_c), s	2.5	26.3	0.0	14.0	1.1	3.6	31.2	18.0	18.2	6.4	6.7	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.12	1.00		1.00
Lane Grp Cap(c), veh/h	150	2391		534	2796	918	599	304	313	162	70	63
V/C Ratio(X)	0.33	0.46		0.55	0.03	0.08	1.30	0.63	0.63	0.77	0.94	1.84
Avail Cap(c_a), veh/h	161	2391		534	2796	918	599	304	313	175	70	63
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	83.6	32.4	0.0	70.3	16.2	16.7	74.4	69.3	69.4	84.8	86.2	86.5
Incr Delay (d2), s/veh	1.3	0.6	0.0	1.2	0.0	0.2	147.9	4.1	4.2	17.7	87.2	432.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	10.9	0.0	6.3	0.4	1.4	26.0	8.5	8.8	3.3	4.7	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.9	33.1	0.0	71.5	16.2	16.8	222.3	73.5	73.6	102.5	173.4	519.2
LnGrp LOS	F	C		E	B	B	F	E	E	F	F	F
Approach Vol, veh/h		1151	A		435			1170			306	
Approach Delay, s/veh		35.3			53.4			172.7			274.4	
Approach LOS		D			D			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	111.0	39.0	15.0	35.0	91.0	15.3	38.7
Change Period (Y+Rc), s	7.2	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	8.4	* 1E2	31.2	7.1	27.8	84.3	9.1	30.1
Max Q Clear Time (g_c+I1), s	4.5	5.6	33.2	9.1	16.0	28.3	8.4	20.2
Green Ext Time (p_c), s	0.0	0.9	0.0	0.0	0.7	9.1	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	114.3
HCM 6th LOS	F

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	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	882	35	20	917	788	147
Future Volume (veh/h)	882	35	20	917	788	147
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	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	973	0	25	1132	985	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	1075	486	308	2162	1936	
Arrive On Green	0.30	0.00	0.02	0.61	0.54	0.00
Sat Flow, veh/h	3563	1610	1781	3647	3647	1585
Grp Volume(v), veh/h	973	0	25	1132	985	0
Grp Sat Flow(s),veh/h/ln	1781	1610	1781	1777	1777	1585
Q Serve(g_s), s	34.1	0.0	0.8	23.8	22.7	0.0
Cycle Q Clear(g_c), s	34.1	0.0	0.8	23.8	22.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	1075	486	308	2162	1936	
V/C Ratio(X)	0.91	0.00	0.08	0.52	0.51	
Avail Cap(c_a), veh/h	1293	585	337	2162	1936	
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	0.00
Uniform Delay (d), s/veh	43.6	0.0	13.9	14.6	18.6	0.0
Incr Delay (d2), s/veh	8.2	0.0	0.1	0.9	1.0	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	16.0	0.0	0.3	9.1	9.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	51.8	0.0	14.0	15.5	19.6	0.0
LnGrp LOS	D	A	B	B	B	
Approach Vol, veh/h	973			1157	985	A
Approach Delay, s/veh	51.8			15.5	19.6	
Approach LOS	D			B	B	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	85.0		8.3	76.7	45.0
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 71		* 5.1	* 61	47.2
Max Q Clear Time (g_c+I1), s	25.8		2.8	24.7	36.1
Green Ext Time (p_c), s	9.6		0.0	7.6	3.1

Intersection Summary	
HCM 6th Ctrl Delay	28.1
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.

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

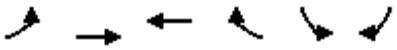
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	411	116	204	1140	23	3	0	2	3	0	2
Future Volume (veh/h)	21	411	116	204	1140	23	3	0	2	3	0	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	23	447	126	222	1239	25	2	1	2	3	0	2
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	293	1923	858	580	2302	46	435	150	300	434	0	427
Arrive On Green	0.54	0.54	0.54	0.09	0.86	0.86	0.27	0.27	0.27	0.27	0.00	0.27
Sat Flow, veh/h	439	3554	1585	1781	3562	72	1415	557	1113	1414	0	1585
Grp Volume(v), veh/h	23	447	126	222	618	646	2	0	3	3	0	2
Grp Sat Flow(s),veh/h/ln	439	1777	1585	1781	1777	1857	1415	0	1670	1414	0	1585
Q Serve(g_s), s	3.3	8.6	5.2	7.1	11.8	11.8	0.1	0.0	0.2	0.2	0.0	0.1
Cycle Q Clear(g_c), s	3.3	8.6	5.2	7.1	11.8	11.8	0.3	0.0	0.2	0.4	0.0	0.1
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	293	1923	858	580	1148	1200	435	0	450	434	0	427
V/C Ratio(X)	0.08	0.23	0.15	0.38	0.54	0.54	0.00	0.00	0.01	0.01	0.00	0.00
Avail Cap(c_a), veh/h	293	1923	858	598	1148	1200	435	0	450	434	0	427
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.82	0.82	0.82	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.4	15.7	14.9	10.7	4.1	4.1	34.8	0.0	34.8	34.9	0.0	34.8
Incr Delay (d2), s/veh	0.5	0.3	0.4	0.3	0.4	0.4	0.0	0.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	3.4	1.9	2.5	2.8	2.9	0.0	0.0	0.1	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.0	15.9	15.2	11.0	4.5	4.5	34.9	0.0	34.8	34.9	0.0	34.8
LnGrp LOS	B	B	B	B	A	A	C	A	C	C	A	C
Approach Vol, veh/h		596			1486			5			5	
Approach Delay, s/veh		15.8			5.4			34.8			34.9	
Approach LOS		B			A			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.7	76.3		40.0		90.0		40.0				
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	10.5	69.0		35.0		84.0		35.0				
Max Q Clear Time (g_c+I1), s	9.1	10.6		2.4		13.8		2.3				
Green Ext Time (p_c), s	0.1	3.8		0.0		10.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	397	1204	1361	146	195
Future Volume (veh/h)	22	397	1204	1361	146	195
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	28	503	1281	0	195	0
Peak Hour Factor	0.79	0.79	0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	55	2951	2682		259	
Arrive On Green	0.01	0.27	0.25	0.00	0.08	0.00
Sat Flow, veh/h	1781	3647	3647	1585	3456	1585
Grp Volume(v), veh/h	28	503	1281	0	195	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1777	1585	1728	1585
Q Serve(g_s), s	2.0	14.0	39.9	0.0	7.2	0.0
Cycle Q Clear(g_c), s	2.0	14.0	39.9	0.0	7.2	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	55	2951	2682		259	
V/C Ratio(X)	0.51	0.17	0.48		0.75	
Avail Cap(c_a), veh/h	126	2951	2682		800	
HCM Platoon Ratio	0.33	0.33	0.33	0.33	1.00	1.00
Upstream Filter(I)	0.98	0.98	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	63.3	13.1	27.0	0.0	58.9	0.0
Incr Delay (d2), s/veh	6.8	0.1	0.6	0.0	4.4	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	1.0	6.7	19.0	0.0	3.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	70.2	13.2	27.6	0.0	63.3	0.0
LnGrp LOS	E	B	C		E	
Approach Vol, veh/h		531	1281	A	195	A
Approach Delay, s/veh		16.2	27.6		63.3	
Approach LOS		B	C		E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.8	104.5		15.7		114.3
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4
Max Green Setting (Gmax), s	* 9.2	72.6		* 30		87.6
Max Q Clear Time (g_c+I1), s	4.0	41.9		9.2		16.0
Green Ext Time (p_c), s	0.0	10.5		0.6		3.4

Intersection Summary	
HCM 6th Ctrl Delay	28.1
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.

Unsignalized Delay for [EBT, WBR, 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)	0	298	346	104	1999	2	834	1	66	0	0	0
Future Volume (veh/h)	0	298	346	104	1999	2	834	1	66	0	0	0
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	0	372	0	111	2127	2	879	0	69	0	0	0
Peak Hour Factor	0.80	0.80	0.80	0.94	0.94	0.94	0.95	0.95	0.95	0.75	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	1842		595	2220	2	1052	0	468	0	1	0
Arrive On Green	0.00	0.52	0.00	0.04	0.61	0.61	0.30	0.00	0.30	0.00	0.00	0.00
Sat Flow, veh/h	190	3554	1585	1781	3643	3	3563	0	1585	0	1870	0
Grp Volume(v), veh/h	0	372	0	111	1037	1092	879	0	69	0	0	0
Grp Sat Flow(s),veh/h/ln	190	1777	1585	1781	1777	1870	1781	0	1585	0	1870	0
Q Serve(g_s), s	0.0	7.3	0.0	3.7	71.2	71.3	30.0	0.0	4.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.3	0.0	3.7	71.2	71.3	30.0	0.0	4.2	0.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	55	1842		595	1083	1139	1052	0	468	0	1	0
V/C Ratio(X)	0.00	0.20		0.19	0.96	0.96	0.84	0.00	0.15	0.00	0.00	0.00
Avail Cap(c_a), veh/h	55	1842		595	1083	1139	1052	0	468	0	118	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)	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	16.8	0.0	12.9	23.8	23.9	42.8	0.0	33.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.1	19.0	18.4	7.8	0.0	0.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	0.0	1.4	32.0	33.5	14.3	0.0	1.7	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.1	0.0	13.1	42.8	42.2	50.7	0.0	34.4	0.0	0.0	0.0
LnGrp LOS	A	B		B	D	D	D	A	C	A	A	A
Approach Vol, veh/h		372	A		2240			948			0	
Approach Delay, s/veh		17.1			41.1			49.5			0.0	
Approach LOS		B			D			D				

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		84.8		0.0	11.8	73.0		45.2				
Change Period (Y+Rc), s		* 5.6		* 5.8	* 6.5	* 5.6		6.8				
Max Green Setting (Gmax), s		* 65		* 8.2	* 5.3	* 53		38.4				
Max Q Clear Time (g_c+I1), s		73.3		0.0	5.7	9.3		32.0				
Green Ext Time (p_c), s		0.0		0.0	0.0	2.4		2.2				

Intersection Summary		
HCM 6th Ctrl Delay		40.8
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.

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

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	81	1014	292
Demand Flow Rate, veh/h	81	1026	297
Vehicles Circulating, veh/h	244	21	413
Vehicles Exiting, veh/h	466	304	634
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.0	14.4	7.6
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	81	1026	297
Cap Entry Lane, veh/h	1076	1351	906
Entry HV Adj Factor	1.000	0.988	0.984
Flow Entry, veh/h	81	1014	292
Cap Entry, veh/h	1076	1335	891
V/C Ratio	0.075	0.760	0.328
Control Delay, s/veh	4.0	14.4	7.6
LOS	A	B	A
95th %tile Queue, veh	0	8	1

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	451	66	34	470	32	116
Future Vol, veh/h	451	66	34	470	32	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	None
Storage Length	-	-	-	200	200	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	86	86	84	84
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	501	73	40	547	38	138

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	40	0	-	0	1115	40
Stage 1	-	-	-	-	40	-
Stage 2	-	-	-	-	1075	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1570	-	-	-	230	1031
Stage 1	-	-	-	-	982	-
Stage 2	-	-	-	-	328	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1570	-	-	-	153	1031
Mov Cap-2 Maneuver	-	-	-	-	153	-
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	328	-

Approach	EB	WB	SB
HCM Control Delay, s	7.3	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1570	-	-	-	153	1031
HCM Lane V/C Ratio	0.319	-	-	-	0.249	0.134
HCM Control Delay (s)	8.4	0	-	-	36.2	9
HCM Lane LOS	A	A	-	-	E	A
HCM 95th %tile Q(veh)	1.4	-	-	-	0.9	0.5

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	543	215	87	1003	7	5
Future Vol, veh/h	543	215	87	1003	7	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Yield
Storage Length	-	200	200	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	590	234	95	1090	8	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	590	0	1325	295
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	735	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	0	982	-	147	701
Stage 1	-	0	-	-	517	-
Stage 2	-	0	-	-	435	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	982	-	133	701
Mov Cap-2 Maneuver	-	-	-	-	238	-
Stage 1	-	-	-	-	467	-
Stage 2	-	-	-	-	435	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	238	701	-	982	-
HCM Lane V/C Ratio	0.032	0.008	-	0.096	-
HCM Control Delay (s)	20.6	10.2	-	9.1	-
HCM Lane LOS	C	B	-	A	-
HCM 95th %tile Q(veh)	0.1	0	-	0.3	-

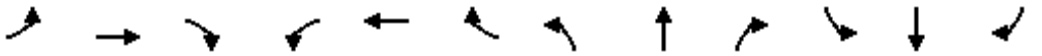
Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	58	40	503	50	1	1
Future Vol, veh/h	58	40	503	50	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	43	547	54	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	601	0	-	0	743	574
Stage 1	-	-	-	-	574	-
Stage 2	-	-	-	-	169	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	976	-	-	-	383	518
Stage 1	-	-	-	-	563	-
Stage 2	-	-	-	-	861	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	976	-	-	-	358	518
Mov Cap-2 Maneuver	-	-	-	-	358	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	861	-

Approach	EB	WB	SB
HCM Control Delay, s	5.3	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	976	-	-	-	423
HCM Lane V/C Ratio	0.065	-	-	-	0.005
HCM Control Delay (s)	8.9	0	-	-	13.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	74	806	0	145	22	556	206	39	3	143	319
Future Volume (veh/h)	297	74	806	0	145	22	556	206	39	3	143	319
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	0	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	319	80	0	0	181	28	585	217	41	3	154	0
Peak Hour Factor	0.93	0.93	0.93	0.80	0.80	0.80	0.95	0.95	0.95	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	383	436		0	248	38	1161	1903	353	7	1066	
Arrive On Green	0.11	0.23	0.00	0.00	0.08	0.08	0.56	1.00	1.00	0.00	0.30	0.00
Sat Flow, veh/h	3456	1870	1585	0	3185	471	3456	2992	556	1781	3554	1585
Grp Volume(v), veh/h	319	80	0	0	103	106	585	127	131	3	154	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1585	0	1777	1786	1728	1777	1770	1781	1777	1585
Q Serve(g_s), s	11.8	4.5	0.0	0.0	7.3	7.6	13.5	0.0	0.0	0.2	4.1	0.0
Cycle Q Clear(g_c), s	11.8	4.5	0.0	0.0	7.3	7.6	13.5	0.0	0.0	0.2	4.1	0.0
Prop In Lane	1.00		1.00	0.00		0.26	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	383	436		0	142	143	1161	1130	1126	7	1066	
V/C Ratio(X)	0.83	0.18		0.00	0.72	0.74	0.50	0.11	0.12	0.43	0.14	
Avail Cap(c_a), veh/h	550	712		0	318	320	1161	1130	1126	130	1066	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.6	39.9	0.0	0.0	58.4	58.5	21.9	0.0	0.0	64.6	33.3	0.0
Incr Delay (d2), s/veh	7.3	0.2	0.0	0.0	6.7	7.4	0.3	0.2	0.2	36.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	2.1	0.0	0.0	3.5	3.7	4.5	0.1	0.1	0.2	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.0	40.1	0.0	0.0	65.1	65.8	22.2	0.2	0.2	100.7	33.6	0.0
LnGrp LOS	E	D		A	E	E	C	A	A	F	C	
Approach Vol, veh/h		399	A		209			843			157	A
Approach Delay, s/veh		59.2			65.5			15.5			34.9	
Approach LOS		E			E			B			C	

Timer - Assigned Phs	1	2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s	49.2	45.0		35.8	6.0	88.2	19.9	15.9				
Change Period (Y+Rc), s	5.5	6.0		5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	24.5	39.0		49.5	9.5	54.5	20.7	23.3				
Max Q Clear Time (g_c+I1), s	15.5	6.1		6.5	2.2	2.0	13.8	9.6				
Green Ext Time (p_c), s	1.5	0.9		0.4	0.0	1.4	0.6	0.9				

Intersection Summary			
HCM 6th Ctrl Delay		34.7	
HCM 6th LOS		C	

Notes

Unsignalized Delay for [EBR, 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)	0	0	0	83	16	3	573	792	0	0	885	58
Future Volume (veh/h)	0	0	0	83	16	3	573	792	0	0	885	58
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				111	21	4	616	852	0	0	973	64
Peak Hour Factor				0.75	0.75	0.75	0.93	0.93	0.93	0.91	0.91	0.91
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				169	75	14	699	3027	0	0	2024	133
Arrive On Green				0.05	0.05	0.05	0.27	1.00	0.00	0.00	0.20	0.20
Sat Flow, veh/h				3456	1527	291	3456	3647	0	0	3478	223
Grp Volume(v), veh/h				111	0	25	616	852	0	0	511	526
Grp Sat Flow(s),veh/h/ln				1728	0	1818	1728	1777	0	0	1777	1830
Q Serve(g_s), s				4.1	0.0	1.7	22.2	0.0	0.0	0.0	33.1	33.1
Cycle Q Clear(g_c), s				4.1	0.0	1.7	22.2	0.0	0.0	0.0	33.1	33.1
Prop In Lane				1.00		0.16	1.00		0.00	0.00		0.12
Lane Grp Cap(c), veh/h				169	0	89	699	3027	0	0	1062	1094
V/C Ratio(X)				0.66	0.00	0.28	0.88	0.28	0.00	0.00	0.48	0.48
Avail Cap(c_a), veh/h				486	0	256	1151	3027	0	0	1062	1094
HCM Platoon Ratio				1.00	1.00	1.00	1.33	1.33	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.72	0.72	0.00	0.00	0.59	0.59
Uniform Delay (d), s/veh				60.7	0.0	59.6	46.0	0.0	0.0	0.0	34.3	34.3
Incr Delay (d2), s/veh				4.3	0.0	1.7	3.5	0.2	0.0	0.0	0.9	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.9	0.0	0.8	9.1	0.1	0.0	0.0	16.0	16.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				65.0	0.0	61.3	49.5	0.2	0.0	0.0	35.2	35.2
LnGrp LOS				E	A	E	D	A	A	A	D	D
Approach Vol, veh/h					136			1468			1037	
Approach Delay, s/veh					64.3			20.9			35.2	
Approach LOS					E			C			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.0	83.9		13.1		116.9						
Change Period (Y+Rc), s	* 6.7	* 6.2		* 6.7		* 6.2						
Max Green Setting (Gmax), s	* 13	* 49		* 18		* 99						
Max Q Clear Time (g_c+I1), s	24.2	35.1		6.1		2.0						
Green Ext Time (p_c), s	2.1	5.2		0.3		6.5						

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	357	321	1897	0	0	0	0	1018	159	101	869	0
Future Volume (veh/h)	357	321	1897	0	0	0	0	1018	159	101	869	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	476	428	0				0	1170	0	115	988	0
Peak Hour Factor	0.75	0.75	0.75				0.87	0.87	0.87	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	888	480					0	1894		140	2326	0
Arrive On Green	0.26	0.26	0.00				0.00	0.53	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3456	1870	2790				0	3647	1585	1781	3647	0
Grp Volume(v), veh/h	476	428	0				0	1170	0	115	988	0
Grp Sat Flow(s),veh/h/ln	1728	1870	1395				0	1777	1585	1781	1777	0
Q Serve(g_s), s	15.4	28.7	0.0				0.0	29.8	0.0	8.1	0.0	0.0
Cycle Q Clear(g_c), s	15.4	28.7	0.0				0.0	29.8	0.0	8.1	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	888	480					0	1894		140	2326	0
V/C Ratio(X)	0.54	0.89					0.00	0.62		0.82	0.42	0.00
Avail Cap(c_a), veh/h	1034	560					0	1894		471	2326	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	1.00	0.00				0.00	1.00	0.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	41.6	46.5	0.0				0.0	21.1	0.0	53.9	0.0	0.0
Incr Delay (d2), s/veh	0.5	14.8	0.0				0.0	1.5	0.0	9.6	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	6.5	14.9	0.0				0.0	12.0	0.0	3.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	61.4	0.0				0.0	22.7	0.0	63.4	0.5	0.0
LnGrp LOS	D	E					A	C		E	A	A
Approach Vol, veh/h		904	A					1170	A		1103	
Approach Delay, s/veh		51.2						22.7			7.0	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	15.8	74.7	39.5	90.5
Change Period (Y+Rc), s	5.6	* 5.4	6.1	* 5.4
Max Green Setting (Gmax), s	34.4	* 40	38.9	* 80
Max Q Clear Time (g_c+I1), s	10.1	31.8	30.7	2.0
Green Ext Time (p_c), s	0.3	4.4	2.7	8.0

Intersection Summary	
HCM 6th Ctrl Delay	25.4
HCM 6th LOS	C

Notes

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

Unsignalized Delay for [NBR, 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)	63	2124	125	337	1350	192	369	198	344	273	182	46
Future Volume (veh/h)	63	2124	125	337	1350	192	369	198	344	273	182	46
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	2910	0	396	1588	226	405	218	0	281	188	47
Peak Hour Factor	0.73	0.73	0.73	0.85	0.85	0.85	0.91	0.91	0.91	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	582	2931		284	2813	400	330	377		271	237	58
Arrive On Green	0.17	0.57	0.00	0.08	0.49	0.49	0.10	0.11	0.00	0.08	0.08	0.08
Sat Flow, veh/h	3456	5106	1585	3456	5733	816	3456	3554	1585	3456	2832	691
Grp Volume(v), veh/h	86	2910	0	396	1336	478	405	218	0	281	116	119
Grp Sat Flow(s),veh/h/ln	1728	1702	1585	1728	1609	1724	1728	1777	1585	1728	1777	1746
Q Serve(g_s), s	3.8	101.6	0.0	14.8	35.1	35.1	17.2	10.5	0.0	14.1	11.5	12.0
Cycle Q Clear(g_c), s	3.8	101.6	0.0	14.8	35.1	35.1	17.2	10.5	0.0	14.1	11.5	12.0
Prop In Lane	1.00		1.00	1.00		0.47	1.00		1.00	1.00		0.40
Lane Grp Cap(c), veh/h	582	2931		284	2367	845	330	377		271	149	146
V/C Ratio(X)	0.15	0.99		1.39	0.56	0.56	1.23	0.58		1.04	0.78	0.81
Avail Cap(c_a), veh/h	582	2931		284	2367	845	330	713		271	317	311
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.8	38.0	0.0	82.6	32.3	32.3	81.4	76.6	0.0	82.9	80.8	81.1
Incr Delay (d2), s/veh	0.1	15.0	0.0	197.3	1.0	2.7	125.8	1.4	0.0	65.0	8.6	10.2
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	1.7	44.1	0.0	14.3	13.7	15.1	13.4	4.9	0.0	8.7	5.6	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.9	53.0	0.0	279.9	33.3	35.0	207.2	78.0	0.0	147.9	89.4	91.3
LnGrp LOS	E	D		F	C	D	F	E		F	F	F
Approach Vol, veh/h		2996	A		2210			623	A		516	
Approach Delay, s/veh		53.3			77.9			162.0			121.7	
Approach LOS		D			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.0	95.0	25.0	23.0	22.0	110.0	21.0	27.0
Change Period (Y+Rc), s	6.7	* 6.7	7.8	7.9	7.2	6.7	6.9	7.9
Max Green Setting (Gmax), s	13.4	* 88	17.2	32.1	14.8	86.3	14.1	36.1
Max Q Clear Time (g_c+I1), s	15.8	37.1	19.2	14.0	16.8	103.6	16.1	12.5
Green Ext Time (p_c), s	0.1	18.5	0.0	1.0	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	78.1
HCM 6th LOS	E

Notes

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

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

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	330	35	50	778	2027	724
Future Volume (veh/h)	330	35	50	778	2027	724
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	1900	1870	1870	1870	1870
Adj Flow Rate, veh/h	386	0	62	960	2534	0
Peak Hour Factor	0.94	0.94	0.81	0.81	0.80	0.80
Percent Heavy Veh, %	2	0	2	2	2	2
Cap, veh/h	463		117	2772	2505	
Arrive On Green	0.13	0.00	0.03	0.78	0.70	0.00
Sat Flow, veh/h	3563	1610	1781	3647	3647	1585
Grp Volume(v), veh/h	386	0	62	960	2534	0
Grp Sat Flow(s),veh/h/ln	1781	1610	1781	1777	1777	1585
Q Serve(g_s), s	13.7	0.0	1.1	10.6	91.6	0.0
Cycle Q Clear(g_c), s	13.7	0.0	1.1	10.6	91.6	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	463		117	2772	2505	
V/C Ratio(X)	0.83		0.53	0.35	1.01	
Avail Cap(c_a), veh/h	800		188	2772	2505	
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	0.00
Uniform Delay (d), s/veh	55.2	0.0	37.8	4.3	19.2	0.0
Incr Delay (d2), s/veh	4.0	0.0	3.7	0.3	20.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	1.5	3.0	37.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.2	0.0	41.5	4.6	40.0	0.0
LnGrp LOS	E		D	A	F	
Approach Vol, veh/h	386	A		1022	2534	A
Approach Delay, s/veh	59.2			6.9	40.0	
Approach LOS	E			A	D	

Timer - Assigned Phs	2		5	6	8
Phs Duration (G+Y+Rc), s	107.3		9.8	97.5	22.7
Change Period (Y+Rc), s	* 5.9		* 5.3	* 5.9	5.8
Max Green Setting (Gmax), s	* 89		* 9.7	* 74	29.2
Max Q Clear Time (g_c+I1), s	12.6		3.1	93.6	15.7
Green Ext Time (p_c), s	7.7		0.0	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	33.3
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 [EBR, 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)	4	1857	115	202	449	4	268	0	192	11	0	28
Future Volume (veh/h)	4	1857	115	202	449	4	268	0	192	11	0	28
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	1885	1885	1870	1870	1885	1885	1885	1870	1885	1885
Adj Flow Rate, veh/h	4	2018	0	220	488	4	250	57	0	12	0	30
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	1	1	2	2	1	1	1	2	1	1
Cap, veh/h	581	2063		221	2542	21	329	399		307	0	338
Arrive On Green	0.58	0.58	0.00	0.12	0.94	0.94	0.21	0.21	0.00	0.21	0.00	0.21
Sat Flow, veh/h	905	3554	1598	1795	3612	30	1391	1885	0	1346	0	1598
Grp Volume(v), veh/h	4	2018	0	220	240	252	250	57	0	12	0	30
Grp Sat Flow(s),veh/h/ln	905	1777	1598	1795	1777	1865	1391	1885	0	1346	0	1598
Q Serve(g_s), s	0.2	71.6	0.0	11.5	1.4	1.4	22.9	3.2	0.0	1.0	0.0	2.0
Cycle Q Clear(g_c), s	0.2	71.6	0.0	11.5	1.4	1.4	24.9	3.2	0.0	4.1	0.0	2.0
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	581	2063		221	1250	1312	329	399		307	0	338
V/C Ratio(X)	0.01	0.98		1.00	0.19	0.19	0.76	0.14		0.04	0.00	0.09
Avail Cap(c_a), veh/h	581	2063		221	1250	1312	409	508		385	0	430
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.91	0.91	0.91	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.5	26.5	0.0	44.2	1.3	1.3	51.2	41.7	0.0	43.3	0.0	41.2
Incr Delay (d2), s/veh	0.0	15.3	0.0	57.1	0.1	0.1	6.4	0.2	0.0	0.1	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	0.1	31.5	0.0	10.3	0.4	0.4	8.6	1.5	0.0	0.3	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	41.7	0.0	101.3	1.3	1.3	57.6	41.8	0.0	43.4	0.0	41.3
LnGrp LOS	B	D		F	A	A	E	D		D	A	D
Approach Vol, veh/h		2022	A		712			307	A		42	
Approach Delay, s/veh		41.6			32.2			54.6			41.9	
Approach LOS		D			C			D			D	

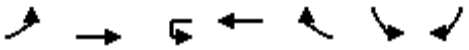
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	16.0	81.5		32.5		97.5		32.5				
Change Period (Y+Rc), s	4.5	6.0		5.0		6.0		5.0				
Max Green Setting (Gmax), s	11.5	68.0		35.0		84.0		35.0				
Max Q Clear Time (g_c+I1), s	13.5	73.6		6.1		3.4		26.9				
Green Ext Time (p_c), s	0.0	0.0		0.2		2.8		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	40.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

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



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	217	1877	0	409	584	504	220
Future Volume (veh/h)	217	1877	0	409	584	504	220
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	275	2376		435	0	672	0
Peak Hour Factor	0.79	0.79		0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	296	2438		1689		758	
Arrive On Green	0.33	1.00		0.48	0.00	0.22	0.00
Sat Flow, veh/h	1781	3647		3647	1585	3456	1585
Grp Volume(v), veh/h	275	2376		435	0	672	0
Grp Sat Flow(s),veh/h/ln	1781	1777		1777	1585	1728	1585
Q Serve(g_s), s	19.4	0.0		9.5	0.0	24.5	0.0
Cycle Q Clear(g_c), s	19.4	0.0		9.5	0.0	24.5	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	296	2438		1689		758	
V/C Ratio(X)	0.93	0.97		0.26		0.89	
Avail Cap(c_a), veh/h	332	2438		1689		1172	
HCM Platoon Ratio	2.00	2.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09		0.96	0.00	1.00	0.00
Uniform Delay (d), s/veh	42.7	0.0		20.4	0.0	49.2	0.0
Incr Delay (d2), s/veh	4.6	2.1		0.4	0.0	5.5	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	7.1	0.7		3.9	0.0	10.9	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	47.2	2.1		20.8	0.0	54.7	0.0
LnGrp LOS	D	A		C		D	
Approach Vol, veh/h		2651		435	A	672	A
Approach Delay, s/veh		6.8		20.8		54.7	
Approach LOS		A		C		D	

Timer - Assigned Phs	1	2		4		6	
Phs Duration (G+Y+Rc), s	27.4	68.2		34.4		95.6	
Change Period (Y+Rc), s	* 5.8	6.4		* 5.9		6.4	
Max Green Setting (Gmax), s	* 24	43.6		* 44		73.6	
Max Q Clear Time (g_c+I1), s	21.4	11.5		26.5		2.0	
Green Ext Time (p_c), s	0.2	2.7		2.0		43.4	

Intersection Summary	
HCM 6th Ctrl Delay	17.0
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.

Unsignalized Delay for [EBT, WBR, 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)	5	1482	1083	194	618	4	539	2	188	3	10	4
Future Volume (veh/h)	5	1482	1083	194	618	4	539	2	188	3	10	4
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	5	1528	0	237	754	5	587	0	204	4	14	6
Peak Hour Factor	0.97	0.97	0.97	0.82	0.82	0.82	0.92	0.92	0.92	0.71	0.71	0.71
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	418	1825		262	2358	16	690	0	307	7	23	10
Arrive On Green	0.51	0.51	0.00	0.09	0.65	0.65	0.19	0.00	0.19	0.02	0.02	0.02
Sat Flow, veh/h	706	3554	1585	1781	3619	24	3563	0	1585	296	1036	444
Grp Volume(v), veh/h	5	1528	0	237	370	389	587	0	204	24	0	0
Grp Sat Flow(s),veh/h/ln	706	1777	1585	1781	1777	1866	1781	0	1585	1776	0	0
Q Serve(g_s), s	0.5	47.7	0.0	9.3	11.9	11.9	20.7	0.0	15.5	1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.5	47.7	0.0	9.3	11.9	11.9	20.7	0.0	15.5	1.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.01	1.00		1.00	0.17		0.25
Lane Grp Cap(c), veh/h	418	1825		262	1158	1216	690	0	307	40	0	0
V/C Ratio(X)	0.01	0.84		0.90	0.32	0.32	0.85	0.00	0.66	0.61	0.00	0.00
Avail Cap(c_a), veh/h	418	1825		290	1158	1216	965	0	429	126	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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.5	27.0	0.0	32.1	10.0	10.0	50.6	0.0	48.5	63.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	4.8	0.0	27.8	0.7	0.7	5.3	0.0	2.5	14.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	20.0	0.0	5.7	4.4	4.7	9.7	0.0	6.4	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	31.8	0.0	59.9	10.7	10.7	55.9	0.0	51.0	77.0	0.0	0.0
LnGrp LOS	B	C		E	B	B	E	A	D	E	A	A
Approach Vol, veh/h		1533	A		996			791			24	
Approach Delay, s/veh		31.7			22.4			54.6			77.0	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	90.3	8.7	18.0	72.3	31.0
Change Period (Y+Rc), s	* 5.6	* 5.8	* 6.5	* 5.6	5.8
Max Green Setting (Gmax), s	* 68	* 9.2	* 14	* 48	35.2
Max Q Clear Time (g_c+I1), s	13.9	3.7	11.3	49.7	22.7
Green Ext Time (p_c), s	4.8	0.0	0.1	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	34.7
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 [EBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	364	632	765
Demand Flow Rate, veh/h	372	645	780
Vehicles Circulating, veh/h	716	80	109
Vehicles Exiting, veh/h	173	1008	615
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	15.1	8.4	11.1
Approach LOS	C	A	B

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
Entry Flow, veh/h	372	645	780
Cap Entry Lane, veh/h	665	1272	1235
Entry HV Adj Factor	0.978	0.981	0.981
Flow Entry, veh/h	364	632	765
Cap Entry, veh/h	651	1247	1211
V/C Ratio	0.560	0.507	0.632
Control Delay, s/veh	15.1	8.4	11.1
LOS	C	A	B
95th %tile Queue, veh	3	3	5

Intersection	
Int Delay, s/veh	14.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	180	72	73	114	280	435
Future Vol, veh/h	180	72	73	114	280	435
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	None
Storage Length	-	-	-	200	200	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	77	77	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	207	83	95	148	308	478

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	95	0	-	0	592	95
Stage 1	-	-	-	-	95	-
Stage 2	-	-	-	-	497	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1499	-	-	-	469	962
Stage 1	-	-	-	-	929	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1499	-	-	-	401	962
Mov Cap-2 Maneuver	-	-	-	-	401	-
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	611	-

Approach	EB	WB	SB
HCM Control Delay, s	5.6	0	22.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1499	-	-	-	401	962
HCM Lane V/C Ratio	0.138	-	-	-	0.767	0.497
HCM Control Delay (s)	7.8	0	-	-	38	12.4
HCM Lane LOS	A	A	-	-	E	B
HCM 95th %tile Q(veh)	0.5	-	-	-	6.4	2.8

Intersection	
Int Delay, s/veh	5.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1855	213	87	745	40	118
Future Vol, veh/h	1855	213	87	745	40	118
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Yield
Storage Length	-	200	200	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	2016	232	95	810	43	128

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	2016	0	2611	1008
Stage 1	-	-	-	-	2016	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	-	-	4.12	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.21	-	3.51	3.31
Pot Cap-1 Maneuver	-	0	283	-	~ 20	240
Stage 1	-	0	-	-	90	-
Stage 2	-	0	-	-	517	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	283	-	~ 13	240
Mov Cap-2 Maneuver	-	-	-	-	50	-
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	517	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	82.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	WBL	WBT
Capacity (veh/h)	50	240	-	283	-
HCM Lane V/C Ratio	0.87	0.534	-	0.334	-
HCM Control Delay (s)	218	36	-	24	-
HCM Lane LOS	F	E	-	C	-
HCM 95th %tile Q(veh)	3.7	2.9	-	1.4	-

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

11: Dwy 1 & West Park Pl Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.1	0.4	0.0	0.1	0.2	0.0
Total Del/Veh (s)	6.7	8.5	23.7	1.7	43.5	2.6	6.5

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	56	296	105	50	54	82
Future Vol, veh/h	56	296	105	50	54	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	61	322	114	54	59	89

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	168	0	-	0	585	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	444	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1416	-	-	-	475	910
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	649	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1416	-	-	-	450	910
Mov Cap-2 Maneuver	-	-	-	-	450	-
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	649	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1416	-	-	-	647
HCM Lane V/C Ratio	0.043	-	-	-	0.228
HCM Control Delay (s)	7.7	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

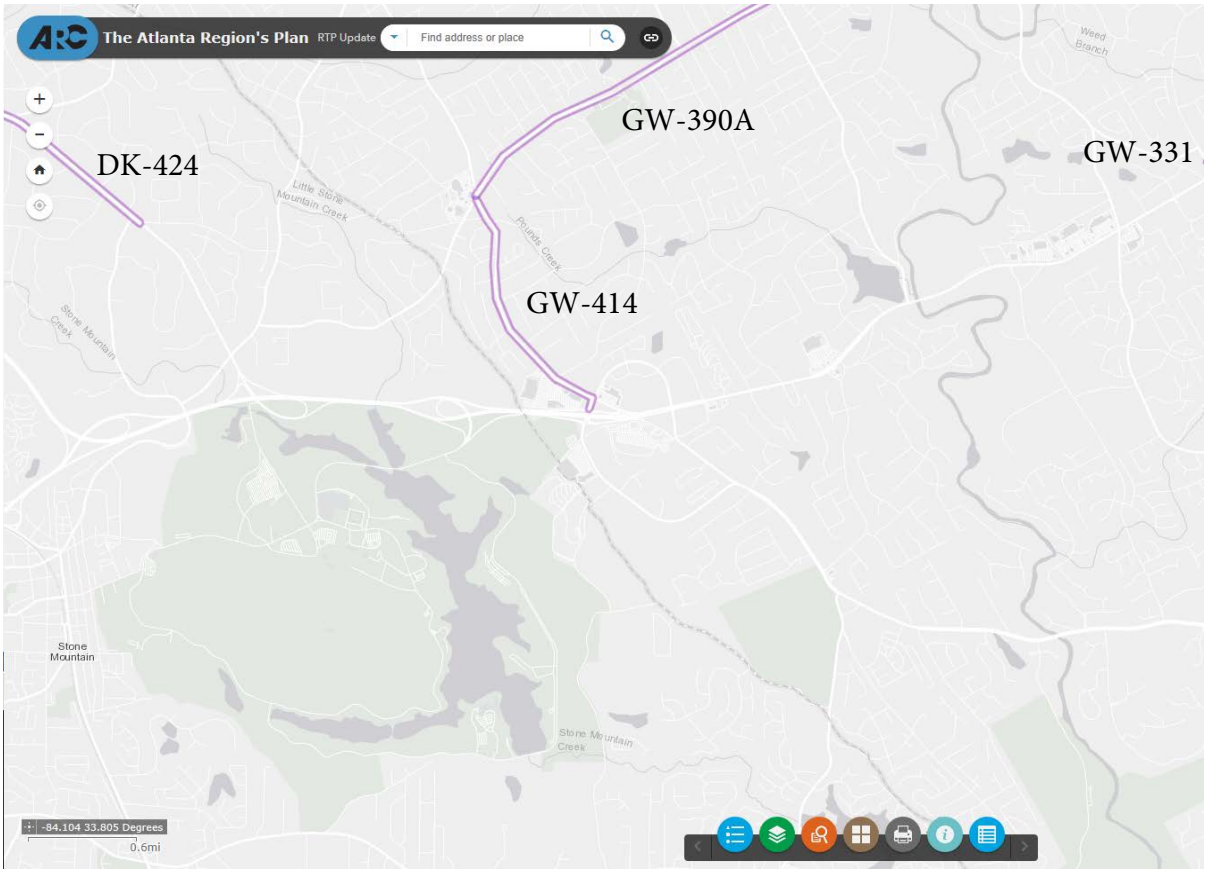
CR 494/ROCK BRIDGE ROAD GRADE SEPARATION @ CSX RR

Project ID:	**0001815**	Notice to Proceed Date:	
Project Manager:	Albert V. Shelby III	Construction Percent Complete:	%
Office:	Program Delivery	Current Completion Date:	
County:	Gwinnett	Work Completion Date:	
Congressional District:	004, 007	Construction Contract Amount:	
State Senate District.:	055	Construction Contractor:	
State House District:	094	**Preconstruction Status Report**	
Project Type:	New Construction	**Construction Status Report**	
Project Status:	Long Range Program		
Right of Way Authorization:		Contact Us	

Project Description:

Activity	Program Year	Cost Estimate	Date of Last Estimate
ROW (Right of Way)		$500,000.00	1/6/2009
PE (Preliminary Engineering)		$528,000.00	
CST (Construction)	2052	$5,280,000.00	1/6/2009

Project Documents
There are no items to show in this view.



GW-390A

Atlanta Region's Plan RTP (2016) PROJECT FACT SHEET

Short Title	GWINNETT COUNTY ATMS/ITS INFRASTRUCTURE EXPANSION - FIVE FORKS TRICKUM ROAD FROM ROCKBRIDGE ROAD TO SUGARLOAF PARKWAY
GDOT Project No.	0013143
Federal ID No.	
Status	Completed
Service Type	Roadway / Operations & Safety
Sponsor	Gwinnett County
Jurisdiction	Gwinnett County
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)

Existing Thru Lane	N/A	**LCI**		**Network Year**	TBD
Planned Thru Lane	N/A	**Flex**		**Corridor Length**	6.7 miles

Detailed Description and Justification

In addition to the ATMS/ITS infrastructure already in place, the proposed CMAQ-funded ATMS/ITS expansion enables critical monitoring ability of almost every major travel corridor in Gwinnett County, significantly improving travel in the northeast Atlanta region. Traffic signalization and intersection improvement projects are designed to reduce traffic congestion, increase travel speeds, and/or reduce delay thus meeting both goals of the CMAQ program: decreasing congestion and reducing air pollution. Interconnecting traffic signals improves both peak and off peak travel speeds and reduces congestion at intersections. Fiber optic cable installation for traffic signal optimization will occur along four major travel corridors in Gwinnett County: Old Peachtree Road, from North Brown Road to Sugarloaf Parkway; Ronald Reagan Parkway, from SR 124 to US 29; Five Forks Trickum Road, from Sugarloaf Parkway to Rockbridge Road; SR 316, from Hi-Hope Road to Barrow County line.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	Local Jurisdiction/Municipality Funds	AUTH	2015	**$200,000**	~~$0,000~~	~~$0,000~~	~~$0,000~~	~~$200,000~~
CST	Congestion Mitigation & Air Quality Improvement (CMAQ)	AUTH	2018	**$1,582,296**	~~$1,234,811~~	~~$0,000~~	~~$0,000~~	~~$347,485~~
CST	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2018	**$76,875**	~~$61,500~~	~~$0,000~~	~~$0,000~~	~~$15,375~~
				$1,859,171	**$1,296,311**	**$0,000**	**$0,000**	**$562,860**

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion
UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

? For additional information about this project, please call (404) 463-3100 or email transportation@atlantaregional.com.

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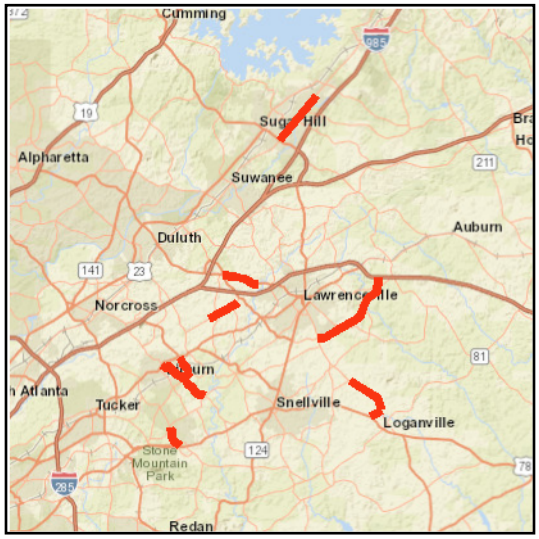
GW-414

Atlanta Region's Plan RTP (2016) PROJECT FACT SHEET

Short Title	GWINNETT COUNTY ITS ENHANCEMENTS - PHASE 1
GDOT Project No.	N/A
Federal ID No.	N/A
Status	Programmed
Service Type	Roadway / Operations & Safety
Sponsor	Gwinnett County
Jurisdiction	Gwinnett County
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)



Existing Thru Lane	N/A	**LCI**		**Network Year**	TBD
Planned Thru Lane	N/A	**Flex**		**Corridor Length**	N/A miles

Detailed Description and Justification

This project supports regional mobility objectives by a full ITS deployment for fiber redundancy that will allow for expanded camera coverage of SR 20 in southeastern Gwinnett County and that will connect to existing Hamilton Mill Road fiber and will allow for expanded camera coverage of SR 13 in Buford. Full ITS deployment will increase the fiber count and ITS device coverage in northwestern Gwinnett along a major north-south arterial in Suwanee and Sugar Hill. This project is also a full ITS installment with underground fiber, cameras and upgrades to cabinets (network switches), etc. from US 29 to Five Forks Trickum Road along commuter routes and will push the edge of fiber ring close to DeKalb County line.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
CST	Congestion Mitigation & Air Quality Improvement (CMAQ)		2021	**$4,687,500**	$3,750,000	$0,000	$0,000	$937,500
				$4,687,500	**$3,750,000**	**$0,000**	**$0,000**	**$937,500**

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UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

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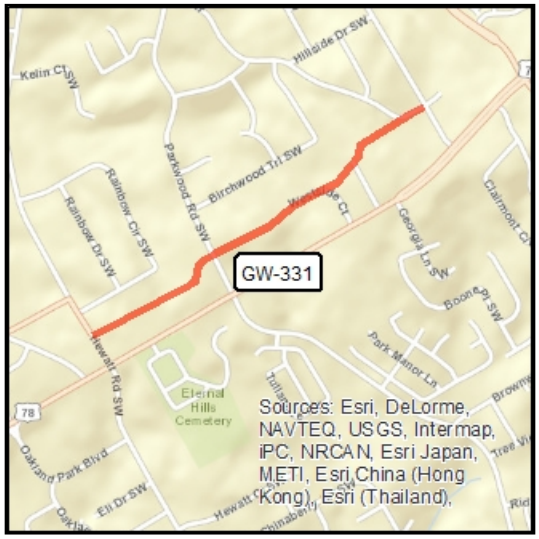
GW-331

Atlanta Region's Plan RTP (2016) PROJECT FACT SHEET

Short Title	NORTH EVERMORE PARKWAY - NEW ALIGNMENT FROM HEWATT ROAD TO BRITT ROAD
GDOT Project No.	0007535
Federal ID No.	N/A
Status	Programmed
Service Type	Roadway / General Purpose Capacity
Sponsor	Gwinnett County
Jurisdiction	Gwinnett County
Analysis Level	In the Region's Air Quality Conformity Analysis



Existing Thru Lane	0	**LCI**	
Planned Thru Lane	2	**Flex**	
Network Year	2020		
Corridor Length	1 miles		

Detailed Description and Justification

This project consists of constructing a new two-lane locally-classified roadway along US 78 between Hewatt Road and Britt Road within the city limits of Snellville to preserve capacity along US 78. The proposed road alignment was selected to avoid residential or commercial displacements. This project will begin approximately 430 feet north of the intersection with US 78 and Hewatt Road, and proceed east following the existing funeral home driveway for 0.16 miles before continuing on the new roadway alignment for 0.16 miles to Parkwood Road. It will then continue east on the new roadway alignment for 0.52 miles to Elmwood Circle and then follow 0.07 miles of existing roadway to Britt Road. Pedestrian safety would be provided via sidewalks, pedestrian crossings, pedestrian refuge islands, and landscaped bufffers.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	Local Jurisdiction/Municipality Funds	AUTH	2008	**$0,000**	~~$0,000~~	~~$0,000~~	~~$0,000~~	~~$0,000~~
PE	Federal Earmark	AUTH	2014	**$50,000**	~~$40,000~~	~~$0,000~~	~~$0,000~~	~~$10,000~~
PE	Georgia Transportation Infrastructure Bank	AUTH	2015	**$763,961**	~~$0,000~~	~~$763,961~~	~~$0,000~~	~~$0,000~~
ROW	Federal Earmark	AUTH	2015	**$2,573,433**	~~$2,058,746~~	~~$0,000~~	~~$0,000~~	~~$514,687~~
ROW	Federal Earmark Funding	AUTH	2015	**$106,934**	~~$85,547~~	~~$21,387~~	~~$0,000~~	~~$0,000~~
ROW	Federal Earmark Funding	AUTH	2015	**$976,568**	~~$781,254~~	~~$0,000~~	~~$0,000~~	~~$195,314~~
ROW	Local Jurisdiction/Municipality Funds	AUTH	2015	**$1,767,563**	~~$0,000~~	~~$0,000~~	~~$0,000~~	~~$1,767,563~~
ROW	SAFETEA-LU Earmark	AUTH	2015	**$455,504**	~~$364,403~~	~~$91,101~~	~~$0,000~~	~~$0,000~~
ROW	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2016	**$2,500,000**	~~$2,000,000~~	~~$0,000~~	~~$0,000~~	~~$500,000~~
ROW	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2017	**$1,025,000**	~~$820,000~~	~~$0,000~~	~~$0,000~~	~~$205,000~~

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UTL	Local Jurisdiction/Municipality Funds		2019	**$1,591,628**	$0,000	$0,000	$0,000	$1,591,628
CST	Federal Earmark Funding		2019	**$4,929,605**	$2,184,426	$0,000	$0,000	$2,745,179
				$16,740,196	**$8,334,376**	**$876,449**	**$0,000**	**$7,529,371**

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion
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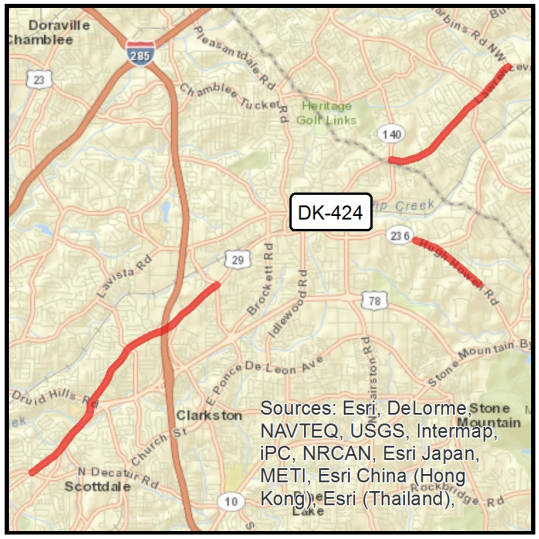
DK-424

Atlanta Region's Plan RTP (2016) PROJECT FACT SHEET

Short Title	US 29/SR 8 (SCOTT BOULEVARD / LAWRENCEVILLE HIGHWAY) AND SR 236 (HUGH HOWELL ROAD) SIGNAL UPGRADES AT 9 LOCATIONS
GDOT Project No.	0012814
Federal ID No.	
Status	Programmed
Service Type	Roadway / Operations & Safety
Sponsor	GDOT
Jurisdiction	Multi-County
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)



Existing Thru Lane	N/A	**LCI**		**Network Year**	TBD
Planned Thru Lane	N/A	**Flex**		**Corridor Length**	3.2 miles

Detailed Description and Justification

Signal upgrades on SR 8 (Scott Boulevard/Lawrenceville Highway) and SR 236 (Hugh Howell Road) in Gwinnett and DeKalb counties. Total corridor length on SR 8 is approximately 6.8 miles, with 7 signal upgrades: N Decatur Road, DeKalb Industrial Way, Colledge Road, Jimmy Carter Boulevard, Harmony Grove Road, Greenwood Drive, and Harbins Road. Total corridor length on SR 236 is approximately 1.3 miles, with 2 signal upgrades: McCurdy Road and Silver Hill Road.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	STP - Statewide Flexible (GDOT)	AUTH	2014	**$343,789**	~~$343,789~~	~~$0,000~~	~~$0,000~~	~~$0,000~~
ROW	Surface Transportation Block Grant (STBG) Program Flex (GDOT)	AUTH	2017	**$190,000**	~~$190,000~~	~~$0,000~~	~~$0,000~~	~~$0,000~~
UTL	Surface Transportation Block Grant (STBG) Program Flex (GDOT)		2018	**$234,600**	$234,600	$0,000	$0,000	$0,000
CST	Surface Transportation Block Grant (STBG) Program Flex (GDOT)		2018	**$1,449,242**	$1,449,242	$0,000	$0,000	$0,000
				$2,217,631	**$2,217,631**	**$0,000**	**$0,000**	**$0,000**

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UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

? For additional information about this project, please call (404) 463-3100 or email transportation@atlantaregional.com.

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