ONE BUCKLEY

Traffic Impact Analysis

Commerce City Case Z-792-05-23

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FHU Reference No. 122172-01

December 2023

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1. INTRODUCTION

The proposed One Buckley development is located just west of E-470, east of Buckley Road, and north of 120th Avenue in Commerce City, Colorado. **Figure 1** shows the site's location relative to major roadways in the area. The development plan includes 317 multifamily homes, 20 KSF of office space, 27 KSF of restaurant space, 15 KSF of retail space, and one gas station planned to be built by the year 2025.

Three access points are planned: one signalized full movement access onto Buckley Road, one Right-In/Right-Out (RIRO) onto 120th Avenue, and one signalized full movement access onto 120th Avenue. **Figure 2** shows the site plan, including the proposed access locations.

This study assesses the traffic impacts on the adjacent roadways and intersections related to the proposed development and identifies improvements needed to accommodate vehicle-trips generated by the proposed land uses. This study analyzes the following intersections:

- 120th Avenue & Jasper Street
- 120th Avenue & Laredo Street
- 120th Avenue & Buckley Road
- 120th Avenue & E-470 SB Ramps
- 120th Avenue & E-470 NB Ramps
- Buckley Road & 121st Circle/Access (proposed)
- 120th Avenue & RIRO (proposed)
- 120th Avenue & Full Movement (proposed)

The following time periods are to be analyzed per the City of Commerce City's Traffic Impact Study guidelines:

- Existing (2022) AM and PM peak hours
- Short-Term Future (2025) AM and PM peak hours
- Long-Term Future (2045) AM and PM peak hours

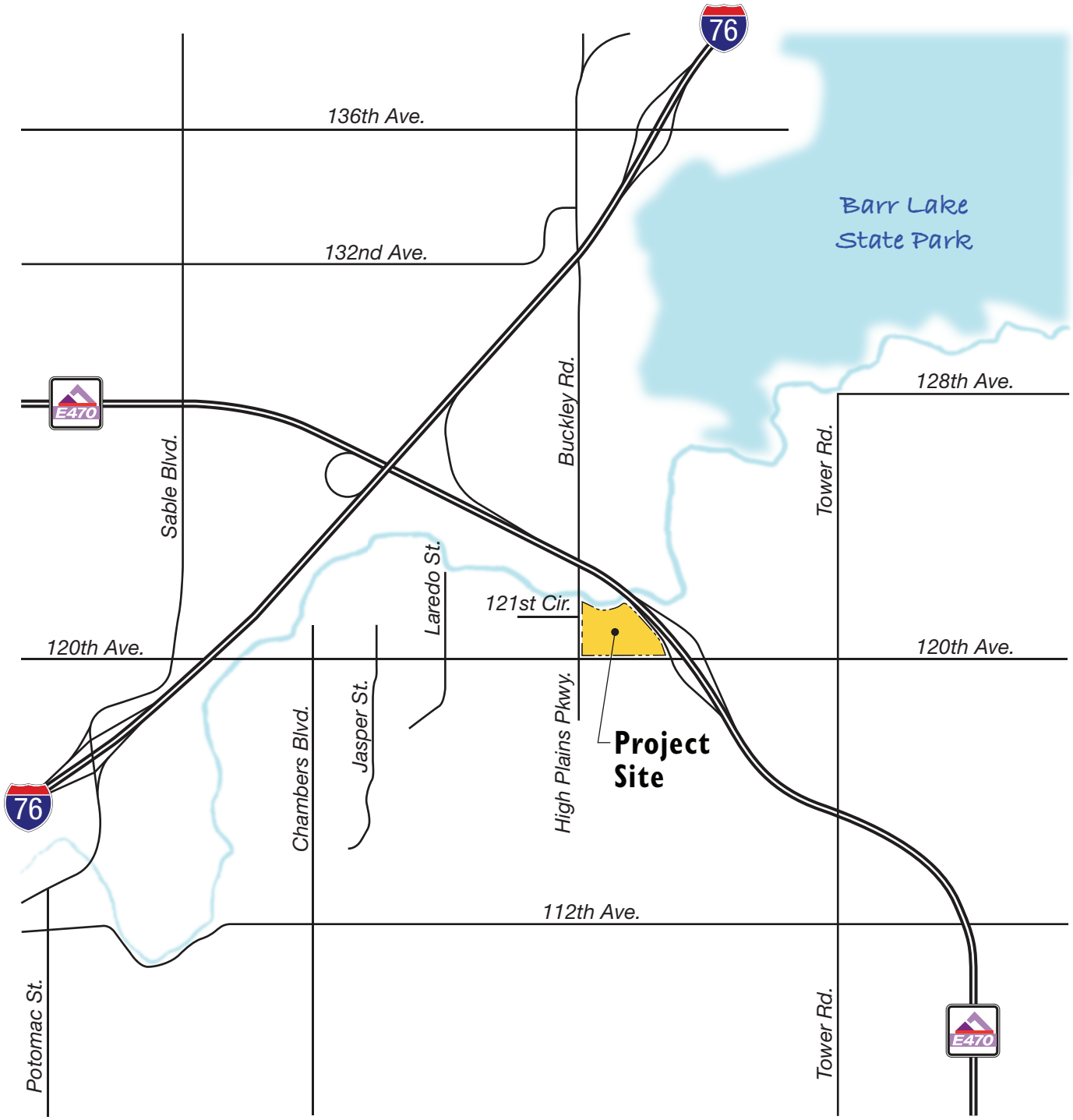

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FIGURE 1
Vicinity Map

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SITE DATA TABLE

TOTAL SITE AREA	34.113 ACRES	(1,485,962 SF)
RESIDENTIAL PARCEL	15.2 ACRES	(662,112 SF)
COMMERCIAL PARCEL	14.8 ACRES	(644,688 SF)
DETENTION PARCEL	4.113 ACRES	(179,162 SF)
RESTAURANT		14,730 SF
MIXED RETAIL/RESTAURANT		15,660 SF
GAS		4,890 SF
COMMERCIAL/OFFICE		20,000 SF
RESIDENTIAL	317 UNITS	438,500 SF
4-STORY FLATS	50 UNITS	1,400 SF AVE.
3-STORY BACK TO BACK TOWNS	105 UNITS	1,200 SF AVE.
3-STORY TANDEM TOWNS	73 UNITS	1,200 SF AVE.
3-STORY TOWNHOMES	77 UNITS	1,700 SF AVE.
3-STORY BROWNSTONES	12 UNITS	2,000 SF AVE.
RESIDENTIAL DENSITY	20.86 DU/AC	
RESIDENTIAL NET AREA	13.2 ACRES	
RESIDENTIAL NET DENSITY*	24.01 DU/AC	
*EXCLUDES SETBACK, EASEMENTS, DETENTION POND		
TOTAL SITE SQUARE FOOTAGE		493,780 SF
F.A.R. (.15 MIN. REQUIRED)		.33 FAR

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FIGURE 2
Site Plan

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II. EXISTING CONDITIONS

II.A. Existing Site

The proposed One Buckley development is located north of 120th Avenue, east of Buckley Road, and west of E-470 in Commerce City, Colorado. The project site is currently undeveloped and zoned as a Planned Unit Development. Most of the immediately surrounding property is vacant. Large-lot residential development exists west of Buckley Road, and relatively newer residential development has occurred southwest of 120th Avenue/Buckley Road.

II.B. Existing Roadway Network

The roadway network surrounding the site consists of the following major roadway facilities:

- **E-470** is a north-south tollway along the eastern side of the Denver metropolitan area. This Authority-owned and maintained roadway serves as an alternate route to I-25. The toll road has a posted speed limit of 75 miles per hour (mph) in the site vicinity. An interchange exists at 120th Avenue.
- **120th Avenue** is an east-west roadway that extends across the northern side of the Denver metropolitan area, providing access to E-470 in the immediate area. This roadway extends from State Highway 93 in Boulder to Adams County Road 29. It is a two-lane paved roadway in the site vicinity and is classified as a minor principal arterial. The posted speed limit is 45 mph in the project location.
- **Buckley Road** is a north-south section line arterial within Commerce City, extending north from 120th Avenue to Bridge Street in Brighton. The cross section consists of a two-lane paved roadway adjacent to the site. The posted speed limit is 40 mph along Buckley Road.

II.C. Traffic Volumes

Peak hour turning movement counts were collected at the existing major study area intersections. The intersections of Jasper Street with 120th Avenue and Laredo Street with 120th Avenue were collected on Tuesday, May 31, 2022. The remainder of the study intersections were collected on Tuesday, May 17, 2022. Peak hour traffic counts were collected in 15-minute intervals from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM. The AM peak hour occurred from 7:00 AM to 8:00 AM, and the PM peak hour occurred from 4:15 PM to 5:15 PM. Additionally, 24-hour traffic counts were recorded on 120th Avenue east of Buckley Road and on Buckley Road north of 121st Circle on Tuesday, May 17, 2022. **Figure 3** presents the existing traffic volumes, and **Appendix A** includes the raw traffic count data.

120th Avenue serves more than 22,000 vehicles per hour (vph) adjacent to the site. Buckley Road serves approximately 14,600 vph. At the 120th Avenue/Buckley Road intersection, the counts show a relatively heavy pattern between the north and west legs.

II.D. Traffic Operations

Traffic operations within the study area were evaluated according to techniques documented in the *Highway Capacity Manual, 6th Edition,* using existing traffic volumes and intersection geometry. Level of Service (LOS) is a qualitative measure of traffic operational conditions based on roadway capacity and vehicle delay. LOS is described by a letter designation ranging from A to F, with LOS A representing almost free-flow travel, while LOS F represents congested conditions. For signalized intersections, LOS is reported as an average for the entire intersection. Stop-sign controlled intersections report LOS for each movement that must yield the right-of-way.

The results of the operational analyses show that all signalized intersections operate at LOS D or better for the AM and PM peak hour; however, the southbound movements at the intersection of Buckley Road with 120th Avenue operate at LOS F during both the AM and PM peak hours. This heavy left turn movement is accommodated by a single (and shared with the through movement) left turn lane. All unsignalized movements operate at LOS D or better with the exception of the following movements:

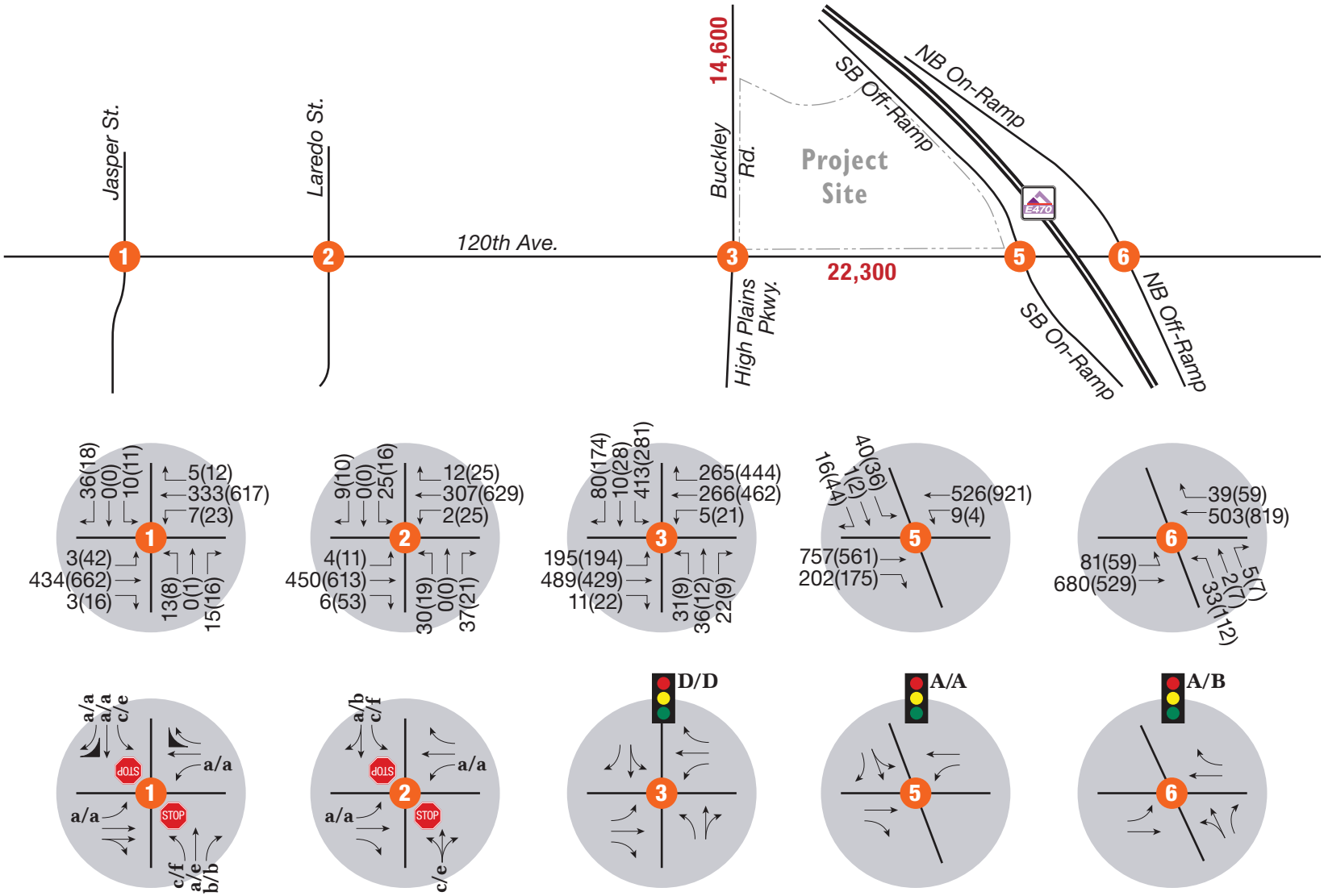
Jasper Street/120th Avenue

- Northbound left turn operates at LOS F during the PM peak hour.
- Northbound through movements operate at LOS E during the PM peak hour.
- Southbound left turn operates at LOS E during the PM peak hour.

Laredo Street/120th Avenue

- Northbound movements operate at LOS E during the PM peak hour.
- Southbound left turn operates at LOS F during the PM peak hour.

Figure 3 shows the results of the capacity analyses, and **Appendix B** includes the existing traffic operational analysis worksheets.



LEGEND

XXX(XXX)	=	AM(PM) Peak Hour Traffic Volumes
XXXX	=	Daily Traffic Volumes
X/X	=	AM/PM Peak Hour Signalized Intersection Level of Service
x/x	=	AM/PM Peak Hour Unsignalized Intersection Level of Service
STOP	=	Stop Sign
	=	Traffic Signal
X	=	Intersection Number

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FIGURE 3
Existing (2022) Traffic Conditions

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III. PROPOSED PROJECT

III.A. Project Description

The proposed One Buckley development is located north of 120th Avenue, west of E-470, and west of Buckley Road. The current development plan includes 317 multifamily dwelling units, 20 KSF of office space, 27 KSF of restaurant space, 15 KSF of retail space, and one gas station.

Three accesses are planned for the development. One signalized full movement access onto Buckley Road, one RIRO onto 120th Avenue, and one full movement signalized access onto 120th Avenue are anticipated.

III.B. Site Trip Generation

The number of vehicle-trips generated by the proposed development was estimated based on equations and procedures documented in *Trip Generation, Institute of Transportation Engineers,* 11th Edition, 2021. The trip rates contained in the manual are developed primarily through field observations of similar land uses throughout the nation. The data contained in the *Trip Generation Manua*l are recognized nationally and by most jurisdictions in Colorado.

As stated previously, the site is planned to be constructed with ultimate build-out to be completed by year 2025. **Table 1** shows the trip generation for the proposed development. The site plan, per **Figure 2**, is the basis for each line-item set of trip estimates shown in **Table 1**.

The National Cooperative Highway Research Program (NCHRP) 684 internal capture worksheet was used to estimate internal trips for the project. Internal trips are those trips that would remain within the site being conducted between several land uses and, therefore, not affecting the external study roadways.

Pass-by trips are commonly associated with retail and general services. These trips are vehicles that are already on the network and decide to stop at one of the development uses as a matter of convenience. Pass-by trips are typically subtracted from the existing roadway network and rerouted into and out of the site, but these are not considered new trips onto the roadway network. These trips were estimated using the ITE *Trip Generation Manual* pass-by rates for individual land uses. **Table 1** includes estimates for both internal and pass-by trips associated with the development. Pass-by trips were extracted and assigned to the network based on overall distribution patterns as outlined in **Section III.C**.

The One Buckley development would generate approximately 7,470 external vehicle-trips per day (vpd) with 688 vph during the AM peak hour and 645 vph during the PM peak hour.

Table 1. Trip Generation Summary

Building	Land Use	ITE Code	Unit	Quantity	Daily	AM Peak			PM Peak		
						In	Out	Total	In	Out	Total
Back to Back Towns	Multifamily (Low-rise)	220	DU	105	749	13	43	56	42	24	66
Tandem Towns	Multifamily (Low-rise)	220	DU	73	544	11	35	46	33	19	52
Townhomes	Multifamily (Low-rise)	220	DU	77	569	11	36	47	34	20	54
Brownstones	Multifamily (Low-rise)	220	DU	12	153	6	21	27	16	10	26
Flats	Multifamily (Mid-rise)	221	DU	50	193	3	8	11	12	8	20
H	General Office	710	KSF	10	157	21	3	24	4	21	25
I	General Office	710	KSF	10	157	21	3	24	4	21	25
G	High Turnover Restaurant	932	KSF	8	858	42	35	77	45	28	73
C	High Turnover Restaurant	932	KSF	4	429	21	18	39	23	14	37
A	Gas Station	945	VFP	12	3,086	163	162	325	137	137	274
B	Shopping Center	822	KSF	2	315	3	2	5	13	12	25
	High Turnover Restaurant	932	KSF	2	215	11	9	20	12	7	19
F	Shopping Center	822	KSF	3	357	5	3	8	17	17	34
	High Turnover Restaurant	932	KSF	3	322	16	13	29	17	11	28
E	Shopping Center	822	KSF	5	442	7	5	12	24	24	48
	High Turnover Restaurant	932	KSF	5	536	26	22	48	28	18	46
D	Shopping Center	822	KSF	5	442	7	5	12	24	24	48
	High Turnover Restaurant	932	KSF	5	536	26	22	48	28	18	46
Grand Total					**10,060**	**413**	**445**	**858**	**513**	**433**	**946**
Pass-by Trip Adjustment					**1,169**	**46**	**38**	**84**	**60**	**47**	**107**
Internal Trip Reduction					**1,421**	**45**	**45**	**90**	**96**	**96**	**192**
Total External Trips					**7,470**	**322**	**362**	**684**	**357**	**290**	**647**

III.C. Trip Distribution and Traffic Assignment

Trip distribution percentages used in this analysis for the new external trips are based on Denver Regional Council of Governments (DRCOG) model results. The trip distribution used for the short-term analysis year is as follows:

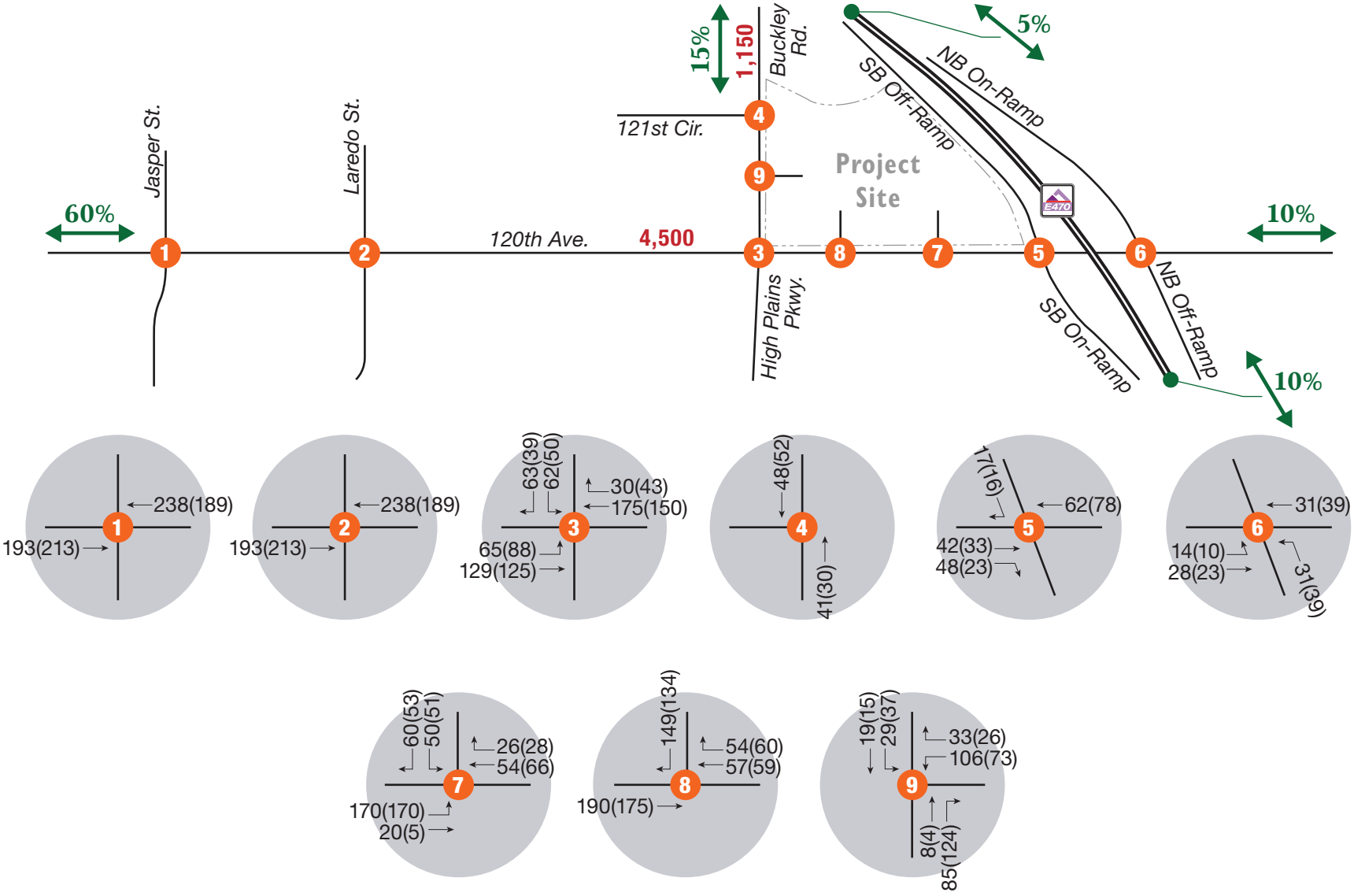
- 60 percent to/from the west on 120th Avenue
- 15 percent to/from the north on Buckley Road
- 10 percent to/from the east on 120th Avenue
- 5 percent to/from the north on E-470
- 10 percent to/from the south on E-470

The intersection of Buckley Road with 120th Avenue is anticipated to experience the highest amount of site traffic. The majority of site traffic is anticipated to be oriented from the west on 120th Avenue; therefore, most traffic will have to pass through the Buckley/120th Avenue intersection to reach site access, whether on 120th Avenue east of Buckley Road or the two accesses north of 120th Avenue. **Figure 4** shows the short-term distribution assumptions and site traffic assignment.

In the future, Buckley Road is anticipated to be extended south and connect with Tower Road; therefore, more traffic is assumed to use Buckley Road south of 120th Avenue in the long-term scenario. The following distribution assumptions were used for the long-term scenario:

- 60 percent to/from the west on 120th Avenue
- 15 percent to/from the north on Buckley Road
- 10 percent to/from the south on Buckley Road
- 5 percent to/from the north on E-470
- 10 percent to/from the south on E-470

Similar to the short-term, the intersection of Buckley Road with 120th Avenue is anticipated to experience the highest amount of site traffic. **Figure 5** shows the long-term distribution assumptions and site traffic assignment.



LEGEND

XXX(XXX)	=	AM(PM) Peak Hour Traffic Volumes
XXXX	=	Daily Traffic Volumes
XX%	=	Site Trip Distribution
X	=	Intersection Number

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NOTE: Drawing Not to Scale

FIGURE 4

Short-Term Site Generated Traffic and Pass-by Trip Distribution

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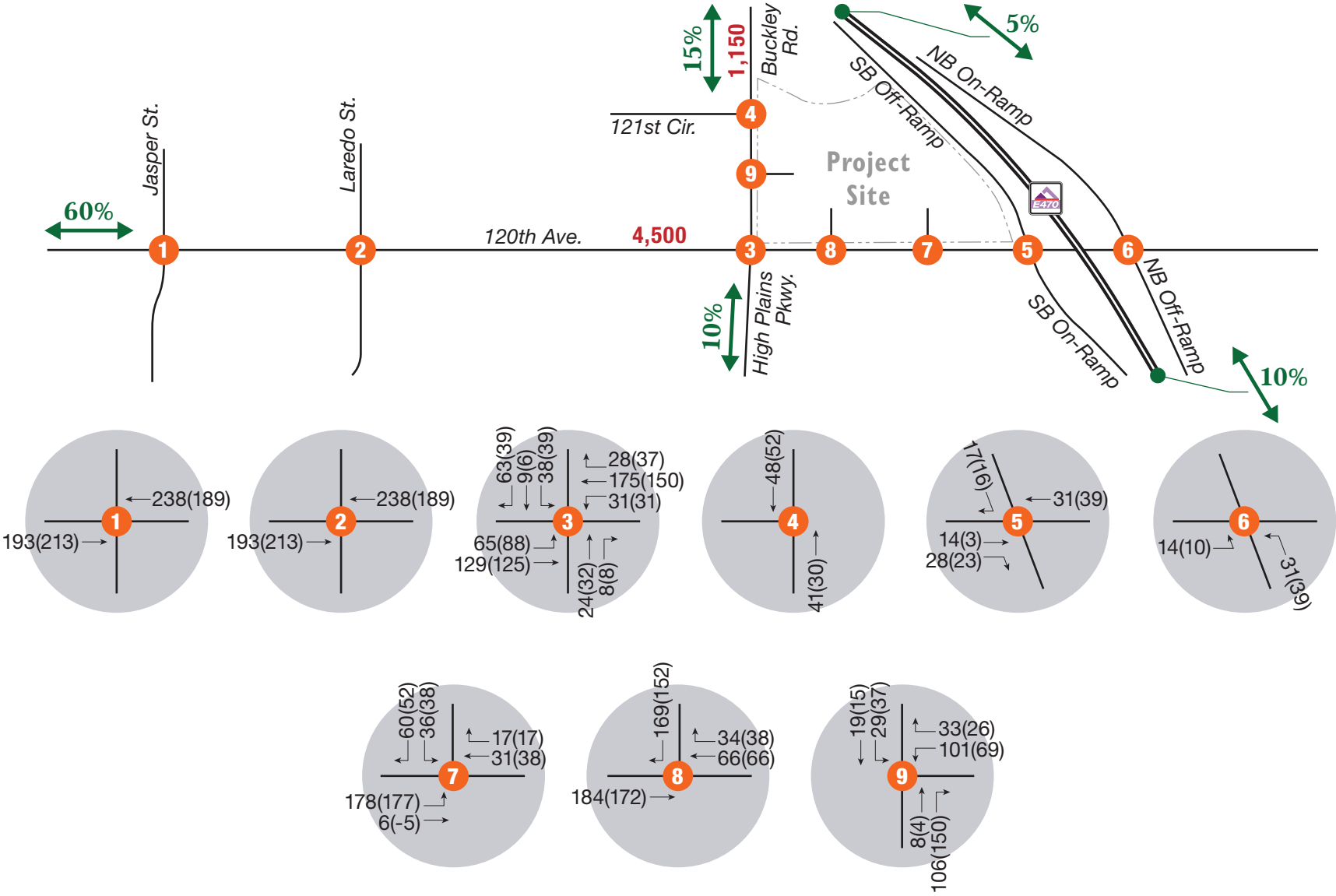

LEGEND

XXX(XXX)	=	AM(PM) Peak Hour Traffic Volumes
XXXX	=	Daily Traffic Volumes
XX%	=	Site Trip Distribution
X	=	Intersection Number

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FIGURE 5

Long-Term Site Generated Traffic and Pass-by Trip Distribution

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IV. BACKGROUND TRAFFIC CONDITIONS

IV.A. Roadway Network

Within the short-term planning horizon, no other major road network expansions are anticipated. The existing conditions relative to network, lane geometry, and traffic control are anticipated to be in place.

Over the long-term planning horizon of 2045, a significant network enhancement includes the extension of Buckley Road south of 120th Avenue as High Plains Parkway. This southerly extension is planned to veer to the east and become Tower Road north of 104th Avenue. This new segment of roadway will create a continuous north-south Tower Road/Buckley Road through the area that will serve as a primary 6-lane arterial. The connection will create a shift in background traffic in that the new roadway will accommodate traffic that would otherwise travel Tower Road north to 120th Avenue and west to Buckley Road (and vice versa).

120th Avenue is planned to be widened to provide four through lanes by 2045. Ultimately at build-out of the area (which is assumed to year 2045 for the purposes of this study), Commerce City's Transportation Plan shows 120th Avenue to be a 6-lane road.

IV.B. Traffic Volumes

Based on the DRCOG Regional Model, an annual growth rate of 2.5 percent was determined to develop future background traffic volumes based on existing turning movements. Again, the long-term traffic accounts for that level of growth and for the shift in traffic that will result from the High Plains Parkway extension. **Figure 6** and **Figure 7** show the resultant short- and long-term background traffic volumes, respectively. Long-term (**Figure 7**), 25,750 vehicles per day of background traffic is expected to travel Buckley Road given the High Plains Parkway extension. 120th Avenue will serve approximately 39,350 vehicles per day west of Buckley Road.

IV.C. Background Traffic Operations

Short-Term Horizon

All unsignalized movements at study intersections are anticipated to operate at LOS D or better under the projected 2025 background conditions with the exception of the following:

120th Avenue & Jasper Street (unsignalized)

- Northbound left turn anticipated to operate at LOS F during the PM peak hour
- Northbound through movement anticipated to operate at LOS F in the PM peak hour
- Southbound left turn anticipated to operate at LOS E during the PM peak hour
- Southbound through movement anticipated to operate at LOS F during the PM peak hour

120th Avenue & Laredo Street (unsignalized)

- Northbound movement anticipated to operate at LOS F during the PM peak hour
- Southbound left turn anticipated to operate at LOS F during the PM peak hour

Although several movements are anticipated to experience a failing LOS at unsignalized intersections, none of these intersections are anticipated to warrant signalization. It is common for side-street, stop controlled movements to experience longer delays during peak periods. No improvements are recommended for these intersections.

After optimizing signal timings for the 2025 scenario, the intersection of Buckley Road with 120th Avenue is anticipated to operate at LOS C in the AM and PM peak hours under signalized control. The signalized intersections of 120th Avenue/E-470 Ramps are projected to operate at LOS B or better during both peak hours given short-term traffic projections.

Figure 6 shows the results of the capacity analysis, and **Appendix C** contains the background traffic operational analysis worksheets.

Long-Term Horizon

The assumptions for the long-term geometric roadway configurations were based on the findings from the *City of Commerce City C3 Vision Transportation Plan*, which outlines recommended roadway improvements near the One Buckley development for 120th Avenue and Buckley Road. Buckley Road is assumed to have three through lanes in each direction. 120th Avenue would be widened to also include three through-lanes in each direction by 2045. To maintain acceptable operations at the intersection of 120th Avenue with Buckley Road, dual left turn lanes were assumed for the eastbound, northbound, and southbound approaches.

The Buckley Road/120th Avenue intersection would operate at LOS D during the AM and PM peak hours. The signalized intersections of 120th Avenue with E-470 southbound and northbound ramps are anticipated to operate at LOS B or better for both peak hours in the long-term horizon given background traffic projections.

All unsignalized movements are anticipated to operate at LOS D or better with the exception of the following:

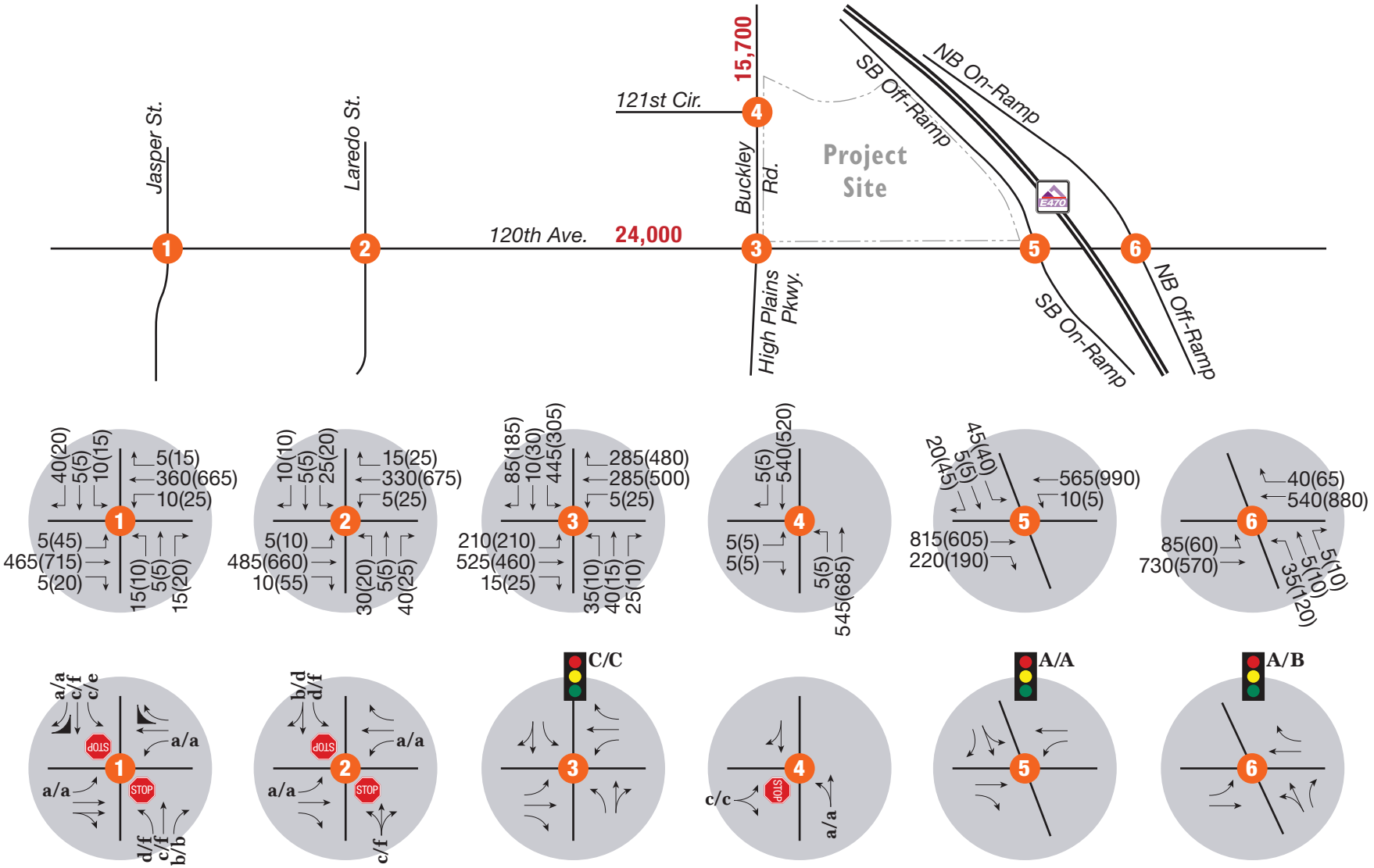
120th Avenue & Jasper Street (unsignalized)

- Northbound left turn anticipated to operate at LOS F during the AM and PM peak hours
- Northbound through movement anticipated to operate at LOS F in the AM and PM peak hours
- Southbound left turn anticipated to operate at LOS F during the AM and PM peak hours
- Southbound through movement anticipated to operate at LOS F during the AM and PM peak hours

120th Avenue & Laredo Street (unsignalized)

- Northbound movement anticipated to operate at LOS F during the AM and PM peak hours
- Southbound left turn anticipated to operate at LOS F during the AM and PM peak hours
- Southbound through/right movement anticipated to operate at LOS E during the AM peak hour and LOS F during the PM peak hour

Similar to the short-term background scenario, the majority of unsignalized intersections are not anticipated to meet signal warrants and no improvements are recommended. However, the intersection of Laredo Street with 120th Avenue is anticipated to experience a borderline condition for signalization and may either be widened or signalized by 2045. For this reason, both Two-Way Stop-Control (TWSC) and signalized control were analyzed as a part of this study. **Figure 7** shows the results of the long-term background traffic capacity analyses, and **Appendix C** contains the operational analysis worksheets. Signal warrant worksheets can be found in **Appendix E**.



LEGEND

XXX(XXX)	=	AM(PM) Peak Hour Traffic Volumes
XXXX	=	Daily Traffic Volumes
X/X	=	AM/PM Peak Hour Signalized Intersection Level of Service
x/x	=	AM/PM Peak Hour Unsignalized Intersection Level of Service
STOP	=	Stop Sign
	=	Traffic Signal
X	=	Intersection Number

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FIGURE 6

2025 Background Traffic Conditions

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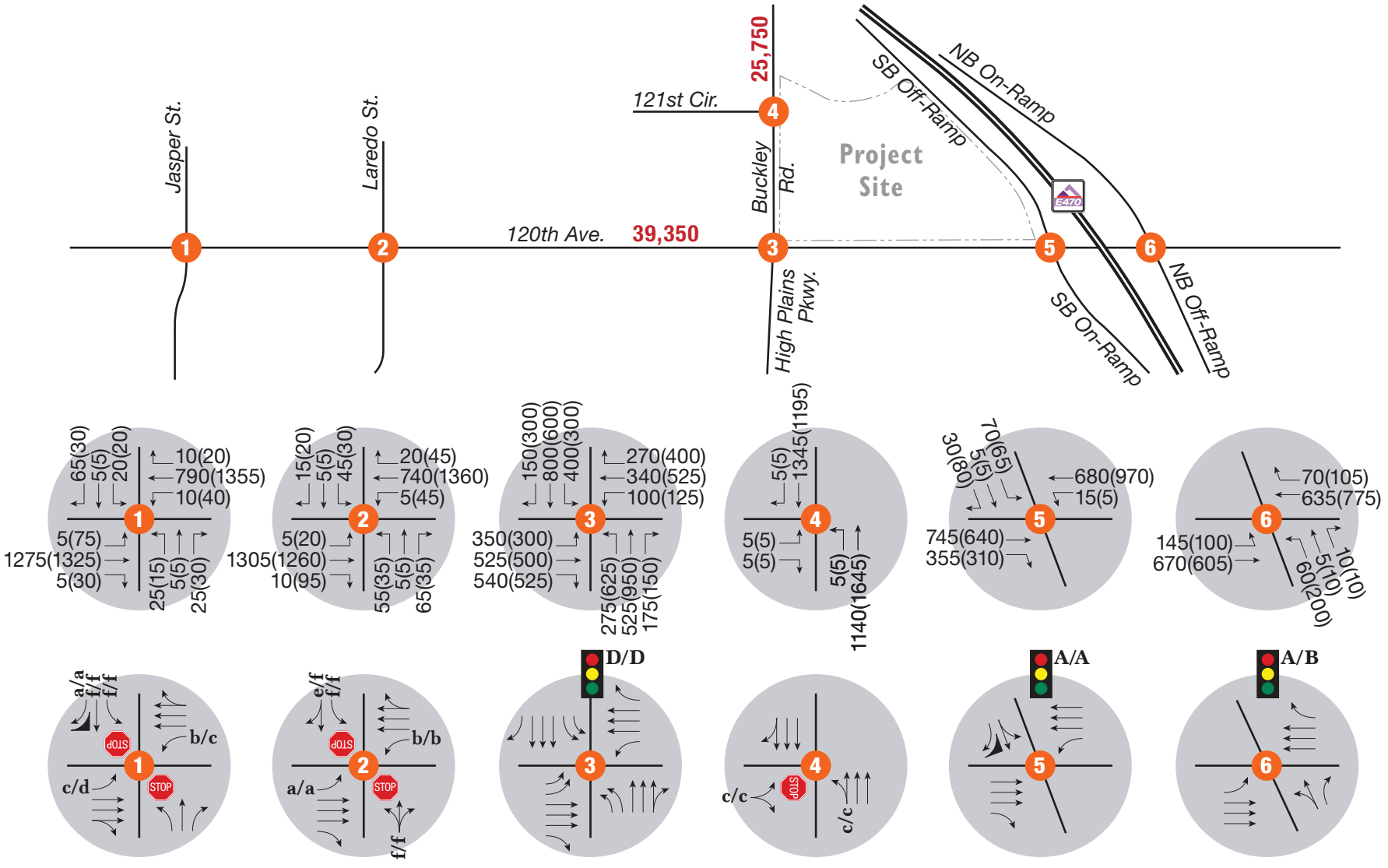

LEGEND

XXX(XXX)	=	AM(PM) Peak Hour Traffic Volumes
XXXX	=	Daily Traffic Volumes
X/X	=	AM/PM Peak Hour Signalized Intersection Level of Service
x/x	=	AM/PM Peak Hour Unsignalized Intersection Level of Service
STOP	=	Stop Sign
	=	Traffic Signal
X	=	Intersection Number

NORTH

NOTE: Drawing Not to Scale

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FIGURE 7
2045 Background Traffic Conditions

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V. TOTAL TRAFFIC CONDITIONS

V.A. Traffic Volumes

Site generated traffic volumes were added to the long-term and short-term background traffic volumes for the future year scenarios to determine total traffic volumes. The development is estimated to contribute an additional 7 percent to the daily traffic volumes on Buckley Road and 16 percent to the daily traffic on 120th Avenue in 2025. However, as background traffic grows in the area, by 2045 the development is anticipated to contribute only 4 percent on Buckley Road and 10 percent on 120th Avenue. **Figure 8** and **Figure 9** show the projected short-term and long-term total traffic volumes, respectively.

V.B. Traffic Operations

Short-Term Horizon

For the purpose of this study, it was assumed that Buckley Road would be widened to provide a center left turn lane between the site access and 121st Circle. Further, the Buckley Road/120th Avenue intersection signal timing plan has been optimized to best accommodate the future total traffic at the intersection and is projected to operate at LOS D during the AM peak hour and LOS C during the PM peak hour.

The access intersection onto Buckley Road will satisfy signal warrants in the short-term time frame given build out of the site. The intersection is projected to function well with signalization. Staff review comments have raised the question pertaining to this intersection as it relates to the location of 121st Circle to its north with respect to the offset and driver sight distance. The two intersections are approximately 275 feet apart (measured center to center). A center turn lane will serve both intersections with back-to-back left turn lanes. **Figure 10** illustrates an initial conceptual layout prepared by Elevation Consulting Group, Inc. The left turn lane storage shown meets City standards for the amount of peak hour traffic projected to be served.

Two specific questions have been raised that warrant discussion. One pertains to the question of aligning the site access with 121st Circle to avoid an offset. There are several reasons to consider not aligning these:

- Traffic usage will decrease. In shifting the site access intersection north, away from the commercial area in the southwest corner of the overall site, the level of traffic that would use this access will tend to decrease, especially the westbound to southbound left turns. The drop in traffic would likely lead to a condition in which signal warrants would not be satisfied. This may ultimately require turn restrictions as a side-street stop condition.
- Aligning the One Buckley access road directly across the 121st Circle may not be embraced by the residents who live in that neighborhood. Residents may perceive a bit of traffic "threat" in which One Buckley trips could be tempted to enter their neighborhood. Several properties were developed 40-plus years ago, and some of these residents may take issue with a development access directly across from their roadway access.
- There will be adequate distance between the two tee intersections for back-to-back left turn storage. Approximately 240 feet will be available between the intersections. The northbound left turn movement is light, being an estimated 5 vph at peak. The projected southbound left into the site is estimated to be 37 vph at peak. Using City design criteria, the northbound left turn storage would more than suffice with a 40-foot-long lane. The southbound left turn lane would suffice with 80 feet in length. This leaves 120 feet for back-to-back left-turn lead-in taper, which is indicative of a 35 mph posted speed based on CDOT criteria.

A second question that has been raised pertains to driver sight distance limitation caused by vehicles queued in the center left turn lane. The consideration for sight distance primarily pertains to the driver who is exiting 121st Cricle and attempting to turn onto northbound Buckley Road and their ability to see far enough to the south with respect to traffic gaps. The road is posted at 40 mph, and City requirements indicate that a 530-foot sight distance should ideally be provided to turn onto Buckley Road. A queue in the southbound left turn lane into the One Buckley site will interfere.

To counter this, it is recommended that the short-term improvements along Buckley Road incorporate a center receiving harbor lane north of 121st Circle, thereby allowing the eastbound to northbound left turn out of 121st Circle to take place as a two-stage left turn movement. The driver turning to northbound Buckley Road will have the opportunity to see down (looking south) Buckley Road and assess entering into the northbound flow. This design should alleviate the driver sight distance challenge.

The intersection of Buckley Road and 120th Avenue is proposed to be improved in the short-term planning horizon. Currently, there is only one southbound approach lane along Buckley Road, and the proposed improvements would widen this to include three lanes (one for each movement). LOS would be at LOS E during the AM peak hour and LOS D during the PM peak hour. Ideally, southbound double left turn lanes would be provided, but 120th Avenue is not likely to be widened yet along its south side to incorporate two eastbound through lanes to receive the dual left turn lanes from Buckley Road.

In looking at the other study area intersections, the signalized intersections of 120th Avenue with E-470 northbound and southbound ramps are anticipated to operate at LOS C or better for both peak hours. All unsignalized movements in the study area are projected to operate at LOS D or better during the AM and PM peak hours with the exception of the following:

120th Avenue & Jasper Street

- Northbound left turn anticipated to operate at LOS F during the AM and PM peak hours
- Northbound through movement anticipated to operate at LOS E in the AM peak hour and LOS F in the PM peak hour
- Southbound left turn anticipated to operate at LOS F during the PM peak hour
- Southbound through movement anticipated to operate at LOS E during the AM peak hour and LOS F during the PM peak hour

120th Avenue & Laredo Street

- Northbound movement anticipated to operate at LOS E during the AM peak hour and LOS F during the PM peak hour
- Southbound left turn anticipated to operate at LOS F during the AM and PM peak hours
- Southbound through/right movement anticipated to operate at LOS E during the PM peak hour

120th Avenue & Full Movement Access

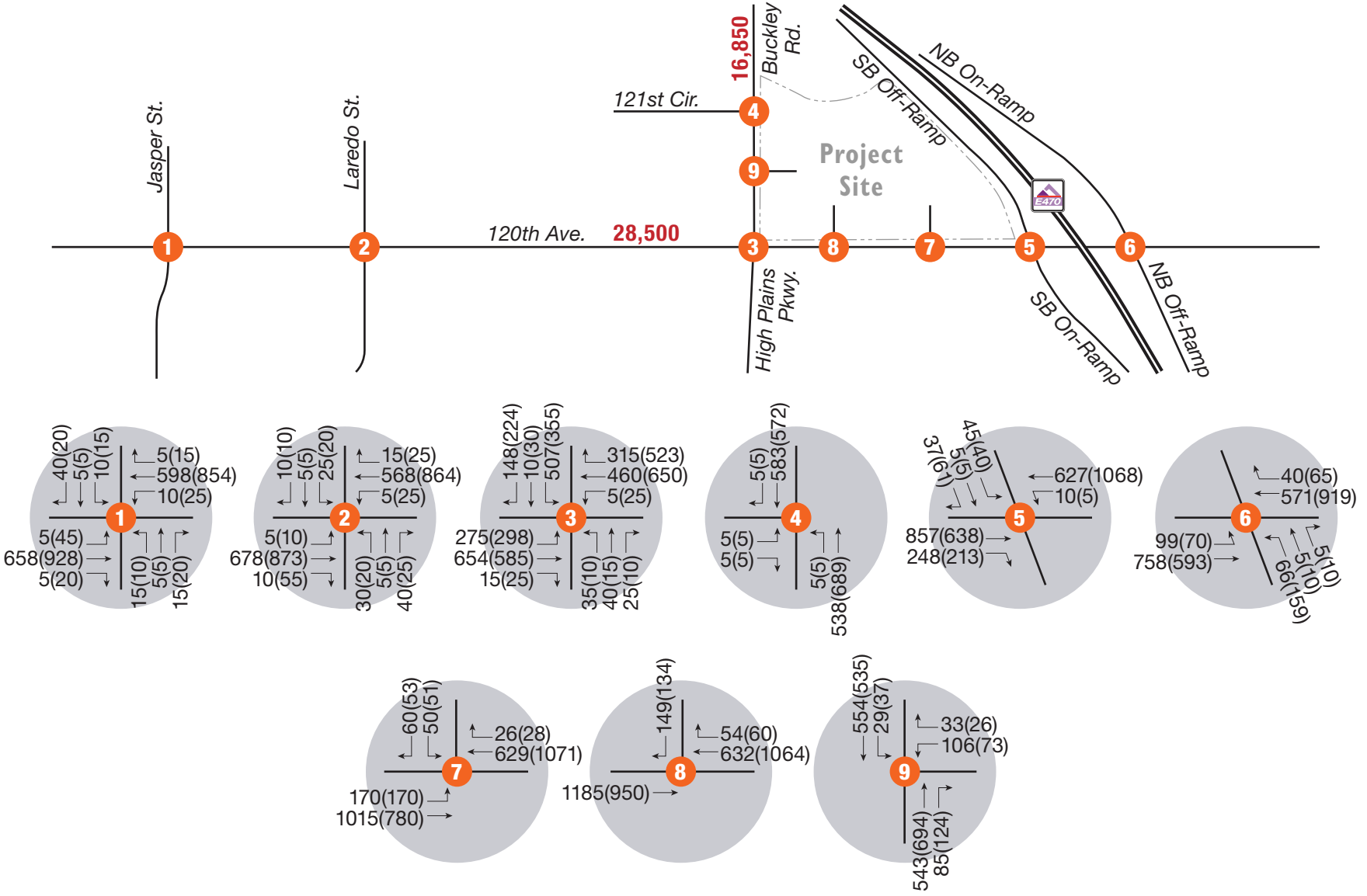
- Southbound left turn movement anticipated to operate at LOS F during the AM and PM peak hours if left unsignalized
- Southbound right turn movement anticipated to operate at LOS E during the PM peak hour if left unsignalized
- Eastbound left turn movement anticipated to operate at LOS E during the PM peak hour if left unsignalized

120th Avenue & RIRO Access

- Southbound movement anticipated to operate at LOS E during the PM peak hour

The majority of these intersections are not anticipated to meet signalization warrants and excessive delays are common for side street stop-controlled intersections. No improvements are recommended at these intersections. However, the intersections of 120th Avenue with Full Movement Access and Buckley Road with Access will experience borderline conditions for signalization and have been analyzed both with and without a signal.

Based on the Commerce City Engineering Construction Standards and Specifications, both site accesses on 120th Avenue would warrant a westbound right turn deceleration lane, and a northbound right turn deceleration lane would be warranted on Buckley Road at the proposed site access. **Figure 11** shows the 2025 capacity analyses results, and **Appendix D** contains the total traffic operational analysis worksheets.



LEGEND

XXX(XXX)	=	AM(PM) Peak Hour Traffic Volumes
XXXX	=	Daily Traffic Volumes
X	=	Intersection Number

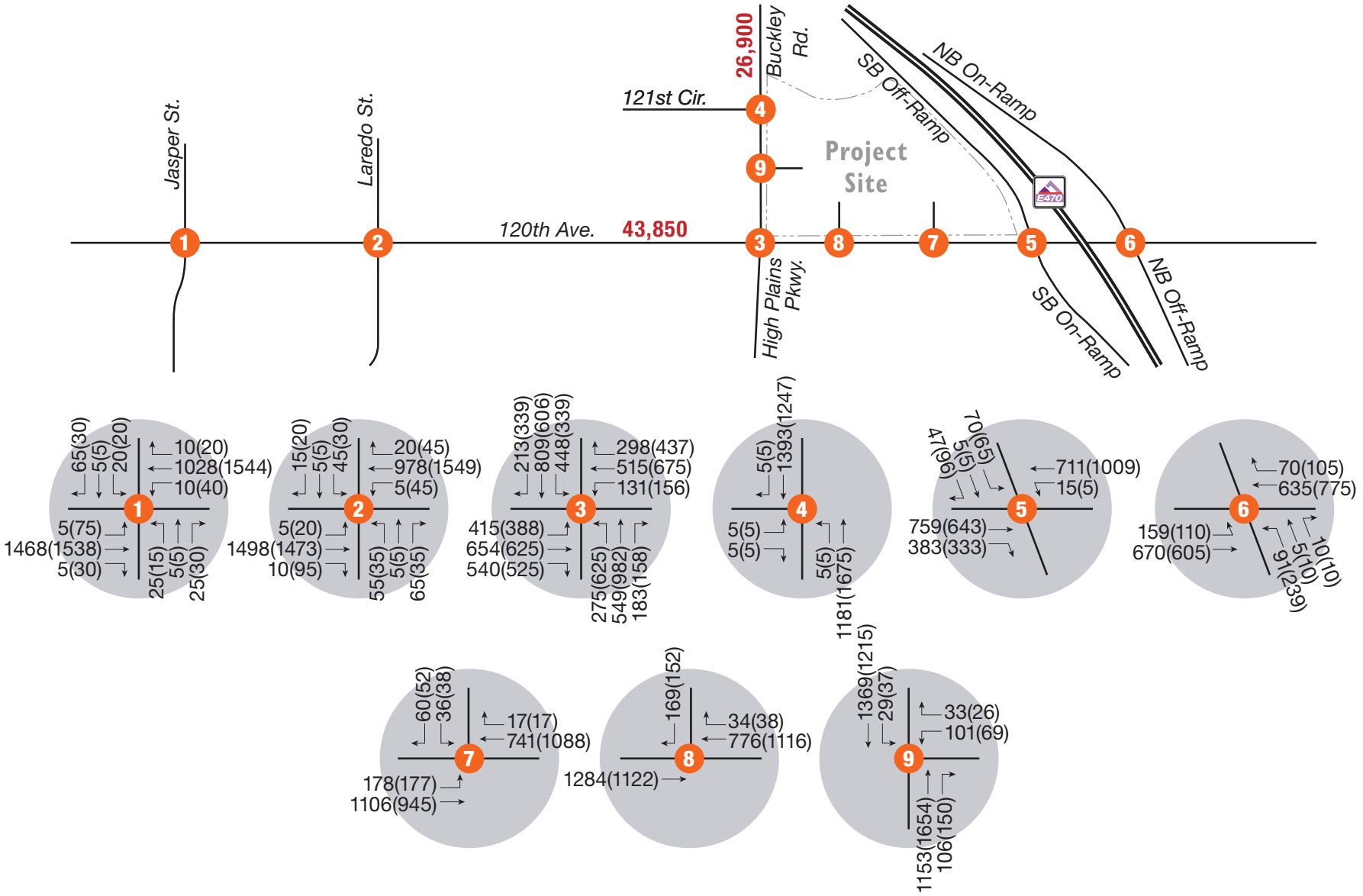
NORTH

FELSBURG HOLT & ULLEVIG

NOTE: Drawing Not to Scale

FIGURE 8
2025 Total Traffic Volumes

One Buckley - UPDATE DEC_23 122172-01 12/18/23



LEGEND

XXX(XXX)	=	AM(PM) Peak Hour Traffic Volumes
XXXX	=	Daily Traffic Volumes
X	=	Intersection Number

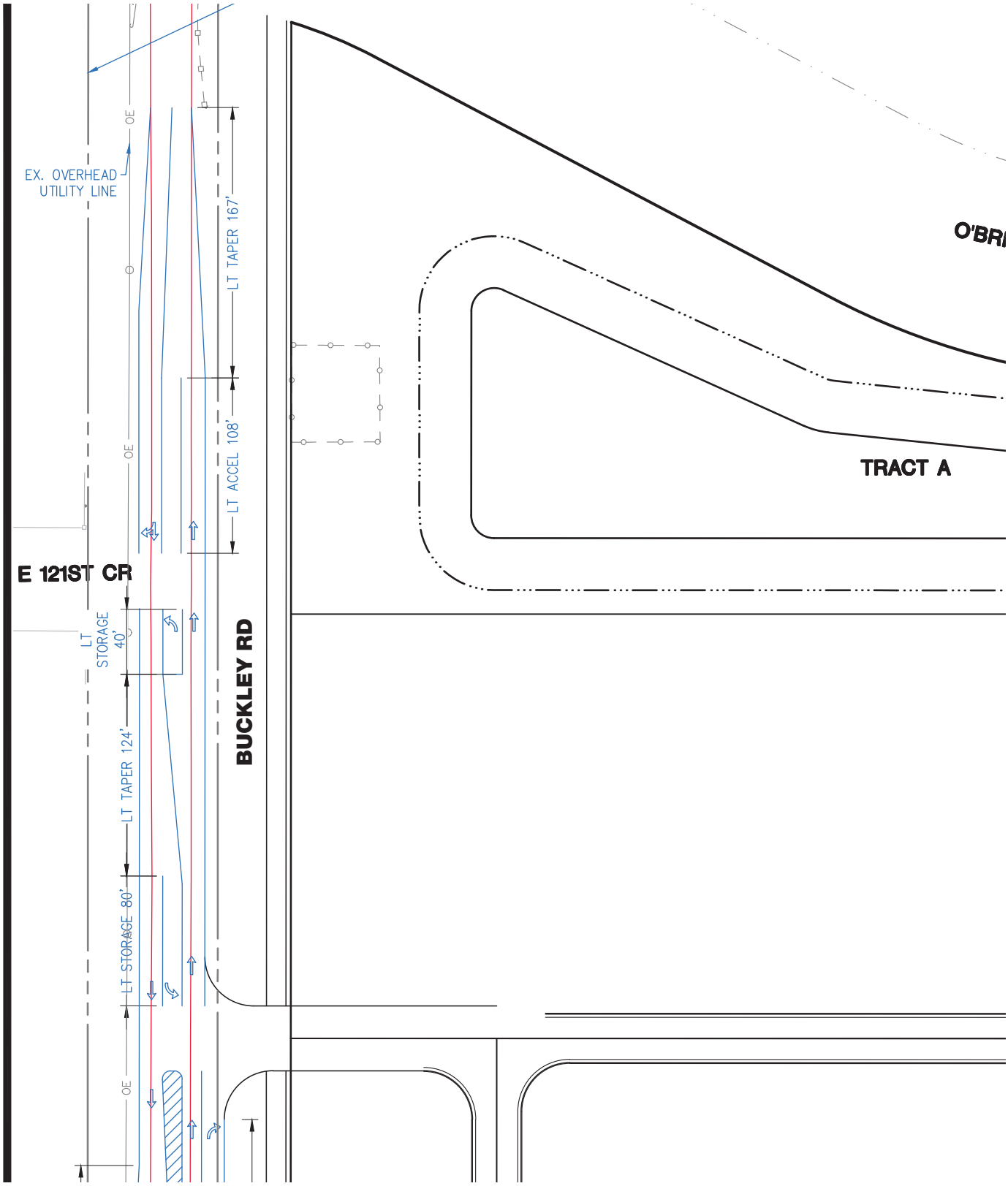
NORTH

FELSBURG HOLT & ULLEVIG

NOTE: Drawing Not to Scale

FIGURE 9
2045 Total Traffic Volumes

One Buckley - UPDATE DEC_23 122172-01 12/18/23



NORTH

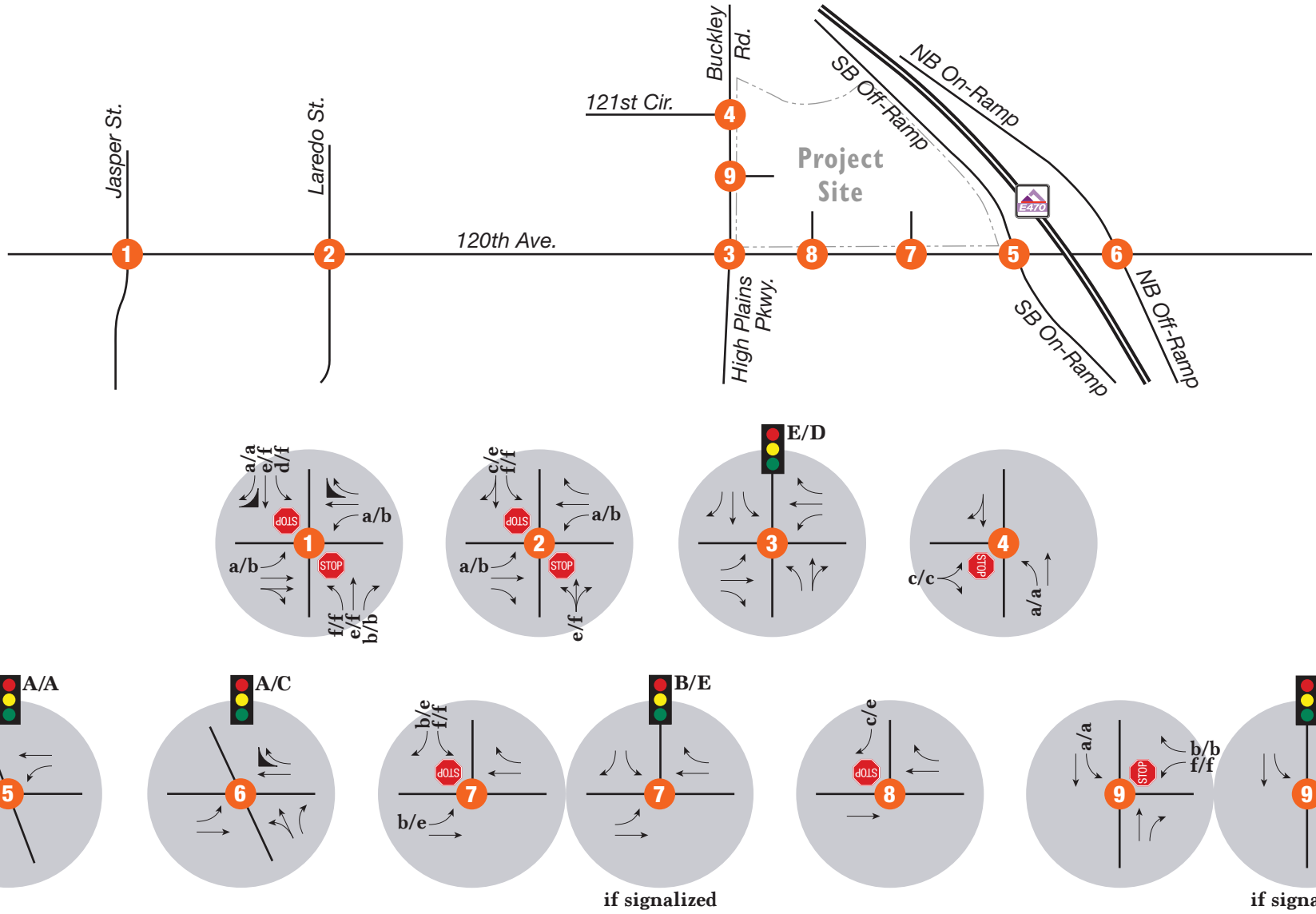
FELSBURG HOLT & ULLEVIG

NOTE: Drawing Not to Scale

FIGURE 10

Short-Term Buckley Road Conceptual Layout

One Buckley - UPDATE DEC_23 122172-01 12/18/23



LEGEND

X/X	=	AM/PM Peak Hour Signalized Intersection Level of Service
x/x	=	AM/PM Peak Hour Unsignalized Intersection Level of Service

STOP = Stop Sign

= Traffic Signal

X = Intersection Number

NORTH

FELSBURG HOLT & ULLEVIG

NOTE: Drawing Not to Scale

FIGURE 11
2025 Total Traffic Operations

One Buckley - UPDATE DEC_23 122172-01 12/18/23

Long-Term Horizon

By 2045, Buckley Road is anticipated to be built at its ultimate configuration including six through-lanes and center median for left turn lanes. This ultimate design should also incorporate a center left turn harbor/receiving lane north of 121st Circle as previously described.

The intersections of 120th Avenue with E-470 northbound and southbound ramps are projected to operate at LOS C or better for both peak hours. Assuming signal timing optimization, the 120th Avenue/Buckley Road intersection would operate at LOS D during both peak hours. All unsignalized movements are anticipated to operate at LOS D or better with the exception of the following:

120th Avenue & Jasper Street

- Northbound left turn anticipated to operate at LOS F during the AM and PM peak hours
- Northbound through movement anticipated to operate at LOS F in the AM and PM peak hours
- Southbound left turn anticipated to operate at LOS F during the AM and PM peak hours
- Southbound through movement anticipated to operate at LOS F during the AM and PM peak hours

120th Avenue & Laredo Street

- Northbound movement anticipated to operate at LOS F during the AM and PM peak hours
- Southbound left turn anticipated to operate at LOS F during the AM and PM peak hours
- Southbound through/right movement anticipated to operate at LOS F during the AM peak hour

120th Avenue & Full Movement Access

- Southbound left turn movement anticipated to operate at LOS F during both peak hours if left unsignalized

Buckley Road & Full Movement Access

- Westbound left turn movement anticipated to operate at LOS E during the PM peak hour if left unsignalized

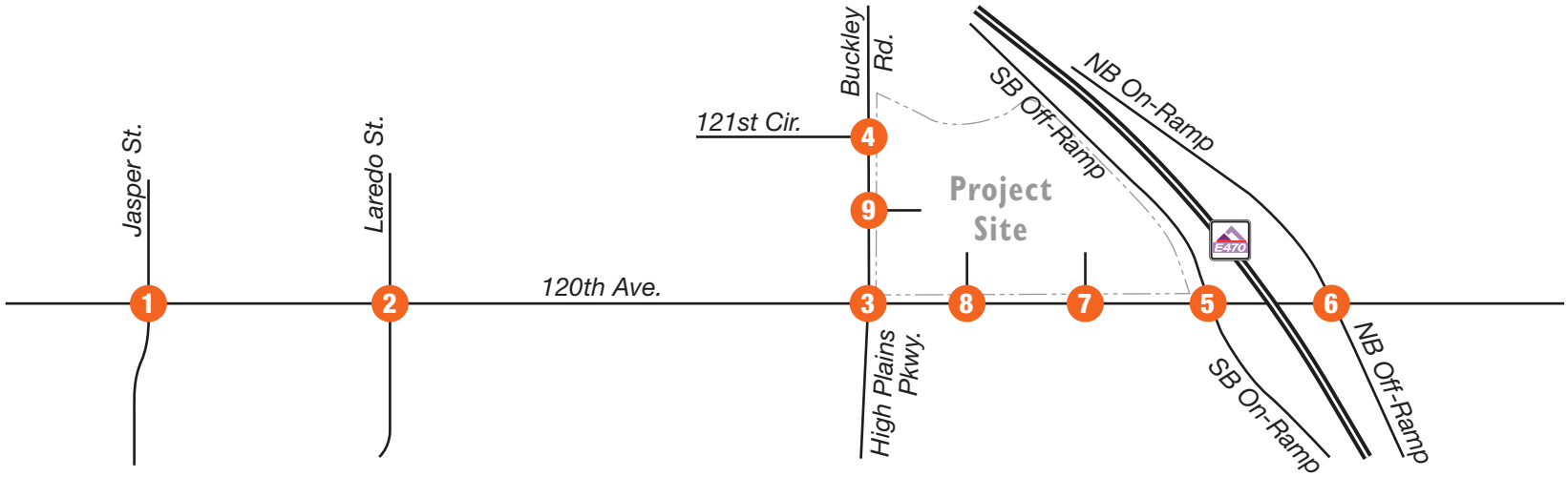
The following intersections are anticipated to experience borderline signal warrant conditions:

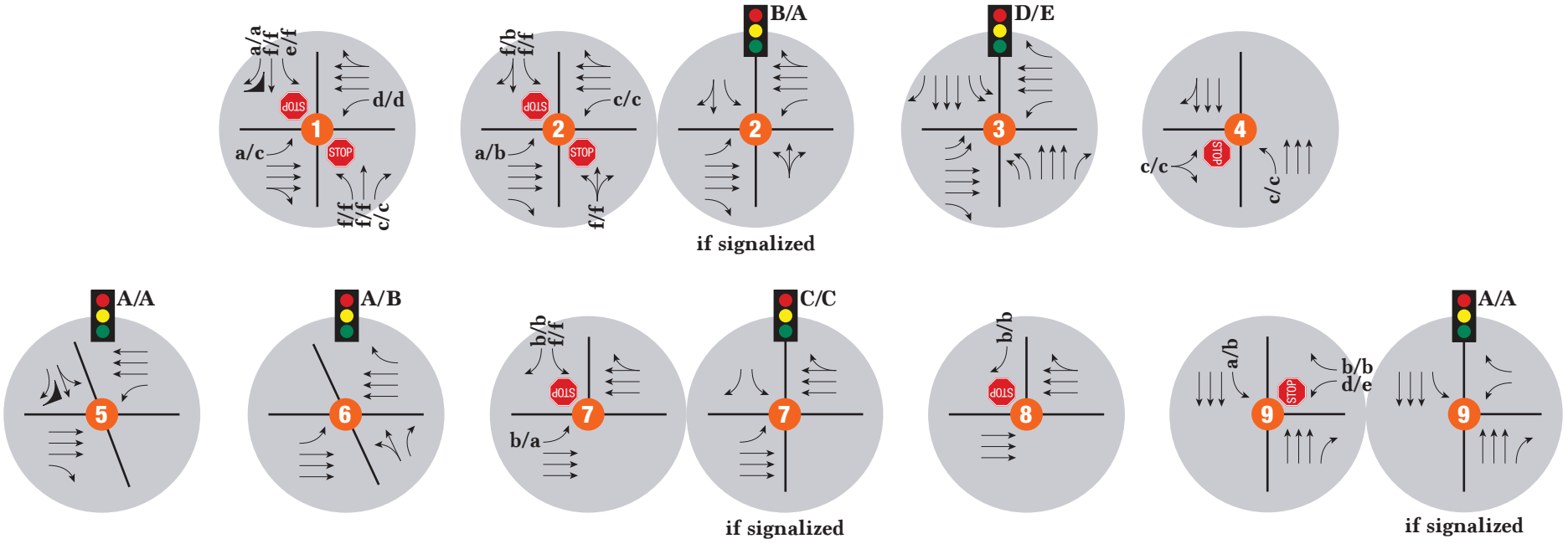
- 120th Avenue with Laredo Street
- Buckley Road with Site Access

Both TWSC and signalization have been analyzed for the previous intersections for the purpose of this study. It should be noted that the intersection of 120th Avenue with Full Movement Access is anticipated to experience borderline signalization requirements in the short-term scenario; however, due to distribution changes for the long-term scenario, this intersection would no longer experience borderline conditions. Should this intersection meet signal warrant requirements in the future, it should be signalized at that time and would likely remain signalized into the future.

Similar to the signal above, the intersection of 120th Avenue with the site access is anticipated to require a westbound right turn deceleration lane in the short-term, but not the long-term if three through lanes are already provided. If the westbound right turn volume exceeds 20 vph, a right turn deceleration lane should be installed.

All other unsignalized movements are not anticipated to warrant signalization and do not warrant improvements. **Figure 12** shows the capacity analyses results, and **Appendix D** contains the total traffic operational analysis worksheets.





LEGEND

X/X	=	AM/PM Peak Hour Signalized Intersection Level of Service
x/x	=	AM/PM Peak Hour Unsignalized Intersection Level of Service

STOP = Stop Sign

= Traffic Signal

X = Intersection Number

NORTH

FELSBURG HOLT & ULLEVIG

NOTE: Drawing Not to Scale

FIGURE 12
2045 Total Traffic Operations

One Buckley - UPDATE DEC_23 122172-01 12/18/23

V.C. Sight Distance

Each new site access point should be designed according to current Commerce City design standards. Sight triangles and proper intersection sight distance are also recommended to be provided at each access point in accordance with the *AASHTO Geometric Design of Highways and Streets (Green Book)*. Sight triangles are defined as the areas in each corner of the intersection where obstructions (fences, vegetation, and signs) must be lower than 3.5 feet. The area depends on the classification of the two intersecting roads. Intersection sight distance is based on the speed of the major roadway, the driver's eye height, and the height of the obstruction. The sight distance is measured assuming a minimum of 14 feet back of the edge of the traveled way on the minor street to the center of the lane in question on the major street. The sight distance parameters should all be checked at the time of design.

The sight distance aspect concerning 121st Circle has been addressed previously, incorporating a center left turn harbor/receiving lane for the eastbound to northbound left turn movement at this intersection will be important.

V.D. Queueing

Table 2 displays the 95th percentile queue lengths for the study intersections under 2045 total traffic conditions.

Table 2. Year 2045 95th Percentile Queue Summary

Intersection	Movement	Existing Turn Lane (ft)	2045 Total 95th %ile Queue (ft)		Recommended Storage Length (ft)
			AM	PM	
Buckley Road & 120th Avenue	EBL (Duals)	150	250	325	**325**
	EBT	Continuous	125	200	Continuous
	EBR	100	450	350	**450**
	WBL	125	125	50	**125**
	WBT	Continuous	225	300	Continuous
	WBR	75	300	575	**575**
	NBL(Duals)	125	225	525	**525**
	NBT	Continuous	225	525	Continuous
	NBR	–	250	225	**250**
	SBL(Dual)	–	300	275	**300**
	SBT	Continuous	300	325	Continuous
	SBR	–	200	500	**500**
E-470 SB Ramps & 120th Avenue	EBT	Continuous	25	25	Continuous
	EBR	275	50	25	275
	WBL	375	25	0	375
	WBT	Continuous	25	25	Continuous
	SBLT	Continuous	125	100	Continuous
	SBR	175	0	0	175

Intersection	Movement	Existing Turn Lane (ft)	2045 Total 95th %ile Queue (ft)		Recommended Storage Length (ft)
			AM	PM	
E-470 NB Ramps & 120th Avenue	EBL	375	25	50	375
	EBT	Continuous	25	25	Continuous
	WBT	Continuous	100	150	Continuous
	WBR	175	0	0	175
	NBLT	Continuous	125	350	Continuous
	NBR	275	25	25	275
Laredo Street & 120th Avenue	EBL	175	25	25	175
	EBT	Continuous	325	325	Continuous
	EBR	200	25	50	200
	WBL	75	25	50	75
	WBT	Continuous	25	25	Continuous
	WBR	50	25	25	50
	NBLTR	Continuous	100	100	Continuous
	SBL	100	25	50	100
	SBTR	Continuous	25	25	Continuous
Jasper Street & 120th Avenue	EBL	150	0	25	150
	WBL	225	25	25	225
	NBL	75	50	Not Reported	**75**
	NBT	Continuous	25	50	Continuous
	NBR	175	25	25	175
	SBL	75	25	Not reported	**75**
	SBT	Continuous	25	50	Continuous
	SBR	75	Not Reported	Not Reported	75
Buckley Road & Site Access	WBL	–	125	100	**125**
	WBR	Continuous	25	25	Continuous
	NBT	Continuous	25	25	Continuous
	NBR	–	0	0	**50**
	SBL	–	25	25	**50**
	SBT	Continuous	50	25	Continuous

Intersection	Movement	Existing Turn Lane (ft)	2045 Total 95th %ile Queue (ft)		Recommended Storage Length (ft)
			AM	PM	
120th Avenue & Full Movement Access	EBL	–	150	150	**150**
	EBT	Continuous	350	350	Continuous
	WBT	Continuous	250	325	Continuous
	WBTR	Continuous	275	350	Continuous
	SBL	–	25	50	**50**
	SBR	Continuous	100	100	Continuous
120th Avenue & RIRO	SBR	Continuous	25	25	Continuous
Bold queues exceed the current provided storage length. "Not Reported" indicates that conditions were beyond the procedure's typical ranges.					

Turn lane lead-in taper lengths should ideally be provided based on City standards as follows:

- 18.5:1 along the arterial roads, which requires 222 feet for a single lane
- 13.5:1 along the cross-streets 162 feet for a single lane

There will be situations in which the full length of the lead-in taper may not entirely fit within the roadway design. Where these conditions exist, alternative design considerations should be implemented subject to City input.

VI. SUMMARY AND RECOMMENDATIONS

The proposed One Buckley development is located north of 120th Avenue, east of Buckley Road, and west of E-470 in Commerce City, Colorado. The development includes approximately 317 multifamily dwelling units, 20 KSF of office space, 27 KSF of restaurant space, 15 KSF of retail space, and one gas station. The proposed development would have one signalized access onto Buckley Road, one signalized access onto 120th Avenue, and one Right-In/Right-Out (RIRO) onto 120th Avenue.

The One Buckley development would generate approximately 7,470 external vehicle-trips per day. Approximately 688 vehicles per hour (vph) during the AM peak hour and 645 vph during the PM peak hour would be added to the adjacent transportation system upon site buildout.

The following summarizes the findings and recommendations related to the traffic impacts of the proposed development:

Short-Term Horizon

- Construct all site access roads onto 120th Avenue and Buckley Road according to current City of Commerce City design standards. Each site access should provide adequate intersection sight distance based on *AASHTO Green Book* criteria.
- The southbound approach of Buckley Road to 120th Avenue should be widened to include a separate through lane and a separate right turn lane. Ideally, 250 feet should be provided, plus a 13.5: 1 lead-in.
- Buckley Road should be widened to provide a center median along the site's frontage. Additional widening for turn lanes is needed at the 120th Avenue intersection. Specific lengths for each interlocking left turn lane should be incorporated for the entire lane between 121st Circle and site access.
- Westbound right turn lanes should be constructed at the two accesses along 120th Avenue. Each should be 100 feet long in the short-term, with a 13.5: 1 lead-in taper.
- A northbound right turn lane should be constructed at the intersection of Buckley Road with Full Movement Access. At least 125 feet should be provided in the short-term, and a 13.5: 1 taper should ideally be integrated.
- Along Buckley Road, a center harbor/receiving lane should be incorporated into the construction to receive left turn movement from 121st Circle. Its length may initially be constrained by the existing conditions, but ideally 100 feet should be the goal initially.

Long-Term Horizon

- Buckley Road and 120th Avenue should be widened to provide three through lanes of traffic.
- A second eastbound left turn, southbound left lane, and northbound left turn land should be added to the intersection of Buckley Road with 120th Avenue. See **Table 2** for the lane length, and an 18.5: 1 taper should ideally be integrated.
- A northbound right turn lane should be added to the intersection of Buckley Road with 120th Avenue.
- Along Buckley Road, a center harbor/receiving lane should be incorporated into the ultimate construction to receive left turn movements from 121st Circle. Longer term, the full widening of Buckey Road should allow for an extension of this center harbor lane to 500 feet (plus taper) for acceleration reasons.

APPENDIX A. EXISTING TRAFFIC COUNTS

All Traffic Data Services, LLC

www.alltrafficdata.net

Site Code: 5
Station ID: 5
120TH AVE E.O. BUCKLEY RD

Latitude: 0' 0.0000 Undefined

Start Time	17-May-22 Tue	EB	WB							Total
12:00 AM		52	88							140
01:00		86	76							162
02:00		165	65							230
03:00		401	133							534
04:00		915	246							1161
05:00		**998**	466							1464
06:00		988	575							**1563**
07:00		892	547							1439
08:00		701	460							1161
09:00		474	435							909
10:00		488	457							945
11:00		449	**591**							1040
12:00 PM		578	627							1205
01:00		484	795							1279
02:00		533	844							1377
03:00		588	**1037**							1625
04:00		**730**	1033							**1763**
05:00		619	776							1395
06:00		401	486							887
07:00		308	296							604
08:00		237	300							537
09:00		157	244							401
10:00		110	168							278
11:00		48	152							200
Total		11402	10897							22299
Percent		51.1%	48.9%							
AM Peak	-	05:00	11:00	-	-	-	-	-	-	06:00
Vol.	-	998	591	-	-	-	-	-	-	1563
PM Peak	-	16:00	15:00	-	-	-	-	-	-	16:00
Vol.	-	730	1037	-	-	-	-	-	-	1763
Grand Total		11402	10897							22299
Percent		51.1%	48.9%							
ADT		ADT 22,299		AADT 22,299						

All Traffic Data Services, LLC

www.alltrafficdata.net

Site Code: 6
Station ID: 6
BUCKLEY RD N.O. 121ST CIR

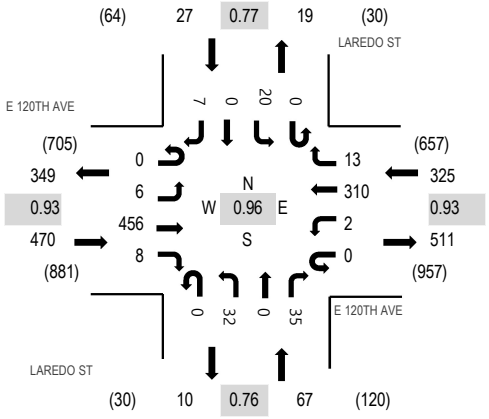
Latitude: 0' 0.0000 Undefined

Start Time	17-May-22 Tue	NB	SB							Total
12:00 AM		68	25							93
01:00		44	21							65
02:00		35	33							68
03:00		31	55							86
04:00		65	150							215
05:00		137	351							488
06:00		262	**482**							744
07:00		**475**	481							**956**
08:00		415	381							796
09:00		328	326							654
10:00		337	313							650
11:00		352	376							728
12:00 PM		381	346							727
01:00		506	392							898
02:00		519	369							888
03:00		736	431							1167
04:00		**753**	425							**1178**
05:00		665	**495**							1160
06:00		576	413							989
07:00		403	340							743
08:00		213	283							496
09:00		205	183							388
10:00		150	90							240
11:00		104	59							163
Total		7760	6820							14580
Percent		53.2%	46.8%							
AM Peak	-	07:00	06:00	-	-	-	-	-	-	07:00
Vol.	-	475	482	-	-	-	-	-	-	956
PM Peak	-	16:00	17:00	-	-	-	-	-	-	16:00
Vol.	-	753	495	-	-	-	-	-	-	1178
Grand Total		7760	6820							14580
Percent		53.2%	46.8%							
ADT		ADT 14,580		AADT 14,580						

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

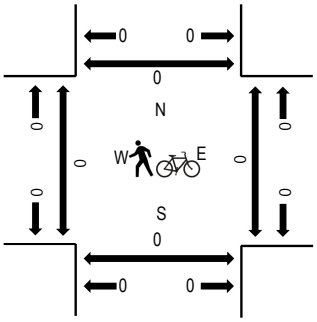
Location: 5 LAREDO ST & E 120TH AVE AM
Date: Tuesday, May 31, 2022
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



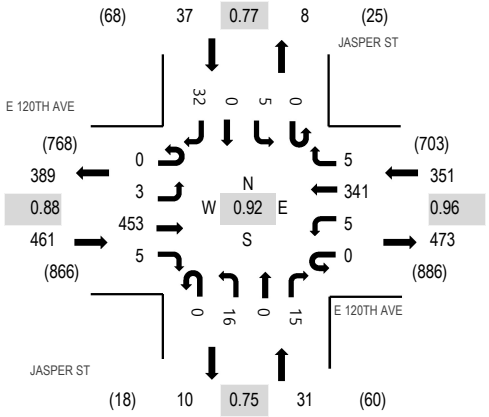
Traffic Counts

Interval Start Time	E 120TH AVE Eastbound				E 120TH AVE Westbound				LAREDO ST Northbound				LAREDO ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	98	2	0	1	73	1	0	6	0	10	0	9	0	2	203	882	0	0	0	0
7:15 AM	0	0	125	1	0	0	79	1	0	9	0	10	0	5	0	2	232	889	0	0	0	0
7:30 AM	0	1	116	1	0	0	67	6	0	11	0	11	0	6	0	3	222	870	0	0	0	0
7:45 AM	0	2	111	2	0	1	88	4	0	4	0	6	0	5	0	2	225	857	0	0	0	0
8:00 AM	0	3	104	4	0	1	76	2	0	8	0	8	0	4	0	0	210	840	0	0	0	0
8:15 AM	0	1	99	1	0	3	87	1	0	7	0	6	0	4	0	4	213		0	0	0	0
8:30 AM	0	1	97	5	0	2	80	1	0	8	0	7	0	5	0	3	209		0	0	0	0
8:45 AM	0	1	102	3	0	3	77	3	0	5	1	3	0	6	0	4	208		0	0	0	0
Count Total	0	10	852	19	0	11	627	19	0	58	1	61	0	44	0	20	1,722		0	0	0	0
Peak Hour	0	6	456	8	0	2	310	13	0	32	0	35	0	20	0	7	889		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

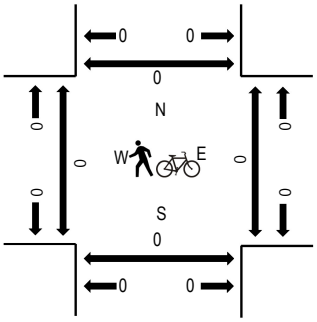
Location: 6 JASPER ST & E 120TH AVE AM
Date: Tuesday, May 31, 2022
Peak Hour: 07:15 AM - 08:15 AM
Peak 15-Minutes: 07:15 AM - 07:30 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



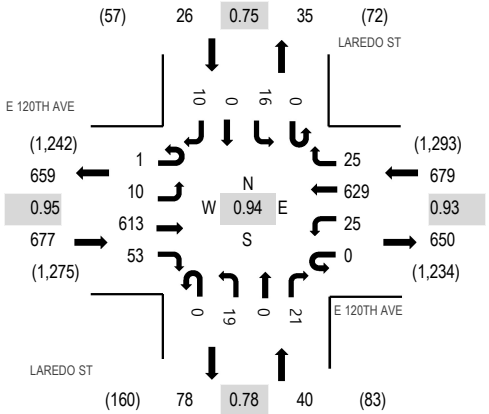
Traffic Counts

Interval Start Time	E 120TH AVE Eastbound				E 120TH AVE Westbound				JASPER ST Northbound				JASPER ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	1	92	0	0	2	75	0	0	2	0	2	0	6	0	9	189	859	0	0	0	0
7:15 AM	0	0	130	1	0	3	84	3	0	2	0	3	0	1	0	11	238	880	0	0	0	0
7:30 AM	0	2	103	1	0	1	80	1	0	5	0	7	0	1	0	7	208	846	0	0	0	0
7:45 AM	0	0	109	1	0	1	94	1	0	4	0	3	0	2	0	9	224	851	0	0	0	0
8:00 AM	0	1	111	2	0	0	83	0	0	5	0	2	0	1	0	5	210	838	0	0	0	0
8:15 AM	0	3	90	0	0	0	93	3	0	4	0	6	0	2	0	3	204		0	0	0	0
8:30 AM	0	5	102	1	0	2	91	0	0	3	0	3	0	0	0	6	213		0	0	0	0
8:45 AM	0	4	105	2	0	1	84	1	0	5	0	4	0	1	0	4	211		0	0	0	0
Count Total	0	16	842	8	0	10	684	9	0	30	0	30	0	14	0	54	1,697		0	0	0	0
Peak Hour	0	3	453	5	0	5	341	5	0	16	0	15	0	5	0	32	880		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

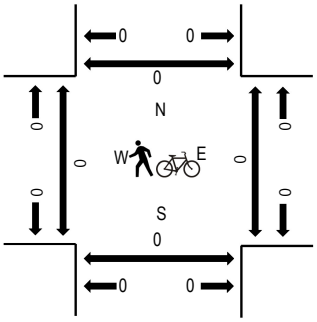
Location: 5 LAREDO ST & E 120TH AVE PM
Date: Tuesday, May 31, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



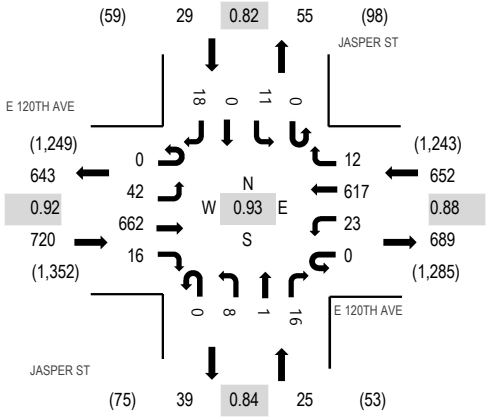
Traffic Counts

Interval Start Time	E 120TH AVE Eastbound				E 120TH AVE Westbound				LAREDO ST Northbound				LAREDO ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	1	152	3	0	8	123	2	0	7	0	3	0	1	0	3	303	1,404	0	0	0	0
4:15 PM	0	3	151	18	0	6	162	5	0	4	0	3	0	1	0	2	355	1,422	0	0	0	0
4:30 PM	1	2	164	12	0	3	173	6	0	3	0	3	0	8	0	4	379	1,393	0	0	0	0
4:45 PM	0	2	158	11	0	10	160	5	0	9	0	7	0	4	0	1	367	1,345	0	0	0	0
5:00 PM	0	3	140	12	0	6	134	9	0	3	0	8	0	3	0	3	321	1,304	0	0	0	0
5:15 PM	0	5	119	14	0	8	150	10	0	9	0	5	0	3	0	3	326		0	0	0	0
5:30 PM	0	3	142	13	0	10	140	4	0	2	0	7	0	5	0	5	331		0	0	0	0
5:45 PM	0	2	136	8	0	18	131	10	0	8	0	2	0	9	0	2	326		0	0	0	0
Count Total	1	21	1,162	91	0	69	1,173	51	0	45	0	38	0	34	0	23	2,708		0	0	0	0
Peak Hour	1	10	613	53	0	25	629	25	0	19	0	21	0	16	0	10	1,422		0	0	0	0

ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

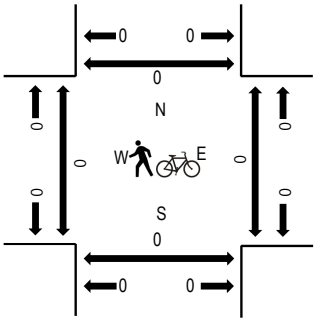
Location: 6 JASPER ST & E 120TH AVE PM
Date: Tuesday, May 31, 2022
Peak Hour: 04:15 PM - 05:15 PM
Peak 15-Minutes: 04:30 PM - 04:45 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

Interval Start Time	E 120TH AVE Eastbound				E 120TH AVE Westbound				JASPER ST Northbound				JASPER ST Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	7	151	1	0	4	133	2	0	3	0	5	0	0	0	5	311	1,424	0	0	0	0
4:15 PM	0	10	173	3	0	4	154	5	0	1	0	4	0	2	0	5	361	1,426	0	0	0	0
4:30 PM	0	7	173	2	0	5	177	3	0	1	1	6	0	3	0	6	384	1,383	0	0	0	0
4:45 PM	0	17	174	5	0	7	157	1	0	3	0	2	0	0	0	2	368	1,337	0	0	0	0
5:00 PM	0	8	142	6	0	7	129	3	0	3	0	4	0	6	0	5	313	1,283	0	0	0	0
5:15 PM	0	8	126	9	0	5	154	2	0	3	0	3	0	2	0	6	318		0	0	0	0
5:30 PM	0	12	156	6	0	4	144	1	0	3	0	5	0	1	0	6	338		0	1	0	1
5:45 PM	0	8	143	5	0	2	137	3	0	2	0	4	0	0	0	10	314		0	0	0	0
Count Total	0	77	1,238	37	0	38	1,185	20	0	19	1	33	0	14	0	45	2,707		0	1	0	1
Peak Hour	0	42	662	16	0	23	617	12	0	8	1	16	0	11	0	18	1,426		0	0	0	0

APPENDIX B. EXISTING TRAFFIC OPERATIONAL ANALYSIS WORKSHEETS

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	434	3	7	333	5	13	0	15	10	0	36
Future Vol, veh/h	3	434	3	7	333	5	13	0	15	10	0	36
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	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	125	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	59	59	59	73	73	73
Heavy Vehicles, %	6	6	6	7	7	7	0	0	0	0	0	0
Mvmt Flow	4	523	4	8	383	6	22	0	25	14	0	49

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	383	0	0	527	0	0	932	932	264	669	934	-
Stage 1	-	-	-	-	-	-	533	533	-	399	399	-
Stage 2	-	-	-	-	-	-	399	399	-	270	535	-
Critical Hdwy	4.19	-	-	4.205	-	-	7.3	6.5	6.9	7.3	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.257	-	-	2.2665	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	1149	-	-	1008	-	0	236	269	741	360	268	0
Stage 1	-	-	-	-	-	0	503	528	-	631	606	0
Stage 2	-	-	-	-	-	0	631	606	-	718	527	0
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	1149	-	-	1008	-	-	234	266	741	345	265	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	234	266	-	345	265	-
Stage 1	-	-	-	-	-	-	501	526	-	629	601	-
Stage 2	-	-	-	-	-	-	626	601	-	691	525	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	15.6	15.9
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	234	-	741	1149	-	-	1008	-	345	-	-
HCM Lane V/C Ratio	0.094	-	0.034	0.003	-	-	0.008	-	0.04	-	-
HCM Control Delay (s)	22	0	10	8.1	-	-	8.6	-	15.9	0	0
HCM Lane LOS	C	A	B	A	-	-	A	-	C	A	A
HCM 95th %tile Q(veh)	0.3	-	0.1	0	-	-	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	450	6	2	307	12	30	0	37	25	0	9
Future Vol, veh/h	4	450	6	2	307	12	30	0	37	25	0	9
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	175	-	200	75	-	50	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	86	86	86	77	77	77	71	71	71
Heavy Vehicles, %	5	5	5	7	7	7	0	0	0	3	3	3
Mvmt Flow	4	506	7	2	357	14	39	0	48	35	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	371	0	0	513	0	0	889	889	506	903	882	357
Stage 1	-	-	-	-	-	-	514	514	-	361	361	-
Stage 2	-	-	-	-	-	-	375	375	-	542	521	-
Critical Hdwy	4.15	-	-	4.17	-	-	7.1	6.5	6.2	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Follow-up Hdwy	2.245	-	-	2.263	-	-	3.5	4	3.3	3.527	4.027	3.327
Pot Cap-1 Maneuver	1201	-	-	1027	-	-	272	280	570	261	280	821
Stage 1	-	-	-	-	-	-	547	539	-	769	676	-
Stage 2	-	-	-	-	-	-	759	669	-	523	530	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	1201	-	-	1027	-	-	267	278	570	238	278	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	267	278	-	238	278	-
Stage 1	-	-	-	-	-	-	545	537	-	767	674	-
Stage 2	-	-	-	-	-	-	745	668	-	477	528	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	17.3	19.2
HCM LOS			C	C

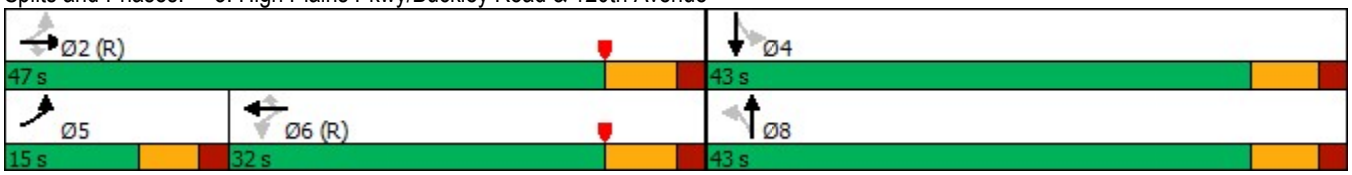
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	378	1201	-	-	1027	-	-	238	821
HCM Lane V/C Ratio	0.23	0.004	-	-	0.002	-	-	0.148	0.015
HCM Control Delay (s)	17.3	8	-	-	8.5	-	-	22.7	9.5
HCM Lane LOS	C	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.9	0	-	-	0	-	-	0.5	0

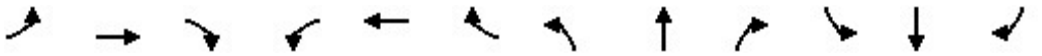
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	195	489	11	5	266	265	31	36	413	10
Future Volume (vph)	195	489	11	5	266	265	31	36	413	10
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2			6			8		4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	5	2	2	6	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	16.8	16.8	16.8	16.8	11.5	11.5	11.5	11.5
Total Split (s)	15.0	47.0	47.0	32.0	32.0	32.0	43.0	43.0	43.0	43.0
Total Split (%)	16.7%	52.2%	52.2%	35.6%	35.6%	35.6%	47.8%	47.8%	47.8%	47.8%
Yellow Time (s)	4.0	4.8	4.8	4.8	4.8	4.8	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.8	6.8	6.8	6.8	6.8	6.5	6.5		6.5
Lead/Lag	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 25.2 (28%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: High Plains Pkwy/Buckley Road & 120th Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	195	489	11	5	266	265	31	36	22	413	10	80
Future Volume (veh/h)	195	489	11	5	266	265	31	36	22	413	10	80
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	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	224	562	13	6	324	323	43	50	31	492	12	95
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Cap, veh/h	339	802	680	233	491	416	708	442	274	488	10	80
Arrive On Green	0.10	0.45	0.45	0.28	0.28	0.28	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1711	1796	1522	785	1752	1485	1297	1089	675	1023	25	198
Grp Volume(v), veh/h	224	562	13	6	324	323	43	0	81	599	0	0
Grp Sat Flow(s),veh/h/ln	1711	1796	1522	785	1752	1485	1297	0	1764	1246	0	0
Q Serve(g_s), s	8.1	22.7	0.4	0.6	14.7	18.0	0.0	0.0	2.6	33.9	0.0	0.0
Cycle Q Clear(g_c), s	8.1	22.7	0.4	8.2	14.7	18.0	1.5	0.0	2.6	36.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	0.82		0.16
Lane Grp Cap(c), veh/h	339	802	680	233	491	416	708	0	715	578	0	0
V/C Ratio(X)	0.66	0.70	0.02	0.03	0.66	0.78	0.06	0.00	0.11	1.04	0.00	0.00
Avail Cap(c_a), veh/h	339	802	680	233	491	416	708	0	715	578	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	0.91	0.91	0.91	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.7	20.1	13.9	29.4	28.6	29.8	16.4	0.0	16.7	30.2	0.0	0.0
Incr Delay (d2), s/veh	4.7	5.1	0.1	0.2	6.2	12.2	0.2	0.0	0.3	47.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.1	14.6	0.3	0.2	10.6	11.6	1.0	0.0	1.8	28.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	25.1	13.9	29.6	34.9	42.1	16.5	0.0	17.0	77.3	0.0	0.0
LnGrp LOS	C	C	B	C	C	D	B	A	B	F	A	A
Approach Vol, veh/h		799			653			124			599	
Approach Delay, s/veh		25.0			38.4			16.8			77.3	
Approach LOS		C			D			B			E	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		47.0		43.0	15.0	32.0		43.0				
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8		6.5				
Max Green Setting (Gmax), s		40.2		36.5	9.0	25.2		36.5				
Max Q Clear Time (g_c+I1), s		24.7		38.5	10.1	20.0		4.6				
Green Ext Time (p_c), s		3.0		0.0	0.0	1.4		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			43.0									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	0	506	500	0
Future Vol, veh/h	2	1	0	506	500	0
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	25	25	80	80	91	91
Heavy Vehicles, %	0	0	5	5	4	4
Mvmt Flow	8	4	0	633	549	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1182	549	549	0	-	0
Stage 1	549	-	-	-	-	-
Stage 2	633	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.15	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.245	-	-	-
Pot Cap-1 Maneuver	171	539	1006	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %	1			-	-	-
Mov Cap-1 Maneuver	171	539	1006	-	-	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	576	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.2	0	0
HCM LOS	C		

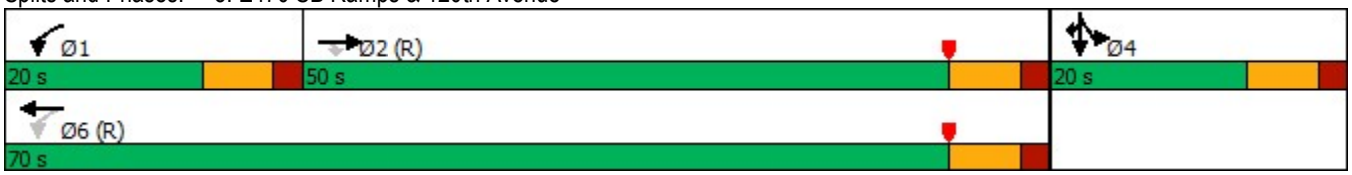
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1006	-	221	-	-
HCM Lane V/C Ratio	-	-	0.054	-	-
HCM Control Delay (s)	0	-	22.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

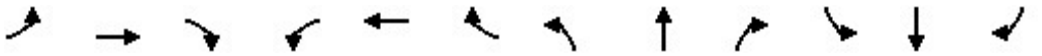
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	757	202	9	526	1	16
Future Volume (vph)	757	202	9	526	1	16
Turn Type	NA	Perm	pm+pt	NA	NA	Prot
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	50.0	50.0	20.0	70.0	20.0	20.0
Total Split (%)	55.6%	55.6%	22.2%	77.8%	22.2%	22.2%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 5: E470 SB Ramps & 120th Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	757	202	9	526	0	0	0	0	40	1	16
Future Volume (veh/h)	0	757	202	9	526	0	0	0	0	40	1	16
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	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	851	227	11	626	0				55	1	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Cap, veh/h	0	1282	1087	349	1482	0				68	1	
Arrive On Green	0.00	0.71	0.71	0.04	1.00	0.00				0.04	0.04	0.00
Sat Flow, veh/h	0	1811	1535	1753	1841	0				1557	28	1409
Grp Volume(v), veh/h	0	851	227	11	626	0				56	0	0
Grp Sat Flow(s),veh/h/ln	0	1811	1535	1753	1841	0				1585	0	1409
Q Serve(g_s), s	0.0	23.3	4.6	0.1	0.0	0.0				3.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	23.3	4.6	0.1	0.0	0.0				3.2	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.98		1.00
Lane Grp Cap(c), veh/h	0	1282	1087	349	1482	0				70	0	
V/C Ratio(X)	0.00	0.66	0.21	0.03	0.42	0.00				0.80	0.00	
Avail Cap(c_a), veh/h	0	1282	1087	568	1482	0				232	0	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.64	0.64	0.86	0.86	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.2	4.5	6.3	0.0	0.0				42.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.3	0.0	0.8	0.0				18.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	10.0	1.9	0.1	0.6	0.0				2.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	9.0	4.8	6.3	0.8	0.0				61.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1078			637						56	
Approach Delay, s/veh		8.1			0.9						61.4	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	8.7	70.5		10.8		79.2						
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8						
Max Green Setting (Gmax), s	13.2	43.2		13.2		63.2						
Max Q Clear Time (g_c+I1), s	2.1	25.3		5.2		2.0						
Green Ext Time (p_c), s	0.0	6.3		0.1		4.3						

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

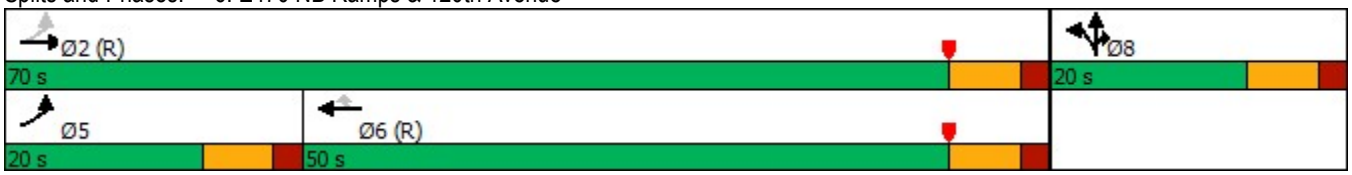
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

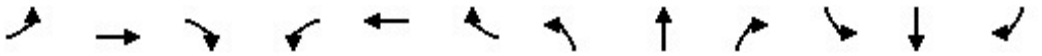
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	81	680	503	39	2	5
Future Volume (vph)	81	680	503	39	2	5
Turn Type	pm+pt	NA	NA	Perm	NA	Prot
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	20.0	70.0	50.0	50.0	20.0	20.0
Total Split (%)	22.2%	77.8%	55.6%	55.6%	22.2%	22.2%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 6: E470 NB Ramps & 120th Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	680	0	0	503	39	33	2	5	0	0	0
Future Volume (veh/h)	81	680	0	0	503	39	33	2	5	0	0	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	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	87	731	0	0	613	0	40	2	6			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Cap, veh/h	550	1402	0	0	1117		100	5	93			
Arrive On Green	0.16	1.00	0.00	0.00	0.63	0.00	0.06	0.06	0.06			
Sat Flow, veh/h	1697	1781	0	0	1767	1497	1606	80	1497			
Grp Volume(v), veh/h	87	731	0	0	613	0	42	0	6			
Grp Sat Flow(s),veh/h/ln	1697	1781	0	0	1767	1497	1686	0	1497			
Q Serve(g_s), s	1.3	0.0	0.0	0.0	17.6	0.0	2.2	0.0	0.3			
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.0	17.6	0.0	2.2	0.0	0.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.95		1.00			
Lane Grp Cap(c), veh/h	550	1402	0	0	1117		105	0	93			
V/C Ratio(X)	0.16	0.52	0.00	0.00	0.55		0.40	0.00	0.06			
Avail Cap(c_a), veh/h	666	1402	0	0	1117		247	0	220			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.74	0.74	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	5.2	0.0	0.0	0.0	9.3	0.0	40.6	0.0	39.7			
Incr Delay (d2), s/veh	0.1	1.0	0.0	0.0	1.9	0.0	2.5	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.5	0.7	0.0	0.0	9.9	0.0	1.7	0.0	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	5.3	1.0	0.0	0.0	11.3	0.0	43.1	0.0	40.0			
LnGrp LOS	A	A	A	A	B		D	A	D			
Approach Vol, veh/h		818			613			48				
Approach Delay, s/veh		1.5			11.3			42.7				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.6			13.9	63.7		12.4				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		63.2			13.2	43.2		13.2				
Max Q Clear Time (g_c+I1), s		2.0			3.3	19.6		4.2				
Green Ext Time (p_c), s		5.5			0.1	3.8		0.1				

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

Notes

Unsignalized Delay for [WBR] 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	42	662	16	23	617	12	8	1	16	11	0	18
Future Vol, veh/h	42	662	16	23	617	12	8	1	16	11	0	18
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	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	125	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	86	86	86	65	65	65	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	0	0	0
Mvmt Flow	45	712	17	27	717	14	12	2	25	17	0	28

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	717	0	0	729	0	0	1582	1582	365	1218	1590	-
Stage 1	-	-	-	-	-	-	811	811	-	771	771	-
Stage 2	-	-	-	-	-	-	771	771	-	447	819	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.3	6.5	6.9	7.3	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	882	-	-	873	-	0	81	110	638	148	109	0
Stage 1	-	-	-	-	-	0	344	396	-	396	413	0
Stage 2	-	-	-	-	-	0	396	413	-	566	392	0
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	882	-	-	873	-	-	76	101	638	132	100	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	76	101	-	132	100	-
Stage 1	-	-	-	-	-	-	326	376	-	376	400	-
Stage 2	-	-	-	-	-	-	384	400	-	514	372	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.3	28.2	36.3
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	76	101	638	882	-	-	873	-	132	-	-
HCM Lane V/C Ratio	0.162	0.015	0.039	0.051	-	-	0.031	-	0.13	-	-
HCM Control Delay (s)	61.3	41.2	10.9	9.3	-	-	9.3	-	36.3	0	0
HCM Lane LOS	F	E	B	A	-	-	A	-	E	A	A
HCM 95th %tile Q(veh)	0.5	0	0.1	0.2	-	-	0.1	-	0.4	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	613	53	25	629	25	19	0	21	16	0	10
Future Vol, veh/h	11	613	53	25	629	25	19	0	21	16	0	10
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	175	-	200	75	-	50	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	89	89	89	60	60	60	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	4	4	4
Mvmt Flow	12	666	58	28	707	28	32	0	35	29	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	735	0	0	724	0	0	1476	1481	666	1500	1511	707
Stage 1	-	-	-	-	-	-	690	690	-	763	763	-
Stage 2	-	-	-	-	-	-	786	791	-	737	748	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.55	6.25	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.045	3.345	3.536	4.036	3.336
Pot Cap-1 Maneuver	870	-	-	879	-	-	103	123	454	99	119	432
Stage 1	-	-	-	-	-	-	431	442	-	394	410	-
Stage 2	-	-	-	-	-	-	381	397	-	407	417	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	870	-	-	879	-	-	95	117	454	88	114	432
Mov Cap-2 Maneuver	-	-	-	-	-	-	95	117	-	88	114	-
Stage 1	-	-	-	-	-	-	425	436	-	388	397	-
Stage 2	-	-	-	-	-	-	353	384	-	370	411	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	41.9	45.2
HCM LOS			E	E

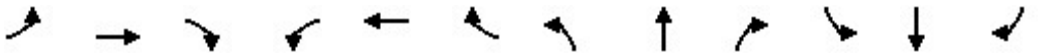
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	162	870	-	-	879	-	-	88	432
HCM Lane V/C Ratio	0.412	0.014	-	-	0.032	-	-	0.331	0.042
HCM Control Delay (s)	41.9	9.2	-	-	9.2	-	-	64.9	13.7
HCM Lane LOS	E	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	1.8	0	-	-	0.1	-	-	1.3	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	194	429	22	21	462	444	9	12	281	28
Future Volume (vph)	194	429	22	21	462	444	9	12	281	28
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	NA
Protected Phases	5	2			6			8		4
Permitted Phases	2		2	6		6	8		4	
Detector Phase	5	2	2	6	6	6	8	8	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	16.8	16.8	16.8	16.8	11.5	11.5	11.5	11.5
Total Split (s)	17.0	64.0	64.0	47.0	47.0	47.0	41.0	41.0	41.0	41.0
Total Split (%)	16.2%	61.0%	61.0%	44.8%	44.8%	44.8%	39.0%	39.0%	39.0%	39.0%
Yellow Time (s)	4.0	4.8	4.8	4.8	4.8	4.8	4.5	4.5	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Lost Time (s)	6.0	6.8	6.8	6.8	6.8	6.8	6.5	6.5		6.5
Lead/Lag	Lead			Lag	Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes	Yes				
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	Max	Max	Max	Max

Intersection Summary

Cycle Length: 105
Actuated Cycle Length: 105
Offset: 63.7 (61%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: High Plains Pkwy/Buckley Road & 120th Avenue



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	429	22	21	462	444	9	12	9	281	28	174
Future Volume (veh/h)	194	429	22	21	462	444	9	12	9	281	28	174
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	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	223	493	25	24	537	516	14	19	14	335	33	207
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Cap, veh/h	292	1011	857	402	736	624	432	334	246	322	26	166
Arrive On Green	0.09	0.54	0.54	0.13	0.13	0.13	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1767	1856	1572	876	1856	1572	1158	1016	749	815	80	504
Grp Volume(v), veh/h	223	493	25	24	537	516	14	0	33	575	0	0
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	876	1856	1572	1158	0	1765	1400	0	0
Q Serve(g_s), s	7.5	17.3	0.8	2.5	29.2	33.6	0.0	0.0	1.3	33.2	0.0	0.0
Cycle Q Clear(g_c), s	7.5	17.3	0.8	4.3	29.2	33.6	0.9	0.0	1.3	34.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.42	0.58		0.36
Lane Grp Cap(c), veh/h	292	1011	857	402	736	624	432	0	580	514	0	0
V/C Ratio(X)	0.76	0.49	0.03	0.06	0.73	0.83	0.03	0.00	0.06	1.12	0.00	0.00
Avail Cap(c_a), veh/h	317	1011	857	402	736	624	432	0	580	514	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.73	0.73	0.73	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	21.9	14.8	11.1	30.2	40.2	42.1	24.0	0.0	24.1	37.7	0.0	0.0
Incr Delay (d2), s/veh	9.7	1.7	0.1	0.2	4.6	9.1	0.1	0.0	0.2	76.4	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(95%),veh/ln	6.4	11.3	0.5	1.0	20.8	21.1	0.4	0.0	1.0	34.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	16.5	11.1	30.4	44.9	51.2	24.1	0.0	24.3	114.0	0.0	0.0
LnGrp LOS	C	B	B	C	D	D	C	A	C	F	A	A
Approach Vol, veh/h		741			1077			47			575	
Approach Delay, s/veh		20.9			47.6			24.2			114.0	
Approach LOS		C			D			C			F	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		64.0		41.0	15.6	48.4		41.0				
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8		6.5				
Max Green Setting (Gmax), s		57.2		34.5	11.0	40.2		34.5				
Max Q Clear Time (g_c+I1), s		19.3		36.5	9.5	35.6		3.3				
Green Ext Time (p_c), s		3.1		0.0	0.1	2.2		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			54.7									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	2	637	485	1
Future Vol, veh/h	1	1	2	637	485	1
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	25	25	82	82	92	92
Heavy Vehicles, %	0	0	1	1	3	3
Mvmt Flow	4	4	2	777	527	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1309	528	528	0	-	0
Stage 1	528	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	117	554	1044	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	479	-	-	-	-	-
Platoon blocked, %	1			-	-	-
Mov Cap-1 Maneuver	116	554	1044	-	-	-
Mov Cap-2 Maneuver	116	-	-	-	-	-
Stage 1	594	-	-	-	-	-
Stage 2	479	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.6	0	0
HCM LOS	C		

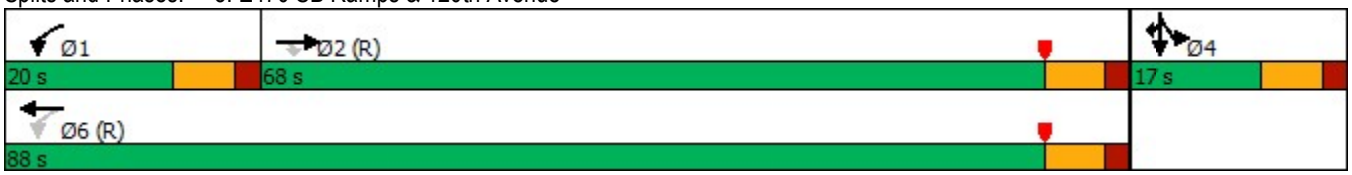
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1044	-	192	-	-
HCM Lane V/C Ratio	0.002	-	0.042	-	-
HCM Control Delay (s)	8.5	0	24.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

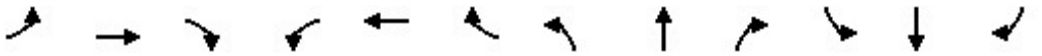
Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	561	175	4	921	2	44
Future Volume (vph)	561	175	4	921	2	44
Turn Type	NA	Perm	pm+pt	NA	NA	Prot
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	68.0	68.0	20.0	88.0	17.0	17.0
Total Split (%)	64.8%	64.8%	19.0%	83.8%	16.2%	16.2%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None

Intersection Summary

Cycle Length: 105
Actuated Cycle Length: 105
Offset: 14 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: E470 SB Ramps & 120th Avenue





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	561	175	4	921	0	0	0	0	36	2	44
Future Volume (veh/h)	0	561	175	4	921	0	0	0	0	36	2	44
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	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	616	192	4	1012	0				42	2	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Cap, veh/h	0	1404	1190	598	1564	0				59	3	
Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.03	0.03	0.00
Sat Flow, veh/h	0	1841	1560	1781	1870	0				1718	82	1598
Grp Volume(v), veh/h	0	616	192	4	1012	0				44	0	0
Grp Sat Flow(s),veh/h/ln	0	1841	1560	1781	1870	0				1799	0	1598
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0				2.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0				2.5	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.95		1.00
Lane Grp Cap(c), veh/h	0	1404	1190	598	1564	0				62	0	
V/C Ratio(X)	0.00	0.44	0.16	0.01	0.65	0.00				0.71	0.00	
Avail Cap(c_a), veh/h	0	1404	1190	807	1564	0				175	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.87	0.87	0.54	0.54	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	2.3	0.0	0.0				50.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.3	0.0	1.1	0.0				13.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.6	0.2	0.0	0.9	0.0				2.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.9	0.3	2.3	1.1	0.0				64.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		808			1016						44	
Approach Delay, s/veh		0.7			1.1						64.1	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	7.7	86.9		10.4		94.6						
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8						
Max Green Setting (Gmax), s	13.2	61.2		10.2		81.2						
Max Q Clear Time (g_c+I1), s	2.0	2.0		4.5		2.0						
Green Ext Time (p_c), s	0.0	4.9		0.0		10.1						

Intersection Summary												
HCM 6th Ctrl Delay			2.4									
HCM 6th LOS			A									

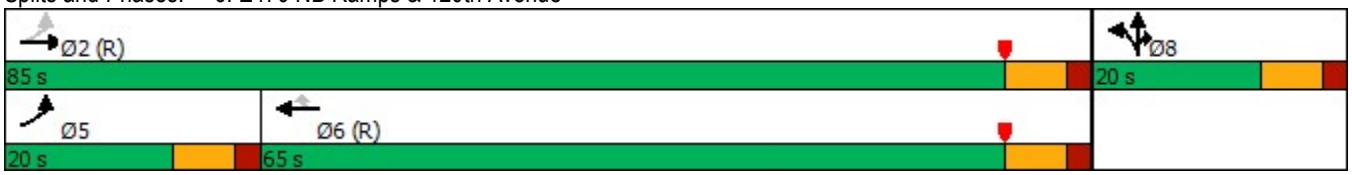
Notes

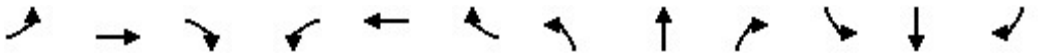
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	59	529	819	59	7	7
Future Volume (vph)	59	529	819	59	7	7
Turn Type	pm+pt	NA	NA	Perm	NA	Prot
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Detector Phase	5	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	20.0	85.0	65.0	65.0	20.0	20.0
Total Split (%)	19.0%	81.0%	61.9%	61.9%	19.0%	19.0%
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	6.8	6.8	6.8	6.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Min	C-Min	C-Min	None	None

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: E470 NB Ramps & 120th Avenue





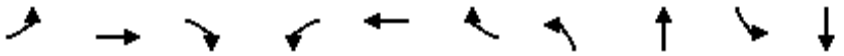
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	529	0	0	819	59	112	7	7	0	0	0
Future Volume (veh/h)	59	529	0	0	819	59	112	7	7	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking 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	1826	1826	0	0	1856	1856	1796	1796	1796			
Adj Flow Rate, veh/h	66	588	0	0	910	0	145	9	9			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.77	0.77	0.77			
Percent Heavy Veh, %	5	5	0	0	3	3	7	7	7			
Cap, veh/h	349	1393	0	0	1175		174	11	164			
Arrive On Green	0.13	1.00	0.00	0.00	0.63	0.00	0.11	0.11	0.11			
Sat Flow, veh/h	1739	1826	0	0	1856	1572	1615	100	1522			
Grp Volume(v), veh/h	66	588	0	0	910	0	154	0	9			
Grp Sat Flow(s),veh/h/ln	1739	1826	0	0	1856	1572	1715	0	1522			
Q Serve(g_s), s	1.1	0.0	0.0	0.0	37.1	0.0	9.2	0.0	0.6			
Cycle Q Clear(g_c), s	1.1	0.0	0.0	0.0	37.1	0.0	9.2	0.0	0.6			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	349	1393	0	0	1175		184	0	164			
V/C Ratio(X)	0.19	0.42	0.00	0.00	0.77		0.84	0.00	0.06			
Avail Cap(c_a), veh/h	455	1393	0	0	1175		216	0	191			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.91	0.91	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	11.6	0.0	0.0	0.0	13.9	0.0	45.9	0.0	42.1			
Incr Delay (d2), s/veh	0.2	0.9	0.0	0.0	5.0	0.0	21.2	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			
%ile BackOfQ(95%),veh/ln	0.9	0.6	0.0	0.0	20.7	0.0	8.7	0.0	0.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	0.9	0.0	0.0	18.9	0.0	67.2	0.0	42.2			
LnGrp LOS	B	A	A	A	B		E	A	D			
Approach Vol, veh/h		654			910			163				
Approach Delay, s/veh		2.0			18.9			65.8				
Approach LOS		A			B			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		86.9			13.6	73.3		18.1				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		78.2			13.2	58.2		13.2				
Max Q Clear Time (g_c+I1), s		2.0			3.1	39.1		11.2				
Green Ext Time (p_c), s		4.0			0.1	6.3		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

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

APPENDIX C. BACKGROUND TRAFFIC OPERATIONAL ANALYSIS WORKSHEETS



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases	5	2			6	7		8	7	4
Permitted Phases	2		2	6		6	8		4	
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	16.8	16.8	16.8	9.5	11.5	11.5	9.5	11.5
Total Split (s)	14.0	46.0	46.0	32.0	32.0	31.0	13.0	13.0	31.0	44.0
Total Split (%)	15.6%	51.1%	51.1%	35.6%	35.6%	34.4%	14.4%	14.4%	34.4%	48.9%
Maximum Green (s)	8.0	39.2	39.2	25.2	25.2	26.5	6.5	6.5	26.5	37.5
Yellow Time (s)	4.0	4.8	4.8	4.8	4.8	3.5	4.5	4.5	3.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0
Lead/Lag	Lead			Lag	Lag	Lead	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	Max	Max	None	Max
Walk Time (s)										
Flash Dont Walk (s)										
Pedestrian Calls (#/hr)										
90th %ile Green (s)	8.0	39.2	39.2	25.2	25.2	26.5	6.5	6.5	26.5	37.5
90th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR
70th %ile Green (s)	8.0	39.2	39.2	25.2	25.2	26.5	6.5	6.5	26.5	37.5
70th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR
50th %ile Green (s)	8.0	39.2	39.2	25.2	25.2	26.5	6.5	6.5	26.5	37.5
50th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR
30th %ile Green (s)	8.0	39.2	39.2	25.2	25.2	25.3	7.7	7.7	25.3	37.5
30th %ile Term Code	Max	Coord	Coord	Coord	Coord	Gap	MaxR	MaxR	Gap	MaxR
10th %ile Green (s)	8.0	39.2	39.2	25.2	25.2	19.7	13.3	13.3	19.7	37.5
10th %ile Term Code	Max	Coord	Coord	Coord	Coord	Gap	MaxR	MaxR	Gap	MaxR

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	525	15	5	285	285	35	40	25	445	10	85
Future Volume (veh/h)	210	525	15	5	285	285	35	40	25	445	10	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	241	603	17	6	348	348	49	56	35	530	12	101
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Cap, veh/h	320	782	663	193	491	844	181	85	53	622	70	591
Arrive On Green	0.09	0.44	0.44	0.47	0.47	0.47	0.08	0.08	0.08	0.29	0.42	0.42
Sat Flow, veh/h	1711	1796	1522	753	1752	1485	1290	1085	678	1753	168	1417
Grp Volume(v), veh/h	241	603	17	6	348	348	49	0	91	530	0	113
Grp Sat Flow(s),veh/h/ln	1711	1796	1522	753	1752	1485	1290	0	1763	1753	0	1586
Q Serve(g_s), s	8.0	25.7	0.6	0.5	14.2	11.1	3.3	0.0	4.5	23.8	0.0	4.0
Cycle Q Clear(g_c), s	8.0	25.7	0.6	12.2	14.2	11.1	3.3	0.0	4.5	23.8	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		0.89
Lane Grp Cap(c), veh/h	320	782	663	193	491	844	181	0	137	622	0	661
V/C Ratio(X)	0.75	0.77	0.03	0.03	0.71	0.41	0.27	0.00	0.66	0.85	0.00	0.17
Avail Cap(c_a), veh/h	320	782	663	193	491	844	181	0	137	632	0	661
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.90	0.90	0.90	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.3	21.6	14.5	24.9	21.0	8.0	39.8	0.0	40.3	24.5	0.0	16.5
Incr Delay (d2), s/veh	9.7	7.2	0.1	0.3	7.6	1.3	3.7	0.0	22.4	10.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.4	16.6	0.3	0.2	9.0	4.6	2.1	0.0	4.9	16.3	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.1	28.8	14.6	25.2	28.7	9.3	43.4	0.0	62.7	35.2	0.0	17.0
LnGrp LOS	C	C	B	C	C	A	D	A	E	D	A	B
Approach Vol, veh/h		861			702			140			643	
Approach Delay, s/veh		29.7			19.0			56.0			32.0	
Approach LOS		C			B			E			C	

Timer - Assigned Phs		2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s		46.0		44.0	14.0	32.0	30.5	13.5				
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8	4.5	6.5				
Max Green Setting (Gmax), s		39.2		37.5	8.0	25.2	26.5	6.5				
Max Q Clear Time (g_c+I1), s		27.7		6.0	10.0	16.2	25.8	6.5				
Green Ext Time (p_c), s		2.8		0.6	0.0	2.2	0.2	0.0				

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	525	15	5	285	285	35	40	25	445	10	85
Future Volume (veh/h)	210	525	15	5	285	285	35	40	25	445	10	85
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	241	603	17	6	348	348	49	56	35	530	12	101
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	320	782	663	193	491	844	181	85	53	622	70	591
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.09	0.44	0.44	0.47	0.47	0.47	0.08	0.08	0.08	0.29	0.42	0.42
Unsig. Movement Delay												
Ln Grp Delay, s/veh	33.1	28.8	14.6	25.2	28.7	9.3	43.4	0.0	62.7	35.2	0.0	17.0
Ln Grp LOS	C	C	B	C	C	A	D	A	E	D	A	B
Approach Vol, veh/h		861			702			140			643	
Approach Delay, s/veh		29.7			19.0			56.0			32.0	
Approach LOS		C			B			E			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6	7	8
Case No		3.0		4.0	1.2	5.3	1.2	6.3
Phs Duration (G+Y+Rc), s		46.0		44.0	14.0	32.0	30.5	13.5
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8	4.5	6.5
Max Green (Gmax), s		39.2		37.5	8.0	25.2	26.5	6.5
Max Allow Headway (MAH), s		4.9		5.3	3.7	4.5	3.7	4.6
Max Q Clear (g_c+I1), s		27.7		6.0	10.0	16.2	25.8	6.5
Green Ext Time (g_e), s		2.8		0.6	0.0	2.2	0.2	0.0
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)		0.00		0.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt					5	1	7	3
Mvmt Sat Flow, veh/h					1711	753	1753	1290

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1796		168		1752		1085

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1522		1417		1485		678

Left Lane Group Data								
Assigned Mvmt	0	0	0	0	5	1	7	3
Lane Assignment				L (Pr/Pm)		LL (Pr/Pm)		L

Lanes in Grp	0	0	0	0	1	1	1	1
Grp Vol (v), veh/h	0	0	0	0	241	6	530	49
Grp Sat Flow (s), veh/h/ln	0	0	0	0	1711	753	1753	1290
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	8.0	0.5	23.8	3.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	8.0	12.2	23.8	3.3
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	719	753	1285	1290
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	27.2	25.2	9.0	7.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	11.0	13.5	2.5	7.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	11.0	0.5	2.5	3.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	0	320	193	622	181
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.75	0.03	0.85	0.27
Avail Cap (c_a), veh/h	0	0	0	0	320	193	632	181
Upstream Filter (I)	0.00	0.00	0.00	0.00	1.00	0.90	1.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	23.3	24.9	24.5	39.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	9.7	0.3	10.7	3.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	33.1	25.2	35.2	43.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	3.3	0.1	9.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.9	0.0	1.9	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	0.00	1.80	1.80	1.50	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	7.4	0.2	16.3	2.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	1.30	0.04	4.21	0.43
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	603	0	0	0	348	0	0
Grp Sat Flow (s), veh/h/ln	0	1796	0	0	0	1752	0	0
Q Serve Time (g_s), s	0.0	25.7	0.0	0.0	0.0	14.2	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	25.7	0.0	0.0	0.0	14.2	0.0	0.0
Lane Grp Cap (c), veh/h	0	782	0	0	0	491	0	0
V/C Ratio (X)	0.00	0.77	0.00	0.00	0.00	0.71	0.00	0.00
Avail Cap (c_a), veh/h	0	782	0	0	0	491	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.90	0.00	0.00
Uniform Delay (d1), s/veh	0.0	21.6	0.0	0.0	0.0	21.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	7.2	0.0	0.0	0.0	7.6	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
Control Delay (d), s/veh	0.0	28.8	0.0	0.0	0.0	28.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	9.6	0.0	0.0	0.0	4.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	1.6	0.0	0.0	0.0	1.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.49	0.00	1.00	0.00	1.67	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	16.6	0.0	0.0	0.0	9.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.17	0.00	0.00	0.00	0.14	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	17	0	113	0	348	0	91
Grp Sat Flow (s), veh/h/ln	0	1522	0	1586	0	1485	0	1763
Q Serve Time (g_s), s	0.0	0.6	0.0	4.0	0.0	11.1	0.0	4.5
Cycle Q Clear Time (g_c), s	0.0	0.6	0.0	4.0	0.0	11.1	0.0	4.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1484.6	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	26.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.89	0.00	1.00	0.00	0.38
Lane Grp Cap (c), veh/h	0	663	0	661	0	844	0	137
V/C Ratio (X)	0.00	0.03	0.00	0.17	0.00	0.41	0.00	0.66
Avail Cap (c_a), veh/h	0	663	0	661	0	844	0	137
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.90	0.00	1.00
Uniform Delay (d1), s/veh	0.0	14.5	0.0	16.5	0.0	8.0	0.0	40.3
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.6	0.0	1.3	0.0	22.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	14.6	0.0	17.0	0.0	9.3	0.0	62.7
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	1.4	0.0	2.2	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.9
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.3	0.0	2.6	0.0	4.6	0.0	4.9
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.08	0.00	1.66	0.00	0.11
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

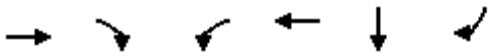
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	545	540	5
Future Vol, veh/h	5	5	5	545	540	5
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	25	25	80	80	91	91
Heavy Vehicles, %	0	0	5	5	4	4
Mvmt Flow	20	20	6	681	593	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1289	596	598	0	-	0
Stage 1	596	-	-	-	-	-
Stage 2	693	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.15	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.245	-	-	-
Pot Cap-1 Maneuver	182	507	964	-	-	-
Stage 1	554	-	-	-	-	-
Stage 2	500	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	180	507	964	-	-	-
Mov Cap-2 Maneuver	180	-	-	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	500	-	-	-	-	-

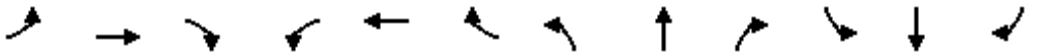
Approach	EB	NB	SB
HCM Control Delay, s	20.9	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	964	-	266	-	-
HCM Lane V/C Ratio	0.006	-	0.15	-	-
HCM Control Delay (s)	8.8	0	20.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	61.0	61.0	15.0	76.0	14.0	14.0
Total Split (%)	67.8%	67.8%	16.7%	84.4%	15.6%	15.6%
Maximum Green (s)	54.2	54.2	8.2	69.2	7.2	7.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	54.4	54.4	8.0	69.2	7.2	7.2
90th %ile Term Code	Coord	Coord	Min	Coord	Max	Max
70th %ile Green (s)	69.2	69.2	0.0	69.2	7.2	7.2
70th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
50th %ile Green (s)	69.2	69.2	0.0	69.2	7.2	7.2
50th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
30th %ile Green (s)	69.2	69.2	0.0	69.2	7.2	7.2
30th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
10th %ile Green (s)	83.2	83.2	0.0	83.2	0.0	0.0
10th %ile Term Code	Coord	Coord	Skip	Coord	Skip	Skip

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



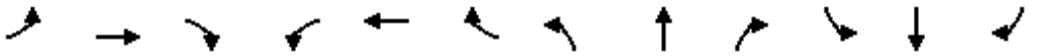
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	815	220	10	565	0	0	0	0	45	5	20
Future Volume (veh/h)	0	815	220	10	565	0	0	0	0	45	5	20
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking 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	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	916	247	12	673	0				62	7	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Cap, veh/h	0	1261	1069	451	1464	0				77	9	
Arrive On Green	0.00	1.00	1.00	0.05	1.00	0.00				0.05	0.05	0.00
Sat Flow, veh/h	0	1811	1535	1753	1841	0				1430	161	1409
Grp Volume(v), veh/h	0	916	247	12	673	0				69	0	0
Grp Sat Flow(s),veh/h/ln	0	1811	1535	1753	1841	0				1591	0	1409
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0				3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.2	0.0	0.0				3.9	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.90		1.00
Lane Grp Cap(c), veh/h	0	1261	1069	451	1464	0				86	0	
V/C Ratio(X)	0.00	0.73	0.23	0.03	0.46	0.00				0.81	0.00	
Avail Cap(c_a), veh/h	0	1261	1069	571	1464	0				127	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.47	0.47	0.82	0.82	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.0	0.0	0.0				42.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.2	0.0	0.9	0.0				20.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	1.1	0.1	0.1	0.6	0.0				3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.8	0.2	3.0	0.9	0.0				62.2	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1163			685						69	
Approach Delay, s/veh		1.4			0.9						62.2	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.9	69.5		11.6		78.4
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8
Max Green Setting (Gmax), s	8.2	54.2		7.2		69.2
Max Q Clear Time (g_c+I1), s	2.2	2.0		5.9		2.0
Green Ext Time (p_c), s	0.0	9.4		0.0		4.8

Intersection Summary	
HCM 6th Ctrl Delay	3.4
HCM 6th LOS	A

Notes

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)	0	815	220	10	565	0	0	0	0	45	5	20
Future Volume (veh/h)	0	815	220	10	565	0	0	0	0	45	5	20
Number	5	2	12	1	6	16				7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	916	247	12	673	0				62	7	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	1261	1069	451	1464	0				77	9	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	1.00	1.00	0.05	1.00	0.00				0.05	0.05	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	1.8	0.2	3.0	0.9	0.0				62.2	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1163			685						69	
Approach Delay, s/veh		1.4			0.9						62.2	
Approach LOS		A			A						E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		11.0		4.0		
Phs Duration (G+Y+Rc), s	8.9	69.5		11.6		78.4		
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8		
Max Green (Gmax), s	8.2	54.2		7.2		69.2		
Max Allow Headway (MAH), s	3.7	4.7		5.4		4.9		
Max Q Clear (g_c+I1), s	2.2	2.0		5.9		2.0		
Green Ext Time (g_e), s	0.0	9.4		0.0		4.8		
Prob of Phs Call (p_c)	0.26	1.00		0.82		1.00		
Prob of Max Out (p_x)	0.01	0.00		1.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1753	0		1430				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1811		161		1841		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1535		1409		0		

Left Lane Group Data									
Assigned Mvmt	1	5	0	7	0	0	0	0	
Lane Assignment	L (Pr/Pm)			L+T					

Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	12	0	0	69	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1753	0	0	1591	0	0	0	0
Q Serve Time (g_s), s	0.2	0.0	0.0	3.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.2	0.0	0.0	3.9	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	475	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	62.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	62.7	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	451	0	0	86	0	0	0	0
V/C Ratio (X)	0.03	0.00	0.00	0.81	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	571	0	0	127	0	0	0	0
Upstream Filter (I)	0.82	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.0	0.0	0.0	42.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	20.1	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
Control Delay (d), s/veh	3.0	0.0	0.0	62.2	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.00	0.00	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.1	0.0	0.0	3.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	916	0	0	0	673	0	0
Grp Sat Flow (s), veh/h/ln	0	1811	0	0	0	1841	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1261	0	0	0	1464	0	0
V/C Ratio (X)	0.00	0.73	0.00	0.00	0.00	0.46	0.00	0.00
Avail Cap (c_a), veh/h	0	1261	0	0	0	1464	0	0
Upstream Filter (I)	0.00	0.47	0.00	0.00	0.00	0.82	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	1.8	0.0	0.0	0.0	0.9	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.0	0.0	0.3	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	1.1	0.0	0.0	0.0	0.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	247	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1535	0	1409	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1069	0	76	0	0	0	0
V/C Ratio (X)	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1069	0	113	0	0	0	0
Upstream Filter (I)	0.00	0.47	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

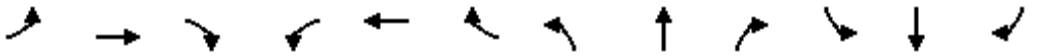
Intersection Summary	
HCM 6th Ctrl Delay	3.4
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	15.0	75.0	60.0	60.0	15.0	15.0
Total Split (%)	16.7%	83.3%	66.7%	66.7%	16.7%	16.7%
Maximum Green (s)	8.2	68.2	53.2	53.2	8.2	8.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	8.2	65.4	50.4	50.4	11.0	11.0
90th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
70th %ile Green (s)	8.0	67.2	52.4	52.4	9.2	9.2
70th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
50th %ile Green (s)	8.0	68.4	53.6	53.6	8.0	8.0
50th %ile Term Code	Min	Coord	Coord	Coord	Min	Min
30th %ile Green (s)	8.0	83.2	68.4	68.4	0.0	0.0
30th %ile Term Code	Min	Coord	Coord	Coord	Skip	Skip
10th %ile Green (s)	0.0	83.2	83.2	83.2	0.0	0.0
10th %ile Term Code	Skip	Coord	Coord	Coord	Skip	Skip

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	730	0	0	540	40	35	5	5	0	0	0
Future Volume (veh/h)	85	730	0	0	540	40	35	5	5	0	0	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	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	91	785	0	0	659	0	43	6	6			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Cap, veh/h	515	1394	0	0	1108		99	14	99			
Arrive On Green	0.16	1.00	0.00	0.00	0.63	0.00	0.07	0.07	0.07			
Sat Flow, veh/h	1697	1781	0	0	1767	1497	1485	207	1497			
Grp Volume(v), veh/h	91	785	0	0	659	0	49	0	6			
Grp Sat Flow(s),veh/h/ln	1697	1781	0	0	1767	1497	1692	0	1497			
Q Serve(g_s), s	1.3	0.0	0.0	0.0	20.0	0.0	2.5	0.0	0.3			
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.0	20.0	0.0	2.5	0.0	0.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.88		1.00			
Lane Grp Cap(c), veh/h	515	1394	0	0	1108		112	0	99			
V/C Ratio(X)	0.18	0.56	0.00	0.00	0.59		0.44	0.00	0.06			
Avail Cap(c_a), veh/h	534	1394	0	0	1108		154	0	136			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	5.9	0.0	0.0	0.0	10.0	0.0	40.4	0.0	39.4			
Incr Delay (d2), s/veh	0.1	1.2	0.0	0.0	2.4	0.0	2.6	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.5	0.8	0.0	0.0	11.1	0.0	2.0	0.0	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	6.1	1.2	0.0	0.0	12.3	0.0	43.0	0.0	39.6			
LnGrp LOS	A	A	A	A	B		D	A	D			
Approach Vol, veh/h		876			659			55				
Approach Delay, s/veh		1.7			12.3			42.7				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.2			14.0	63.2		12.8				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		68.2			8.2	53.2		8.2				
Max Q Clear Time (g_c+I1), s		2.0			3.3	22.0		4.5				
Green Ext Time (p_c), s		6.2			0.1	4.5		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] 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)	85	730	0	0	540	40	35	5	5	0	0	0
Future Volume (veh/h)	85	730	0	0	540	40	35	5	5	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q, 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				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	91	785	0	0	659	0	43	6	6			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Opposing Right Turn Influence	Yes			No			Yes					
Cap, veh/h	515	1394	0	0	1108		99	14	99			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.16	1.00	0.00	0.00	0.63	0.00	0.07	0.07	0.07			
Unsig. Movement Delay												
Ln Grp Delay, s/veh	6.1	1.2	0.0	0.0	12.3	0.0	43.0	0.0	39.6			
Ln Grp LOS	A	A	A	A	B		D	A	D			
Approach Vol, veh/h		876			659			55				
Approach Delay, s/veh		1.7			12.3			42.7				
Approach LOS		A			B			D				

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8		5	6		
Case No		4.0	11.0		1.2	7.0		
Phs Duration (G+Y+Rc), s		77.2	12.8		14.0	63.2		
Change Period (Y+Rc), s		6.8	6.8		6.8	6.8		
Max Green (Gmax), s		68.2	8.2		8.2	53.2		
Max Allow Headway (MAH), s		4.9	5.2		3.7	4.9		
Max Q Clear (g_c+I1), s		2.0	4.5		3.3	22.0		
Green Ext Time (g_e), s		6.2	0.0		0.1	4.5		
Prob of Phs Call (p_c)		1.00	0.75		0.90	1.00		
Prob of Max Out (p_x)		0.00	1.00		0.28	0.01		

Left-Turn Movement Data								
Assigned Mvmt			3		5	1		
Mvmt Sat Flow, veh/h			1485		1697	0		

Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		1781	207			1767		

Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		0	1497			1497		

Left Lane Group Data								
Assigned Mvmt	0	0	3	0	5	1	0	0
Lane Assignment			L+T		L (Pr/Pm)			

Lanes in Grp	0	0	1	0	1	0	0	0
Grp Vol (v), veh/h	0	0	49	0	91	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1692	0	1697	0	0	0
Q Serve Time (g_s), s	0.0	0.0	2.5	0.0	1.3	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	2.5	0.0	1.3	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	738	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	58.4	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	36.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	56.4	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.88	0.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	112	0	515	0	0	0
V/C Ratio (X)	0.00	0.00	0.44	0.00	0.18	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	154	0	534	0	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.71	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	40.4	0.0	5.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.6	0.0	0.1	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
Control Delay (d), s/veh	0.0	0.0	43.0	0.0	6.1	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	1.0	0.0	0.3	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	1.80	0.00	1.80	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	2.0	0.0	0.5	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.07	0.00	0.04	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	785	0	0	0	659	0	0
Grp Sat Flow (s), veh/h/ln	0	1781	0	0	0	1767	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1394	0	0	0	1108	0	0
V/C Ratio (X)	0.00	0.56	0.00	0.00	0.00	0.59	0.00	0.00
Avail Cap (c_a), veh/h	0	1394	0	0	0	1108	0	0
Upstream Filter (I)	0.00	0.71	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	2.4	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
Control Delay (d), s/veh	0.0	1.2	0.0	0.0	0.0	12.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.7	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.63	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.8	0.0	0.0	0.0	11.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.18	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment			R			R		
Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	6	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1497	0	0	1497	0	0
Q Serve Time (g_s), s	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	99	0	0	939	0	0
V/C Ratio (X)	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	136	0	0	939	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	39.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.0	39.6	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] 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	5	465	5	10	360	5	15	5	15	10	5	40
Future Vol, veh/h	5	465	5	10	360	5	15	5	15	10	5	40
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	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	125	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	59	59	59	73	73	73
Heavy Vehicles, %	6	6	6	7	7	7	0	0	0	0	0	0
Mvmt Flow	6	560	6	11	414	6	25	8	25	14	7	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	414	0	0	566	0	0	1015	1011	283	732	1014	-
Stage 1	-	-	-	-	-	-	575	575	-	436	436	-
Stage 2	-	-	-	-	-	-	440	436	-	296	578	-
Critical Hdwy	4.19	-	-	4.205	-	-	7.3	6.5	6.9	7.3	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.257	-	-	2.2665	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	1119	-	-	975	-	0	207	241	720	326	240	0
Stage 1	-	-	-	-	-	0	475	506	-	603	583	0
Stage 2	-	-	-	-	-	0	600	583	-	694	504	0
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	1119	-	-	975	-	-	200	237	720	302	236	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	200	237	-	302	236	-
Stage 1	-	-	-	-	-	-	473	503	-	600	577	-
Stage 2	-	-	-	-	-	-	586	577	-	655	501	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	18.3	18.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	200	237	720	1119	-	-	975	-	302	236	-
HCM Lane V/C Ratio	0.127	0.036	0.035	0.005	-	-	0.012	-	0.045	0.029	-
HCM Control Delay (s)	25.6	20.8	10.2	8.2	-	-	8.7	-	17.5	20.7	0
HCM Lane LOS	D	C	B	A	-	-	A	-	C	C	A
HCM 95th %tile Q(veh)	0.4	0.1	0.1	0	-	-	0	-	0.1	0.1	-

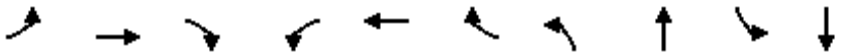
Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	485	10	5	330	15	30	5	40	25	5	10
Future Vol, veh/h	5	485	10	5	330	15	30	5	40	25	5	10
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	175	-	200	75	-	50	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	86	86	86	77	77	77	71	71	71
Heavy Vehicles, %	5	5	5	7	7	7	0	0	0	3	3	3
Mvmt Flow	6	545	11	6	384	17	39	6	52	35	7	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	401	0	0	556	0	0	972	970	545	988	964	384
Stage 1	-	-	-	-	-	-	557	557	-	396	396	-
Stage 2	-	-	-	-	-	-	415	413	-	592	568	-
Critical Hdwy	4.15	-	-	4.17	-	-	7.1	6.5	6.2	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Follow-up Hdwy	2.245	-	-	2.263	-	-	3.5	4	3.3	3.527	4.027	3.327
Pot Cap-1 Maneuver	1162	-	-	990	-	-	230	243	542	220	243	785
Stage 1	-	-	-	-	-	-	518	515	-	728	647	-
Stage 2	-	-	-	-	-	-	712	637	-	491	505	-
Platoon blocked, %	1	-	-		-	-	1	1		1	1	1
Mov Cap-1 Maneuver	1162	-	-	990	-	-	219	240	542	193	240	785
Mov Cap-2 Maneuver	-	-	-	-	-	-	219	240	-	193	240	-
Stage 1	-	-	-	-	-	-	515	512	-	724	643	-
Stage 2	-	-	-	-	-	-	687	633	-	436	502	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	20.8	22.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	324	1162	-	-	990	-	-	193	447
HCM Lane V/C Ratio	0.301	0.005	-	-	0.006	-	-	0.182	0.047
HCM Control Delay (s)	20.8	8.1	-	-	8.7	-	-	27.8	13.5
HCM Lane LOS	C	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	1.2	0	-	-	0	-	-	0.6	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Protected Phases	5	2			6	7		8	7	4
Permitted Phases	2		2	6		6	8		4	
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	16.8	16.8	16.8	9.5	11.5	11.5	9.5	11.5
Total Split (s)	16.0	65.0	65.0	49.0	49.0	28.0	12.0	12.0	28.0	40.0
Total Split (%)	15.2%	61.9%	61.9%	46.7%	46.7%	26.7%	11.4%	11.4%	26.7%	38.1%
Maximum Green (s)	10.0	58.2	58.2	42.2	42.2	23.5	5.5	5.5	23.5	33.5
Yellow Time (s)	4.0	4.8	4.8	4.8	4.8	3.5	4.5	4.5	3.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0
Lead/Lag	Lead			Lag	Lag	Lead	Lag	Lag	Lead	
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	Max	Max	None	Max
Walk Time (s)										
Flash Dont Walk (s)										
Pedestrian Calls (#/hr)										
90th %ile Green (s)	10.0	58.2	58.2	42.2	42.2	23.5	5.5	5.5	23.5	33.5
90th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR
70th %ile Green (s)	10.0	58.2	58.2	42.2	42.2	23.5	5.5	5.5	23.5	33.5
70th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR
50th %ile Green (s)	10.0	58.2	58.2	42.2	42.2	23.5	5.5	5.5	23.5	33.5
50th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR
30th %ile Green (s)	10.0	58.2	58.2	42.2	42.2	21.6	7.4	7.4	21.6	33.5
30th %ile Term Code	Max	Coord	Coord	Coord	Coord	Gap	MaxR	MaxR	Gap	MaxR
10th %ile Green (s)	9.6	58.2	58.2	42.6	42.6	15.9	13.1	13.1	15.9	33.5
10th %ile Term Code	Gap	Coord	Coord	Coord	Coord	Gap	MaxR	MaxR	Gap	MaxR

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	460	25	25	500	480	10	15	10	305	30	185
Future Volume (veh/h)	210	460	25	25	500	480	10	15	10	305	30	185
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	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	241	529	29	29	581	558	16	24	16	363	36	220
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Cap, veh/h	328	1028	872	387	746	953	151	77	51	498	72	441
Arrive On Green	0.10	0.55	0.55	0.67	0.67	0.67	0.07	0.07	0.07	0.20	0.32	0.32
Sat Flow, veh/h	1767	1856	1572	844	1856	1572	1141	1063	709	1767	226	1381
Grp Volume(v), veh/h	241	529	29	29	581	558	16	0	40	363	0	256
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	844	1856	1572	1141	0	1772	1767	0	1607
Q Serve(g_s), s	8.0	18.7	0.9	1.4	22.7	19.8	1.4	0.0	2.2	19.1	0.0	13.5
Cycle Q Clear(g_c), s	8.0	18.7	0.9	4.1	22.7	19.8	1.4	0.0	2.2	19.1	0.0	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		0.86
Lane Grp Cap(c), veh/h	328	1028	872	387	746	953	151	0	128	498	0	513
V/C Ratio(X)	0.73	0.51	0.03	0.08	0.78	0.59	0.11	0.00	0.31	0.73	0.00	0.50
Avail Cap(c_a), veh/h	328	1028	872	387	746	953	151	0	128	533	0	513
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.67	0.67	0.67	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.8	14.6	10.6	11.5	14.1	6.6	45.8	0.0	46.2	32.9	0.0	29.0
Incr Delay (d2), s/veh	8.3	1.8	0.1	0.3	5.4	1.8	1.4	0.0	6.3	4.7	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.6	12.0	0.5	0.5	9.9	6.0	0.8	0.0	2.1	13.3	0.0	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.1	16.4	10.7	11.8	19.5	8.4	47.2	0.0	52.5	37.6	0.0	32.4
LnGrp LOS	C	B	B	B	B	A	D	A	D	D	A	C
Approach Vol, veh/h		799			1168			56			619	
Approach Delay, s/veh		19.7			14.0			51.0			35.5	
Approach LOS		B			B			D			D	

Timer - Assigned Phs		2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s		65.0		40.0	16.0	49.0	25.9	14.1				
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8	4.5	6.5				
Max Green Setting (Gmax), s		58.2		33.5	10.0	42.2	23.5	5.5				
Max Q Clear Time (g_c+I1), s		20.7		15.5	10.0	24.7	21.1	4.2				
Green Ext Time (p_c), s		3.4		1.4	0.0	5.5	0.3	0.0				

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	460	25	25	500	480	10	15	10	305	30	185
Future Volume (veh/h)	210	460	25	25	500	480	10	15	10	305	30	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	241	529	29	29	581	558	16	24	16	363	36	220
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	328	1028	872	387	746	953	151	77	51	498	72	441
HCM Platoon Ratio	1.00	1.00	1.00	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.10	0.55	0.55	0.67	0.67	0.67	0.07	0.07	0.07	0.20	0.32	0.32
Unsig. Movement Delay												
Ln Grp Delay, s/veh	28.1	16.4	10.7	11.8	19.5	8.4	47.2	0.0	52.5	37.6	0.0	32.4
Ln Grp LOS	C	B	B	B	B	A	D	A	D	D	A	C
Approach Vol, veh/h		799			1168			56			619	
Approach Delay, s/veh		19.7			14.0			51.0			35.5	
Approach LOS		B			B			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6	7	8
Case No		3.0		4.0	1.2	5.3	1.2	6.3
Phs Duration (G+Y+Rc), s		65.0		40.0	16.0	49.0	25.9	14.1
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8	4.5	6.5
Max Green (Gmax), s		58.2		33.5	10.0	42.2	23.5	5.5
Max Allow Headway (MAH), s		4.9		5.3	3.7	4.5	3.7	4.8
Max Q Clear (g_c+I1), s		20.7		15.5	10.0	24.7	21.1	4.2
Green Ext Time (g_e), s		3.4		1.4	0.0	5.5	0.3	0.0
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)		0.00		0.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt					5	1	7	3
Mvmt Sat Flow, veh/h					1767	844	1767	1141

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1856		226		1856		1063

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1572		1381		1572		709

Left Lane Group Data								
Assigned Mvmt	0	0	0	0	5	1	7	3
Lane Assignment				L (Pr/Pm)		LL (Pr/Pm)		L

Lanes in Grp	0	0	0	0	1	1	1	1
Grp Vol (v), veh/h	0	0	0	0	241	29	363	16
Grp Sat Flow (s), veh/h/ln	0	0	0	0	1767	844	1767	1141
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	8.0	1.4	19.1	1.4
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	8.0	4.1	19.1	1.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	490	844	1356	1141
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	44.2	42.2	9.6	7.6
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	19.5	39.5	5.3	7.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	19.5	1.4	1.6	1.4
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	0	328	387	498	151
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.73	0.08	0.73	0.11
Avail Cap (c_a), veh/h	0	0	0	0	328	387	533	151
Upstream Filter (I)	0.00	0.00	0.00	0.00	1.00	0.67	1.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	19.8	11.5	32.9	45.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	8.3	0.3	4.7	1.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	28.1	11.8	37.6	47.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	2.9	0.2	7.9	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.8	0.0	0.6	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	0.00	1.80	1.80	1.56	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	6.6	0.5	13.3	0.8
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	1.13	0.10	3.40	0.16
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	529	0	0	0	581	0	0
Grp Sat Flow (s), veh/h/ln	0	1856	0	0	0	1856	0	0
Q Serve Time (g_s), s	0.0	18.7	0.0	0.0	0.0	22.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.7	0.0	0.0	0.0	22.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	1028	0	0	0	746	0	0
V/C Ratio (X)	0.00	0.51	0.00	0.00	0.00	0.78	0.00	0.00
Avail Cap (c_a), veh/h	0	1028	0	0	0	746	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.67	0.00	0.00
Uniform Delay (d1), s/veh	0.0	14.6	0.0	0.0	0.0	14.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.8	0.0	0.0	0.0	5.4	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
Control Delay (d), s/veh	0.0	16.4	0.0	0.0	0.0	19.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	7.0	0.0	0.0	0.0	5.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	1.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.60	0.00	1.00	0.00	1.53	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	12.0	0.0	0.0	0.0	9.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	0.00	0.00	0.14	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		T+R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	29	0	256	0	558	0	40
Grp Sat Flow (s), veh/h/ln	0	1572	0	1607	0	1572	0	1772
Q Serve Time (g_s), s	0.0	0.9	0.0	13.5	0.0	19.8	0.0	2.2
Cycle Q Clear Time (g_c), s	0.0	0.9	0.0	13.5	0.0	19.8	0.0	2.2
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	1572.5	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	21.4	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	0.86	0.00	1.00	0.00	0.40
Lane Grp Cap (c), veh/h	0	872	0	513	0	953	0	128
V/C Ratio (X)	0.00	0.03	0.00	0.50	0.00	0.59	0.00	0.31
Avail Cap (c_a), veh/h	0	872	0	513	0	953	0	128
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.67	0.00	1.00
Uniform Delay (d1), s/veh	0.0	10.6	0.0	29.0	0.0	6.6	0.0	46.2
Incr Delay (d2), s/veh	0.0	0.1	0.0	3.4	0.0	1.8	0.0	6.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.7	0.0	32.4	0.0	8.4	0.0	52.5
1st-Term Q (Q1), veh/ln	0.0	0.3	0.0	5.0	0.0	3.0	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.5	0.0	0.5	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.70	0.00	1.72	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.5	0.0	9.4	0.0	6.0	0.0	2.1
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.29	0.00	2.05	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

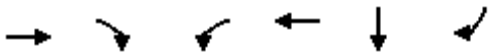
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	685	520	5
Future Vol, veh/h	5	5	5	685	520	5
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	25	25	82	82	92	92
Heavy Vehicles, %	0	0	1	1	3	3
Mvmt Flow	20	20	6	835	565	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1415	568	570	0	-	0
Stage 1	568	-	-	-	-	-
Stage 2	847	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	153	526	1007	-	-	-
Stage 1	571	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	151	526	1007	-	-	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	565	-	-	-	-	-
Stage 2	424	-	-	-	-	-

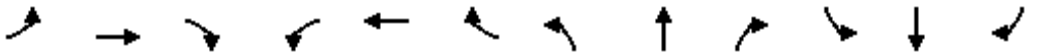
Approach	EB	NB	SB
HCM Control Delay, s	23.4	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1007	-	235	-	-
HCM Lane V/C Ratio	0.006	-	0.17	-	-
HCM Control Delay (s)	8.6	0	23.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	73.0	73.0	15.0	88.0	17.0	17.0
Total Split (%)	69.5%	69.5%	14.3%	83.8%	16.2%	16.2%
Maximum Green (s)	66.2	66.2	8.2	81.2	10.2	10.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	66.4	66.4	8.0	81.2	10.2	10.2
90th %ile Term Code	Coord	Coord	Min	Coord	Max	Max
70th %ile Green (s)	81.7	81.7	0.0	81.7	9.7	9.7
70th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
50th %ile Green (s)	82.9	82.9	0.0	82.9	8.5	8.5
50th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
30th %ile Green (s)	84.2	84.2	0.0	84.2	7.2	7.2
30th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
10th %ile Green (s)	98.2	98.2	0.0	98.2	0.0	0.0
10th %ile Term Code	Coord	Coord	Skip	Coord	Skip	Skip

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 14 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	605	190	5	990	0	0	0	0	40	5	45
Future Volume (veh/h)	0	605	190	5	990	0	0	0	0	40	5	45
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	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	665	209	5	1088	0				47	6	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Cap, veh/h	0	1393	1181	567	1556	0				61	8	
Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.04	0.04	0.00
Sat Flow, veh/h	0	1841	1560	1781	1870	0				1601	204	1598
Grp Volume(v), veh/h	0	665	209	5	1088	0				53	0	0
Grp Sat Flow(s),veh/h/ln	0	1841	1560	1781	1870	0				1805	0	1598
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0				3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.1	0.0	0.0				3.1	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.89		1.00
Lane Grp Cap(c), veh/h	0	1393	1181	567	1556	0				69	0	
V/C Ratio(X)	0.00	0.48	0.18	0.01	0.70	0.00				0.77	0.00	
Avail Cap(c_a), veh/h	0	1393	1181	688	1556	0				175	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.75	0.75	0.45	0.45	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	2.4	0.0	0.0				50.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.2	0.0	1.2	0.0				16.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.6	0.1	0.0	0.9	0.0				3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.9	0.2	2.4	1.2	0.0				66.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		874			1093						53	
Approach Delay, s/veh		0.7			1.2						66.0	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	7.9	86.3		10.8		94.2						
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8						
Max Green Setting (Gmax), s	8.2	66.2		10.2		81.2						
Max Q Clear Time (g_c+I1), s	2.1	2.0		5.1		2.0						
Green Ext Time (p_c), s	0.0	5.5		0.1		12.1						

Intersection Summary												
HCM 6th Ctrl Delay			2.7									
HCM 6th LOS			A									

Notes

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)	0	605	190	5	990	0	0	0	0	40	5	45
Future Volume (veh/h)	0	605	190	5	990	0	0	0	0	40	5	45
Number	5	2	12	1	6	16				7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	665	209	5	1088	0				47	6	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	1393	1181	567	1556	0				61	8	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.04	0.04	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.9	0.2	2.4	1.2	0.0				66.0	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		874			1093						53	
Approach Delay, s/veh		0.7			1.2						66.0	
Approach LOS		A			A						E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		11.0		4.0		
Phs Duration (G+Y+Rc), s	7.9	86.3		10.8		94.2		
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8		
Max Green (Gmax), s	8.2	66.2		10.2		81.2		
Max Allow Headway (MAH), s	3.7	4.7		5.3		4.9		
Max Q Clear (g_c+I1), s	2.1	2.0		5.1		2.0		
Green Ext Time (g_e), s	0.0	5.5		0.1		12.1		
Prob of Phs Call (p_c)	0.14	1.00		0.79		1.00		
Prob of Max Out (p_x)	0.00	0.00		1.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1781	0		1601				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1841		204		1870		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1560		1598		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	L (Pr/Pm)			L+T				

Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	5	0	0	53	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	0	1805	0	0	0	0
Q Serve Time (g_s), s	0.1	0.0	0.0	3.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	3.1	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	634	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	81.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	79.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	79.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	567	0	0	69	0	0	0	0
V/C Ratio (X)	0.01	0.00	0.00	0.77	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	688	0	0	175	0	0	0	0
Upstream Filter (I)	0.45	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	2.4	0.0	0.0	50.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	16.0	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
Control Delay (d), s/veh	2.4	0.0	0.0	66.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.00	0.00	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	665	0	0	0	1088	0	0
Grp Sat Flow (s), veh/h/ln	0	1841	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1393	0	0	0	1556	0	0
V/C Ratio (X)	0.00	0.48	0.00	0.00	0.00	0.70	0.00	0.00
Avail Cap (c_a), veh/h	0	1393	0	0	0	1556	0	0
Upstream Filter (I)	0.00	0.75	0.00	0.00	0.00	0.45	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.9	0.0	0.0	0.0	1.2	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
Control Delay (d), s/veh	0.0	0.9	0.0	0.0	0.0	1.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.5	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.6	0.0	0.0	0.0	0.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	209	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1560	0	1598	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1181	0	61	0	0	0	0
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1181	0	155	0	0	0	0
Upstream Filter (I)	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	2.7
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	14.0	85.0	71.0	71.0	20.0	20.0
Total Split (%)	13.3%	81.0%	67.6%	67.6%	19.0%	19.0%
Maximum Green (s)	7.2	78.2	64.2	64.2	13.2	13.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	7.2	78.2	64.2	64.2	13.2	13.2
90th %ile Term Code	Max	Coord	Coord	Coord	Max	Max
70th %ile Green (s)	7.2	78.2	64.2	64.2	13.2	13.2
70th %ile Term Code	Max	Coord	Coord	Coord	Max	Max
50th %ile Green (s)	7.2	78.2	64.2	64.2	13.2	13.2
50th %ile Term Code	Max	Coord	Coord	Coord	Max	Max
30th %ile Green (s)	8.0	77.2	62.4	62.4	14.2	14.2
30th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
10th %ile Green (s)	0.0	80.6	80.6	80.6	10.8	10.8
10th %ile Term Code	Skip	Coord	Coord	Coord	Gap	Gap

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Control Type: Actuated-Coordinated

Min green cannot be greater than Max Green.

Min green cannot be greater than Max Green.

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	715	20	25	665	15	10	5	20	15	5	20
Future Vol, veh/h	45	715	20	25	665	15	10	5	20	15	5	20
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	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	125	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	86	86	86	65	65	65	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	0	0	0
Mvmt Flow	48	769	22	29	773	17	15	8	31	23	8	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	773	0	0	791	0	0	1711	1707	396	1316	1718	-
Stage 1	-	-	-	-	-	-	876	876	-	831	831	-
Stage 2	-	-	-	-	-	-	835	831	-	485	887	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.3	6.5	6.9	7.3	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	840	-	-	827	-	0	66	92	609	126	91	0
Stage 1	-	-	-	-	-	0	314	369	-	367	387	0
Stage 2	-	-	-	-	-	0	365	387	-	537	365	0
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	840	-	-	827	-	-	57	84	609	104	83	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	57	84	-	104	83	-
Stage 1	-	-	-	-	-	-	296	348	-	346	373	-
Stage 2	-	-	-	-	-	-	345	373	-	470	344	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	39.6	50.3
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	57	84	609	840	-	-	827	-	104	83	-
HCM Lane V/C Ratio	0.27	0.092	0.051	0.058	-	-	0.035	-	0.225	0.094	-
HCM Control Delay (s)	90	52.1	11.2	9.5	-	-	9.5	-	49.4	52.8	0
HCM Lane LOS	F	F	B	A	-	-	A	-	E	F	A
HCM 95th %tile Q(veh)	0.9	0.3	0.2	0.2	-	-	0.1	-	0.8	0.3	-

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	660	55	25	675	25	20	5	25	20	5	10
Future Vol, veh/h	10	660	55	25	675	25	20	5	25	20	5	10
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	175	-	200	75	-	50	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	89	89	89	60	60	60	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	4	4	4
Mvmt Flow	11	717	60	28	758	28	33	8	42	36	9	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	786	0	0	777	0	0	1581	1581	717	1608	1613	758
Stage 1	-	-	-	-	-	-	739	739	-	814	814	-
Stage 2	-	-	-	-	-	-	842	842	-	794	799	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.55	6.25	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.045	3.345	3.536	4.036	3.336
Pot Cap-1 Maneuver	833	-	-	839	-	-	87	107	425	83	103	404
Stage 1	-	-	-	-	-	-	404	419	-	369	389	-
Stage 2	-	-	-	-	-	-	355	376	-	378	395	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	833	-	-	839	-	-	74	102	425	68	98	404
Mov Cap-2 Maneuver	-	-	-	-	-	-	74	102	-	68	98	-
Stage 1	-	-	-	-	-	-	399	414	-	364	376	-
Stage 2	-	-	-	-	-	-	320	364	-	330	390	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	70.3	72.4
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	132	833	-	-	839	-	-	68	198
HCM Lane V/C Ratio	0.631	0.013	-	-	0.033	-	-	0.535	0.138
HCM Control Delay (s)	70.3	9.4	-	-	9.4	-	-	107.2	26.1
HCM Lane LOS	F	A	-	-	A	-	-	F	D
HCM 95th %tile Q(veh)	3.3	0	-	-	0.1	-	-	2.2	0.5

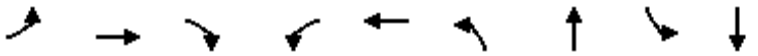
Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	790	5	10	1275	10	25	5	25	20	5	65
Future Vol, veh/h	5	790	5	10	1275	10	25	5	25	20	5	65
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	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	-	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	80	80	80	80	80	80
Heavy Vehicles, %	6	6	6	7	7	7	0	0	0	0	0	0
Mvmt Flow	6	952	6	11	1466	11	31	6	31	25	6	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1466	0	0	958	0	0	1578	2455	479	1884	2458	-
Stage 1	-	-	-	-	-	-	967	967	-	1488	1488	-
Stage 2	-	-	-	-	-	-	611	1488	-	396	970	-
Critical Hdwy	5.42	-	-	5.44	-	-	6.4	6.5	7.1	6.4	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.16	-	-	3.17	-	-	3.8	4	3.9	3.8	4	-
Pot Cap-1 Maneuver	223	-	-	395	-	0	118	31	460	77	31	0
Stage 1	-	-	-	-	-	0	213	335	-	92	189	0
Stage 2	-	-	-	-	-	0	412	189	-	555	334	0
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	223	-	-	395	-	-	95	29	460	58	29	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	95	29	-	58	29	-
Stage 1	-	-	-	-	-	-	207	326	-	90	184	-
Stage 2	-	-	-	-	-	-	387	184	-	494	325	-

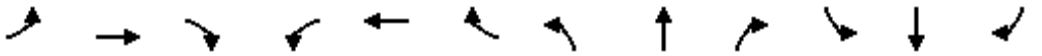
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	48.2	118.3
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	95	29	460	223	-	-	395	-	58	29	-
HCM Lane V/C Ratio	0.329	0.216	0.068	0.027	-	-	0.029	-	0.431	0.216	-
HCM Control Delay (s)	60.5	160.5	13.4	21.6	-	-	14.4	-	107.7	160.5	0
HCM Lane LOS	F	F	B	C	-	-	B	-	F	F	A
HCM 95th %tile Q(veh)	1.3	0.7	0.2	0.1	-	-	0.1	-	1.6	0.7	-



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4			8		2		6
Permitted Phases	4		4	8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	64.0	64.0	64.0	64.0	64.0	26.0	26.0	26.0	26.0
Total Split (%)	71.1%	71.1%	71.1%	71.1%	71.1%	28.9%	28.9%	28.9%	28.9%
Maximum Green (s)	59.5	59.5	59.5	59.5	59.5	21.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	49.6	49.6	49.6	49.6	49.6	31.4	31.4	31.4	31.4
90th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord
70th %ile Green (s)	44.1	44.1	44.1	44.1	44.1	36.9	36.9	36.9	36.9
70th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord
50th %ile Green (s)	40.3	40.3	40.3	40.3	40.3	40.7	40.7	40.7	40.7
50th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord
30th %ile Green (s)	37.0	37.0	37.0	37.0	37.0	44.0	44.0	44.0	44.0
30th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord
10th %ile Green (s)	31.8	31.8	31.8	31.8	31.8	49.2	49.2	49.2	49.2
10th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1305	10	5	740	20	55	5	65	45	5	15
Future Volume (veh/h)	5	1305	10	5	740	20	55	5	65	45	5	15
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	1826	1826	1826	1796	1796	1796	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	6	1466	11	6	860	23	69	6	81	56	6	19
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	5	5	5	7	7	7	0	0	0	3	3	3
Cap, veh/h	304	2053	637	137	2022	54	368	50	389	726	191	606
Arrive On Green	0.41	0.41	0.41	0.82	0.82	0.82	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	614	4985	1547	344	4911	131	635	103	797	1300	392	1241
Grp Volume(v), veh/h	6	1466	11	6	572	311	156	0	0	56	0	25
Grp Sat Flow(s),veh/h/ln	614	1662	1547	344	1635	1773	1535	0	0	1300	0	1632
Q Serve(g_s), s	0.6	22.1	0.4	1.1	4.3	4.3	2.3	0.0	0.0	0.0	0.0	0.7
Cycle Q Clear(g_c), s	4.9	22.1	0.4	23.1	4.3	4.3	4.9	0.0	0.0	1.8	0.0	0.7
Prop In Lane	1.00		1.00	1.00		0.07	0.44		0.52	1.00		0.76
Lane Grp Cap(c), veh/h	304	2053	637	137	1346	730	807	0	0	726	0	797
V/C Ratio(X)	0.02	0.71	0.02	0.04	0.42	0.43	0.19	0.00	0.00	0.08	0.00	0.03
Avail Cap(c_a), veh/h	457	3295	1023	223	2161	1172	807	0	0	726	0	797
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.85	0.85	0.85	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	22.1	15.7	14.3	5.0	5.0	13.0	0.0	0.0	12.2	0.0	12.0
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.1	0.2	0.3	0.5	0.0	0.0	0.2	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(95%),veh/ln	0.1	12.4	0.2	0.1	2.0	2.2	3.3	0.0	0.0	1.1	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	22.5	15.7	14.4	5.2	5.4	13.5	0.0	0.0	12.5	0.0	12.0
LnGrp LOS	B	C	B	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1483			889			156			81	
Approach Delay, s/veh		22.5			5.3			13.5			12.3	
Approach LOS		C			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		48.4		41.6		48.4		41.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		59.5		21.5		59.5				
Max Q Clear Time (g_c+I1), s		6.9		24.1		3.8		25.1				
Green Ext Time (p_c), s		0.7		13.0		0.2		7.0				

Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1305	10	5	740	20	55	5	65	45	5	15
Future Volume (veh/h)	5	1305	10	5	740	20	55	5	65	45	5	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1826	1826	1826	1796	1796	1796	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	6	1466	11	6	860	23	69	6	81	56	6	19
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	5	5	5	7	7	7	0	0	0	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	304	2053	637	137	2022	54	368	50	389	726	191	606
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.41	0.41	0.41	0.82	0.82	0.82	0.49	0.49	0.49	0.49	0.49	0.49
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.4	22.5	15.7	14.4	5.2	5.4	13.5	0.0	0.0	12.5	0.0	12.0
Ln Grp LOS	B	C	B	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1483			889			156			81	
Approach Delay, s/veh		22.5			5.3			13.5			12.3	
Approach LOS		C			A			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		5.0		6.0		6.0
Phs Duration (G+Y+Rc), s		48.4		41.6		48.4		41.6
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		21.5		59.5		21.5		59.5
Max Allow Headway (MAH), s		5.4		4.9		4.5		5.3
Max Q Clear (g_c+I1), s		6.9		24.1		3.8		25.1
Green Ext Time (g_e), s		0.7		13.0		0.2		7.0
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.11		0.00		0.02

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		635		614		1300		344

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		103		4985		392		4911

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		797		1547		1241		131

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	156	0	6	0	56	0	6
Grp Sat Flow (s), veh/h/ln	0	1535	0	614	0	1300	0	344
Q Serve Time (g_s), s	0.0	2.3	0.0	0.6	0.0	0.0	0.0	1.1
Cycle Q Clear Time (g_c), s	0.0	4.9	0.0	4.9	0.0	1.8	0.0	23.1
Perm LT Sat Flow (s_l), veh/h/ln	0	1408	0	614	0	1300	0	344
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	1504	0	0
Perm LT Eff Green (g_p), s	0.0	43.9	0.0	37.1	0.0	43.9	0.0	37.1
Perm LT Serve Time (g_u), s	0.0	43.2	0.0	32.8	0.0	39.1	0.0	15.0
Perm LT Q Serve Time (g_ps), s	0.0	2.3	0.0	0.6	0.0	0.0	0.0	1.1
Time to First Blk (g_f), s	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.44	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	807	0	304	0	726	0	137
V/C Ratio (X)	0.00	0.19	0.00	0.02	0.00	0.08	0.00	0.04
Avail Cap (c_a), veh/h	0	807	0	457	0	726	0	223
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	13.0	0.0	18.4	0.0	12.2	0.0	14.3
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.0	0.0	0.2	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
Control Delay (d), s/veh	0.0	13.5	0.0	18.4	0.0	12.5	0.0	14.4
1st-Term Q (Q1), veh/ln	0.0	1.7	0.0	0.1	0.0	0.6	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	3.3	0.0	0.1	0.0	1.1	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.11	0.00	0.02	0.00	0.28	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	3	0	0	0	2
Grp Vol (v), veh/h	0	0	0	1466	0	0	0	572
Grp Sat Flow (s), veh/h/ln	0	0	0	1662	0	0	0	1635
Q Serve Time (g_s), s	0.0	0.0	0.0	22.1	0.0	0.0	0.0	4.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	22.1	0.0	0.0	0.0	4.3
Lane Grp Cap (c), veh/h	0	0	0	2053	0	0	0	1346
V/C Ratio (X)	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.42
Avail Cap (c_a), veh/h	0	0	0	3295	0	0	0	2161
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	0.0	0.0	22.1	0.0	0.0	0.0	5.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	22.5	0.0	0.0	0.0	5.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.7	0.0	0.0	0.0	1.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.59	0.00	1.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	12.4	0.0	0.0	0.0	2.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				R		T+R		T+R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	11	0	25	0	311
Grp Sat Flow (s), veh/h/ln	0	0	0	1547	0	1632	0	1773
Q Serve Time (g_s), s	0.0	0.0	0.0	0.4	0.0	0.7	0.0	4.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.4	0.0	0.7	0.0	4.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.52	0.00	1.00	0.00	0.76	0.00	0.07
Lane Grp Cap (c), veh/h	0	0	0	637	0	797	0	730
V/C Ratio (X)	0.00	0.00	0.00	0.02	0.00	0.03	0.00	0.43
Avail Cap (c_a), veh/h	0	0	0	1023	0	797	0	1172
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.85
Uniform Delay (d1), s/veh	0.0	0.0	0.0	15.7	0.0	12.0	0.0	5.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	15.7	0.0	12.0	0.0	5.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.1	0.0	0.3	0.0	1.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.2	0.0	0.5	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.02	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

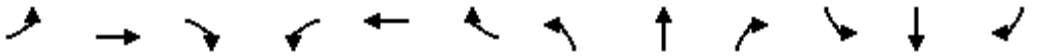
Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	5	2	3	1	6	7	3	8	7	4	5
Permitted Phases			2	6		6					4
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	9.5	9.5	16.8	9.5	9.5	11.5	9.5	11.5	11.0
Total Split (s)	19.0	30.0	21.0	12.0	23.0	20.0	21.0	28.0	20.0	27.0	19.0
Total Split (%)	21.1%	33.3%	23.3%	13.3%	25.6%	22.2%	23.3%	31.1%	22.2%	30.0%	21.1%
Maximum Green (s)	13.0	23.2	16.5	7.5	16.2	15.5	16.5	21.5	15.5	20.5	13.0
Yellow Time (s)	4.0	4.8	3.5	3.5	4.8	3.5	3.5	4.5	3.5	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	Max	None
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
90th %ile Green (s)	13.0	23.2	16.5	7.5	16.2	15.5	16.5	21.5	15.5	20.5	13.0
90th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	Max	MaxR	Max
70th %ile Green (s)	13.0	23.2	16.5	7.5	16.2	15.5	16.5	21.5	15.5	20.5	13.0
70th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	Max	MaxR	Max
50th %ile Green (s)	13.0	23.2	15.9	7.5	16.2	15.5	15.9	21.5	15.5	21.1	13.0
50th %ile Term Code	Max	Coord	Gap	Max	Coord	Max	Gap	MaxR	Max	MaxR	Max
30th %ile Green (s)	13.0	23.2	14.3	7.5	16.2	15.5	14.3	21.5	15.5	22.7	13.0
30th %ile Term Code	Max	Coord	Gap	Max	Coord	Max	Gap	MaxR	Max	MaxR	Max
10th %ile Green (s)	12.6	24.2	11.1	6.5	16.6	13.7	11.1	23.3	13.7	25.9	12.6
10th %ile Term Code	Gap	Coord	Gap	Gap	Coord	Gap	Gap	MaxR	Gap	MaxR	Gap

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	525	540	100	340	270	275	525	175	400	800	150
Future Volume (veh/h)	350	525	540	100	340	270	275	525	175	400	800	150
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	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	402	603	621	122	415	329	382	729	243	476	952	179
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Cap, veh/h	463	1353	626	289	935	530	472	915	301	549	1331	631
Arrive On Green	0.23	0.46	0.46	0.08	0.20	0.20	0.14	0.24	0.24	0.16	0.26	0.26
Sat Flow, veh/h	3319	4904	1522	1668	4782	1485	3483	3828	1261	3401	5025	1560
Grp Volume(v), veh/h	402	603	621	122	415	329	382	652	320	476	952	179
Grp Sat Flow(s),veh/h/ln	1659	1635	1522	1668	1594	1485	1742	1716	1658	1700	1675	1560
Q Serve(g_s), s	10.5	7.5	24.8	5.2	6.9	16.5	9.6	16.1	16.4	12.3	15.5	6.9
Cycle Q Clear(g_c), s	10.5	7.5	24.8	5.2	6.9	16.5	9.6	16.1	16.4	12.3	15.5	6.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.76	1.00		1.00
Lane Grp Cap(c), veh/h	463	1353	626	289	935	530	472	820	396	549	1331	631
V/C Ratio(X)	0.87	0.45	0.99	0.42	0.44	0.62	0.81	0.80	0.81	0.87	0.72	0.28
Avail Cap(c_a), veh/h	479	1353	626	301	935	530	639	820	396	586	1331	631
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.73	0.73	0.73	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	19.6	21.1	25.8	31.9	23.9	37.8	32.2	32.3	36.8	30.0	18.0
Incr Delay (d2), s/veh	11.6	0.8	28.8	1.0	1.5	5.3	5.6	7.9	16.0	12.5	3.3	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.3	4.5	20.2	3.6	4.8	10.1	7.6	11.5	12.5	9.8	10.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	20.4	50.0	26.7	33.4	29.2	43.4	40.1	48.3	49.2	33.3	19.1
LnGrp LOS	D	C	D	C	C	C	D	D	D	D	C	B
Approach Vol, veh/h		1626			866			1354			1607	
Approach Delay, s/veh		37.8			30.9			43.0			36.5	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	31.6	16.7	30.3	18.6	24.4	19.0	28.0
Change Period (Y+Rc), s	4.5	6.8	4.5	6.5	6.0	6.8	4.5	6.5
Max Green Setting (Gmax), s	7.5	23.2	16.5	20.5	13.0	16.2	15.5	21.5
Max Q Clear Time (g_c+I1), s	7.2	26.8	11.6	17.5	12.5	18.5	14.3	18.4
Green Ext Time (p_c), s	0.0	0.0	0.6	1.9	0.1	0.0	0.3	1.7

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	525	540	100	340	270	275	525	175	400	800	150
Future Volume (veh/h)	350	525	540	100	340	270	275	525	175	400	800	150
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	402	603	621	122	415	329	382	729	243	476	952	179
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	463	1353	626	289	935	530	472	915	301	549	1331	631
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.23	0.46	0.46	0.08	0.20	0.20	0.14	0.24	0.24	0.16	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	45.3	20.4	50.0	26.7	33.4	29.2	43.4	40.1	48.3	49.2	33.3	19.1
Ln Grp LOS	D	C	D	C	C	C	D	D	D	D	C	B
Approach Vol, veh/h		1626			866			1354			1607	
Approach Delay, s/veh		37.8			30.9			43.0			36.5	
Approach LOS		D			C			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	1.1	3.0	2.0	3.0	2.0	3.0	2.0	4.0
Phs Duration (G+Y+Rc), s	11.3	31.6	16.7	30.3	18.6	24.4	19.0	28.0
Change Period (Y+Rc), s	4.5	6.8	4.5	6.5	6.0	6.8	4.5	6.5
Max Green (Gmax), s	7.5	23.2	16.5	20.5	13.0	16.2	15.5	21.5
Max Allow Headway (MAH), s	3.7	4.4	3.7	4.8	3.7	4.5	3.7	5.0
Max Q Clear (g_c+I1), s	7.2	26.8	11.6	17.5	12.5	18.5	14.3	18.4
Green Ext Time (g_e), s	0.0	0.0	0.6	1.9	0.1	0.0	0.3	1.7
Prob of Phs Call (p_c)	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	1.00	0.00	0.47	0.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1668		3483		3319		3401	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		4904		5025		4782		3828

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1522		1560		1485		1261

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Pr/Pm)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	122	0	382	0	402	0	476	0
Grp Sat Flow (s), veh/h/ln	1668	0	1742	0	1659	0	1700	0
Q Serve Time (g_s), s	5.2	0.0	9.6	0.0	10.5	0.0	12.3	0.0
Cycle Q Clear Time (g_c), s	5.2	0.0	9.6	0.0	10.5	0.0	12.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	427	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	17.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	289	0	472	0	463	0	549	0
V/C Ratio (X)	0.42	0.00	0.81	0.00	0.87	0.00	0.87	0.00
Avail Cap (c_a), veh/h	301	0	639	0	479	0	586	0
Upstream Filter (I)	0.99	0.00	1.00	0.00	0.73	0.00	1.00	0.00
Uniform Delay (d1), s/veh	25.8	0.0	37.8	0.0	33.7	0.0	36.8	0.0
Incr Delay (d2), s/veh	1.0	0.0	5.6	0.0	11.6	0.0	12.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.7	0.0	43.4	0.0	45.3	0.0	49.2	0.0
1st-Term Q (Q1), veh/ln	1.9	0.0	3.9	0.0	3.6	0.0	4.9	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.4	0.0	0.7	0.0	1.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.80	0.00	1.67	0.00	1.68	0.00
%ile Back of Q (95%), veh/ln	3.6	0.0	7.6	0.0	7.3	0.0	9.8	0.0
%ile Storage Ratio (RQ%)	0.78	0.00	1.54	0.00	1.28	0.00	2.53	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	3	0	3	0	3	0	2
Grp Vol (v), veh/h	0	603	0	952	0	415	0	652
Grp Sat Flow (s), veh/h/ln	0	1635	0	1675	0	1594	0	1716
Q Serve Time (g_s), s	0.0	7.5	0.0	15.5	0.0	6.9	0.0	16.1
Cycle Q Clear Time (g_c), s	0.0	7.5	0.0	15.5	0.0	6.9	0.0	16.1
Lane Grp Cap (c), veh/h	0	1353	0	1331	0	935	0	820
V/C Ratio (X)	0.00	0.45	0.00	0.72	0.00	0.44	0.00	0.80
Avail Cap (c_a), veh/h	0	1353	0	1331	0	935	0	820
Upstream Filter (I)	0.00	0.73	0.00	1.00	0.00	0.99	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.6	0.0	30.0	0.0	31.9	0.0	32.2
Incr Delay (d2), s/veh	0.0	0.8	0.0	3.3	0.0	1.5	0.0	7.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	20.4	0.0	33.3	0.0	33.4	0.0	40.1
1st-Term Q (Q1), veh/ln	0.0	2.4	0.0	5.9	0.0	2.5	0.0	6.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.4	0.0	0.1	0.0	0.9

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.65	0.00	1.80	0.00	1.61
%ile Back of Q (95%), veh/ln	0.0	4.5	0.0	10.4	0.0	4.8	0.0	11.5
%ile Storage Ratio (RQ%)	0.00	0.05	0.00	0.33	0.00	0.07	0.00	0.26
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	621	0	179	0	329	0	320
Grp Sat Flow (s), veh/h/ln	0	1522	0	1560	0	1485	0	1658
Q Serve Time (g_s), s	0.0	24.8	0.0	6.9	0.0	16.5	0.0	16.4
Cycle Q Clear Time (g_c), s	0.0	24.8	0.0	6.9	0.0	16.5	0.0	16.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1522.3	0.0	1559.9	0.0	1484.6	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	12.2	0.0	12.6	0.0	14.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.76
Lane Grp Cap (c), veh/h	0	626	0	631	0	530	0	396
V/C Ratio (X)	0.00	0.99	0.00	0.28	0.00	0.62	0.00	0.81
Avail Cap (c_a), veh/h	0	626	0	631	0	530	0	396
Upstream Filter (I)	0.00	0.73	0.00	1.00	0.00	0.99	0.00	1.00
Uniform Delay (d1), s/veh	0.0	21.1	0.0	18.0	0.0	23.9	0.0	32.3
Incr Delay (d2), s/veh	0.0	28.8	0.0	1.1	0.0	5.3	0.0	16.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	50.0	0.0	19.1	0.0	29.2	0.0	48.3
1st-Term Q (Q1), veh/ln	0.0	9.8	0.0	2.3	0.0	5.3	0.0	6.1
2nd-Term Q (Q2), veh/ln	0.0	5.0	0.0	0.2	0.0	0.8	0.0	1.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.36	0.00	1.80	0.00	1.66	0.00	1.58
%ile Back of Q (95%), veh/ln	0.0	20.2	0.0	4.5	0.0	10.1	0.0	12.5
%ile Storage Ratio (RQ%)	0.00	5.33	0.00	1.15	0.00	3.63	0.00	0.28
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	37.6
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.8

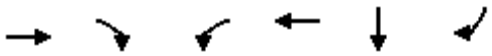
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	1140	1345	5
Future Vol, veh/h	5	5	5	1140	1345	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	80	80	91	91
Heavy Vehicles, %	0	0	5	5	4	4
Mvmt Flow	20	20	6	1425	1478	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2063	742	1483	0	-	0
Stage 1	1481	-	-	-	-	-
Stage 2	582	-	-	-	-	-
Critical Hdwy	5.7	7.1	5.4	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	3.15	-	-	-
Pot Cap-1 Maneuver	*206	311	221	-	-	-
Stage 1	*124	-	-	-	-	-
Stage 2	*672	-	-	-	-	-
Platoon blocked, %	1			-	-	-
Mov Cap-1 Maneuver	*179	311	221	-	-	-
Mov Cap-2 Maneuver	*179	-	-	-	-	-
Stage 1	*108	-	-	-	-	-
Stage 2	*672	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.2	1	0
HCM LOS	C		

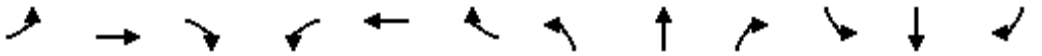
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	221	-	227	-	-
HCM Lane V/C Ratio	0.028	-	0.176	-	-
HCM Control Delay (s)	21.8	0.9	24.2	-	-
HCM Lane LOS	C	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

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



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	49.0	49.0	16.0	65.0	25.0	25.0
Total Split (%)	54.4%	54.4%	17.8%	72.2%	27.8%	27.8%
Maximum Green (s)	42.2	42.2	9.2	58.2	18.2	18.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	45.8	45.8	8.0	60.6	15.8	15.8
90th %ile Term Code	Coord	Coord	Min	Coord	Gap	Gap
70th %ile Green (s)	48.5	48.5	8.0	63.3	13.1	13.1
70th %ile Term Code	Coord	Coord	Min	Coord	Gap	Gap
50th %ile Green (s)	65.2	65.2	0.0	65.2	11.2	11.2
50th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
30th %ile Green (s)	67.1	67.1	0.0	67.1	9.3	9.3
30th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
10th %ile Green (s)	83.2	83.2	0.0	83.2	0.0	0.0
10th %ile Term Code	Coord	Coord	Skip	Coord	Skip	Skip

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	745	355	15	680	0	0	0	0	70	5	30
Future Volume (veh/h)	0	745	355	15	680	0	0	0	0	70	5	30
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	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	837	399	18	810	0				96	7	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Cap, veh/h	0	3257	1011	428	3851	0				122	9	
Arrive On Green	0.00	1.00	1.00	0.06	1.00	0.00				0.08	0.08	0.00
Sat Flow, veh/h	0	5107	1535	1753	5191	0				1481	108	1409
Grp Volume(v), veh/h	0	837	399	18	810	0				103	0	0
Grp Sat Flow(s),veh/h/ln	0	1648	1535	1753	1675	0				1589	0	1409
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0				5.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.3	0.0	0.0				5.7	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.93		1.00
Lane Grp Cap(c), veh/h	0	3257	1011	428	3851	0				131	0	
V/C Ratio(X)	0.00	0.26	0.39	0.04	0.21	0.00				0.79	0.00	
Avail Cap(c_a), veh/h	0	3257	1011	551	3851	0				321	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.73	0.73	0.97	0.97	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.6	0.0	0.0				40.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.8	0.0	0.1	0.0				9.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.1	0.4	0.1	0.1	0.0				4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.1	0.8	3.7	0.1	0.0				50.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				D	A	
Approach Vol, veh/h		1236			828						103	
Approach Delay, s/veh		0.4			0.2						50.4	
Approach LOS		A			A						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.7	66.1		14.2		75.8						
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8						
Max Green Setting (Gmax), s	9.2	42.2		18.2		58.2						
Max Q Clear Time (g_c+I1), s	2.3	2.0		7.7		2.0						
Green Ext Time (p_c), s	0.0	8.2		0.3		6.0						

Intersection Summary												
HCM 6th Ctrl Delay			2.7									
HCM 6th LOS			A									

Notes

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)	0	745	355	15	680	0	0	0	0	70	5	30
Future Volume (veh/h)	0	745	355	15	680	0	0	0	0	70	5	30
Number	5	2	12	1	6	16				7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	837	399	18	810	0				96	7	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	3257	1011	428	3851	0				122	9	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	1.00	1.00	0.06	1.00	0.00				0.08	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.1	0.8	3.7	0.1	0.0				50.4	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A				D	A	
Approach Vol, veh/h		1236			828						103	
Approach Delay, s/veh		0.4			0.2						50.4	
Approach LOS		A			A						D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		11.0		4.0		
Phs Duration (G+Y+Rc), s	9.7	66.1		14.2		75.8		
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8		
Max Green (Gmax), s	9.2	42.2		18.2		58.2		
Max Allow Headway (MAH), s	3.7	4.6		5.4		4.9		
Max Q Clear (g_c+I1), s	2.3	2.0		7.7		2.0		
Green Ext Time (g_e), s	0.0	8.2		0.3		6.0		
Prob of Phs Call (p_c)	0.36	1.00		0.92		1.00		
Prob of Max Out (p_x)	0.00	0.00		0.03		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1753	0		1481				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		5107		108		5191		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1535		1409		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	L (Pr/Pm)			L+T				

Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	18	0	0	103	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1753	0	0	1589	0	0	0	0
Q Serve Time (g_s), s	0.3	0.0	0.0	5.7	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	0.0	5.7	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	443	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	61.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	59.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	59.3	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	428	0	0	131	0	0	0	0
V/C Ratio (X)	0.04	0.00	0.00	0.79	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	551	0	0	321	0	0	0	0
Upstream Filter (I)	0.97	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.6	0.0	0.0	40.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	9.9	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	3.7	0.0	0.0	50.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	0.0	2.2	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.00	0.00	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.1	0.0	0.0	4.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.00	0.14	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	837	0	0	0	810	0	0
Grp Sat Flow (s), veh/h/ln	0	1648	0	0	0	1675	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3257	0	0	0	3851	0	0
V/C Ratio (X)	0.00	0.26	0.00	0.00	0.00	0.21	0.00	0.00
Avail Cap (c_a), veh/h	0	3257	0	0	0	3851	0	0
Upstream Filter (I)	0.00	0.73	0.00	0.00	0.00	0.97	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	399	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1535	0	1409	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1011	0	116	0	0	0	0
V/C Ratio (X)	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1011	0	285	0	0	0	0
Upstream Filter (I)	0.00	0.73	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.8	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
Control Delay (d), s/veh	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

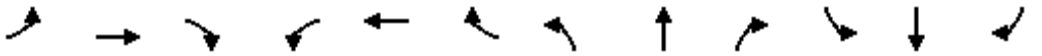
Intersection Summary	
HCM 6th Ctrl Delay	2.7
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	21.0	69.0	48.0	48.0	21.0	21.0
Total Split (%)	23.3%	76.7%	53.3%	53.3%	23.3%	23.3%
Maximum Green (s)	14.2	62.2	41.2	41.2	14.2	14.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	10.3	63.1	46.0	46.0	13.3	13.3
90th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
70th %ile Green (s)	8.8	65.2	49.6	49.6	11.2	11.2
70th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
50th %ile Green (s)	8.0	66.8	52.0	52.0	9.6	9.6
50th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
30th %ile Green (s)	8.0	68.4	53.6	53.6	8.0	8.0
30th %ile Term Code	Min	Coord	Coord	Coord	Min	Min
10th %ile Green (s)	8.0	83.2	68.4	68.4	0.0	0.0
10th %ile Term Code	Min	Coord	Coord	Coord	Skip	Skip

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Control Type: Actuated-Coordinated

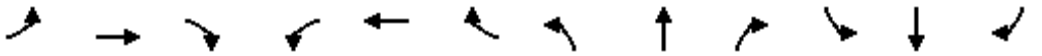


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	670	0	0	635	70	60	5	10	0	0	0
Future Volume (veh/h)	145	670	0	0	635	70	60	5	10	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking 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	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	156	720	0	0	774	0	73	6	12			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Cap, veh/h	580	3741	0	0	2925		124	10	119			
Arrive On Green	0.17	1.00	0.00	0.00	0.61	0.00	0.08	0.08	0.08			
Sat Flow, veh/h	1697	5024	0	0	4982	1497	1560	128	1497			
Grp Volume(v), veh/h	156	720	0	0	774	0	79	0	12			
Grp Sat Flow(s),veh/h/ln	1697	1621	0	0	1608	1497	1689	0	1497			
Q Serve(g_s), s	2.6	0.0	0.0	0.0	6.8	0.0	4.1	0.0	0.7			
Cycle Q Clear(g_c), s	2.6	0.0	0.0	0.0	6.8	0.0	4.1	0.0	0.7			
Prop In Lane	1.00		0.00	0.00		1.00	0.92		1.00			
Lane Grp Cap(c), veh/h	580	3741	0	0	2925		135	0	119			
V/C Ratio(X)	0.27	0.19	0.00	0.00	0.26		0.59	0.00	0.10			
Avail Cap(c_a), veh/h	700	3741	0	0	2925		266	0	236			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	4.1	0.0	0.0	0.0	8.3	0.0	40.0	0.0	38.4			
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.2	0.0	4.0	0.0	0.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	1.0	0.1	0.0	0.0	3.6	0.0	3.3	0.0	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.4	0.1	0.0	0.0	8.5	0.0	44.0	0.0	38.8			
LnGrp LOS	A	A	A	A	A		D	A	D			
Approach Vol, veh/h		876			774			91				
Approach Delay, s/veh		0.9			8.5			43.3				
Approach LOS		A			A			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			14.6	61.4		14.0				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		62.2			14.2	41.2		14.2				
Max Q Clear Time (g_c+I1), s		2.0			4.6	8.8		6.1				
Green Ext Time (p_c), s		5.3			0.3	5.5		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] 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)	145	670	0	0	635	70	60	5	10	0	0	0
Future Volume (veh/h)	145	670	0	0	635	70	60	5	10	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q, 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				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	156	720	0	0	774	0	73	6	12			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Opposing Right Turn Influence	Yes			No			Yes					
Cap, veh/h	580	3741	0	0	2925		124	10	119			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.17	1.00	0.00	0.00	0.61	0.00	0.08	0.08	0.08			
Unsig. Movement Delay												
Ln Grp Delay, s/veh	4.4	0.1	0.0	0.0	8.5	0.0	44.0	0.0	38.8			
Ln Grp LOS	A	A	A	A	A		D	A	D			
Approach Vol, veh/h		876			774			91				
Approach Delay, s/veh		0.9			8.5			43.3				
Approach LOS		A			A			D				

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8		5	6		
Case No		4.0	11.0		1.2	7.0		
Phs Duration (G+Y+Rc), s		76.0	14.0		14.6	61.4		
Change Period (Y+Rc), s		6.8	6.8		6.8	6.8		
Max Green (Gmax), s		62.2	14.2		14.2	41.2		
Max Allow Headway (MAH), s		4.9	5.2		3.7	4.9		
Max Q Clear (g_c+I1), s		2.0	6.1		4.6	8.8		
Green Ext Time (g_e), s		5.3	0.2		0.3	5.5		
Prob of Phs Call (p_c)		1.00	0.90		0.98	1.00		
Prob of Max Out (p_x)		0.00	0.11		0.00	0.00		

Left-Turn Movement Data								
Assigned Mvmt			3		5	1		
Mvmt Sat Flow, veh/h			1560		1697	0		

Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		5024	128			4982		

Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		0	1497			1497		

Left Lane Group Data								
Assigned Mvmt	0	0	3	0	5	1	0	0
Lane Assignment			L+T		L (Pr/Pm)			

Lanes in Grp	0	0	1	0	1	0	0	0
Grp Vol (v), veh/h	0	0	79	0	156	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1689	0	1697	0	0	0
Q Serve Time (g_s), s	0.0	0.0	4.1	0.0	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	4.1	0.0	2.6	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	663	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	56.6	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	47.8	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	54.6	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.92	0.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	135	0	580	0	0	0
V/C Ratio (X)	0.00	0.00	0.59	0.00	0.27	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	266	0	700	0	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.98	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	40.0	0.0	4.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	4.0	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.0	44.0	0.0	4.4	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	1.7	0.0	0.5	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	1.80	0.00	1.80	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	3.3	0.0	1.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.11	0.00	0.07	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	720	0	0	0	774	0	0
Grp Sat Flow (s), veh/h/ln	0	1621	0	0	0	1608	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	3741	0	0	0	2925	0	0
V/C Ratio (X)	0.00	0.19	0.00	0.00	0.00	0.26	0.00	0.00
Avail Cap (c_a), veh/h	0	3741	0	0	0	2925	0	0
Upstream Filter (I)	0.00	0.98	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	8.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	8.5	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	3.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment			R			R		
Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	12	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1497	0	0	1497	0	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	119	0	0	908	0	0
V/C Ratio (X)	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	236	0	0	908	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	38.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.4	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
Control Delay (d), s/veh	0.0	0.0	38.8	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.5
HCM 6th LOS	A

Notes

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

Intersection	
Int Delay, s/veh	1.2

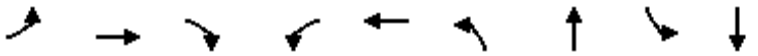
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	1325	30	40	1355	20	15	5	30	20	5	30
Future Vol, veh/h	75	1325	30	40	1355	20	15	5	30	20	5	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	-	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	86	86	86	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	0	0	0
Mvmt Flow	81	1425	32	47	1576	23	19	6	38	25	6	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1576	0	0	1457	0	0	2330	3273	729	2405	3289	-
Stage 1	-	-	-	-	-	-	1603	1603	-	1670	1670	-
Stage 2	-	-	-	-	-	-	727	1670	-	735	1619	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.4	6.5	7.1	6.4	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.8	4	3.9	3.8	4	-
Pot Cap-1 Maneuver	204	-	-	234	-	0	40	9	317	36	9	0
Stage 1	-	-	-	-	-	0	76	167	-	68	154	0
Stage 2	-	-	-	-	-	0	351	154	-	347	164	0
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	204	-	-	234	-	-	-	~ 4	317	-	~ 4	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 4	-	-	~ 4	-
Stage 1	-	-	-	-	-	-	46	101	-	41	123	-
Stage 2	-	-	-	-	-	-	266	123	-	173	99	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.8	0.7		
HCM LOS			-	-

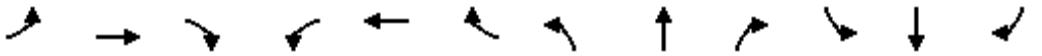
Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	4	317	204	-	-	234	-	-	4	-
HCM Lane V/C Ratio	-	1.563	0.118	0.395	-	-	0.199	-	-	1.563	-
HCM Control Delay (s)	-	$ 1837.1	17.9	33.7	-	-	24.2	-	-	$ 1837.1	0
HCM Lane LOS	-	F	C	D	-	-	C	-	-	F	A
HCM 95th %tile Q(veh)	-	1.7	0.4	1.8	-	-	0.7	-	-	1.7	-

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4			8		2		6
Permitted Phases	4		4	8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	78.0	78.0	78.0	78.0	78.0	27.0	27.0	27.0	27.0
Total Split (%)	74.3%	74.3%	74.3%	74.3%	74.3%	25.7%	25.7%	25.7%	25.7%
Maximum Green (s)	73.5	73.5	73.5	73.5	73.5	22.5	22.5	22.5	22.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	64.8	64.8	64.8	64.8	64.8	31.2	31.2	31.2	31.2
90th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord
70th %ile Green (s)	57.6	57.6	57.6	57.6	57.6	38.4	38.4	38.4	38.4
70th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord
50th %ile Green (s)	52.7	52.7	52.7	52.7	52.7	43.3	43.3	43.3	43.3
50th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord
30th %ile Green (s)	48.1	48.1	48.1	48.1	48.1	47.9	47.9	47.9	47.9
30th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord
10th %ile Green (s)	41.2	41.2	41.2	41.2	41.2	54.8	54.8	54.8	54.8
10th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1260	95	45	1360	45	35	5	35	30	5	20
Future Volume (veh/h)	20	1260	95	45	1360	45	35	5	35	30	5	20
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	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	22	1370	103	51	1528	51	44	6	44	38	6	25
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	4	4	4
Cap, veh/h	203	2377	738	175	2362	79	342	59	309	681	140	582
Arrive On Green	0.47	0.47	0.47	0.93	0.93	0.93	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	324	5106	1585	396	5075	169	650	132	688	1333	311	1296
Grp Volume(v), veh/h	22	1370	103	51	1025	554	94	0	0	38	0	31
Grp Sat Flow(s),veh/h/ln	324	1702	1585	396	1702	1840	1470	0	0	1333	0	1607
Q Serve(g_s), s	4.5	20.6	3.9	8.4	5.5	5.5	1.3	0.0	0.0	0.0	0.0	1.1
Cycle Q Clear(g_c), s	10.0	20.6	3.9	29.0	5.5	5.5	3.6	0.0	0.0	1.3	0.0	1.1
Prop In Lane	1.00		1.00	1.00		0.09	0.47		0.47	1.00		0.81
Lane Grp Cap(c), veh/h	203	2377	738	175	1584	856	710	0	0	681	0	721
V/C Ratio(X)	0.11	0.58	0.14	0.29	0.65	0.65	0.13	0.00	0.00	0.06	0.00	0.04
Avail Cap(c_a), veh/h	279	3574	1110	268	2383	1288	710	0	0	681	0	721
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.53	0.53	0.53	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	20.5	16.0	9.3	2.1	2.1	16.9	0.0	0.0	16.3	0.0	16.3
Incr Delay (d2), s/veh	0.2	0.2	0.1	0.5	0.2	0.4	0.4	0.0	0.0	0.2	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(95%),veh/ln	0.6	12.6	2.5	1.0	1.7	1.9	2.5	0.0	0.0	1.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.6	20.7	16.1	9.8	2.4	2.6	17.3	0.0	0.0	16.5	0.0	16.4
LnGrp LOS	B	C	B	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1495			1630			94			69	
Approach Delay, s/veh		20.4			2.7			17.3			16.4	
Approach LOS		C			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		51.6		53.4		51.6		53.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		22.5		73.5		22.5		73.5				
Max Q Clear Time (g_c+I1), s		5.6		22.6		3.3		31.0				
Green Ext Time (p_c), s		0.4		16.3		0.2		17.9				

Intersection Summary												
HCM 6th Ctrl Delay			11.4									
HCM 6th LOS			B									

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1260	95	45	1360	45	35	5	35	30	5	20
Future Volume (veh/h)	20	1260	95	45	1360	45	35	5	35	30	5	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	22	1370	103	51	1528	51	44	6	44	38	6	25
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	4	4	4
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	203	2377	738	175	2362	79	342	59	309	681	140	582
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.47	0.47	0.47	0.93	0.93	0.93	0.45	0.45	0.45	0.45	0.45	0.45
Unsig. Movement Delay												
Ln Grp Delay, s/veh	19.6	20.7	16.1	9.8	2.4	2.6	17.3	0.0	0.0	16.5	0.0	16.4
Ln Grp LOS	B	C	B	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1495			1630			94			69	
Approach Delay, s/veh		20.4			2.7			17.3			16.4	
Approach LOS		C			A			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		5.0		6.0		6.0
Phs Duration (G+Y+Rc), s		51.6		53.4		51.6		53.4
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		22.5		73.5		22.5		73.5
Max Allow Headway (MAH), s		5.4		5.3		4.6		5.4
Max Q Clear (g_c+I1), s		5.6		22.6		3.3		31.0
Green Ext Time (g_e), s		0.4		16.3		0.2		17.9
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.06		0.00		0.20

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		650		324		1333		396

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		132		5106		311		5075

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		688		1585		1296		169

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L		L		L

Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	94	0	22	0	38	0	51
Grp Sat Flow (s), veh/h/ln	0	1470	0	324	0	1333	0	396
Q Serve Time (g_s), s	0.0	1.3	0.0	4.5	0.0	0.0	0.0	8.4
Cycle Q Clear Time (g_c), s	0.0	3.6	0.0	10.0	0.0	1.3	0.0	29.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1400	0	324	0	1333	0	396
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	1753	0	0
Perm LT Eff Green (g_p), s	0.0	47.1	0.0	48.9	0.0	47.1	0.0	48.9
Perm LT Serve Time (g_u), s	0.0	46.0	0.0	43.4	0.0	43.5	0.0	28.3
Perm LT Q Serve Time (g_ps), s	0.0	1.3	0.0	4.5	0.0	0.0	0.0	8.4
Time to First Blk (g_f), s	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.47	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	710	0	203	0	681	0	175
V/C Ratio (X)	0.00	0.13	0.00	0.11	0.00	0.06	0.00	0.29
Avail Cap (c_a), veh/h	0	710	0	279	0	681	0	268
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.53
Uniform Delay (d1), s/veh	0.0	16.9	0.0	19.4	0.0	16.3	0.0	9.3
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.2	0.0	0.2	0.0	0.5
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.3	0.0	19.6	0.0	16.5	0.0	9.8
1st-Term Q (Q1), veh/ln	0.0	1.3	0.0	0.3	0.0	0.5	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	2.5	0.0	0.6	0.0	1.0	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.09	0.00	0.25	0.00	0.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	3	0	0	0	2
Grp Vol (v), veh/h	0	0	0	1370	0	0	0	1025
Grp Sat Flow (s), veh/h/ln	0	0	0	1702	0	0	0	1702
Q Serve Time (g_s), s	0.0	0.0	0.0	20.6	0.0	0.0	0.0	5.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	20.6	0.0	0.0	0.0	5.5
Lane Grp Cap (c), veh/h	0	0	0	2377	0	0	0	1584
V/C Ratio (X)	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.65
Avail Cap (c_a), veh/h	0	0	0	3574	0	0	0	2383
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.53
Uniform Delay (d1), s/veh	0.0	0.0	0.0	20.5	0.0	0.0	0.0	2.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	20.7	0.0	0.0	0.0	2.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.58	0.00	1.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	12.6	0.0	0.0	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.48	0.00	0.00	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				R		T+R		T+R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	103	0	31	0	554
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1607	0	1840
Q Serve Time (g_s), s	0.0	0.0	0.0	3.9	0.0	1.1	0.0	5.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.9	0.0	1.1	0.0	5.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	1.00	0.00	0.81	0.00	0.09
Lane Grp Cap (c), veh/h	0	0	0	738	0	721	0	856
V/C Ratio (X)	0.00	0.00	0.00	0.14	0.00	0.04	0.00	0.65
Avail Cap (c_a), veh/h	0	0	0	1110	0	721	0	1288
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.53
Uniform Delay (d1), s/veh	0.0	0.0	0.0	16.0	0.0	16.3	0.0	2.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	16.1	0.0	16.4	0.0	2.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.4	0.0	0.4	0.0	0.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	2.5	0.0	0.8	0.0	1.9
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.32	0.00	0.03	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

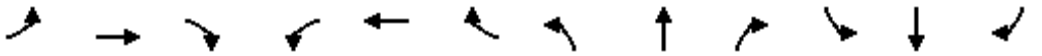
Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	5	2	3	1	6	7	3	8	7	4	5
Permitted Phases			2	6		6					4
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	9.5	9.5	16.8	9.5	9.5	11.5	9.5	11.5	11.0
Total Split (s)	18.0	33.0	36.0	12.0	27.0	17.0	36.0	43.0	17.0	24.0	18.0
Total Split (%)	17.1%	31.4%	34.3%	11.4%	25.7%	16.2%	34.3%	41.0%	16.2%	22.9%	17.1%
Maximum Green (s)	12.0	26.2	31.5	7.5	20.2	12.5	31.5	36.5	12.5	17.5	12.0
Yellow Time (s)	4.0	4.8	3.5	3.5	4.8	3.5	3.5	4.5	3.5	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	None	Max	None
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
90th %ile Green (s)	12.0	26.2	31.5	7.5	20.2	12.5	31.5	36.5	12.5	17.5	12.0
90th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	Max	MaxR	Max
70th %ile Green (s)	12.0	26.2	31.5	7.5	20.2	12.5	31.5	36.5	12.5	17.5	12.0
70th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	Max	MaxR	Max
50th %ile Green (s)	12.0	26.2	31.5	7.5	20.2	12.5	31.5	36.5	12.5	17.5	12.0
50th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	Max	MaxR	Max
30th %ile Green (s)	12.0	26.2	31.5	7.5	20.2	12.5	31.5	36.5	12.5	17.5	12.0
30th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	Max	MaxR	Max
10th %ile Green (s)	12.0	26.2	31.4	7.5	20.2	12.5	31.4	36.5	12.5	17.6	12.0
10th %ile Term Code	Max	Coord	Gap	Max	Coord	Max	Gap	MaxR	Max	MaxR	Max

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	500	525	125	525	400	625	950	150	300	600	300
Future Volume (veh/h)	300	500	525	125	525	400	625	950	150	300	600	300
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	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	345	575	603	145	610	465	992	1508	238	357	714	357
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Cap, veh/h	392	1264	861	262	975	490	1045	1571	247	408	855	445
Arrive On Green	0.04	0.08	0.08	0.12	0.32	0.32	0.30	0.35	0.35	0.12	0.17	0.17
Sat Flow, veh/h	3428	5066	1572	1767	5066	1572	3510	4518	712	3428	5066	1572
Grp Volume(v), veh/h	345	575	603	145	610	465	992	1153	593	357	714	357
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1767	1689	1572	1755	1729	1772	1714	1689	1572
Q Serve(g_s), s	10.5	11.4	25.5	7.0	10.7	20.2	29.0	34.3	34.4	10.8	14.3	17.7
Cycle Q Clear(g_c), s	10.5	11.4	25.5	7.0	10.7	20.2	29.0	34.3	34.4	10.8	14.3	17.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	392	1264	861	262	975	490	1045	1202	616	408	855	445
V/C Ratio(X)	0.88	0.45	0.70	0.55	0.63	0.95	0.95	0.96	0.96	0.87	0.83	0.80
Avail Cap(c_a), veh/h	392	1264	861	262	975	490	1053	1202	616	408	855	445
HCM Platoon Ratio	0.33	0.33	0.33	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.97	0.97	0.97	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.8	41.4	20.2	29.6	32.4	30.6	36.1	33.5	33.6	45.5	42.2	34.9
Incr Delay (d2), s/veh	17.5	1.0	4.0	2.5	2.9	29.3	16.8	17.9	28.0	18.6	9.4	14.1
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(95%),veh/ln	9.2	8.5	16.3	5.1	7.3	20.1	20.3	23.0	25.6	9.3	10.7	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	42.4	24.2	32.1	35.4	59.9	52.9	51.4	61.6	64.1	51.6	49.0
LnGrp LOS	E	D	C	C	D	E	D	D	E	E	D	D
Approach Vol, veh/h		1523			1220			2738			1428	
Approach Delay, s/veh		40.8			44.3			54.2			54.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	33.0	35.8	24.2	18.0	27.0	17.0	43.0
Change Period (Y+Rc), s	4.5	6.8	4.5	6.5	6.0	6.8	4.5	6.5
Max Green Setting (Gmax), s	7.5	26.2	31.5	17.5	12.0	20.2	12.5	36.5
Max Q Clear Time (g_c+I1), s	9.0	27.5	31.0	19.7	12.5	22.2	12.8	36.4
Green Ext Time (p_c), s	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	500	525	125	525	400	625	950	150	300	600	300
Future Volume (veh/h)	300	500	525	125	525	400	625	950	150	300	600	300
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	345	575	603	145	610	465	992	1508	238	357	714	357
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	392	1264	861	262	975	490	1045	1571	247	408	855	445
HCM Platoon Ratio	0.33	0.33	0.33	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.08	0.08	0.12	0.32	0.32	0.30	0.35	0.35	0.12	0.17	0.17
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.3	42.4	24.2	32.1	35.4	59.9	52.9	51.4	61.6	64.1	51.6	49.0
Ln Grp LOS	E	D	C	C	D	E	D	D	E	E	D	D
Approach Vol, veh/h		1523			1220			2738			1428	
Approach Delay, s/veh		40.8			44.3			54.2			54.1	
Approach LOS		D			D			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	1.1	3.0	2.0	3.0	2.0	3.0	2.0	4.0
Phs Duration (G+Y+Rc), s	12.0	33.0	35.8	24.2	18.0	27.0	17.0	43.0
Change Period (Y+Rc), s	4.5	6.8	4.5	6.5	6.0	6.8	4.5	6.5
Max Green (Gmax), s	7.5	26.2	31.5	17.5	12.0	20.2	12.5	36.5
Max Allow Headway (MAH), s	3.7	4.4	3.7	4.7	3.7	4.5	3.7	4.9
Max Q Clear (g_c+I1), s	9.0	27.5	31.0	19.7	12.5	22.2	12.8	36.4
Green Ext Time (g_e), s	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1
Prob of Phs Call (p_c)	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1767		3510		3428		3428	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		5066		5066		5066		4518

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1572		1572		1572		712

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Pr/Pm)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	145	0	992	0	345	0	357	0
Grp Sat Flow (s), veh/h/ln	1767	0	1755	0	1714	0	1714	0
Q Serve Time (g_s), s	7.0	0.0	29.0	0.0	10.5	0.0	10.8	0.0
Cycle Q Clear Time (g_c), s	7.0	0.0	29.0	0.0	10.5	0.0	10.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	472	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	20.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	14.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	262	0	1045	0	392	0	408	0
V/C Ratio (X)	0.55	0.00	0.95	0.00	0.88	0.00	0.87	0.00
Avail Cap (c_a), veh/h	262	0	1053	0	392	0	408	0
Upstream Filter (I)	0.97	0.00	1.00	0.00	0.84	0.00	1.00	0.00
Uniform Delay (d1), s/veh	29.6	0.0	36.1	0.0	49.8	0.0	45.5	0.0
Incr Delay (d2), s/veh	2.5	0.0	16.8	0.0	17.5	0.0	18.6	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	32.1	0.0	52.9	0.0	67.3	0.0	64.1	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	11.7	0.0	4.7	0.0	4.4	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	2.4	0.0	0.9	0.0	1.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.44	0.00	1.63	0.00	1.70	0.00
%ile Back of Q (95%), veh/ln	5.1	0.0	20.3	0.0	9.2	0.0	9.3	0.0
%ile Storage Ratio (RQ%)	1.05	0.00	4.06	0.00	1.57	0.00	2.39	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	3	0	3	0	3	0	2
Grp Vol (v), veh/h	0	575	0	714	0	610	0	1153
Grp Sat Flow (s), veh/h/ln	0	1689	0	1689	0	1689	0	1729
Q Serve Time (g_s), s	0.0	11.4	0.0	14.3	0.0	10.7	0.0	34.3
Cycle Q Clear Time (g_c), s	0.0	11.4	0.0	14.3	0.0	10.7	0.0	34.3
Lane Grp Cap (c), veh/h	0	1264	0	855	0	975	0	1202
V/C Ratio (X)	0.00	0.45	0.00	0.83	0.00	0.63	0.00	0.96
Avail Cap (c_a), veh/h	0	1264	0	855	0	975	0	1202
Upstream Filter (I)	0.00	0.84	0.00	1.00	0.00	0.97	0.00	1.00
Uniform Delay (d1), s/veh	0.0	41.4	0.0	42.2	0.0	32.4	0.0	33.5
Incr Delay (d2), s/veh	0.0	1.0	0.0	9.4	0.0	2.9	0.0	17.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	42.4	0.0	51.6	0.0	35.4	0.0	51.4
1st-Term Q (Q1), veh/ln	0.0	5.0	0.0	5.8	0.0	3.8	0.0	13.4
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.7	0.0	0.3	0.0	3.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.67	0.00	1.64	0.00	1.80	0.00	1.41
%ile Back of Q (95%), veh/ln	0.0	8.5	0.0	10.7	0.0	7.3	0.0	23.0
%ile Storage Ratio (RQ%)	0.00	0.09	0.00	0.34	0.00	0.11	0.00	0.51
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	603	0	357	0	465	0	593
Grp Sat Flow (s), veh/h/ln	0	1572	0	1572	0	1572	0	1772
Q Serve Time (g_s), s	0.0	25.5	0.0	17.7	0.0	20.2	0.0	34.4
Cycle Q Clear Time (g_c), s	0.0	25.5	0.0	17.7	0.0	20.2	0.0	34.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1572.5	0.0	1572.5	0.0	1572.5	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	31.3	0.0	12.0	0.0	12.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.40
Lane Grp Cap (c), veh/h	0	861	0	445	0	490	0	616
V/C Ratio (X)	0.00	0.70	0.00	0.80	0.00	0.95	0.00	0.96
Avail Cap (c_a), veh/h	0	861	0	445	0	490	0	616
Upstream Filter (I)	0.00	0.84	0.00	1.00	0.00	0.97	0.00	1.00
Uniform Delay (d1), s/veh	0.0	20.2	0.0	34.9	0.0	30.6	0.0	33.6
Incr Delay (d2), s/veh	0.0	4.0	0.0	14.1	0.0	29.3	0.0	28.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	24.2	0.0	49.0	0.0	59.9	0.0	61.6
1st-Term Q (Q1), veh/ln	0.0	10.3	0.0	8.0	0.0	10.0	0.0	13.8
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	1.7	0.0	4.0	0.0	4.8
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.45	0.00	1.53	0.00	1.43	0.00	1.38
%ile Back of Q (95%), veh/ln	0.0	16.3	0.0	14.9	0.0	20.1	0.0	25.6
%ile Storage Ratio (RQ%)	0.00	4.18	0.00	3.81	0.00	6.86	0.00	0.56
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Intersection	
Int Delay, s/veh	0.3

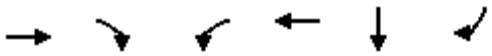
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	1645	1195	5
Future Vol, veh/h	5	5	5	1645	1195	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	82	82	92	92
Heavy Vehicles, %	0	0	1	1	3	3
Mvmt Flow	20	20	6	2006	1299	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2116	652	1304	0	-	0
Stage 1	1302	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Critical Hdwy	5.7	7.1	5.32	-	-	-
Critical Hdwy Stg 1	6.6	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-
Follow-up Hdwy	3.8	3.9	3.11	-	-	-
Pot Cap-1 Maneuver	*340	356	281	-	-	-
Stage 1	*160	-	-	-	-	-
Stage 2	*559	-	-	-	-	-
Platoon blocked, %	1			-	-	-
Mov Cap-1 Maneuver	*340	356	281	-	-	-
Mov Cap-2 Maneuver	*340	-	-	-	-	-
Stage 1	*160	-	-	-	-	-
Stage 2	*559	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.7	0.1	0
HCM LOS	C		

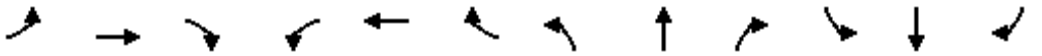
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	281	-	348	-	-
HCM Lane V/C Ratio	0.022	-	0.115	-	-
HCM Control Delay (s)	18.1	0	16.7	-	-
HCM Lane LOS	C	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

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



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	59.0	59.0	19.0	78.0	27.0	27.0
Total Split (%)	56.2%	56.2%	18.1%	74.3%	25.7%	25.7%
Maximum Green (s)	52.2	52.2	12.2	71.2	20.2	20.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	62.6	62.6	8.0	77.4	14.0	14.0
90th %ile Term Code	Coord	Coord	Min	Coord	Gap	Gap
70th %ile Green (s)	79.7	79.7	0.0	79.7	11.7	11.7
70th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
50th %ile Green (s)	81.3	81.3	0.0	81.3	10.1	10.1
50th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
30th %ile Green (s)	82.9	82.9	0.0	82.9	8.5	8.5
30th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
10th %ile Green (s)	85.2	85.2	0.0	85.2	6.2	6.2
10th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 14 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰	↑↑↑						↲	↱
Traffic Volume (veh/h)	0	640	310	5	970	0	0	0	0	65	5	80
Future Volume (veh/h)	0	640	310	5	970	0	0	0	0	65	5	80
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	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	703	341	5	1066	0				76	6	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Cap, veh/h	0	3694	1147	484	4137	0				101	8	
Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.06	0.06	0.00
Sat Flow, veh/h	0	5191	1560	1781	5274	0				1670	132	1598
Grp Volume(v), veh/h	0	703	341	5	1066	0				82	0	0
Grp Sat Flow(s),veh/h/ln	0	1675	1560	1781	1702	0				1802	0	1598
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0				4.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.1	0.0	0.0				4.7	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.93		1.00
Lane Grp Cap(c), veh/h	0	3694	1147	484	4137	0				109	0	
V/C Ratio(X)	0.00	0.19	0.30	0.01	0.26	0.00				0.76	0.00	
Avail Cap(c_a), veh/h	0	3694	1147	673	4137	0				347	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.75	0.75	0.95	0.95	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	2.9	0.0	0.0				48.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.5	0.0	0.1	0.0				10.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.1	0.3	0.0	0.1	0.0				4.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.1	0.5	2.9	0.1	0.0				58.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1044			1071						82	
Approach Delay, s/veh		0.2			0.2						58.7	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.9	84.0		13.1		91.9
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8
Max Green Setting (Gmax), s	12.2	52.2		20.2		71.2
Max Q Clear Time (g_c+I1), s	2.1	2.0		6.7		2.0
Green Ext Time (p_c), s	0.0	6.6		0.3		8.8

Intersection Summary	
HCM 6th Ctrl Delay	2.4
HCM 6th LOS	A

Notes

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)	0	640	310	5	970	0	0	0	0	65	5	80
Future Volume (veh/h)	0	640	310	5	970	0	0	0	0	65	5	80
Number	5	2	12	1	6	16				7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	703	341	5	1066	0				76	6	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	3694	1147	484	4137	0				101	8	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.06	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.1	0.5	2.9	0.1	0.0				58.7	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1044			1071						82	
Approach Delay, s/veh		0.2			0.2						58.7	
Approach LOS		A			A						E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		11.0		4.0		
Phs Duration (G+Y+Rc), s	7.9	84.0		13.1		91.9		
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8		
Max Green (Gmax), s	12.2	52.2		20.2		71.2		
Max Allow Headway (MAH), s	3.7	4.6		5.3		4.9		
Max Q Clear (g_c+I1), s	2.1	2.0		6.7		2.0		
Green Ext Time (g_e), s	0.0	6.6		0.3		8.8		
Prob of Phs Call (p_c)	0.14	1.00		0.91		1.00		
Prob of Max Out (p_x)	0.00	0.00		0.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1781	0		1670				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		5191		132		5274		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1560		1598		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	L (Pr/Pm)			L+T				

Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	5	0	0	82	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	0	1802	0	0	0	0
Q Serve Time (g_s), s	0.1	0.0	0.0	4.7	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	4.7	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	540	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	79.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	77.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	77.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	484	0	0	109	0	0	0	0
V/C Ratio (X)	0.01	0.00	0.00	0.76	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	673	0	0	347	0	0	0	0
Upstream Filter (I)	0.95	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	2.9	0.0	0.0	48.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	10.1	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
Control Delay (d), s/veh	2.9	0.0	0.0	58.7	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.00	0.00	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	703	0	0	0	1066	0	0
Grp Sat Flow (s), veh/h/ln	0	1675	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3694	0	0	0	4137	0	0
V/C Ratio (X)	0.00	0.19	0.00	0.00	0.00	0.26	0.00	0.00
Avail Cap (c_a), veh/h	0	3694	0	0	0	4137	0	0
Upstream Filter (I)	0.00	0.75	0.00	0.00	0.00	0.95	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	341	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1560	0	1598	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1147	0	96	0	0	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1147	0	307	0	0	0	0
Upstream Filter (I)	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	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
Control Delay (d), s/veh	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

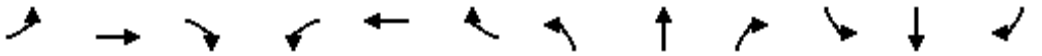
Intersection Summary	
HCM 6th Ctrl Delay	2.4
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	18.0	67.0	49.0	49.0	38.0	38.0
Total Split (%)	17.1%	63.8%	46.7%	46.7%	36.2%	36.2%
Maximum Green (s)	11.2	60.2	42.2	42.2	31.2	31.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	10.8	61.9	44.3	44.3	29.5	29.5
90th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
70th %ile Green (s)	9.0	66.1	50.3	50.3	25.3	25.3
70th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
50th %ile Green (s)	8.0	69.2	54.4	54.4	22.2	22.2
50th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
30th %ile Green (s)	8.0	72.3	57.5	57.5	19.1	19.1
30th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
10th %ile Green (s)	8.0	76.8	62.0	62.0	14.6	14.6
10th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	605	0	0	775	105	200	10	10	0	0	0
Future Volume (veh/h)	100	605	0	0	775	105	200	10	10	0	0	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	1826	1826	0	0	1856	1856	1796	1796	1796			
Adj Flow Rate, veh/h	111	672	0	0	861	0	260	13	13			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.77	0.77	0.77			
Percent Heavy Veh, %	5	5	0	0	3	3	7	7	7			
Cap, veh/h	480	3413	0	0	2769		303	15	283			
Arrive On Green	0.15	1.00	0.00	0.00	0.55	0.00	0.19	0.19	0.19			
Sat Flow, veh/h	1739	5149	0	0	5233	1572	1633	82	1522			
Grp Volume(v), veh/h	111	672	0	0	861	0	273	0	13			
Grp Sat Flow(s),veh/h/ln	1739	1662	0	0	1689	1572	1715	0	1522			
Q Serve(g_s), s	2.6	0.0	0.0	0.0	9.7	0.0	16.2	0.0	0.7			
Cycle Q Clear(g_c), s	2.6	0.0	0.0	0.0	9.7	0.0	16.2	0.0	0.7			
Prop In Lane	1.00		0.00	0.00		1.00	0.95		1.00			
Lane Grp Cap(c), veh/h	480	3413	0	0	2769		319	0	283			
V/C Ratio(X)	0.23	0.20	0.00	0.00	0.31		0.86	0.00	0.05			
Avail Cap(c_a), veh/h	538	3413	0	0	2769		509	0	452			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	7.5	0.0	0.0	0.0	13.0	0.0	41.4	0.0	35.1			
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.3	0.0	8.2	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			
%ile BackOfQ(95%),veh/ln	1.4	0.1	0.0	0.0	6.1	0.0	12.0	0.0	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.7	0.1	0.0	0.0	13.3	0.0	49.6	0.0	35.2			
LnGrp LOS	A	A	A	A	B		D	A	D			
Approach Vol, veh/h		783			861			286				
Approach Delay, s/veh		1.2			13.3			48.9				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		78.7			14.5	64.2		26.3				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		60.2			11.2	42.2		31.2				
Max Q Clear Time (g_c+I1), s		2.0			4.6	11.7		18.2				
Green Ext Time (p_c), s		4.8			0.1	6.1		1.3				

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] 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)	100	605	0	0	775	105	200	10	10	0	0	0
Future Volume (veh/h)	100	605	0	0	775	105	200	10	10	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q, 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				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1826	1826	0	0	1856	1856	1796	1796	1796			
Adj Flow Rate, veh/h	111	672	0	0	861	0	260	13	13			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.77	0.77	0.77			
Percent Heavy Veh, %	5	5	0	0	3	3	7	7	7			
Opposing Right Turn Influence	Yes			No			Yes					
Cap, veh/h	480	3413	0	0	2769		303	15	283			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.15	1.00	0.00	0.00	0.55	0.00	0.19	0.19	0.19			
Unsig. Movement Delay												
Ln Grp Delay, s/veh	7.7	0.1	0.0	0.0	13.3	0.0	49.6	0.0	35.2			
Ln Grp LOS	A	A	A	A	B		D	A	D			
Approach Vol, veh/h		783			861			286				
Approach Delay, s/veh		1.2			13.3			48.9				
Approach LOS		A			B			D				

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8		5	6		
Case No		4.0	11.0		1.2	7.0		
Phs Duration (G+Y+Rc), s		78.7	26.3		14.5	64.2		
Change Period (Y+Rc), s		6.8	6.8		6.8	6.8		
Max Green (Gmax), s		60.2	31.2		11.2	42.2		
Max Allow Headway (MAH), s		4.9	5.3		3.7	4.9		
Max Q Clear (g_c+I1), s		2.0	18.2		4.6	11.7		
Green Ext Time (g_e), s		4.8	1.3		0.1	6.1		
Prob of Phs Call (p_c)		1.00	1.00		0.96	1.00		
Prob of Max Out (p_x)		0.00	0.05		0.05	0.01		

Left-Turn Movement Data								
Assigned Mvmt			3		5	1		
Mvmt Sat Flow, veh/h			1633		1739	0		

Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		5149	82			5233		

Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		0	1522			1572		

Left Lane Group Data								
Assigned Mvmt	0	0	3	0	5	1	0	0
Lane Assignment			L+T		L (Pr/Pm)			

Lanes in Grp	0	0	1	0	1	0	0	0
Grp Vol (v), veh/h	0	0	273	0	111	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1715	0	1739	0	0	0
Q Serve Time (g_s), s	0.0	0.0	16.2	0.0	2.6	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	16.2	0.0	2.6	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	627	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	59.4	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	47.7	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	57.4	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.95	0.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	319	0	480	0	0	0
V/C Ratio (X)	0.00	0.00	0.86	0.00	0.23	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	509	0	538	0	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.99	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	41.4	0.0	7.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	8.2	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.0	49.6	0.0	7.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	6.8	0.0	0.8	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	1.60	0.00	1.80	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	12.0	0.0	1.4	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.41	0.00	0.10	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	672	0	0	0	861	0	0
Grp Sat Flow (s), veh/h/ln	0	1662	0	0	0	1689	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	9.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	9.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	3413	0	0	0	2769	0	0
V/C Ratio (X)	0.00	0.20	0.00	0.00	0.00	0.31	0.00	0.00
Avail Cap (c_a), veh/h	0	3413	0	0	0	2769	0	0
Upstream Filter (I)	0.00	0.99	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	13.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	6.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment			R			R		
Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	13	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1522	0	0	1572	0	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	283	0	0	860	0	0
V/C Ratio (X)	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	452	0	0	860	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	35.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	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
Control Delay (d), s/veh	0.0	0.0	35.2	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

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

APPENDIX D. TOTAL TRAFFIC OPERATIONAL ANALYSIS WORKSHEETS

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	5	658	5	10	598	5	15	5	15	10	5	40
Future Vol, veh/h	5	658	5	10	598	5	15	5	15	10	5	40
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	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	125	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	80	80	80	80	80	80
Heavy Vehicles, %	6	6	6	7	7	7	0	0	0	0	0	0
Mvmt Flow	6	793	6	11	687	6	19	6	19	13	6	50

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	687	0	0	799	0	0	1520	1517	400	1121	1520	-
Stage 1	-	-	-	-	-	-	808	808	-	709	709	-
Stage 2	-	-	-	-	-	-	712	709	-	412	811	-
Critical Hdwy	4.19	-	-	4.205	-	-	7.3	6.5	6.9	7.3	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.257	-	-	2.2665	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	882	-	-	795	-	0	90	120	605	174	120	0
Stage 1	-	-	-	-	-	0	345	397	-	428	440	0
Stage 2	-	-	-	-	-	0	427	440	-	593	396	0
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	882	-	-	795	-	-	85	117	605	159	117	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	117	-	159	117	-
Stage 1	-	-	-	-	-	-	343	394	-	425	434	-
Stage 2	-	-	-	-	-	-	415	434	-	562	393	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	35.4	32.2
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	85	117	605	882	-	-	795	-	159	117	-
HCM Lane V/C Ratio	0.221	0.053	0.031	0.007	-	-	0.014	-	0.079	0.053	-
HCM Control Delay (s)	59	37.5	11.1	9.1	-	-	9.6	-	29.6	37.5	0
HCM Lane LOS	F	E	B	A	-	-	A	-	D	E	A
HCM 95th %tile Q(veh)	0.8	0.2	0.1	0	-	-	0	-	0.3	0.2	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	678	10	5	568	15	30	5	40	25	5	10
Future Vol, veh/h	5	678	10	5	568	15	30	5	40	25	5	10
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	175	-	200	75	-	50	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	86	86	86	80	80	80	80	80	80
Heavy Vehicles, %	5	5	5	7	7	7	0	0	0	3	3	3
Mvmt Flow	6	762	11	6	660	17	38	6	50	31	6	13

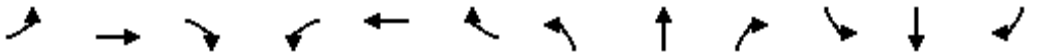
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	677	0	0	773	0	0	1464	1463	762	1480	1457	660
Stage 1	-	-	-	-	-	-	774	774	-	672	672	-
Stage 2	-	-	-	-	-	-	690	689	-	808	785	-
Critical Hdwy	4.15	-	-	4.17	-	-	7.1	6.5	6.2	7.13	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.13	5.53	-
Follow-up Hdwy	2.245	-	-	2.263	-	-	3.5	4	3.3	3.527	4.027	3.327
Pot Cap-1 Maneuver	901	-	-	820	-	-	107	130	408	103	129	461
Stage 1	-	-	-	-	-	-	394	411	-	444	453	-
Stage 2	-	-	-	-	-	-	439	450	-	373	402	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	901	-	-	820	-	-	99	128	408	86	127	461
Mov Cap-2 Maneuver	-	-	-	-	-	-	99	128	-	86	127	-
Stage 1	-	-	-	-	-	-	391	408	-	441	450	-
Stage 2	-	-	-	-	-	-	418	447	-	320	399	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	49.5	50.9
HCM LOS			E	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	170	901	-	-	820	-	-	86	246
HCM Lane V/C Ratio	0.551	0.006	-	-	0.007	-	-	0.363	0.076
HCM Control Delay (s)	49.5	9	-	-	9.4	-	-	69	20.8
HCM Lane LOS	E	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	2.8	0	-	-	0	-	-	1.4	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	5	2			6	7		8	7	4	5
Permitted Phases	2		2	6		6	8		4		4
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	16.8	16.8	16.8	9.5	11.5	11.5	9.5	11.5	11.0
Total Split (s)	15.0	51.5	51.5	36.5	36.5	27.0	11.5	11.5	27.0	38.5	15.0
Total Split (%)	16.7%	57.2%	57.2%	40.6%	40.6%	30.0%	12.8%	12.8%	30.0%	42.8%	16.7%
Maximum Green (s)	9.0	44.7	44.7	29.7	29.7	22.5	5.0	5.0	22.5	32.0	9.0
Yellow Time (s)	4.0	4.8	4.8	4.8	4.8	3.5	4.5	4.5	3.5	4.5	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lead/Lag	Lead			Lag	Lag	Lead	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	Max	Max	None	Max	None
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
90th %ile Green (s)	9.0	44.7	44.7	29.7	29.7	22.5	5.0	5.0	22.5	32.0	9.0
90th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max
70th %ile Green (s)	9.0	44.7	44.7	29.7	29.7	22.5	5.0	5.0	22.5	32.0	9.0
70th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max
50th %ile Green (s)	9.0	44.7	44.7	29.7	29.7	22.5	5.0	5.0	22.5	32.0	9.0
50th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max
30th %ile Green (s)	9.0	44.7	44.7	29.7	29.7	22.5	5.0	5.0	22.5	32.0	9.0
30th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max
10th %ile Green (s)	9.0	44.7	44.7	29.7	29.7	22.5	5.0	5.0	22.5	32.0	9.0
10th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max

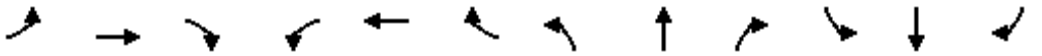
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	654	15	5	460	315	35	40	25	507	10	148
Future Volume (veh/h)	275	654	15	5	460	315	35	40	25	507	10	148
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	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	316	752	17	6	561	384	49	56	35	604	12	176
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Cap, veh/h	258	892	756	168	578	861	147	60	38	524	654	711
Arrive On Green	0.10	0.50	0.50	0.22	0.22	0.22	0.06	0.06	0.06	0.25	0.36	0.36
Sat Flow, veh/h	1711	1796	1522	655	1752	1485	1205	1085	678	1753	1841	1560
Grp Volume(v), veh/h	316	752	17	6	561	384	49	0	91	604	12	176
Grp Sat Flow(s),veh/h/ln	1711	1796	1522	655	1752	1485	1205	0	1763	1753	1841	1560
Q Serve(g_s), s	9.0	32.6	0.5	0.8	28.6	13.7	3.6	0.0	4.6	22.5	0.4	6.2
Cycle Q Clear(g_c), s	9.0	32.6	0.5	18.4	28.6	13.7	3.6	0.0	4.6	22.5	0.4	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	258	892	756	168	578	861	147	0	98	524	654	711
V/C Ratio(X)	1.22	0.84	0.02	0.04	0.97	0.45	0.33	0.00	0.93	1.15	0.02	0.25
Avail Cap(c_a), veh/h	258	892	756	168	578	861	147	0	98	524	654	711
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	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	0.91	0.91	0.91
Uniform Delay (d), s/veh	22.3	19.6	11.5	38.7	34.6	12.6	41.8	0.0	42.3	29.7	18.8	15.0
Incr Delay (d2), s/veh	130.3	9.5	0.1	0.4	30.8	1.7	6.0	0.0	73.1	87.6	0.0	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(95%),veh/ln	19.6	20.2	0.3	0.3	23.9	8.4	2.3	0.0	7.0	32.8	0.3	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	152.7	29.1	11.6	39.1	65.4	14.3	47.8	0.0	115.4	117.3	18.9	15.8
LnGrp LOS	F	C	B	D	E	B	D	A	F	F	B	B
Approach Vol, veh/h		1085			951			140			792	
Approach Delay, s/veh		64.8			44.6			91.8			93.3	
Approach LOS		E			D			F			F	

Timer - Assigned Phs		2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s		51.5		38.5	15.0	36.5	27.0	11.5				
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8	4.5	6.5				
Max Green Setting (Gmax), s		44.7		32.0	9.0	29.7	22.5	5.0				
Max Q Clear Time (g_c+I1), s		34.6		8.2	11.0	30.6	24.5	6.6				
Green Ext Time (p_c), s		3.5		0.6	0.0	0.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			67.2									
HCM 6th LOS			E									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	654	15	5	460	315	35	40	25	507	10	148
Future Volume (veh/h)	275	654	15	5	460	315	35	40	25	507	10	148
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	316	752	17	6	561	384	49	56	35	604	12	176
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	258	892	756	168	578	861	147	60	38	524	654	711
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.10	0.50	0.50	0.22	0.22	0.22	0.06	0.06	0.06	0.25	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	152.7	29.1	11.6	39.1	65.4	14.3	47.8	0.0	115.4	117.3	18.9	15.8
Ln Grp LOS	F	C	B	D	E	B	D	A	F	F	B	B
Approach Vol, veh/h		1085			951			140			792	
Approach Delay, s/veh		64.8			44.6			91.8			93.3	
Approach LOS		E			D			F			F	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6	7	8
Case No		3.0		3.0	1.2	5.3	1.2	6.3
Phs Duration (G+Y+Rc), s		51.5		38.5	15.0	36.5	27.0	11.5
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8	4.5	6.5
Max Green (Gmax), s		44.7		32.0	9.0	29.7	22.5	5.0
Max Allow Headway (MAH), s		4.9		4.0	3.7	4.6	3.7	4.7
Max Q Clear (g_c+I1), s		34.6		8.2	11.0	30.6	24.5	6.6
Green Ext Time (g_e), s		3.5		0.6	0.0	0.0	0.0	0.0
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)		0.00		0.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt					5	1	7	3
Mvmt Sat Flow, veh/h					1711	655	1753	1205

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1796		1841		1752		1085

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1522		1560		1485		678

Left Lane Group Data								
Assigned Mvmt	0	0	0	0	5	1	7	3
Lane Assignment				L (Pr/Pm)		LL (Pr/Pm)		L

Lanes in Grp	0	0	0	0	1	1	1	1
Grp Vol (v), veh/h	0	0	0	0	316	6	604	49
Grp Sat Flow (s), veh/h/ln	0	0	0	0	1711	655	1753	1205
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	9.0	0.8	22.5	3.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	9.0	18.4	22.5	3.6
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	570	655	1285	1205
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	31.7	29.7	7.0	5.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	1.1	12.1	0.4	5.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	1.1	0.8	0.4	3.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	0	258	168	524	147
V/C Ratio (X)	0.00	0.00	0.00	0.00	1.22	0.04	1.15	0.33
Avail Cap (c_a), veh/h	0	0	0	0	258	168	524	147
Upstream Filter (I)	0.00	0.00	0.00	0.00	1.00	1.00	0.91	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	22.3	38.7	29.7	41.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	130.3	0.4	87.6	6.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	152.7	39.1	117.3	47.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	3.1	0.1	10.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	9.3	0.0	12.7	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	0.00	1.58	1.80	1.44	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	19.6	0.3	32.8	2.3
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	3.45	0.06	8.46	0.46
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	14.5	0.0	20.1	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		
Lanes in Grp	0	1	0	1	0	1	0	0
Grp Vol (v), veh/h	0	752	0	12	0	561	0	0
Grp Sat Flow (s), veh/h/ln	0	1796	0	1841	0	1752	0	0
Q Serve Time (g_s), s	0.0	32.6	0.0	0.4	0.0	28.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	32.6	0.0	0.4	0.0	28.6	0.0	0.0
Lane Grp Cap (c), veh/h	0	892	0	654	0	578	0	0
V/C Ratio (X)	0.00	0.84	0.00	0.02	0.00	0.97	0.00	0.00
Avail Cap (c_a), veh/h	0	892	0	654	0	578	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.91	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	19.6	0.0	18.8	0.0	34.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	9.5	0.0	0.0	0.0	30.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	29.1	0.0	18.9	0.0	65.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	11.7	0.0	0.2	0.0	12.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	2.4	0.0	0.0	0.0	4.9	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.44	0.00	1.80	0.00	1.40	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	20.2	0.0	0.3	0.0	23.9	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.21	0.00	0.02	0.00	1.96	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	17	0	176	0	384	0	91
Grp Sat Flow (s), veh/h/ln	0	1522	0	1560	0	1485	0	1763
Q Serve Time (g_s), s	0.0	0.5	0.0	6.2	0.0	13.7	0.0	4.6
Cycle Q Clear Time (g_c), s	0.0	0.5	0.0	6.2	0.0	13.7	0.0	4.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1559.9	0.0	1484.6	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	9.0	0.0	22.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.38
Lane Grp Cap (c), veh/h	0	756	0	711	0	861	0	98
V/C Ratio (X)	0.00	0.02	0.00	0.25	0.00	0.45	0.00	0.93
Avail Cap (c_a), veh/h	0	756	0	711	0	861	0	98
Upstream Filter (I)	0.00	1.00	0.00	0.91	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	11.5	0.0	15.0	0.0	12.6	0.0	42.3
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.8	0.0	1.7	0.0	73.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.6	0.0	15.8	0.0	14.3	0.0	115.4
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	2.0	0.0	4.4	0.0	1.9
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.4	0.0	2.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.75	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.3	0.0	3.9	0.0	8.4	0.0	7.0
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	1.00	0.00	3.03	0.00	0.15
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	67.2
HCM 6th LOS	E

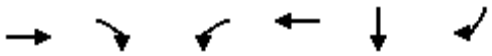
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	538	554	5
Future Vol, veh/h	5	5	5	538	554	5
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	80	91	92
Heavy Vehicles, %	2	2	2	5	4	2
Mvmt Flow	5	5	5	673	609	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1295	612	614	0	-	0
Stage 1	612	-	-	-	-	-
Stage 2	683	-	-	-	-	-
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	179	493	965	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	178	493	965	-	-	-
Mov Cap-2 Maneuver	178	-	-	-	-	-
Stage 1	538	-	-	-	-	-
Stage 2	502	-	-	-	-	-

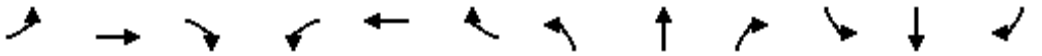
Approach	EB	NB	SB
HCM Control Delay, s	19.3	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	965	-	262	-	-
HCM Lane V/C Ratio	0.006	-	0.041	-	-
HCM Control Delay (s)	8.8	-	19.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	62.0	62.0	15.0	77.0	13.0	13.0
Total Split (%)	68.9%	68.9%	16.7%	85.6%	14.4%	14.4%
Maximum Green (s)	55.2	55.2	8.2	70.2	6.2	6.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	55.4	55.4	8.0	70.2	6.2	6.2
90th %ile Term Code	Coord	Coord	Min	Coord	Max	Max
70th %ile Green (s)	70.2	70.2	0.0	70.2	6.2	6.2
70th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
50th %ile Green (s)	70.2	70.2	0.0	70.2	6.2	6.2
50th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
30th %ile Green (s)	70.2	70.2	0.0	70.2	6.2	6.2
30th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
10th %ile Green (s)	83.2	83.2	0.0	83.2	0.0	0.0
10th %ile Term Code	Coord	Coord	Skip	Coord	Skip	Skip

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



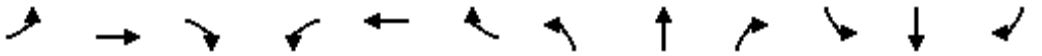
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	857	248	10	627	0	0	0	0	45	5	37
Future Volume (veh/h)	0	857	248	10	627	0	0	0	0	45	5	37
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking 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	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	963	279	12	746	0				62	7	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Cap, veh/h	0	1262	1069	428	1464	0				77	9	
Arrive On Green	0.00	1.00	1.00	0.05	1.00	0.00				0.05	0.05	0.00
Sat Flow, veh/h	0	1811	1535	1753	1841	0				1430	161	1409
Grp Volume(v), veh/h	0	963	279	12	746	0				69	0	0
Grp Sat Flow(s),veh/h/ln	0	1811	1535	1753	1841	0				1591	0	1409
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0				3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.2	0.0	0.0				3.9	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.90		1.00
Lane Grp Cap(c), veh/h	0	1262	1069	428	1464	0				85	0	
V/C Ratio(X)	0.00	0.76	0.26	0.03	0.51	0.00				0.81	0.00	
Avail Cap(c_a), veh/h	0	1262	1069	547	1464	0				110	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.44	0.44	0.76	0.76	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	3.0	0.0	0.0				42.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.0	0.3	0.0	1.0	0.0				28.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	1.3	0.1	0.1	0.7	0.0				3.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	2.0	0.3	3.0	1.0	0.0				70.4	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1242			758						69	
Approach Delay, s/veh		1.6			1.0						70.4	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	8.9	69.5		11.6		78.4
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8
Max Green Setting (Gmax), s	8.2	55.2		6.2		70.2
Max Q Clear Time (g_c+I1), s	2.2	2.0		5.9		2.0
Green Ext Time (p_c), s	0.0	10.5		0.0		5.7

Intersection Summary	
HCM 6th Ctrl Delay	3.7
HCM 6th LOS	A

Notes

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)	0	857	248	10	627	0	0	0	0	45	5	37
Future Volume (veh/h)	0	857	248	10	627	0	0	0	0	45	5	37
Number	5	2	12	1	6	16				7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	963	279	12	746	0				62	7	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	1262	1069	428	1464	0				77	9	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	1.00	1.00	0.05	1.00	0.00				0.05	0.05	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	2.0	0.3	3.0	1.0	0.0				70.4	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1242			758						69	
Approach Delay, s/veh		1.6			1.0						70.4	
Approach LOS		A			A						E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		11.0		4.0		
Phs Duration (G+Y+Rc), s	8.9	69.5		11.6		78.4		
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8		
Max Green (Gmax), s	8.2	55.2		6.2		70.2		
Max Allow Headway (MAH), s	3.7	4.7		5.4		4.9		
Max Q Clear (g_c+I1), s	2.2	2.0		5.9		2.0		
Green Ext Time (g_e), s	0.0	10.5		0.0		5.7		
Prob of Phs Call (p_c)	0.26	1.00		0.82		1.00		
Prob of Max Out (p_x)	0.01	0.00		1.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1753	0		1430				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1811		161		1841		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1535		1409		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	L (Pr/Pm)			L+T				

Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	12	0	0	69	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1753	0	0	1591	0	0	0	0
Q Serve Time (g_s), s	0.2	0.0	0.0	3.9	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.2	0.0	0.0	3.9	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	441	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	64.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	62.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	62.7	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.90	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	428	0	0	85	0	0	0	0
V/C Ratio (X)	0.03	0.00	0.00	0.81	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	547	0	0	110	0	0	0	0
Upstream Filter (I)	0.76	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.0	0.0	0.0	42.1	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	28.2	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
Control Delay (d), s/veh	3.0	0.0	0.0	70.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.00	0.00	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.1	0.0	0.0	3.9	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	963	0	0	0	746	0	0
Grp Sat Flow (s), veh/h/ln	0	1811	0	0	0	1841	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1262	0	0	0	1464	0	0
V/C Ratio (X)	0.00	0.76	0.00	0.00	0.00	0.51	0.00	0.00
Avail Cap (c_a), veh/h	0	1262	0	0	0	1464	0	0
Upstream Filter (I)	0.00	0.44	0.00	0.00	0.00	0.76	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.0	0.0	0.0	0.0	1.0	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
Control Delay (d), s/veh	0.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.0	0.0	0.4	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	1.3	0.0	0.0	0.0	0.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	279	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1535	0	1409	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1069	0	76	0	0	0	0
V/C Ratio (X)	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1069	0	97	0	0	0	0
Upstream Filter (I)	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

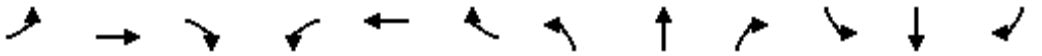
Intersection Summary	
HCM 6th Ctrl Delay	3.7
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	15.0	73.0	58.0	58.0	17.0	17.0
Total Split (%)	16.7%	81.1%	64.4%	64.4%	18.9%	18.9%
Maximum Green (s)	8.2	66.2	51.2	51.2	10.2	10.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	8.2	66.2	51.2	51.2	10.2	10.2
90th %ile Term Code	Max	Coord	Coord	Coord	Max	Max
70th %ile Green (s)	8.0	64.8	50.0	50.0	11.6	11.6
70th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
50th %ile Green (s)	8.0	66.5	51.7	51.7	9.9	9.9
50th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
30th %ile Green (s)	8.0	68.1	53.3	53.3	8.3	8.3
30th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
10th %ile Green (s)	0.0	83.2	83.2	83.2	0.0	0.0
10th %ile Term Code	Skip	Coord	Coord	Coord	Skip	Skip

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Control Type: Actuated-Coordinated

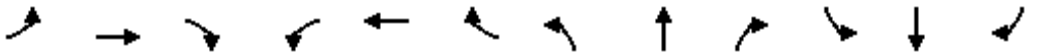


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	758	0	0	571	40	66	5	5	0	0	0
Future Volume (veh/h)	99	758	0	0	571	40	66	5	5	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking 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	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	106	815	0	0	696	0	80	6	6			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Cap, veh/h	475	1370	0	0	1079		126	9	120			
Arrive On Green	0.17	1.00	0.00	0.00	0.61	0.00	0.08	0.08	0.08			
Sat Flow, veh/h	1697	1781	0	0	1767	1497	1570	118	1497			
Grp Volume(v), veh/h	106	815	0	0	696	0	86	0	6			
Grp Sat Flow(s),veh/h/ln	1697	1781	0	0	1767	1497	1688	0	1497			
Q Serve(g_s), s	1.7	0.0	0.0	0.0	22.8	0.0	4.4	0.0	0.3			
Cycle Q Clear(g_c), s	1.7	0.0	0.0	0.0	22.8	0.0	4.4	0.0	0.3			
Prop In Lane	1.00		0.00	0.00		1.00	0.93		1.00			
Lane Grp Cap(c), veh/h	475	1370	0	0	1079		135	0	120			
V/C Ratio(X)	0.22	0.59	0.00	0.00	0.65		0.64	0.00	0.05			
Avail Cap(c_a), veh/h	490	1370	0	0	1079		191	0	170			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.68	0.68	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	7.1	0.0	0.0	0.0	11.3	0.0	40.1	0.0	38.2			
Incr Delay (d2), s/veh	0.2	1.3	0.0	0.0	3.0	0.0	4.9	0.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	0.7	0.9	0.0	0.0	12.6	0.0	3.6	0.0	0.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.3	1.3	0.0	0.0	14.2	0.0	45.0	0.0	38.4			
LnGrp LOS	A	A	A	A	B		D	A	D			
Approach Vol, veh/h		921			696			92				
Approach Delay, s/veh		2.0			14.2			44.6				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		76.0			14.2	61.8		14.0				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		66.2			8.2	51.2		10.2				
Max Q Clear Time (g_c+I1), s		2.0			3.7	24.8		6.4				
Green Ext Time (p_c), s		6.6			0.1	4.7		0.1				

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

Notes

Unsignalized Delay for [WBR] 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)	99	758	0	0	571	40	66	5	5	0	0	0
Future Volume (veh/h)	99	758	0	0	571	40	66	5	5	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q, 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				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	106	815	0	0	696	0	80	6	6			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Opposing Right Turn Influence	Yes			No			Yes					
Cap, veh/h	475	1370	0	0	1079		126	9	120			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.17	1.00	0.00	0.00	0.61	0.00	0.08	0.08	0.08			
Unsig. Movement Delay												
Ln Grp Delay, s/veh	7.3	1.3	0.0	0.0	14.2	0.0	45.0	0.0	38.4			
Ln Grp LOS	A	A	A	A	B		D	A	D			
Approach Vol, veh/h		921			696			92				
Approach Delay, s/veh		2.0			14.2			44.6				
Approach LOS		A			B			D				

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8		5	6		
Case No		4.0	11.0		1.2	7.0		
Phs Duration (G+Y+Rc), s		76.0	14.0		14.2	61.8		
Change Period (Y+Rc), s		6.8	6.8		6.8	6.8		
Max Green (Gmax), s		66.2	10.2		8.2	51.2		
Max Allow Headway (MAH), s		4.9	5.3		3.7	4.9		
Max Q Clear (g_c+I1), s		2.0	6.4		3.7	24.8		
Green Ext Time (g_e), s		6.6	0.1		0.1	4.7		
Prob of Phs Call (p_c)		1.00	0.90		0.93	1.00		
Prob of Max Out (p_x)		0.00	1.00		0.42	0.02		

Left-Turn Movement Data								
Assigned Mvmt			3		5	1		
Mvmt Sat Flow, veh/h			1570		1697	0		

Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		1781	118			1767		

Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		0	1497			1497		

Left Lane Group Data								
Assigned Mvmt	0	0	3	0	5	1	0	0
Lane Assignment			L+T		L (Pr/Pm)			

Lanes in Grp	0	0	1	0	1	0	0	0
Grp Vol (v), veh/h	0	0	86	0	106	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1688	0	1697	0	0	0
Q Serve Time (g_s), s	0.0	0.0	4.4	0.0	1.7	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	4.4	0.0	1.7	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	713	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	57.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	32.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	55.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.93	0.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	135	0	475	0	0	0
V/C Ratio (X)	0.00	0.00	0.64	0.00	0.22	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	191	0	490	0	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.68	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	40.1	0.0	7.1	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	4.9	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.0	45.0	0.0	7.3	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	1.8	0.0	0.4	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	1.80	0.00	1.80	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	3.6	0.0	0.7	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.12	0.00	0.05	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	815	0	0	0	696	0	0
Grp Sat Flow (s), veh/h/ln	0	1781	0	0	0	1767	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	22.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	22.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	1370	0	0	0	1079	0	0
V/C Ratio (X)	0.00	0.59	0.00	0.00	0.00	0.65	0.00	0.00
Avail Cap (c_a), veh/h	0	1370	0	0	0	1079	0	0
Upstream Filter (I)	0.00	0.68	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	11.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	0.0	0.0	0.0	3.0	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
Control Delay (d), s/veh	0.0	1.3	0.0	0.0	0.0	14.2	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.0	0.0	0.9	0.0	0.0

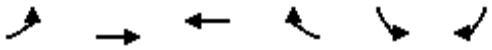
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.58	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.9	0.0	0.0	0.0	12.6	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.21	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment			R			R		
Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	6	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1497	0	0	1497	0	0
Q Serve Time (g_s), s	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	120	0	0	914	0	0
V/C Ratio (X)	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	170	0	0	914	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	38.2	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.0	38.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

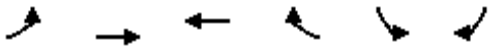
Notes

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



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Protected Phases	7	4	8		6	
Permitted Phases	4			8		6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	12.0	67.0	55.0	55.0	23.0	23.0
Total Split (%)	13.3%	74.4%	61.1%	61.1%	25.6%	25.6%
Maximum Green (s)	7.5	62.5	50.5	50.5	18.5	18.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	C-Max	C-Max
Walk Time (s)		7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0
90th %ile Green (s)	7.5	62.5	50.5	50.5	18.5	18.5
90th %ile Term Code	Max	Max	Hold	Hold	Coord	Coord
70th %ile Green (s)	7.5	62.5	50.5	50.5	18.5	18.5
70th %ile Term Code	Max	Max	Hold	Hold	Coord	Coord
50th %ile Green (s)	7.5	62.5	50.5	50.5	18.5	18.5
50th %ile Term Code	Max	Max	Hold	Hold	Coord	Coord
30th %ile Green (s)	7.5	62.5	50.5	50.5	18.5	18.5
30th %ile Term Code	Max	Max	Hold	Hold	Coord	Coord
10th %ile Green (s)	6.9	57.2	45.8	45.8	23.8	23.8
10th %ile Term Code	Gap	Gap	Hold	Hold	Coord	Coord

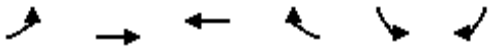
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green
Control Type: Actuated-Coordinated



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	170	1015	632	54	50	60
Future Volume (veh/h)	170	1015	632	54	50	60
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	185	1103	687	59	54	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	419	1183	963	816	476	424
Arrive On Green	0.07	0.63	0.68	0.68	0.27	0.27
Sat Flow, veh/h	1781	1870	1870	1585	1781	1585
Grp Volume(v), veh/h	185	1103	687	59	54	65
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1781	1585
Q Serve(g_s), s	4.1	47.5	20.4	1.1	2.1	2.8
Cycle Q Clear(g_c), s	4.1	47.5	20.4	1.1	2.1	2.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	419	1183	963	816	476	424
V/C Ratio(X)	0.44	0.93	0.71	0.07	0.11	0.15
Avail Cap(c_a), veh/h	446	1299	1049	889	476	424
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.87	0.87	1.00	1.00
Uniform Delay (d), s/veh	11.5	14.8	10.1	7.1	24.9	25.2
Incr Delay (d2), s/veh	0.7	11.6	1.8	0.0	0.5	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	28.2	9.6	0.7	1.7	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	26.4	11.9	7.1	25.4	26.0
LnGrp LOS	B	C	B	A	C	C
Approach Vol, veh/h		1288	746		119	
Approach Delay, s/veh		24.3	11.6		25.7	
Approach LOS		C	B		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			61.4		28.6	10.6	50.8
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			62.5		18.5	7.5	50.5
Max Q Clear Time (g_c+I1), s			49.5		4.8	6.1	22.4
Green Ext Time (p_c), s			7.4		0.2	0.1	5.6

Intersection Summary		
HCM 6th Ctrl Delay		20.0
HCM 6th LOS		B



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	170	1015	632	54	50	60
Future Volume (veh/h)	170	1015	632	54	50	60
Number	7	4	8	18	1	16
Initial Q, 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	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	185	1103	687	59	54	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	No				No	
Cap, veh/h	419	1183	963	816	476	424
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Prop Arrive On Green	0.07	0.63	0.68	0.68	0.27	0.27
Unsig. Movement Delay						
Ln Grp Delay, s/veh	12.3	26.4	11.9	7.1	25.4	26.0
Ln Grp LOS	B	C	B	A	C	C
Approach Vol, veh/h		1288	746		119	
Approach Delay, s/veh		24.3	11.6		25.7	
Approach LOS		C	B		C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	6			4			7	8
Case No	9.0			4.0			1.2	7.0
Phs Duration (G+Y+Rc), s	28.6			61.4			10.6	50.8
Change Period (Y+Rc), s	4.5			4.5			4.5	4.5
Max Green (Gmax), s	18.5			62.5			7.5	50.5
Max Allow Headway (MAH), s	3.9			5.2			3.8	5.2
Max Q Clear (g_c+I1), s	4.8			49.5			6.1	22.4
Green Ext Time (g_e), s	0.2			7.4			0.1	5.6
Prob of Phs Call (p_c)	1.00			1.00			0.99	1.00
Prob of Max Out (p_x)	0.00			0.60			1.00	0.03
Left-Turn Movement Data								
Assigned Mvmt	1						7	3
Mvmt Sat Flow, veh/h	1781						1781	0
Through Movement Data								
Assigned Mvmt	6			4				8
Mvmt Sat Flow, veh/h	0			1870				1870
Right-Turn Movement Data								
Assigned Mvmt	16			14				18
Mvmt Sat Flow, veh/h	1585			0				1585
Left Lane Group Data								
Assigned Mvmt	1	0	0	0	0	0	7	3
Lane Assignment	L					L (Pr/Pm)		

Lanes in Grp	1	0	0	0	0	0	1	0
Grp Vol (v), veh/h	54	0	0	0	0	0	185	0
Grp Sat Flow (s), veh/h/ln	1781	0	0	0	0	0	1781	0
Q Serve Time (g_s), s	2.1	0.0	0.0	0.0	0.0	0.0	4.1	0.0
Cycle Q Clear Time (g_c), s	2.1	0.0	0.0	0.0	0.0	0.0	4.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1781	0	0	0	0	0	755	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	48.3	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	25.9	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	7.3	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.3
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	476	0	0	0	0	0	419	0
V/C Ratio (X)	0.11	0.00	0.00	0.00	0.00	0.00	0.44	0.00
Avail Cap (c_a), veh/h	476	0	0	0	0	0	446	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	24.9	0.0	0.0	0.0	0.0	0.0	11.5	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.0	0.0	0.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	25.4	0.0	0.0	0.0	0.0	0.0	12.3	0.0
1st-Term Q (Q1), veh/ln	0.9	0.0	0.0	0.0	0.0	0.0	1.4	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	0.00	0.00	0.00	1.80	1.00
%ile Back of Q (95%), veh/ln	1.7	0.0	0.0	0.0	0.0	0.0	2.7	0.0
%ile Storage Ratio (RQ%)	0.22	0.00	0.00	0.00	0.00	0.00	0.69	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	6	0	0	4	0	0	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	1103	0	0	0	687
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	0	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	47.5	0.0	0.0	0.0	20.4
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	47.5	0.0	0.0	0.0	20.4
Lane Grp Cap (c), veh/h	0	0	0	1183	0	0	0	963
V/C Ratio (X)	0.00	0.00	0.00	0.93	0.00	0.00	0.00	0.71
Avail Cap (c_a), veh/h	0	0	0	1299	0	0	0	1049
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.87
Uniform Delay (d1), s/veh	0.0	0.0	0.0	14.8	0.0	0.0	0.0	10.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	11.6	0.0	0.0	0.0	1.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	26.4	0.0	0.0	0.0	11.9
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	16.9	0.0	0.0	0.0	5.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.5

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.36	0.00	0.00	0.00	1.63
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	28.2	0.0	0.0	0.0	9.6
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	1.68	0.00	0.00	0.00	0.27
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	16	0	0	14	0	0	0	18
Lane Assignment	R							R
Lanes in Grp	1	0	0	0	0	0	0	1
Grp Vol (v), veh/h	65	0	0	0	0	0	0	59
Grp Sat Flow (s), veh/h/ln	1585	0	0	0	0	0	0	1585
Q Serve Time (g_s), s	2.8	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Cycle Q Clear Time (g_c), s	2.8	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	424	0	0	0	0	0	0	816
V/C Ratio (X)	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.07
Avail Cap (c_a), veh/h	424	0	0	0	0	0	0	889
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.87
Uniform Delay (d1), s/veh	25.2	0.0	0.0	0.0	0.0	0.0	0.0	7.1
Incr Delay (d2), s/veh	0.8	0.0	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
Control Delay (d), s/veh	26.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
1st-Term Q (Q1), veh/ln	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.00	0.00	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.7
%ile Storage Ratio (RQ%)	1.33	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.0
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↱			↗
Traffic Vol, veh/h	0	1185	632	54	0	149
Future Vol, veh/h	0	1185	632	54	0	149
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	0	1288	687	59	0	162

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	717
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	*552
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*552
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	552
HCM Lane V/C Ratio	-	-	-	0.293
HCM Control Delay (s)	-	-	-	14.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	1.2

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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	8	2			6
Permitted Phases				2	6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	25.0	25.0	65.0	65.0	65.0	65.0
Total Split (%)	27.8%	27.8%	72.2%	72.2%	72.2%	72.2%
Maximum Green (s)	20.5	20.5	60.5	60.5	60.5	60.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
90th %ile Green (s)	15.5	15.5	65.5	65.5	65.5	65.5
90th %ile Term Code	Gap	Gap	Coord	Coord	Coord	Coord
70th %ile Green (s)	12.9	12.9	68.1	68.1	68.1	68.1
70th %ile Term Code	Gap	Gap	Coord	Coord	Coord	Coord
50th %ile Green (s)	11.1	11.1	69.9	69.9	69.9	69.9
50th %ile Term Code	Gap	Gap	Coord	Coord	Coord	Coord
30th %ile Green (s)	9.4	9.4	71.6	71.6	71.6	71.6
30th %ile Term Code	Gap	Gap	Coord	Coord	Coord	Coord
10th %ile Green (s)	0.0	0.0	85.5	85.5	85.5	85.5
10th %ile Term Code	Skip	Skip	Coord	Coord	Coord	Coord

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	106	33	543	85	29	554
Future Volume (veh/h)	106	33	543	85	29	554
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	115	36	590	92	32	602
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	154	137	1521	1289	752	1521
Arrive On Green	0.09	0.09	1.00	1.00	0.81	0.81
Sat Flow, veh/h	1781	1585	1870	1585	826	1870
Grp Volume(v), veh/h	115	36	590	92	32	602
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	826	1870
Q Serve(g_s), s	5.7	1.9	0.0	0.0	0.7	8.0
Cycle Q Clear(g_c), s	5.7	1.9	0.0	0.0	0.7	8.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	154	137	1521	1289	752	1521
V/C Ratio(X)	0.75	0.26	0.39	0.07	0.04	0.40
Avail Cap(c_a), veh/h	406	361	1521	1289	752	1521
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.55	0.55	1.00	1.00
Uniform Delay (d), s/veh	40.1	38.4	0.0	0.0	1.6	2.3
Incr Delay (d2), s/veh	7.0	1.0	0.4	0.1	0.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	1.4	0.3	0.0	0.1	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.1	39.4	0.4	0.1	1.7	3.1
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	151		682			634
Approach Delay, s/veh	45.3		0.4			3.0
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		77.7			77.7	12.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		60.5			60.5	20.5
Max Q Clear Time (g_c+I1), s		2.0			10.0	7.7
Green Ext Time (p_c), s		5.0			5.0	0.3

Intersection Summary			
HCM 6th Ctrl Delay	6.1		
HCM 6th LOS	A		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	106	33	543	85	29	554
Future Volume (veh/h)	106	33	543	85	29	554
Number	3	18	2	12	1	6
Initial Q, 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
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	36	590	92	32	602
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	No				No	
Cap, veh/h	154	137	1521	1289	752	1521
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Prop Arrive On Green	0.09	0.09	1.00	1.00	0.81	0.81
Unsig. Movement Delay						
Ln Grp Delay, s/veh	47.1	39.4	0.4	0.1	1.7	3.1
Ln Grp LOS	D	D	A	A	A	A
Approach Vol, veh/h	151		682			634
Approach Delay, s/veh	45.3		0.4			3.0
Approach LOS	D		A			A

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		7.0	9.0			6.0		
Phs Duration (G+Y+Rc), s		77.7	12.3			77.7		
Change Period (Y+Rc), s		4.5	4.5			4.5		
Max Green (Gmax), s		60.5	20.5			60.5		
Max Allow Headway (MAH), s		5.1	3.9			5.3		
Max Q Clear (g_c+I1), s		2.0	7.7			10.0		
Green Ext Time (g_e), s		5.0	0.3			5.0		
Prob of Phs Call (p_c)		1.00	0.98			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		
Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	1781			826		
Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		1870	0			1870		
Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		1585	1585			0		
Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L			L		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	115	0	0	32	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1781	0	0	826	0	0
Q Serve Time (g_s), s	0.0	0.0	5.7	0.0	0.0	0.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	5.7	0.0	0.0	0.7	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	0	0	826	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	73.2	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	73.2	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
Time to First Blk (g_f), s	0.0	73.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	154	0	0	752	0	0
V/C Ratio (X)	0.00	0.00	0.75	0.00	0.00	0.04	0.00	0.00
Avail Cap (c_a), veh/h	0	0	406	0	0	752	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	40.1	0.0	0.0	1.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	7.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	47.1	0.0	0.0	1.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	2.5	0.0	0.0	0.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	5.0	0.0	0.0	0.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.69	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	590	0	0	0	602	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1521	0	0	0	1521	0	0
V/C Ratio (X)	0.00	0.39	0.00	0.00	0.00	0.40	0.00	0.00
Avail Cap (c_a), veh/h	0	1521	0	0	0	1521	0	0
Upstream Filter (I)	0.00	0.55	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.8	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.4	0.0	0.0	0.0	3.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.3	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.3	0.0	0.0	0.0	3.4	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.33	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	92	36	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1289	137	0	0	0	0	0
V/C Ratio (X)	0.00	0.07	0.26	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1289	361	0	0	0	0	0
Upstream Filter (I)	0.00	0.55	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	38.4	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.0	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
Control Delay (d), s/veh	0.0	0.1	39.4	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.20	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	928	20	25	854	15	10	5	20	15	5	20
Future Vol, veh/h	45	928	20	25	854	15	10	5	20	15	5	20
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	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	125	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	86	86	86	65	65	65	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	0	0	0
Mvmt Flow	48	998	22	29	993	17	15	8	31	23	8	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	993	0	0	1020	0	0	2160	2156	510	1650	2167	-
Stage 1	-	-	-	-	-	-	1105	1105	-	1051	1051	-
Stage 2	-	-	-	-	-	-	1055	1051	-	599	1116	-
Critical Hdwy	4.13	-	-	4.13	-	-	7.3	6.5	6.9	7.3	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.219	-	-	2.219	-	-	3.5	4	3.3	3.5	4	-
Pot Cap-1 Maneuver	694	-	-	678	-	0	31	48	514	73	48	0
Stage 1	-	-	-	-	-	0	228	289	-	277	306	0
Stage 2	-	-	-	-	-	0	275	306	-	460	285	0
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	694	-	-	678	-	-	25	43	514	54	43	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	25	43	-	54	43	-
Stage 1	-	-	-	-	-	-	212	269	-	258	293	-
Stage 2	-	-	-	-	-	-	256	293	-	391	265	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.3	102.3	113.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	25	43	514	694	-	-	678	-	54	43	-
HCM Lane V/C Ratio	0.615	0.179	0.06	0.07	-	-	0.043	-	0.434	0.182	-
HCM Control Delay (s)	280.1	106.1	12.4	10.6	-	-	10.5	-	115.3	106.5	0
HCM Lane LOS	F	F	B	B	-	-	B	-	F	F	A
HCM 95th %tile Q(veh)	1.9	0.6	0.2	0.2	-	-	0.1	-	1.6	0.6	-

Intersection	
Int Delay, s/veh	20.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	873	55	25	864	25	20	5	25	20	5	10
Future Vol, veh/h	10	873	55	25	864	25	20	5	25	20	5	10
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	175	-	200	75	-	50	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	89	89	89	60	60	60	55	55	55
Heavy Vehicles, %	2	2	2	2	2	2	5	5	5	4	4	4
Mvmt Flow	11	949	60	28	971	28	33	8	42	36	9	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	999	0	0	1009	0	0	2026	2026	949	2053	2058	971
Stage 1	-	-	-	-	-	-	971	971	-	1027	1027	-
Stage 2	-	-	-	-	-	-	1055	1055	-	1026	1031	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.15	6.55	6.25	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.14	5.54	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.545	4.045	3.345	3.536	4.036	3.336
Pot Cap-1 Maneuver	693	-	-	687	-	-	42	57	312	40	54	304
Stage 1	-	-	-	-	-	-	300	327	-	280	309	-
Stage 2	-	-	-	-	-	-	269	299	-	281	308	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	693	-	-	687	-	-	~ 33	54	312	~ 29	51	304
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 33	54	-	~ 29	51	-
Stage 1	-	-	-	-	-	-	295	322	-	276	296	-
Stage 2	-	-	-	-	-	-	235	287	-	233	303	-

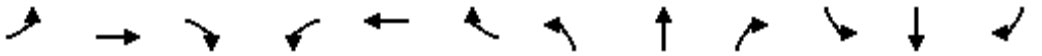
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	$ 323.1	280.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	64	693	-	-	687	-	-	29	115
HCM Lane V/C Ratio	1.302	0.016	-	-	0.041	-	-	1.254	0.237
HCM Control Delay (s)	$ 323.1	10.3	-	-	10.5	-	-	$ 457	45.8
HCM Lane LOS	F	B	-	-	B	-	-	F	E
HCM 95th %tile Q(veh)	6.9	0	-	-	0.1	-	-	4.2	0.9

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Protected Phases	5	2			6	7		8	7	4	5
Permitted Phases	2		2	6		6	8		4		4
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	16.8	16.8	16.8	9.5	11.5	11.5	9.5	11.5	11.0
Total Split (s)	20.0	69.5	69.5	49.5	49.5	24.0	11.5	11.5	24.0	35.5	20.0
Total Split (%)	19.0%	66.2%	66.2%	47.1%	47.1%	22.9%	11.0%	11.0%	22.9%	33.8%	19.0%
Maximum Green (s)	14.0	62.7	62.7	42.7	42.7	19.5	5.0	5.0	19.5	29.0	14.0
Yellow Time (s)	4.0	4.8	4.8	4.8	4.8	3.5	4.5	4.5	3.5	4.5	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	1.0	2.0	2.0	1.0	2.0	2.0
Lead/Lag	Lead			Lag	Lag	Lead	Lag	Lag	Lead		Lead
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes		Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	Max	Max	None	Max	None
Walk Time (s)											
Flash Dont Walk (s)											
Pedestrian Calls (#/hr)											
90th %ile Green (s)	14.0	62.7	62.7	42.7	42.7	19.5	5.0	5.0	19.5	29.0	14.0
90th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max
70th %ile Green (s)	14.0	62.7	62.7	42.7	42.7	19.5	5.0	5.0	19.5	29.0	14.0
70th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max
50th %ile Green (s)	14.0	62.7	62.7	42.7	42.7	19.5	5.0	5.0	19.5	29.0	14.0
50th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max
30th %ile Green (s)	14.0	62.7	62.7	42.7	42.7	19.5	5.0	5.0	19.5	29.0	14.0
30th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max
10th %ile Green (s)	14.0	62.7	62.7	42.7	42.7	19.5	5.0	5.0	19.5	29.0	14.0
10th %ile Term Code	Max	Coord	Coord	Coord	Coord	Max	MaxR	MaxR	Max	MaxR	Max

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	585	25	25	650	523	10	15	10	355	30	224
Future Volume (veh/h)	298	585	25	25	650	523	10	15	10	355	30	224
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	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	343	672	29	29	756	608	16	24	16	423	36	267
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Cap, veh/h	304	1108	939	341	755	932	121	51	34	432	512	644
Arrive On Green	0.13	0.60	0.60	0.27	0.27	0.27	0.05	0.05	0.05	0.19	0.28	0.28
Sat Flow, veh/h	1767	1856	1572	740	1856	1572	1093	1063	709	1767	1856	1572
Grp Volume(v), veh/h	343	672	29	29	756	608	16	0	40	423	36	267
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	740	1856	1572	1093	0	1772	1767	1856	1572
Q Serve(g_s), s	14.0	24.0	0.8	3.2	42.7	27.4	1.5	0.0	2.3	19.5	1.5	12.7
Cycle Q Clear(g_c), s	14.0	24.0	0.8	7.2	42.7	27.4	1.5	0.0	2.3	19.5	1.5	12.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.40	1.00		1.00
Lane Grp Cap(c), veh/h	304	1108	939	341	755	932	121	0	84	432	512	644
V/C Ratio(X)	1.13	0.61	0.03	0.09	1.00	0.65	0.13	0.00	0.47	0.98	0.07	0.41
Avail Cap(c_a), veh/h	304	1108	939	341	755	932	121	0	84	432	512	644
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	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	0.93	0.93	0.93
Uniform Delay (d), s/veh	33.5	13.4	8.7	26.8	38.2	17.5	48.3	0.0	48.7	39.4	28.0	22.0
Incr Delay (d2), s/veh	90.6	2.5	0.1	0.5	33.2	3.6	2.3	0.0	17.9	36.5	0.2	1.8
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(95%),veh/ln	17.4	14.4	0.5	1.1	35.0	16.3	0.8	0.0	2.5	9.5	1.2	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	124.0	15.8	8.7	27.3	71.4	21.1	50.6	0.0	66.6	75.9	28.3	23.9
LnGrp LOS	F	B	A	C	F	C	D	A	E	E	C	C
Approach Vol, veh/h		1044			1393			56			726	
Approach Delay, s/veh		51.2			48.5			62.0			54.4	
Approach LOS		D			D			E			D	

Timer - Assigned Phs		2		4	5	6	7	8				
Phs Duration (G+Y+Rc), s		69.5		35.5	20.0	49.5	24.0	11.5				
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8	4.5	6.5				
Max Green Setting (Gmax), s		62.7		29.0	14.0	42.7	19.5	5.0				
Max Q Clear Time (g_c+I1), s		26.0		14.7	16.0	44.7	21.5	4.3				
Green Ext Time (p_c), s		4.8		0.9	0.0	0.0	0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			51.0									
HCM 6th LOS			D									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	298	585	25	25	650	523	10	15	10	355	30	224
Future Volume (veh/h)	298	585	25	25	650	523	10	15	10	355	30	224
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	343	672	29	29	756	608	16	24	16	423	36	267
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	304	1108	939	341	755	932	121	51	34	432	512	644
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.13	0.60	0.60	0.27	0.27	0.27	0.05	0.05	0.05	0.19	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	124.0	15.8	8.7	27.3	71.4	21.1	50.6	0.0	66.6	75.9	28.3	23.9
Ln Grp LOS	F	B	A	C	F	C	D	A	E	E	C	C
Approach Vol, veh/h		1044			1393			56			726	
Approach Delay, s/veh		51.2			48.5			62.0			54.4	
Approach LOS		D			D			E			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6	7	8
Case No		3.0		3.0	1.2	5.3	1.2	6.3
Phs Duration (G+Y+Rc), s		69.5		35.5	20.0	49.5	24.0	11.5
Change Period (Y+Rc), s		6.8		6.5	6.0	6.8	4.5	6.5
Max Green (Gmax), s		62.7		29.0	14.0	42.7	19.5	5.0
Max Allow Headway (MAH), s		4.9		4.1	3.7	4.5	3.7	4.9
Max Q Clear (g_c+I1), s		26.0		14.7	16.0	44.7	21.5	4.3
Green Ext Time (g_e), s		4.8		0.9	0.0	0.0	0.0	0.0
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)		0.00		0.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt					5	1	7	3
Mvmt Sat Flow, veh/h					1767	740	1767	1093

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		1856		1856		1856		1063

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1572		1572		1572		709

Left Lane Group Data								
Assigned Mvmt	0	0	0	0	5	1	7	3
Lane Assignment				L (Pr/Pm)		LL (Pr/Pm)		L

Lanes in Grp	0	0	0	0	1	1	1	1
Grp Vol (v), veh/h	0	0	0	0	343	29	423	16
Grp Sat Flow (s), veh/h/ln	0	0	0	0	1767	740	1767	1093
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	14.0	3.2	19.5	1.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	14.0	7.2	19.5	1.5
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	396	740	1356	1093
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	44.7	42.7	7.0	5.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	38.7	2.7	5.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	3.2	2.7	1.5
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	0	304	341	432	121
V/C Ratio (X)	0.00	0.00	0.00	0.00	1.13	0.09	0.98	0.13
Avail Cap (c_a), veh/h	0	0	0	0	304	341	432	121
Upstream Filter (I)	0.00	0.00	0.00	0.00	1.00	1.00	0.93	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	33.5	26.8	39.4	48.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	90.6	0.5	36.5	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	124.0	27.3	75.9	50.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	3.4	0.6	1.4	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	7.7	0.0	4.4	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	0.00	1.57	1.80	1.66	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.0	17.4	1.1	9.5	0.8
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	2.96	0.22	2.44	0.17
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	9.7	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		
Lanes in Grp	0	1	0	1	0	1	0	0
Grp Vol (v), veh/h	0	672	0	36	0	756	0	0
Grp Sat Flow (s), veh/h/ln	0	1856	0	1856	0	1856	0	0
Q Serve Time (g_s), s	0.0	24.0	0.0	1.5	0.0	42.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	24.0	0.0	1.5	0.0	42.7	0.0	0.0
Lane Grp Cap (c), veh/h	0	1108	0	512	0	755	0	0
V/C Ratio (X)	0.00	0.61	0.00	0.07	0.00	1.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1108	0	512	0	755	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.93	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	13.4	0.0	28.0	0.0	38.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.5	0.0	0.2	0.0	33.2	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
Control Delay (d), s/veh	0.0	15.8	0.0	28.3	0.0	71.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	8.6	0.0	0.7	0.0	19.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	0.0	0.0	7.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.54	0.00	1.80	0.00	1.32	0.00	1.00
%ile Back of Q (95%), veh/ln	0.0	14.4	0.0	1.2	0.0	35.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.07	0.00	2.71	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	29	0	267	0	608	0	40
Grp Sat Flow (s), veh/h/ln	0	1572	0	1572	0	1572	0	1772
Q Serve Time (g_s), s	0.0	0.8	0.0	12.7	0.0	27.4	0.0	2.3
Cycle Q Clear Time (g_c), s	0.0	0.8	0.0	12.7	0.0	27.4	0.0	2.3
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	1572.5	0.0	1572.5	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	14.0	0.0	19.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.40
Lane Grp Cap (c), veh/h	0	939	0	644	0	932	0	84
V/C Ratio (X)	0.00	0.03	0.00	0.41	0.00	0.65	0.00	0.47
Avail Cap (c_a), veh/h	0	939	0	644	0	932	0	84
Upstream Filter (I)	0.00	1.00	0.00	0.93	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	8.7	0.0	22.0	0.0	17.5	0.0	48.7
Incr Delay (d2), s/veh	0.0	0.1	0.0	1.8	0.0	3.6	0.0	17.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.7	0.0	23.9	0.0	21.1	0.0	66.6
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	4.4	0.0	10.0	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.9	0.0	0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.73	0.00	1.50	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.5	0.0	8.2	0.0	16.3	0.0	2.5
%ile Storage Ratio (RQ%)	0.00	0.12	0.00	2.09	0.00	5.58	0.00	0.05
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

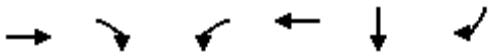
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	689	535	5
Future Vol, veh/h	5	5	5	689	535	5
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	82	92	92
Heavy Vehicles, %	2	2	2	1	3	2
Mvmt Flow	5	5	5	840	582	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1435	585	587	0	-	0
Stage 1	585	-	-	-	-	-
Stage 2	850	-	-	-	-	-
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	147	511	988	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	419	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	146	511	988	-	-	-
Mov Cap-2 Maneuver	146	-	-	-	-	-
Stage 1	554	-	-	-	-	-
Stage 2	419	-	-	-	-	-

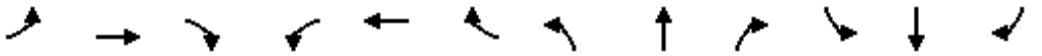
Approach	EB	NB	SB
HCM Control Delay, s	21.7	0.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	988	-	227	-	-
HCM Lane V/C Ratio	0.006	-	0.048	-	-
HCM Control Delay (s)	8.7	-	21.7	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	76.0	76.0	15.0	91.0	14.0	14.0
Total Split (%)	72.4%	72.4%	14.3%	86.7%	13.3%	13.3%
Maximum Green (s)	69.2	69.2	8.2	84.2	7.2	7.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	69.4	69.4	8.0	84.2	7.2	7.2
90th %ile Term Code	Coord	Coord	Min	Coord	Max	Max
70th %ile Green (s)	84.2	84.2	0.0	84.2	7.2	7.2
70th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
50th %ile Green (s)	84.2	84.2	0.0	84.2	7.2	7.2
50th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
30th %ile Green (s)	84.2	84.2	0.0	84.2	7.2	7.2
30th %ile Term Code	Coord	Coord	Skip	Coord	Max	Max
10th %ile Green (s)	98.2	98.2	0.0	98.2	0.0	0.0
10th %ile Term Code	Coord	Coord	Skip	Coord	Skip	Skip

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



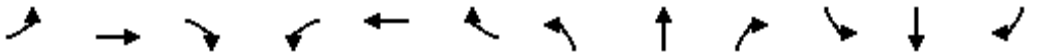
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	638	213	5	1068	0	0	0	0	40	5	61
Future Volume (veh/h)	0	638	213	5	1068	0	0	0	0	40	5	61
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking 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	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	701	234	5	1174	0				47	6	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Cap, veh/h	0	1394	1181	541	1557	0				61	8	
Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.04	0.04	0.00
Sat Flow, veh/h	0	1841	1560	1781	1870	0				1601	204	1598
Grp Volume(v), veh/h	0	701	234	5	1174	0				53	0	0
Grp Sat Flow(s),veh/h/ln	0	1841	1560	1781	1870	0				1805	0	1598
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0				3.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.1	0.0	0.0				3.1	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.89		1.00
Lane Grp Cap(c), veh/h	0	1394	1181	541	1557	0				69	0	
V/C Ratio(X)	0.00	0.50	0.20	0.01	0.75	0.00				0.77	0.00	
Avail Cap(c_a), veh/h	0	1394	1181	661	1557	0				124	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.31	0.31	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	2.4	0.0	0.0				50.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.3	0.0	1.1	0.0				16.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.8	0.2	0.0	0.8	0.0				3.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	1.1	0.3	2.4	1.1	0.0				66.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		935			1179						53	
Approach Delay, s/veh		0.9			1.1						66.5	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	7.9	86.3		10.8		94.2
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8
Max Green Setting (Gmax), s	8.2	69.2		7.2		84.2
Max Q Clear Time (g_c+I1), s	2.1	2.0		5.1		2.0
Green Ext Time (p_c), s	0.0	6.1		0.0		14.9

Intersection Summary	
HCM 6th Ctrl Delay	2.6
HCM 6th LOS	A

Notes

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)	0	638	213	5	1068	0	0	0	0	40	5	61
Future Volume (veh/h)	0	638	213	5	1068	0	0	0	0	40	5	61
Number	5	2	12	1	6	16				7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	701	234	5	1174	0				47	6	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	1394	1181	541	1557	0				61	8	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.04	0.04	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	1.1	0.3	2.4	1.1	0.0				66.5	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		935			1179						53	
Approach Delay, s/veh		0.9			1.1						66.5	
Approach LOS		A			A						E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		11.0		4.0		
Phs Duration (G+Y+Rc), s	7.9	86.3		10.8		94.2		
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8		
Max Green (Gmax), s	8.2	69.2		7.2		84.2		
Max Allow Headway (MAH), s	3.7	4.7		5.3		4.9		
Max Q Clear (g_c+I1), s	2.1	2.0		5.1		2.0		
Green Ext Time (g_e), s	0.0	6.1		0.0		14.9		
Prob of Phs Call (p_c)	0.14	1.00		0.79		1.00		
Prob of Max Out (p_x)	0.00	0.00		1.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1781	0		1601				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		1841		204		1870		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1560		1598		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	L (Pr/Pm)			L+T				

Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	5	0	0	53	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	0	1805	0	0	0	0
Q Serve Time (g_s), s	0.1	0.0	0.0	3.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	3.1	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	599	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	81.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	79.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	79.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.89	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	541	0	0	69	0	0	0	0
V/C Ratio (X)	0.01	0.00	0.00	0.77	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	661	0	0	124	0	0	0	0
Upstream Filter (I)	0.31	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	2.4	0.0	0.0	50.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	16.4	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
Control Delay (d), s/veh	2.4	0.0	0.0	66.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.00	0.00	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	701	0	0	0	1174	0	0
Grp Sat Flow (s), veh/h/ln	0	1841	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1394	0	0	0	1557	0	0
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.75	0.00	0.00
Avail Cap (c_a), veh/h	0	1394	0	0	0	1557	0	0
Upstream Filter (I)	0.00	0.83	0.00	0.00	0.00	0.31	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	1.1	0.0	0.0	0.0	1.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	0.5	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.8	0.0	0.0	0.0	0.8	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	234	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1560	0	1598	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1181	0	61	0	0	0	0
V/C Ratio (X)	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1181	0	110	0	0	0	0
Upstream Filter (I)	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

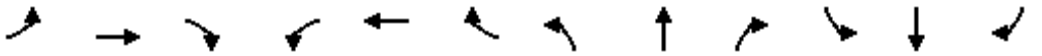
Intersection Summary	
HCM 6th Ctrl Delay	2.6
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	15.0	83.0	68.0	68.0	22.0	22.0
Total Split (%)	14.3%	79.0%	64.8%	64.8%	21.0%	21.0%
Maximum Green (s)	8.2	76.2	61.2	61.2	15.2	15.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	8.2	76.2	61.2	61.2	15.2	15.2
90th %ile Term Code	Max	Coord	Coord	Coord	Max	Max
70th %ile Green (s)	8.0	76.2	61.4	61.4	15.2	15.2
70th %ile Term Code	Min	Coord	Coord	Coord	Max	Max
50th %ile Green (s)	8.0	76.2	61.4	61.4	15.2	15.2
50th %ile Term Code	Min	Coord	Coord	Coord	Max	Max
30th %ile Green (s)	8.0	76.2	61.4	61.4	15.2	15.2
30th %ile Term Code	Min	Coord	Coord	Coord	Max	Max
10th %ile Green (s)	0.0	77.0	77.0	77.0	14.4	14.4
10th %ile Term Code	Skip	Coord	Coord	Coord	Gap	Gap

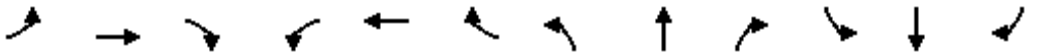
Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	593	0	0	919	65	159	10	10	0	0	0
Future Volume (veh/h)	70	593	0	0	919	65	159	10	10	0	0	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	1826	1826	0	0	1856	1856	1796	1796	1796			
Adj Flow Rate, veh/h	78	659	0	0	1021	0	206	13	13			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.77	0.77	0.77			
Percent Heavy Veh, %	5	5	0	0	3	3	7	7	7			
Cap, veh/h	239	1326	0	0	1101		233	15	219			
Arrive On Green	0.14	1.00	0.00	0.00	0.59	0.00	0.14	0.14	0.14			
Sat Flow, veh/h	1739	1826	0	0	1856	1572	1614	102	1522			
Grp Volume(v), veh/h	78	659	0	0	1021	0	219	0	13			
Grp Sat Flow(s),veh/h/ln	1739	1826	0	0	1856	1572	1716	0	1522			
Q Serve(g_s), s	1.5	0.0	0.0	0.0	52.3	0.0	13.1	0.0	0.8			
Cycle Q Clear(g_c), s	1.5	0.0	0.0	0.0	52.3	0.0	13.1	0.0	0.8			
Prop In Lane	1.00		0.00	0.00		1.00	0.94		1.00			
Lane Grp Cap(c), veh/h	239	1326	0	0	1101		247	0	219			
V/C Ratio(X)	0.33	0.50	0.00	0.00	0.93		0.89	0.00	0.06			
Avail Cap(c_a), veh/h	256	1326	0	0	1101		248	0	220			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.88	0.88	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	20.2	0.0	0.0	0.0	19.3	0.0	44.1	0.0	38.8			
Incr Delay (d2), s/veh	0.7	1.2	0.0	0.0	14.5	0.0	29.2	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			
%ile BackOfQ(95%),veh/ln	1.8	0.8	0.0	0.0	31.2	0.0	12.1	0.0	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	1.2	0.0	0.0	33.8	0.0	73.3	0.0	38.9			
LnGrp LOS	C	A	A	A	C		E	A	D			
Approach Vol, veh/h		737			1021			232				
Approach Delay, s/veh		3.3			33.8			71.4				
Approach LOS		A			C			E				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		83.1			14.0	69.1		21.9				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		76.2			8.2	61.2		15.2				
Max Q Clear Time (g_c+I1), s		2.0			3.5	54.3		15.1				
Green Ext Time (p_c), s		4.7			0.1	3.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			26.9									
HCM 6th LOS			C									

Notes

Unsignalized Delay for [WBR] 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)	70	593	0	0	919	65	159	10	10	0	0	0
Future Volume (veh/h)	70	593	0	0	919	65	159	10	10	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q, 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				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1826	1826	0	0	1856	1856	1796	1796	1796			
Adj Flow Rate, veh/h	78	659	0	0	1021	0	206	13	13			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.77	0.77	0.77			
Percent Heavy Veh, %	5	5	0	0	3	3	7	7	7			
Opposing Right Turn Influence	Yes			No			Yes					
Cap, veh/h	239	1326	0	0	1101		233	15	219			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.14	1.00	0.00	0.00	0.59	0.00	0.14	0.14	0.14			
Unsig. Movement Delay												
Ln Grp Delay, s/veh	20.9	1.2	0.0	0.0	33.8	0.0	73.3	0.0	38.9			
Ln Grp LOS	C	A	A	A	C		E	A	D			
Approach Vol, veh/h		737			1021			232				
Approach Delay, s/veh		3.3			33.8			71.4				
Approach LOS		A			C			E				

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8		5	6		
Case No		4.0	11.0		1.2	7.0		
Phs Duration (G+Y+Rc), s		83.1	21.9		14.0	69.1		
Change Period (Y+Rc), s		6.8	6.8		6.8	6.8		
Max Green (Gmax), s		76.2	15.2		8.2	61.2		
Max Allow Headway (MAH), s		4.9	5.3		3.7	4.9		
Max Q Clear (g_c+I1), s		2.0	15.1		3.5	54.3		
Green Ext Time (g_e), s		4.7	0.0		0.1	3.9		
Prob of Phs Call (p_c)		1.00	1.00		0.90	1.00		
Prob of Max Out (p_x)		0.00	1.00		0.32	0.82		

Left-Turn Movement Data								
Assigned Mvmt			3		5	1		
Mvmt Sat Flow, veh/h			1614		1739	0		

Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		1826	102			1856		

Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		0	1522			1572		

Left Lane Group Data								
Assigned Mvmt	0	0	3	0	5	1	0	0
Lane Assignment			L+T		L (Pr/Pm)			

Lanes in Grp	0	0	1	0	1	0	0	0
Grp Vol (v), veh/h	0	0	219	0	78	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1716	0	1739	0	0	0
Q Serve Time (g_s), s	0.0	0.0	13.1	0.0	1.5	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	13.1	0.0	1.5	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	539	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	64.3	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	62.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.94	0.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	247	0	239	0	0	0
V/C Ratio (X)	0.00	0.00	0.89	0.00	0.33	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	248	0	256	0	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.88	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	44.1	0.0	20.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	29.2	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
Control Delay (d), s/veh	0.0	0.0	73.3	0.0	20.9	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	5.5	0.0	1.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	1.60	0.00	1.80	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	12.1	0.0	1.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.40	0.00	0.13	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	659	0	0	0	1021	0	0
Grp Sat Flow (s), veh/h/ln	0	1826	0	0	0	1856	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	52.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	52.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	1326	0	0	0	1101	0	0
V/C Ratio (X)	0.00	0.50	0.00	0.00	0.00	0.93	0.00	0.00
Avail Cap (c_a), veh/h	0	1326	0	0	0	1101	0	0
Upstream Filter (I)	0.00	0.88	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	19.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.0	0.0	14.5	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
Control Delay (d), s/veh	0.0	1.2	0.0	0.0	0.0	33.8	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	18.9	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.4	0.0	0.0	0.0	4.4	0.0	0.0

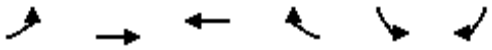
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.34	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.8	0.0	0.0	0.0	31.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.00	0.00	0.49	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment			R			R		
Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	13	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1522	0	0	1572	0	0
Q Serve Time (g_s), s	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	219	0	0	933	0	0
V/C Ratio (X)	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	220	0	0	933	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	38.8	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	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
Control Delay (d), s/veh	0.0	0.0	38.9	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

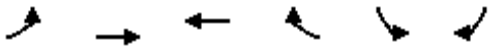
Notes

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



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Protected Phases	7	4	8		6	6 7
Permitted Phases	4			8		
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	
Total Split (s)	12.0	93.0	81.0	81.0	12.0	
Total Split (%)	11.4%	88.6%	77.1%	77.1%	11.4%	
Maximum Green (s)	7.5	88.5	76.5	76.5	7.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	None	C-Max	
Walk Time (s)		7.0	7.0	7.0	7.0	
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	0	
90th %ile Green (s)	7.5	88.5	76.5	76.5	7.5	
90th %ile Term Code	Max	Hold	Max	Max	Coord	
70th %ile Green (s)	7.5	88.5	76.5	76.5	7.5	
70th %ile Term Code	Max	Hold	Max	Max	Coord	
50th %ile Green (s)	7.5	88.5	76.5	76.5	7.5	
50th %ile Term Code	Max	Hold	Max	Max	Coord	
30th %ile Green (s)	7.5	88.5	76.5	76.5	7.5	
30th %ile Term Code	Max	Hold	Max	Max	Coord	
10th %ile Green (s)	7.5	86.6	74.6	74.6	9.4	
10th %ile Term Code	Max	Hold	Gap	Gap	Coord	

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green
Control Type: Actuated-Coordinated



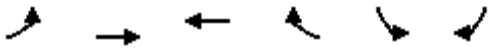
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	170	780	1071	28	51	53
Future Volume (veh/h)	170	780	1071	28	51	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	185	848	1164	30	55	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	243	1127	915	776	555	605
Arrive On Green	0.14	1.00	0.98	0.98	0.31	0.31
Sat Flow, veh/h	1781	1870	1870	1585	1781	1585
Grp Volume(v), veh/h	185	848	1164	30	55	58
Grp Sat Flow(s),veh/h/ln	1781	1870	1870	1585	1781	1585
Q Serve(g_s), s	5.4	0.0	51.4	0.0	2.3	2.5
Cycle Q Clear(g_c), s	5.4	0.0	51.4	0.0	2.3	2.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	243	1127	915	776	555	605
V/C Ratio(X)	0.76	0.75	1.27	0.04	0.10	0.10
Avail Cap(c_a), veh/h	245	1576	1363	1155	555	605
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.61	0.61	1.00	1.00
Uniform Delay (d), s/veh	20.7	0.0	1.1	0.6	25.7	20.8
Incr Delay (d2), s/veh	13.0	1.3	126.4	0.0	0.4	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	0.7	47.4	0.0	1.9	5.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.7	1.3	127.5	0.6	26.0	21.1
LnGrp LOS	C	A	F	A	C	C
Approach Vol, veh/h		1033	1194		113	
Approach Delay, s/veh		7.1	124.3		23.5	
Approach LOS		A	F		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			74.0		31.0	11.9	62.1
Change Period (Y+Rc), s			4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s			88.5		7.5	7.5	76.5
Max Q Clear Time (g_c+I1), s			2.0		4.5	7.4	53.4
Green Ext Time (p_c), s			7.1		0.1	0.0	10.5

Intersection Summary	
HCM 6th Ctrl Delay	67.7
HCM 6th LOS	E

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	170	780	1071	28	51	53
Future Volume (veh/h)	170	780	1071	28	51	53
Number	7	4	8	18	1	16
Initial Q, 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	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	185	848	1164	30	55	58
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	243	1127	915	776	555	605
HCM Platoon Ratio	2.00	2.00	2.00	2.00	1.00	1.00
Prop Arrive On Green	0.14	1.00	0.98	0.98	0.31	0.31
Unsig. Movement Delay						
Ln Grp Delay, s/veh	33.7	1.3	127.5	0.6	26.0	21.1
Ln Grp LOS	C	A	F	A	C	C
Approach Vol, veh/h		1033	1194		113	
Approach Delay, s/veh		7.1	124.3		23.5	
Approach LOS		A	F		C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	6			4			7	8
Case No	9.0			4.0			1.2	7.0
Phs Duration (G+Y+Rc), s	31.0			74.0			11.9	62.1
Change Period (Y+Rc), s	4.5			4.5			4.5	4.5
Max Green (Gmax), s	7.5			88.5			7.5	76.5
Max Allow Headway (MAH), s	3.9			4.9			3.7	4.9
Max Q Clear (g_c+I1), s	4.5			2.0			7.4	53.4
Green Ext Time (g_e), s	0.1			7.1			0.0	10.5
Prob of Phs Call (p_c)	1.00			1.00			1.00	1.00
Prob of Max Out (p_x)	0.00			0.00			1.00	0.29

Left-Turn Movement Data								
Assigned Mvmt	1						7	3
Mvmt Sat Flow, veh/h	1781						1781	0

Through Movement Data								
Assigned Mvmt	6			4				8
Mvmt Sat Flow, veh/h	0			1870				1870

Right-Turn Movement Data								
Assigned Mvmt	16			14				18
Mvmt Sat Flow, veh/h	1585			0				1585

Left Lane Group Data								
Assigned Mvmt	1	0	0	0	0	0	7	3
Lane Assignment	L					L (Pr/Pm)		

Lanes in Grp	1	0	0	0	0	0	1	0
Grp Vol (v), veh/h	55	0	0	0	0	0	185	0
Grp Sat Flow (s), veh/h/ln	1781	0	0	0	0	0	1781	0
Q Serve Time (g_s), s	2.3	0.0	0.0	0.0	0.0	0.0	5.4	0.0
Cycle Q Clear Time (g_c), s	2.3	0.0	0.0	0.0	0.0	0.0	5.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1781	0	0	0	0	0	469	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	53.4	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	555	0	0	0	0	0	243	0
V/C Ratio (X)	0.10	0.00	0.00	0.00	0.00	0.00	0.76	0.00
Avail Cap (c_a), veh/h	555	0	0	0	0	0	245	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	25.7	0.0	0.0	0.0	0.0	0.0	20.7	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	13.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	26.0	0.0	0.0	0.0	0.0	0.0	33.7	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	0.00	0.00	0.00	1.80	1.00
%ile Back of Q (95%), veh/ln	1.9	0.0	0.0	0.0	0.0	0.0	5.0	0.0
%ile Storage Ratio (RQ%)	0.25	0.00	0.00	0.00	0.00	0.00	1.28	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	6	0	0	4	0	0	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	848	0	0	0	1164
Grp Sat Flow (s), veh/h/ln	0	0	0	1870	0	0	0	1870
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.4
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.4
Lane Grp Cap (c), veh/h	0	0	0	1127	0	0	0	915
V/C Ratio (X)	0.00	0.00	0.00	0.75	0.00	0.00	0.00	1.27
Avail Cap (c_a), veh/h	0	0	0	1576	0	0	0	1363
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.61
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.3	0.0	0.0	0.0	126.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	1.3	0.0	0.0	0.0	127.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	32.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.80	0.00	0.00	0.00	1.46
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.7	0.0	0.0	0.0	47.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	0.00	0.00	0.00	1.33
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.1
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3

Right Lane Group Data								
Assigned Mvmt	16	0	0	14	0	0	0	18
Lane Assignment	R							R
Lanes in Grp	1	0	0	0	0	0	0	1
Grp Vol (v), veh/h	58	0	0	0	0	0	0	30
Grp Sat Flow (s), veh/h/ln	1585	0	0	0	0	0	0	1585
Q Serve Time (g_s), s	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	1585.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Lane Grp Cap (c), veh/h	605	0	0	0	0	0	0	776
V/C Ratio (X)	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Avail Cap (c_a), veh/h	605	0	0	0	0	0	0	1155
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61
Uniform Delay (d1), s/veh	20.8	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Incr Delay (d2), s/veh	0.3	0.0	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
Control Delay (d), s/veh	21.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6
1st-Term Q (Q1), veh/ln	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.00	0.00	0.00	0.00	1.80
%ile Back of Q (95%), veh/ln	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	67.7
HCM 6th LOS	E

Notes
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑↱			↱
Traffic Vol, veh/h	0	950	1064	60	0	134
Future Vol, veh/h	0	950	1064	60	0	134
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	0	1033	1157	65	0	146

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1190
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	*202
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*202
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	58.7
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	202
HCM Lane V/C Ratio	-	-	-	0.721
HCM Control Delay (s)	-	-	-	58.7
HCM Lane LOS	-	-	-	F
HCM 95th %tile Q(veh)	-	-	-	4.7

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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	23.0	23.0	82.0	82.0	82.0	82.0
Total Split (%)	21.9%	21.9%	78.1%	78.1%	78.1%	78.1%
Maximum Green (s)	18.5	18.5	77.5	77.5	77.5	77.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
90th %ile Green (s)	13.9	13.9	82.1	82.1	82.1	82.1
90th %ile Term Code	Gap	Gap	Coord	Coord	Coord	Coord
70th %ile Green (s)	11.6	11.6	84.4	84.4	84.4	84.4
70th %ile Term Code	Gap	Gap	Coord	Coord	Coord	Coord
50th %ile Green (s)	10.0	10.0	86.0	86.0	86.0	86.0
50th %ile Term Code	Gap	Gap	Coord	Coord	Coord	Coord
30th %ile Green (s)	8.5	8.5	87.5	87.5	87.5	87.5
30th %ile Term Code	Gap	Gap	Coord	Coord	Coord	Coord
10th %ile Green (s)	0.0	0.0	100.5	100.5	100.5	100.5
10th %ile Term Code	Skip	Skip	Coord	Coord	Coord	Coord

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	73	26	694	124	37	535
Future Volume (veh/h)	73	26	694	124	37	535
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	79	28	754	135	40	582
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	110	98	1595	1352	602	1595
Arrive On Green	0.06	0.06	1.00	1.00	0.85	0.85
Sat Flow, veh/h	1781	1585	1870	1585	625	1870
Grp Volume(v), veh/h	79	28	754	135	40	582
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	625	1870
Q Serve(g_s), s	4.6	1.8	0.0	0.0	1.1	7.0
Cycle Q Clear(g_c), s	4.6	1.8	0.0	0.0	1.1	7.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	110	98	1595	1352	602	1595
V/C Ratio(X)	0.72	0.29	0.47	0.10	0.07	0.36
Avail Cap(c_a), veh/h	314	279	1595	1352	602	1595
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.59	0.59	1.00	1.00
Uniform Delay (d), s/veh	48.4	47.1	0.0	0.0	1.2	1.7
Incr Delay (d2), s/veh	8.6	1.6	0.6	0.1	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	1.3	0.5	0.1	0.1	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.0	48.7	0.6	0.1	1.4	2.3
LnGrp LOS	E	D	A	A	A	A
Approach Vol, veh/h	107		889			622
Approach Delay, s/veh	54.8		0.5			2.2
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		94.0			94.0	11.0
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		77.5			77.5	18.5
Max Q Clear Time (g_c+I1), s		2.0			9.0	6.6
Green Ext Time (p_c), s		6.6			4.6	0.2

Intersection Summary			
HCM 6th Ctrl Delay		4.8	
HCM 6th LOS		A	

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	73	26	694	124	37	535
Future Volume (veh/h)	73	26	694	124	37	535
Number	3	18	2	12	1	6
Initial Q, 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
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	28	754	135	40	582
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	110	98	1595	1352	602	1595
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Prop Arrive On Green	0.06	0.06	1.00	1.00	0.85	0.85
Unsig. Movement Delay						
Ln Grp Delay, s/veh	57.0	48.7	0.6	0.1	1.4	2.3
Ln Grp LOS	E	D	A	A	A	A
Approach Vol, veh/h	107		889			622
Approach Delay, s/veh	54.8		0.5			2.2
Approach LOS	D		A			A

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		7.0	9.0			6.0		
Phs Duration (G+Y+Rc), s		94.0	11.0			94.0		
Change Period (Y+Rc), s		4.5	4.5			4.5		
Max Green (Gmax), s		77.5	18.5			77.5		
Max Allow Headway (MAH), s		4.9	3.9			5.1		
Max Q Clear (g_c+I1), s		2.0	6.6			9.0		
Green Ext Time (g_e), s		6.6	0.2			4.6		
Prob of Phs Call (p_c)		1.00	0.96			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		
Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	1781			625		
Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		1870	0			1870		
Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		1585	1585			0		
Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L			L		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	79	0	0	40	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1781	0	0	625	0	0
Q Serve Time (g_s), s	0.0	0.0	4.6	0.0	0.0	1.1	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	4.6	0.0	0.0	1.1	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	0	0	625	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	89.5	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	89.5	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Time to First Blk (g_f), s	0.0	89.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	110	0	0	602	0	0
V/C Ratio (X)	0.00	0.00	0.72	0.00	0.00	0.07	0.00	0.00
Avail Cap (c_a), veh/h	0	0	314	0	0	602	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	48.4	0.0	0.0	1.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	8.6	0.0	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.0	57.0	0.0	0.0	1.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	4.1	0.0	0.0	0.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.58	0.00	0.00	0.03	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	1	0	0	0	1	0	0
Grp Vol (v), veh/h	0	754	0	0	0	582	0	0
Grp Sat Flow (s), veh/h/ln	0	1870	0	0	0	1870	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	1595	0	0	0	1595	0	0
V/C Ratio (X)	0.00	0.47	0.00	0.00	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	1595	0	0	0	1595	0	0
Upstream Filter (I)	0.00	0.59	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.0	0.0	0.6	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
Control Delay (d), s/veh	0.0	0.6	0.0	0.0	0.0	2.3	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.3	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.5	0.0	0.0	0.0	2.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.00	0.00	0.19	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	135	28	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1352	98	0	0	0	0	0
V/C Ratio (X)	0.00	0.10	0.29	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1352	279	0	0	0	0	0
Upstream Filter (I)	0.00	0.59	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	47.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.6	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
Control Delay (d), s/veh	0.0	0.1	48.7	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	1.3	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.19	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.8
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	2.5

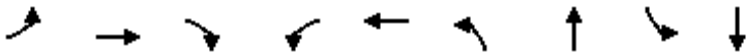
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	1468	5	10	1028	10	25	5	25	20	5	65
Future Vol, veh/h	5	1468	5	10	1028	10	25	5	25	20	5	65
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	-	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	80	80	80	80	80	80
Heavy Vehicles, %	6	6	6	7	7	7	0	0	0	0	0	0
Mvmt Flow	6	1769	6	11	1182	11	31	6	31	25	6	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1182	0	0	1775	0	0	2282	2988	888	1927	2991	-
Stage 1	-	-	-	-	-	-	1784	1784	-	1204	1204	-
Stage 2	-	-	-	-	-	-	498	1204	-	723	1787	-
Critical Hdwy	5.42	-	-	5.44	-	-	6.4	6.5	7.1	6.4	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.16	-	-	3.17	-	-	3.8	4	3.9	3.8	4	-
Pot Cap-1 Maneuver	*835	-	-	154	-	0	*99	23	249	192	23	0
Stage 1	-	-	-	-	-	0	*56	136	-	685	654	0
Stage 2	-	-	-	-	-	0	*695	654	-	353	135	0
Platoon blocked, %	1	-	-		-		1	1		1	1	
Mov Cap-1 Maneuver	*835	-	-	154	-	-	*73	22	249	123	22	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	*73	22	-	123	22	-
Stage 1	-	-	-	-	-	-	*56	135	-	680	608	-
Stage 2	-	-	-	-	-	-	*638	608	-	292	134	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.3	69.7	78.1
HCM LOS			F	F

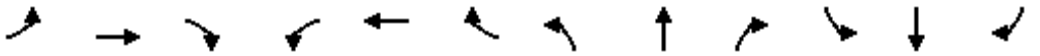
Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	73	22	249	* 835	-	-	154	-	123	22	-
HCM Lane V/C Ratio	0.428	0.284	0.126	0.007	-	-	0.075	-	0.203	0.284	-
HCM Control Delay (s)	87.1	224	21.5	9.3	-	-	30.3	-	41.6	224	0
HCM Lane LOS	F	F	C	A	-	-	D	-	E	F	A
HCM 95th %tile Q(veh)	1.7	0.8	0.4	0	-	-	0.2	-	0.7	0.8	-

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4			8		2		6
Permitted Phases	4		4	8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	65.0	65.0	65.0	65.0	65.0	25.0	25.0	25.0	25.0
Total Split (%)	72.2%	72.2%	72.2%	72.2%	72.2%	27.8%	27.8%	27.8%	27.8%
Maximum Green (s)	60.5	60.5	60.5	60.5	60.5	20.5	20.5	20.5	20.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	55.9	55.9	55.9	55.9	55.9	25.1	25.1	25.1	25.1
90th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord
70th %ile Green (s)	50.7	50.7	50.7	50.7	50.7	30.3	30.3	30.3	30.3
70th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord
50th %ile Green (s)	47.2	47.2	47.2	47.2	47.2	33.8	33.8	33.8	33.8
50th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord
30th %ile Green (s)	42.9	42.9	42.9	42.9	42.9	38.1	38.1	38.1	38.1
30th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord
10th %ile Green (s)	37.4	37.4	37.4	37.4	37.4	43.6	43.6	43.6	43.6
10th %ile Term Code	Gap	Gap	Gap	Hold	Hold	Coord	Coord	Coord	Coord

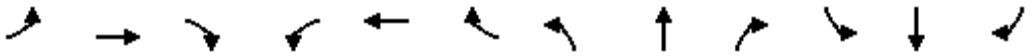
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1498	10	5	978	20	55	5	65	45	5	15
Future Volume (veh/h)	5	1498	10	5	978	20	55	5	65	45	5	15
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	1826	1826	1826	1796	1796	1796	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	6	1683	11	6	1137	23	69	6	81	56	6	19
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	5	5	5	7	7	7	0	0	0	3	3	3
Cap, veh/h	288	2329	723	135	2312	47	330	47	345	649	170	537
Arrive On Green	0.47	0.47	0.47	0.93	0.93	0.93	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	473	4985	1547	279	4947	100	630	109	798	1300	392	1241
Grp Volume(v), veh/h	6	1683	11	6	751	409	156	0	0	56	0	25
Grp Sat Flow(s),veh/h/ln	473	1662	1547	279	1635	1778	1536	0	0	1300	0	1632
Q Serve(g_s), s	0.6	24.4	0.3	1.2	2.5	2.5	2.9	0.0	0.0	0.0	0.0	0.8
Cycle Q Clear(g_c), s	3.2	24.4	0.3	25.7	2.5	2.5	5.4	0.0	0.0	2.1	0.0	0.8
Prop In Lane	1.00		1.00	1.00		0.06	0.44		0.52	1.00		0.76
Lane Grp Cap(c), veh/h	288	2329	723	135	1528	831	722	0	0	649	0	706
V/C Ratio(X)	0.02	0.72	0.02	0.04	0.49	0.49	0.22	0.00	0.00	0.09	0.00	0.04
Avail Cap(c_a), veh/h	385	3351	1040	192	2198	1195	722	0	0	649	0	706
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.3	19.3	12.9	10.2	1.7	1.7	16.0	0.0	0.0	15.1	0.0	14.7
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.1	0.2	0.3	0.7	0.0	0.0	0.3	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(95%),veh/ln	0.1	13.1	0.2	0.1	1.0	1.1	3.7	0.0	0.0	1.3	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	19.7	12.9	10.3	1.8	2.0	16.7	0.0	0.0	15.3	0.0	14.8
LnGrp LOS	B	B	B	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1700			1166			156			81	
Approach Delay, s/veh		19.7			1.9			16.7			15.2	
Approach LOS		B			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.4		46.6		43.4		46.6				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		20.5		60.5		20.5		60.5				
Max Q Clear Time (g_c+I1), s		7.4		26.4		4.1		27.7				
Green Ext Time (p_c), s		0.6		15.6		0.2		9.9				

Intersection Summary												
HCM 6th Ctrl Delay			12.7									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1498	10	5	978	20	55	5	65	45	5	15
Future Volume (veh/h)	5	1498	10	5	978	20	55	5	65	45	5	15
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1826	1826	1826	1796	1796	1796	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	6	1683	11	6	1137	23	69	6	81	56	6	19
Peak Hour Factor	0.89	0.89	0.89	0.86	0.86	0.86	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	5	5	5	7	7	7	0	0	0	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	288	2329	723	135	2312	47	330	47	345	649	170	537
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.47	0.47	0.47	0.93	0.93	0.93	0.43	0.43	0.43	0.43	0.43	0.43
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.4	19.7	12.9	10.3	1.8	2.0	16.7	0.0	0.0	15.3	0.0	14.8
Ln Grp LOS	B	B	B	B	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1700			1166			156			81	
Approach Delay, s/veh		19.7			1.9			16.7			15.2	
Approach LOS		B			A			B			B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		5.0		6.0		6.0
Phs Duration (G+Y+Rc), s		43.4		46.6		43.4		46.6
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		20.5		60.5		20.5		60.5
Max Allow Headway (MAH), s		5.4		4.9		4.5		5.3
Max Q Clear (g_c+I1), s		7.4		26.4		4.1		27.7
Green Ext Time (g_e), s		0.6		15.6		0.2		9.9
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.21		0.00		0.08

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		630		473		1300		279

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		109		4985		392		4947

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		798		1547		1241		100

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L		L		L

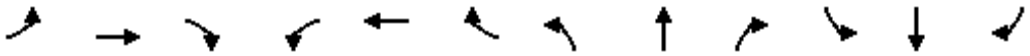
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	156	0	6	0	56	0	6
Grp Sat Flow (s), veh/h/ln	0	1536	0	473	0	1300	0	279
Q Serve Time (g_s), s	0.0	2.9	0.0	0.6	0.0	0.0	0.0	1.2
Cycle Q Clear Time (g_c), s	0.0	5.4	0.0	3.2	0.0	2.1	0.0	25.7
Perm LT Sat Flow (s_l), veh/h/ln	0	1408	0	473	0	1300	0	279
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	1401	0	0
Perm LT Eff Green (g_p), s	0.0	38.9	0.0	42.1	0.0	38.9	0.0	42.1
Perm LT Serve Time (g_u), s	0.0	38.2	0.0	39.6	0.0	33.5	0.0	17.6
Perm LT Q Serve Time (g_ps), s	0.0	2.9	0.0	0.6	0.0	0.0	0.0	1.2
Time to First Blk (g_f), s	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.44	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	722	0	288	0	649	0	135
V/C Ratio (X)	0.00	0.22	0.00	0.02	0.00	0.09	0.00	0.04
Avail Cap (c_a), veh/h	0	722	0	385	0	649	0	192
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.75
Uniform Delay (d1), s/veh	0.0	16.0	0.0	14.3	0.0	15.1	0.0	10.2
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	16.7	0.0	14.4	0.0	15.3	0.0	10.3
1st-Term Q (Q1), veh/ln	0.0	1.9	0.0	0.1	0.0	0.7	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	3.7	0.0	0.1	0.0	1.3	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.13	0.00	0.02	0.00	0.32	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	3	0	0	0	2
Grp Vol (v), veh/h	0	0	0	1683	0	0	0	751
Grp Sat Flow (s), veh/h/ln	0	0	0	1662	0	0	0	1635
Q Serve Time (g_s), s	0.0	0.0	0.0	24.4	0.0	0.0	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	24.4	0.0	0.0	0.0	2.5
Lane Grp Cap (c), veh/h	0	0	0	2329	0	0	0	1528
V/C Ratio (X)	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.49
Avail Cap (c_a), veh/h	0	0	0	3351	0	0	0	2198
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.75
Uniform Delay (d1), s/veh	0.0	0.0	0.0	19.3	0.0	0.0	0.0	1.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	19.7	0.0	0.0	0.0	1.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.57	0.00	1.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	13.1	0.0	0.0	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				R		T+R		T+R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	11	0	25	0	409
Grp Sat Flow (s), veh/h/ln	0	0	0	1547	0	1632	0	1778
Q Serve Time (g_s), s	0.0	0.0	0.0	0.3	0.0	0.8	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.3	0.0	0.8	0.0	2.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.52	0.00	1.00	0.00	0.76	0.00	0.06
Lane Grp Cap (c), veh/h	0	0	0	723	0	706	0	831
V/C Ratio (X)	0.00	0.00	0.00	0.02	0.00	0.04	0.00	0.49
Avail Cap (c_a), veh/h	0	0	0	1040	0	706	0	1195
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.75
Uniform Delay (d1), s/veh	0.0	0.0	0.0	12.9	0.0	14.7	0.0	1.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	12.9	0.0	14.8	0.0	2.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	0.2	0.0	0.5	0.0	1.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.02	0.00	0.01
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2	3	1	6	7	3	8		7	4	5
Permitted Phases			2	6		6			8			4
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	9.5	9.5	16.8	9.5	9.5	11.5	11.5	9.5	11.5	11.0
Total Split (s)	19.0	33.0	17.0	12.0	26.0	20.0	17.0	25.0	25.0	20.0	28.0	19.0
Total Split (%)	21.1%	36.7%	18.9%	13.3%	28.9%	22.2%	18.9%	27.8%	27.8%	22.2%	31.1%	21.1%
Maximum Green (s)	13.0	26.2	12.5	7.5	19.2	15.5	12.5	18.5	18.5	15.5	21.5	13.0
Yellow Time (s)	4.0	4.8	3.5	3.5	4.8	3.5	3.5	4.5	4.5	3.5	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	2.0	1.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	Max	None	Max	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
90th %ile Green (s)	13.0	26.2	12.5	7.5	19.2	15.5	12.5	18.5	18.5	15.5	21.5	13.0
90th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max
70th %ile Green (s)	13.0	26.2	12.5	7.5	19.2	15.5	12.5	18.5	18.5	15.5	21.5	13.0
70th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max
50th %ile Green (s)	13.0	26.2	12.5	7.5	19.2	15.5	12.5	18.5	18.5	15.5	21.5	13.0
50th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max
30th %ile Green (s)	13.0	26.2	12.5	7.5	19.2	15.5	12.5	18.5	18.5	15.5	21.5	13.0
30th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max
10th %ile Green (s)	13.0	26.5	11.5	7.2	19.2	15.5	11.5	18.5	18.5	15.5	22.5	13.0
10th %ile Term Code	Max	Coord	Gap	Gap	Coord	Max	Gap	MaxR	MaxR	Max	MaxR	Max

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	415	654	540	131	515	298	275	549	183	448	809	213
Future Volume (veh/h)	415	654	540	131	515	298	275	549	183	448	809	213
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	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	477	752	621	160	628	363	382	762	254	533	963	254
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Cap, veh/h	479	1428	642	288	1020	572	456	1058	328	586	1241	611
Arrive On Green	0.24	0.49	0.49	0.03	0.07	0.07	0.13	0.21	0.21	0.06	0.08	0.08
Sat Flow, veh/h	3319	4904	1522	1668	4782	1485	3483	5147	1598	3401	5025	1560
Grp Volume(v), veh/h	477	752	621	160	628	363	382	762	254	533	963	254
Grp Sat Flow(s),veh/h/ln	1659	1635	1522	1668	1594	1485	1742	1716	1598	1700	1675	1560
Q Serve(g_s), s	12.9	9.5	26.2	6.7	11.5	17.4	9.6	12.4	13.5	14.0	16.9	11.5
Cycle Q Clear(g_c), s	12.9	9.5	26.2	6.7	11.5	17.4	9.6	12.4	13.5	14.0	16.9	11.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	479	1428	642	288	1020	572	456	1058	328	586	1241	611
V/C Ratio(X)	1.00	0.53	0.97	0.56	0.62	0.63	0.84	0.72	0.77	0.91	0.78	0.42
Avail Cap(c_a), veh/h	479	1428	642	288	1020	572	484	1058	328	586	1241	611
HCM Platoon Ratio	1.67	1.67	1.67	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	34.1	18.8	19.9	26.2	38.2	26.4	38.2	33.3	33.8	41.7	38.9	24.6
Incr Delay (d2), s/veh	33.8	1.0	23.3	2.4	2.8	5.3	11.8	4.2	16.2	17.4	4.5	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.2	5.4	18.0	5.1	8.6	12.0	8.2	9.0	10.5	12.1	12.5	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.9	19.9	43.2	28.5	41.0	31.7	50.0	37.6	49.9	59.1	43.4	26.5
LnGrp LOS	E	B	D	C	D	C	D	D	D	E	D	C
Approach Vol, veh/h		1850			1151			1398			1750	
Approach Delay, s/veh		40.1			36.3			43.2			45.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	33.0	16.3	28.7	19.0	26.0	20.0	25.0
Change Period (Y+Rc), s	4.5	6.8	4.5	6.5	6.0	6.8	4.5	6.5
Max Green Setting (Gmax), s	7.5	26.2	12.5	21.5	13.0	19.2	15.5	18.5
Max Q Clear Time (g_c+I1), s	8.7	28.2	11.6	18.9	14.9	19.4	16.0	15.5
Green Ext Time (p_c), s	0.0	0.0	0.1	1.7	0.0	0.0	0.0	1.6

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	415	654	540	131	515	298	275	549	183	448	809	213
Future Volume (veh/h)	415	654	540	131	515	298	275	549	183	448	809	213
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1796	1796	1796	1752	1752	1752	1885	1885	1885	1841	1841	1841
Adj Flow Rate, veh/h	477	752	621	160	628	363	382	762	254	533	963	254
Peak Hour Factor	0.87	0.87	0.87	0.82	0.82	0.82	0.72	0.72	0.72	0.84	0.84	0.84
Percent Heavy Veh, %	7	7	7	10	10	10	1	1	1	4	4	4
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	479	1428	642	288	1020	572	456	1058	328	586	1241	611
HCM Platoon Ratio	1.67	1.67	1.67	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Prop Arrive On Green	0.24	0.49	0.49	0.03	0.07	0.07	0.13	0.21	0.21	0.06	0.08	0.08
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.9	19.9	43.2	28.5	41.0	31.7	50.0	37.6	49.9	59.1	43.4	26.5
Ln Grp LOS	E	B	D	C	D	C	D	D	D	E	D	C
Approach Vol, veh/h		1850			1151			1398			1750	
Approach Delay, s/veh		40.1			36.3			43.2			45.7	
Approach LOS		D			D			D			D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	1.1	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	12.0	33.0	16.3	28.7	19.0	26.0	20.0	25.0
Change Period (Y+Rc), s	4.5	6.8	4.5	6.5	6.0	6.8	4.5	6.5
Max Green (Gmax), s	7.5	26.2	12.5	21.5	13.0	19.2	15.5	18.5
Max Allow Headway (MAH), s	3.7	4.5	3.7	4.8	3.7	4.6	3.7	4.7
Max Q Clear (g_c+I1), s	8.7	28.2	11.6	18.9	14.9	19.4	16.0	15.5
Green Ext Time (g_e), s	0.0	0.0	0.1	1.7	0.0	0.0	0.0	1.6
Prob of Phs Call (p_c)	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1668		3483		3319		3401	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		4904		5025		4782		5147

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1522		1560		1485		1598

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Pr/Pm)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	160	0	382	0	477	0	533	0
Grp Sat Flow (s), veh/h/ln	1668	0	1742	0	1659	0	1700	0
Q Serve Time (g_s), s	6.7	0.0	9.6	0.0	12.9	0.0	14.0	0.0
Cycle Q Clear Time (g_c), s	6.7	0.0	9.6	0.0	12.9	0.0	14.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	370	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	19.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	288	0	456	0	479	0	586	0
V/C Ratio (X)	0.56	0.00	0.84	0.00	1.00	0.00	0.91	0.00
Avail Cap (c_a), veh/h	288	0	484	0	479	0	586	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.73	0.00	0.93	0.00
Uniform Delay (d1), s/veh	26.2	0.0	38.2	0.0	34.1	0.0	41.7	0.0
Incr Delay (d2), s/veh	2.4	0.0	11.8	0.0	33.8	0.0	17.4	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	28.5	0.0	50.0	0.0	67.9	0.0	59.1	0.0
1st-Term Q (Q1), veh/ln	2.6	0.0	3.9	0.0	4.3	0.0	6.3	0.0
2nd-Term Q (Q2), veh/ln	0.2	0.0	0.7	0.0	2.3	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.76	0.00	1.55	0.00	1.57	0.00
%ile Back of Q (95%), veh/ln	5.1	0.0	8.2	0.0	10.2	0.0	12.1	0.0
%ile Storage Ratio (RQ%)	1.10	0.00	1.65	0.00	1.79	0.00	3.13	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	3	0	3	0	3	0	3
Grp Vol (v), veh/h	0	752	0	963	0	628	0	762
Grp Sat Flow (s), veh/h/ln	0	1635	0	1675	0	1594	0	1716
Q Serve Time (g_s), s	0.0	9.5	0.0	16.9	0.0	11.5	0.0	12.4
Cycle Q Clear Time (g_c), s	0.0	9.5	0.0	16.9	0.0	11.5	0.0	12.4
Lane Grp Cap (c), veh/h	0	1428	0	1241	0	1020	0	1058
V/C Ratio (X)	0.00	0.53	0.00	0.78	0.00	0.62	0.00	0.72
Avail Cap (c_a), veh/h	0	1428	0	1241	0	1020	0	1058
Upstream Filter (I)	0.00	0.73	0.00	0.93	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	18.8	0.0	38.9	0.0	38.2	0.0	33.3
Incr Delay (d2), s/veh	0.0	1.0	0.0	4.5	0.0	2.8	0.0	4.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.9	0.0	43.4	0.0	41.0	0.0	37.6
1st-Term Q (Q1), veh/ln	0.0	2.9	0.0	7.5	0.0	4.7	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.5	0.0	0.3	0.0	0.4

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.56	0.00	1.74	0.00	1.71
%ile Back of Q (95%), veh/ln	0.0	5.4	0.0	12.5	0.0	8.6	0.0	9.0
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.81	0.00	0.81	0.00	0.20
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	621	0	254	0	363	0	254
Grp Sat Flow (s), veh/h/ln	0	1522	0	1560	0	1485	0	1598
Q Serve Time (g_s), s	0.0	26.2	0.0	11.5	0.0	17.4	0.0	13.5
Cycle Q Clear Time (g_c), s	0.0	26.2	0.0	11.5	0.0	17.4	0.0	13.5
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1522.3	0.0	1559.9	0.0	1484.6	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	11.8	0.0	13.0	0.0	15.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	642	0	611	0	572	0	328
V/C Ratio (X)	0.00	0.97	0.00	0.42	0.00	0.63	0.00	0.77
Avail Cap (c_a), veh/h	0	642	0	611	0	572	0	328
Upstream Filter (I)	0.00	0.73	0.00	0.93	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	19.9	0.0	24.6	0.0	26.4	0.0	33.8
Incr Delay (d2), s/veh	0.0	23.3	0.0	1.9	0.0	5.3	0.0	16.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	43.2	0.0	26.5	0.0	31.7	0.0	49.9
1st-Term Q (Q1), veh/ln	0.0	8.8	0.0	4.5	0.0	6.7	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	4.2	0.0	0.3	0.0	0.8	0.0	1.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.39	0.00	1.72	0.00	1.60	0.00	1.65
%ile Back of Q (95%), veh/ln	0.0	18.0	0.0	8.3	0.0	12.0	0.0	10.5
%ile Storage Ratio (RQ%)	0.00	4.76	0.00	2.14	0.00	4.34	0.00	0.23
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Intersection	
Int Delay, s/veh	0.1

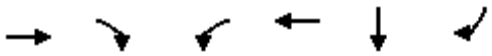
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	1181	1393	5
Future Vol, veh/h	5	5	5	1181	1393	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	80	91	92
Heavy Vehicles, %	2	2	2	5	4	2
Mvmt Flow	5	5	5	1476	1531	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2134	768	1536	0	-	0
Stage 1	1534	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	*181	295	214	-	-	-
Stage 1	*113	-	-	-	-	-
Stage 2	*669	-	-	-	-	-
Platoon blocked, %	1			-	-	-
Mov Cap-1 Maneuver	*177	295	214	-	-	-
Mov Cap-2 Maneuver	*177	-	-	-	-	-
Stage 1	*110	-	-	-	-	-
Stage 2	*669	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.1	0.1	0
HCM LOS	C		

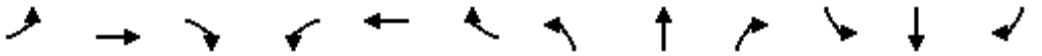
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	214	-	221	-	-
HCM Lane V/C Ratio	0.025	-	0.049	-	-
HCM Control Delay (s)	22.3	-	22.1	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

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



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	50.0	50.0	16.0	66.0	24.0	24.0
Total Split (%)	55.6%	55.6%	17.8%	73.3%	26.7%	26.7%
Maximum Green (s)	43.2	43.2	9.2	59.2	17.2	17.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	45.8	45.8	8.0	60.6	15.8	15.8
90th %ile Term Code	Coord	Coord	Min	Coord	Gap	Gap
70th %ile Green (s)	48.5	48.5	8.0	63.3	13.1	13.1
70th %ile Term Code	Coord	Coord	Min	Coord	Gap	Gap
50th %ile Green (s)	65.2	65.2	0.0	65.2	11.2	11.2
50th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
30th %ile Green (s)	67.1	67.1	0.0	67.1	9.3	9.3
30th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
10th %ile Green (s)	83.2	83.2	0.0	83.2	0.0	0.0
10th %ile Term Code	Coord	Coord	Skip	Coord	Skip	Skip

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 14 (16%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



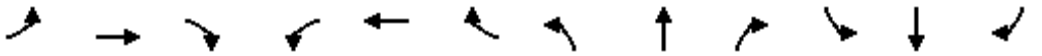
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	759	383	15	711	0	0	0	0	70	5	47
Future Volume (veh/h)	0	759	383	15	711	0	0	0	0	70	5	47
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking 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	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	853	430	18	846	0				96	7	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Cap, veh/h	0	3258	1011	404	3852	0				122	9	
Arrive On Green	0.00	0.88	0.88	0.06	1.00	0.00				0.08	0.08	0.00
Sat Flow, veh/h	0	5107	1535	1753	5191	0				1481	108	1409
Grp Volume(v), veh/h	0	853	430	18	846	0				103	0	0
Grp Sat Flow(s),veh/h/ln	0	1648	1535	1753	1675	0				1589	0	1409
Q Serve(g_s), s	0.0	2.5	5.0	0.3	0.0	0.0				5.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	2.5	5.0	0.3	0.0	0.0				5.7	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.93		1.00
Lane Grp Cap(c), veh/h	0	3258	1011	404	3852	0				131	0	
V/C Ratio(X)	0.00	0.26	0.43	0.04	0.22	0.00				0.79	0.00	
Avail Cap(c_a), veh/h	0	3258	1011	527	3852	0				304	0	
HCM Platoon Ratio	1.00	1.33	1.33	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.84	0.84	0.97	0.97	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	2.1	2.2	3.7	0.0	0.0				40.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	1.1	0.0	0.1	0.0				10.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	1.1	2.1	0.1	0.1	0.0				4.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	2.2	3.3	3.8	0.1	0.0				50.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				D	A	
Approach Vol, veh/h		1283			864						103	
Approach Delay, s/veh		2.6			0.2						50.5	
Approach LOS		A			A						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.7	66.1		14.2		75.8
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8
Max Green Setting (Gmax), s	9.2	43.2		17.2		59.2
Max Q Clear Time (g_c+I1), s	2.3	7.0		7.7		2.0
Green Ext Time (p_c), s	0.0	8.4		0.3		6.4

Intersection Summary	
HCM 6th Ctrl Delay	3.9
HCM 6th LOS	A

Notes

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)	0	759	383	15	711	0	0	0	0	70	5	47
Future Volume (veh/h)	0	759	383	15	711	0	0	0	0	70	5	47
Number	5	2	12	1	6	16				7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1811	1811	1841	1841	0				1663	1663	1663
Adj Flow Rate, veh/h	0	853	430	18	846	0				96	7	0
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84				0.73	0.73	0.73
Percent Heavy Veh, %	0	6	6	4	4	0				16	16	16
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	3258	1011	404	3852	0				122	9	
HCM Platoon Ratio	1.00	1.33	1.33	2.00	2.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	0.88	0.88	0.06	1.00	0.00				0.08	0.08	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	2.2	3.3	3.8	0.1	0.0				50.5	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A				D	A	
Approach Vol, veh/h		1283			864						103	
Approach Delay, s/veh		2.6			0.2						50.5	
Approach LOS		A			A						D	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		11.0		4.0		
Phs Duration (G+Y+Rc), s	9.7	66.1		14.2		75.8		
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8		
Max Green (Gmax), s	9.2	43.2		17.2		59.2		
Max Allow Headway (MAH), s	3.7	4.6		5.4		4.9		
Max Q Clear (g_c+I1), s	2.3	7.0		7.7		2.0		
Green Ext Time (g_e), s	0.0	8.4		0.3		6.4		
Prob of Phs Call (p_c)	0.36	1.00		0.92		1.00		
Prob of Max Out (p_x)	0.00	0.00		0.06		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1753	0		1481				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		5107		108		5191		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1535		1409		0		

Left Lane Group Data									
Assigned Mvmt	1	5	0	7	0	0	0	0	
Lane Assignment	L (Pr/Pm)			L+T					

Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	18	0	0	103	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1753	0	0	1589	0	0	0	0
Q Serve Time (g_s), s	0.3	0.0	0.0	5.7	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.3	0.0	0.0	5.7	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	424	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	61.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	56.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	59.3	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	404	0	0	131	0	0	0	0
V/C Ratio (X)	0.04	0.00	0.00	0.79	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	527	0	0	304	0	0	0	0
Upstream Filter (I)	0.97	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	3.7	0.0	0.0	40.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	10.0	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
Control Delay (d), s/veh	3.8	0.0	0.0	50.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.1	0.0	0.0	2.2	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.00	0.00	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.1	0.0	0.0	4.6	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.01	0.00	0.00	0.14	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	853	0	0	0	846	0	0
Grp Sat Flow (s), veh/h/ln	0	1648	0	0	0	1675	0	0
Q Serve Time (g_s), s	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3258	0	0	0	3852	0	0
V/C Ratio (X)	0.00	0.26	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	3258	0	0	0	3852	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	0.97	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	2.2	0.0	0.0	0.0	0.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	1.1	0.0	0.0	0.0	0.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	430	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1535	0	1409	0	0	0	0
Q Serve Time (g_s), s	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1011	0	116	0	0	0	0
V/C Ratio (X)	0.00	0.43	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1011	0	269	0	0	0	0
Upstream Filter (I)	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	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
Control Delay (d), s/veh	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

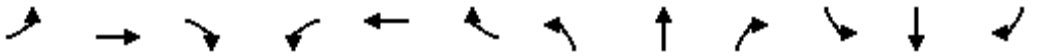
Intersection Summary	
HCM 6th Ctrl Delay	3.9
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Minimum Initial (s)	8.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	20.0	67.0	47.0	47.0	23.0	23.0
Total Split (%)	22.2%	74.4%	52.2%	52.2%	25.6%	25.6%
Maximum Green (s)	13.2	60.2	40.2	40.2	16.2	16.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	11.4	60.2	42.0	42.0	16.2	16.2
90th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
70th %ile Green (s)	9.4	62.9	46.7	46.7	13.5	13.5
70th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
50th %ile Green (s)	8.3	64.8	49.7	49.7	11.6	11.6
50th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
30th %ile Green (s)	8.0	66.7	51.9	51.9	9.7	9.7
30th %ile Term Code	Min	Coord	Coord	Coord	Gap	Gap
10th %ile Green (s)	8.0	83.2	68.4	68.4	0.0	0.0
10th %ile Term Code	Min	Coord	Coord	Coord	Skip	Skip

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 2.7 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Control Type: Actuated-Coordinated

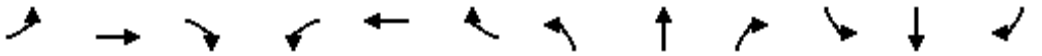


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	670	0	0	635	70	91	5	10	0	0	0
Future Volume (veh/h)	159	670	0	0	635	70	91	5	10	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking 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	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	171	720	0	0	774	0	111	6	12			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Cap, veh/h	573	3691	0	0	2873		144	8	135			
Arrive On Green	0.18	1.00	0.00	0.00	0.60	0.00	0.09	0.09	0.09			
Sat Flow, veh/h	1697	5024	0	0	4982	1497	1600	86	1497			
Grp Volume(v), veh/h	171	720	0	0	774	0	117	0	12			
Grp Sat Flow(s),veh/h/ln	1697	1621	0	0	1608	1497	1687	0	1497			
Q Serve(g_s), s	3.0	0.0	0.0	0.0	7.0	0.0	6.1	0.0	0.7			
Cycle Q Clear(g_c), s	3.0	0.0	0.0	0.0	7.0	0.0	6.1	0.0	0.7			
Prop In Lane	1.00		0.00	0.00		1.00	0.95		1.00			
Lane Grp Cap(c), veh/h	573	3691	0	0	2873		152	0	135			
V/C Ratio(X)	0.30	0.20	0.00	0.00	0.27		0.77	0.00	0.09			
Avail Cap(c_a), veh/h	673	3691	0	0	2873		304	0	269			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.98	0.98	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	4.5	0.0	0.0	0.0	8.8	0.0	40.0	0.0	37.6			
Incr Delay (d2), s/veh	0.3	0.1	0.0	0.0	0.2	0.0	8.0	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	1.2	0.1	0.0	0.0	3.7	0.0	5.1	0.0	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.7	0.1	0.0	0.0	9.0	0.0	48.0	0.0	37.8			
LnGrp LOS	A	A	A	A	A		D	A	D			
Approach Vol, veh/h		891			774			129				
Approach Delay, s/veh		1.0			9.0			47.1				
Approach LOS		A			A			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.1			14.7	60.4		14.9				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		60.2			13.2	40.2		16.2				
Max Q Clear Time (g_c+I1), s		2.0			5.0	9.0		8.1				
Green Ext Time (p_c), s		5.3			0.3	5.4		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR] 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)	159	670	0	0	635	70	91	5	10	0	0	0
Future Volume (veh/h)	159	670	0	0	635	70	91	5	10	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q, 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				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1781	1781	0	0	1767	1767	1767	1767	1767			
Adj Flow Rate, veh/h	171	720	0	0	774	0	111	6	12			
Peak Hour Factor	0.93	0.93	0.93	0.82	0.82	0.82	0.82	0.82	0.82			
Percent Heavy Veh, %	8	8	0	0	9	9	9	9	9			
Opposing Right Turn Influence	Yes			No			Yes					
Cap, veh/h	573	3691	0	0	2873		144	8	135			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.18	1.00	0.00	0.00	0.60	0.00	0.09	0.09	0.09			
Unsig. Movement Delay												
Ln Grp Delay, s/veh	4.7	0.1	0.0	0.0	9.0	0.0	48.0	0.0	37.8			
Ln Grp LOS	A	A	A	A	A		D	A	D			
Approach Vol, veh/h		891			774			129				
Approach Delay, s/veh		1.0			9.0			47.1				
Approach LOS		A			A			D				

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8		5	6		
Case No		4.0	11.0		1.2	7.0		
Phs Duration (G+Y+Rc), s		75.1	14.9		14.7	60.4		
Change Period (Y+Rc), s		6.8	6.8		6.8	6.8		
Max Green (Gmax), s		60.2	16.2		13.2	40.2		
Max Allow Headway (MAH), s		4.9	5.2		3.7	4.9		
Max Q Clear (g_c+I1), s		2.0	8.1		5.0	9.0		
Green Ext Time (g_e), s		5.3	0.3		0.3	5.4		
Prob of Phs Call (p_c)		1.00	0.96		0.99	1.00		
Prob of Max Out (p_x)		0.00	0.17		0.02	0.01		

Left-Turn Movement Data								
Assigned Mvmt			3		5	1		
Mvmt Sat Flow, veh/h			1600		1697	0		

Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		5024	86			4982		

Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		0	1497			1497		

Left Lane Group Data								
Assigned Mvmt	0	0	3	0	5	1	0	0
Lane Assignment			L+T		L (Pr/Pm)			

Lanes in Grp	0	0	1	0	1	0	0	0
Grp Vol (v), veh/h	0	0	117	0	171	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1687	0	1697	0	0	0
Q Serve Time (g_s), s	0.0	0.0	6.1	0.0	3.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	6.1	0.0	3.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	663	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	55.6	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	46.7	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	53.6	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.95	0.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	152	0	573	0	0	0
V/C Ratio (X)	0.00	0.00	0.77	0.00	0.30	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	304	0	673	0	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.98	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	40.0	0.0	4.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	8.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.0	48.0	0.0	4.7	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	2.5	0.0	0.6	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	1.80	0.00	1.80	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	5.1	0.0	1.2	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.18	0.00	0.09	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	720	0	0	0	774	0	0
Grp Sat Flow (s), veh/h/ln	0	1621	0	0	0	1608	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	7.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3691	0	0	0	2873	0	0
V/C Ratio (X)	0.00	0.20	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	3691	0	0	0	2873	0	0
Upstream Filter (I)	0.00	0.98	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	9.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

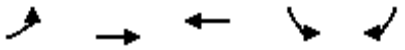
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	3.7	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment			R			R		
Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	12	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1497	0	0	1497	0	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	135	0	0	892	0	0
V/C Ratio (X)	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	269	0	0	892	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	37.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.0	37.8	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

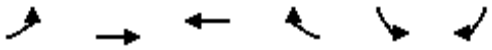
Notes

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



Lane Group	EBL	EBT	WBT	SBL	SBR
Protected Phases	7	4	8	6	6 7
Permitted Phases	4				
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	
Total Split (s)	21.0	64.0	43.0	26.0	
Total Split (%)	23.3%	71.1%	47.8%	28.9%	
Maximum Green (s)	16.5	59.5	38.5	21.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	C-Max	
Walk Time (s)		7.0	7.0	7.0	
Flash Dont Walk (s)		11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	
90th %ile Green (s)	16.2	48.9	28.2	32.1	
90th %ile Term Code	Gap	Hold	Gap	Coord	
70th %ile Green (s)	14.2	43.8	25.1	37.2	
70th %ile Term Code	Gap	Hold	Gap	Coord	
50th %ile Green (s)	12.7	39.8	22.6	41.2	
50th %ile Term Code	Gap	Hold	Gap	Coord	
30th %ile Green (s)	11.1	35.7	20.1	45.3	
30th %ile Term Code	Gap	Hold	Gap	Coord	
10th %ile Green (s)	8.6	29.9	16.8	51.1	
10th %ile Term Code	Gap	Hold	Gap	Coord	

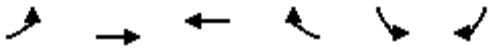
Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green
Control Type: Actuated-Coordinated



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	178	1106	741	17	36	60
Future Volume (veh/h)	178	1106	741	17	36	60
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	193	1202	805	18	39	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	318	1989	1220	27	909	971
Arrive On Green	0.03	0.13	0.08	0.08	0.51	0.51
Sat Flow, veh/h	1781	5274	5307	115	1781	1585
Grp Volume(v), veh/h	193	1202	533	290	39	65
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1850	1781	1585
Q Serve(g_s), s	6.9	20.0	13.7	13.7	1.0	1.5
Cycle Q Clear(g_c), s	6.9	20.0	13.7	13.7	1.0	1.5
Prop In Lane	1.00			0.06	1.00	1.00
Lane Grp Cap(c), veh/h	318	1989	808	439	909	971
V/C Ratio(X)	0.61	0.60	0.66	0.66	0.04	0.07
Avail Cap(c_a), veh/h	463	3376	1456	791	909	971
HCM Platoon Ratio	0.33	0.33	0.33	0.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.98	0.98	1.00	1.00
Uniform Delay (d), s/veh	24.3	32.7	37.9	37.9	11.0	7.0
Incr Delay (d2), s/veh	1.9	0.3	0.9	1.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.8	14.1	10.4	11.3	0.7	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.1	33.0	38.8	39.6	11.1	7.2
LnGrp LOS	C	C	D	D	B	A
Approach Vol, veh/h		1395	823		104	
Approach Delay, s/veh		32.0	39.1		8.7	
Approach LOS		C	D		A	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	39.6	50.4	13.7	25.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	59.5	21.5	16.5	38.5
Max Q Clear Time (g_c+I1), s	22.0	3.5	8.9	15.7
Green Ext Time (p_c), s	11.3	0.2	0.3	5.7

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	178	1106	741	17	36	60
Future Volume (veh/h)	178	1106	741	17	36	60
Number	7	4	8	18	1	16
Initial Q, 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	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	193	1202	805	18	39	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	No				No	
Cap, veh/h	318	1989	1220	27	909	971
HCM Platoon Ratio	0.33	0.33	0.33	0.33	1.00	1.00
Prop Arrive On Green	0.03	0.13	0.08	0.08	0.51	0.51
Unsig. Movement Delay						
Ln Grp Delay, s/veh	26.1	33.0	38.8	39.6	11.1	7.2
Ln Grp LOS	C	C	D	D	B	A
Approach Vol, veh/h		1395	823		104	
Approach Delay, s/veh		32.0	39.1		8.7	
Approach LOS		C	D		A	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	6			4			7	8
Case No	9.0			4.0			1.2	8.0
Phs Duration (G+Y+Rc), s	50.4			39.6			13.7	25.9
Change Period (Y+Rc), s	4.5			4.5			4.5	4.5
Max Green (Gmax), s	21.5			59.5			16.5	38.5
Max Allow Headway (MAH), s	4.0			5.2			3.8	5.2
Max Q Clear (g_c+I1), s	3.5			22.0			8.9	15.7
Green Ext Time (g_e), s	0.2			11.3			0.3	5.7
Prob of Phs Call (p_c)	1.00			1.00			0.99	1.00
Prob of Max Out (p_x)	0.00			0.05			0.05	0.06
Left-Turn Movement Data								
Assigned Mvmt	1						7	3
Mvmt Sat Flow, veh/h	1781						1781	0
Through Movement Data								
Assigned Mvmt	6			4				8
Mvmt Sat Flow, veh/h	0			5274				5307
Right-Turn Movement Data								
Assigned Mvmt	16			14				18
Mvmt Sat Flow, veh/h	1585			0				115
Left Lane Group Data								
Assigned Mvmt	1	0	0	0	0	0	7	3
Lane Assignment	L					L (Pr/Pm)		

Lanes in Grp	1	0	0	0	0	0	1	0
Grp Vol (v), veh/h	39	0	0	0	0	0	193	0
Grp Sat Flow (s), veh/h/ln	1781	0	0	0	0	0	1781	0
Q Serve Time (g_s), s	1.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0
Cycle Q Clear Time (g_c), s	1.0	0.0	0.0	0.0	0.0	0.0	6.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1781	0	0	0	0	0	665	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	23.4	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	909	0	0	0	0	0	318	0
V/C Ratio (X)	0.04	0.00	0.00	0.00	0.00	0.00	0.61	0.00
Avail Cap (c_a), veh/h	909	0	0	0	0	0	463	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	11.0	0.0	0.0	0.0	0.0	0.0	24.3	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	1.9	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	11.1	0.0	0.0	0.0	0.0	0.0	26.1	0.0
1st-Term Q (Q1), veh/ln	0.4	0.0	0.0	0.0	0.0	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	0.00	0.00	0.00	1.80	1.00
%ile Back of Q (95%), veh/ln	0.7	0.0	0.0	0.0	0.0	0.0	5.8	0.0
%ile Storage Ratio (RQ%)	0.10	0.00	0.00	0.00	0.00	0.00	1.48	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	6	0	0	4	0	0	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	3	0	0	0	2
Grp Vol (v), veh/h	0	0	0	1202	0	0	0	533
Grp Sat Flow (s), veh/h/ln	0	0	0	1702	0	0	0	1702
Q Serve Time (g_s), s	0.0	0.0	0.0	20.0	0.0	0.0	0.0	13.7
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	20.0	0.0	0.0	0.0	13.7
Lane Grp Cap (c), veh/h	0	0	0	1989	0	0	0	808
V/C Ratio (X)	0.00	0.00	0.00	0.60	0.00	0.00	0.00	0.66
Avail Cap (c_a), veh/h	0	0	0	3376	0	0	0	1456
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.98
Uniform Delay (d1), s/veh	0.0	0.0	0.0	32.7	0.0	0.0	0.0	37.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	33.0	0.0	0.0	0.0	38.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	9.1	0.0	0.0	0.0	6.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.54	0.00	0.00	0.00	1.65
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	14.1	0.0	0.0	0.0	10.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.29
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	16	0	0	14	0	0	0	18
Lane Assignment	R							T+R
Lanes in Grp	1	0	0	0	0	0	0	1
Grp Vol (v), veh/h	65	0	0	0	0	0	0	290
Grp Sat Flow (s), veh/h/ln	1585	0	0	0	0	0	0	1850
Q Serve Time (g_s), s	1.5	0.0	0.0	0.0	0.0	0.0	0.0	13.7
Cycle Q Clear Time (g_c), s	1.5	0.0	0.0	0.0	0.0	0.0	0.0	13.7
Prot RT Sat Flow (s_R), veh/h/ln	1585.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Lane Grp Cap (c), veh/h	971	0	0	0	0	0	0	439
V/C Ratio (X)	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.66
Avail Cap (c_a), veh/h	971	0	0	0	0	0	0	791
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98
Uniform Delay (d1), s/veh	7.0	0.0	0.0	0.0	0.0	0.0	0.0	37.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.2	0.0	0.0	0.0	0.0	0.0	0.0	39.6
1st-Term Q (Q1), veh/ln	2.3	0.0	0.0	0.0	0.0	0.0	0.0	6.8
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.00	0.00	0.00	0.00	1.62
%ile Back of Q (95%), veh/ln	4.1	0.0	0.0	0.0	0.0	0.0	0.0	11.3
%ile Storage Ratio (RQ%)	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.32
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1284	776	34	0	169
Future Vol, veh/h	0	1284	776	34	0	169
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	0	1396	843	37	0	184

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	440
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*761
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*761
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	761
HCM Lane V/C Ratio	-	-	-	0.241
HCM Control Delay (s)	-	-	-	11.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.9

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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	8	2	8		6
Permitted Phases				2	6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	30.0	30.0	60.0	30.0	60.0	60.0
Total Split (%)	33.3%	33.3%	66.7%	33.3%	66.7%	66.7%
Maximum Green (s)	25.5	25.5	55.5	25.5	55.5	55.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Max	None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
90th %ile Green (s)	15.2	15.2	65.8	15.2	65.8	65.8
90th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord
70th %ile Green (s)	12.7	12.7	68.3	12.7	68.3	68.3
70th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord
50th %ile Green (s)	10.9	10.9	70.1	10.9	70.1	70.1
50th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord
30th %ile Green (s)	9.2	9.2	71.8	9.2	71.8	71.8
30th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord
10th %ile Green (s)	6.7	6.7	74.3	6.7	74.3	74.3
10th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord

Intersection Summary
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	101	33	1153	106	29	1369
Future Volume (veh/h)	101	33	1153	106	29	1369
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	110	36	1253	115	32	1488
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	150	133	4166	1427	442	4166
Arrive On Green	0.08	0.08	1.00	1.00	0.82	0.82
Sat Flow, veh/h	1781	1585	5274	1585	443	5274
Grp Volume(v), veh/h	110	36	1253	115	32	1488
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	443	1702
Q Serve(g_s), s	5.4	1.9	0.0	0.0	1.3	6.8
Cycle Q Clear(g_c), s	5.4	1.9	0.0	0.0	1.3	6.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	150	133	4166	1427	442	4166
V/C Ratio(X)	0.73	0.27	0.30	0.08	0.07	0.36
Avail Cap(c_a), veh/h	505	449	4166	1427	442	4166
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.58	0.58	1.00	1.00
Uniform Delay (d), s/veh	40.2	38.6	0.0	0.0	1.6	2.2
Incr Delay (d2), s/veh	6.8	1.1	0.1	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.7	1.4	0.1	0.0	0.2	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	47.0	39.7	0.1	0.1	2.0	2.4
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	146		1368			1520
Approach Delay, s/veh	45.2		0.1			2.4
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		77.9			77.9	12.1
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		55.5			55.5	25.5
Max Q Clear Time (g_c+I1), s		2.0			8.8	7.4
Green Ext Time (p_c), s		13.6			17.3	0.3

Intersection Summary	
HCM 6th Ctrl Delay	3.4
HCM 6th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	101	33	1153	106	29	1369
Future Volume (veh/h)	101	33	1153	106	29	1369
Number	3	18	2	12	1	6
Initial Q, 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
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	110	36	1253	115	32	1488
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	No				No	
Cap, veh/h	150	133	4166	1427	442	4166
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Prop Arrive On Green	0.08	0.08	1.00	1.00	0.82	0.82
Unsig. Movement Delay						
Ln Grp Delay, s/veh	47.0	39.7	0.1	0.1	2.0	2.4
Ln Grp LOS	D	D	A	A	A	A
Approach Vol, veh/h	146		1368			1520
Approach Delay, s/veh	45.2		0.1			2.4
Approach LOS	D		A			A

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		7.0	9.0			6.0		
Phs Duration (G+Y+Rc), s		77.9	12.1			77.9		
Change Period (Y+Rc), s		4.5	4.5			4.5		
Max Green (Gmax), s		55.5	25.5			55.5		
Max Allow Headway (MAH), s		5.1	3.9			5.3		
Max Q Clear (g_c+I1), s		2.0	7.4			8.8		
Green Ext Time (g_e), s		13.6	0.3			17.3		
Prob of Phs Call (p_c)		1.00	0.97			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		
Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	1781			443		
Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		5274	0			5274		
Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		1585	1585			0		
Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L			L		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	110	0	0	32	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1781	0	0	443	0	0
Q Serve Time (g_s), s	0.0	0.0	5.4	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	5.4	0.0	0.0	1.3	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	0	0	443	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	73.4	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	73.4	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
Time to First Blk (g_f), s	0.0	73.4	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	150	0	0	442	0	0
V/C Ratio (X)	0.00	0.00	0.73	0.00	0.00	0.07	0.00	0.00
Avail Cap (c_a), veh/h	0	0	505	0	0	442	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	40.2	0.0	0.0	1.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.8	0.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.0	47.0	0.0	0.0	2.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	2.3	0.0	0.0	0.1	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	4.7	0.0	0.0	0.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.55	0.00	0.00	0.04	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	1253	0	0	0	1488	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0
Lane Grp Cap (c), veh/h	0	4166	0	0	0	4166	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.36	0.00	0.00
Avail Cap (c_a), veh/h	0	4166	0	0	0	4166	0	0
Upstream Filter (I)	0.00	0.58	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	2.4	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	2.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.22	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	115	36	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1427	133	0	0	0	0	0
V/C Ratio (X)	0.00	0.08	0.27	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1427	449	0	0	0	0	0
Upstream Filter (I)	0.00	0.58	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	38.6	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.1	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
Control Delay (d), s/veh	0.0	0.1	39.7	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.16	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	3.4
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.6

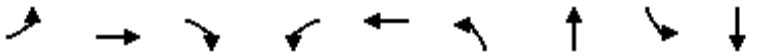
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	75	1538	30	40	1544	20	15	5	30	20	5	30
Future Vol, veh/h	75	1538	30	40	1544	20	15	5	30	20	5	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	Free	-	-	None	-	-	Free
Storage Length	150	-	-	225	-	-	75	-	175	75	-	75
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	86	86	86	65	65	65	64	64	64
Heavy Vehicles, %	2	2	2	2	2	2	0	0	0	0	0	0
Mvmt Flow	81	1654	32	47	1795	23	23	8	46	31	8	47

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1795	0	0	1686	0	0	2648	3721	843	2717	3737	-
Stage 1	-	-	-	-	-	-	1832	1832	-	1889	1889	-
Stage 2	-	-	-	-	-	-	816	1889	-	828	1848	-
Critical Hdwy	5.34	-	-	5.34	-	-	6.4	6.5	7.1	6.4	6.5	-
Critical Hdwy Stg 1	-	-	-	-	-	-	7.3	5.5	-	7.3	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.7	5.5	-	6.7	5.5	-
Follow-up Hdwy	3.12	-	-	3.12	-	-	3.8	4	3.9	3.8	4	-
Pot Cap-1 Maneuver	668	-	-	180	-	0	*86	~ 6	267	73	~ 6	0
Stage 1	-	-	-	-	-	0	*52	128	-	426	449	0
Stage 2	-	-	-	-	-	0	*574	449	-	304	126	0
Platoon blocked, %	1	-	-		-		1	1		1	1	
Mov Cap-1 Maneuver	668	-	-	180	-	-	-	~ 4	267	-	~ 4	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 4	-	-	~ 4	-
Stage 1	-	-	-	-	-	-	*46	113	-	374	332	-
Stage 2	-	-	-	-	-	-	*414	332	-	206	111	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.8		
HCM LOS			-	-

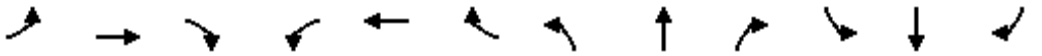
Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	4	267	668	-	-	180	-	-	4	-
HCM Lane V/C Ratio	-	1.923	0.173	0.121	-	-	0.258	-	-	1.953	-
HCM Control Delay (s)	-	$ 2019.3	21.3	11.1	-	-	31.8	-	-	$ 2034.3	0
HCM Lane LOS	-	F	C	B	-	-	D	-	-	F	A
HCM 95th %tile Q(veh)	-	1.9	0.6	0.4	-	-	1	-	-	2	-

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



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Protected Phases		4			8		2		6
Permitted Phases	4		4	8		2		6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	79.0	79.0	79.0	79.0	79.0	26.0	26.0	26.0	26.0
Total Split (%)	75.2%	75.2%	75.2%	75.2%	75.2%	24.8%	24.8%	24.8%	24.8%
Maximum Green (s)	74.5	74.5	74.5	74.5	74.5	21.5	21.5	21.5	21.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0
90th %ile Green (s)	73.7	73.7	73.7	73.7	73.7	22.3	22.3	22.3	22.3
90th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord
70th %ile Green (s)	65.9	65.9	65.9	65.9	65.9	30.1	30.1	30.1	30.1
70th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord
50th %ile Green (s)	60.8	60.8	60.8	60.8	60.8	35.2	35.2	35.2	35.2
50th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord
30th %ile Green (s)	55.9	55.9	55.9	55.9	55.9	40.1	40.1	40.1	40.1
30th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord
10th %ile Green (s)	48.1	48.1	48.1	48.1	48.1	47.9	47.9	47.9	47.9
10th %ile Term Code	Hold	Hold	Hold	Gap	Gap	Coord	Coord	Coord	Coord

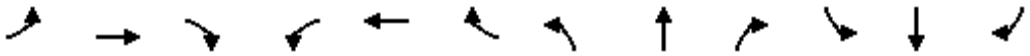
Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1473	95	45	1549	45	35	5	35	30	5	20
Future Volume (veh/h)	20	1473	95	45	1549	45	35	5	35	30	5	20
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	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	22	1601	103	51	1740	51	58	8	58	55	9	36
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.60	0.60	0.60	0.55	0.55	0.55
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	4	4	4
Cap, veh/h	208	2704	839	168	2700	79	297	53	263	577	124	495
Arrive On Green	0.53	0.53	0.53	1.00	1.00	1.00	0.38	0.38	0.38	0.38	0.38	0.38
Sat Flow, veh/h	264	5106	1585	317	5098	149	640	139	684	1314	322	1287
Grp Volume(v), veh/h	22	1601	103	51	1162	629	124	0	0	55	0	45
Grp Sat Flow(s),veh/h/ln	264	1702	1585	317	1702	1843	1463	0	0	1314	0	1609
Q Serve(g_s), s	4.5	22.6	3.4	9.8	0.0	0.0	3.4	0.0	0.0	0.0	0.0	1.9
Cycle Q Clear(g_c), s	4.5	22.6	3.4	32.4	0.0	0.0	5.6	0.0	0.0	2.7	0.0	1.9
Prop In Lane	1.00		1.00	1.00		0.08	0.47		0.47	1.00		0.80
Lane Grp Cap(c), veh/h	208	2704	839	168	1803	976	613	0	0	577	0	619
V/C Ratio(X)	0.11	0.59	0.12	0.30	0.64	0.64	0.20	0.00	0.00	0.10	0.00	0.07
Avail Cap(c_a), veh/h	256	3623	1125	226	2415	1308	613	0	0	577	0	619
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.44	0.44	0.44	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.7	16.9	12.4	6.6	0.0	0.0	21.5	0.0	0.0	20.7	0.0	20.4
Incr Delay (d2), s/veh	0.2	0.2	0.1	0.4	0.2	0.3	0.7	0.0	0.0	0.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.5	13.2	2.2	0.9	0.1	0.2	3.9	0.0	0.0	1.6	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.9	17.1	12.5	7.0	0.2	0.3	22.3	0.0	0.0	21.0	0.0	20.7
LnGrp LOS	B	B	B	A	A	A	C	A	A	C	A	C
Approach Vol, veh/h		1726			1842			124			100	
Approach Delay, s/veh		16.8			0.4			22.3			20.9	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.9		60.1		44.9		60.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		21.5		74.5		21.5		74.5				
Max Q Clear Time (g_c+I1), s		7.6		24.6		4.7		34.4				
Green Ext Time (p_c), s		0.5		20.8		0.3		21.2				

Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	1473	95	45	1549	45	35	5	35	30	5	20
Future Volume (veh/h)	20	1473	95	45	1549	45	35	5	35	30	5	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1826	1826	1826	1841	1841	1841
Adj Flow Rate, veh/h	22	1601	103	51	1740	51	58	8	58	55	9	36
Peak Hour Factor	0.92	0.92	0.92	0.89	0.89	0.89	0.60	0.60	0.60	0.55	0.55	0.55
Percent Heavy Veh, %	2	2	2	2	2	2	5	5	5	4	4	4
Opposing Right Turn Influence	No			No			No			No		
Cap, veh/h	208	2704	839	168	2700	79	297	53	263	577	124	495
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.53	0.53	0.53	1.00	1.00	1.00	0.38	0.38	0.38	0.38	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	12.9	17.1	12.5	7.0	0.2	0.3	22.3	0.0	0.0	21.0	0.0	20.7
Ln Grp LOS	B	B	B	A	A	A	C	A	A	C	A	C
Approach Vol, veh/h		1726			1842			124			100	
Approach Delay, s/veh		16.8			0.4			22.3			20.9	
Approach LOS		B			A			C			C	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Case No		8.0		5.0		6.0		6.0
Phs Duration (G+Y+Rc), s		44.9		60.1		44.9		60.1
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green (Gmax), s		21.5		74.5		21.5		74.5
Max Allow Headway (MAH), s		5.5		5.3		4.7		5.4
Max Q Clear (g_c+I1), s		7.6		24.6		4.7		34.4
Green Ext Time (g_e), s		0.5		20.8		0.3		21.2
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00
Prob of Max Out (p_x)		0.00		0.15		0.00		0.35

Left-Turn Movement Data								
Assigned Mvmt		5		7		1		3
Mvmt Sat Flow, veh/h		640		264		1314		317

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		139		5106		322		5098

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		684		1585		1287		149

Left Lane Group Data								
Assigned Mvmt	0	5	0	7	0	1	0	3
Lane Assignment		L+T+R		L		L		L

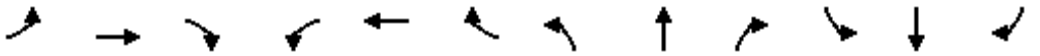
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	124	0	22	0	55	0	51
Grp Sat Flow (s), veh/h/ln	0	1463	0	264	0	1314	0	317
Q Serve Time (g_s), s	0.0	3.4	0.0	4.5	0.0	0.0	0.0	9.8
Cycle Q Clear Time (g_c), s	0.0	5.6	0.0	4.5	0.0	2.7	0.0	32.4
Perm LT Sat Flow (s_l), veh/h/ln	0	1383	0	264	0	1314	0	317
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	1372	0	0
Perm LT Eff Green (g_p), s	0.0	40.4	0.0	55.6	0.0	40.4	0.0	55.6
Perm LT Serve Time (g_u), s	0.0	38.5	0.0	55.6	0.0	34.8	0.0	33.0
Perm LT Q Serve Time (g_ps), s	0.0	3.4	0.0	4.5	0.0	0.0	0.0	9.8
Time to First Blk (g_f), s	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.47	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	613	0	208	0	577	0	168
V/C Ratio (X)	0.00	0.20	0.00	0.11	0.00	0.10	0.00	0.30
Avail Cap (c_a), veh/h	0	613	0	256	0	577	0	226
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.44
Uniform Delay (d1), s/veh	0.0	21.5	0.0	12.7	0.0	20.7	0.0	6.6
Incr Delay (d2), s/veh	0.0	0.7	0.0	0.2	0.0	0.3	0.0	0.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	22.3	0.0	12.9	0.0	21.0	0.0	7.0
1st-Term Q (Q1), veh/ln	0.0	2.0	0.0	0.3	0.0	0.9	0.0	0.5
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	3.9	0.0	0.5	0.0	1.6	0.0	0.9
%ile Storage Ratio (RQ%)	0.00	0.14	0.00	0.07	0.00	0.43	0.00	0.30
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	3	0	0	0	2
Grp Vol (v), veh/h	0	0	0	1601	0	0	0	1162
Grp Sat Flow (s), veh/h/ln	0	0	0	1702	0	0	0	1702
Q Serve Time (g_s), s	0.0	0.0	0.0	22.6	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	22.6	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	2704	0	0	0	1803
V/C Ratio (X)	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.64
Avail Cap (c_a), veh/h	0	0	0	3623	0	0	0	2415
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.44
Uniform Delay (d1), s/veh	0.0	0.0	0.0	16.9	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	17.1	0.0	0.0	0.0	0.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.56	0.00	1.00	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	13.2	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.27	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

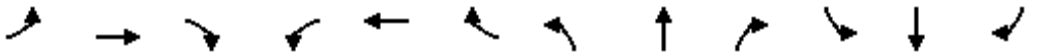
Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment				R		T+R		T+R
Lanes in Grp	0	0	0	1	0	1	0	1
Grp Vol (v), veh/h	0	0	0	103	0	45	0	629
Grp Sat Flow (s), veh/h/ln	0	0	0	1585	0	1609	0	1843
Q Serve Time (g_s), s	0.0	0.0	0.0	3.4	0.0	1.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.4	0.0	1.9	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.47	0.00	1.00	0.00	0.80	0.00	0.08
Lane Grp Cap (c), veh/h	0	0	0	839	0	619	0	976
V/C Ratio (X)	0.00	0.00	0.00	0.12	0.00	0.07	0.00	0.64
Avail Cap (c_a), veh/h	0	0	0	1125	0	619	0	1308
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.44
Uniform Delay (d1), s/veh	0.0	0.0	0.0	12.4	0.0	20.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	12.5	0.0	20.7	0.0	0.3
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.2	0.0	0.7	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.80	0.00	1.80	0.00	1.80
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	2.2	0.0	1.3	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.28	0.00	0.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases	5	2	3	1	6	7	3	8		7	4	5
Permitted Phases			2	6		6			8			4
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	16.8	9.5	9.5	16.8	9.5	9.5	11.5	11.5	9.5	11.5	11.0
Total Split (s)	19.0	36.0	35.0	12.0	29.0	18.0	35.0	39.0	39.0	18.0	22.0	19.0
Total Split (%)	18.1%	34.3%	33.3%	11.4%	27.6%	17.1%	33.3%	37.1%	37.1%	17.1%	21.0%	18.1%
Maximum Green (s)	13.0	29.2	30.5	7.5	22.2	13.5	30.5	32.5	32.5	13.5	15.5	13.0
Yellow Time (s)	4.0	4.8	3.5	3.5	4.8	3.5	3.5	4.5	4.5	3.5	4.5	4.0
All-Red Time (s)	2.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	2.0	1.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	None	None	C-Max	None	None	Max	Max	None	Max	None
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
90th %ile Green (s)	13.0	29.2	30.5	7.5	22.2	13.5	30.5	32.5	32.5	13.5	15.5	13.0
90th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max
70th %ile Green (s)	13.0	29.2	30.5	7.5	22.2	13.5	30.5	32.5	32.5	13.5	15.5	13.0
70th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max
50th %ile Green (s)	13.0	29.2	30.5	7.5	22.2	13.5	30.5	32.5	32.5	13.5	15.5	13.0
50th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max
30th %ile Green (s)	13.0	29.2	30.5	7.5	22.2	13.5	30.5	32.5	32.5	13.5	15.5	13.0
30th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max
10th %ile Green (s)	13.0	29.2	30.5	7.5	22.2	13.5	30.5	32.5	32.5	13.5	15.5	13.0
10th %ile Term Code	Max	Coord	Max	Max	Coord	Max	Max	MaxR	MaxR	Max	MaxR	Max

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	388	625	525	156	675	437	625	982	158	339	606	339
Future Volume (veh/h)	388	625	525	156	675	437	625	982	158	339	606	339
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	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	446	718	603	181	785	508	992	1559	251	404	721	404
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Cap, veh/h	424	1409	894	260	1071	535	1020	1606	498	441	748	427
Arrive On Green	0.12	0.28	0.28	0.02	0.07	0.07	0.29	0.31	0.31	0.04	0.05	0.05
Sat Flow, veh/h	3428	5066	1572	1767	5066	1572	3510	5187	1610	3428	5066	1572
Grp Volume(v), veh/h	446	718	603	181	785	508	992	1559	251	404	721	404
Grp Sat Flow(s),veh/h/ln	1714	1689	1572	1767	1689	1572	1755	1729	1610	1714	1689	1572
Q Serve(g_s), s	13.0	12.5	28.2	7.5	16.0	22.2	29.3	31.2	13.4	12.3	14.9	15.5
Cycle Q Clear(g_c), s	13.0	12.5	28.2	7.5	16.0	22.2	29.3	31.2	13.4	12.3	14.9	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	424	1409	894	260	1071	535	1020	1606	498	441	748	427
V/C Ratio(X)	1.05	0.51	0.67	0.70	0.73	0.95	0.97	0.97	0.50	0.92	0.96	0.95
Avail Cap(c_a), veh/h	424	1409	894	260	1071	535	1020	1606	498	441	748	427
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	0.83	0.83	0.83	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	46.0	31.9	15.8	32.9	45.9	38.8	36.8	35.8	29.7	49.7	49.7	41.2
Incr Delay (d2), s/veh	53.8	1.1	3.4	7.8	4.4	28.3	21.8	16.6	3.6	23.2	24.6	31.2
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(95%),veh/ln	13.1	8.4	14.3	1.7	12.1	23.1	21.3	21.1	9.2	11.3	13.1	19.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.8	33.0	19.2	40.7	50.4	67.2	58.6	52.3	33.3	72.9	74.3	72.4
LnGrp LOS	F	C	B	D	D	E	E	D	C	E	E	E
Approach Vol, veh/h		1767			1474			2802			1529	
Approach Delay, s/veh		45.1			55.0			52.8			73.4	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	36.0	35.0	22.0	19.0	29.0	18.0	39.0
Change Period (Y+Rc), s	4.5	6.8	4.5	6.5	6.0	6.8	4.5	6.5
Max Green Setting (Gmax), s	7.5	29.2	30.5	15.5	13.0	22.2	13.5	32.5
Max Q Clear Time (g_c+I1), s	9.5	30.2	31.3	17.5	15.0	24.2	14.3	33.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	55.6
HCM 6th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	388	625	525	156	675	437	625	982	158	339	606	339
Future Volume (veh/h)	388	625	525	156	675	437	625	982	158	339	606	339
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	446	718	603	181	785	508	992	1559	251	404	721	404
Peak Hour Factor	0.87	0.87	0.87	0.86	0.86	0.86	0.63	0.63	0.63	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	0	0	0	3	3	3
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	424	1409	894	260	1071	535	1020	1606	498	441	748	427
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	0.33	0.33	0.33
Prop Arrive On Green	0.12	0.28	0.28	0.02	0.07	0.07	0.29	0.31	0.31	0.04	0.05	0.05
Unsig. Movement Delay												
Ln Grp Delay, s/veh	99.8	33.0	19.2	40.7	50.4	67.2	58.6	52.3	33.3	72.9	74.3	72.4
Ln Grp LOS	F	C	B	D	D	E	E	D	C	E	E	E
Approach Vol, veh/h		1767			1474			2802			1529	
Approach Delay, s/veh		45.1			55.0			52.8			73.4	
Approach LOS		D			D			D			E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Case No	1.1	3.0	2.0	3.0	2.0	3.0	2.0	3.0
Phs Duration (G+Y+Rc), s	12.0	36.0	35.0	22.0	19.0	29.0	18.0	39.0
Change Period (Y+Rc), s	4.5	6.8	4.5	6.5	6.0	6.8	4.5	6.5
Max Green (Gmax), s	7.5	29.2	30.5	15.5	13.0	22.2	13.5	32.5
Max Allow Headway (MAH), s	3.7	4.4	3.7	4.6	3.7	4.5	3.7	4.8
Max Q Clear (g_c+I1), s	9.5	30.2	31.3	17.5	15.0	24.2	14.3	33.2
Green Ext Time (g_e), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prob of Phs Call (p_c)	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prob of Max Out (p_x)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00

Left-Turn Movement Data								
Assigned Mvmt	1		3		5		7	
Mvmt Sat Flow, veh/h	1767		3510		3428		3428	

Through Movement Data								
Assigned Mvmt		2		4		6		8
Mvmt Sat Flow, veh/h		5066		5066		5066		5187

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		18
Mvmt Sat Flow, veh/h		1572		1572		1572		1610

Left Lane Group Data								
Assigned Mvmt	1	0	3	0	5	0	7	0
Lane Assignment	L (Pr/Pm)		L (Prot)		L (Prot)		L (Prot)	

Lanes in Grp	1	0	2	0	2	0	2	0
Grp Vol (v), veh/h	181	0	992	0	446	0	404	0
Grp Sat Flow (s), veh/h/ln	1767	0	1755	0	1714	0	1714	0
Q Serve Time (g_s), s	7.5	0.0	29.3	0.0	13.0	0.0	12.3	0.0
Cycle Q Clear Time (g_c), s	7.5	0.0	29.3	0.0	13.0	0.0	12.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	412	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	16.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	260	0	1020	0	424	0	441	0
V/C Ratio (X)	0.70	0.00	0.97	0.00	1.05	0.00	0.92	0.00
Avail Cap (c_a), veh/h	260	0	1020	0	424	0	441	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.83	0.00	0.96	0.00
Uniform Delay (d1), s/veh	32.9	0.0	36.8	0.0	46.0	0.0	49.7	0.0
Incr Delay (d2), s/veh	7.8	0.0	21.8	0.0	53.8	0.0	23.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	40.7	0.0	58.6	0.0	99.8	0.0	72.9	0.0
1st-Term Q (Q1), veh/ln	0.4	0.0	11.8	0.0	5.3	0.0	5.6	0.0
2nd-Term Q (Q2), veh/ln	0.6	0.0	3.1	0.0	3.2	0.0	1.4	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	1.42	0.00	1.55	0.00	1.61	0.00
%ile Back of Q (95%), veh/ln	1.7	0.0	21.3	0.0	13.1	0.0	11.3	0.0
%ile Storage Ratio (RQ%)	0.34	0.00	4.25	0.00	2.24	0.00	2.90	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	3	0	3	0	3	0	3
Grp Vol (v), veh/h	0	718	0	721	0	785	0	1559
Grp Sat Flow (s), veh/h/ln	0	1689	0	1689	0	1689	0	1729
Q Serve Time (g_s), s	0.0	12.5	0.0	14.9	0.0	16.0	0.0	31.2
Cycle Q Clear Time (g_c), s	0.0	12.5	0.0	14.9	0.0	16.0	0.0	31.2
Lane Grp Cap (c), veh/h	0	1409	0	748	0	1071	0	1606
V/C Ratio (X)	0.00	0.51	0.00	0.96	0.00	0.73	0.00	0.97
Avail Cap (c_a), veh/h	0	1409	0	748	0	1071	0	1606
Upstream Filter (I)	0.00	0.83	0.00	0.96	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	31.9	0.0	49.7	0.0	45.9	0.0	35.8
Incr Delay (d2), s/veh	0.0	1.1	0.0	24.6	0.0	4.4	0.0	16.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	33.0	0.0	74.3	0.0	50.4	0.0	52.3
1st-Term Q (Q1), veh/ln	0.0	4.9	0.0	6.7	0.0	7.1	0.0	12.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	1.7	0.0	0.4	0.0	2.5

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.67	0.00	1.55	0.00	1.60	0.00	1.43
%ile Back of Q (95%), veh/ln	0.0	8.4	0.0	13.1	0.0	12.1	0.0	21.1
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.85	0.00	1.08	0.00	0.46
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		R		R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	603	0	404	0	508	0	251
Grp Sat Flow (s), veh/h/ln	0	1572	0	1572	0	1572	0	1610
Q Serve Time (g_s), s	0.0	28.2	0.0	15.5	0.0	22.2	0.0	13.4
Cycle Q Clear Time (g_c), s	0.0	28.2	0.0	15.5	0.0	22.2	0.0	13.4
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1572.5	0.0	1572.5	0.0	1572.5	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	30.5	0.0	13.0	0.0	13.5	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	894	0	427	0	535	0	498
V/C Ratio (X)	0.00	0.67	0.00	0.95	0.00	0.95	0.00	0.50
Avail Cap (c_a), veh/h	0	894	0	427	0	535	0	498
Upstream Filter (I)	0.00	0.83	0.00	0.96	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.8	0.0	41.2	0.0	38.8	0.0	29.7
Incr Delay (d2), s/veh	0.0	3.4	0.0	31.2	0.0	28.3	0.0	3.6
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	19.2	0.0	72.4	0.0	67.2	0.0	33.3
1st-Term Q (Q1), veh/ln	0.0	8.8	0.0	9.9	0.0	12.2	0.0	4.9
2nd-Term Q (Q2), veh/ln	0.0	0.8	0.0	3.7	0.0	4.2	0.0	0.5
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.48	0.00	1.43	0.00	1.40	0.00	1.70
%ile Back of Q (95%), veh/ln	0.0	14.3	0.0	19.6	0.0	23.1	0.0	9.2
%ile Storage Ratio (RQ%)	0.00	3.66	0.00	5.01	0.00	7.89	0.00	0.20
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	55.6
HCM 6th LOS	E

Intersection	
Int Delay, s/veh	0.1

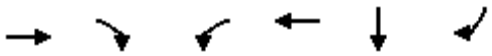
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	5	1675	1247	5
Future Vol, veh/h	5	5	5	1675	1247	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	82	92	92
Heavy Vehicles, %	2	2	2	1	3	2
Mvmt Flow	5	5	5	2043	1355	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2185	680	1360	0	-	0
Stage 1	1358	-	-	-	-	-
Stage 2	827	-	-	-	-	-
Critical Hdwy	5.74	7.14	5.34	-	-	-
Critical Hdwy Stg 1	6.64	-	-	-	-	-
Critical Hdwy Stg 2	6.04	-	-	-	-	-
Follow-up Hdwy	3.82	3.92	3.12	-	-	-
Pot Cap-1 Maneuver	*296	337	261	-	-	-
Stage 1	*145	-	-	-	-	-
Stage 2	*556	-	-	-	-	-
Platoon blocked, %	1			-	-	-
Mov Cap-1 Maneuver	*290	337	261	-	-	-
Mov Cap-2 Maneuver	*290	-	-	-	-	-
Stage 1	*142	-	-	-	-	-
Stage 2	*556	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17	0.1	0
HCM LOS	C		

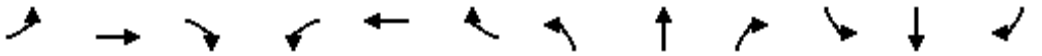
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	261	-	312	-	-
HCM Lane V/C Ratio	0.021	-	0.035	-	-
HCM Control Delay (s)	19.1	-	17	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

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



Lane Group	EBT	EBR	WBL	WBT	SBT	SBR
Protected Phases	2		1	6	4	4
Permitted Phases		2	6			
Minimum Initial (s)	10.0	10.0	8.0	10.0	5.0	5.0
Minimum Split (s)	16.8	16.8	14.8	16.8	11.8	11.8
Total Split (s)	61.0	61.0	18.0	79.0	26.0	26.0
Total Split (%)	58.1%	58.1%	17.1%	75.2%	24.8%	24.8%
Maximum Green (s)	54.2	54.2	11.2	72.2	19.2	19.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	62.6	62.6	8.0	77.4	14.0	14.0
90th %ile Term Code	Coord	Coord	Min	Coord	Gap	Gap
70th %ile Green (s)	79.7	79.7	0.0	79.7	11.7	11.7
70th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
50th %ile Green (s)	81.3	81.3	0.0	81.3	10.1	10.1
50th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
30th %ile Green (s)	82.9	82.9	0.0	82.9	8.5	8.5
30th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap
10th %ile Green (s)	85.2	85.2	0.0	85.2	6.2	6.2
10th %ile Term Code	Coord	Coord	Skip	Coord	Gap	Gap

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 14 (13%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow
Control Type: Actuated-Coordinated



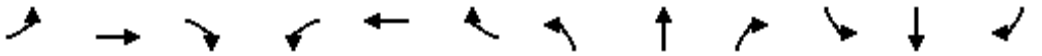
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	643	333	5	1009	0	0	0	0	65	5	96
Future Volume (veh/h)	0	643	333	5	1009	0	0	0	0	65	5	96
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking 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	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	707	366	5	1109	0				76	6	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Cap, veh/h	0	3695	1147	474	4138	0				100	8	
Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.06	0.06	0.00
Sat Flow, veh/h	0	5191	1560	1781	5274	0				1670	132	1598
Grp Volume(v), veh/h	0	707	366	5	1109	0				82	0	0
Grp Sat Flow(s),veh/h/ln	0	1675	1560	1781	1702	0				1802	0	1598
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0				4.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.1	0.0	0.0				4.7	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				0.93		1.00
Lane Grp Cap(c), veh/h	0	3695	1147	474	4138	0				108	0	
V/C Ratio(X)	0.00	0.19	0.32	0.01	0.27	0.00				0.76	0.00	
Avail Cap(c_a), veh/h	0	3695	1147	645	4138	0				329	0	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.93	0.93	0.94	0.94	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	2.9	0.0	0.0				48.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.7	0.0	0.1	0.0				10.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.1	0.4	0.0	0.1	0.0				4.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.1	0.7	2.9	0.1	0.0				58.8	0.0	0.0
LnGrp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1073			1114						82	
Approach Delay, s/veh		0.3			0.2						58.8	
Approach LOS		A			A						E	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	7.9	84.0		13.1		91.9						
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8						
Max Green Setting (Gmax), s	11.2	54.2		19.2		72.2						
Max Q Clear Time (g_c+I1), s	2.1	2.0		6.7		2.0						
Green Ext Time (p_c), s	0.0	6.8		0.2		9.3						

Intersection Summary												
HCM 6th Ctrl Delay			2.3									
HCM 6th LOS			A									

Notes

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)	0	643	333	5	1009	0	0	0	0	65	5	96
Future Volume (veh/h)	0	643	333	5	1009	0	0	0	0	65	5	96
Number	5	2	12	1	6	16				7	4	14
Initial Q, 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	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	0	1841	1841	1870	1870	0				1885	1885	1885
Adj Flow Rate, veh/h	0	707	366	5	1109	0				76	6	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.86	0.86	0.86
Percent Heavy Veh, %	0	4	4	2	2	0				1	1	1
Opposing Right Turn Influence	No			Yes						Yes		
Cap, veh/h	0	3695	1147	474	4138	0				100	8	
HCM Platoon Ratio	1.00	2.00	2.00	2.00	2.00	1.00				1.00	1.00	1.00
Prop Arrive On Green	0.00	1.00	1.00	0.02	1.00	0.00				0.06	0.06	0.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	0.0	0.1	0.7	2.9	0.1	0.0				58.8	0.0	0.0
Ln Grp LOS	A	A	A	A	A	A				E	A	
Approach Vol, veh/h		1073			1114						82	
Approach Delay, s/veh		0.3			0.2						58.8	
Approach LOS		A			A						E	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Case No	1.2	7.0		11.0		4.0		
Phs Duration (G+Y+Rc), s	7.9	84.0		13.1		91.9		
Change Period (Y+Rc), s	6.8	6.8		6.8		6.8		
Max Green (Gmax), s	11.2	54.2		19.2		72.2		
Max Allow Headway (MAH), s	3.7	4.6		5.3		4.9		
Max Q Clear (g_c+I1), s	2.1	2.0		6.7		2.0		
Green Ext Time (g_e), s	0.0	6.8		0.2		9.3		
Prob of Phs Call (p_c)	0.14	1.00		0.91		1.00		
Prob of Max Out (p_x)	0.00	0.00		0.00		0.00		

Left-Turn Movement Data								
Assigned Mvmt	1	5		7				
Mvmt Sat Flow, veh/h	1781	0		1670				

Through Movement Data								
Assigned Mvmt		2		4		6		
Mvmt Sat Flow, veh/h		5191		132		5274		

Right-Turn Movement Data								
Assigned Mvmt		12		14		16		
Mvmt Sat Flow, veh/h		1560		1598		0		

Left Lane Group Data								
Assigned Mvmt	1	5	0	7	0	0	0	0
Lane Assignment	L (Pr/Pm)			L+T				

Lanes in Grp	1	0	0	1	0	0	0	0
Grp Vol (v), veh/h	5	0	0	82	0	0	0	0
Grp Sat Flow (s), veh/h/ln	1781	0	0	1802	0	0	0	0
Q Serve Time (g_s), s	0.1	0.0	0.0	4.7	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.1	0.0	0.0	4.7	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	526	0	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	79.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	77.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	77.2	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.93	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	474	0	0	108	0	0	0	0
V/C Ratio (X)	0.01	0.00	0.00	0.76	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	645	0	0	329	0	0	0	0
Upstream Filter (I)	0.94	0.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	2.9	0.0	0.0	48.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	10.2	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
Control Delay (d), s/veh	2.9	0.0	0.0	58.8	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	1.00	0.00	1.80	0.00	0.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	707	0	0	0	1109	0	0
Grp Sat Flow (s), veh/h/ln	0	1675	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	3695	0	0	0	4138	0	0
V/C Ratio (X)	0.00	0.19	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap (c_a), veh/h	0	3695	0	0	0	4138	0	0
Upstream Filter (I)	0.00	0.93	0.00	0.00	0.00	0.94	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	0	14	0	16	0	0
Lane Assignment		R		R				
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	366	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1560	0	1598	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1147	0	96	0	0	0	0
V/C Ratio (X)	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1147	0	292	0	0	0	0
Upstream Filter (I)	0.00	0.93	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	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
Control Delay (d), s/veh	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	0.00	1.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

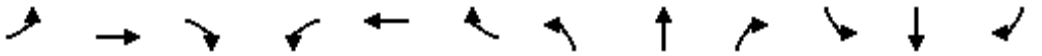
Intersection Summary	
HCM 6th Ctrl Delay	2.3
HCM 6th LOS	A

Notes

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

Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Protected Phases	5	2	6		8	8
Permitted Phases	2			6		
Minimum Initial (s)	4.0	10.0	10.0	10.0	8.0	8.0
Minimum Split (s)	14.8	16.8	16.8	16.8	14.8	14.8
Total Split (s)	17.0	65.0	48.0	48.0	40.0	40.0
Total Split (%)	16.2%	61.9%	45.7%	45.7%	38.1%	38.1%
Maximum Green (s)	10.2	58.2	41.2	41.2	33.2	33.2
Yellow Time (s)	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Min	C-Min	C-Min	None	None
Walk Time (s)						
Flash Dont Walk (s)						
Pedestrian Calls (#/hr)						
90th %ile Green (s)	11.9	57.7	39.0	39.0	33.7	33.7
90th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
70th %ile Green (s)	9.7	62.8	46.3	46.3	28.6	28.6
70th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
50th %ile Green (s)	8.4	66.0	50.8	50.8	25.4	25.4
50th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
30th %ile Green (s)	7.4	69.4	55.2	55.2	22.0	22.0
30th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap
10th %ile Green (s)	6.2	74.4	61.4	61.4	17.0	17.0
10th %ile Term Code	Gap	Coord	Coord	Coord	Gap	Gap

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBT, Start of Yellow
Control Type: Actuated-Coordinated

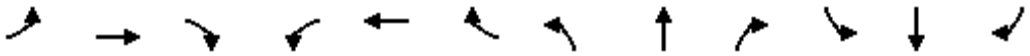


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	605	0	0	775	105	239	10	10	0	0	0
Future Volume (veh/h)	110	605	0	0	775	105	239	10	10	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
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	1826	1826	0	0	1856	1856	1796	1796	1796			
Adj Flow Rate, veh/h	122	672	0	0	861	0	310	13	13			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.77	0.77	0.77			
Percent Heavy Veh, %	5	5	0	0	3	3	7	7	7			
Cap, veh/h	434	3262	0	0	2739		355	15	329			
Arrive On Green	0.10	1.00	0.00	0.00	0.54	0.00	0.22	0.22	0.22			
Sat Flow, veh/h	1739	5149	0	0	5233	1572	1645	69	1522			
Grp Volume(v), veh/h	122	672	0	0	861	0	323	0	13			
Grp Sat Flow(s),veh/h/ln	1739	1662	0	0	1689	1572	1714	0	1522			
Q Serve(g_s), s	3.2	0.0	0.0	0.0	9.9	0.0	19.1	0.0	0.7			
Cycle Q Clear(g_c), s	3.2	0.0	0.0	0.0	9.9	0.0	19.1	0.0	0.7			
Prop In Lane	1.00		0.00	0.00		1.00	0.96		1.00			
Lane Grp Cap(c), veh/h	434	3262	0	0	2739		370	0	329			
V/C Ratio(X)	0.28	0.21	0.00	0.00	0.31		0.87	0.00	0.04			
Avail Cap(c_a), veh/h	517	3262	0	0	2739		542	0	481			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.99	0.99	0.00	0.00	1.00	0.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	9.0	0.0	0.0	0.0	13.3	0.0	39.8	0.0	32.5			
Incr Delay (d2), s/veh	0.3	0.1	0.0	0.0	0.3	0.0	10.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	1.8	0.1	0.0	0.0	6.3	0.0	13.9	0.0	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	0.1	0.0	0.0	13.6	0.0	50.1	0.0	32.6			
LnGrp LOS	A	A	A	A	B		D	A	C			
Approach Vol, veh/h		794			861			336				
Approach Delay, s/veh		1.6			13.6			49.4				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		75.5			11.9	63.6		29.5				
Change Period (Y+Rc), s		6.8			6.8	6.8		6.8				
Max Green Setting (Gmax), s		58.2			10.2	41.2		33.2				
Max Q Clear Time (g_c+I1), s		2.0			5.2	11.9		21.1				
Green Ext Time (p_c), s		4.8			0.1	6.1		1.6				

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR] 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)	110	605	0	0	775	105	239	10	10	0	0	0
Future Volume (veh/h)	110	605	0	0	775	105	239	10	10	0	0	0
Number	5	2	12	1	6	16	3	8	18			
Initial Q, 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				
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1826	1826	0	0	1856	1856	1796	1796	1796			
Adj Flow Rate, veh/h	122	672	0	0	861	0	310	13	13			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.77	0.77	0.77			
Percent Heavy Veh, %	5	5	0	0	3	3	7	7	7			
Opposing Right Turn Influence	Yes			No			Yes					
Cap, veh/h	434	3262	0	0	2739		355	15	329			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.10	1.00	0.00	0.00	0.54	0.00	0.22	0.22	0.22			
Unsig. Movement Delay												
Ln Grp Delay, s/veh	9.3	0.1	0.0	0.0	13.6	0.0	50.1	0.0	32.6			
Ln Grp LOS	A	A	A	A	B		D	A	C			
Approach Vol, veh/h		794			861			336				
Approach Delay, s/veh		1.6			13.6			49.4				
Approach LOS		A			B			D				

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8		5	6		
Case No		4.0	11.0		1.2	7.0		
Phs Duration (G+Y+Rc), s		75.5	29.5		11.9	63.6		
Change Period (Y+Rc), s		6.8	6.8		6.8	6.8		
Max Green (Gmax), s		58.2	33.2		10.2	41.2		
Max Allow Headway (MAH), s		4.9	5.3		3.7	4.9		
Max Q Clear (g_c+I1), s		2.0	21.1		5.2	11.9		
Green Ext Time (g_e), s		4.8	1.6		0.1	6.1		
Prob of Phs Call (p_c)		1.00	1.00		0.97	1.00		
Prob of Max Out (p_x)		0.00	0.10		0.27	0.01		

Left-Turn Movement Data								
Assigned Mvmt			3		5	1		
Mvmt Sat Flow, veh/h			1645		1739	0		

Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		5149	69			5233		

Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		0	1522			1572		

Left Lane Group Data								
Assigned Mvmt	0	0	3	0	5	1	0	0
Lane Assignment			L+T		L (Pr/Pm)			

Lanes in Grp	0	0	1	0	1	0	0	0
Grp Vol (v), veh/h	0	0	323	0	122	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1714	0	1739	0	0	0
Q Serve Time (g_s), s	0.0	0.0	19.1	0.0	3.2	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	19.1	0.0	3.2	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	0	627	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	58.8	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	46.9	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	56.8	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.96	0.00	1.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	370	0	434	0	0	0
V/C Ratio (X)	0.00	0.00	0.87	0.00	0.28	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	542	0	517	0	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.99	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	39.8	0.0	9.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	10.3	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.0	50.1	0.0	9.3	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	8.0	0.0	1.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	1.55	0.00	1.80	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	13.9	0.0	1.8	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.48	0.00	0.13	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	672	0	0	0	861	0	0
Grp Sat Flow (s), veh/h/ln	0	1662	0	0	0	1689	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	9.9	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	9.9	0.0	0.0
Lane Grp Cap (c), veh/h	0	3262	0	0	0	2739	0	0
V/C Ratio (X)	0.00	0.21	0.00	0.00	0.00	0.31	0.00	0.00
Avail Cap (c_a), veh/h	0	3262	0	0	0	2739	0	0
Upstream Filter (I)	0.00	0.99	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	13.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.3	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
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	13.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

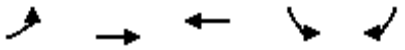
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	6.3	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment			R			R		
Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	13	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1522	0	0	1572	0	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	329	0	0	850	0	0
V/C Ratio (X)	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	481	0	0	850	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	32.5	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	32.6	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

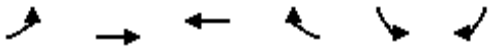
Notes

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



Lane Group	EBL	EBT	WBT	SBL	SBR
Protected Phases	7	4	8	6	6 7
Permitted Phases	4				
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	
Total Split (s)	23.0	79.0	56.0	26.0	
Total Split (%)	21.9%	75.2%	53.3%	24.8%	
Maximum Green (s)	18.5	74.5	51.5	21.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	
Recall Mode	None	None	None	C-Max	
Walk Time (s)		7.0	7.0	7.0	
Flash Dont Walk (s)		11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	
90th %ile Green (s)	18.5	64.7	41.7	31.3	
90th %ile Term Code	Max	Hold	Gap	Coord	
70th %ile Green (s)	17.4	59.9	38.0	36.1	
70th %ile Term Code	Gap	Hold	Gap	Coord	
50th %ile Green (s)	15.2	54.8	35.1	41.2	
50th %ile Term Code	Gap	Hold	Gap	Coord	
30th %ile Green (s)	12.9	49.5	32.1	46.5	
30th %ile Term Code	Gap	Hold	Gap	Coord	
10th %ile Green (s)	9.8	42.3	28.0	53.7	
10th %ile Term Code	Gap	Hold	Gap	Coord	

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2: and 6:SBL, Start of Green
Control Type: Actuated-Coordinated



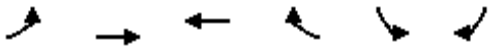
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	177	945	1088	17	38	52
Future Volume (veh/h)	177	945	1088	17	38	52
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	1027	1183	18	41	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	278	2242	1579	24	847	898
Arrive On Green	0.03	0.14	0.30	0.30	0.48	0.48
Sat Flow, veh/h	1781	5274	5350	79	1781	1585
Grp Volume(v), veh/h	192	1027	777	424	41	57
Grp Sat Flow(s),veh/h/ln	1781	1702	1702	1856	1781	1585
Q Serve(g_s), s	7.3	19.3	21.6	21.6	1.3	1.7
Cycle Q Clear(g_c), s	7.3	19.3	21.6	21.6	1.3	1.7
Prop In Lane	1.00			0.04	1.00	1.00
Lane Grp Cap(c), veh/h	278	2242	1037	565	847	898
V/C Ratio(X)	0.69	0.46	0.75	0.75	0.05	0.06
Avail Cap(c_a), veh/h	428	3623	1670	910	847	898
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.97	0.97	1.00	1.00
Uniform Delay (d), s/veh	26.1	33.5	32.9	32.9	14.8	10.2
Incr Delay (d2), s/veh	3.1	0.1	1.1	2.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.0	13.6	13.3	14.5	1.0	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.1	33.6	34.0	34.9	14.9	10.4
LnGrp LOS	C	C	C	C	B	B
Approach Vol, veh/h		1219	1201		98	
Approach Delay, s/veh		32.9	34.3		12.3	
Approach LOS		C	C		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	50.6	54.4	14.1	36.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	74.5	21.5	18.5	51.5
Max Q Clear Time (g_c+I1), s	21.3	3.7	9.3	23.6
Green Ext Time (p_c), s	8.2	0.2	0.3	8.4

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

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	177	945	1088	17	38	52
Future Volume (veh/h)	177	945	1088	17	38	52
Number	7	4	8	18	1	16
Initial Q, 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	
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	1027	1183	18	41	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	278	2242	1579	24	847	898
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.14	0.30	0.30	0.48	0.48
Unsig. Movement Delay						
Ln Grp Delay, s/veh	29.1	33.6	34.0	34.9	14.9	10.4
Ln Grp LOS	C	C	C	C	B	B
Approach Vol, veh/h		1219	1201		98	
Approach Delay, s/veh		32.9	34.3		12.3	
Approach LOS		C	C		B	

Timer:	1	2	3	4	5	6	7	8
Assigned Phs	6			4			7	8
Case No	9.0			4.0			1.2	8.0
Phs Duration (G+Y+Rc), s	54.4			50.6			14.1	36.5
Change Period (Y+Rc), s	4.5			4.5			4.5	4.5
Max Green (Gmax), s	21.5			74.5			18.5	51.5
Max Allow Headway (MAH), s	4.0			4.9			3.7	4.9
Max Q Clear (g_c+I1), s	3.7			21.3			9.3	23.6
Green Ext Time (g_e), s	0.2			8.2			0.3	8.4
Prob of Phs Call (p_c)	1.00			1.00			1.00	1.00
Prob of Max Out (p_x)	0.00			0.00			0.01	0.09
Left-Turn Movement Data								
Assigned Mvmt	1						7	3
Mvmt Sat Flow, veh/h	1781						1781	0
Through Movement Data								
Assigned Mvmt	6			4				8
Mvmt Sat Flow, veh/h	0			5274				5350
Right-Turn Movement Data								
Assigned Mvmt	16			14				18
Mvmt Sat Flow, veh/h	1585			0				79
Left Lane Group Data								
Assigned Mvmt	1	0	0	0	0	0	7	3
Lane Assignment	L					L (Pr/Pm)		

Lanes in Grp	1	0	0	0	0	0	1	0
Grp Vol (v), veh/h	41	0	0	0	0	0	192	0
Grp Sat Flow (s), veh/h/ln	1781	0	0	0	0	0	1781	0
Q Serve Time (g_s), s	1.3	0.0	0.0	0.0	0.0	0.0	7.3	0.0
Cycle Q Clear Time (g_c), s	1.3	0.0	0.0	0.0	0.0	0.0	7.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1781	0	0	0	0	0	466	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	34.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Lane Grp Cap (c), veh/h	847	0	0	0	0	0	278	0
V/C Ratio (X)	0.05	0.00	0.00	0.00	0.00	0.00	0.69	0.00
Avail Cap (c_a), veh/h	847	0	0	0	0	0	428	0
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	14.8	0.0	0.0	0.0	0.0	0.0	26.1	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	3.1	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	14.9	0.0	0.0	0.0	0.0	0.0	29.1	0.0
1st-Term Q (Q1), veh/ln	0.5	0.0	0.0	0.0	0.0	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	0.00	0.00	0.00	1.80	1.00
%ile Back of Q (95%), veh/ln	1.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0
%ile Storage Ratio (RQ%)	0.14	0.00	0.00	0.00	0.00	0.00	1.53	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	6	0	0	4	0	0	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	3	0	0	0	2
Grp Vol (v), veh/h	0	0	0	1027	0	0	0	777
Grp Sat Flow (s), veh/h/ln	0	0	0	1702	0	0	0	1702
Q Serve Time (g_s), s	0.0	0.0	0.0	19.3	0.0	0.0	0.0	21.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	19.3	0.0	0.0	0.0	21.6
Lane Grp Cap (c), veh/h	0	0	0	2242	0	0	0	1037
V/C Ratio (X)	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.75
Avail Cap (c_a), veh/h	0	0	0	3623	0	0	0	1670
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.97
Uniform Delay (d1), s/veh	0.0	0.0	0.0	33.5	0.0	0.0	0.0	32.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	33.6	0.0	0.0	0.0	34.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	8.7	0.0	0.0	0.0	8.4
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.00	0.00	0.00	1.56	0.00	0.00	0.00	1.55
%ile Back of Q (95%), veh/ln	0.0	0.0	0.0	13.6	0.0	0.0	0.0	13.3
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.81	0.00	0.00	0.00	0.38
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	16	0	0	14	0	0	0	18
Lane Assignment	R							T+R
Lanes in Grp	1	0	0	0	0	0	0	1
Grp Vol (v), veh/h	57	0	0	0	0	0	0	424
Grp Sat Flow (s), veh/h/ln	1585	0	0	0	0	0	0	1856
Q Serve Time (g_s), s	1.7	0.0	0.0	0.0	0.0	0.0	0.0	21.6
Cycle Q Clear Time (g_c), s	1.7	0.0	0.0	0.0	0.0	0.0	0.0	21.6
Prot RT Sat Flow (s_R), veh/h/ln	1585.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
Lane Grp Cap (c), veh/h	898	0	0	0	0	0	0	565
V/C Ratio (X)	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.75
Avail Cap (c_a), veh/h	898	0	0	0	0	0	0	910
Upstream Filter (I)	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97
Uniform Delay (d1), s/veh	10.2	0.0	0.0	0.0	0.0	0.0	0.0	32.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.4	0.0	0.0	0.0	0.0	0.0	0.0	34.9
1st-Term Q (Q1), veh/ln	2.4	0.0	0.0	0.0	0.0	0.0	0.0	9.2
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	1.80	0.00	0.00	1.00	0.00	0.00	0.00	1.52
%ile Back of Q (95%), veh/ln	4.3	0.0	0.0	0.0	0.0	0.0	0.0	14.5
%ile Storage Ratio (RQ%)	0.63	0.00	0.00	0.00	0.00	0.00	0.00	0.41
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1122	1116	38	0	152
Future Vol, veh/h	0	1122	1116	38	0	152
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	0	1220	1213	41	0	165

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	627
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	-	0	*665
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		1
Mov Cap-1 Maneuver	-	-	-	-	-	*665
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	665
HCM Lane V/C Ratio	-	-	-	0.248
HCM Control Delay (s)	-	-	-	12.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	1

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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Protected Phases	8	8	2	8		6
Permitted Phases				2	6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	26.0	26.0	79.0	26.0	79.0	79.0
Total Split (%)	24.8%	24.8%	75.2%	24.8%	75.2%	75.2%
Maximum Green (s)	21.5	21.5	74.5	21.5	74.5	74.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	None	C-Max	None	C-Max	C-Max
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
90th %ile Green (s)	13.6	13.6	82.4	13.6	82.4	82.4
90th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord
70th %ile Green (s)	11.4	11.4	84.6	11.4	84.6	84.6
70th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord
50th %ile Green (s)	9.8	9.8	86.2	9.8	86.2	86.2
50th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord
30th %ile Green (s)	8.2	8.2	87.8	8.2	87.8	87.8
30th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord
10th %ile Green (s)	6.0	6.0	90.0	6.0	90.0	90.0
10th %ile Term Code	Gap	Gap	Coord	Gap	Coord	Coord

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	69	26	1654	150	37	1215
Future Volume (veh/h)	69	26	1654	150	37	1215
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	75	28	1798	163	40	1321
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	106	94	4366	1449	260	4366
Arrive On Green	0.06	0.06	1.00	1.00	0.86	0.86
Sat Flow, veh/h	1781	1585	5274	1585	224	5274
Grp Volume(v), veh/h	75	28	1798	163	40	1321
Grp Sat Flow(s),veh/h/ln	1781	1585	1702	1585	224	1702
Q Serve(g_s), s	4.3	1.8	0.0	0.0	3.3	5.3
Cycle Q Clear(g_c), s	4.3	1.8	0.0	0.0	3.3	5.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	106	94	4366	1449	260	4366
V/C Ratio(X)	0.71	0.30	0.41	0.11	0.15	0.30
Avail Cap(c_a), veh/h	365	325	4366	1449	260	4366
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.25	0.25	1.00	1.00
Uniform Delay (d), s/veh	48.5	47.3	0.0	0.0	1.3	1.5
Incr Delay (d2), s/veh	8.5	1.8	0.1	0.0	1.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	1.3	0.1	0.0	0.2	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	57.0	49.1	0.1	0.0	2.6	1.7
LnGrp LOS	E	D	A	A	A	A
Approach Vol, veh/h	103		1961			1361
Approach Delay, s/veh	54.8		0.1			1.7
Approach LOS	D		A			A

Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		94.3			94.3	10.7
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		74.5			74.5	21.5
Max Q Clear Time (g_c+I1), s		2.0			7.3	6.3
Green Ext Time (p_c), s		24.6			15.7	0.2

Intersection Summary	
HCM 6th Ctrl Delay	2.4
HCM 6th LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	69	26	1654	150	37	1215
Future Volume (veh/h)	69	26	1654	150	37	1215
Number	3	18	2	12	1	6
Initial Q, 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
Lanes Open During Work Zone						
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	75	28	1798	163	40	1321
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Opposing Right Turn Influence	Yes				Yes	
Cap, veh/h	106	94	4366	1449	260	4366
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Prop Arrive On Green	0.06	0.06	1.00	1.00	0.86	0.86
Unsig. Movement Delay						
Ln Grp Delay, s/veh	57.0	49.1	0.1	0.0	2.6	1.7
Ln Grp LOS	E	D	A	A	A	A
Approach Vol, veh/h	103		1961			1361
Approach Delay, s/veh	54.8		0.1			1.7
Approach LOS	D		A			A

Timer:	1	2	3	4	5	6	7	8
Assigned Phs		2	8			6		
Case No		7.0	9.0			6.0		
Phs Duration (G+Y+Rc), s		94.3	10.7			94.3		
Change Period (Y+Rc), s		4.5	4.5			4.5		
Max Green (Gmax), s		74.5	21.5			74.5		
Max Allow Headway (MAH), s		4.9	3.9			5.3		
Max Q Clear (g_c+I1), s		2.0	6.3			7.3		
Green Ext Time (g_e), s		24.6	0.2			15.7		
Prob of Phs Call (p_c)		1.00	0.95			1.00		
Prob of Max Out (p_x)		0.00	0.00			0.00		
Left-Turn Movement Data								
Assigned Mvmt		5	3			1		
Mvmt Sat Flow, veh/h		0	1781			224		
Through Movement Data								
Assigned Mvmt		2	8			6		
Mvmt Sat Flow, veh/h		5274	0			5274		
Right-Turn Movement Data								
Assigned Mvmt		12	18			16		
Mvmt Sat Flow, veh/h		1585	1585			0		
Left Lane Group Data								
Assigned Mvmt	0	5	3	0	0	1	0	0
Lane Assignment			L			L		

Lanes in Grp	0	0	1	0	0	1	0	0
Grp Vol (v), veh/h	0	0	75	0	0	40	0	0
Grp Sat Flow (s), veh/h/ln	0	0	1781	0	0	224	0	0
Q Serve Time (g_s), s	0.0	0.0	4.3	0.0	0.0	3.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	4.3	0.0	0.0	3.3	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	1781	0	0	224	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	89.8	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	89.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0
Time to First Blk (g_f), s	0.0	89.8	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	0	106	0	0	260	0	0
V/C Ratio (X)	0.00	0.00	0.71	0.00	0.00	0.15	0.00	0.00
Avail Cap (c_a), veh/h	0	0	365	0	0	260	0	0
Upstream Filter (I)	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	48.5	0.0	0.0	1.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	8.5	0.0	0.0	1.3	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
Control Delay (d), s/veh	0.0	0.0	57.0	0.0	0.0	2.6	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.80	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	3.9	0.0	0.0	0.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.46	0.00	0.00	0.06	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data								
Assigned Mvmt	0	2	8	0	0	6	0	0
Lane Assignment		T				T		
Lanes in Grp	0	3	0	0	0	3	0	0
Grp Vol (v), veh/h	0	1798	0	0	0	1321	0	0
Grp Sat Flow (s), veh/h/ln	0	1702	0	0	0	1702	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0
Lane Grp Cap (c), veh/h	0	4366	0	0	0	4366	0	0
V/C Ratio (X)	0.00	0.41	0.00	0.00	0.00	0.30	0.00	0.00
Avail Cap (c_a), veh/h	0	4366	0	0	0	4366	0	0
Upstream Filter (I)	0.00	0.25	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.2	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
Control Delay (d), s/veh	0.0	0.1	0.0	0.0	0.0	1.7	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.00	0.00	0.00	1.80	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.1	0.0	0.0	0.0	1.1	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data								
Assigned Mvmt	0	12	18	0	0	16	0	0
Lane Assignment		R	R					
Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	163	28	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1585	1585	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	1585.1	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	1449	94	0	0	0	0	0
V/C Ratio (X)	0.00	0.11	0.30	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1449	325	0	0	0	0	0
Upstream Filter (I)	0.00	0.25	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	47.3	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.8	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
Control Delay (d), s/veh	0.0	0.0	49.1	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.80	1.80	0.00	0.00	1.00	0.00	0.00
%ile Back of Q (95%), veh/ln	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.16	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	2.4
HCM 6th LOS	A

APPENDIX E. SIGNAL WARRANTS

MUTCD Volume-based Warrant Evaluation
Laredo Street & 120th Avenue
2045_No Build

FELSBURG HOLT & ULLEVIG

Major Street: 120th Avenue
Lanes Moving Traffic: 1
Approach Speed: 45 MPH
Option: High speed, rural community

Minor Street: Laredo Street
Lanes Moving Traffic: 2 or more
Right Turn Volume Included: 25% SB, 25% NB

WARRANT 1, Condition A - Minimum Vehicular Volume

70% Satisfied	No

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	350 (280)	2825	2652	2479	2306	2132	1959	1786	1613
Highest Apprch. Minor Street	140 (112)	109	102	96	89	82	76	69	62

WARRANT 1, Condition B - Interruption of Continuous Traffic

70% Satisfied	No

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	525 (420)	2825	2652	2479	2306	2132	1959	1786	1613
Highest Apprch. Minor Street	70 (56)	109	102	96	89	82	76	69	62

WARRANT 1, Condition A and Condition B

56% Satisfied	No

WARRANT 2, Four Hour Volume

70% Satisfied	Yes

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	2825	109
2nd Highest	2652	102
3rd Highest	2479	96
4th Highest	2306	89

WARRANT 3, Peak Hour Volume

70% Satisfied	Yes

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	2825	109

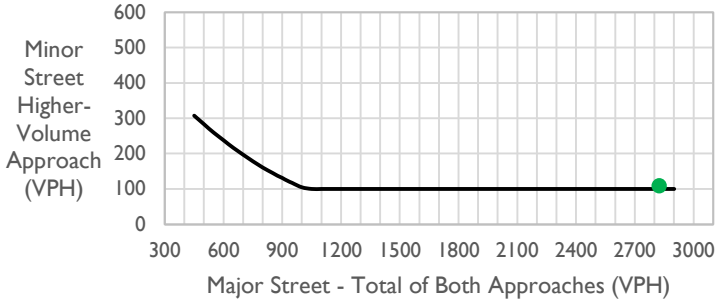
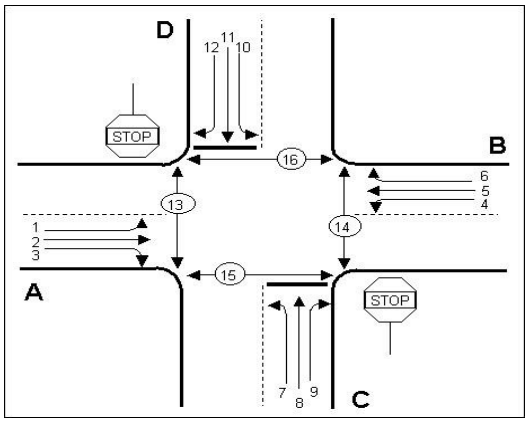


Figure 2 - 11. Minor-road right-turn volume reduction for warrant check.
Laredo Street & 120th Avenue
2045_No Build



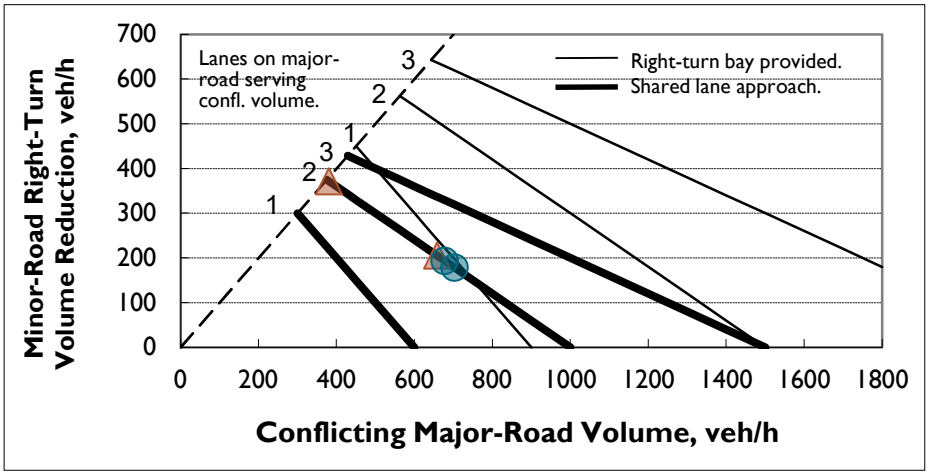
INPUT

Number of lanes on major-road approach:			2	
Right-turn geometry on minor-road:			Shared-lane approach	
Approach	Number	Movement	Volume (veh/hr) AM	PM
Major A	2	Through	1305	1260
	3	Right	10	95
Major B	5	Through	740	1360
	6	Right	20	45
Minor C	7	Left	55	35
	8	Through	5	5
	9	Right	65	35
Minor D	10	Left	45	30
	11	Through	5	5
	12	Right	15	20

OUTPUT

Variable	Volume (veh/hr) AM	PM
Conflicting major-road volume (Vc9):	658	678
Conflicting major-road volume (Vc12):	380	703
Right-turn volume reduction (Vr9):	206	194
Right-turn volume reduction (Vr12):	372	179
Adjusted right-turn volume reduction (Vr9):	65	35
Adjusted right-turn volume reduction (Vr12):	15	20
Adjusted minor-road volume:	60	40

Chart Legend: ▲ ●



Source: NCHRP Report 457

MUTCD Volume-based Warrant Evaluation
Full Movement Access & 120th Avenue
2025_Build

FELSBURG HOLT & ULLEVIG

Major Street: 120th Avenue
Lanes Moving Traffic: 1
Approach Speed: 45 MPH
Option: High speed, rural community

Minor Street: Full Movement Access
Lanes Moving Traffic: 2 or more
Right Turn Volume Included: 25% SB

WARRANT 1, Condition A - Minimum Vehicular Volume

70% Satisfied | No

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	350 (280)	2049	1923	1798	1672	1547	1421	1296	1170
Highest Apprch. Minor Street	140 (112)	95	89	83	78	72	66	60	54

WARRANT 1, Condition B - Interruption of Continuous Traffic

70% Satisfied | No

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	525 (420)	2049	1923	1798	1672	1547	1421	1296	1170
Highest Apprch. Minor Street	70 (56)	95	89	83	78	72	66	60	54

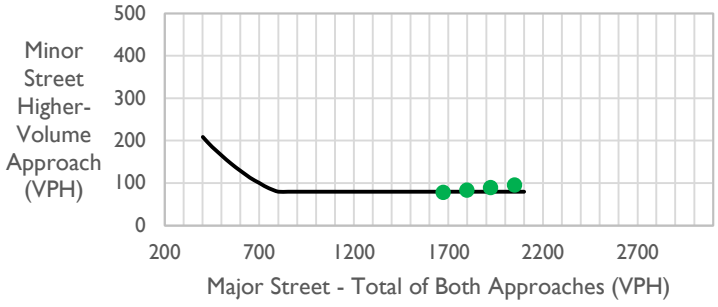
WARRANT 1, Condition A and Condition B

56% Satisfied | No

WARRANT 2, Four Hour Volume

70% Satisfied | No

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	2049	95
2nd Highest	1923	89
3rd Highest	1798	83
4th Highest	1672	78



WARRANT 3, Peak Hour Volume

70% Satisfied | No

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	2049	95

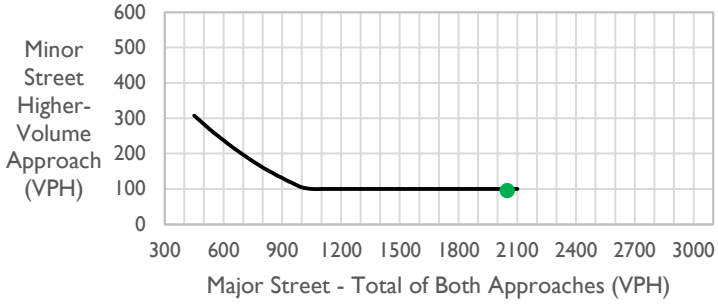
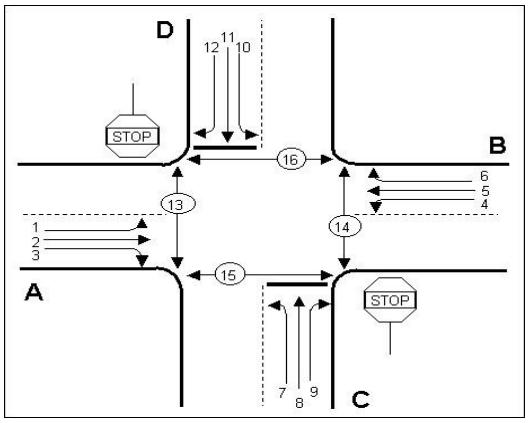


Figure 2 - 11. Minor-road right-turn volume reduction for warrant check.
Full Movement Access & 120th Avenue
2025_Build



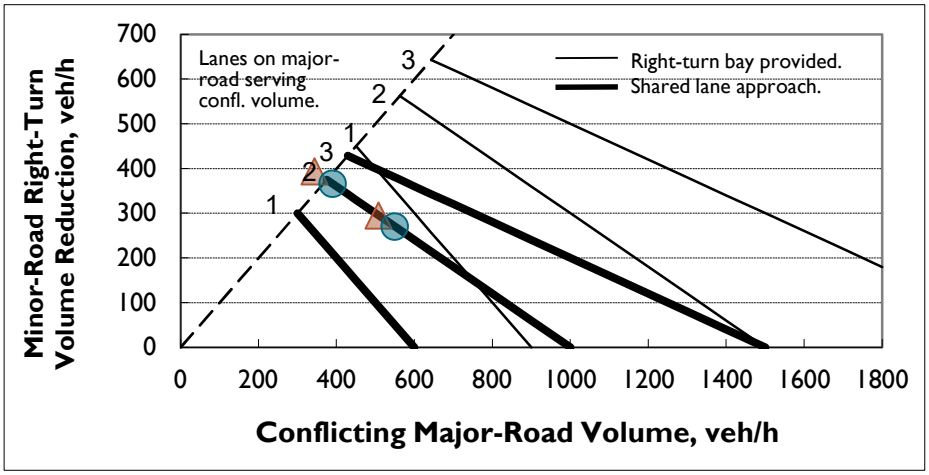
INPUT

Number of lanes on major-road approach:			2	
Right-turn geometry on minor-road:			Shared-lane approach	
Approach	Number	Movement	Volume (veh/hr) AM	PM
Major A	2	Through	1015	780
	3	Right	0	0
Major B	5	Through	632	1071
	6	Right	54	28
Minor C	7	Left	0	0
	8	Through	0	0
	9	Right	0	0
Minor D	10	Left	50	51
	11	Through	0	0
	12	Right	60	53

OUTPUT

Variable	Volume (veh/hr) AM	PM
Conflicting major-road volume (Vc9):	508	390
Conflicting major-road volume (Vc12):	343	550
Right-turn volume reduction (Vr9):	296	366
Right-turn volume reduction (Vr12):	394	270
Adjusted right-turn volume reduction (Vr9):	0	0
Adjusted right-turn volume reduction (Vr12):	60	53
Adjusted minor-road volume:	50	51

Chart Legend: ▲ ●



Source: NCHRP Report 457

MUTCD Volume-based Warrant Evaluation
Full Movement Access & 120th Avenue
2045_Build

FELSBURG HOLT & ULLEVIG

Major Street: 120th Avenue
Lanes Moving Traffic: 1
Approach Speed: 45 MPH
Option: High speed, rural community

Minor Street: Full Movement Access
Lanes Moving Traffic: 2 or more
Right Turn Volume Included: 25% SB

WARRANT 1, Condition A - Minimum Vehicular Volume

70% Satisfied | No

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	350 (280)	2227	2091	1954	1818	1681	1545	1408	1272
Highest Apprch. Minor Street	140 (112)	81	76	71	66	61	56	51	46

WARRANT 1, Condition B - Interruption of Continuous Traffic

70% Satisfied | No

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	525 (420)	2227	2091	1954	1818	1681	1545	1408	1272
Highest Apprch. Minor Street	70 (56)	81	76	71	66	61	56	51	46

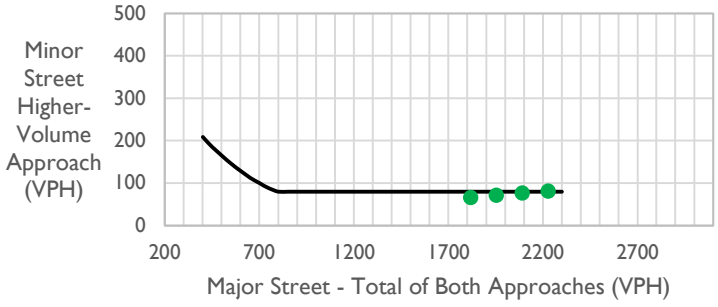
WARRANT 1, Condition A and Condition B

56% Satisfied | No

WARRANT 2, Four Hour Volume

70% Satisfied | No

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	2227	81
2nd Highest	2091	76
3rd Highest	1954	71
4th Highest	1818	66



WARRANT 3, Peak Hour Volume

70% Satisfied | No

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	2227	81

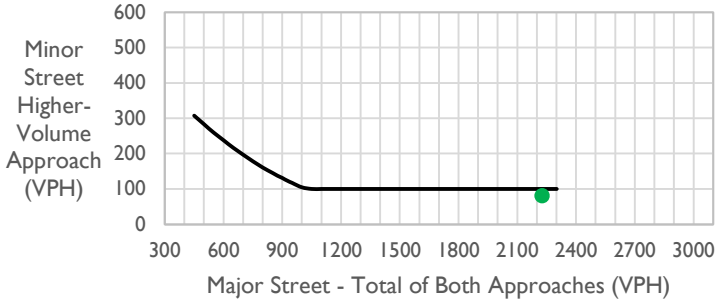
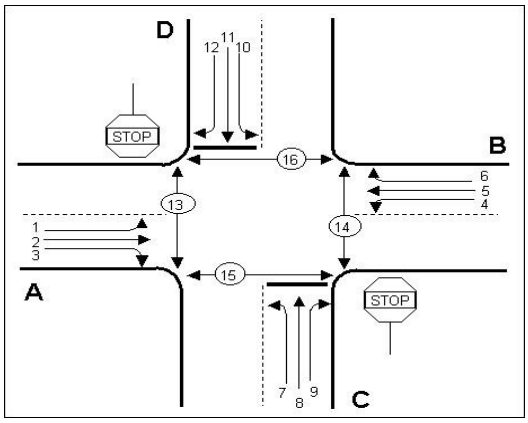


Figure 2 - 11. Minor-road right-turn volume reduction for warrant check.
Full Movement Access & 120th Avenue
2045_Build



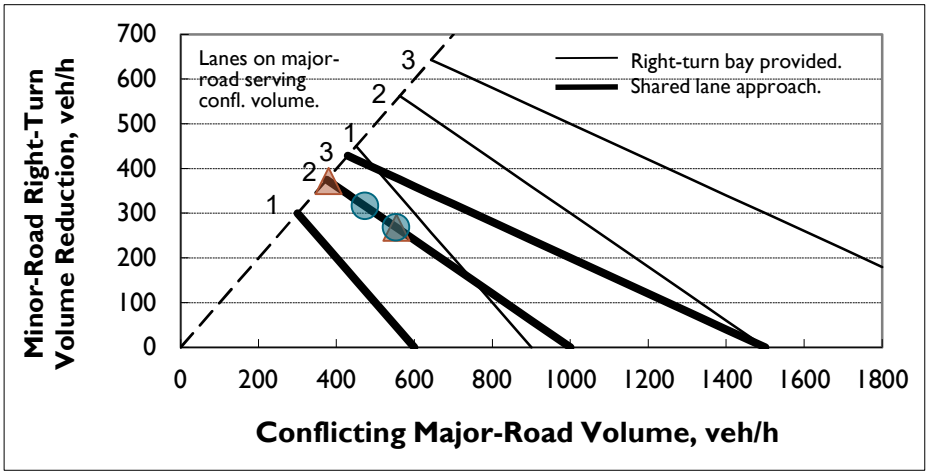
INPUT

Number of lanes on major-road approach:			2	
Right-turn geometry on minor-road:			Shared-lane approach	
Approach	Number	Movement	Volume (veh/hr) AM	PM
Major A	2	Through	1106	945
	3	Right	0	0
Major B	5	Through	741	1088
	6	Right	17	17
Minor C	7	Left	0	0
	8	Through	0	0
	9	Right	0	0
Minor D	10	Left	36	38
	11	Through	0	0
	12	Right	60	52

OUTPUT

Variable	Volume (veh/hr) AM	PM
Conflicting major-road volume (Vc9):	553	473
Conflicting major-road volume (Vc12):	379	553
Right-turn volume reduction (Vr9):	268	317
Right-turn volume reduction (Vr12):	373	269
Adjusted right-turn volume reduction (Vr9):	0	0
Adjusted right-turn volume reduction (Vr12):	60	52
Adjusted minor-road volume:	36	38

Chart Legend: ▲ ●



Source: NCHRP Report 457

MUTCD Volume-based Warrant Evaluation
Buckley Road & Site Access
2025_Build

FELSBURG HOLT & ULLEVIG

Major Street: Buckley Road
Lanes Moving Traffic: 2 or more
Approach Speed: 30 MPH
Option: Rural Community

Minor Street: Site Access
Lanes Moving Traffic: 1
Right Turn Volume Included: 50% WB

WARRANT 1, Condition A - Minimum Vehicular Volume

70% Satisfied	No

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	420 (336)	1390	1305	1220	1134	1049	964	879	794
Highest Apprch. Minor Street	105 (84)	123	115	108	100	93	85	78	70

WARRANT 1, Condition B - Interruption of Continuous Traffic

70% Satisfied	Yes

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	630 (504)	1390	1305	1220	1134	1049	964	879	794
Highest Apprch. Minor Street	53 (42)	123	115	108	100	93	85	78	70

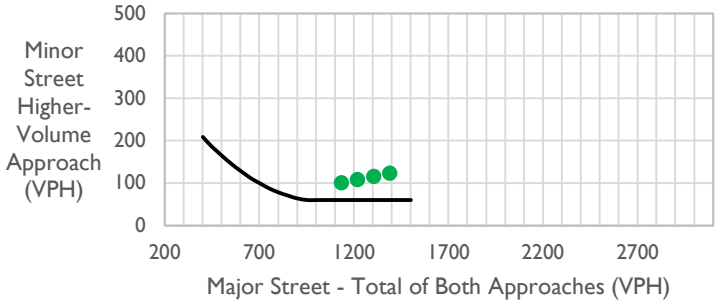
WARRANT 1, Condition A and Condition B

56% Satisfied	No

WARRANT 2, Four Hour Volume

70% Satisfied	Yes

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	1390	123
2nd Highest	1305	115
3rd Highest	1220	108
4th Highest	1134	100



WARRANT 3, Peak Hour Volume

70% Satisfied	Yes

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	1390	123

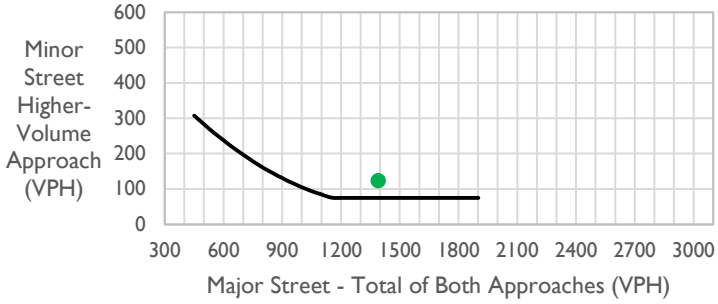
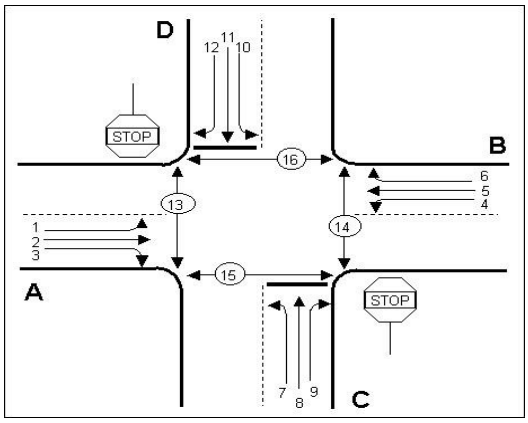


Figure 2 - 11. Minor-road right-turn volume reduction for warrant check.
Buckley Road & Site Access
2025_Build

FELSBURG HOLT & ULLEVIG



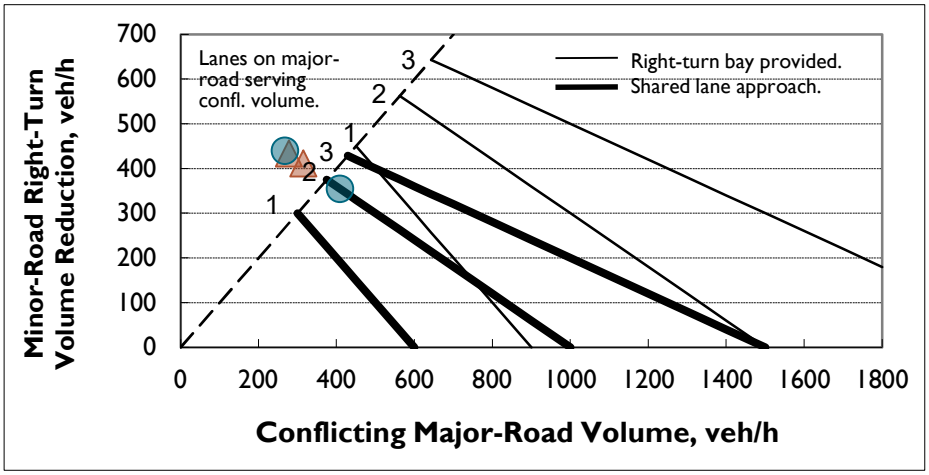
INPUT

Number of lanes on major-road approach:			2	
Right-turn geometry on minor-road:			Shared-lane approach	
Approach	Number	Movement	Volume (veh/hr) AM	PM
Major A	2	Through	543	694
	3	Right	85	124
Major B	5	Through	554	535
	6	Right	0	0
Minor C	7	Left	106	73
	8	Through	0	0
	9	Right	33	26
Minor D	10	Left	0	0
	11	Through	0	0
	12	Right	0	0

OUTPUT

Variable	Volume (veh/hr) AM	PM
Conflicting major-road volume (Vc9):	314	409
Conflicting major-road volume (Vc12):	277	268
Right-turn volume reduction (Vr9):	412	355
Right-turn volume reduction (Vr12):	434	440
Adjusted right-turn volume reduction (Vr9):	33	26
Adjusted right-turn volume reduction (Vr12):	0	0
Adjusted minor-road volume:	106	73

Chart Legend: ▲ ●



Source: NCHRP Report 457

MUTCD Volume-based Warrant Evaluation
Buckley Road &
2045_Build

FELSBURG HOLT & ULLEVIG

Major Street: Buckley Road
Lanes Moving Traffic: 2 or more
Approach Speed: 30 MPH
Option: Rural Community

Minor Street:
Lanes Moving Traffic: 1
Right Turn Volume Included: 50% WB

WARRANT 1, Condition A - Minimum Vehicular Volume

70% Satisfied: No

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	420 (336)	3056	2869	2681	2494	2307	2120	1932	1745
Highest Apprch. Minor Street	105 (84)	118	111	104	96	89	82	75	67

WARRANT 1, Condition B - Interruption of Continuous Traffic

70% Satisfied: Yes

	Vehicles per hour 70% (56%)	Peak Hour	2nd Highest	3rd Highest	4th Highest	5th Highest	6th Highest	7th Highest	8th Highest
Both Apprchs. Major Street	630 (504)	3056	2869	2681	2494	2307	2120	1932	1745
Highest Apprch. Minor Street	53 (42)	118	111	104	96	89	82	75	67

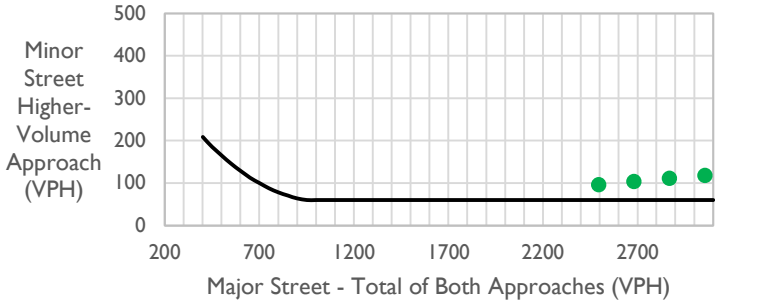
WARRANT 1, Condition A and Condition B

56% Satisfied: No

WARRANT 2, Four Hour Volume

70% Satisfied: Yes

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	3056	118
2nd Highest	2869	111
3rd Highest	2681	104
4th Highest	2494	96

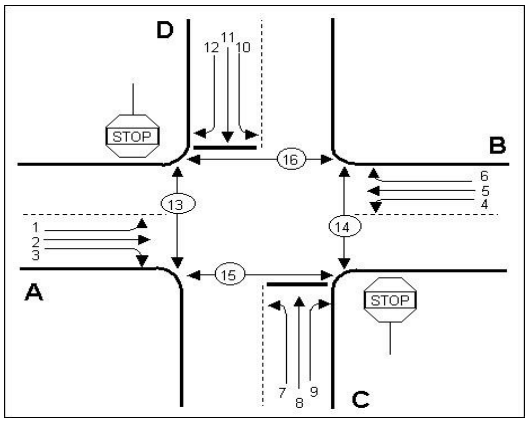


WARRANT 3, Peak Hour Volume

70% Satisfied: Yes

	Both Apprchs. Major Street	Higher Vol. Apprch. Minor Street
Peak Hour	3056	118

Figure 2 - 11. Minor-road right-turn volume reduction for warrant check.
Buckley Road &
2045_Build



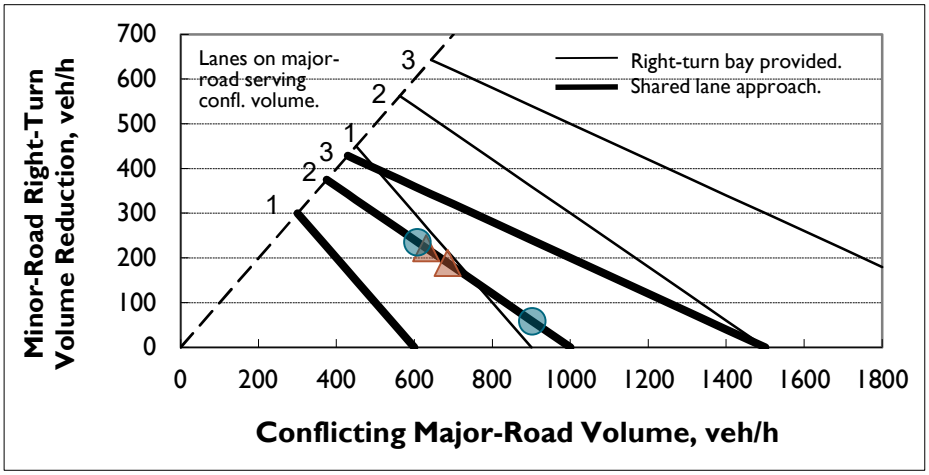
INPUT

Number of lanes on major-road approach:			2	
Right-turn geometry on minor-road:			Shared-lane approach	
Approach	Number	Movement	Volume (veh/hr) AM	PM
Major A	2	Through	1153	1654
	3	Right	106	150
Major B	5	Through	1369	1215
	6	Right	0	0
Minor C	7	Left	101	69
	8	Through	0	0
	9	Right	33	26
Minor D	10	Left	0	0
	11	Through	0	0
	12	Right	0	0

OUTPUT

Variable	Volume (veh/hr) AM	PM
Conflicting major-road volume (Vc9):	630	902
Conflicting major-road volume (Vc12):	685	608
Right-turn volume reduction (Vr9):	222	59
Right-turn volume reduction (Vr12):	189	236
Adjusted right-turn volume reduction (Vr9):	33	26
Adjusted right-turn volume reduction (Vr12):	0	0
Adjusted minor-road volume:	101	69

Chart Legend: ▲ ●



Source: NCHRP Report 457