



# TRAFFIC IMPACT ANALYSIS

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Supermarket — Douglas Street & Tudor Road  
Lee's Summit, Missouri

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Prepared for:

Pickering Firm, Inc.

December 2025

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## 1.0 INTRODUCTION

Traffic Engineering Consultants, Inc. (TEC) was retained to conduct a traffic impact analysis (TIA) for a proposed Supermarket, Gas Station, and retail development to be constructed in Lee's Summit, Missouri. The study was requested to determine the effects the development would have on the adjacent street system, to review the available access and to provide recommendations for improvements that may be necessary to accommodate the traffic expected to be generated by the development.

## 2.0 BACKGROUND

The site of the proposed development is located west of Douglas street south of Tudor Road as shown in **Figure 1**. The development will contain approximately 99,000 square foot Supermarket, 14 fueling positions Gas Station, 65,000 square feet of retail. Access to the development, as shown in **Figure 2**, is proposed via three full accesses and one partial access. The development is anticipated to be developed in two phases.

**Douglas Street** is a four-lane north/south regional high-activity link with a posted speed limit of 45 miles per hour (mph) and has an approximate average daily traffic (ADT) of 22,600 vehicles per day (vpd) within the limits of the project. The roadway is classified as a Minor Arterial according to the Mid America Regional Council Functional Classification Map. The road currently does contain sidewalks on the east side and curb & gutter with no transit access or cycling facilities.

**Tudor Road** is a four-lane east/west local link with a posted speed limit of 35 miles per hour (mph) and has an approximate average daily traffic (ADT) of 6,600 vehicles per day (vpd) within the limits of the project. The roadway is classified as a Major Collector according to the Mid America Regional Council Functional Classification Map. The road currently does contain sidewalks on one side, a multiuse path on the south side, a landscaped median, and curb & gutter with no transit access.

**Chipman Road** is a four-lane east/west regional high-activity link with a posted speed limit of 45 miles per hour (mph) and has an approximate average daily traffic (ADT) of 12,800 vehicles per day (vpd) within the limits of the project. The roadway is classified as a Minor Arterial according to the Mid America Regional Council Functional Classification Map. The road currently does contain sidewalks on one side, a multiuse path on the north side, a median, and curb & gutter with no transit access.

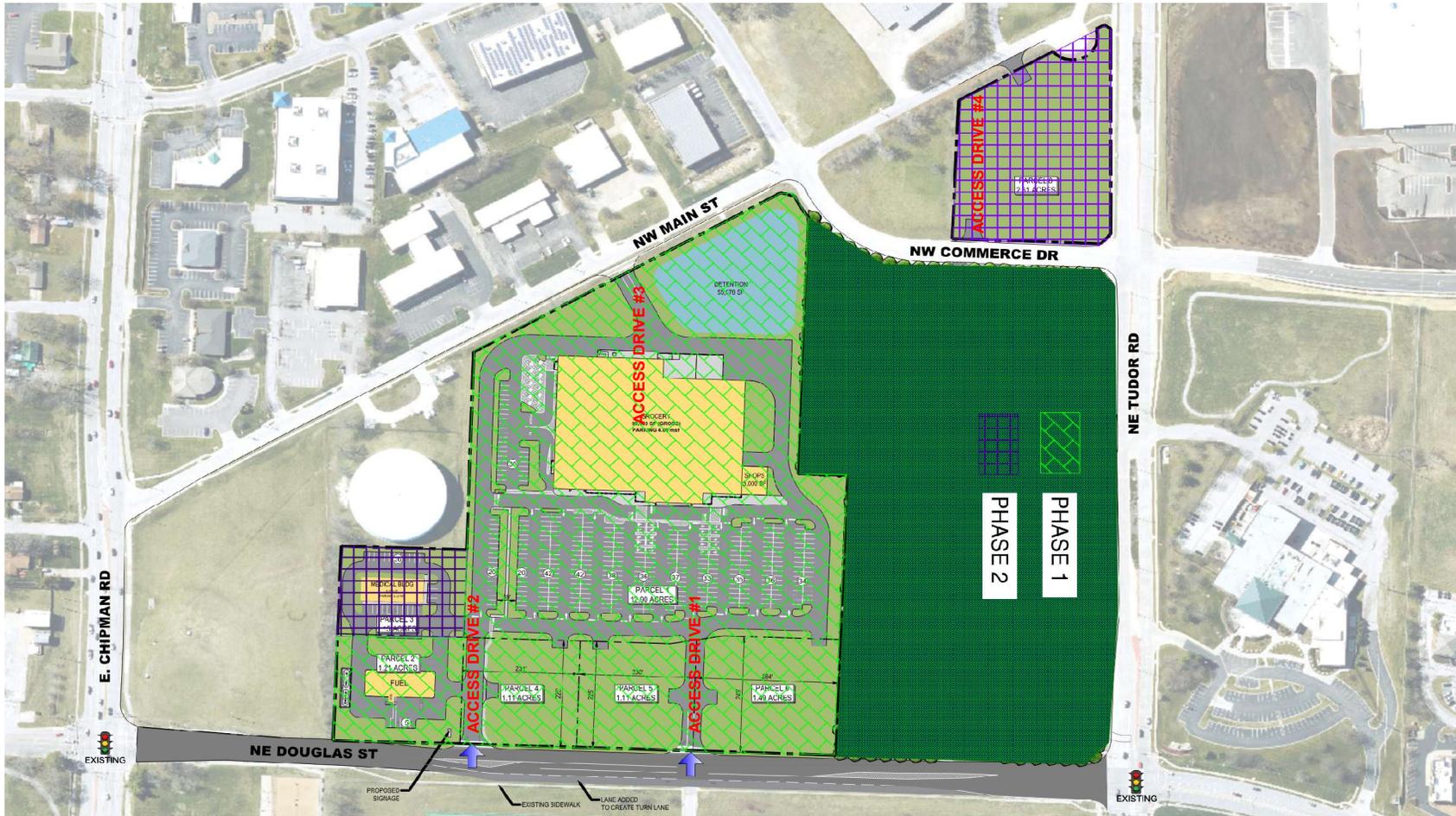


**FIGURE 1.0 LOCATION MAP**

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri





CONCEPTUAL DOCUMENTS AND IDEAS SHOWN ARE OWNED BY PHILLIPS EDISON & COMPANY AND SHALL NOT BE USED OR REPRODUCED BY OTHERS WITHOUT WRITTEN PERMISSION BY OWNER.



NE DOUGLAS ST. (WATER TOWER) - SITE PLAN  
LEE'S SUMMIT, MO

OCTOBER 23, 2025

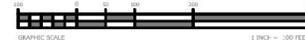


FIGURE 2.0 CONCEPTUAL SITE PLAN

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri



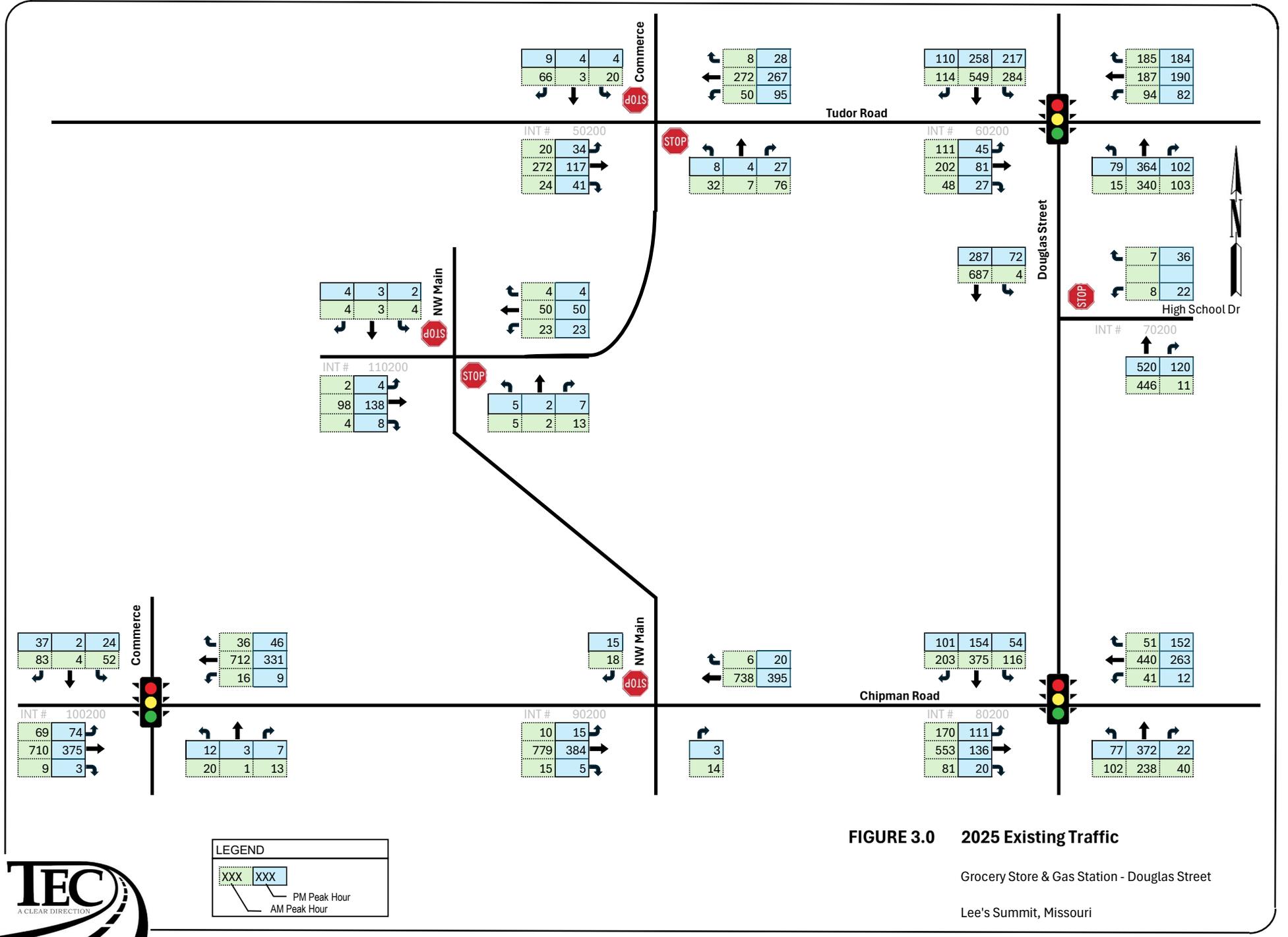
### **3.0 BACKGROUND TRAFFIC**

#### **3.1 EXISTING TRAFFIC**

Existing traffic volume data was collected adjacent to the proposed development in November of 2025. AM and PM Peak hour turning movement volumes were collected at the intersections of Commerce Drive and Tudor Road, Douglas Street and Tudor Road, Douglas Street and High School Drive, Douglas Street and Chipman Road, Commerce Drive and Chipman Road. The collected data indicated the A.M. peak hour occurred from 7:00 to 8:00 and P.M. peak hour occurred from 4:15 to 5:15. Given the traffic characteristics in the area and the anticipated trip generation for the proposed development, the weekday peak periods would represent a “worst-case scenario” with regards to traffic impact on the surrounding roadway network. If traffic operations are acceptable during these weekday peak hours, it can be reasoned that conditions would be acceptable throughout the remainder of the day and week. The 2025 existing traffic is summarized in **Figure 3** and detailed printouts of all the traffic count data are included in the appendix.

#### **3.2 FUTURE BACKGROUND TRAFFIC**

The 2025 existing traffic was utilized to determine the background traffic for full build out. The development is projected to be completed in 2029 and 2027 was selected as the design period for Phase 1 full build out analysis and 2029 as the design period for Phase 2 full build out analysis. The background traffic was determined for each phase design year by applying an average annual growth rate of 2.0% to the 2025 existing traffic volumes. The full build 2027 projected background traffic is summarized in **Figure 4**. The full build 2029 projected background traffic is summarized in **Figure 8**.



**FIGURE 3.0 2025 Existing Traffic**

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri



### 4.0 PHASE 1 - PROPOSED SITE TRIPS

To determine the effects a new development will have on an existing street system, new or additional traffic must be projected. The latest edition of the *Trip Generation Manual, 12<sup>th</sup> Edition*, published by the Institute of Transportation Engineers, was used to determine the amount of traffic the development is expected to generate. The report is a nationally accepted reference which provides trip rates for determining the traffic expected to be generated by different land use types.

Available information was utilized regarding the anticipated land use to determine the site generated traffic. The 850 – *Supermarket*, 822 – *Strip Retail Plaza* & 944 – *Gas Stations* category was selected to determine the trip generation of the proposed development. This site has 99,000 Square Foot Supermarket, 50,000 square feet Strip Retail Plaza, and 14 Vehicle Fueling Positions. The trip generation took into consideration both Internal capture, the sharing of trips between uses, and Pass By trips, the pulling of traffic from the existing traffic into the development. The resulting traffic volumes projected to be generated by the proposed development are indicated in **Table 1**.

**TABLE 1.0 PHASE 1 - PROJECTED SITE GENERATED TRIPS**

Building Type (Land Use)	ITE Land Use Code	Approximate Fueling Positions	Average Weekday Vehicle Trips			Average AM Peak Hour Directional Distribution		Average AM Peak Hour Directional Trips (vph)		Average PM Peak Hour Directional Distribution		Average PM Peak Hour Directional Trips (vph)	
			Per Day	Per Peak Hour of Adjacent Street Traffic		IN	OUT	IN	OUT	IN	OUT	IN	OUT
				One Hour Between 7am & 9am	One Hour Between 4pm & 6pm								
			(vpd)	(vph)	(vph)								
<b>Full Build Out</b>													
Trip Rate* Supermarket	850	(1 KSF GFA) 99	92.29	2.95	8.79	59%	41%	172	120	50%	50%	435	435
Trip Rate* Strip Retail Plaza 3.71 Acres / .25 FAR	822	(1 KSF GFA) 50	54.45	3.93	6.29	55%	45%	108	89	50%	50%	158	158
Trip Rate* Gas Station	944	(Fueling Positions) 14	172.01	11.32	14.23	50%	50%	79	79	50%	50%	100	100
<b>Total Trips</b>			<b>14,268</b>	<b>647</b>	<b>1,384</b>			<b>360</b>	<b>287</b>			<b>692</b>	<b>692</b>
<b>Trip Rate Reductions</b>													
Reduction Type	Reduction Amount (%)	AM Peak Hour				PM Peak Hour							
		Reduction		Total Development		Reduction		Total Development					
		IN	OUT	IN	OUT	IN	OUT	IN	OUT				
Internal Capture <sup>5</sup>	10	36	29	IN	OUT	69	69	IN	OUT	623	623		
				324	259								
Reduction Type	Reduction Amount (%)	AM Peak Hour				PM Peak Hour							
		Reduction		Site Trips Added		Reduction		Site Trips Added					
		AM Peak Hour	PM Peak Hour	IN	OUT	IN	OUT	IN	OUT				
Pass-By Trips / Diverted Link** - 850 Supermarket	25%	25%	30	30			109	109					
Pass-By Trips / Diverted Link** - 944 Gasoline/Service	60%	60%	47	47			60	60					
							247	182			454	454	

\* Trip Rates from "TRIP GENERATION MANUAL", 12th Ed., Institute of Transportation Engineers.

## 4.1 DISTRIBUTION OF TRIPS

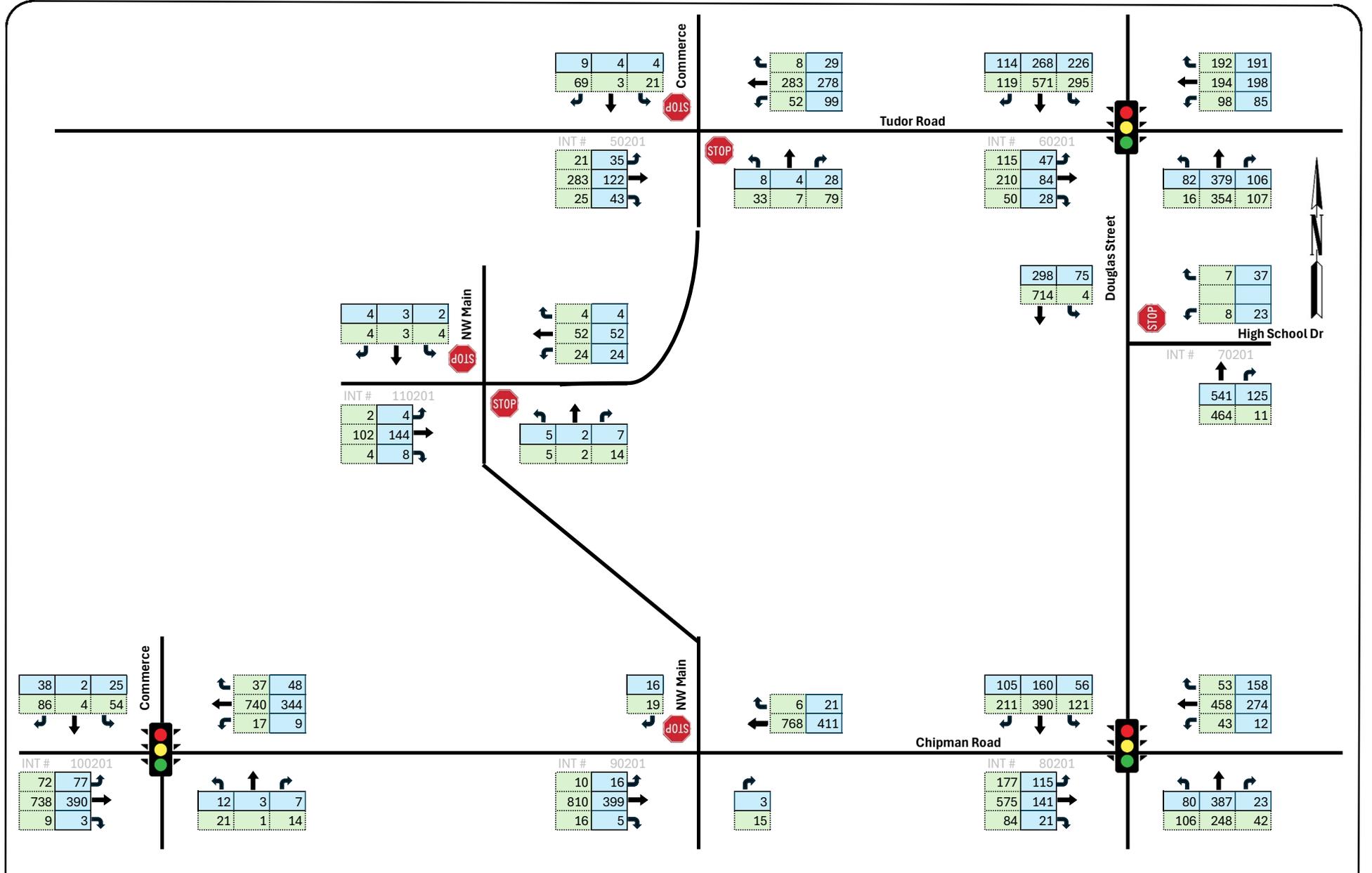
The traffic expected to be generated by the proposed development was then distributed among the points of access as well as the study intersection for the A.M. and P.M. peak hours. The distribution of the site generated traffic was based on anticipated usage of the site and traffic patterns in the area which were obtained from the traffic data that was collected for this study and is summarized in **Figure 5**. The directional distribution of the site generated traffic entering/exiting the proposed development is generally expected to be:

- 15% to/from Tudor Road west of Commerce Drive
- 10% to/from Tudor Road east of Douglas Street
- 20% to/from Douglas Street north of Tudor
- 20% to/from Douglas Street south of Chipman Road
- 20% to/from Chipman Road west of Commerce Drive
- 15% to/from Chipman Road east of Douglas Street

For more detailed direction distribution see **Figure 5**.

## 4.2 PHASE 1 - TOTAL TRAFFIC

The site trips were then added to the future combined traffic for the 2027 design year. The 2027 phase 1 - total traffic (2027 future background traffic + future development trips + proposed site trips) for each access point as well as the adjacent study intersection is summarized in **Figure 6**.



**FIGURE 4.0 2027 Background Traffic**

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri



**LEGEND**

XXX	XXX
PM Peak Hour	
AM Peak Hour	

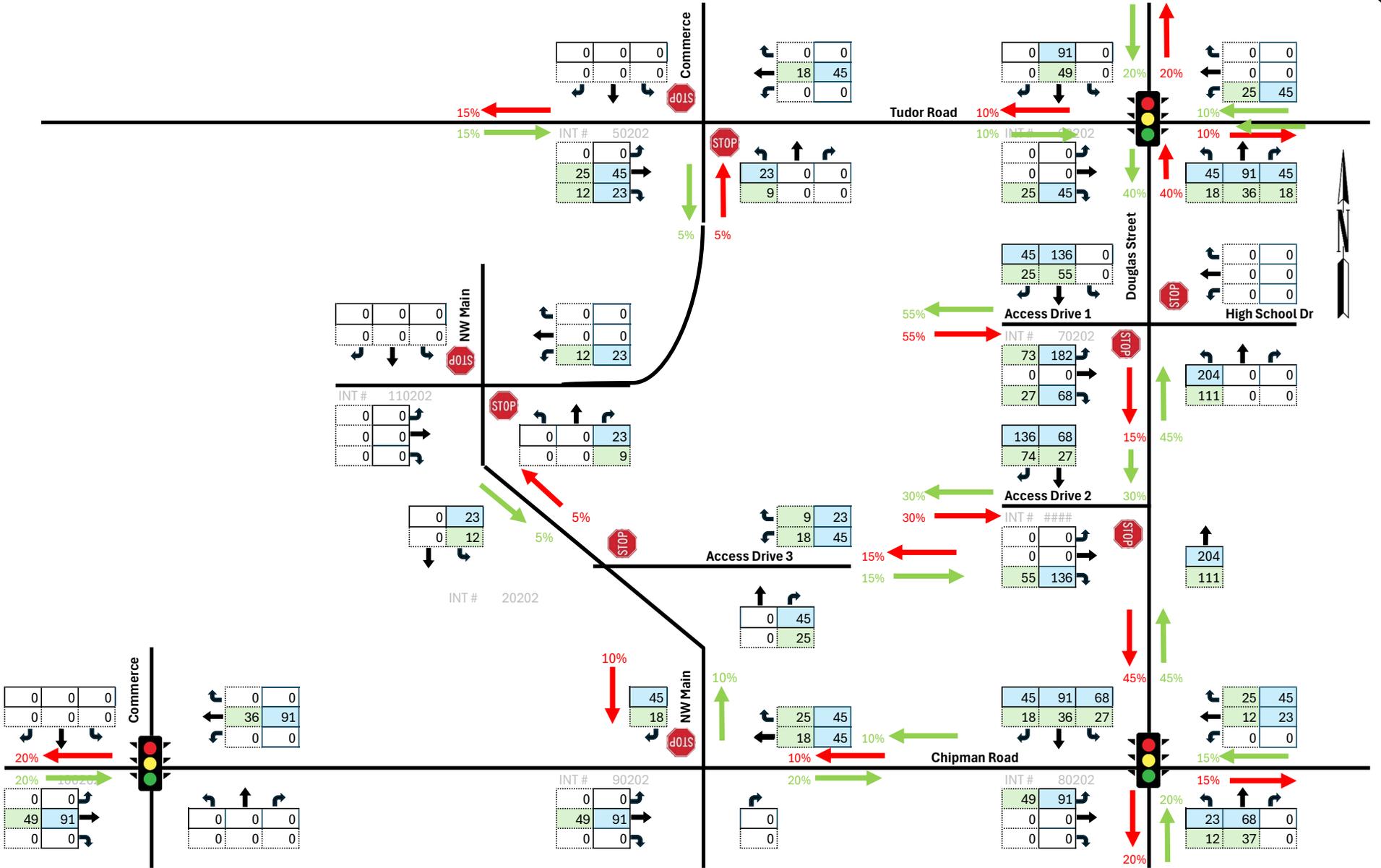
2% Growth Rate  
2 Number of Years



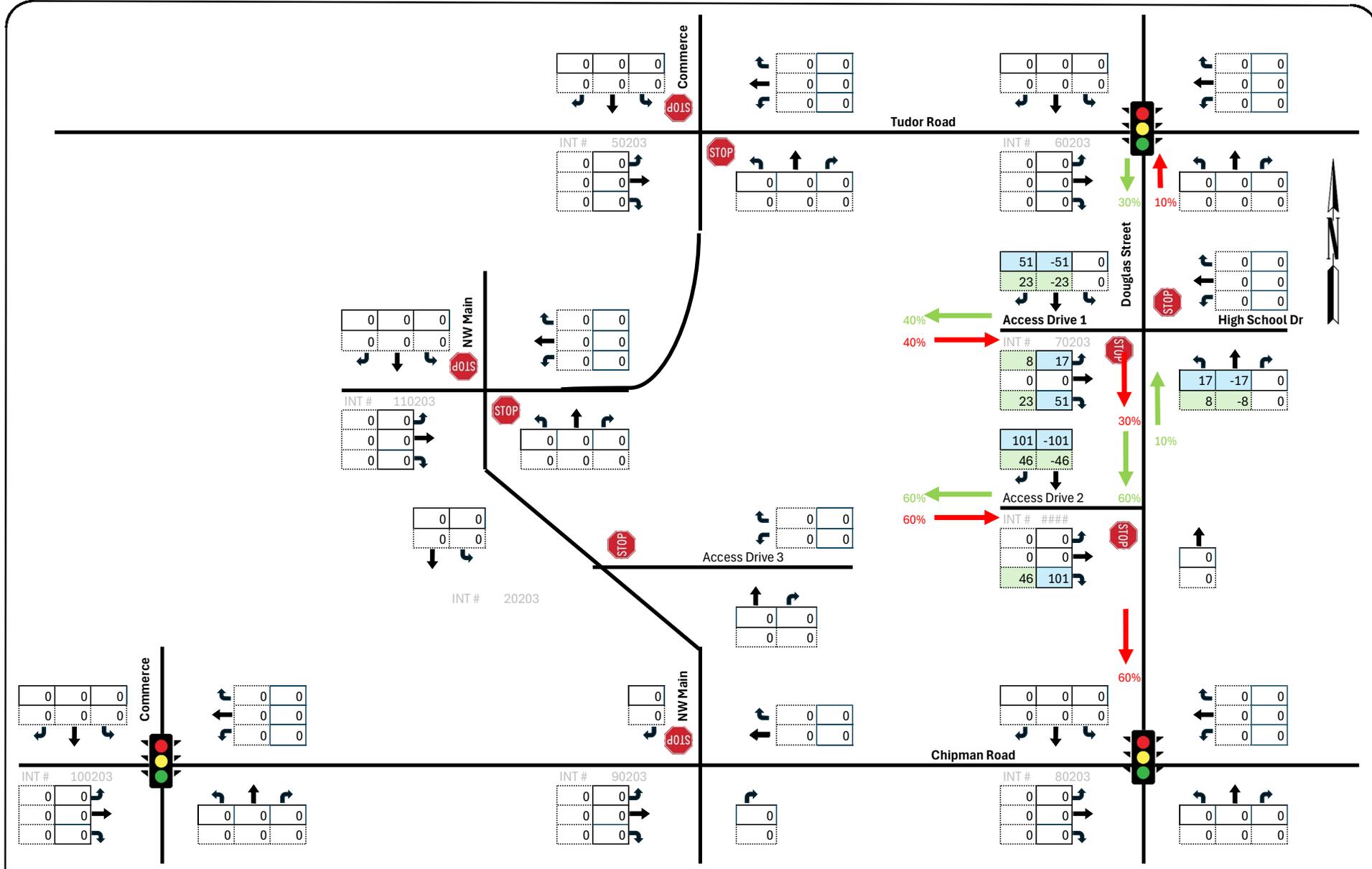
**LEGEND**

XXX	XXX
PM Peak Hour	
AM Peak Hour	

Peak Hour - Primary Site Generated Trips		
	IN (vph)	OUT (vph)
AM Peak Hour	247	182
PM Peak Hour	454	454



**FIGURE 5.0 Phase 1 - Proposed Site Trips**  
 Grocery Store & Gas Station - Douglas Street  
 Lee's Summit, Missouri



Peak Hour - Pass-by Site Generated Trips		
	IN (vph)	OUT (vph)
AM Peak Hour	77	77
PM Peak Hour	169	169

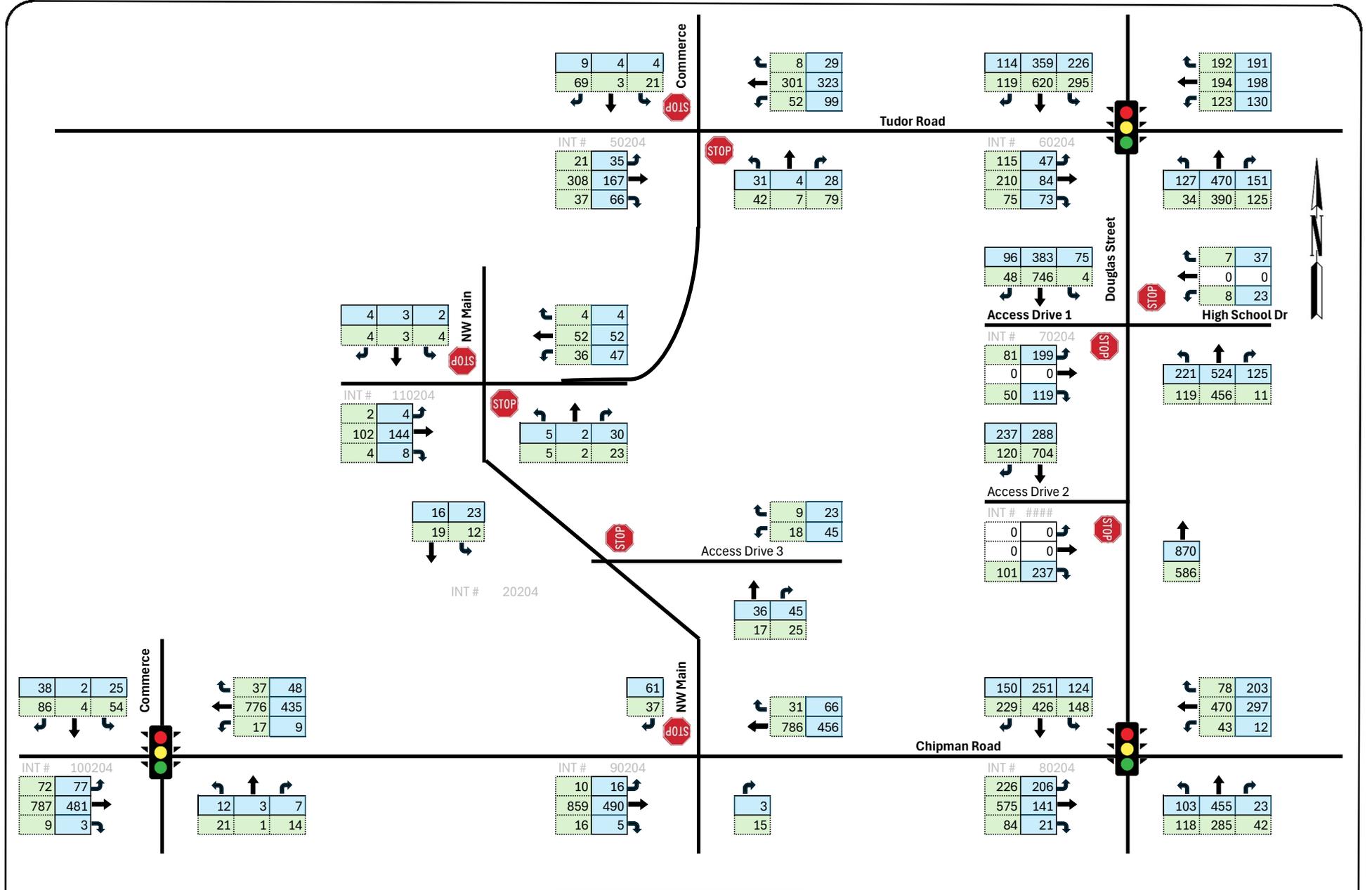
LEGEND	
XXX	PM Peak Hour
XXX	AM Peak Hour

**FIGURE 6.0 Phase 1 - Proposed Pass By / Diverted I**

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri





**LEGEND**

XXX	XXX
	PM Peak Hour
	AM Peak Hour

Peak Hour - Primary Site Generated Trips		
	IN (vph)	OUT (vph)
AM Peak Hour	324	259
PM Peak Hour	692	623

**FIGURE 7.0 Phase 1 - Total Traffic**

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri



## 5.0 PHASE 1 - CAPACITY ANALYSIS

### 5.1 METHODOLOGY

The capacity analyses were conducted using *Synchro 12*, which is a software package for modeling and optimizing traffic signal timings at signalized intersections and analyzing unsignalized intersections in accordance with the methodology of the latest edition of the *Highway Capacity Manual, 7<sup>th</sup> Edition*. The *Highway Capacity Manual* is published by the Transportation Research Board of the National Research Council, Washington, D.C. The information has been widely accepted throughout the U.S. as a guide for defining and solving transportation challenges. The information is approved and distributed by the U.S. Department of Transportation, Federal Highway Administration.

The capacity analysis provides a measure of the amount of traffic that a given facility can accommodate. Traffic facilities generally operate poorly at or near capacity. The analysis is intended to estimate the maximum amount of traffic that can be accommodated by a facility while maintaining prescribed operational qualities. The definition of operational criteria is accomplished using levels-of-service. The concept of levels-of-service is defined as a qualitative measure and describes operational conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels-of-service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from “A” to “F”, with level-of-service “A” representing the best operating conditions and level-of-service “F” the worst.

The average control delay for signalized intersections is estimated for each lane group and aggregated for each approach and for the intersection as a whole. The level-of-service for this type of traffic control is directly related to the control delay value. The criteria for stop controlled or unsignalized intersections have different threshold values than do those for signalized intersections. A higher level of control delay has been determined to be acceptable at a signalized intersection for the same level-of-service. The level-of-service criteria are summarized in **Table 2**.

**TABLE 2.0 LEVEL-OF-SERVICE CRITERIA**

Level-of-Service	Average Delay (seconds/vehicle)		Traffic Condition
	Unsignalized	Signalized	
A	≤ 10	≤ 10	Free Flow
B	> 10 - 15	> 10 - 20	Stable Flow (slight delays)
C	> 15 - 25	> 20 - 35	Stable Flow (acceptable delays)
D	> 25 - 35	> 35 - 55	Approaching Unstable Flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	> 35 - 50	> 55 - 80	Unstable Flow (intolerable delay)
F	> 50	> 80	Forced Flow (congested and queues fail to clear)

## 5.2 PHASE 1 - SCENARIOS

Capacity analyses were conducted for the A.M. and P.M. peak hours at each development driveway as well as the intersections of Commerce Drive / Sloan Road & Tudor Road, Douglas Street & Tudor Road, Douglas Street & High School Entrance, Douglas Street & Chipman Road, Main Street & Chipman Road, Commerce Drive & Chipman Road, and Main Street and Commerce Drive. The intersections were analyzed and reviewed under the existing traffic, 2029 background traffic, and 2029 total traffic. For purposes of this report, an overall intersection level-of-service “D” or better was considered an acceptable level-of-service as per Lee’s Summit Guidelines. The results of the capacity analyses conducted are summarized in **Table 3** and the raw data sheets have been included in the appendix.

**TABLE 3.0 PHASE 1 - INTERSECTION CAPACITY ANALYSIS RESULTS**

Intersection	Traffic Control	Overall / Approach	AM Peak Hour					
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
			2025 Existing Traffic		2027 Background Traffic		2027 Total Traffic	
Commerce Dr / Sloan & Tudor Road	TWSC	OVR	3.8	A	3.9	A	4.0	A
		EB	0.5	A	0.5	A	0.5	A
		WB	1.2	A	1.2	A	1.1	A
		NB	13.5	B	14.0	B	15.5	C
		SB	12.1	B	12.4	B	12.8	B
Douglas St & Tudor Road	SIGNAL	OVR	23.4	C	23.7	C	23.8	C
		EB	43.9	D	43.6	D	44.9	D
		WB	53.8	D	54.0	D	53.3	D
		NB	0.7	A	0.7	A	1.1	A
		SB	11.7	B	12.3	B	13.1	B
Douglas St & High School Entrance / Access Drive 1	TWSC	OVR	0.2	A	0.2	A	10.9	B
		EB					113.7	F
		WB	14.3	B	14.7	B	26.2	D
		NB	0.0	A	0.0	A	2.1	A
		SB	0.1	A	0.1	A	0.1	A
Douglas St & Access Drive 2	TWSC	OVR					0.9	A
		EB					13.0	B
		NB					0.0	A
		SB					0.0	A
		OVR					0.0	A
Douglas St & Chipman Road	SIGNAL	OVR	31.1	C	31.7	C	35.9	D
		EB	24.9	C	25.5	C	29.0	C
		WB	41.0	D	41.7	D	45.2	D
		NB	24.5	C	24.7	C	25.5	C
		SB	34.3	C	34.9	C	42.2	D
NW Main St & Chipman Road	TWSC	OVR	0.3	A	0.2	A	0.3	A
		EB	0.1	A	0.1	A	0.1	A
		WB	0.0	A	0.0	A	0.0	A
		SB	9.3	A	9.3	A	9.4	A
		OVR					9.4	A
Commerce Drive & Chipman Road	SIGNAL	OVR	13.4	B	13.5	B	13.5	B
		EB	18.8	B	19.0	B	19.1	B
		WB	2.7	A	2.8	A	2.8	A
		NB	32.6	C	32.7	C	32.7	C
		SB	36.7	D	36.9	D	36.9	D
NW Main St & Commerce Drive	TWSC	OVR	2.3	A	2.3	A	2.8	A
		EB	0.1	A	0.1	A	0.1	A
		WB	2.2	A	2.2	A	2.9	A
		NB	9.4	A	9.4	A	9.4	A
		SB	9.7	A	9.7	A	9.9	A
NW Main St & Access Drive 3	TWSC	OVR					3.3	A
		WB					8.9	A
		NB					0.0	A
		SB					2.8	A
		OVR					2.8	A
Douglas St & High School Entrance / Access Drive 1	PRO SIGNAL	OVR					5.6	A
		EB					55.6	E
		WB					52.7	D
		NB					0.4	A
		SB					0.4	A



		PM Peak Hour						
		2025 Existing Traffic		2027 Background Traffic		2027 Total Traffic		
Commerce Dr / Sloan & Tudor Road	TWSC	OVR	2.6	A	2.6	A	2.9	A
		EB	1.4	A	1.4	A	1.2	A
		WB	1.9	A	1.9	A	1.7	A
		NB	11.4	B	11.5	B	15.4	C
		SB	13.0	B	13.3	B	14.3	B
Douglas St & Tudor Road	SIGNAL	OVR	21.9	C	22.1	C	21.0	C
		EB	46.3	D	45.9	D	49.8	D
		WB	54.8	D	55.2	E	54.1	D
		NB	1.4	A	1.5	A	1.7	A
		SB	9.1	A	9.4	A	10.3	B
Douglas St & High School Entrance / Access Drive 1	TWSC	OVR	1.7	A	1.7	A	13.5	B
		EB					729.9	F
		WB	16.0	C	16.8	C	59.1	F
		NB	0.0	A	0.0	A	2.4	A
		SB	2.4	A	2.4	A	1.7	A
Douglas St & Access Drive 2	TWSC	OVR					1.9	A
		EB					12.9	B
		NB					0.0	A
		SB					0.0	A
Douglas St & Chipman Road	SIGNAL	OVR	27.1	C	28.2	C	34.5	C
		EB	29.5	C	29.4	C	43.5	D
		WB	32.4	C	32.8	C	41.6	D
		NB	25.4	C	25.6	C	26.3	C
		SB	20.2	C	24.9	C	30.5	C
NW Main St & Chipman Road	TWSC	OVR	0.3	A	0.3	A	0.7	A
		EB	0.3	A	0.3	A	0.3	A
		WB	0.0	A	0.0	A	0.0	A
		SB	9.7	A	9.8	A	10.6	B
Commerce Drive & Chipman Road	SIGNAL	OVR	14.1	B	14.2	B	13.1	B
		EB	20.8	C	20.8	C	19.8	B
		WB	2.2	A	2.2	A	2.0	A
		NB	32.2	C	32.2	C	32.2	C
		SB	33.5	C	33.6	C	33.6	C
NW Main St & Commerce Drive	TWSC	OVR	1.7	A	1.7	A	2.8	A
		EB	0.2	A	0.2	A	0.2	A
		WB	2.3	A	2.3	A	3.5	A
		NB	9.9	A	10.0	B	9.7	A
		SB	9.8	A	9.8	A	10.2	B
NW Main St & Access Drive 3	TWSC	OVR					4.3	A
		WB					9.4	A
		NB					0.0	A
		SB					4.4	A
Douglas St & High School Entrance / Access Drive 1	PRO	OVR					10.3	B
	SIGNAL	EB					47.8	D
		WB					42.2	D
		NB					0.8	A
		SB					0.4	A

	Signal	Unsignalized
LEVEL OF SERVICE A - C		
LEVEL OF SERVICE D - E		
LEVEL OF SERVICE F		

### **5.2.1 2025 EXISTING TRAFFIC**

The analyses conducted under the 2025 existing traffic indicated that the overall intersections operate at an acceptable level-of-service “D” or better during the a.m. and p.m. peak hours.

### **5.2.2 2027 BACKGROUND TRAFFIC**

The analyses conducted under the 2027 background traffic indicated that the overall intersections operate at an acceptable level-of-service “D” or better during the a.m. and p.m. peak hours.

### **5.2.3 PHASE 1 - 2027 TOTAL TRAFFIC**

The analyses conducted under the 2027 phase 1 total traffic indicated that the overall intersections operate at an acceptable level-of-service “D” or better during the a.m. and p.m. peak hours. The intersection of Douglas Street and High School Entrance / Access Drive 1 did have level of service F for the side street during the a.m. and p.m. peak hours. A signal was modeled for the intersection during the peak hours and found that a signal would meet the level of service requirements. The results for a signal at that intersection were included in **Table 3**.

## 6.0 PHASE 2 - PROPOSED SITE TRIPS

To determine the effects a new development will have on an existing street system, new or additional traffic must be projected. The latest edition of the *Trip Generation Manual, 12<sup>th</sup> Edition*, published by the Institute of Transportation Engineers, was used to determine the amount of traffic the development is expected to generate. The report is a nationally accepted reference which provides trip rates for determining the traffic expected to be generated by different land use types.

Available information was utilized regarding the anticipated land use to determine the site generated traffic. The 850 – *Supermarket*, 822 – *Strip Retail Plaza* & 944 – *Gas Stations* category was selected to determine the trip generation of the proposed development. This site has 99,000 Square Foot Supermarket, 50,000 square feet Strip Retail Plaza, and 14 Vehicle Fueling Positions. The trip generation took into consideration both Internal capture, the sharing of trips between uses, and Pass By trips, the pulling of traffic from the existing traffic into the development. The resulting traffic volumes projected to be generated by the proposed development are indicated in **Table 4**.

**TABLE 4.0 PHASE 2 - PROJECTED SITE GENERATED TRIPS**

Building Type (Land Use)	ITE Land Use Code	Approximate Fueling Positions	Average Weekday Vehicle Trips			Average AM Peak Hour Directional Distribution		Average AM Peak Hour Directional Trips (vph)		Average PM Peak Hour Directional Distribution		Average PM Peak Hour Directional Trips (vph)	
			Per Day	Per Peak Hour of Adjacent Street Traffic		IN	OUT	IN	OUT	IN	OUT	IN	OUT
				One Hour Between 7am & 9am	One Hour Between 4pm & 6pm								
			(vpd)	(vph)	(vph)								
<b>Full Build Out</b>													
Trip Rate* Walk-in Clinic	630	(1 KSF GFA) 6	37.76	2.75	3.67	81%	19%	15	3	29%	71%	7	16
Trip Rate* Strip Retail Plaza 2.61 Acres /.25 FAR	822	(1 KSF GFA) 28	54.45	3.93	6.29	55%	45%	61	50	50%	50%	88	88
<b>Total Trips</b>			<b>1,767</b>	<b>128</b>	<b>199</b>			<b>76</b>	<b>53</b>			<b>95</b>	<b>104</b>

\* Trip Rates from "TRIP GENERATION MANUAL", 12th Ed., Institute of Transportation Engineers.

## 6.1 PHASE 2 - DISTRIBUTION OF TRIPS

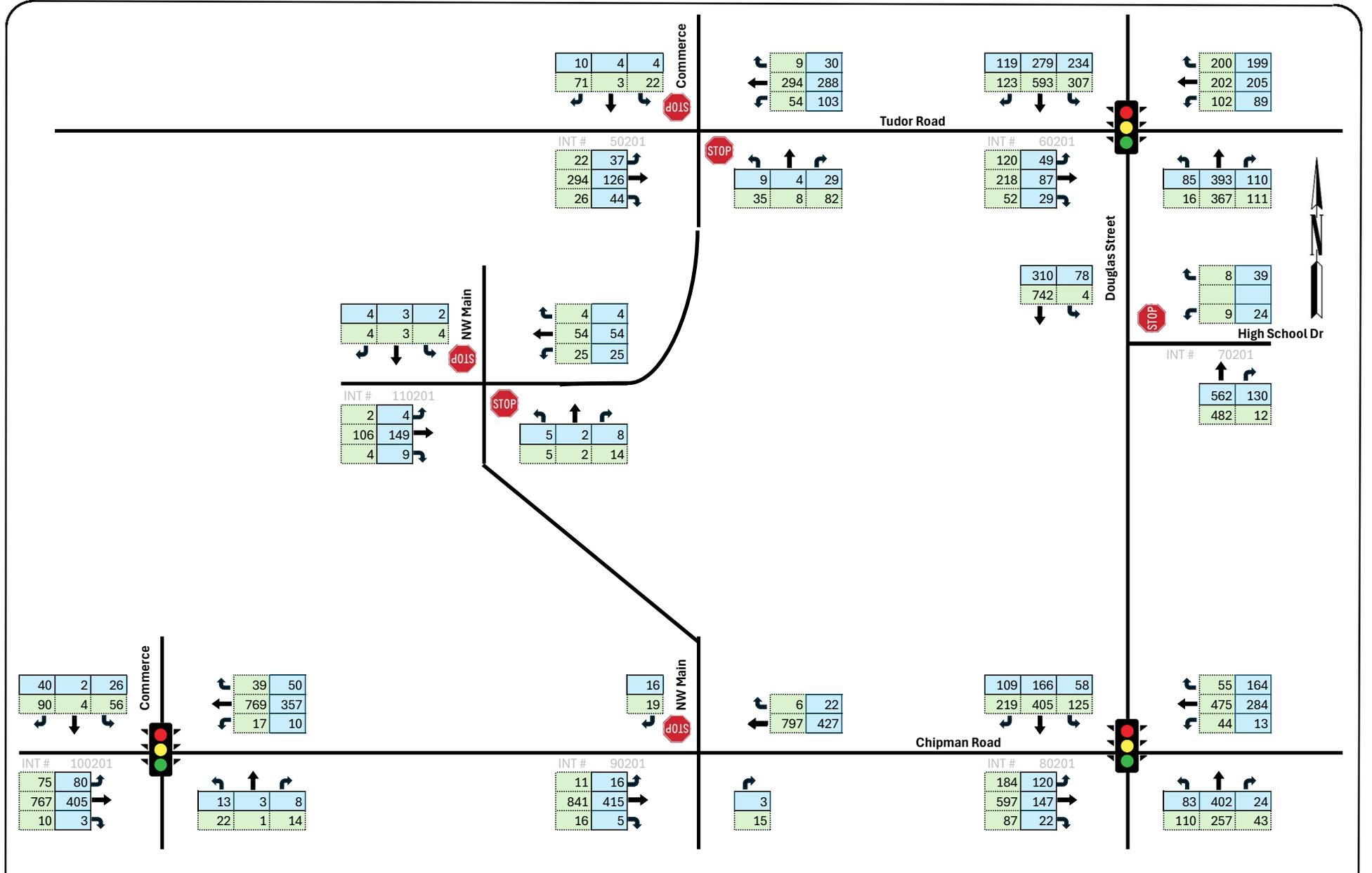
The traffic expected to be generated by the proposed development was then distributed among the points of access as well as the study intersection for the A.M. and P.M. peak hours. The distribution of the site generated traffic was based on anticipated usage of the site and traffic patterns in the area which were obtained from the traffic data that was collected for this study and is summarized in **Figure 9**. The directional distribution of the site generated traffic entering/exiting the proposed development is generally expected to be:

- 20% to/from Tudor Road west of Commerce Drive
- 20% to/from Tudor Road east of Douglas Street
- 30% / 20% to/from Douglas Street north of Tudor
- 10% / 20% to/from Douglas Street south of Chipman Road
- 10% / 15% to/from Chipman Road west of Commerce Drive
- 20% to/from Chipman Road east of Douglas Street

For more detailed direction distribution see **Figure 9**.

## **6.2 PHASE 2 - TOTAL TRAFFIC**

The site trips were then added to the future combined traffic for the 2029 design year. The 2029 phase 2 - total traffic (2029 future background traffic + phase 1 development trips + phase 2 development trips) for each access point as well as the adjacent study intersection is summarized in **Figure 10**.

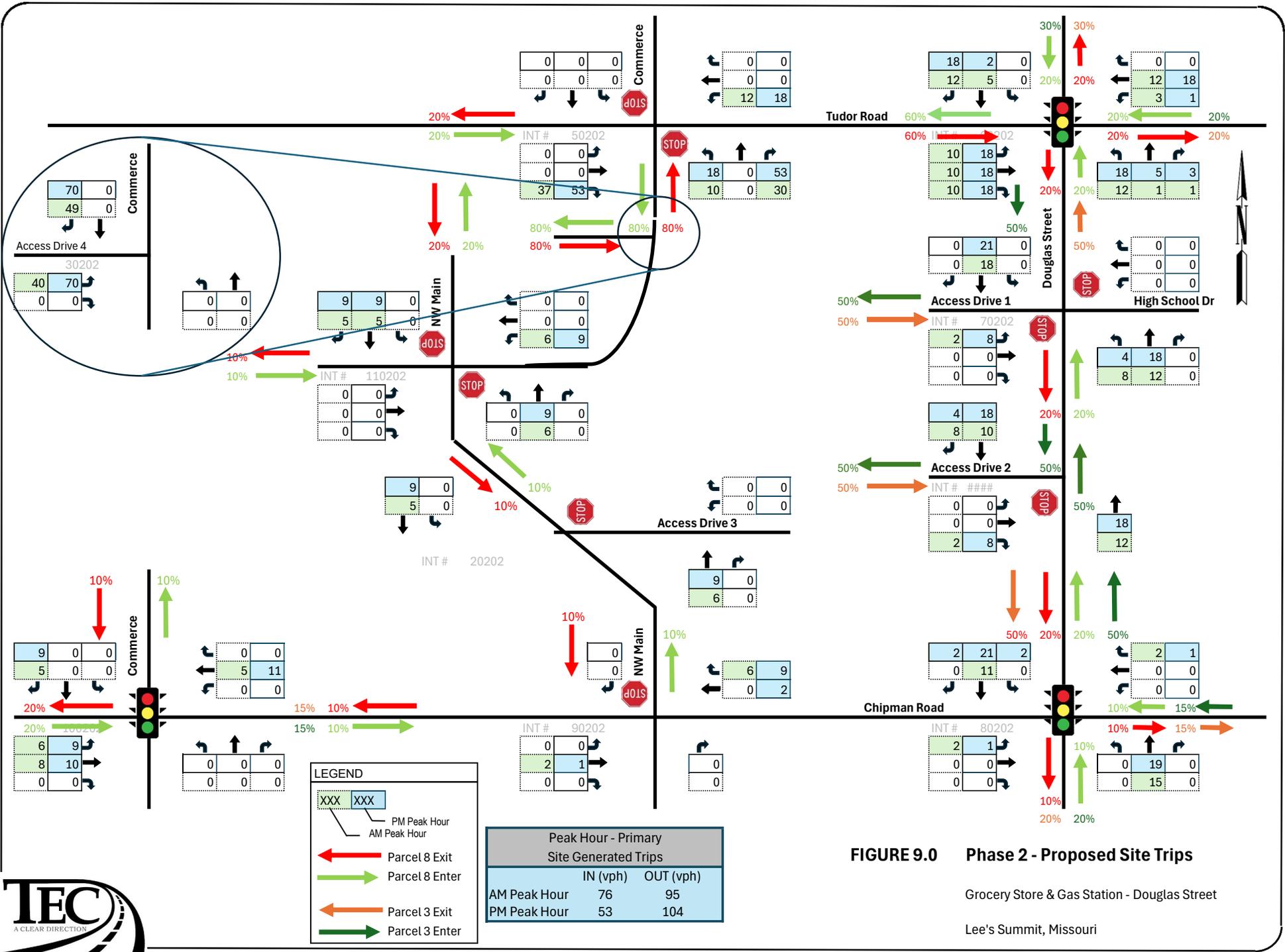


**FIGURE 8.0 2029 Background Traffic**

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri



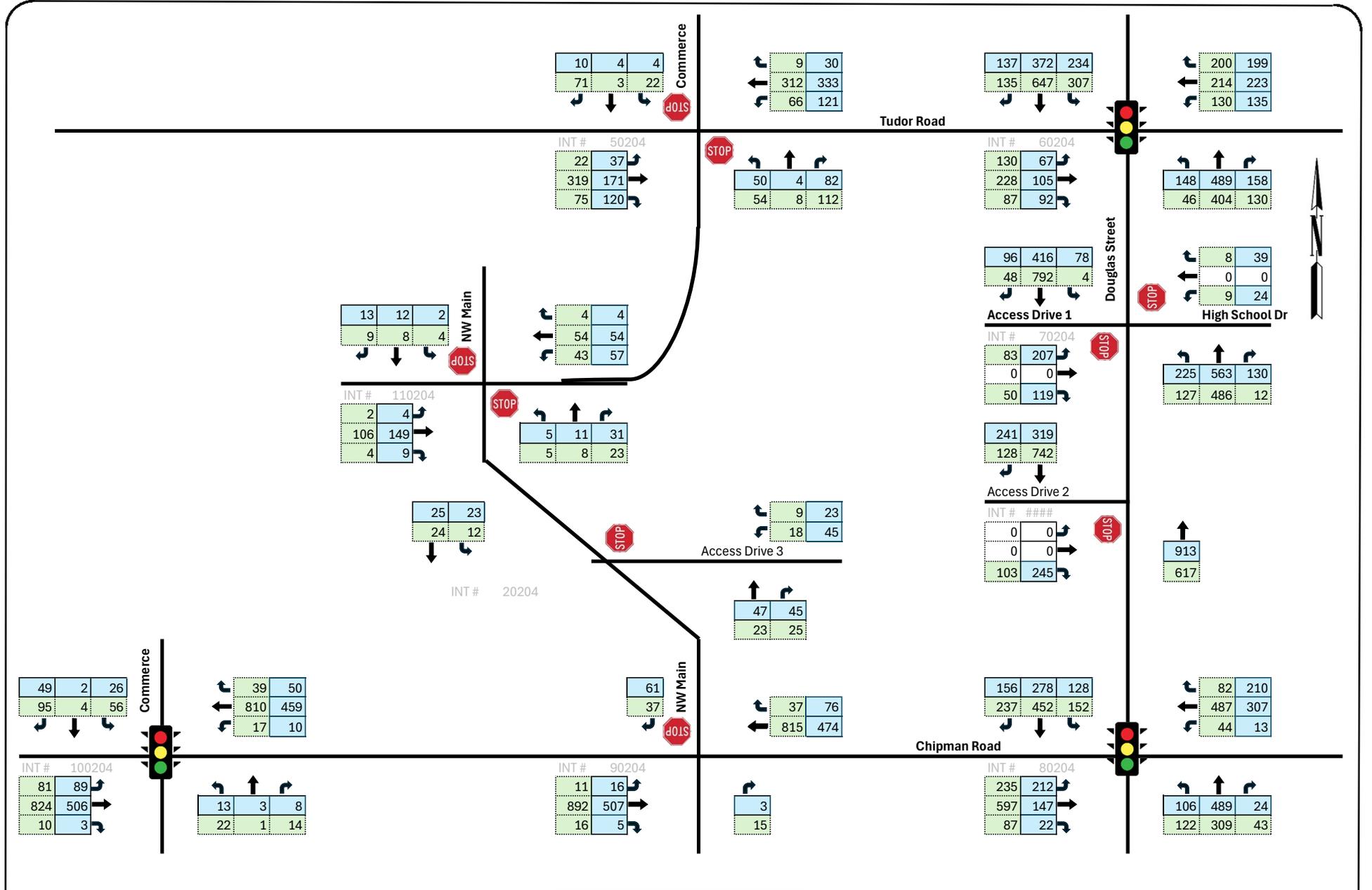


**FIGURE 9.0 Phase 2 - Proposed Site Trips**

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri





**LEGEND**

XXX	XXX
PM Peak Hour	
AM Peak Hour	

**Peak Hour - Primary Site Generated Trips**

	IN (vph)	OUT (vph)
AM Peak Hour	####	####
PM Peak Hour	95	####

**FIGURE 10.0 Phase 2 - Total Traffic**

Grocery Store & Gas Station - Douglas Street

Lee's Summit, Missouri



## 7.0 PHASE 2 - CAPACITY ANALYSIS

### 7.1 METHODOLOGY

The capacity analyses were conducted using *Synchro 12*, which is a software package for modeling and optimizing traffic signal timings at signalized intersections and analyzing unsignalized intersections in accordance with the methodology of the latest edition of the *Highway Capacity Manual, 7<sup>th</sup> Edition*. The *Highway Capacity Manual* is published by the Transportation Research Board of the National Research Council, Washington, D.C. The information has been widely accepted throughout the U.S. as a guide for defining and solving transportation challenges. The information is approved and distributed by the U.S. Department of Transportation, Federal Highway Administration.

The capacity analysis provides a measure of the amount of traffic that a given facility can accommodate. Traffic facilities generally operate poorly at or near capacity. The analysis is intended to estimate the maximum amount of traffic that can be accommodated by a facility while maintaining prescribed operational qualities. The definition of operational criteria is accomplished using levels-of-service. The concept of levels-of-service is defined as a qualitative measure and describes operational conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels-of-service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from “A” to “F”, with level-of-service “A” representing the best operating conditions and level-of-service “F” the worst.

The average control delay for signalized intersections is estimated for each lane group and aggregated for each approach and for the intersection as a whole. The level-of-service for this type of traffic control is directly related to the control delay value. The criteria for stop controlled or unsignalized intersections have different threshold values than do those for signalized intersections. A higher level of control delay has been determined to be acceptable at a signalized intersection for the same level-of-service. The level-of-service criteria are summarized in **Table 5**.

**TABLE 5.0 LEVEL-OF-SERVICE CRITERIA**

Level-of-Service	Average Delay (seconds/vehicle)		Traffic Condition
	Unsignalized	Signalized	
A	≤ 10	≤ 10	Free Flow
B	> 10 - 15	> 10 - 20	Stable Flow (slight delays)
C	> 15 - 25	> 20 - 35	Stable Flow (acceptable delays)
D	> 25 - 35	> 35 - 55	Approaching Unstable Flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	> 35 - 50	> 55 - 80	Unstable Flow (intolerable delay)
F	> 50	> 80	Forced Flow (congested and queues fail to clear)

## 7.2 PHASE 2 - SCENARIOS

Capacity analyses were conducted for the A.M. and P.M. peak hours at each development driveway as well as the intersections of Commerce Drive / Sloan Road & Tudor Road, Douglas Street & Tudor Road, Douglas Street & High School Entrance, Douglas Street & Chipman Road, Main Street & Chipman Road, Commerce Drive & Chipman Road, and Main Street and Commerce Drive. The intersections were analyzed and reviewed under the existing traffic, 2029 background traffic, and 2029 total traffic. For purposes of this report, an overall intersection level-of-service “D” or better was considered an acceptable level-of-service as per Lee’s Summit Guidelines. The results of the capacity analyses conducted are summarized in **Table 6** and the raw data sheets have been included in the appendix.

**TABLE 6.0 PHASE 2 - INTERSECTION CAPACITY ANALYSIS RESULTS**

Intersection	Traffic Control	Overall / Approach	AM Peak Hour					
			Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
			2025 Existing Traffic		2029 Background Traffic		2029 Total Traffic	
Commerce Dr / Sloan & Tudor Road	TWSC	OVR	✔ 3.8	A	✔ 4.0	A	✔ 5.0	A
		EB	✔ 0.5	A	✔ 0.5	A	✔ 0.4	A
		WB	✔ 1.2	A	✔ 1.2	A	✔ 1.4	A
		NB	✔ 13.5	B	✔ 14.6	B	✔ 19.1	C
		SB	✔ 12.1	B	✔ 12.8	B	✔ 13.8	B
Douglas St & Tudor Road	SIGNAL	OVR	✔ 23.4	C	✔ 24.0	C	✔ 24.9	C
		EB	✘ 43.9	D	✘ 43.1	D	✘ 44.1	D
		WB	✘ 53.8	D	✘ 54.5	D	✘ 54.7	D
		NB	✔ 0.7	A	✔ 0.8	A	✔ 1.9	A
		SB	✔ 11.7	B	✔ 12.9	B	✔ 14.5	B
Douglas St & High School Entrance / Access Drive 1	PRO SIGNAL	OVR					✔ 5.5	A
		EB					✘ 55.4	E
		WB					✘ 52.5	D
		NB					✔ 0.4	A
		SB					✔ 0.4	A
Douglas St & Access Drive 2	TWSC	OVR					✔ 0.9	A
		EB					✔ 13.4	B
		NB					✔ 0.0	A
		SB					✔ 0.0	A
		Douglas St & Chipman Road	SIGNAL	OVR	✔ 31.1	C	✔ 32.3	C
EB	✔ 24.9			C	✔ 26.2	C	✔ 29.6	C
WB	✘ 41.0			D	✘ 42.4	D	✘ 46.3	D
NB	✔ 24.5			C	✔ 24.9	C	✔ 24.9	C
SB	✔ 34.3			C	✘ 35.6	D	✔ 15.7	B
NW Main St & Chipman Road	TWSC	OVR	✔ 0.3	A	✔ 0.2	A	✔ 0.3	A
		EB	✔ 0.1	A	✔ 0.1	A	✔ 0.1	A
		WB	✔ 0.0	A	✔ 0.0	A	✔ 0.0	A
		NB	✔ 9.3	A	✔ 11.6	B	✔ 12.1	B
		Commerce Drive & Chipman Road	SIGNAL	OVR	✔ 13.4	B	✔ 13.7	B
EB	✔ 18.8			B	✔ 19.2	B	✔ 19.6	B
WB	✔ 2.7			A	✔ 2.8	A	✔ 2.9	A
NB	✔ 32.6			C	✔ 32.7	C	✔ 32.8	C
SB	✘ 36.7			D	✘ 37.2	D	✘ 37.4	D
NW Main St & Commerce Drive	TWSC	OVR	✔ 2.3	A	✔ 2.2	A	✔ 3.3	A
		EB	✔ 0.1	A	✔ 0.1	A	✔ 0.1	A
		WB	✔ 2.2	A	✔ 2.3	A	✔ 3.2	A
		NB	✔ 9.4	A	✔ 9.4	A	✔ 9.8	A
		SB	✔ 9.7	A	✔ 9.8	A	✔ 10.0	B
NW Main St & Access Drive 3	TWSC	OVR					✔ 3.0	A
		WB					✔ 8.9	A
		NB					✔ 0.0	A
		SB					✔ 2.4	A
		Commerce Drive & Access Drive 4	TWSC	OVR				
EB							✔ 10.4	B
NB							✔ 0.0	A
SB							✔ 0.0	A



		PM Peak Hour						
		2025 Existing Traffic		2029 Background Traffic		2029 Total Traffic		
Commerce Dr / Sloan & Tudor Road	TWSC	OVR	2.6	A	2.7	A	4.2	A
		EB	1.4	A	1.4	A	0.9	A
		WB	1.9	A	1.9	A	2.1	A
		NB	11.4	B	11.8	B	18.1	C
		SB	13.0	B	13.4	B	15.8	C
Douglas St & Tudor Road	SIGNAL	OVR	21.9	C	22.3	C	22.8	C
		EB	46.3	D	45.6	D	47.8	D
		WB	54.8	D	55.5	E	55.2	E
		NB	1.4	A	1.5	A	2.1	A
		SB	9.1	A	9.7	A	11.9	B
Douglas St & High School Entrance / Access Drive 1	PRO SIGNAL	OVR					10.1	B
		EB					47.7	D
		WB					41.5	D
		NB					0.9	A
		SB					0.4	A
Douglas St & Access Drive 2	TWSC	OVR					1.9	A
		EB					13.4	B
		NB					0.0	A
		SB					0.0	A
Douglas St & Chipman Road	SIGNAL	OVR	27.1	C	29.4	C	31.2	C
		EB	29.5	C	29.3	C	43.7	D
		WB	32.4	C	33.3	C	42.4	D
		NB	25.4	C	25.8	C	26.7	C
		SB	20.2	C	29.7	C	17.1	B
NW Main St & Chipman Road	TWSC	OVR	0.3	A	0.3	A	0.8	A
		EB	0.3	A	0.3	A	0.3	A
		WB	0.0	A	0.0	A	0.0	A
		SB	9.7	A	9.9	A	10.7	B
Commerce Drive & Chipman Road	SIGNAL	OVR	14.1	B	14.2	B	13.7	B
		EB	20.8	C	20.9	C	20.4	C
		WB	2.2	A	2.3	A	2.2	A
		NB	32.2	C	32.2	C	32.2	C
		SB	33.5	C	33.7	C	34.0	C
NW Main St & Commerce Drive	TWSC	OVR	1.7	A	1.7	A	3.5	A
		EB	0.2	A	0.2	A	0.2	A
		WB	2.3	A	2.3	A	3.8	A
		NB	9.9	A	10.0	B	10.4	B
		SB	9.8	A	9.9	A	10.4	B
NW Main St & Access Drive 3	TWSC	OVR					3.9	A
		WB					9.5	A
		NB					0.0	A
		SB					3.6	A
Commerce Drive & Access Drive 4	TWSC	OVR					2.0	A
		EB					10.8	B
		NB					0.0	A
		SB					0.0	A

	Signal	Unsignalized
LEVEL OF SERVICE A - C		
LEVEL OF SERVICE D - E		
LEVEL OF SERVICE F		

### **7.2.1 2029 BACKGROUND TRAFFIC**

The analyses conducted under the 2029 background traffic indicated that the overall intersections operate at an acceptable level-of-service “D” or better during the a.m. and p.m. peak hours.

### **7.2.2 PHASE 2 - 2029 TOTAL TRAFFIC**

The analyses conducted under the 2029 phase 2 total traffic indicated that the overall intersections operate at an acceptable level-of-service “D” or better during the a.m. and p.m. peak hours. A signal was modeled for the intersection of Douglas Street and High School Entrance / Access Drive 1 during the peak hours since it was found that a signal would meet the level of service requirements. The results for a signal at that intersection were included in **Table 6**.

## **8.0 ALTERNATIVE TRANSPORTATION MODES**

### **8.1 PEDESTRIAN & BIKING**

Bike and pedestrian accommodations were reviewed in the vicinity of the proposed development. All new driveways with planned sidewalks will be constructed to meet ADA and accommodate connectivity. In reviewing the Lee's Summit Comprehensive Plan indicates the need for trails along Tudor Road and Chipman Road. Those trails currently exist within the vicinity of the development. Sidewalks should be installed along Douglas Street within the development to allow for increased pedestrian activity and meet city code. In addition, a new signal at Douglas Street and the High School Entrance / Access Drive 1 should include crosswalks to allow for pedestrian connectivity.

### **8.2 TRANSIT**

There are currently no fixed route transit services within the vicinity of the development.

## 9.0 CONCLUSIONS AND RECOMMENDATIONS

### 9.1 VEHICULAR RECCOMENDATIONS

TEC was requested to conduct a traffic impact study on a proposed supermarket, retail and gas station development in Lee's Summit, Missouri. Existing traffic volume data was collected adjacent to the proposed development. The development was analyzed as full build out in 2029. The proposed development traffic was then determined and added to the background design traffic for conducting reviews and analyses.

A traffic signal warrant analysis was completed for the intersection of Douglas Street and High School Entrance / Access Drive 1 in accordance with the criteria outlined in the MUTCD. Turning-movement counts, pedestrian activity, and speed data were evaluated against the applicable warrants. For this development the Eight-Hour was most applicable.

Based on these findings, installation of a traffic signal is warranted in the 2027 build condition and is expected to enhance both safety and operations at the intersection. Alternative traffic control options—such as all-way stop control and minor geometric improvements—were reviewed but are not anticipated to provide the same level of safety and operational benefit as a properly timed and coordinated traffic signal.

Improvements are needed at the intersection of Douglas Street and High School Entrance / Access Drive 1 in order to handle the anticipated traffic demands.

1. Signalization to meet the capacity needs (see Signal Warrants in Appendix)
2. Addition of Northbound and Southbound left turn lane as required by the city of Lee's Summit
3. With Signalization, installation of a crosswalk for pedestrian connectivity.

In addition to these improvements, access restrictions shall be installed at Access Drive 2 in order to restrict traffic movements to right in and right out only.

Sight Distance at Proposed Entrances and Roadway Intersections – Careful consideration should be given to sight distance obstructions when planning any future development, aesthetics enhancements, such as

berms, fencing, or landscaping. To ensure that these improvements do not obstruct the view of entering and exiting traffic at the developments access with public roads. It is generally recommended that all improvements higher than 3.0 feet above the elevation of the nearest pavement edge be held back at least 20 feet from the traveled roadway. Conditions may vary and will need to be reviewed by the site engineer on a case-by-case basis.

A traffic signal warrant analysis was completed for the intersection of Farm Road 140 & State Highway MM in accordance with the criteria outlined in the MUTCD. Turning-movement counts, pedestrian activity, and speed data were evaluated against the applicable warrants. For this development the Eight-Hour was most applicable.

Based on these findings, installation of a traffic signal is warranted in the 2027 build condition and is expected to enhance both safety and operations at the intersection. A signal is close to being warranted today based upon existing traffic. Alternative traffic control options—such as all-way stop control and minor geometric improvements—were reviewed but are not anticipated to provide the same level of safety and operational benefit as a properly timed and coordinated traffic signal. A roundabout could be considered in lieu of a traffic signal.

## **9.2 PEDESTRIAN & BIKING IMPROVEMENTS**

Bike and pedestrian accommodations were reviewed in the vicinity of the proposed development. All new driveways with planned sidewalks will be constructed to meet ADA and accommodate connectivity. New sidewalk shall be installed along Douglas Street to meet city code, and with a new signal at Douglas Street and High School Entrance / Access Drive 1, crosswalks should be install to accommodate pedestrian connectivity.



## 10.0 APPENDIX A

- Existing Traffic Counts
- AM Existing Synchro
- PM Existing Synchro
- AM Peak Calculations
- MoDOT Turn Lane Analysis
- AM Background Traffic Synchro
- AM Total Traffic Synchro
- PM Peak Calculations
- PM Background Traffic Synchro
- PM Total Traffic Synchro

## **10.0 APPENDIX A**

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### **Supermarket — Douglas Street & Tudor Road Lee's Summit, Missouri**

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#### **Existing**

**Existing Traffic Counts**

**AM Existing Synchro**

**PM Existing Synchro**

#### **Phase 1 - 2027**

**AM Peak Calculations**

**AM Background Traffic Synchro**

**AM Total Traffic Synchro**

**AM Total Traffic Synchro w/ Signal**

**PM Peak Calculations**

**PM Background Traffic Synchro**

**PM Total Traffic Synchro**

**PM Total Traffic Synchro w/ Signal**

**Prepared by:**

**Traffic Engineering Consultants, Inc.**



**Phase 2 - 2029**

**AM Peak Calculations**

**AM Background Traffic Synchro**

**AM Total Traffic Synchro w/ Signal**

**PM Peak Calculations**

**PM Background Traffic Synchro**

**PM Total Traffic Synchro w/ Signal**

**Prepared by:**

**Traffic Engineering Consultants, Inc.**



# EXISTING INFORMATION

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**Supermarket — Douglas Street & Tudor Road**

**Lee's Summit, Missouri**

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## **Existing**

**Existing Traffic Counts**

**AM Existing Synchro**

**PM Existing Synchro**

**Prepared by:**

**Traffic Engineering Consultants, Inc.**

**EXISTING INFORMATION**

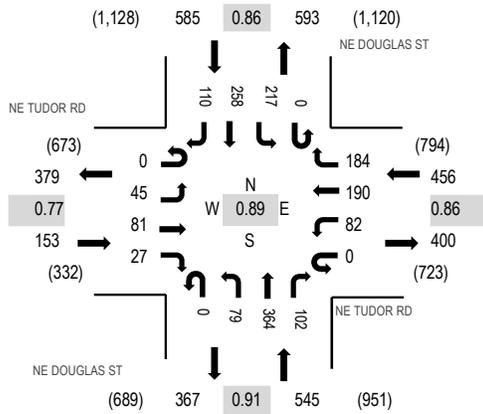
**Location:** 1 NE DOUGLAS ST & NE TUDOR RD AM

**Date:** Thursday, December 4, 2025

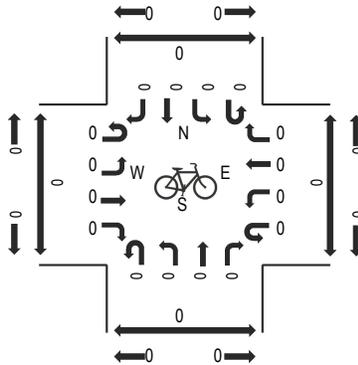
**Peak Hour:** 07:00 AM - 08:00 AM

**Peak 15-Minutes:** 07:15 AM - 07:30 AM

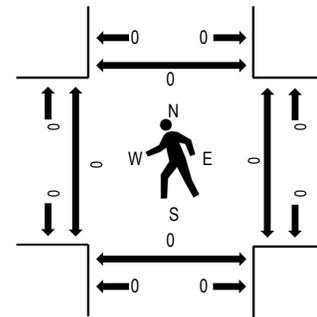
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	NE TUDOR RD Eastbound				NE TUDOR RD Westbound				NE DOUGLAS ST Northbound				NE DOUGLAS ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	10	24	9	0	14	44	56	0	10	80	38	0	68	72	17	442	1,739	0	0	0	0
7:15 AM	0	13	21	8	0	29	45	58	0	17	99	26	0	72	68	30	486	1,650	0	0	0	0
7:30 AM	0	10	18	6	0	18	57	23	0	25	89	12	0	27	55	34	374	1,527	0	0	0	0
7:45 AM	0	12	18	4	0	21	44	47	0	27	96	26	0	50	63	29	437	1,505	0	0	0	0
8:00 AM	0	12	14	2	0	15	44	32	0	9	80	23	0	37	53	32	353	1,466	0	0	0	0
8:15 AM	0	25	19	4	0	12	37	39	0	7	75	15	0	40	62	28	363		0	0	0	0
8:30 AM	0	18	22	5	0	11	34	38	0	8	74	14	0	39	62	27	352		0	0	0	0
8:45 AM	0	20	35	3	0	15	28	33	0	6	81	14	0	51	78	34	398		0	0	0	0
Count Total	0	120	171	41	0	135	333	326	0	109	674	168	0	384	513	231	3,205		0	0	0	0
Peak Hour	0	45	81	27	0	82	190	184	0	79	364	102	0	217	258	110	1,739		0	0	0	0

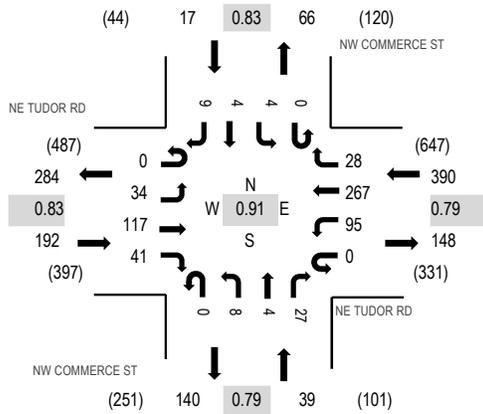
**Location:** 2 NW COMMERCE ST & NE TUDOR RD AM

**Date:** Thursday, December 4, 2025

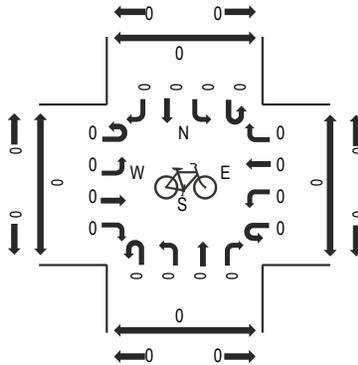
**Peak Hour:** 07:15 AM - 08:15 AM

**Peak 15-Minutes:** 07:45 AM - 08:00 AM

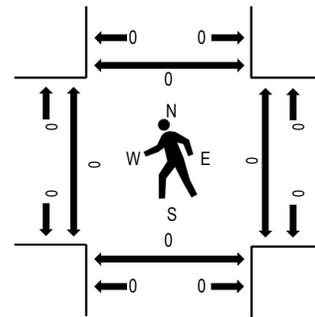
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	NE TUDOR RD Eastbound				NE TUDOR RD Westbound				NW COMMERCE ST Northbound				NW COMMERCE ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	4	43	9	0	14	44	4	0	3	0	4	0	0	1	1	127	619	0	0	0	0
7:15 AM	0	4	39	5	0	24	60	4	0	2	2	6	0	2	2	0	150	638	0	0	0	0
7:30 AM	0	1	22	6	0	22	90	11	0	3	0	9	0	0	2	1	167	629	0	0	0	0
7:45 AM	0	17	27	18	0	22	75	5	0	3	1	5	0	0	0	2	175	589	0	0	0	0
8:00 AM	0	12	29	12	0	27	42	8	0	0	1	7	0	2	0	6	146	570	0	0	0	0
8:15 AM	0	9	35	8	0	15	42	4	0	4	3	11	0	2	2	6	141		0	0	0	0
8:30 AM	0	9	24	5	0	21	40	3	0	4	1	12	0	1	1	6	127		0	0	0	0
8:45 AM	0	13	36	10	0	24	42	4	0	8	0	12	0	3	1	3	156		0	0	0	0
Count Total	0	69	255	73	0	169	435	43	0	27	8	66	0	10	9	25	1,189		0	0	0	0
Peak Hour	0	34	117	41	0	95	267	28	0	8	4	27	0	4	4	9	638		0	0	0	0

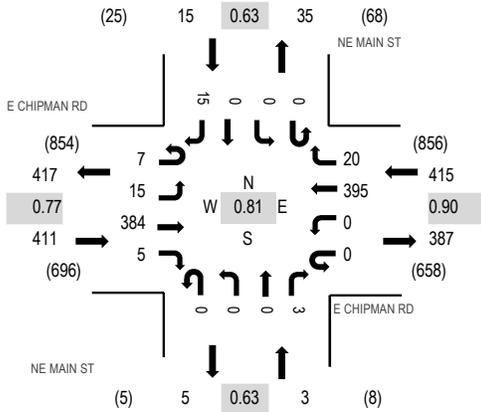
Location: 3 NE MAIN ST & E CHIPMAN RD AM

Date: Thursday, December 4, 2025

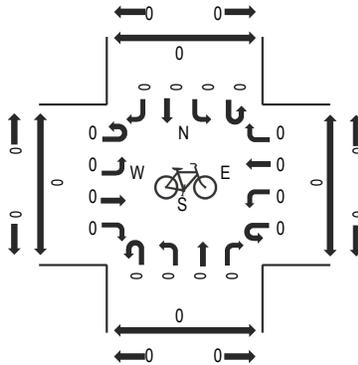
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:45 AM - 09:00 AM

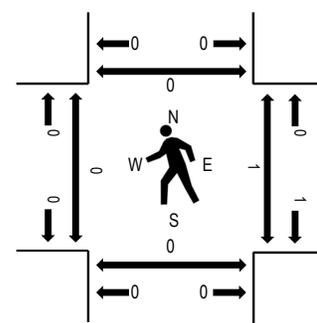
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	E CHIPMAN RD Eastbound				E CHIPMAN RD Westbound				NE MAIN ST Northbound				NE MAIN ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	1	0	54	0	0	0	84	2	0	0	0	2	0	0	0	0	143	741	0	0	1	0
7:15 AM	1	3	66	0	0	0	119	3	0	0	0	1	0	0	0	4	197	779	0	0	0	0
7:30 AM	0	3	65	0	0	0	107	4	0	0	0	1	0	0	0	3	183	785	0	0	0	0
7:45 AM	4	7	81	0	0	0	111	11	0	0	0	1	0	0	0	3	218	802	0	0	0	1
8:00 AM	2	1	85	3	0	0	80	5	0	0	0	2	0	0	0	3	181	844	0	0	0	0
8:15 AM	2	3	83	1	0	0	106	5	0	0	0	0	0	0	0	3	203		0	1	0	0
8:30 AM	3	4	89	1	0	0	94	3	0	0	0	0	0	0	0	6	200		0	0	0	0
8:45 AM	0	7	127	0	0	0	115	7	0	0	0	1	0	0	0	3	260		0	0	0	0
Count Total	13	28	650	5	0	0	816	40	0	0	0	8	0	0	0	25	1,585		0	1	1	1
Peak Hour	7	15	384	5	0	0	395	20	0	0	0	3	0	0	0	15	844		0	1	0	0

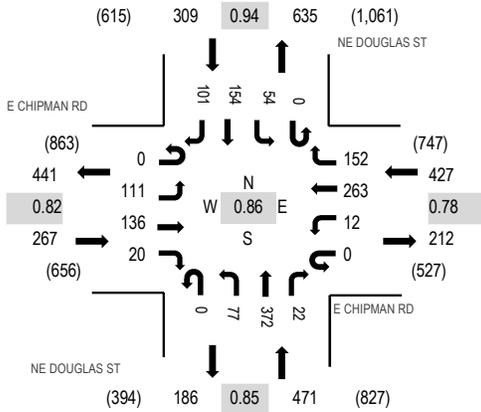
**Location:** 4 NE DOUGLAS ST & E CHIPMAN RD AM

**Date:** Thursday, December 4, 2025

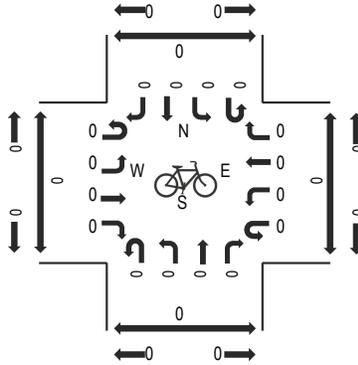
**Peak Hour:** 07:00 AM - 08:00 AM

**Peak 15-Minutes:** 07:15 AM - 07:30 AM

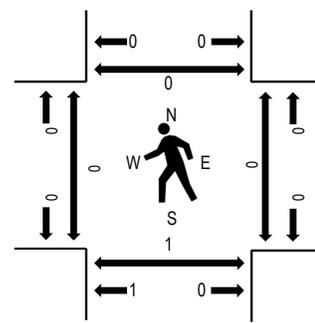
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	E CHIPMAN RD Eastbound				E CHIPMAN RD Westbound				NE DOUGLAS ST Northbound				NE DOUGLAS ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	21	28	5	0	2	56	55	0	15	79	2	0	11	37	18	329	1,474	0	0	1	0
7:15 AM	0	34	30	5	0	2	73	62	0	18	110	10	0	14	40	29	427	1,465	0	0	0	0
7:30 AM	0	25	34	6	0	4	57	14	0	22	89	7	0	12	34	32	336	1,379	0	0	0	0
7:45 AM	0	31	44	4	0	4	77	21	0	22	94	3	0	17	43	22	382	1,377	0	0	0	0
8:00 AM	0	13	64	8	0	4	53	20	0	12	73	5	0	16	30	22	320	1,371	0	0	0	0
8:15 AM	0	27	46	11	0	6	62	10	0	18	74	8	0	11	36	32	341		0	0	0	0
8:30 AM	0	34	59	9	0	5	57	14	0	17	60	7	0	10	41	21	334		0	0	0	0
8:45 AM	0	33	73	12	0	7	69	13	0	19	55	8	0	8	39	40	376		0	0	0	0
Count Total	0	218	378	60	0	34	504	209	0	143	634	50	0	99	300	216	2,845		0	0	1	0
Peak Hour	0	111	136	20	0	12	263	152	0	77	372	22	0	54	154	101	1,474		0	0	1	0

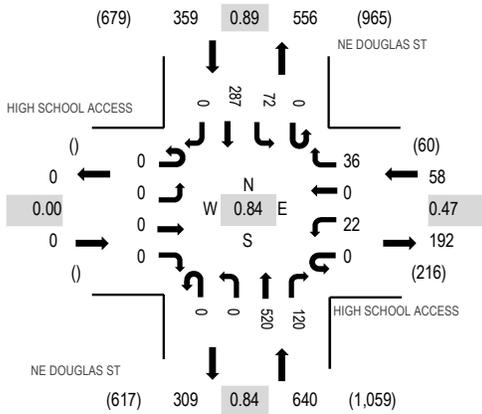
**Location:** 5 NE DOUGLAS ST & HIGH SCHOOL ACCESS AM

**Date:** Thursday, December 4, 2025

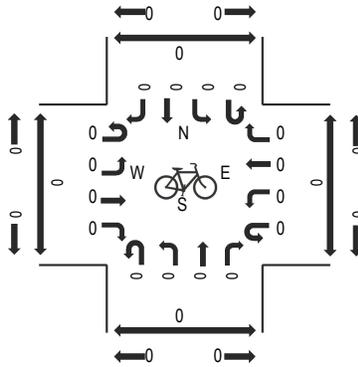
**Peak Hour:** 07:00 AM - 08:00 AM

**Peak 15-Minutes:** 07:15 AM - 07:30 AM

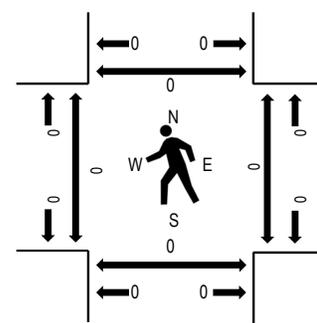
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	HIGH SCHOOL ACCESS Eastbound				HIGH SCHOOL ACCESS Westbound				NE DOUGLAS ST Northbound				NE DOUGLAS ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
	7:00 AM	0	0	0	0	0	10	0	14	0	0	111	49	0	44	57			0	285	1,057	0
7:15 AM	0	0	0	0	0	10	0	21	0	0	128	62	0	24	71	0	316	951	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	131	3	0	2	78	0	215	821	0	0	0	0
7:45 AM	0	0	0	0	0	1	0	1	0	0	150	6	0	2	81	0	241	780	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	106	3	0	5	65	0	179	741	0	0	0	0
8:15 AM	0	0	0	0	0	1	0	0	0	0	105	1	0	3	76	0	186		0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	97	2	0	1	74	0	174		0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	100	5	0	4	92	0	202		0	0	0	0
Count Total	0	0	0	0	0	23	0	37	0	0	928	131	0	85	594	0	1,798		0	1	0	0
Peak Hour	0	0	0	0	0	22	0	36	0	0	520	120	0	72	287	0	1,057		0	0	0	0

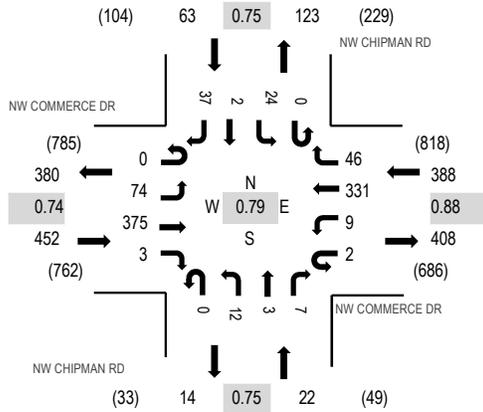
**Location:** 6 NW CHIPMAN RD & NW COMMERCE DR

**Date:** Thursday, December 4, 2025

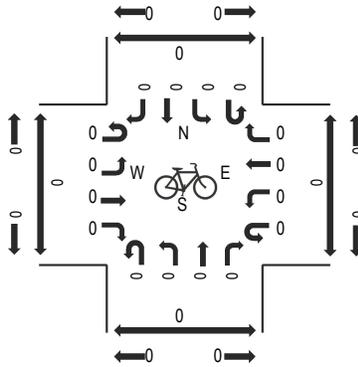
**Peak Hour:** 08:00 AM - 09:00 AM

**Peak 15-Minutes:** 08:45 AM - 09:00 AM

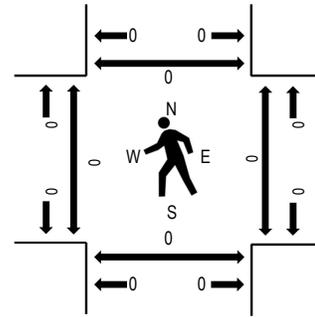
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	NW COMMERCE DR Eastbound				NW COMMERCE DR Westbound				NW CHIPMAN RD Northbound				NW CHIPMAN RD Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right			West	East	South	North												
	7:00 AM	0	7	52	0	0	2	72	8	0	4	0	2	0	1	2			5	155	808	0
7:15 AM	0	13	62	2	0	3	107	13	0	5	2	2	0	6	0	6	221	855	0	0	0	0
7:30 AM	0	10	55	0	0	4	93	10	0	4	1	1	0	6	1	6	191	838	0	0	0	0
7:45 AM	0	25	83	1	0	4	98	16	0	1	1	4	0	4	0	4	241	875	0	0	0	0
8:00 AM	0	12	84	1	1	1	72	13	0	3	0	3	0	3	1	8	202	925	0	0	0	0
8:15 AM	0	19	72	0	1	1	77	13	0	2	1	1	0	8	1	8	204		0	0	0	0
8:30 AM	0	18	94	0	0	4	78	6	0	5	0	2	0	10	0	11	228		0	0	0	0
8:45 AM	0	25	125	2	0	3	104	14	0	2	2	1	0	3	0	10	291		0	0	0	0
Count Total	0	129	627	6	2	22	701	93	0	26	7	16	0	41	5	58	1,733		0	0	1	0
Peak Hour	0	74	375	3	2	9	331	46	0	12	3	7	0	24	2	37	925		0	0	0	0

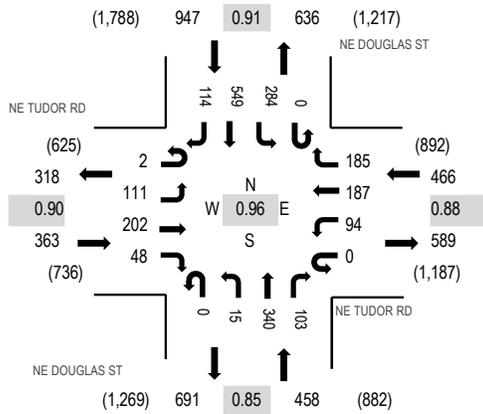
**Location:** 1 NE DOUGLAS ST & NE TUDOR RD PM

**Date:** Thursday, December 4, 2025

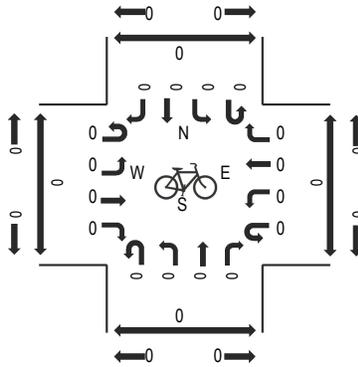
**Peak Hour:** 04:15 PM - 05:15 PM

**Peak 15-Minutes:** 05:00 PM - 05:15 PM

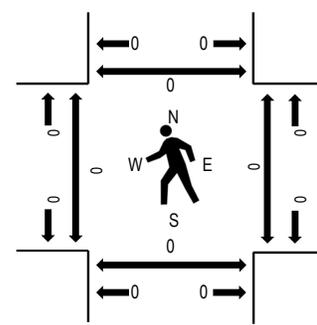
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	NE TUDOR RD Eastbound				NE TUDOR RD Westbound				NE DOUGLAS ST Northbound				NE DOUGLAS ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	1	33	56	10	0	29	50	46	0	12	86	22	0	55	138	19	557	2,207	1	0	2	0
4:15 PM	1	26	51	11	0	25	50	45	0	3	83	19	0	69	153	24	560	2,234	0	0	0	0
4:30 PM	1	32	51	16	0	23	32	35	0	1	70	22	0	69	162	30	544	2,208	0	0	0	0
4:45 PM	0	29	46	9	0	17	57	49	0	6	88	31	0	71	108	35	546	2,181	0	0	0	0
5:00 PM	0	24	54	12	0	29	48	56	0	5	99	31	0	75	126	25	584	2,091	0	0	0	0
5:15 PM	0	38	60	7	0	28	43	33	0	1	63	16	0	91	121	33	534		0	0	0	0
5:30 PM	0	28	53	6	0	22	47	40	0	5	81	32	0	70	103	30	517		0	0	0	0
5:45 PM	0	25	51	5	0	20	37	31	0	4	77	25	0	67	89	25	456		0	0	0	0
Count Total	3	235	422	76	0	193	364	335	0	37	647	198	0	567	1,000	221	4,298		1	0	2	0
Peak Hour	2	111	202	48	0	94	187	185	0	15	340	103	0	284	549	114	2,234		0	0	0	0

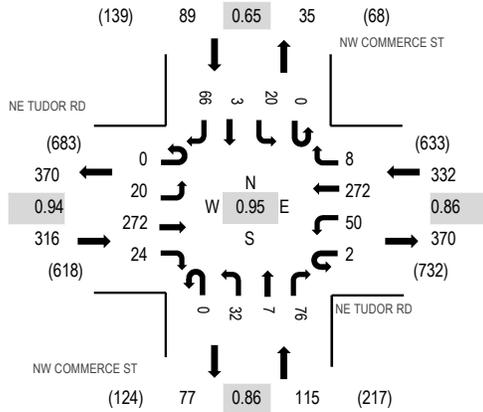
Location: 2 NW COMMERCE ST & NE TUDOR RD PM

Date: Thursday, December 4, 2025

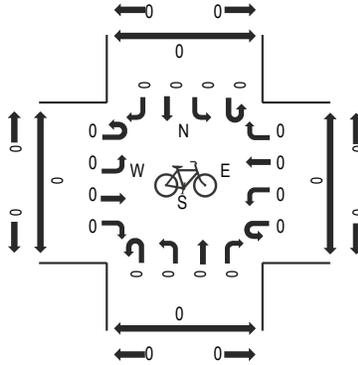
Peak Hour: 04:30 PM - 05:30 PM

Peak 15-Minutes: 04:45 PM - 05:00 PM

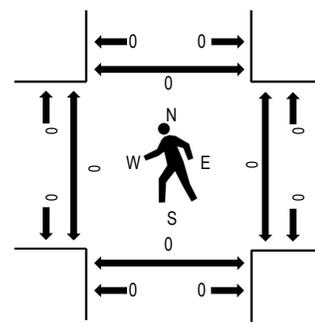
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	NE TUDOR RD Eastbound				NE TUDOR RD Westbound				NW COMMERCE ST Northbound				NW COMMERCE ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	7	75	4	1	8	68	6	0	8	0	24	0	1	2	4	208	826	0	0	1	0
4:15 PM	0	4	69	5	0	10	66	3	0	3	1	16	0	3	1	8	189	837	0	0	0	0
4:30 PM	0	4	76	3	0	9	64	0	0	6	4	12	0	6	0	20	204	852	0	0	0	0
4:45 PM	0	7	64	7	1	29	66	2	0	11	0	24	0	4	0	10	225	849	0	0	0	0
5:00 PM	0	4	59	8	1	7	76	4	0	5	2	19	0	8	1	25	219	781	0	0	0	0
5:15 PM	0	5	73	6	0	5	66	2	0	10	1	21	0	2	2	11	204		0	0	0	0
5:30 PM	0	5	69	1	1	8	66	1	0	7	1	19	0	3	0	20	201		0	0	0	0
5:45 PM	0	4	58	1	0	7	55	1	0	3	0	20	0	3	0	5	157		0	0	0	0
Count Total	0	40	543	35	4	83	527	19	0	53	9	155	0	30	6	103	1,607		0	0	1	0
Peak Hour	0	20	272	24	2	50	272	8	0	32	7	76	0	20	3	66	852		0	0	0	0

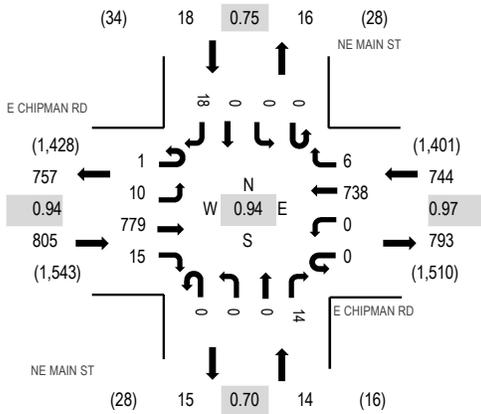
**Location:** 3 NE MAIN ST & E CHIPMAN RD PM

**Date:** Thursday, December 4, 2025

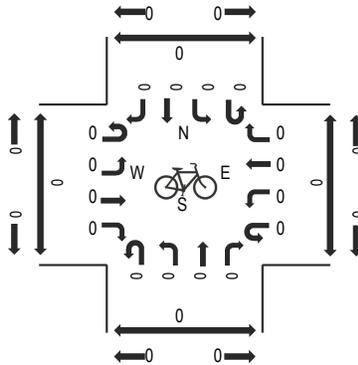
**Peak Hour:** 04:15 PM - 05:15 PM

**Peak 15-Minutes:** 04:45 PM - 05:00 PM

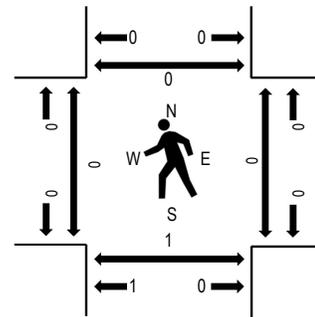
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	E CHIPMAN RD Eastbound				E CHIPMAN RD Westbound				NE MAIN ST Northbound				NE MAIN ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	2	196	4	0	0	181	2	0	0	0	0	0	0	0	4	389	1,579	0	0	0	0
4:15 PM	0	2	199	4	0	0	185	2	0	0	0	4	0	0	0	1	397	1,581	0	0	0	0
4:30 PM	0	2	179	5	0	0	180	0	0	0	0	5	0	0	0	2	373	1,530	0	0	0	0
4:45 PM	1	3	212	0	0	0	191	1	0	0	0	4	0	0	0	8	420	1,533	0	0	1	0
5:00 PM	0	3	189	6	0	0	182	3	0	0	0	1	0	0	0	7	391	1,415	0	0	0	0
5:15 PM	0	2	161	4	0	0	169	2	0	0	0	2	0	0	0	6	346		0	0	0	0
5:30 PM	1	2	194	2	0	0	172	2	0	0	0	0	0	0	0	3	376		0	0	0	0
5:45 PM	3	0	164	3	0	0	129	0	0	0	0	0	0	0	0	3	302		0	0	0	0
Count Total	5	16	1,494	28	0	0	1,389	12	0	0	0	16	0	0	0	34	2,994		0	0	1	0
Peak Hour	1	10	779	15	0	0	738	6	0	0	0	14	0	0	0	18	1,581		0	0	1	0

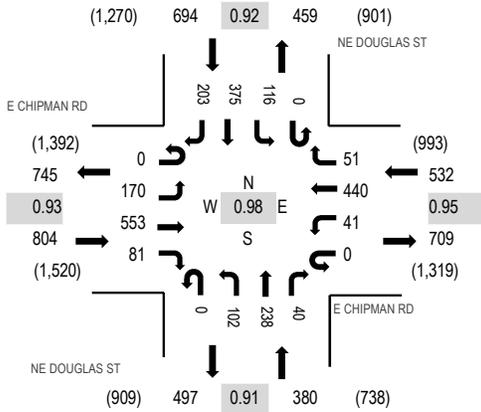
**Location:** 4 NE DOUGLAS ST & E CHIPMAN RD PM

**Date:** Thursday, December 4, 2025

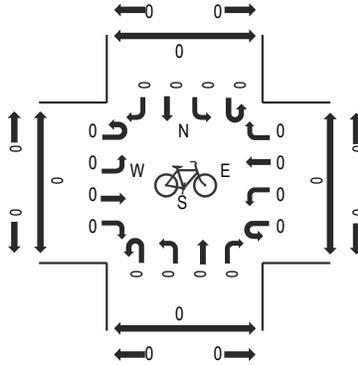
**Peak Hour:** 04:15 PM - 05:15 PM

**Peak 15-Minutes:** 04:15 PM - 04:30 PM

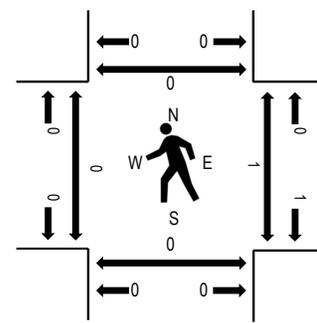
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

Interval Start Time	E CHIPMAN RD Eastbound				E CHIPMAN RD Westbound				NE DOUGLAS ST Northbound			NE DOUGLAS ST Southbound				Total	Rolling Hour	Pedestrian Crossings				
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru			Right	West	East	South	North
4:00 PM	0	35	131	26	0	7	115	18	0	21	70	5	0	45	81	45	599	2,399	0	1	0	0
4:15 PM	0	46	154	12	0	10	108	11	0	24	45	13	0	26	109	55	613	2,410	0	0	0	0
4:30 PM	0	31	124	22	0	15	104	10	0	25	54	11	0	36	97	57	586	2,314	0	0	0	0
4:45 PM	0	45	149	23	0	6	117	13	0	25	65	10	0	30	71	47	601	2,271	0	1	0	0
5:00 PM	0	48	126	24	0	10	111	17	0	28	74	6	0	24	98	44	610	2,122	0	0	0	0
5:15 PM	0	22	109	27	0	2	93	15	0	29	56	3	0	25	91	45	517		0	0	0	0
5:30 PM	0	41	124	34	0	2	98	13	0	29	60	9	0	28	62	43	543		0	0	0	0
5:45 PM	0	42	107	18	0	3	80	15	0	19	55	2	0	22	59	30	452		0	0	0	0
Count Total	0	310	1,024	186	0	55	826	112	0	200	479	59	0	236	668	366	4,521		0	2	0	0
Peak Hour	0	170	553	81	0	41	440	51	0	102	238	40	0	116	375	203	2,410		0	1	0	0

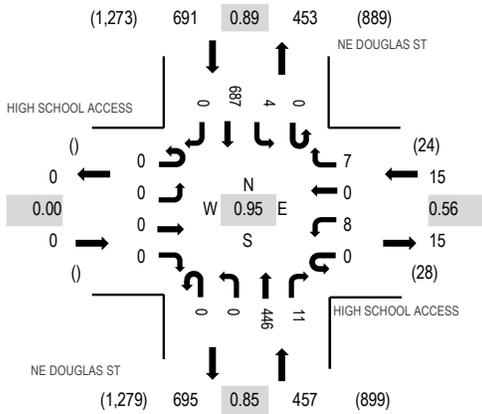
**Location:** 5 NE DOUGLAS ST & HIGH SCHOOL ACCESS PM

**Date:** Thursday, December 4, 2025

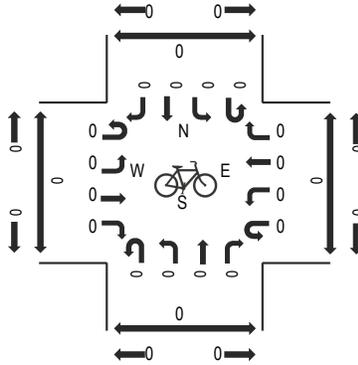
**Peak Hour:** 04:15 PM - 05:15 PM

**Peak 15-Minutes:** 05:00 PM - 05:15 PM

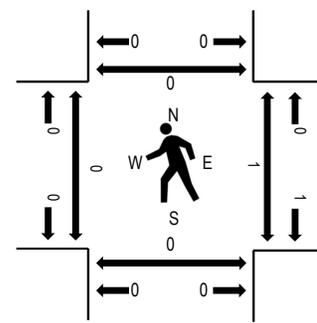
**Peak Hour - Motorized Vehicles**



**Peak Hour - Bicycles**



**Peak Hour - Pedestrians**



Note: Total study counts contained in parentheses.

**Traffic Counts - Motorized Vehicles**

Interval Start Time	HIGH SCHOOL ACCESS Eastbound				HIGH SCHOOL ACCESS Westbound				NE DOUGLAS ST Northbound				NE DOUGLAS ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
	4:00 PM	0	0	0	0	0	2	0	1	0	0	123	2	0	0	175			0	303	1,160	0
4:15 PM	0	0	0	0	0	4	0	4	0	0	103	1	0	2	186	0	300	1,163	0	0	0	0
4:30 PM	0	0	0	0	0	2	0	0	0	0	89	4	0	0	196	0	291	1,116	0	0	0	0
4:45 PM	0	0	0	0	0	2	0	3	0	0	121	1	0	1	138	0	266	1,078	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	133	5	0	1	167	0	306	1,036	0	1	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	87	5	0	1	159	0	253		0	0	0	0
5:30 PM	0	0	0	0	0	3	0	2	0	0	114	2	0	2	130	0	253		0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	108	1	0	0	115	0	224		0	0	0	0
Count Total	0	0	0	0	0	13	0	11	0	0	878	21	0	7	1,266	0	2,196		0	3	0	0
Peak Hour	0	0	0	0	0	8	0	7	0	0	446	11	0	4	687	0	1,163		0	1	0	0



Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↔			↔	
Traffic Vol, veh/h	20	272	24	50	272	8	32	7	76	20	3	66
Future Vol, veh/h	20	272	24	50	272	8	32	7	76	20	3	66
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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	296	26	54	296	9	35	8	83	22	3	72

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	304	0	0	322	0	0	610	765	161	599	770	148
Stage 1	-	-	-	-	-	-	352	352	-	404	404	-
Stage 2	-	-	-	-	-	-	258	413	-	195	365	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1253	-	-	1235	-	-	378	332	856	385	330	872
Stage 1	-	-	-	-	-	-	638	630	-	594	597	-
Stage 2	-	-	-	-	-	-	724	592	-	788	622	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1253	-	-	1235	-	-	323	312	856	319	310	872
Mov Cap-2 Maneuver	-	-	-	-	-	-	323	312	-	319	310	-
Stage 1	-	-	-	-	-	-	627	619	-	568	571	-
Stage 2	-	-	-	-	-	-	632	566	-	691	611	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.5			1.22			13.53			12.13		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	547	1253	-	-	1235	-	-	601
HCM Lane V/C Ratio	0.229	0.017	-	-	0.044	-	-	0.161
HCM Ctrl Dly (s/v)	13.5	7.9	-	-	8	-	-	12.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.1	-	-	0.6

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	779	738	6	0	18
Future Vol, veh/h	10	779	738	6	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	11	847	802	7	0	20

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	809	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	813	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	813	-	596
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.12	0	11.25
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	813	-	-	-	596
HCM Lane V/C Ratio	0.013	-	-	-	0.033
HCM Ctrl Dly (s/v)	9.5	-	-	-	11.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	98	4	23	50	4	5	2	13	4	3	4
Future Vol, veh/h	2	98	4	23	50	4	5	2	13	4	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	107	4	25	54	4	5	2	14	4	3	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	111	0	0	219	222	109	218	222	57
Stage 1	-	-	-	-	-	-	113	113	-	107	107	-
Stage 2	-	-	-	-	-	-	106	109	-	112	115	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1545	-	-	1479	-	-	737	677	945	738	677	1010
Stage 1	-	-	-	-	-	-	892	802	-	899	807	-
Stage 2	-	-	-	-	-	-	900	805	-	893	800	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1479	-	-	717	664	945	711	664	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	717	664	-	711	664	-
Stage 1	-	-	-	-	-	-	891	801	-	883	793	-
Stage 2	-	-	-	-	-	-	876	791	-	876	799	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.14			2.23			9.39			9.69		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	842	34	-	-	530	-	-	780
HCM Lane V/C Ratio	0.026	0.001	-	-	0.017	-	-	0.015
HCM Ctrl Dly (s/v)	9.4	7.3	0	-	7.5	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	8	7	446	11	4	687
Future Vol, veh/h	8	7	446	11	4	687
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	8	485	12	4	747

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	873	248	0	0	497
Stage 1	491	-	-	-	-
Stage 2	382	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	290	752	-	-	1063
Stage 1	581	-	-	-	-
Stage 2	659	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	288	752	-	-	1063
Mov Cap-2 Maneuver	288	-	-	-	-
Stage 1	581	-	-	-	-
Stage 2	656	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.27	0	0.09
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	404	21
HCM Lane V/C Ratio	-	-	0.04	0.004
HCM Ctrl Dly (s/v)	-	-	14.3	8.4
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	136	20	12	263	152	77	372	22	54	154	101
Future Volume (veh/h)	111	136	20	12	263	152	77	372	22	54	154	101
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	148	22	13	286	165	84	404	24	59	167	110
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	149	1217	178	26	1144	510	506	1335	79	421	720	610
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Prop Arrive On Green	0.17	0.78	0.78	0.01	0.32	0.32	0.04	0.39	0.39	0.05	0.51	0.51
Unsig. Movement Delay												
Ln Grp Delay, s/veh	58.9	8.5	8.5	72.6	30.5	32.5	21.0	26.3	26.3	21.1	20.2	19.7
Ln Grp LOS	E	A	A	E	C	C	C	C	C	C	C	B
Approach Vol, veh/h		291			464			512			336	
Approach Delay, s/veh		29.5			32.4			25.4			20.2	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		9.3	52.0	6.8	51.9	10.1	51.2	15.1	43.6			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	4.8			
Max Q Clear (g_c+I1), s		4.4	11.8	2.9	3.4	5.4	7.9	9.9	11.5			
Green Ext Time (g_e), s		0.0	2.7	0.0	1.0	0.0	1.4	0.2	2.0			
Prob of Phs Call (p_c)		0.86	1.00	0.35	1.00	0.94	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.01	0.00	1.00	0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3409		3111		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			202		455		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt		1	0	3	0	5	0	7	0			

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Lane Assignment	L (Pr/Pm)	L (Prot)						
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	59	0	13	0	84	0	121	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.4	0.0	0.9	0.0	3.4	0.0	7.9	0.0
Cycle Q Clear Time (g_c), s	2.4	0.0	0.9	0.0	3.4	0.0	7.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	960	0	0	0	1102	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	46.2	0.0	0.0	0.0	46.2	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	37.2	0.0	0.0	0.0	40.3	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.6	0.0	0.0	0.0	0.5	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	421	0	26	0	506	0	149	0
V/C Ratio (X)	0.14	0.00	0.50	0.00	0.17	0.00	0.81	0.00
Avail Cap (c_a), veh/h	446	0	134	0	534	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	20.9	0.0	58.7	0.0	20.8	0.0	49.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	13.9	0.0	0.2	0.0	9.9	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	21.1	0.0	72.6	0.0	21.0	0.0	58.9	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	0.4	0.0	1.4	0.0	3.2	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.4	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.0	0.0	0.5	0.0	1.4	0.0	3.7	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.06	0.00	0.11	0.00	0.27	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	210	0	83	0	167	0	286
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	9.8	0.0	1.4	0.0	5.9	0.0	7.1
Cycle Q Clear Time (g_c), s	0.0	9.8	0.0	1.4	0.0	5.9	0.0	7.1
Lane Grp Cap (c), veh/h	0	696	0	695	0	720	0	1144
V/C Ratio (X)	0.00	0.30	0.00	0.12	0.00	0.23	0.00	0.25
Avail Cap (c_a), veh/h	0	696	0	695	0	720	0	1144
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.2	0.0	8.1	0.0	19.4	0.0	30.0
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.4	0.0	0.8	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	26.3	0.0	8.5	0.0	20.2	0.0	30.5
1st-Term Q (Q1), veh/ln	0.0	4.1	0.0	0.5	0.0	2.5	0.0	3.1

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.4	0.0	0.6	0.0	2.7	0.0	3.1
%ile Storage Ratio (RQ%)	0.00	0.32	0.00	0.03	0.00	0.06	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

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	218	0	87	0	110	0	165
Grp Sat Flow (s), veh/h/ln	0	1834	0	1789	0	1585	0	1585
Q Serve Time (g_s), s	0.0	9.8	0.0	1.4	0.0	4.5	0.0	9.5
Cycle Q Clear Time (g_c), s	0.0	9.8	0.0	1.4	0.0	4.5	0.0	9.5
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	0.11	0.00	0.25	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	718	0	700	0	610	0	510
V/C Ratio (X)	0.00	0.30	0.00	0.12	0.00	0.18	0.00	0.32
Avail Cap (c_a), veh/h	0	718	0	700	0	610	0	510
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.2	0.0	8.1	0.0	19.1	0.0	30.8
Incr Delay (d2), s/veh	0.0	1.1	0.0	0.4	0.0	0.6	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	0.0	26.3	0.0	8.5	0.0	19.7	0.0	32.5
1st-Term Q (Q1), veh/ln	0.0	4.3	0.0	0.5	0.0	1.6	0.0	3.6
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.1	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.5	0.0	0.6	0.0	1.7	0.0	3.9
%ile Storage Ratio (RQ%)	0.00	0.34	0.00	0.03	0.00	0.24	0.00	0.49
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 7th Control Delay, s/veh	27.1
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis  
6: Douglas Street & Tudor Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	81	27	82	190	184	79	364	102	217	258	110
Future Volume (veh/h)	45	81	27	82	190	184	79	364	102	217	258	110
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	49	88	29	89	207	200	86	396	111	236	280	120
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	149	460	205	298	271	242	696	2104	939	716	1526	638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.13	0.13	0.06	0.15	0.15	0.08	1.00	1.00	0.07	0.62	0.62
Unsig. Movement Delay												
Ln Grp Delay, s/veh	45.1	46.8	46.6	42.2	54.7	60.6	8.3	0.2	0.3	7.6	9.9	10.0
Ln Grp LOS	D	D	D	D	D	E	A	A	A	A	A	A
Approach Vol, veh/h		166			496			593			636	
Approach Delay, s/veh		46.3			54.8			1.4			9.1	
Approach LOS		D			D			A			A	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		13.1	75.6	11.3	20.0	9.2	79.5	8.5	22.8			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.9	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		7.9	2.0	7.1	4.7	4.3	8.0	4.8	16.7			
Green Ext Time (g_e), s		0.7	3.1	0.1	0.6	0.0	2.7	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.95	1.00	0.94	1.00	0.80	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.37			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2443		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1021		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt		1	0	3	0	5	0	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	236	0	89	0	86	0	49	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.9	0.0	5.1	0.0	2.3	0.0	2.8	0.0
Cycle Q Clear Time (g_c), s	5.9	0.0	5.1	0.0	2.3	0.0	2.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	892	0	1275	0	985	0	978	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	72.5	0.0	15.8	0.0	71.1	0.0	15.5	0.0
Perm LT Serve Time (g_u), s	71.1	0.0	12.9	0.0	69.0	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	0.5	0.0	0.2	0.0	0.2	0.0	0.6	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	716	0	298	0	696	0	149	0
V/C Ratio (X)	0.33	0.00	0.30	0.00	0.12	0.00	0.33	0.00
Avail Cap (c_a), veh/h	1056	0	353	0	722	0	320	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	7.3	0.0	41.6	0.0	8.2	0.0	43.9	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.6	0.0	0.1	0.0	1.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.6	0.0	42.2	0.0	8.3	0.0	45.1	0.0
1st-Term Q (Q1), veh/ln	2.1	0.0	2.3	0.0	0.8	0.0	1.3	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.2	0.0	2.3	0.0	0.8	0.0	1.3	0.0
%ile Storage Ratio (RQ%)	0.16	0.00	0.39	0.00	0.14	0.00	0.20	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	396	0	88	0	202	0	207
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	2.7	0.0	5.8	0.0	13.4
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.7	0.0	5.8	0.0	13.4
Lane Grp Cap (c), veh/h	0	2104	0	460	0	1110	0	271
V/C Ratio (X)	0.00	0.19	0.00	0.19	0.00	0.18	0.00	0.76
Avail Cap (c_a), veh/h	0	2104	0	903	0	1110	0	378
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	46.6	0.0	9.5	0.0	48.8
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.0	0.4	0.0	5.9
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	0.2	0.0	46.8	0.0	9.9	0.0	54.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.2	0.0	2.2	0.0	5.9

HCM 7th Signalized Intersection Capacity Analysis  
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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.2	0.0	2.3	0.0	6.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.09	0.00	0.12
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	111	0	29	0	198	0	200
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1687	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	1.9	0.0	6.0	0.0	14.7
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.9	0.0	6.0	0.0	14.7
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	0.61	0.00	1.00
Lane Grp Cap (c), veh/h	0	939	0	205	0	1053	0	242
V/C Ratio (X)	0.00	0.12	0.00	0.14	0.00	0.19	0.00	0.83
Avail Cap (c_a), veh/h	0	939	0	403	0	1053	0	337
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	46.3	0.0	9.6	0.0	49.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.4	0.0	11.3
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	0.3	0.0	46.6	0.0	10.0	0.0	60.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.8	0.0	2.2	0.0	5.8
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.8
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.8	0.0	2.3	0.0	6.6
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.14	0.00	0.08	0.00	0.12
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 7th Control Delay, s/veh	21.9
HCM 7th LOS	C

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	34	117	41	95	267	28	8	4	27	4	4	9
Future Vol, veh/h	34	117	41	95	267	28	8	4	27	4	4	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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	127	45	103	290	30	9	4	29	4	4	10

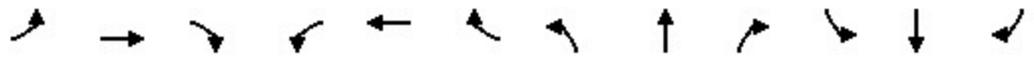
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	321	0	0	172	0	0	577	751	86	636	742	145
Stage 1	-	-	-	-	-	-	223	223	-	497	497	-
Stage 2	-	-	-	-	-	-	354	527	-	140	246	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1236	-	-	1403	-	-	400	338	956	362	342	876
Stage 1	-	-	-	-	-	-	759	718	-	524	543	-
Stage 2	-	-	-	-	-	-	636	526	-	849	702	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1236	-	-	1403	-	-	351	304	956	311	307	876
Mov Cap-2 Maneuver	-	-	-	-	-	-	351	304	-	311	307	-
Stage 1	-	-	-	-	-	-	736	696	-	485	503	-
Stage 2	-	-	-	-	-	-	578	488	-	793	681	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	1.42			1.89			11.37			12.96		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	607	1236	-	-	1403	-	-	470
HCM Lane V/C Ratio	0.07	0.03	-	-	0.074	-	-	0.039
HCM Ctrl Dly (s/v)	11.4	8	-	-	7.8	-	-	13
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.2	-	-	0.1

HCM 7th Signalized Intersection Capacity Analysis  
 12: Olive St/Commerce Dr & Chipman Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕		↙	↕			↕			↕	
Traffic Volume (veh/h)	74	375	3	9	331	46	12	3	7	24	2	37
Future Volume (veh/h)	74	375	3	9	331	46	12	3	7	24	2	37
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	408	3	10	360	50	13	3	8	26	2	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	103	2142	16	21	1715	236	259	66	139	185	30	248
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	0.06	0.59	0.59	0.02	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.7	11.6	11.6	73.9	0.5	0.5	32.2	0.0	0.0	33.5	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			C		
Approach Vol, veh/h		491			420			24			68	
Approach Delay, s/veh		20.8			2.2			32.2			33.5	
Approach LOS		C			A			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	5.9	76.1		38.0	11.4	70.6			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.4	3.8	5.2		5.5	3.8	5.3			
Max Q Clear (g_c+I1), s			3.2	2.7	8.2		5.7	7.3	2.0			
Green Ext Time (g_e), s			0.1	0.0	2.7		0.3	0.1	2.7			
Prob of Phs Call (p_c)			1.00	0.28	1.00		1.00	0.93	1.00			
Prob of Max Out (p_x)			0.00	0.00	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			773	1781			523	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			239		3616		108		3137			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			506		27		902		432			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
 12: Olive St/Commerce Dr & Chipman Road

12/11/2025

Lane Assignment	L+T+R L (Prot)				L+T+R L (Prot)			
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	24	10	0	0	68	80	0
Grp Sat Flow (s), veh/h/ln	0	1518	1781	0	0	1534	1781	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.5	5.3	0.0
Cycle Q Clear Time (g_c), s	0.0	1.2	0.7	0.0	0.0	3.7	5.3	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1386	0	0	0	1426	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1821	0	0	0	1835	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	29.3	0.0	0.0	0.0	31.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Time to First Blk (g_f), s	0.0	1.7	0.0	0.0	0.0	3.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.2	0.0	0.0	0.0	3.2	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.54	1.00	0.00	0.00	0.38	1.00	0.00
Lane Grp Cap (c), veh/h	0	464	21	0	0	463	103	0
V/C Ratio (X)	0.00	0.05	0.48	0.00	0.00	0.15	0.78	0.00
Avail Cap (c_a), veh/h	0	464	141	0	0	463	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.0	58.2	0.0	0.0	32.9	55.8	0.0
Incr Delay (d2), s/veh	0.0	0.2	15.7	0.0	0.0	0.7	12.0	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	32.2	73.9	0.0	0.0	33.5	67.7	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.3	0.0	0.0	1.5	2.4	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.1	0.3	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	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.4	0.0	0.0	1.6	2.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.11	0.00	0.00	0.17	0.77	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	200	0	0	0	203
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1053	0	0	0	971
V/C Ratio (X)	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.21
Avail Cap (c_a), veh/h	0	0	0	1053	0	0	0	971
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	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	0.0	0.0	11.6	0.0	0.0	0.0	0.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
 12: Olive St/Commerce Dr & Chipman Road

12/11/2025

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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	211	0	0	0	207
Grp Sat Flow (s), veh/h/ln	0	0	0	1866	0	0	0	1793
Q Serve Time (g_s), s	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.2	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	0.33	0.00	0.01	0.00	0.59	0.00	0.24
Lane Grp Cap (c), veh/h	0	0	0	1105	0	0	0	980
V/C Ratio (X)	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.21
Avail Cap (c_a), veh/h	0	0	0	1105	0	0	0	980
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.2	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	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	0.0	0.0	11.6	0.0	0.0	0.0	0.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.5	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	0.1
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	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 7th Control Delay, s/veh	14.1
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	15	384	395	20	0	15
Future Vol, veh/h	15	384	395	20	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	16	417	429	22	0	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	451	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	1106	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1106	-	778
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.31	0	9.73
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1106	-	-	-	778
HCM Lane V/C Ratio	0.015	-	-	-	0.021
HCM Ctrl Dly (s/v)	8.3	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	138	8	23	50	4	5	2	7	2	3	4
Future Vol, veh/h	4	138	8	23	50	4	5	2	7	2	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	150	9	25	54	4	5	2	8	2	3	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	59	0	0	159	0	0	269	272	154	266	274	57
Stage 1	-	-	-	-	-	-	163	163	-	107	107	-
Stage 2	-	-	-	-	-	-	106	109	-	160	167	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1545	-	-	1421	-	-	684	635	892	686	633	1010
Stage 1	-	-	-	-	-	-	839	763	-	899	807	-
Stage 2	-	-	-	-	-	-	900	805	-	842	760	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1545	-	-	1421	-	-	663	621	892	664	620	1010
Mov Cap-2 Maneuver	-	-	-	-	-	-	663	621	-	664	620	-
Stage 1	-	-	-	-	-	-	836	761	-	883	792	-
Stage 2	-	-	-	-	-	-	876	791	-	830	758	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.2			2.26			9.89			9.79		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	752	47	-	-	530	-	-	762
HCM Lane V/C Ratio	0.02	0.003	-	-	0.018	-	-	0.013
HCM Ctrl Dly (s/v)	9.9	7.3	0	-	7.6	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	22	36	520	120	72	287
Future Vol, veh/h	22	36	520	120	72	287
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	39	565	130	78	312

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	943	348	0	0	696	0
Stage 1	630	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	261	648	-	-	896	-
Stage 1	493	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	236	648	-	-	896	-
Mov Cap-2 Maneuver	236	-	-	-	-	-
Stage 1	493	-	-	-	-	-
Stage 2	647	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	16	0	2.36
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	390	722
HCM Lane V/C Ratio	-	-	0.162	0.087
HCM Ctrl Dly (s/v)	-	-	16	9.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.6	0.3



# 2027 INFORMATION

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**Supermarket — Douglas Street & Tudor Road**

**Lee's Summit, Missouri**

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## **2027 Phase 1**

**AM Peak Calculations**

**AM Background Traffic Synchro**

**AM Total Traffic Synchro**

**AM Total Traffic Synchro w/ Signal**

**PM Peak Calculations**

**PM Background Traffic Synchro**

**PM Total Traffic Synchro**

**PM Total Traffic Synchro w/ Signal**

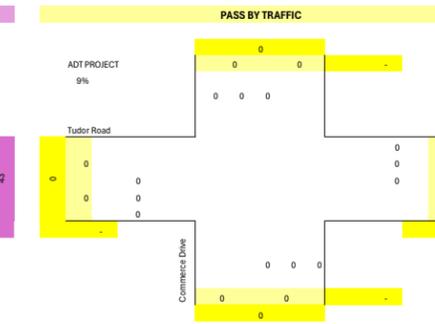
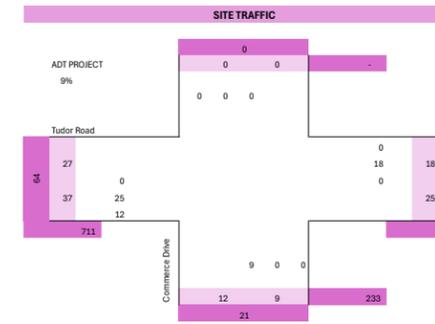
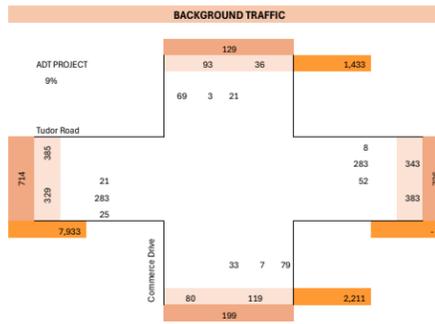
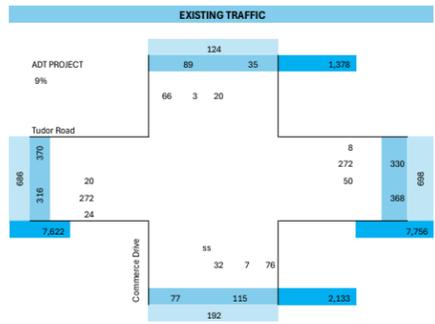
**Prepared by:**

**Traffic Engineering Consultants, Inc.**

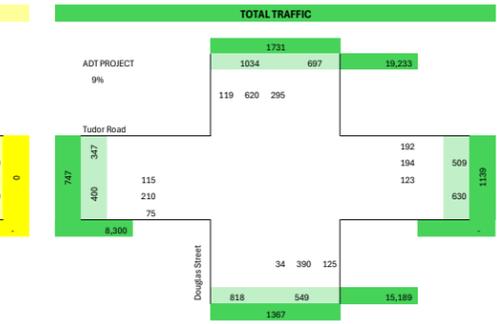
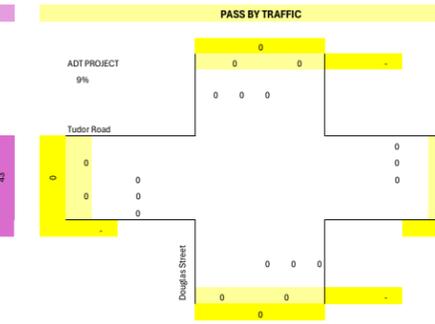
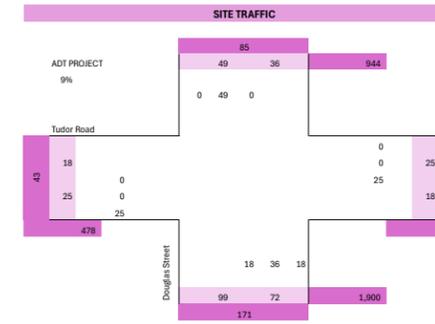
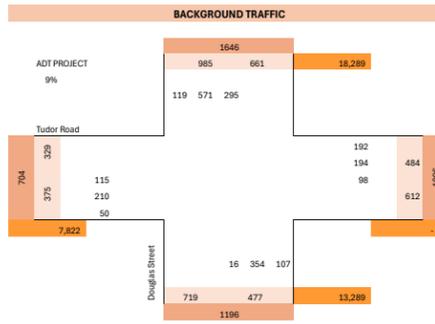
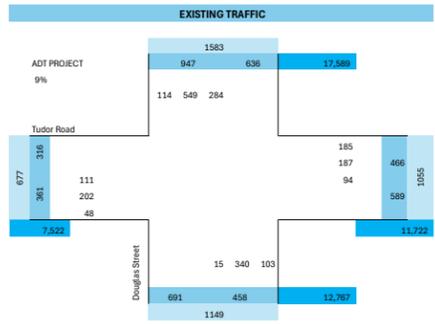
**2027 PHASE 1 INFORMATION**

PHASE 1 - AM PEAK HOUR CALCULATIONS

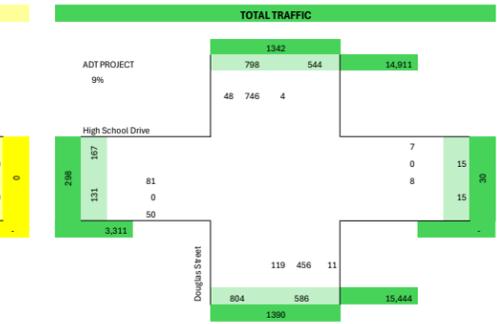
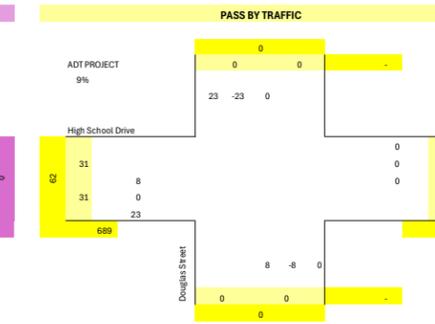
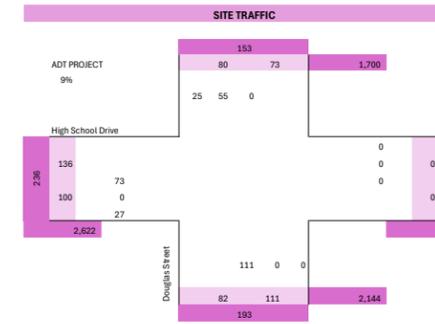
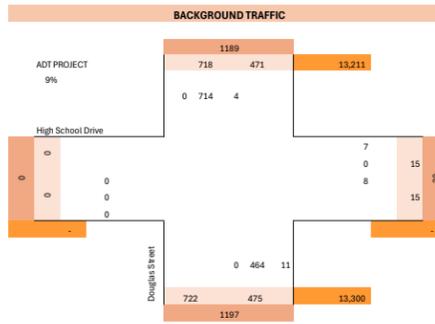
N/S	Commerce Drive				SITE TRIP				PASS BY				TOTAL
E/W	Tudor Road				AM PEAK HOUR				AM PEAK HOUR				
GR	2.0%				IN	247			IN	77			
YRS	2				OUT	182			OUT	77			
INT #	50200												
MVMT	EXT	GRW	BKGRD		DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
	TRFC	x	TRFC		%	OUT	%	OUT	%	OUT	%	OUT	TRFC
EBL	20	1.04	21										21
EBT	272	1.04	283		10%	247			25				308
EBR	24	1.04	25		9%	247			12				37
WBL	50	1.04	52										52
WBT	272	1.04	283		10%	182			18				301
WBR	8	1.04	8										8
NBL	32	1.04	33		5%	182			9				42
NBT	7	1.04	7										7
NBR	76	1.04	79										79
SBL	20	1.04	21										21
SBT	3	1.04	3										3
SBR	66	1.04	69										69



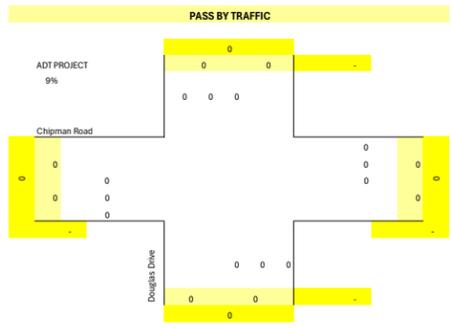
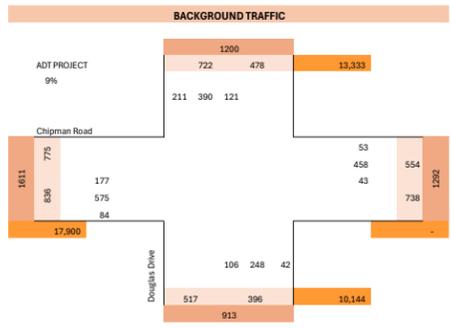
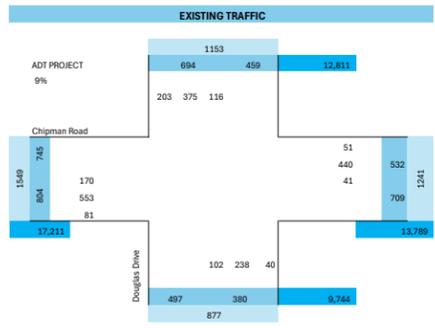
N/S	Douglas Street				SITE TRIP				PASS BY				TOTAL
E/W	Tudor Road				AM PEAK HOUR				AM PEAK HOUR				
GR	2.0%				IN	247			IN	77			
YRS	2				OUT	182			OUT	77			
INT #	60200												
MVMT	EXT	GRW	BKGRD		DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
	TRFC	x	TRFC		%	OUT	%	OUT	%	OUT	%	OUT	TRFC
EBL	111	1.04	115										115
EBT	202	1.04	210										210
EBR	48	1.04	50		10%	247			25				75
WBL	94	1.04	98		10%	247			25				123
WBT	187	1.04	194										194
WBR	185	1.04	192										192
NBL	15	1.04	16		10%	182			18				34
NBT	340	1.04	354		20%	182			36				390
NBR	103	1.04	107		10%	182			18				125
SBL	284	1.04	295										295
SBT	549	1.04	571		20%	247			49				620
SBR	114	1.04	119										119



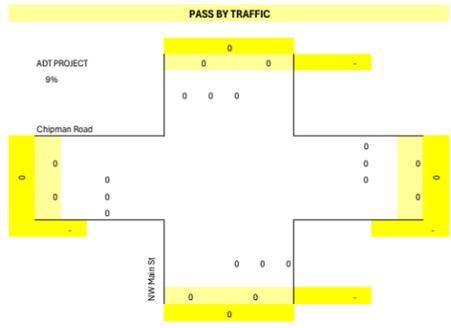
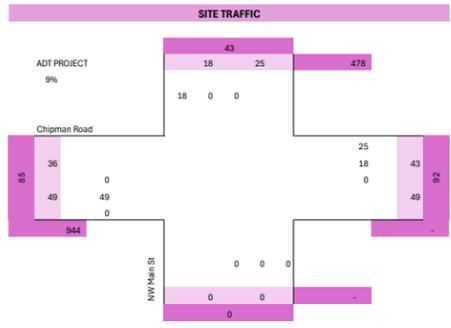
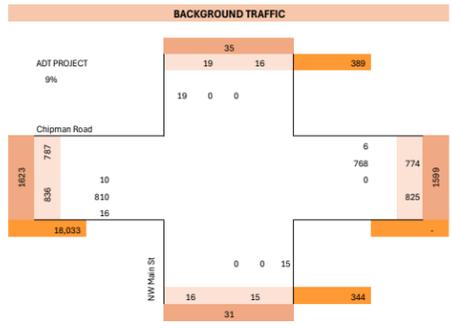
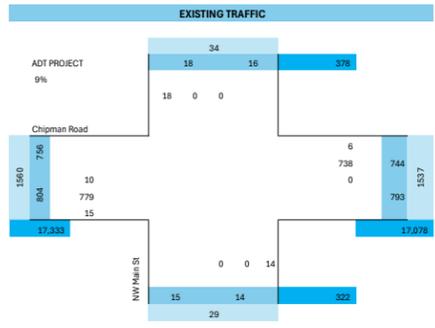
N/S	Douglas Street				SITE TRIP				PASS BY				TOTAL
E/W	High School Drive				AM PEAK HOUR				AM PEAK HOUR				
GR	2.0%				IN	247			IN	77			
YRS	2				OUT	182			OUT	77			
INT #	70200												
MVMT	EXT	GRW	BKGRD		DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
	TRFC	x	TRFC		%	OUT	%	OUT	%	OUT	%	OUT	TRFC
EBL	0	1.04	0		40%	182			73				81
EBT	0	1.04	0										0
EBR	0	1.04	0		15%	182			30%	77			23
WBL	8	1.04	8										8
WBT	0	1.04	0										0
WBR	7	1.04	7										7
NBL	0	1.04	0		45%	247			111				8
NBT	446	1.04	464						-10%	77			456
NBR	11	1.04	11										11
SBL	4	1.04	4										4
SBT	667	1.04	714		30%	182			55	-30%	77		746
SBR	0	1.04	0		10%	247			25				48



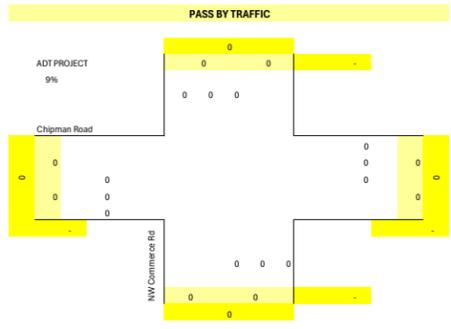
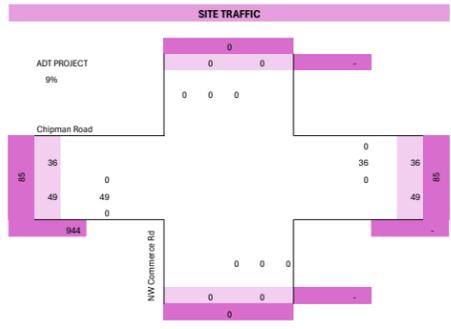
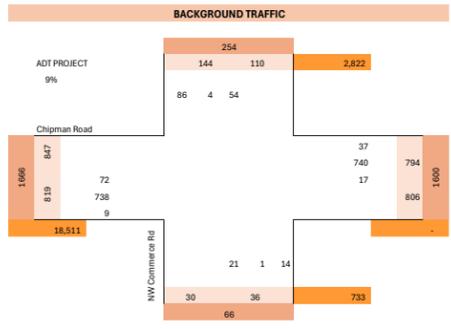
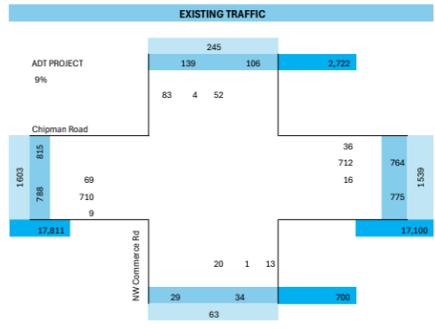
N/S	Douglas Drive	SITE TRIP				PASS BY				TOTAL				
E/W	Chipman Road	AM PEAK HOUR				AM PEAK HOUR								
GR	2.0%	IN	247	IN	77									
YRS	2	OUT	182	OUT	77									
INT #	80200													
MVMT	EXT	GRW	BKGRD											
	TRFC	x	TRFC	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
				%	OUT	%	OUT	%	OUT	%	OUT	%	OUT	TRAFFIC
EBL	170	1.04	177	20%	247		49							226
EBT	553	1.04	575				0							575
EBR	81	1.04	84				0							84
WBL	41	1.04	43				0							43
WBT	440	1.04	458	5%	247		12							470
WBR	51	1.04	53	10%	247		25							78
NBL	102	1.04	106	5%	247		12							118
NBT	238	1.04	248	15%	247		37							285
NBR	40	1.04	42				0							42
SBL	116	1.04	121	15%	182		27							148
SBT	375	1.04	390	20%	182		36							426
SBR	203	1.04	211	10%	182		18							229



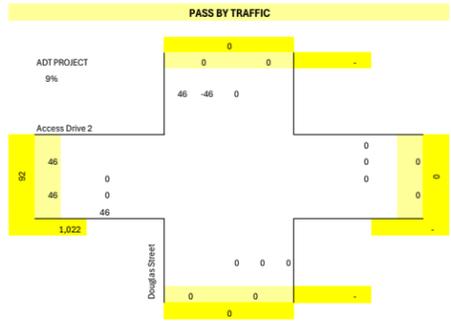
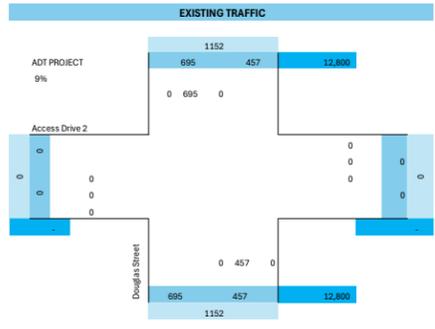
N/S	NW Main St	SITE TRIP				PASS BY				TOTAL				
E/W	Chipman Road	AM PEAK HOUR				AM PEAK HOUR								
GR	2.0%	IN	247	IN	77									
YRS	2	OUT	182	OUT	77									
INT #	90200													
MVMT	EXT	GRW	BKGRD											
	TRFC	x	TRFC	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
				%	OUT	%	OUT	%	OUT	%	OUT	%	OUT	TRAFFIC
EBL	10	1.04	10	20%	247		49							10
EBT	779	1.04	810				0							859
EBR	15	1.04	16				0							16
WBL	0	1.04	0				0							0
WBT	738	1.04	768	10%	182		18							786
WBR	6	1.04	6	10%	247		25							31
NBL	0	1.04	0				0							0
NBT	0	1.04	0				0							0
NBR	14	1.04	15				0							15
SBL	0	1.04	0				0							0
SBT	0	1.04	0				0							0
SBR	18	1.04	19	10%	182		18							37



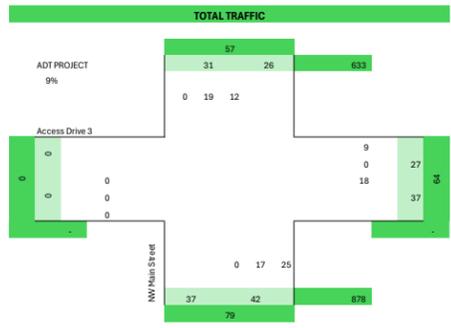
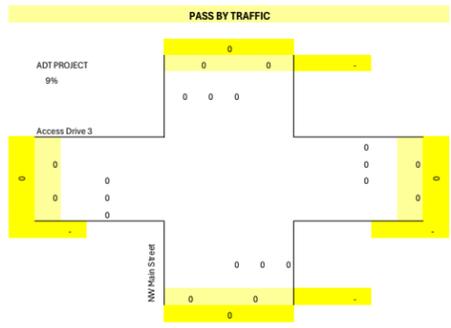
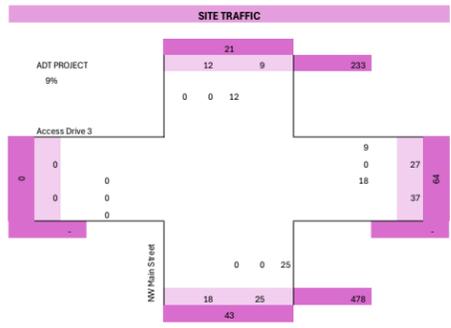
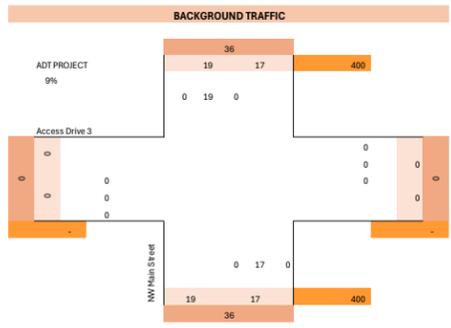
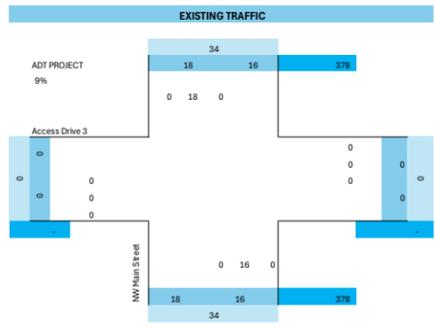
N/S	NW Commerce Rd	SITE TRIP				PASS BY				TOTAL				
E/W	Chipman Road	AM PEAK HOUR				AM PEAK HOUR								
GR	2.0%	IN	247	IN	77									
YRS	2	OUT	182	OUT	77									
INT #	100200													
MVMT	EXT	GRW	BKGRD											
	TRFC	x	TRFC	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
				%	OUT	%	OUT	%	OUT	%	OUT	%	OUT	TRAFFIC
EBL	69	1.04	72	20%	247		49							72
EBT	710	1.04	738				0							787
EBR	9	1.04	9				0							9
WBL	16	1.04	17				0							17
WBT	712	1.04	740	20%	182		36							776
WBR	36	1.04	37				0							37
NBL	20	1.04	21				0							21
NBT	1	1.04	1				0							1
NBR	13	1.04	14				0							14
SBL	52	1.04	54				0							54
SBT	4	1.04	4				0							4
SBR	83	1.04	86				0							86



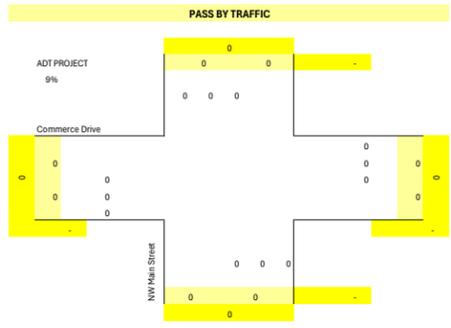
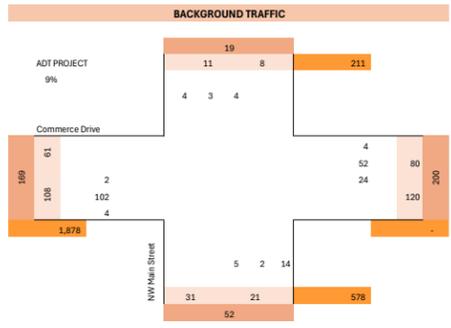
N/S	Douglas Street	SITE TRIP				PASS BY				TOTAL				
E/W	Access Drive 2	AM PEAK HOUR				AM PEAK HOUR								
GR	2.0%	IN	247	IN	77									
YRS	2	OUT	182	OUT	77									
INT #	10200													
MVMT	EXT	GRW	BKGRD											
	TRFC	x	TRFC	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
				%	OUT	%	OUT	%	OUT	%	OUT	%	OUT	TRAFFIC
EBL	1.04	0	0				0							0
EBT	1.04	0	0				0							0
EBR	1.04	0	0	30%	182		55							101
WBL	1.04	0	0				0							0
WBT	1.04	0	0				0							0
WBR	1.04	0	0				0							0
NBL	1.04	0	0				0							0
NBT	457	1.04	475	45%	247		111							586
NBR	1.04	0	0				0							0
SBL	1.04	0	0				0							0
SBT	695	1.04	723	15%	182		27							704
SBR	1.04	0	0	30%	247		74							120



N/S	NW Main Street	SITE TRIP				PASS BY				TOTAL	
E/W	Access Drive 3	AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%	IN	247	IN	77	OUT	77	OUT	77		
YRS	2	OUT	182	OUT	77	OUT	77	OUT	77		
INT #	20200										
MVMT	EXT TRFC	GRW TRFC	BKGRD TRFC	DIR %	IN/OUT %	DIR %	IN/OUT %	DIR %	IN/OUT %	TL	TOTAL TRAFFIC
EBL	1.04	0	0							0	0
EBT	1.04	0	0							0	0
EBR	1.04	0	0							0	0
WBL	1.04	0	0							0	0
WBT	1.04	0	0	10%	182			18		0	18
WBR	1.04	0	0	5%	182			9		0	9
NBL	1.04	0	0							0	0
NBT	16	1.04	17							0	17
NBR	1.04	0	0	10%	247			25		0	25
SBL	1.04	0	0	5%	247			12		0	12
SBT	18	1.04	19							0	19
SBR	1.04	0	0							0	0



N/S	NW Main Street	SITE TRIP				PASS BY				TOTAL	
E/W	Commerce Drive	AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%	IN	247	IN	77	OUT	77	OUT	77		
YRS	2	OUT	182	OUT	77	OUT	77	OUT	77		
INT #	110200										
MVMT	EXT TRFC	GRW TRFC	BKGRD TRFC	DIR %	IN/OUT %	DIR %	IN/OUT %	DIR %	IN/OUT %	TL	TOTAL TRAFFIC
EBL	2	1.04	2							0	2
EBT	98	1.04	102							0	102
EBR	4	1.04	4							0	4
WBL	23	1.04	24	5%	247			12		0	36
WBT	50	1.04	52							0	52
WBR	4	1.04	4							0	4
NBL	5	1.04	5							0	5
NBT	2	1.04	2							0	2
NBR	13	1.04	14	5%	182			9		0	23
SBL	4	1.04	4							0	4
SBT	3	1.04	3							0	3
SBR	4	1.04	4							0	4



HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

12/11/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	575	84	43	458	53	106	248	42	121	390	211
Future Volume (veh/h)	177	575	84	43	458	53	106	248	42	121	390	211
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	192	625	91	47	498	58	115	270	46	132	424	229
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	219	1113	162	61	955	426	304	1192	200	502	725	614
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Prop Arrive On Green	0.25	0.72	0.72	0.03	0.27	0.27	0.05	0.39	0.39	0.03	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	60.5	16.2	16.2	76.2	39.3	34.0	23.5	25.1	25.2	21.3	39.4	34.2
Ln Grp LOS	E	B	B	E	D	C	C	C	C	C	D	C
Approach Vol, veh/h		908			603			431			785	
Approach Delay, s/veh		25.5			41.7			24.7			34.9	
Approach LOS		C			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		11.0	52.0	9.1	47.9	11.5	51.5	19.7	37.3			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	5.1			
Max Q Clear (g_c+I1), s		7.4	9.2	5.1	13.5	6.6	25.7	14.4	16.3			
Green Ext Time (g_e), s		0.0	2.0	0.0	4.8	0.0	3.4	0.3	2.3			
Prob of Phs Call (p_c)		0.99	1.00	0.79	1.00	0.98	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.93	0.00	1.00	0.00	0.05	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3043		3113		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			512		453		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

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Lane Assignment	L (Pr/Pm)	L (Prot)						
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	132	0	47	0	115	0	192	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.4	0.0	3.1	0.0	4.6	0.0	12.4	0.0
Cycle Q Clear Time (g_c), s	5.4	0.0	3.1	0.0	4.6	0.0	12.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1064	0	0	0	779	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	46.5	0.0	0.0	0.0	46.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	39.8	0.0	0.0	0.0	22.8	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	1.0	0.0	0.0	0.0	4.1	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	502	0	61	0	304	0	219	0
V/C Ratio (X)	0.26	0.00	0.78	0.00	0.38	0.00	0.88	0.00
Avail Cap (c_a), veh/h	502	0	134	0	312	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	21.1	0.0	57.5	0.0	22.8	0.0	44.4	0.0
Incr Delay (d2), s/veh	0.3	0.0	18.7	0.0	0.8	0.0	16.1	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	21.3	0.0	76.2	0.0	23.5	0.0	60.5	0.0
1st-Term Q (Q1), veh/ln	2.3	0.0	1.4	0.0	1.9	0.0	4.8	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.3	0.0	1.7	0.0	2.0	0.0	5.8	0.0
%ile Storage Ratio (RQ%)	0.06	0.00	0.22	0.00	0.15	0.00	0.43	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	156	0	356	0	424	0	498
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	7.0	0.0	11.4	0.0	23.7	0.0	14.3
Cycle Q Clear Time (g_c), s	0.0	7.0	0.0	11.4	0.0	23.7	0.0	14.3
Lane Grp Cap (c), veh/h	0	696	0	635	0	725	0	955
V/C Ratio (X)	0.00	0.22	0.00	0.56	0.00	0.58	0.00	0.52
Avail Cap (c_a), veh/h	0	696	0	635	0	725	0	955
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.3	0.0	12.6	0.0	36.0	0.0	37.3
Incr Delay (d2), s/veh	0.0	0.7	0.0	3.6	0.0	3.4	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	0.0	25.1	0.0	16.2	0.0	39.4	0.0	39.3
1st-Term Q (Q1), veh/ln	0.0	3.0	0.0	3.2	0.0	11.4	0.0	6.2

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.6	0.0	0.7	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.1	0.0	3.8	0.0	12.1	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.23	0.00	0.21	0.00	0.29	0.00	0.09
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		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	160	0	360	0	229	0	58
Grp Sat Flow (s), veh/h/ln	0	1778	0	1789	0	1585	0	1585
Q Serve Time (g_s), s	0.0	7.2	0.0	11.5	0.0	14.2	0.0	3.3
Cycle Q Clear Time (g_c), s	0.0	7.2	0.0	11.5	0.0	14.2	0.0	3.3
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	0.29	0.00	0.25	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	696	0	640	0	614	0	426
V/C Ratio (X)	0.00	0.23	0.00	0.56	0.00	0.37	0.00	0.14
Avail Cap (c_a), veh/h	0	696	0	640	0	614	0	426
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.4	0.0	12.6	0.0	32.5	0.0	33.3
Incr Delay (d2), s/veh	0.0	0.8	0.0	3.6	0.0	1.7	0.0	0.7
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	25.2	0.0	16.2	0.0	34.2	0.0	34.0
1st-Term Q (Q1), veh/ln	0.0	3.1	0.0	3.2	0.0	5.8	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.6	0.0	0.3	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	3.9	0.0	6.1	0.0	1.4
%ile Storage Ratio (RQ%)	0.00	0.24	0.00	0.21	0.00	0.85	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 7th Control Delay, s/veh	31.7
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	210	50	98	194	192	16	354	107	295	571	119
Future Volume (veh/h)	115	210	50	98	194	192	16	354	107	295	571	119
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	228	54	107	211	209	17	385	116	321	621	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	222	596	266	297	281	250	442	1822	813	707	1756	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.07	0.17	0.17	0.06	0.16	0.16	0.04	1.00	1.00	0.10	0.60	0.60
Unsig. Movement Delay												
Ln Grp Delay, s/veh	41.4	44.8	43.4	39.4	54.0	61.6	13.2	0.3	0.4	10.3	13.1	13.2
Ln Grp LOS	D	D	D	D	D	E	B	A	A	B	B	B
Approach Vol, veh/h		407			527			518			1071	
Approach Delay, s/veh		43.6			54.0			0.7			12.3	
Approach LOS		D			D			A			B	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		17.1	66.0	12.3	24.6	6.7	76.4	13.5	23.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	5.0	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		11.7	2.0	8.0	8.8	2.5	15.0	9.0	17.3			
Green Ext Time (g_e), s		0.9	3.1	0.1	1.5	0.0	5.5	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.97	1.00	0.43	1.00	0.98	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	0.76	0.00	0.07	0.46			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2930		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		608		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt		1	0	3	0	5	0	7	0			

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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	321	0	107	0	17	0	125	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	9.7	0.0	6.0	0.0	0.5	0.0	7.0	0.0
Cycle Q Clear Time (g_c), s	9.7	0.0	6.0	0.0	0.5	0.0	7.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	897	0	1097	0	712	0	967	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	63.5	0.0	19.0	0.0	61.5	0.0	19.0	0.0
Perm LT Serve Time (g_u), s	61.5	0.0	13.3	0.0	59.0	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	1.1	0.0	0.6	0.0	0.1	0.0	2.3	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	707	0	297	0	442	0	222	0
V/C Ratio (X)	0.45	0.00	0.36	0.00	0.04	0.00	0.56	0.00
Avail Cap (c_a), veh/h	988	0	337	0	506	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	9.8	0.0	38.7	0.0	13.1	0.0	39.1	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.7	0.0	0.0	0.0	2.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.3	0.0	39.4	0.0	13.2	0.0	41.4	0.0
1st-Term Q (Q1), veh/ln	3.6	0.0	2.6	0.0	0.2	0.0	3.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.7	0.0	2.7	0.0	0.2	0.0	3.2	0.0
%ile Storage Ratio (RQ%)	0.27	0.00	0.45	0.00	0.04	0.00	0.49	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	385	0	228	0	376	0	211
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	6.8	0.0	12.9	0.0	13.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.8	0.0	12.9	0.0	13.6
Lane Grp Cap (c), veh/h	0	1822	0	596	0	1065	0	281
V/C Ratio (X)	0.00	0.21	0.00	0.38	0.00	0.35	0.00	0.75
Avail Cap (c_a), veh/h	0	1822	0	903	0	1065	0	378
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	44.4	0.0	12.2	0.0	48.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.4	0.0	0.9	0.0	5.7
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	0.3	0.0	44.8	0.0	13.1	0.0	54.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.0	0.0	5.0	0.0	6.0

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	3.1	0.0	5.3	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.19	0.00	0.12
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	116	0	54	0	374	0	209
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1761	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	3.5	0.0	13.0	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.5	0.0	13.0	0.0	15.3
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	1.00	0.00	1.00	0.00	0.35	0.00	1.00
Lane Grp Cap (c), veh/h	0	813	0	266	0	1056	0	250
V/C Ratio (X)	0.00	0.14	0.00	0.20	0.00	0.35	0.00	0.83
Avail Cap (c_a), veh/h	0	813	0	403	0	1056	0	337
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	43.0	0.0	12.2	0.0	49.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.4	0.0	0.9	0.0	12.6
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	0.4	0.0	43.4	0.0	13.2	0.0	61.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.4	0.0	5.0	0.0	6.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.4	0.0	5.2	0.0	6.9
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.26	0.00	0.19	0.00	0.13
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 7th Control Delay, s/veh	23.7
HCM 7th LOS	C

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↔			↔	
Traffic Vol, veh/h	21	283	25	52	283	8	33	7	79	21	3	69
Future Vol, veh/h	21	283	25	52	283	8	33	7	79	21	3	69
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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	308	27	57	308	9	36	8	86	23	3	75

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	316	0	0	335	0	0	635	796	167	624	801	154
Stage 1	-	-	-	-	-	-	367	367	-	421	421	-
Stage 2	-	-	-	-	-	-	268	429	-	203	380	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1241	-	-	1221	-	-	363	318	847	370	316	865
Stage 1	-	-	-	-	-	-	625	621	-	581	587	-
Stage 2	-	-	-	-	-	-	714	582	-	780	612	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1241	-	-	1221	-	-	307	298	847	304	296	865
Mov Cap-2 Maneuver	-	-	-	-	-	-	307	298	-	304	296	-
Stage 1	-	-	-	-	-	-	614	609	-	554	560	-
Stage 2	-	-	-	-	-	-	618	555	-	679	601	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.51			1.23			13.95			12.44		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	531	1241	-	-	1221	-	-	585
HCM Lane V/C Ratio	0.244	0.018	-	-	0.046	-	-	0.173
HCM Ctrl Dly (s/v)	14	8	-	-	8.1	-	-	12.4
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.1	-	-	0.6

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	738	9	17	740	37	21	1	14	54	4	86
Future Volume (veh/h)	72	738	9	17	740	37	21	1	14	54	4	86
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	802	10	18	804	40	23	1	15	59	4	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	100	2104	26	33	1887	94	262	22	148	183	28	251
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	0.06	0.59	0.59	0.04	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	68.0	14.3	14.3	70.0	1.4	1.3	32.7	0.0	0.0	36.9	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			D		
Approach Vol, veh/h		890			862			39			156	
Approach Delay, s/veh		19.0			2.8			32.7			36.9	
Approach LOS		B			A			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	6.8	75.2		38.0	11.3	70.7			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.5	3.8	5.2		5.5	3.8	5.3			
Max Q Clear (g_c+I1), s			4.2	3.2	16.3		11.6	7.2	2.0			
Green Ext Time (g_e), s			0.2	0.0	6.1		0.8	0.1	6.5			
Prob of Phs Call (p_c)			1.00	0.45	1.00		1.00	0.93	1.00			
Prob of Max Out (p_x)			0.00	0.01	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			779	1781			516	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			79		3594		103		3445			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			537		45		913		171			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

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Lane Assignment	L+T+R L (Prot)			L+T+R L (Prot)				
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	39	18	0	0	156	78	0
Grp Sat Flow (s), veh/h/ln	0	1395	1781	0	0	1531	1781	0
Q Serve Time (g_s), s	0.0	0.0	1.2	0.0	0.0	6.3	5.2	0.0
Cycle Q Clear Time (g_c), s	0.0	2.2	1.2	0.0	0.0	9.6	5.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1319	0	0	0	1419	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1299	0	0	0	1836	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	23.4	0.0	0.0	0.0	30.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0
Time to First Blk (g_f), s	0.0	1.4	0.0	0.0	0.0	3.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.4	0.0	0.0	0.0	3.3	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.59	1.00	0.00	0.00	0.38	1.00	0.00
Lane Grp Cap (c), veh/h	0	431	33	0	0	462	100	0
V/C Ratio (X)	0.00	0.09	0.54	0.00	0.00	0.34	0.78	0.00
Avail Cap (c_a), veh/h	0	431	141	0	0	462	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.3	57.2	0.0	0.0	34.9	55.9	0.0
Incr Delay (d2), s/veh	0.0	0.4	12.7	0.0	0.0	2.0	12.1	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	0.0	32.7	70.0	0.0	0.0	36.9	68.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.5	0.0	0.0	3.7	2.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.3	0.3	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	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.6	0.0	0.0	3.9	2.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.18	0.00	0.00	0.43	0.75	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	396	0	0	0	415
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1040	0	0	0	974
V/C Ratio (X)	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.43
Avail Cap (c_a), veh/h	0	0	0	1040	0	0	0	974
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	0.0	0.0	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	14.3	0.0	0.0	0.0	1.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.09	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	416	0	0	0	429
Grp Sat Flow (s), veh/h/ln	0	0	0	1862	0	0	0	1840
Q Serve Time (g_s), s	0.0	0.0	0.0	14.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	14.3	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	0.38	0.00	0.02	0.00	0.60	0.00	0.09
Lane Grp Cap (c), veh/h	0	0	0	1090	0	0	0	1008
V/C Ratio (X)	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.43
Avail Cap (c_a), veh/h	0	0	0	1090	0	0	0	1008
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.3
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	14.3	0.0	0.0	0.0	1.3
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.9	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	0.4
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.10	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 7th Control Delay, s/veh	13.5
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	10	810	768	6	0	19
Future Vol, veh/h	10	810	768	6	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	11	880	835	7	0	21

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	841	0	-	0	-	421
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	790	-	-	-	0	581
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	790	-	-	-	-	581
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.12	0	11.42
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	790	-	-	-	581
HCM Lane V/C Ratio	0.014	-	-	-	0.036
HCM Ctrl Dly (s/v)	9.6	-	-	-	11.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	102	4	24	52	4	5	2	14	4	3	4
Future Vol, veh/h	2	102	4	24	52	4	5	2	14	4	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	111	4	26	57	4	5	2	15	4	3	4

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	61	0	0	115	0	0	228	230	113	227	230	59
Stage 1	-	-	-	-	-	-	117	117	-	111	111	-
Stage 2	-	-	-	-	-	-	110	113	-	116	120	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1474	-	-	728	669	940	728	669	1007
Stage 1	-	-	-	-	-	-	887	798	-	894	804	-
Stage 2	-	-	-	-	-	-	895	802	-	888	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1474	-	-	707	656	940	700	656	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	707	656	-	700	656	-
Stage 1	-	-	-	-	-	-	886	797	-	878	789	-
Stage 2	-	-	-	-	-	-	871	787	-	870	796	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0.14		2.25		9.41		9.74	
HCM LOS					A		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	839	33	-	-	532	-	-	771
HCM Lane V/C Ratio	0.027	0.001	-	-	0.018	-	-	0.015
HCM Ctrl Dly (s/v)	9.4	7.3	0	-	7.5	0	-	9.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘↗		↑↑			↔↔
Traffic Vol, veh/h	8	7	464	11	4	714
Future Vol, veh/h	8	7	464	11	4	714
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	8	504	12	4	776

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	907	258	0	0	516	0
Stage 1	510	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	275	741	-	-	1046	-
Stage 1	568	-	-	-	-	-
Stage 2	648	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	274	741	-	-	1046	-
Mov Cap-2 Maneuver	274	-	-	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	645	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.69	0	0.09
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	388	20
HCM Lane V/C Ratio	-	-	0.042	0.004
HCM Ctrl Dly (s/v)	-	-	14.7	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	575	84	43	470	78	118	285	42	148	426	229
Future Volume (veh/h)	226	575	84	43	470	78	118	285	42	148	426	229
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	246	625	91	47	511	85	128	310	46	161	463	249
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	270	1113	162	61	852	380	273	1217	179	481	717	608
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Prop Arrive On Green	0.30	0.72	0.72	0.03	0.24	0.24	0.06	0.39	0.39	0.02	0.13	0.13
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.3	16.2	16.2	76.2	43.6	38.0	25.4	25.5	25.6	23.0	49.1	41.9
Ln Grp LOS	E	B	B	E	D	D	C	C	C	C	D	D
Approach Vol, veh/h		962			643			484			873	
Approach Delay, s/veh		29.0			45.2			25.5			42.2	
Approach LOS		C			D			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		11.0	52.0	9.1	47.9	12.0	51.0	23.2	33.8			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	5.1			
Max Q Clear (g_c+I1), s		8.0	10.2	5.1	13.5	7.2	30.3	17.9	17.3			
Green Ext Time (g_e), s		0.0	2.3	0.0	4.8	0.0	3.5	0.3	2.2			
Prob of Phs Call (p_c)		1.00	1.00	0.79	1.00	0.99	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.93	0.00	1.00	0.00	0.84	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3108		3113		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			457		453		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt		1	0	3	0	5	0	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
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Lane Assignment	L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	161	0	47	0	128	0	246	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.0	0.0	3.1	0.0	5.2	0.0	15.9	0.0
Cycle Q Clear Time (g_c), s	6.0	0.0	3.1	0.0	5.2	0.0	15.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1025	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	46.0	0.0	0.0	0.0	46.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	38.8	0.0	0.0	0.0	17.7	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.5	0.0	0.0	0.0	5.9	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	481	0	61	0	273	0	270	0
V/C Ratio (X)	0.33	0.00	0.78	0.00	0.47	0.00	0.91	0.00
Avail Cap (c_a), veh/h	481	0	134	0	273	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	22.6	0.0	57.5	0.0	24.2	0.0	41.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	18.7	0.0	1.3	0.0	25.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	23.0	0.0	76.2	0.0	25.4	0.0	66.3	0.0
1st-Term Q (Q1), veh/ln	2.9	0.0	1.4	0.0	2.2	0.0	5.9	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.3	0.0	0.1	0.0	1.9	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.0	0.0	1.7	0.0	2.3	0.0	7.8	0.0
%ile Storage Ratio (RQ%)	0.12	0.00	0.22	0.00	0.17	0.00	0.58	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	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	176	0	356	0	463	0	511
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	8.0	0.0	11.4	0.0	28.3	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	8.0	0.0	11.4	0.0	28.3	0.0	15.3
Lane Grp Cap (c), veh/h	0	696	0	635	0	717	0	852
V/C Ratio (X)	0.00	0.25	0.00	0.56	0.00	0.65	0.00	0.60
Avail Cap (c_a), veh/h	0	696	0	635	0	717	0	852
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.6	0.0	12.6	0.0	44.7	0.0	40.5
Incr Delay (d2), s/veh	0.0	0.9	0.0	3.6	0.0	4.5	0.0	3.1
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	25.5	0.0	16.2	0.0	49.1	0.0	43.6
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	3.2	0.0	14.2	0.0	6.7

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.6	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	3.8	0.0	15.1	0.0	7.1
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.21	0.00	0.62	0.00	0.10
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		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	180	0	360	0	249	0	85
Grp Sat Flow (s), veh/h/ln	0	1788	0	1789	0	1585	0	1585
Q Serve Time (g_s), s	0.0	8.2	0.0	11.5	0.0	17.4	0.0	5.2
Cycle Q Clear Time (g_c), s	0.0	8.2	0.0	11.5	0.0	17.4	0.0	5.2
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	0.26	0.00	0.25	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	700	0	640	0	608	0	380
V/C Ratio (X)	0.00	0.26	0.00	0.56	0.00	0.41	0.00	0.22
Avail Cap (c_a), veh/h	0	700	0	640	0	608	0	380
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.7	0.0	12.6	0.0	39.9	0.0	36.6
Incr Delay (d2), s/veh	0.0	0.9	0.0	3.6	0.0	2.0	0.0	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	25.6	0.0	16.2	0.0	41.9	0.0	38.0
1st-Term Q (Q1), veh/ln	0.0	3.5	0.0	3.2	0.0	7.4	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.6	0.0	0.3	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.7	0.0	3.9	0.0	7.7	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.21	0.00	1.09	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

Intersection Summary

HCM 7th Control Delay, s/veh	35.9
HCM 7th LOS	D

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	210	75	123	194	192	34	390	125	295	620	119
Future Volume (veh/h)	115	210	75	123	194	192	34	390	125	295	620	119
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	228	82	134	211	209	37	424	136	321	674	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	222	549	245	303	281	250	429	1821	812	682	1749	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.07	0.15	0.15	0.08	0.16	0.16	0.06	1.00	1.00	0.10	0.59	0.59
Unsig. Movement Delay												
Ln Grp Delay, s/veh	41.6	46.3	46.0	39.4	54.0	61.6	12.7	0.3	0.4	10.3	14.3	14.3
Ln Grp LOS	D	D	D	D	D	E	B	A	A	B	B	B
Approach Vol, veh/h		435			554			597			1124	
Approach Delay, s/veh		44.9			53.3			1.1			13.1	
Approach LOS		D			D			A			B	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		17.1	66.0	13.9	23.0	8.0	75.0	13.5	23.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.9	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		11.7	2.0	9.5	9.0	3.2	16.5	9.0	17.3			
Green Ext Time (g_e), s		0.9	3.4	0.0	1.6	0.0	6.0	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.71	1.00	0.98	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.07	0.46			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2976		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		569		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis  
 6: Douglas Street & Tudor Road

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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	321	0	134	0	37	0	125	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	9.7	0.0	7.5	0.0	1.2	0.0	7.0	0.0
Cycle Q Clear Time (g_c), s	9.7	0.0	7.5	0.0	1.2	0.0	7.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	850	0	1069	0	678	0	967	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	63.5	0.0	18.5	0.0	61.5	0.0	18.5	0.0
Perm LT Serve Time (g_u), s	61.5	0.0	11.6	0.0	56.0	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	1.2	0.0	1.0	0.0	0.3	0.0	2.2	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	682	0	303	0	429	0	222	0
V/C Ratio (X)	0.47	0.00	0.44	0.00	0.09	0.00	0.56	0.00
Avail Cap (c_a), veh/h	963	0	319	0	473	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	9.8	0.0	38.4	0.0	12.6	0.0	39.4	0.0
Incr Delay (d2), s/veh	0.5	0.0	1.0	0.0	0.1	0.0	2.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.3	0.0	39.4	0.0	12.7	0.0	41.6	0.0
1st-Term Q (Q1), veh/ln	3.6	0.0	3.3	0.0	0.5	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.7	0.0	3.4	0.0	0.5	0.0	3.2	0.0
%ile Storage Ratio (RQ%)	0.27	0.00	0.57	0.00	0.08	0.00	0.49	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	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	424	0	228	0	402	0	211
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	7.0	0.0	14.5	0.0	13.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.0	0.0	14.5	0.0	13.6
Lane Grp Cap (c), veh/h	0	1821	0	549	0	1044	0	281
V/C Ratio (X)	0.00	0.23	0.00	0.42	0.00	0.39	0.00	0.75
Avail Cap (c_a), veh/h	0	1821	0	903	0	1044	0	378
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	45.8	0.0	13.2	0.0	48.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.5	0.0	1.1	0.0	5.7
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	0.3	0.0	46.3	0.0	14.3	0.0	54.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.1	0.0	5.6	0.0	6.0

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	3.1	0.0	6.0	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.22	0.00	0.12
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	136	0	82	0	401	0	209
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1768	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	5.5	0.0	14.5	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	5.5	0.0	14.5	0.0	15.3
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	1.00	0.00	1.00	0.00	0.32	0.00	1.00
Lane Grp Cap (c), veh/h	0	812	0	245	0	1039	0	250
V/C Ratio (X)	0.00	0.17	0.00	0.34	0.00	0.39	0.00	0.83
Avail Cap (c_a), veh/h	0	812	0	403	0	1039	0	337
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	45.2	0.0	13.2	0.0	49.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.8	0.0	1.1	0.0	12.6
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	0.4	0.0	46.0	0.0	14.3	0.0	61.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.2	0.0	5.6	0.0	6.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	2.2	0.0	5.9	0.0	6.9
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.41	0.00	0.22	0.00	0.13
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 7th Control Delay, s/veh	23.8
HCM 7th LOS	C

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↔			↔	
Traffic Vol, veh/h	21	308	25	52	301	20	42	7	79	21	3	69
Future Vol, veh/h	21	308	25	52	301	20	42	7	79	21	3	69
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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	335	27	57	327	22	46	8	86	23	3	75

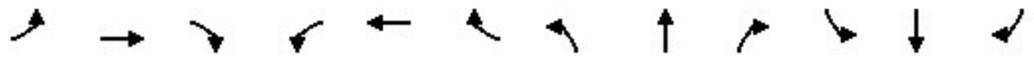
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	349	0	0	362	0	0	672	856	181	657	848	164
Stage 1	-	-	-	-	-	-	394	394	-	440	440	-
Stage 2	-	-	-	-	-	-	278	462	-	217	408	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1207	-	-	1193	-	-	341	294	831	350	297	852
Stage 1	-	-	-	-	-	-	602	604	-	566	576	-
Stage 2	-	-	-	-	-	-	705	563	-	765	595	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1207	-	-	1193	-	-	288	274	831	286	278	852
Mov Cap-2 Maneuver	-	-	-	-	-	-	288	274	-	286	278	-
Stage 1	-	-	-	-	-	-	591	592	-	539	548	-
Stage 2	-	-	-	-	-	-	609	536	-	665	584	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.48			1.14			15.53			12.79		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	1207	-	-	1193	-	-	563
HCM Lane V/C Ratio	0.29	0.019	-	-	0.047	-	-	0.18
HCM Ctrl Dly (s/v)	15.5	8	-	-	8.2	-	-	12.8
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.6

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	787	9	17	776	37	21	1	14	54	4	86
Future Volume (veh/h)	72	787	9	17	776	37	21	1	14	54	4	86
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	855	10	18	843	40	23	1	15	59	4	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	100	2106	25	33	1892	90	262	22	148	183	28	251
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	0.06	0.59	0.59	0.04	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	68.0	14.7	14.7	70.0	1.5	1.4	32.7	0.0	0.0	36.9	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			D		
Approach Vol, veh/h		943			901			39			156	
Approach Delay, s/veh		19.1			2.8			32.7			36.9	
Approach LOS		B			A			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	6.8	75.2		38.0	11.3	70.7			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.5	3.8	5.2		5.5	3.8	5.3			
Max Q Clear (g_c+I1), s			4.2	3.2	17.5		11.6	7.2	2.0			
Green Ext Time (g_e), s			0.2	0.0	6.6		0.8	0.1	6.9			
Prob of Phs Call (p_c)			1.00	0.45	1.00		1.00	0.93	1.00			
Prob of Max Out (p_x)			0.00	0.01	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			779	1781			516	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			79		3598		103		3454			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			537		42		913		164			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
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Lane Assignment	L+T+R L (Prot)			L+T+R L (Prot)				
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	39	18	0	0	156	78	0
Grp Sat Flow (s), veh/h/ln	0	1395	1781	0	0	1531	1781	0
Q Serve Time (g_s), s	0.0	0.0	1.2	0.0	0.0	6.3	5.2	0.0
Cycle Q Clear Time (g_c), s	0.0	2.2	1.2	0.0	0.0	9.6	5.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1319	0	0	0	1419	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1299	0	0	0	1836	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	23.4	0.0	0.0	0.0	30.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0
Time to First Blk (g_f), s	0.0	1.4	0.0	0.0	0.0	3.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.4	0.0	0.0	0.0	3.3	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.59	1.00	0.00	0.00	0.38	1.00	0.00
Lane Grp Cap (c), veh/h	0	431	33	0	0	462	100	0
V/C Ratio (X)	0.00	0.09	0.54	0.00	0.00	0.34	0.78	0.00
Avail Cap (c_a), veh/h	0	431	141	0	0	462	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.3	57.2	0.0	0.0	34.9	55.9	0.0
Incr Delay (d2), s/veh	0.0	0.4	12.7	0.0	0.0	2.0	12.1	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	0.0	32.7	70.0	0.0	0.0	36.9	68.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.5	0.0	0.0	3.7	2.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.3	0.3	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	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.6	0.0	0.0	3.9	2.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.18	0.00	0.00	0.43	0.75	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	422	0	0	0	434
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	15.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.5	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1040	0	0	0	974
V/C Ratio (X)	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	0	0	1040	0	0	0	974
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.5
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	0.0	0.0	14.7	0.0	0.0	0.0	1.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
 12: Olive St/Commerce Dr & Chipman Road

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.10	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	443	0	0	0	449
Grp Sat Flow (s), veh/h/ln	0	0	0	1863	0	0	0	1841
Q Serve Time (g_s), s	0.0	0.0	0.0	15.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.5	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	0.38	0.00	0.02	0.00	0.60	0.00	0.09
Lane Grp Cap (c), veh/h	0	0	0	1090	0	0	0	1009
V/C Ratio (X)	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	0	0	1090	0	0	0	1009
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	0.0	0.0	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	14.7	0.0	0.0	0.0	1.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.3	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	0.4
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.10	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 7th Control Delay, s/veh	13.5
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	10	859	786	31	0	37
Future Vol, veh/h	10	859	786	31	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	11	934	854	34	0	40

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	888	0	-	0	-	444
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	758	-	-	-	0	561
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	758	-	-	-	-	561
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.11	0	11.91
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	758	-	-	-	561
HCM Lane V/C Ratio	0.014	-	-	-	0.072
HCM Ctrl Dly (s/v)	9.8	-	-	-	11.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	102	4	36	52	4	5	2	23	4	3	4
Future Vol, veh/h	2	102	4	36	52	4	5	2	23	4	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	111	4	39	57	4	5	2	25	4	3	4

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	61	0	0	115	0	0	254	257	113	253	257	59
Stage 1	-	-	-	-	-	-	117	117	-	137	137	-
Stage 2	-	-	-	-	-	-	136	139	-	116	120	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1474	-	-	699	647	940	700	647	1007
Stage 1	-	-	-	-	-	-	887	798	-	866	783	-
Stage 2	-	-	-	-	-	-	867	781	-	888	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1474	-	-	673	629	940	659	629	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	673	629	-	659	629	-
Stage 1	-	-	-	-	-	-	886	797	-	842	762	-
Stage 2	-	-	-	-	-	-	836	760	-	861	796	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0.14		2.94		9.38		9.93	
HCM LOS					A		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	855	33	-	-	694	-	-	743
HCM Lane V/C Ratio	0.038	0.001	-	-	0.027	-	-	0.016
HCM Ctrl Dly (s/v)	9.4	7.3	0	-	7.5	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection												
Int Delay, s/veh	10.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Vol, veh/h	81	0	50	8	0	7	119	456	11	4	746	48
Future Vol, veh/h	81	0	50	8	0	7	119	456	11	4	746	48
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	0	-	-	0	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	88	0	54	9	0	8	129	496	12	4	811	52

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1352	1612	432	1174	1632	254	863	0	0	508	0	0
Stage 1	846	846	-	760	760	-	-	-	-	-	-	-
Stage 2	507	766	-	414	872	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	109	103	572	147	100	746	775	-	-	1053	-	-
Stage 1	323	377	-	364	412	-	-	-	-	-	-	-
Stage 2	517	410	-	586	366	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	89	86	572	110	83	746	775	-	-	1053	-	-
Mov Cap-2 Maneuver	89	86	-	110	83	-	-	-	-	-	-	-
Stage 1	322	375	-	303	344	-	-	-	-	-	-	-
Stage 2	426	341	-	528	365	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	113.71		26.15		2.15		0.07	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	775	-	-	89	572	110	746	17	-	-
HCM Lane V/C Ratio	0.167	-	-	0.987	0.095	0.079	0.01	0.004	-	-
HCM Ctrl Dly (s/v)	10.6	-	-	176.5	12	40.4	9.9	8.4	0	-
HCM Lane LOS	B	-	-	F	B	E	A	A	A	-
HCM 95th %tile Q(veh)	0.6	-	-	5.7	0.3	0.3	0	0	-	-

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	101	0	586	704	120
Future Vol, veh/h	0	101	0	586	704	120
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	110	0	637	765	130

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	448	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	558	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	558	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.02	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT EBLn1	SBT	SBR
Capacity (veh/h)	- 558	-	-
HCM Lane V/C Ratio	- 0.197	-	-
HCM Ctrl Dly (s/v)	- 13	-	-
HCM Lane LOS	- B	-	-
HCM 95th %tile Q(veh)	- 0.7	-	-

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	18	9	17	25	12	19
Future Vol, veh/h	18	9	17	25	12	19
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	10	18	27	13	21

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	79	32	0	0	46
Stage 1	32	-	-	-	-
Stage 2	47	-	-	-	-
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	924	1042	-	-	1562
Stage 1	990	-	-	-	-
Stage 2	976	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	916	1042	-	-	1562
Mov Cap-2 Maneuver	916	-	-	-	-
Stage 1	990	-	-	-	-
Stage 2	967	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.89	0	2.84
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	954	697
HCM Lane V/C Ratio	-	-	0.031	0.008
HCM Ctrl Dly (s/v)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

12/11/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	575	84	43	470	78	118	285	42	148	426	229
Future Volume (veh/h)	226	575	84	43	470	78	118	285	42	148	426	229
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	246	625	91	47	511	85	128	310	46	161	463	249
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	270	1113	162	61	852	380	362	1217	179	481	717	608
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Prop Arrive On Green	0.30	0.72	0.72	0.03	0.24	0.24	0.06	0.39	0.39	0.10	0.77	0.77
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.3	16.2	16.2	76.2	43.6	38.0	21.7	25.5	25.6	21.5	14.7	11.4
Ln Grp LOS	E	B	B	E	D	D	C	C	C	C	B	B
Approach Vol, veh/h		962			643			484			873	
Approach Delay, s/veh		29.0			45.2			24.5			15.0	
Approach LOS		C			D			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		11.0	52.0	9.1	47.9	12.0	51.0	23.2	33.8			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	5.1			
Max Q Clear (g_c+I1), s		8.0	10.2	5.1	13.5	7.2	15.7	17.9	17.3			
Green Ext Time (g_e), s		0.0	2.3	0.0	4.8	0.0	4.1	0.3	2.2			
Prob of Phs Call (p_c)		1.00	1.00	0.79	1.00	0.99	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.93	0.00	1.00	0.00	0.84	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3108		3113		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			457		453		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	161	0	47	0	128	0	246	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.0	0.0	3.1	0.0	5.2	0.0	15.9	0.0
Cycle Q Clear Time (g_c), s	6.0	0.0	3.1	0.0	5.2	0.0	15.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1025	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	46.0	0.0	0.0	0.0	46.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	38.8	0.0	0.0	0.0	32.3	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	3.1	0.0	0.0	0.0	2.9	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	481	0	61	0	362	0	270	0
V/C Ratio (X)	0.33	0.00	0.78	0.00	0.35	0.00	0.91	0.00
Avail Cap (c_a), veh/h	481	0	134	0	362	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	21.1	0.0	57.5	0.0	21.1	0.0	41.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	18.7	0.0	0.6	0.0	25.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	21.5	0.0	76.2	0.0	21.7	0.0	66.3	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	1.4	0.0	2.2	0.0	5.9	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.3	0.0	0.1	0.0	1.9	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.7	0.0	1.7	0.0	2.2	0.0	7.8	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.22	0.00	0.17	0.00	0.58	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	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	176	0	356	0	463	0	511
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	8.0	0.0	11.4	0.0	13.7	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	8.0	0.0	11.4	0.0	13.7	0.0	15.3
Lane Grp Cap (c), veh/h	0	696	0	635	0	717	0	852
V/C Ratio (X)	0.00	0.25	0.00	0.56	0.00	0.65	0.00	0.60
Avail Cap (c_a), veh/h	0	696	0	635	0	717	0	852
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.6	0.0	12.6	0.0	10.2	0.0	40.5
Incr Delay (d2), s/veh	0.0	0.9	0.0	3.6	0.0	4.5	0.0	3.1
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	25.5	0.0	16.2	0.0	14.7	0.0	43.6
1st-Term Q (Q1), veh/ln	0.0	3.4	0.0	3.2	0.0	3.4	0.0	6.7

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.6	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.6	0.0	3.8	0.0	4.3	0.0	7.1
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.21	0.00	0.18	0.00	0.10
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		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	180	0	360	0	249	0	85
Grp Sat Flow (s), veh/h/ln	0	1788	0	1789	0	1585	0	1585
Q Serve Time (g_s), s	0.0	8.2	0.0	11.5	0.0	6.4	0.0	5.2
Cycle Q Clear Time (g_c), s	0.0	8.2	0.0	11.5	0.0	6.4	0.0	5.2
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	0.26	0.00	0.25	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	700	0	640	0	608	0	380
V/C Ratio (X)	0.00	0.26	0.00	0.56	0.00	0.41	0.00	0.22
Avail Cap (c_a), veh/h	0	700	0	640	0	608	0	380
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.7	0.0	12.6	0.0	9.4	0.0	36.6
Incr Delay (d2), s/veh	0.0	0.9	0.0	3.6	0.0	2.0	0.0	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	25.6	0.0	16.2	0.0	11.4	0.0	38.0
1st-Term Q (Q1), veh/ln	0.0	3.5	0.0	3.2	0.0	1.8	0.0	2.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.6	0.0	0.3	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.7	0.0	3.9	0.0	2.1	0.0	2.2
%ile Storage Ratio (RQ%)	0.00	0.27	0.00	0.21	0.00	0.30	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

Intersection Summary

HCM 7th Control Delay, s/veh	27.7
HCM 7th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	210	75	123	194	192	34	390	125	295	620	119
Future Volume (veh/h)	115	210	75	123	194	192	34	390	125	295	620	119
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	228	82	134	211	209	37	424	136	321	674	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	222	549	245	303	281	250	429	1821	812	682	1749	334
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.07	0.15	0.15	0.08	0.16	0.16	0.06	1.00	1.00	0.10	0.59	0.59
Unsig. Movement Delay												
Ln Grp Delay, s/veh	41.6	46.3	46.0	39.4	54.0	61.6	12.7	0.3	0.4	10.3	14.3	14.3
Ln Grp LOS	D	D	D	D	D	E	B	A	A	B	B	B
Approach Vol, veh/h		435			554			597			1124	
Approach Delay, s/veh		44.9			53.3			1.1			13.1	
Approach LOS		D			D			A			B	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		17.1	66.0	13.9	23.0	8.0	75.0	13.5	23.5			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.9	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		11.7	2.0	9.5	9.0	3.2	16.5	9.0	17.3			
Green Ext Time (g_e), s		0.9	3.4	0.0	1.6	0.0	6.0	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.71	1.00	0.98	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.07	0.46			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2976		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		569		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	321	0	134	0	37	0	125	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	9.7	0.0	7.5	0.0	1.2	0.0	7.0	0.0
Cycle Q Clear Time (g_c), s	9.7	0.0	7.5	0.0	1.2	0.0	7.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	850	0	1069	0	678	0	967	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	63.5	0.0	18.5	0.0	61.5	0.0	18.5	0.0
Perm LT Serve Time (g_u), s	61.5	0.0	11.6	0.0	56.0	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	1.2	0.0	1.0	0.0	0.3	0.0	2.2	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	682	0	303	0	429	0	222	0
V/C Ratio (X)	0.47	0.00	0.44	0.00	0.09	0.00	0.56	0.00
Avail Cap (c_a), veh/h	963	0	319	0	473	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.98	0.00	1.00	0.00
Uniform Delay (d1), s/veh	9.8	0.0	38.4	0.0	12.6	0.0	39.4	0.0
Incr Delay (d2), s/veh	0.5	0.0	1.0	0.0	0.1	0.0	2.2	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.3	0.0	39.4	0.0	12.7	0.0	41.6	0.0
1st-Term Q (Q1), veh/ln	3.6	0.0	3.3	0.0	0.5	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	3.7	0.0	3.4	0.0	0.5	0.0	3.2	0.0
%ile Storage Ratio (RQ%)	0.27	0.00	0.57	0.00	0.08	0.00	0.49	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	424	0	228	0	402	0	211
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	7.0	0.0	14.5	0.0	13.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.0	0.0	14.5	0.0	13.6
Lane Grp Cap (c), veh/h	0	1821	0	549	0	1044	0	281
V/C Ratio (X)	0.00	0.23	0.00	0.42	0.00	0.39	0.00	0.75
Avail Cap (c_a), veh/h	0	1821	0	903	0	1044	0	378
Upstream Filter (I)	0.00	0.98	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	45.8	0.0	13.2	0.0	48.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.5	0.0	1.1	0.0	5.7
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	0.3	0.0	46.3	0.0	14.3	0.0	54.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.1	0.0	5.6	0.0	6.0

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	3.1	0.0	6.0	0.0	6.5
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.22	0.00	0.12
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	136	0	82	0	401	0	209
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1768	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	5.5	0.0	14.5	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	5.5	0.0	14.5	0.0	15.3
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	1.00	0.00	1.00	0.00	0.32	0.00	1.00
Lane Grp Cap (c), veh/h	0	812	0	245	0	1039	0	250
V/C Ratio (X)	0.00	0.17	0.00	0.34	0.00	0.39	0.00	0.83
Avail Cap (c_a), veh/h	0	812	0	403	0	1039	0	337
Upstream Filter (I)	0.00	0.98	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	45.2	0.0	13.2	0.0	49.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.8	0.0	1.1	0.0	12.6
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	0.4	0.0	46.0	0.0	14.3	0.0	61.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.2	0.0	5.6	0.0	6.1
2nd-Term Q (Q2), veh/ln	0.0	0.1	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	2.2	0.0	5.9	0.0	6.9
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.41	0.00	0.22	0.00	0.13
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 7th Control Delay, s/veh	23.8
HCM 7th LOS	C

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↔			↔	
Traffic Vol, veh/h	21	308	25	52	301	20	42	7	79	21	3	69
Future Vol, veh/h	21	308	25	52	301	20	42	7	79	21	3	69
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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	335	27	57	327	22	46	8	86	23	3	75

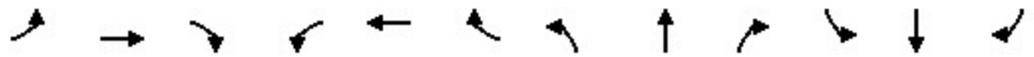
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	349	0	0	362	0	0	672	856	181	657	848	164
Stage 1	-	-	-	-	-	-	394	394	-	440	440	-
Stage 2	-	-	-	-	-	-	278	462	-	217	408	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1207	-	-	1193	-	-	341	294	831	350	297	852
Stage 1	-	-	-	-	-	-	602	604	-	566	576	-
Stage 2	-	-	-	-	-	-	705	563	-	765	595	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1207	-	-	1193	-	-	288	274	831	286	278	852
Mov Cap-2 Maneuver	-	-	-	-	-	-	288	274	-	286	278	-
Stage 1	-	-	-	-	-	-	591	592	-	539	548	-
Stage 2	-	-	-	-	-	-	609	536	-	665	584	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.48			1.14			15.53			12.79		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	1207	-	-	1193	-	-	563
HCM Lane V/C Ratio	0.29	0.019	-	-	0.047	-	-	0.18
HCM Ctrl Dly (s/v)	15.5	8	-	-	8.2	-	-	12.8
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.6

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↕		↰	↕			↕			↕	
Traffic Volume (veh/h)	72	787	9	17	776	37	21	1	14	54	4	86
Future Volume (veh/h)	72	787	9	17	776	37	21	1	14	54	4	86
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	78	855	10	18	843	40	23	1	15	59	4	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	100	2106	25	33	1892	90	262	22	148	183	28	251
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	0.06	0.59	0.59	0.04	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	68.0	14.7	14.7	70.0	1.5	1.4	32.7	0.0	0.0	36.9	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			D		
Approach Vol, veh/h		943			901			39			156	
Approach Delay, s/veh		19.1			2.8			32.7			36.9	
Approach LOS		B			A			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	6.8	75.2		38.0	11.3	70.7			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.5	3.8	5.2		5.5	3.8	5.3			
Max Q Clear (g_c+I1), s			4.2	3.2	17.5		11.6	7.2	2.0			
Green Ext Time (g_e), s			0.2	0.0	6.6		0.8	0.1	6.9			
Prob of Phs Call (p_c)			1.00	0.45	1.00		1.00	0.93	1.00			
Prob of Max Out (p_x)			0.00	0.01	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			779	1781			516	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			79		3598		103		3454			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			537		42		913		164			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

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Lane Assignment	L+T+R L (Prot)			L+T+R L (Prot)				
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	39	18	0	0	156	78	0
Grp Sat Flow (s), veh/h/ln	0	1395	1781	0	0	1531	1781	0
Q Serve Time (g_s), s	0.0	0.0	1.2	0.0	0.0	6.3	5.2	0.0
Cycle Q Clear Time (g_c), s	0.0	2.2	1.2	0.0	0.0	9.6	5.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1319	0	0	0	1419	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1299	0	0	0	1836	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	23.4	0.0	0.0	0.0	30.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	6.3	0.0	0.0
Time to First Blk (g_f), s	0.0	1.4	0.0	0.0	0.0	3.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.4	0.0	0.0	0.0	3.3	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.59	1.00	0.00	0.00	0.38	1.00	0.00
Lane Grp Cap (c), veh/h	0	431	33	0	0	462	100	0
V/C Ratio (X)	0.00	0.09	0.54	0.00	0.00	0.34	0.78	0.00
Avail Cap (c_a), veh/h	0	431	141	0	0	462	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.3	57.2	0.0	0.0	34.9	55.9	0.0
Incr Delay (d2), s/veh	0.0	0.4	12.7	0.0	0.0	2.0	12.1	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	0.0	32.7	70.0	0.0	0.0	36.9	68.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.8	0.5	0.0	0.0	3.7	2.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.3	0.3	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	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.6	0.0	0.0	3.9	2.7	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.18	0.00	0.00	0.43	0.75	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	422	0	0	0	434
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	15.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.5	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1040	0	0	0	974
V/C Ratio (X)	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	0	0	1040	0	0	0	974
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.5
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	0.0	0.0	14.7	0.0	0.0	0.0	1.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.10	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	443	0	0	0	449
Grp Sat Flow (s), veh/h/ln	0	0	0	1863	0	0	0	1841
Q Serve Time (g_s), s	0.0	0.0	0.0	15.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.5	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	0.38	0.00	0.02	0.00	0.60	0.00	0.09
Lane Grp Cap (c), veh/h	0	0	0	1090	0	0	0	1009
V/C Ratio (X)	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	0	0	1090	0	0	0	1009
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.5	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	0.0	0.0	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	14.7	0.0	0.0	0.0	1.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.3	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	0.4
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.7	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.10	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 7th Control Delay, s/veh	13.5
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	10	859	786	31	0	37
Future Vol, veh/h	10	859	786	31	0	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	11	934	854	34	0	40

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	888	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	758	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	758	-	561
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.11	0	11.91
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	758	-	-	-	561
HCM Lane V/C Ratio	0.014	-	-	-	0.072
HCM Ctrl Dly (s/v)	9.8	-	-	-	11.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	102	4	36	52	4	5	2	23	4	3	4
Future Vol, veh/h	2	102	4	36	52	4	5	2	23	4	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	111	4	39	57	4	5	2	25	4	3	4

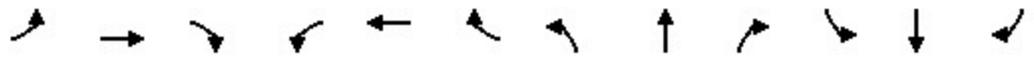
Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	61	0	0	115	0	0	254	257	113	253	257	59
Stage 1	-	-	-	-	-	-	117	117	-	137	137	-
Stage 2	-	-	-	-	-	-	136	139	-	116	120	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1474	-	-	699	647	940	700	647	1007
Stage 1	-	-	-	-	-	-	887	798	-	866	783	-
Stage 2	-	-	-	-	-	-	867	781	-	888	797	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1542	-	-	1474	-	-	673	629	940	659	629	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	673	629	-	659	629	-
Stage 1	-	-	-	-	-	-	886	797	-	842	762	-
Stage 2	-	-	-	-	-	-	836	760	-	861	796	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0.14		2.94		9.38		9.93	
HCM LOS					A		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	855	33	-	-	694	-	-	743
HCM Lane V/C Ratio	0.038	0.001	-	-	0.027	-	-	0.016
HCM Ctrl Dly (s/v)	9.4	7.3	0	-	7.5	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (veh/h)	81	0	50	8	0	7	119	456	11	4	746	48
Future Volume (veh/h)	81	0	50	8	0	7	119	456	11	4	746	48
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	0	54	9	0	8	129	496	12	4	811	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	172	0	134	131	0	134	593	2951	71	802	2894	186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.08	0.00	0.08	0.08	0.00	0.08	1.00	1.00	1.00	1.00	1.00	1.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	56.5	0.0	54.0	54.5	0.0	50.7	0.8	0.2	0.2	0.0	0.4	0.4
Ln Grp LOS	E		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		142			17			637			867	
Approach Delay, s/veh		55.6			52.7			0.4			0.4	
Approach LOS		E			D			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			6.0		6.0		6.0		6.0			
Phs Duration (G+Y+Rc), s			104.9		15.1		104.9		15.1			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			92.0		18.0		92.0		18.0			
Max Allow Headway (MAH), s			5.6		4.5		5.3		4.7			
Max Q Clear (g_c+I1), s			2.0		9.9		2.0		6.6			
Green Ext Time (g_e), s			5.0		0.3		6.8		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.07		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			641		1407		891		1350			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3546		0		3478		0			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			86		1585		223		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

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Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	129	0	88	0	4	0	9
Grp Sat Flow (s), veh/h/ln	0	641	0	1407	0	891	0	1350
Q Serve Time (g_s), s	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.8
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.9	0.0	0.0	0.0	4.6
Perm LT Sat Flow (s_l), veh/h/ln	0	641	0	1407	0	891	0	1350
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	99.9	0.0	10.1	0.0	99.9	0.0	10.1
Perm LT Serve Time (g_u), s	0.0	99.9	0.0	9.6	0.0	99.9	0.0	6.3
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.8
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	593	0	172	0	802	0	131
V/C Ratio (X)	0.00	0.22	0.00	0.51	0.00	0.00	0.00	0.07
Avail Cap (c_a), veh/h	0	593	0	265	0	802	0	219
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.93	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	54.2	0.0	0.0	0.0	54.3
Incr Delay (d2), s/veh	0.0	0.8	0.0	2.3	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	0.8	0.0	56.5	0.0	0.0	0.0	54.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	2.7	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.43	0.00	0.00	0.00	0.03
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	248	0	0	0	436	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	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	1479	0	0	0	1556	0	0
V/C Ratio (X)	0.00	0.17	0.00	0.00	0.00	0.28	0.00	0.00
Avail Cap (c_a), veh/h	0	1479	0	0	0	1556	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.93	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	0.4	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	0.2	0.0	0.0	0.0	0.4	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

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.01	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		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	260	0	54	0	427	0	8
Grp Sat Flow (s), veh/h/ln	0	1855	0	1585	0	1830	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.6
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	0.05	0.00	1.00	0.00	0.12	0.00	1.00
Lane Grp Cap (c), veh/h	0	1543	0	134	0	1523	0	134
V/C Ratio (X)	0.00	0.17	0.00	0.40	0.00	0.28	0.00	0.06
Avail Cap (c_a), veh/h	0	1543	0	238	0	1523	0	238
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.93	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	52.1	0.0	0.0	0.0	50.5
Incr Delay (d2), s/veh	0.0	0.2	0.0	1.9	0.0	0.4	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	0.2	0.0	54.0	0.0	0.4	0.0	50.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.6	0.0	0.2	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.25	0.00	0.01	0.00	0.03
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 7th Control Delay, s/veh	5.6
HCM 7th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	101	0	586	704	120
Future Vol, veh/h	0	101	0	586	704	120
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	110	0	637	765	130

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	448	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	558	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	558	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.02	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	558	-	-
HCM Lane V/C Ratio	-	0.197	-	-
HCM Ctrl Dly (s/v)	-	13	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.7	-	-

Intersection						
Int Delay, s/veh	3.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		P			A
Traffic Vol, veh/h	18	9	17	25	12	19
Future Vol, veh/h	18	9	17	25	12	19
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	10	18	27	13	21

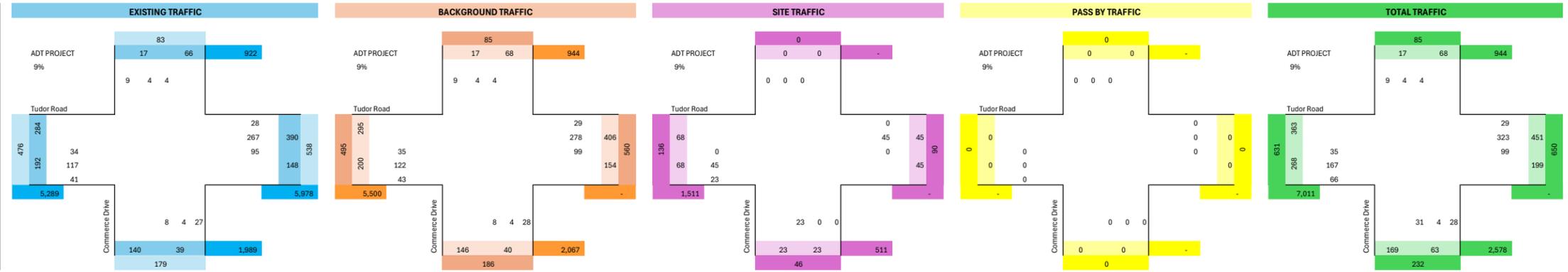
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	79	32	0	0	46	0
Stage 1	32	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	924	1042	-	-	1562	-
Stage 1	990	-	-	-	-	-
Stage 2	976	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	916	1042	-	-	1562	-
Mov Cap-2 Maneuver	916	-	-	-	-	-
Stage 1	990	-	-	-	-	-
Stage 2	967	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.89	0	2.84
HCM LOS	A		

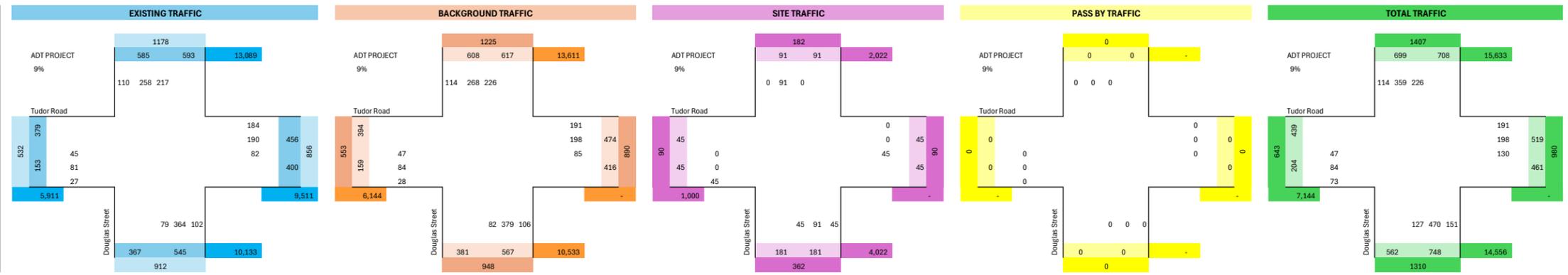
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	954	697
HCM Lane V/C Ratio	-	-	0.031	0.008
HCM Ctrl Dly (s/v)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

PHASE 1 - PM PEAK HOUR CALCULATIONS

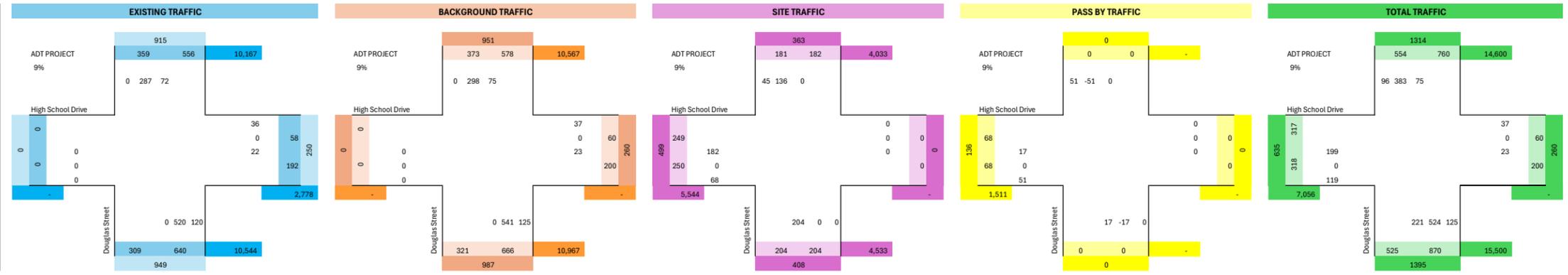
N/S	Commerce Drive	SITE TRIP PM PEAK HOUR				PASS BY PM PEAK HOUR				TOTAL
E/W	Tudor Road	IN	OUT	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
GR	2.0%	454	454							
YRS	2									
INT #	50200									
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT %	DIR %	IN/ OUT %	DIR %	IN/ OUT %	TOTAL TRAFFIC
EBL	34	1.04	35							35
EBT	117	1.04	122	10%	454					167
EBR	41	1.04	43	5%	454					23
WBL	95	1.04	99							99
WBT	267	1.04	278	10%	454					323
WBR	28	1.04	29							29
NBL	8	1.04	8	5%	454					31
NBT	4	1.04	4							4
NBR	27	1.04	28							28
SBL	4	1.04	4							4
SBT	4	1.04	4							4
SBR	9	1.04	9							9



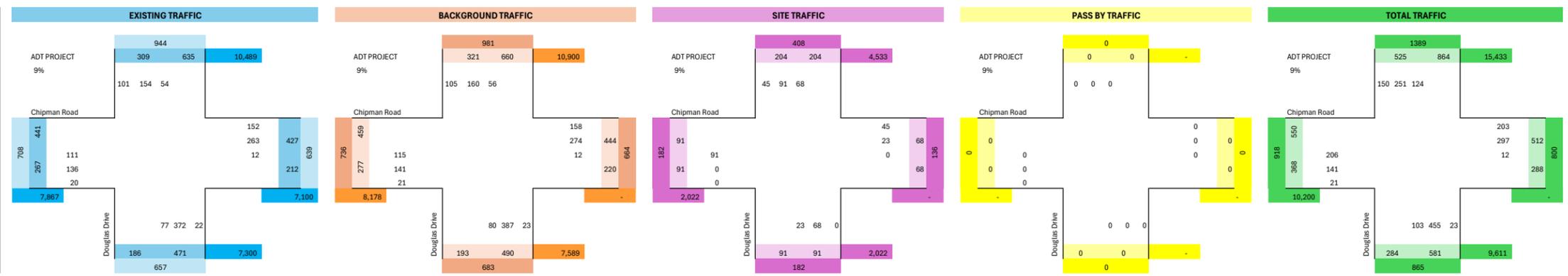
N/S	Douglas Street	SITE TRIP PM PEAK HOUR				PASS BY PM PEAK HOUR				TOTAL
E/W	Tudor Road	IN	OUT	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
GR	2.0%	454	454							
YRS	2									
INT #	60200									
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT %	DIR %	IN/ OUT %	DIR %	IN/ OUT %	TOTAL TRAFFIC
EBL	45	1.04	47							47
EBT	81	1.04	84							84
EBR	27	1.04	28	10%	454					73
WBL	82	1.04	85	10%	454					130
WBT	190	1.04	198							198
WBR	184	1.04	191							191
NBL	79	1.04	82	10%	454					127
NBT	364	1.04	379	20%	454					470
NBR	102	1.04	106	10%	454					151
SBL	217	1.04	226							226
SBT	258	1.04	268	20%	454					359
SBR	110	1.04	114							114



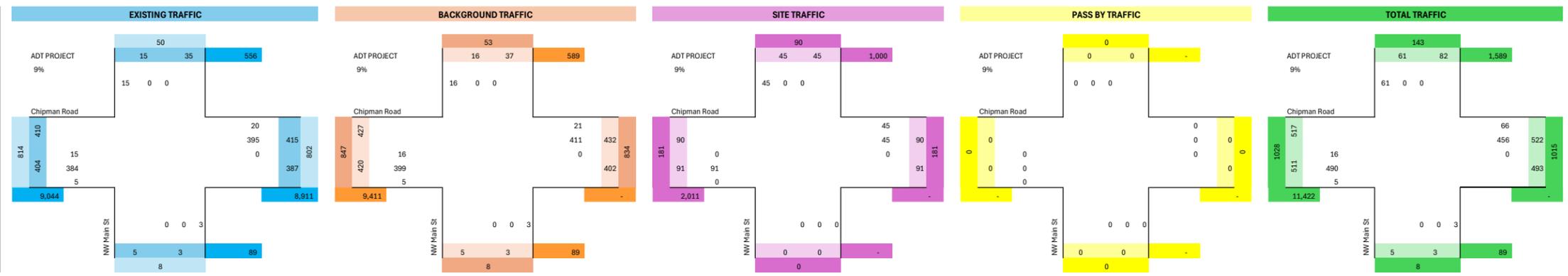
N/S	Douglas Street	SITE TRIP PM PEAK HOUR				PASS BY PM PEAK HOUR				TOTAL
E/W	High School Drive	IN	OUT	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
GR	2.0%	454	454							
YRS	2									
INT #	70200									
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT %	DIR %	IN/ OUT %	DIR %	IN/ OUT %	TOTAL TRAFFIC
EBL	0	1.04	0	40%	454					182
EBT	0	1.04	0							0
EBR	0	1.04	0	15%	454					68
WBL	22	1.04	23							23
WBT	0	1.04	0							0
WBR	36	1.04	37							37
NBL	0	1.04	0	45%	454					204
NBT	520	1.04	541							-10
NBR	120	1.04	125							0
SBL	72	1.04	75							75
SBT	287	1.04	298	30%	454					136
SBR	0	1.04	0	10%	454					45



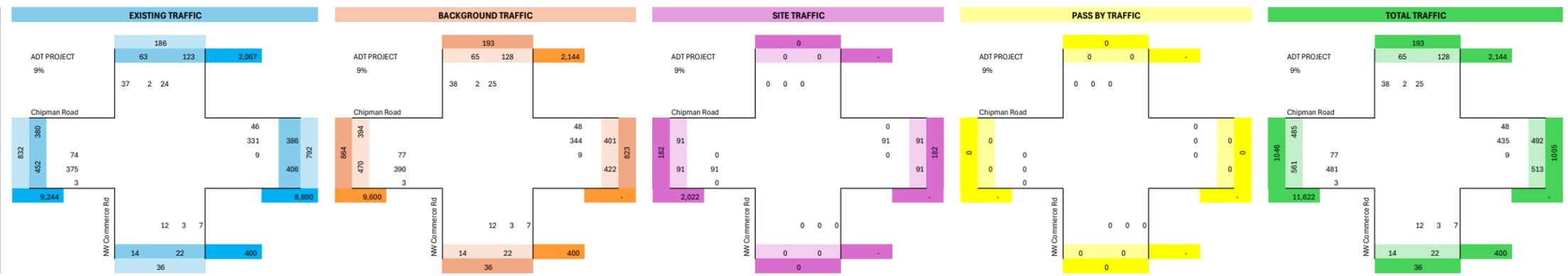
N/S	Douglas Drive			SITE TRIP				PASS BY				TOTAL		
E/W	Chipman Road			PM PEAK HOUR				PM PEAK HOUR						
GR	2.0%			IN	454			IN	169					
YRS	2			OUT	454			OUT	169					
INT #	80200													
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	TOTAL TRAFFIC
EBL	111	1.04	115	20%	454			91					0	206
EBT	136	1.04	141					0					0	141
EBR	20	1.04	21					0					0	21
WBL	12	1.04	12					0					0	12
WBT	263	1.04	274	5%	454			23					0	297
WBR	152	1.04	158	10%	454			45					0	203
NBL	77	1.04	80	5%	454			23					0	103
NBT	372	1.04	387	15%	454			68					0	455
NBR	22	1.04	23					0					0	23
SBL	54	1.04	56	15%	454			68					0	124
SBT	154	1.04	160	20%	454			91					0	251
SBR	101	1.04	105	10%	454			45					0	150



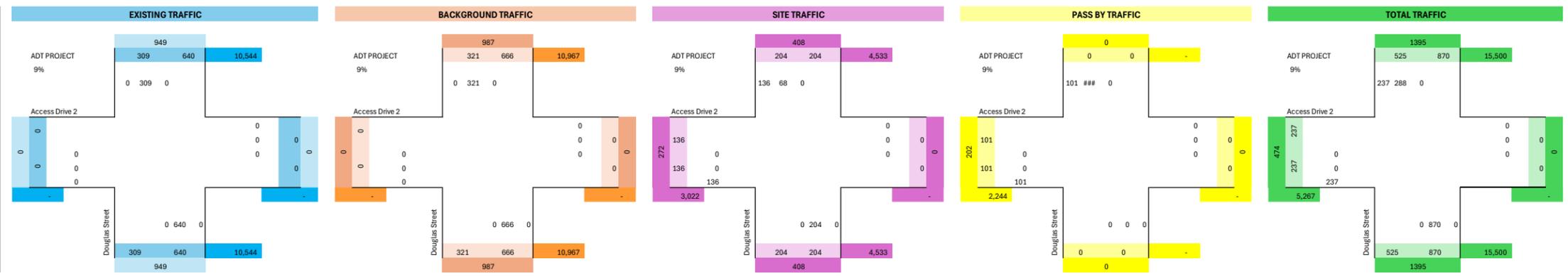
N/S	NW Main St			SITE TRIP				PASS BY				TOTAL		
E/W	Chipman Road			PM PEAK HOUR				PM PEAK HOUR						
GR	2.0%			IN	454			IN	169					
YRS	2			OUT	454			OUT	169					
INT #	90200													
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	TOTAL TRAFFIC
EBL	15	1.04	16					0					0	16
EBT	384	1.04	399	20%	454			91					0	490
EBR	5	1.04	5					0					0	5
WBL	0	1.04	0					0					0	0
WBT	395	1.04	411	10%	454			45					0	456
WBR	20	1.04	21	10%	454			45					0	66
NBL	0	1.04	0					0					0	0
NBT	0	1.04	0					0					0	0
NBR	3	1.04	3					0					0	3
SBL	0	1.04	0					0					0	0
SBT	0	1.04	0					0					0	0
SBR	15	1.04	16	10%	454			45					0	61



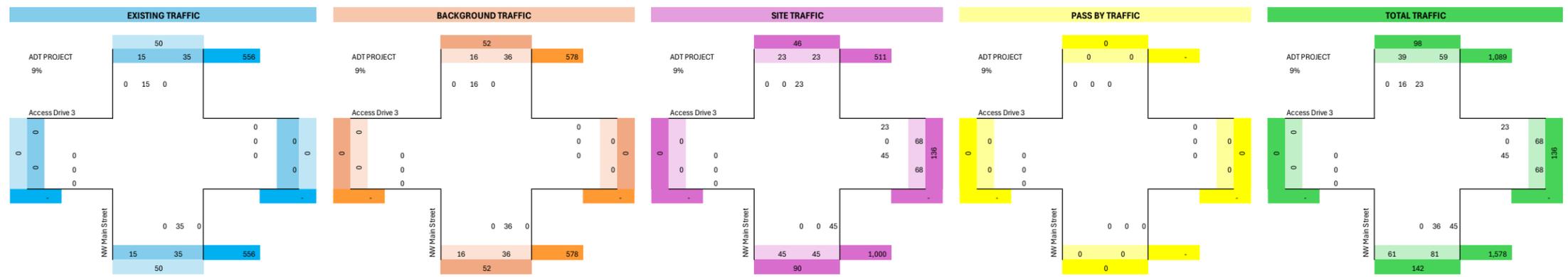
N/S E/W	NW Commerce Rd Chipman Road			SITE TRIP PM PEAK HOUR				PASS BY PM PEAK HOUR				TOTAL		
GR	2.0%			IN	454			IN	169					
YRS	2			OUT	454			OUT	169					
INT #	1E+05													
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	TOTAL TRAFFIC
EBL	74	1.04	77					0					0	77
EBT	375	1.04	390	20%	454			91					0	481
EBR	3	1.04	3					0					0	3
WBL	9	1.04	9					0					0	9
WBT	331	1.04	344	20%	454			91					0	435
WBR	46	1.04	48					0					0	48
NBL	12	1.04	12					0					0	12
NBT	3	1.04	3					0					0	3
NBR	7	1.04	7					0					0	7
SBL	24	1.04	25					0					0	25
SBT	2	1.04	2					0					0	2
SBR	37	1.04	38					0					0	38



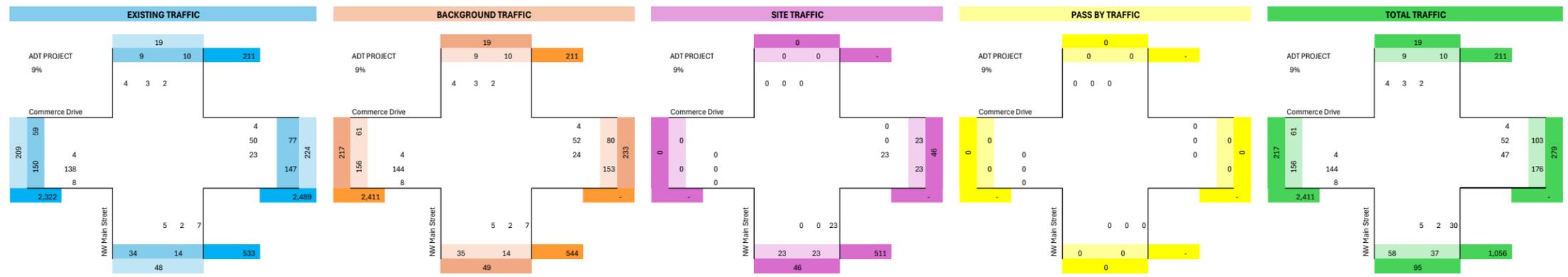
N/S E/W	Douglas Street Access Drive 2			SITE TRIP PM PEAK HOUR				PASS BY PM PEAK HOUR				TOTAL		
GR	2.0%			IN	454			IN	169					
YRS	2			OUT	454			OUT	169					
INT #	10200													
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	TOTAL TRAFFIC
EBL		1.04	0					0					0	0
EBT		1.04	0					0					0	0
EBR		1.04	0	30%	454			136	60%	169			101	237
WBL		1.04	0					0					0	0
WBT		1.04	0					0					0	0
WBR		1.04	0					0					0	0
NBL		1.04	0					0					0	0
NBT	640	1.04	666	45%	454			204					0	870
NBR		1.04	0					0					0	0
SBL		1.04	0					0					0	0
SBT	309	1.04	321	15%	454			68	-60%	169			###	288
SBR		1.04	0	30%	454			136	60%	169			101	237



N/S	NW Main Street			SITE TRIP				PASS BY				TOTAL		
E/W	Access Drive 3			PM PEAK HOUR				PM PEAK HOUR						
GR	2.0%			IN	454			IN	169					
YRS	2			OUT	454			OUT	169					
INT #	20200													
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	TOTAL TRAFFIC
EBL	1.04	0						0					0	0
EBT	1.04	0						0					0	0
EBR	1.04	0						0					0	0
WBL	1.04	0		10%	454			45					0	45
WBT	1.04	0						0					0	0
WBR	1.04	0		5%	454			23					0	23
NBL	1.04	0						0					0	0
NBT	35	1.04	36					0					0	36
NBR	1.04	0		10%	454			45					0	45
SBL	1.04	0		5%	454			23					0	23
SBR	15	1.04	16					0					0	16
SBR	1.04	0						0					0	0



N/S	NW Main Street			SITE TRIP				PASS BY				TOTAL		
E/W	Commerce Drive			PM PEAK HOUR				PM PEAK HOUR						
GR	2.0%			IN	454			IN	169					
YRS	2			OUT	454			OUT	169					
INT #	1E+05													
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	TOTAL TRAFFIC
EBL	4	1.04	4					0					0	4
EBT	138	1.04	144					0					0	144
EBR	8	1.04	8					0					0	8
WBL	23	1.04	24	5%	454			23					0	47
WBT	50	1.04	52					0					0	52
WBR	4	1.04	4					0					0	4
NBL	5	1.04	5					0					0	5
NBT	2	1.04	2					0					0	2
NBR	7	1.04	7	5%	454			23					0	30
SBL	2	1.04	2					0					0	2
SBR	3	1.04	3					0					0	3
SBR	4	1.04	4					0					0	4



Warrant 1, Eight-Hour Vehicular Volume (MUTCD Section 4C.02) - MoDOT EPG 902.3.2

EXISTING TRAFFIC

N/S Street  
E/W Street

Douglas Street  
High School Drive

**WARRANT RESULT:** SIGNAL NOT WARRANTED

Condition A — Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% <sup>a</sup>	80% <sup>b</sup>	70% <sup>c</sup>	56% <sup>d</sup>	100% <sup>a</sup>	80% <sup>b</sup>	70% <sup>c</sup>	56% <sup>d</sup>
1	1	500	400	350	280	150	120	105	84
2+	1	600	480	420	336	150	120	105	84
2+	2+	600	480	420	336	200	160	140	112
1	2+	500	400	350	280	200	160	140	112

Condition B — Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100% <sup>a</sup>	80% <sup>b</sup>	70% <sup>c</sup>	56% <sup>d</sup>	100% <sup>a</sup>	80% <sup>b</sup>	70% <sup>c</sup>	56% <sup>d</sup>
1	1	750	600	525	420	75	60	53	42
2+	1	900	720	630	504	75	60	53	42
2+	2+	900	720	630	504	100	80	70	56
1	2+	750	600	525	420	100	80	70	56

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street								

<b>1</b>	<b>1</b>	<b>NB/SB</b>	<b>PM PEAK</b>	<b>8TH HR</b>	<b>EB</b>	<b>PM PEAK</b>	<b>8TH HR</b>
			<b>1424</b>	<b>1280</b>		<b>318</b>	<b>286</b>

	VOLUME	STAND.	MET	VOLUME	STAND.	MET	WARRANT
<b>Condition A</b>							
100%	1280	500	YES	286	150	YES	YES
80%	1280	400	YES	286	120	YES	YES
70%	1280	350	YES	286	105	YES	YES
56%	1280	280	YES	286	84	YES	YES
<b>Condition B</b>							
100%	1280	750	YES	286	75	YES	YES
80%	1280	600	YES	286	60	YES	YES
70%	1280	525	YES	286	53	YES	YES
56%	1280	420	YES	286	42	YES	YES

Source MODOT Traffic Volume Map

Count Time	NB	SB	Traffic Volume	% of 24 Hr
1	39	42	81	0.35%
2	20	23	43	0.19%
3	20	15	35	0.15%
4	29	15	44	0.19%
5	69	27	96	0.42%
6	235	81	316	1.38%
7	520	230	750	3.27%
8	696	664	1360	5.92%
9	559	718	1277	5.56%
10	637	745	1382	6.02%
11	686	810	1496	6.52%
12	696	918	1614	7.03%
13	716	987	1703	7.42%
14	725	1002	1727	7.52%
15	843	1060	1903	8.29%
16	716	1064	1780	7.75%
17	735	1060	1795	7.82%
18	657	925	1582	6.89%
19	627	745	1372	5.98%
20	392	503	895	3.90%
21	294	361	655	2.85%
22	235	299	534	2.33%
23	167	200	367	1.60%
24	69	81	150	0.65%
TOTAL	10382	12575	22957	

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

12/11/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	141	21	12	274	158	80	387	23	56	160	105
Future Volume (veh/h)	115	141	21	12	274	158	80	387	23	56	160	105
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	125	153	23	13	298	172	87	421	25	61	174	114
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	153	1214	179	26	1135	506	488	1335	79	413	719	609
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Prop Arrive On Green	0.17	0.78	0.78	0.01	0.32	0.32	0.04	0.39	0.39	0.04	0.38	0.38
Unsig. Movement Delay												
Ln Grp Delay, s/veh	58.7	8.5	8.5	72.6	30.9	33.0	21.1	26.5	26.5	21.4	25.9	25.2
Ln Grp LOS	E	A	A	E	C	C	C	C	C	C	C	C
Approach Vol, veh/h		301			483			533			349	
Approach Delay, s/veh		29.4			32.8			25.6			24.9	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		9.3	52.0	6.8	51.9	10.2	51.1	15.3	43.3			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	4.8			
Max Q Clear (g_c+I1), s		4.5	12.3	2.9	3.5	5.5	9.6	10.1	11.9			
Green Ext Time (g_e), s		0.0	2.9	0.0	1.0	0.0	1.4	0.2	2.1			
Prob of Phs Call (p_c)		0.87	1.00	0.35	1.00	0.94	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.01	0.00	1.00	0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3409		3106		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			202		459		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt		1	0	3	0	5	0	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

12/11/2025

Lane Assignment	L (Pr/Pm)	L (Prot)						
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	61	0	13	0	87	0	125	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.5	0.0	0.9	0.0	3.5	0.0	8.1	0.0
Cycle Q Clear Time (g_c), s	2.5	0.0	0.9	0.0	3.5	0.0	8.1	0.0
Perm LT Sat Flow (s_l), veh/h/ln	944	0	0	0	1091	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	46.1	0.0	0.0	0.0	46.1	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	36.7	0.0	0.0	0.0	38.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.7	0.0	0.0	0.0	0.7	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	413	0	26	0	488	0	153	0
V/C Ratio (X)	0.15	0.00	0.50	0.00	0.18	0.00	0.82	0.00
Avail Cap (c_a), veh/h	438	0	134	0	514	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	21.3	0.0	58.7	0.0	20.9	0.0	48.7	0.0
Incr Delay (d2), s/veh	0.2	0.0	13.9	0.0	0.2	0.0	10.0	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	21.4	0.0	72.6	0.0	21.1	0.0	58.7	0.0
1st-Term Q (Q1), veh/ln	1.0	0.0	0.4	0.0	1.5	0.0	3.3	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.4	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	0.5	0.0	1.5	0.0	3.8	0.0
%ile Storage Ratio (RQ%)	0.02	0.00	0.06	0.00	0.11	0.00	0.28	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	219	0	86	0	174	0	298
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	10.3	0.0	1.4	0.0	7.6	0.0	7.5
Cycle Q Clear Time (g_c), s	0.0	10.3	0.0	1.4	0.0	7.6	0.0	7.5
Lane Grp Cap (c), veh/h	0	696	0	694	0	719	0	1135
V/C Ratio (X)	0.00	0.31	0.00	0.12	0.00	0.24	0.00	0.26
Avail Cap (c_a), veh/h	0	696	0	694	0	719	0	1135
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.3	0.0	8.1	0.0	25.1	0.0	30.3
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.4	0.0	0.8	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
Control Delay (d), s/veh	0.0	26.5	0.0	8.5	0.0	25.9	0.0	30.9
1st-Term Q (Q1), veh/ln	0.0	4.3	0.0	0.5	0.0	3.4	0.0	3.2

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.6	0.0	0.6	0.0	3.5	0.0	3.3
%ile Storage Ratio (RQ%)	0.00	0.34	0.00	0.03	0.00	0.08	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

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	227	0	90	0	114	0	172
Grp Sat Flow (s), veh/h/ln	0	1834	0	1788	0	1585	0	1585
Q Serve Time (g_s), s	0.0	10.3	0.0	1.5	0.0	5.7	0.0	9.9
Cycle Q Clear Time (g_c), s	0.0	10.3	0.0	1.5	0.0	5.7	0.0	9.9
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	0.11	0.00	0.26	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	718	0	699	0	609	0	506
V/C Ratio (X)	0.00	0.32	0.00	0.13	0.00	0.19	0.00	0.34
Avail Cap (c_a), veh/h	0	718	0	699	0	609	0	506
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.3	0.0	8.1	0.0	24.5	0.0	31.2
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.4	0.0	0.7	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	26.5	0.0	8.5	0.0	25.2	0.0	33.0
1st-Term Q (Q1), veh/ln	0.0	4.5	0.0	0.6	0.0	2.2	0.0	3.8
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.1	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.7	0.0	0.6	0.0	2.3	0.0	4.1
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	0.04	0.00	0.32	0.00	0.52
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 7th Control Delay, s/veh	28.2
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	84	28	85	198	191	82	379	106	226	268	114
Future Volume (veh/h)	47	84	28	85	198	191	82	379	106	226	268	114
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	91	30	92	215	208	89	412	115	246	291	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	150	474	211	304	280	250	680	2074	925	705	1514	630
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.13	0.13	0.06	0.16	0.16	0.08	1.00	1.00	0.07	0.62	0.62
Unsig. Movement Delay												
Ln Grp Delay, s/veh	44.8	46.4	46.2	41.6	55.0	61.4	8.7	0.2	0.3	7.8	10.3	10.3
Ln Grp LOS	D	D	D	D	D	E	A	A	A	A	B	B
Approach Vol, veh/h		172			515			616			661	
Approach Delay, s/veh		45.9			55.2			1.5			9.4	
Approach LOS		D			E			A			A	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		13.5	74.5	11.5	20.5	9.2	78.8	8.6	23.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.9	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		8.3	2.0	7.3	4.7	4.4	8.3	4.9	17.3			
Green Ext Time (g_e), s		0.7	3.3	0.1	0.6	0.0	2.8	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.95	1.00	0.95	1.00	0.82	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.45			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2446		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1018		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	246	0	92	0	89	0	51	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.3	0.0	5.3	0.0	2.4	0.0	2.9	0.0
Cycle Q Clear Time (g_c), s	6.3	0.0	5.3	0.0	2.4	0.0	2.9	0.0
Perm LT Sat Flow (s_l), veh/h/ln	876	0	1270	0	971	0	964	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	71.8	0.0	16.4	0.0	70.0	0.0	16.0	0.0
Perm LT Serve Time (g_u), s	70.0	0.0	13.3	0.0	67.9	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	0.7	0.0	0.2	0.0	0.2	0.0	0.7	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	705	0	304	0	680	0	150	0
V/C Ratio (X)	0.35	0.00	0.30	0.00	0.13	0.00	0.34	0.00
Avail Cap (c_a), veh/h	1039	0	356	0	706	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	7.5	0.0	41.1	0.0	8.6	0.0	43.5	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.6	0.0	0.1	0.0	1.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	7.8	0.0	41.6	0.0	8.7	0.0	44.8	0.0
1st-Term Q (Q1), veh/ln	2.3	0.0	2.3	0.0	0.9	0.0	1.3	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.3	0.0	2.4	0.0	0.9	0.0	1.4	0.0
%ile Storage Ratio (RQ%)	0.17	0.00	0.40	0.00	0.15	0.00	0.21	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	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	412	0	91	0	209	0	215
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	2.7	0.0	6.1	0.0	13.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.7	0.0	6.1	0.0	13.9
Lane Grp Cap (c), veh/h	0	2074	0	474	0	1100	0	280
V/C Ratio (X)	0.00	0.20	0.00	0.19	0.00	0.19	0.00	0.77
Avail Cap (c_a), veh/h	0	2074	0	903	0	1100	0	378
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	46.2	0.0	9.9	0.0	48.5
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.0	0.4	0.0	6.5
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	0.2	0.0	46.4	0.0	10.3	0.0	55.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.2	0.0	2.3	0.0	6.2

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.2	0.0	2.5	0.0	6.7
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.09	0.00	0.12
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	115	0	30	0	206	0	208
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1687	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	2.0	0.0	6.3	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.0	0.0	6.3	0.0	15.3
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	1.00	0.00	1.00	0.00	0.60	0.00	1.00
Lane Grp Cap (c), veh/h	0	925	0	211	0	1044	0	250
V/C Ratio (X)	0.00	0.12	0.00	0.14	0.00	0.20	0.00	0.83
Avail Cap (c_a), veh/h	0	925	0	403	0	1044	0	337
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	45.9	0.0	9.9	0.0	49.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.4	0.0	12.4
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	0.3	0.0	46.2	0.0	10.3	0.0	61.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.8	0.0	2.3	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.8	0.0	2.4	0.0	6.9
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.15	0.00	0.09	0.00	0.13
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 7th Control Delay, s/veh	22.1
HCM 7th LOS	C

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	35	122	43	99	278	29	8	4	28	4	4	9
Future Vol, veh/h	35	122	43	99	278	29	8	4	28	4	4	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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	133	47	108	302	32	9	4	30	4	4	10

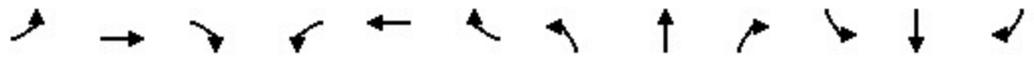
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	334	0	0	179	0	0	601	781	90	662	773	151
Stage 1	-	-	-	-	-	-	232	232	-	517	517	-
Stage 2	-	-	-	-	-	-	368	549	-	145	255	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1222	-	-	1394	-	-	384	325	950	347	328	868
Stage 1	-	-	-	-	-	-	750	711	-	509	532	-
Stage 2	-	-	-	-	-	-	624	515	-	843	695	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1222	-	-	1394	-	-	335	290	950	296	294	868
Mov Cap-2 Maneuver	-	-	-	-	-	-	335	290	-	296	294	-
Stage 1	-	-	-	-	-	-	727	689	-	470	491	-
Stage 2	-	-	-	-	-	-	564	475	-	786	673	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	1.41		1.9		11.51		13.27	
HCM LOS					B		B	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	596	1222	-	-	1394	-	-	454
HCM Lane V/C Ratio	0.073	0.031	-	-	0.077	-	-	0.041
HCM Ctrl Dly (s/v)	11.5	8	-	-	7.8	-	-	13.3
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.3	-	-	0.1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	390	3	9	344	48	12	3	7	25	2	38
Future Volume (veh/h)	77	390	3	9	344	48	12	3	7	25	2	38
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	424	3	10	374	52	13	3	8	27	2	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	107	2143	15	21	1706	235	259	66	139	187	29	247
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	0.06	0.59	0.59	0.02	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.3	11.7	11.7	73.9	0.5	0.5	32.2	0.0	0.0	33.6	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			C		
Approach Vol, veh/h		511			436			24			70	
Approach Delay, s/veh		20.8			2.2			32.2			33.6	
Approach LOS		C			A			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	5.9	76.1		38.0	11.7	70.3			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.4	3.8	5.2		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			3.2	2.7	8.5		5.8	7.6	2.0			
Green Ext Time (g_e), s			0.1	0.0	2.8		0.3	0.1	2.8			
Prob of Phs Call (p_c)			1.00	0.28	1.00		1.00	0.94	1.00			
Prob of Max Out (p_x)			0.00	0.00	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			774	1781			528	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			239		3617		107		3136			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			506		26		898		433			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

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Lane Assignment	L+T+R L (Prot)				L+T+R L (Prot)			
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	24	10	0	0	70	84	0
Grp Sat Flow (s), veh/h/ln	0	1519	1781	0	0	1533	1781	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.6	5.6	0.0
Cycle Q Clear Time (g_c), s	0.0	1.2	0.7	0.0	0.0	3.8	5.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1385	0	0	0	1426	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1821	0	0	0	1835	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	29.2	0.0	0.0	0.0	31.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Time to First Blk (g_f), s	0.0	1.7	0.0	0.0	0.0	3.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.2	0.0	0.0	0.0	3.2	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.54	1.00	0.00	0.00	0.39	1.00	0.00
Lane Grp Cap (c), veh/h	0	464	21	0	0	463	107	0
V/C Ratio (X)	0.00	0.05	0.48	0.00	0.00	0.15	0.78	0.00
Avail Cap (c_a), veh/h	0	464	141	0	0	463	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.0	58.2	0.0	0.0	32.9	55.6	0.0
Incr Delay (d2), s/veh	0.0	0.2	15.7	0.0	0.0	0.7	11.6	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	0.0	32.2	73.9	0.0	0.0	33.6	67.3	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.3	0.0	0.0	1.6	2.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.1	0.3	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	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.4	0.0	0.0	1.6	2.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.11	0.00	0.00	0.18	0.81	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	208	0	0	0	211
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1053	0	0	0	966
V/C Ratio (X)	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.22
Avail Cap (c_a), veh/h	0	0	0	1053	0	0	0	966
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	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	0.0	0.0	11.7	0.0	0.0	0.0	0.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0

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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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	219	0	0	0	215
Grp Sat Flow (s), veh/h/ln	0	0	0	1866	0	0	0	1792
Q Serve Time (g_s), s	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.5	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	0.33	0.00	0.01	0.00	0.59	0.00	0.24
Lane Grp Cap (c), veh/h	0	0	0	1105	0	0	0	975
V/C Ratio (X)	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.22
Avail Cap (c_a), veh/h	0	0	0	1105	0	0	0	975
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	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	0.0	0.0	11.7	0.0	0.0	0.0	0.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.7	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	0.1
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	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 7th Control Delay, s/veh	14.2
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	16	399	411	21	0	16
Future Vol, veh/h	16	399	411	21	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	17	434	447	23	0	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	470	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1088	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1088	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.32	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1088	-	-	-	767
HCM Lane V/C Ratio	0.016	-	-	-	0.023
HCM Ctrl Dly (s/v)	8.4	-	-	-	9.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	144	8	24	52	4	5	2	7	2	3	4
Future Vol, veh/h	4	144	8	24	52	4	5	2	7	2	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	157	9	26	57	4	5	2	8	2	3	4

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	61	0	0	165	0	0	280	283	161	277	285	59
Stage 1	-	-	-	-	-	-	170	170	-	111	111	-
Stage 2	-	-	-	-	-	-	110	113	-	166	174	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1413	-	-	672	626	884	675	624	1007
Stage 1	-	-	-	-	-	-	832	758	-	894	804	-
Stage 2	-	-	-	-	-	-	895	802	-	836	755	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1413	-	-	651	612	884	652	611	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	651	612	-	652	611	-
Stage 1	-	-	-	-	-	-	830	756	-	877	788	-
Stage 2	-	-	-	-	-	-	870	787	-	824	753	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0.19		2.28		9.95		9.84	
HCM LOS					A		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	742	46	-	-	532	-	-	753
HCM Lane V/C Ratio	0.021	0.003	-	-	0.018	-	-	0.013
HCM Ctrl Dly (s/v)	10	7.3	0	-	7.6	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection						
Int Delay, s/veh	1.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	23	37	541	125	75	298
Future Vol, veh/h	23	37	541	125	75	298
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	40	588	136	82	324

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	981	362	0	0	724
Stage 1	656	-	-	-	-
Stage 2	325	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	247	635	-	-	874
Stage 1	478	-	-	-	-
Stage 2	705	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	221	635	-	-	874
Mov Cap-2 Maneuver	221	-	-	-	-
Stage 1	478	-	-	-	-
Stage 2	632	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	16.8	0	2.44
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	370	724
HCM Lane V/C Ratio	-	-	0.176	0.093
HCM Ctrl Dly (s/v)	-	-	16.8	9.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.6	0.3

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	141	21	12	297	203	103	455	23	124	251	150
Future Volume (veh/h)	206	141	21	12	297	203	103	455	23	124	251	150
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	153	23	13	323	221	112	495	25	135	273	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	251	1171	173	26	891	398	411	1348	68	404	727	616
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Prop Arrive On Green	0.24	0.63	0.63	0.01	0.25	0.25	0.05	0.39	0.39	0.03	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.1	14.7	14.7	72.6	38.2	44.6	21.3	27.4	27.4	22.0	33.9	31.8
Ln Grp LOS	E	B	B	E	D	D	C	C	C	C	C	C
Approach Vol, veh/h		400			557			632			571	
Approach Delay, s/veh		43.5			41.6			26.3			30.5	
Approach LOS		D			D			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		11.0	52.0	6.8	50.2	11.4	51.6	21.9	35.1			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	4.8			
Max Q Clear (g_c+I1), s		7.5	14.3	2.9	4.4	6.5	16.4	16.6	16.6			
Green Ext Time (g_e), s		0.0	3.4	0.0	1.0	0.0	2.3	0.3	1.9			
Prob of Phs Call (p_c)		0.99	1.00	0.35	1.00	0.98	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.01	0.00	1.00	0.00	0.31	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3442		3106		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			174		459		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt		1	0	3	0	5	0	7	0			

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Lane Assignment	L (Pr/Pm)	L (Prot)						
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	135	0	13	0	112	0	224	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.5	0.0	0.9	0.0	4.5	0.0	14.6	0.0
Cycle Q Clear Time (g_c), s	5.5	0.0	0.9	0.0	4.5	0.0	14.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	882	0	0	0	953	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	46.6	0.0	0.0	0.0	46.6	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	34.7	0.0	0.0	0.0	32.3	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.2	0.0	0.0	0.0	1.9	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	404	0	26	0	411	0	251	0
V/C Ratio (X)	0.33	0.00	0.50	0.00	0.27	0.00	0.89	0.00
Avail Cap (c_a), veh/h	404	0	134	0	420	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	21.5	0.0	58.7	0.0	20.9	0.0	45.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	13.9	0.0	0.4	0.0	21.1	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	22.0	0.0	72.6	0.0	21.3	0.0	66.1	0.0
1st-Term Q (Q1), veh/ln	2.3	0.0	0.4	0.0	1.9	0.0	5.9	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.0	0.0	1.5	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.4	0.0	0.5	0.0	1.9	0.0	7.3	0.0
%ile Storage Ratio (RQ%)	0.10	0.00	0.06	0.00	0.14	0.00	0.55	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	255	0	86	0	273	0	323
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	12.2	0.0	2.4	0.0	14.4	0.0	9.0
Cycle Q Clear Time (g_c), s	0.0	12.2	0.0	2.4	0.0	14.4	0.0	9.0
Lane Grp Cap (c), veh/h	0	696	0	670	0	727	0	891
V/C Ratio (X)	0.00	0.37	0.00	0.13	0.00	0.38	0.00	0.36
Avail Cap (c_a), veh/h	0	696	0	670	0	727	0	891
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.9	0.0	14.3	0.0	32.4	0.0	37.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	0.4	0.0	1.5	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	27.4	0.0	14.7	0.0	33.9	0.0	38.2
1st-Term Q (Q1), veh/ln	0.0	5.2	0.0	0.9	0.0	6.9	0.0	3.9

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2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	0.0	0.3	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.5	0.0	1.0	0.0	7.2	0.0	4.1
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.06	0.00	0.29	0.00	0.06
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		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	265	0	90	0	163	0	221
Grp Sat Flow (s), veh/h/ln	0	1839	0	1788	0	1585	0	1585
Q Serve Time (g_s), s	0.0	12.3	0.0	2.4	0.0	9.8	0.0	14.6
Cycle Q Clear Time (g_c), s	0.0	12.3	0.0	2.4	0.0	9.8	0.0	14.6
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	0.09	0.00	0.26	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	720	0	674	0	616	0	398
V/C Ratio (X)	0.00	0.37	0.00	0.13	0.00	0.26	0.00	0.56
Avail Cap (c_a), veh/h	0	720	0	674	0	616	0	398
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.9	0.0	14.3	0.0	30.7	0.0	39.1
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.4	0.0	1.0	0.0	5.5
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	27.4	0.0	14.7	0.0	31.8	0.0	44.6
1st-Term Q (Q1), veh/ln	0.0	5.4	0.0	1.0	0.0	3.9	0.0	5.7
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.6
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.7	0.0	1.1	0.0	4.1	0.0	6.3
%ile Storage Ratio (RQ%)	0.00	0.42	0.00	0.06	0.00	0.58	0.00	0.80
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 7th Control Delay, s/veh	34.5
HCM 7th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	84	73	130	198	191	127	470	151	226	359	114
Future Volume (veh/h)	47	84	73	130	198	191	127	470	151	226	359	114
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	91	79	141	215	208	138	511	164	246	390	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	151	384	171	313	280	250	626	2067	922	640	1621	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.11	0.11	0.08	0.16	0.16	0.10	1.00	1.00	0.08	0.61	0.61
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.1	49.3	52.2	41.9	55.0	61.4	8.7	0.3	0.4	8.2	11.2	11.3
Ln Grp LOS	D	D	D	D	D	E	A	A	A	A	B	B
Approach Vol, veh/h		221			564			813			760	
Approach Delay, s/veh		49.8			54.1			1.7			10.3	
Approach LOS		D			D			A			B	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		13.6	74.3	14.6	17.5	10.3	77.6	8.7	23.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.7	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		8.4	2.0	10.2	7.6	5.9	10.2	5.0	17.3			
Green Ext Time (g_e), s		0.7	4.3	0.0	0.7	0.0	3.5	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.99	1.00	0.82	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.45			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2661		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		836		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	246	0	141	0	138	0	51	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.4	0.0	8.2	0.0	3.9	0.0	3.0	0.0
Cycle Q Clear Time (g_c), s	6.4	0.0	8.2	0.0	3.9	0.0	3.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	764	0	1215	0	887	0	964	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	70.6	0.0	15.0	0.0	69.8	0.0	13.0	0.0
Perm LT Serve Time (g_u), s	69.8	0.0	10.2	0.0	65.0	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	0.4	0.0	0.6	0.0	0.8	0.0	0.5	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	640	0	313	0	626	0	151	0
V/C Ratio (X)	0.38	0.00	0.45	0.00	0.22	0.00	0.34	0.00
Avail Cap (c_a), veh/h	972	0	319	0	636	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	7.8	0.0	40.9	0.0	8.6	0.0	45.8	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.0	0.0	0.2	0.0	1.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.2	0.0	41.9	0.0	8.7	0.0	47.1	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	3.6	0.0	1.3	0.0	1.3	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.4	0.0	3.7	0.0	1.4	0.0	1.4	0.0
%ile Storage Ratio (RQ%)	0.18	0.00	0.62	0.00	0.23	0.00	0.22	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	511	0	91	0	259	0	215
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	2.8	0.0	8.0	0.0	13.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.8	0.0	8.0	0.0	13.9
Lane Grp Cap (c), veh/h	0	2067	0	384	0	1083	0	280
V/C Ratio (X)	0.00	0.25	0.00	0.24	0.00	0.24	0.00	0.77
Avail Cap (c_a), veh/h	0	2067	0	903	0	1083	0	378
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	49.0	0.0	10.7	0.0	48.5
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.5	0.0	6.5
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	0.3	0.0	49.3	0.0	11.2	0.0	55.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.3	0.0	3.1	0.0	6.2

HCM 7th Signalized Intersection Capacity Analysis  
 6: Douglas Street & Tudor Road

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.3	0.0	3.2	0.0	6.7
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.12	0.00	0.12
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	164	0	79	0	255	0	208
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1720	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	5.6	0.0	8.2	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	5.6	0.0	8.2	0.0	15.3
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	1.00	0.00	1.00	0.00	0.49	0.00	1.00
Lane Grp Cap (c), veh/h	0	922	0	171	0	1048	0	250
V/C Ratio (X)	0.00	0.18	0.00	0.46	0.00	0.24	0.00	0.83
Avail Cap (c_a), veh/h	0	922	0	403	0	1048	0	337
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	50.2	0.0	10.8	0.0	49.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	1.9	0.0	0.6	0.0	12.4
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	0.4	0.0	52.2	0.0	11.3	0.0	61.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.2	0.0	3.0	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	2.3	0.0	3.2	0.0	6.9
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.42	0.00	0.12	0.00	0.13
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 7th Control Delay, s/veh	21.5
HCM 7th LOS	C

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	35	167	43	99	323	52	31	4	28	4	4	9
Future Vol, veh/h	35	167	43	99	323	52	31	4	28	4	4	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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	182	47	108	351	57	34	4	30	4	4	10

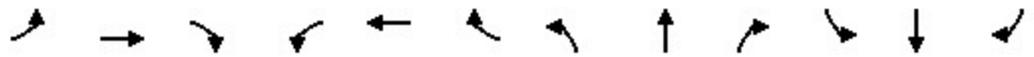
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	408	0	0	228	0	0	674	904	114	735	871	176
Stage 1	-	-	-	-	-	-	281	281	-	566	566	-
Stage 2	-	-	-	-	-	-	393	623	-	169	304	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1148	-	-	1337	-	-	340	275	917	307	288	837
Stage 1	-	-	-	-	-	-	702	677	-	476	505	-
Stage 2	-	-	-	-	-	-	603	477	-	816	661	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1148	-	-	1337	-	-	295	245	917	260	256	837
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	245	-	260	256	-
Stage 1	-	-	-	-	-	-	679	655	-	438	465	-
Stage 2	-	-	-	-	-	-	543	438	-	758	639	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	1.18			1.66			15.41			14.26		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	414	1148	-	-	1337	-	-	407
HCM Lane V/C Ratio	0.165	0.033	-	-	0.08	-	-	0.045
HCM Ctrl Dly (s/v)	15.4	8.2	-	-	7.9	-	-	14.3
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.3	-	-	0.1

HCM 7th Signalized Intersection Capacity Analysis  
 12: Olive St/Commerce Dr & Chipman Road

12/11/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	481	3	9	435	48	12	3	7	25	2	38
Future Volume (veh/h)	77	481	3	9	435	48	12	3	7	25	2	38
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	523	3	10	473	52	13	3	8	27	2	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	107	2146	12	21	1757	192	259	66	139	187	29	247
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	0.06	0.59	0.59	0.02	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.3	12.2	12.2	73.9	0.7	0.7	32.2	0.0	0.0	33.6	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			C		
Approach Vol, veh/h		610			535			24			70	
Approach Delay, s/veh		19.8			2.0			32.2			33.6	
Approach LOS		B			A			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	5.9	76.1		38.0	11.7	70.3			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.4	3.8	5.2		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			3.2	2.7	10.3		5.8	7.6	2.0			
Green Ext Time (g_e), s			0.1	0.0	3.5		0.3	0.1	3.6			
Prob of Phs Call (p_c)			1.00	0.28	1.00		1.00	0.94	1.00			
Prob of Max Out (p_x)			0.00	0.00	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			774	1781			528	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			239		3623		107		3230			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			506		21		898		354			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
 12: Olive St/Commerce Dr & Chipman Road

12/11/2025

Lane Assignment	L+T+R L (Prot)			L+T+R L (Prot)				
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	24	10	0	0	70	84	0
Grp Sat Flow (s), veh/h/ln	0	1519	1781	0	0	1533	1781	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.6	5.6	0.0
Cycle Q Clear Time (g_c), s	0.0	1.2	0.7	0.0	0.0	3.8	5.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1385	0	0	0	1426	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1821	0	0	0	1835	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	29.2	0.0	0.0	0.0	31.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Time to First Blk (g_f), s	0.0	1.7	0.0	0.0	0.0	3.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.2	0.0	0.0	0.0	3.2	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.54	1.00	0.00	0.00	0.39	1.00	0.00
Lane Grp Cap (c), veh/h	0	464	21	0	0	463	107	0
V/C Ratio (X)	0.00	0.05	0.48	0.00	0.00	0.15	0.78	0.00
Avail Cap (c_a), veh/h	0	464	141	0	0	463	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.0	58.2	0.0	0.0	32.9	55.6	0.0
Incr Delay (d2), s/veh	0.0	0.2	15.7	0.0	0.0	0.7	11.6	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	0.0	32.2	73.9	0.0	0.0	33.6	67.3	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.3	0.0	0.0	1.6	2.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.1	0.3	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	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.4	0.0	0.0	1.6	2.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.11	0.00	0.00	0.18	0.81	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	256	0	0	0	259
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1053	0	0	0	966
V/C Ratio (X)	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.27
Avail Cap (c_a), veh/h	0	0	0	1053	0	0	0	966
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.7
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	12.2	0.0	0.0	0.0	0.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.05	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	270	0	0	0	266
Grp Sat Flow (s), veh/h/ln	0	0	0	1867	0	0	0	1807
Q Serve Time (g_s), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.3	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	0.33	0.00	0.01	0.00	0.59	0.00	0.20
Lane Grp Cap (c), veh/h	0	0	0	1106	0	0	0	983
V/C Ratio (X)	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.27
Avail Cap (c_a), veh/h	0	0	0	1106	0	0	0	983
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.7
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	12.2	0.0	0.0	0.0	0.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.05	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 7th Control Delay, s/veh	13.1
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	16	490	456	66	0	61
Future Vol, veh/h	16	490	456	66	0	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	17	533	496	72	0	66

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	567	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	1001	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1001	-	713
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.27	0	10.56
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1001	-	-	-	713
HCM Lane V/C Ratio	0.017	-	-	-	0.093
HCM Ctrl Dly (s/v)	8.7	-	-	-	10.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	144	8	47	52	4	5	2	30	2	3	4
Future Vol, veh/h	4	144	8	47	52	4	5	2	30	2	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	157	9	51	57	4	5	2	33	2	3	4

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	61	0	0	165	0	0	330	333	161	327	335	59
Stage 1	-	-	-	-	-	-	170	170	-	161	161	-
Stage 2	-	-	-	-	-	-	160	163	-	166	174	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1413	-	-	623	587	884	626	586	1007
Stage 1	-	-	-	-	-	-	832	758	-	841	765	-
Stage 2	-	-	-	-	-	-	842	763	-	836	755	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1542	-	-	1413	-	-	592	563	884	576	562	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	592	563	-	576	562	-
Stage 1	-	-	-	-	-	-	830	756	-	810	736	-
Stage 2	-	-	-	-	-	-	803	735	-	800	753	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0.19		3.49		9.7		10.18	
HCM LOS					A		B	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	806	46	-	-	810	-	-	704
HCM Lane V/C Ratio	0.05	0.003	-	-	0.036	-	-	0.014
HCM Ctrl Dly (s/v)	9.7	7.3	0	-	7.6	0	-	10.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0

Intersection												
Int Delay, s/veh	132.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Vol, veh/h	199	0	119	23	0	37	221	524	125	75	383	96
Future Vol, veh/h	199	0	119	23	0	37	221	524	125	75	383	96
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	216	0	129	25	0	40	240	570	136	82	416	104

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1397	1817	260	1489	1802	353	521	0	0	705	0	0
Stage 1	632	632	-	1118	1118	-	-	-	-	-	-	-
Stage 2	765	1186	-	371	684	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 101	77	738	86	79	644	1042	-	-	889	-	-
Stage 1	435	472	-	221	281	-	-	-	-	-	-	-
Stage 2	362	260	-	621	447	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 66	54	738	49	55	644	1042	-	-	889	-	-
Mov Cap-2 Maneuver	~ 66	54	-	49	55	-	-	-	-	-	-	-
Stage 1	395	429	-	170	216	-	-	-	-	-	-	-
Stage 2	261	200	-	465	406	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	\$ 729.88	59.1	2.41	1.71
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1042	-	-	66	738	49	644	381	-	-
HCM Lane V/C Ratio	0.231	-	-	3.282	0.175	0.505	0.062	0.092	-	-
HCM Ctrl Dly (s/v)	9.5	-	-	\$ 1159.8	10.9	136.5	11	9.5	0.6	-
HCM Lane LOS	A	-	-	F	B	F	B	A	A	-
HCM 95th %tile Q(veh)	0.9	-	-	22.4	0.6	1.9	0.2	0.3	-	-

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

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	237	0	870	288	237
Future Vol, veh/h	0	237	0	870	288	237
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	258	0	946	313	258

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	-	285	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	6.94	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	3.32	-
Pot Cap-1 Maneuver	0	711	0
Stage 1	0	-	0
Stage 2	0	-	0
Platoon blocked, %			-
Mov Cap-1 Maneuver	-	711	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	711	-	-
HCM Lane V/C Ratio	-	0.362	-	-
HCM Ctrl Dly (s/v)	-	12.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	1.7	-	-

Intersection						
Int Delay, s/veh	4.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	45	23	36	45	23	16
Future Vol, veh/h	45	23	36	45	23	16
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	25	39	49	25	17

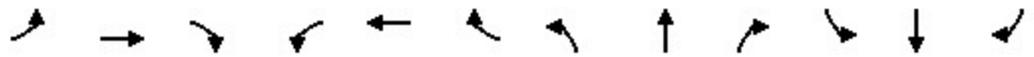
Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	131	64	0	0	88
Stage 1	64	-	-	-	-
Stage 2	67	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	863	1001	-	-	1508
Stage 1	959	-	-	-	-
Stage 2	955	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	849	1001	-	-	1508
Mov Cap-2 Maneuver	849	-	-	-	-
Stage 1	959	-	-	-	-
Stage 2	939	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.39	0	4.38
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	895	1062
HCM Lane V/C Ratio	-	-	0.083	0.017
HCM Ctrl Dly (s/v)	-	-	9.4	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	141	21	12	297	203	103	455	23	124	251	150
Future Volume (veh/h)	206	141	21	12	297	203	103	455	23	124	251	150
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	224	153	23	13	323	221	112	495	25	135	273	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	251	1171	173	26	891	398	460	1348	68	404	727	616
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Prop Arrive On Green	0.24	0.63	0.63	0.01	0.25	0.25	0.05	0.39	0.39	0.08	0.65	0.65
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.1	14.7	14.7	72.6	38.2	44.6	20.5	27.4	27.4	20.9	15.8	14.8
Ln Grp LOS	E	B	B	E	D	D	C	C	C	C	B	B
Approach Vol, veh/h		400			557			632			571	
Approach Delay, s/veh		43.5			41.6			26.2			16.7	
Approach LOS		D			D			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		11.0	52.0	6.8	50.2	11.4	51.6	21.9	35.1			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	4.8			
Max Q Clear (g_c+I1), s		7.6	14.3	2.9	4.4	6.5	10.1	16.6	16.6			
Green Ext Time (g_e), s		0.0	3.4	0.0	1.0	0.0	2.3	0.3	1.9			
Prob of Phs Call (p_c)		0.99	1.00	0.35	1.00	0.98	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.01	0.00	1.00	0.00	0.31	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3442		3106		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			174		459		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis  
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Lane Assignment	L (Pr/Pm)	L (Prot)						
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	135	0	13	0	112	0	224	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.6	0.0	0.9	0.0	4.5	0.0	14.6	0.0
Cycle Q Clear Time (g_c), s	5.6	0.0	0.9	0.0	4.5	0.0	14.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	882	0	0	0	953	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	46.6	0.0	0.0	0.0	46.6	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	34.7	0.0	0.0	0.0	38.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.1	0.0	0.0	0.0	1.1	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	404	0	26	0	460	0	251	0
V/C Ratio (X)	0.33	0.00	0.50	0.00	0.24	0.00	0.89	0.00
Avail Cap (c_a), veh/h	404	0	134	0	470	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	20.4	0.0	58.7	0.0	20.3	0.0	45.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	13.9	0.0	0.3	0.0	21.1	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	20.9	0.0	72.6	0.0	20.5	0.0	66.1	0.0
1st-Term Q (Q1), veh/ln	2.2	0.0	0.4	0.0	1.9	0.0	5.9	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.0	0.0	1.5	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.3	0.0	0.5	0.0	1.9	0.0	7.3	0.0
%ile Storage Ratio (RQ%)	0.09	0.00	0.06	0.00	0.14	0.00	0.55	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	255	0	86	0	273	0	323
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	12.2	0.0	2.4	0.0	8.1	0.0	9.0
Cycle Q Clear Time (g_c), s	0.0	12.2	0.0	2.4	0.0	8.1	0.0	9.0
Lane Grp Cap (c), veh/h	0	696	0	670	0	727	0	891
V/C Ratio (X)	0.00	0.37	0.00	0.13	0.00	0.38	0.00	0.36
Avail Cap (c_a), veh/h	0	696	0	670	0	727	0	891
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.9	0.0	14.3	0.0	14.3	0.0	37.0
Incr Delay (d2), s/veh	0.0	1.5	0.0	0.4	0.0	1.5	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	27.4	0.0	14.7	0.0	15.8	0.0	38.2
1st-Term Q (Q1), veh/ln	0.0	5.2	0.0	0.9	0.0	3.0	0.0	3.9

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2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	0.0	0.3	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.5	0.0	1.0	0.0	3.3	0.0	4.1
%ile Storage Ratio (RQ%)	0.00	0.41	0.00	0.06	0.00	0.14	0.00	0.06
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		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	265	0	90	0	163	0	221
Grp Sat Flow (s), veh/h/ln	0	1839	0	1788	0	1585	0	1585
Q Serve Time (g_s), s	0.0	12.3	0.0	2.4	0.0	5.2	0.0	14.6
Cycle Q Clear Time (g_c), s	0.0	12.3	0.0	2.4	0.0	5.2	0.0	14.6
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	0.09	0.00	0.26	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	720	0	674	0	616	0	398
V/C Ratio (X)	0.00	0.37	0.00	0.13	0.00	0.26	0.00	0.56
Avail Cap (c_a), veh/h	0	720	0	674	0	616	0	398
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.9	0.0	14.3	0.0	13.8	0.0	39.1
Incr Delay (d2), s/veh	0.0	1.4	0.0	0.4	0.0	1.0	0.0	5.5
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	27.4	0.0	14.7	0.0	14.8	0.0	44.6
1st-Term Q (Q1), veh/ln	0.0	5.4	0.0	1.0	0.0	1.7	0.0	5.7
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.6
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.7	0.0	1.1	0.0	1.9	0.0	6.3
%ile Storage Ratio (RQ%)	0.00	0.42	0.00	0.06	0.00	0.27	0.00	0.80
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 7th Control Delay, s/veh	30.8
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis  
6: Douglas Street & Tudor Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	84	73	130	198	191	127	470	151	226	359	114
Future Volume (veh/h)	47	84	73	130	198	191	127	470	151	226	359	114
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	51	91	79	141	215	208	138	511	164	246	390	124
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	151	384	171	313	280	250	626	2067	922	640	1621	509
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.03	0.11	0.11	0.08	0.16	0.16	0.10	1.00	1.00	0.08	0.61	0.61
Unsig. Movement Delay												
Ln Grp Delay, s/veh	47.1	49.3	52.2	41.9	55.0	61.4	8.7	0.3	0.4	8.2	11.2	11.3
Ln Grp LOS	D	D	D	D	D	E	A	A	A	A	B	B
Approach Vol, veh/h		221			564			813			760	
Approach Delay, s/veh		49.8			54.1			1.7			10.3	
Approach LOS		D			D			A			B	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		13.6	74.3	14.6	17.5	10.3	77.6	8.7	23.4			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.7	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		8.4	2.0	10.2	7.6	5.9	10.2	5.0	17.3			
Green Ext Time (g_e), s		0.7	4.3	0.0	0.7	0.0	3.5	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.99	1.00	0.82	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.45			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2661		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		836		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	246	0	141	0	138	0	51	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.4	0.0	8.2	0.0	3.9	0.0	3.0	0.0
Cycle Q Clear Time (g_c), s	6.4	0.0	8.2	0.0	3.9	0.0	3.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	764	0	1215	0	887	0	964	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	70.6	0.0	15.0	0.0	69.8	0.0	13.0	0.0
Perm LT Serve Time (g_u), s	69.8	0.0	10.2	0.0	65.0	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	0.4	0.0	0.6	0.0	0.8	0.0	0.5	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	640	0	313	0	626	0	151	0
V/C Ratio (X)	0.38	0.00	0.45	0.00	0.22	0.00	0.34	0.00
Avail Cap (c_a), veh/h	972	0	319	0	636	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.92	0.00	1.00	0.00
Uniform Delay (d1), s/veh	7.8	0.0	40.9	0.0	8.6	0.0	45.8	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.0	0.0	0.2	0.0	1.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	8.2	0.0	41.9	0.0	8.7	0.0	47.1	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	3.6	0.0	1.3	0.0	1.3	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.4	0.0	3.7	0.0	1.4	0.0	1.4	0.0
%ile Storage Ratio (RQ%)	0.18	0.00	0.62	0.00	0.23	0.00	0.22	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	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	511	0	91	0	259	0	215
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	2.8	0.0	8.0	0.0	13.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.8	0.0	8.0	0.0	13.9
Lane Grp Cap (c), veh/h	0	2067	0	384	0	1083	0	280
V/C Ratio (X)	0.00	0.25	0.00	0.24	0.00	0.24	0.00	0.77
Avail Cap (c_a), veh/h	0	2067	0	903	0	1083	0	378
Upstream Filter (I)	0.00	0.92	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	49.0	0.0	10.7	0.0	48.5
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.5	0.0	6.5
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	0.3	0.0	49.3	0.0	11.2	0.0	55.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.3	0.0	3.1	0.0	6.2

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.3	0.0	3.2	0.0	6.7
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.12	0.00	0.12
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	164	0	79	0	255	0	208
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1720	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	5.6	0.0	8.2	0.0	15.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	5.6	0.0	8.2	0.0	15.3
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	1.00	0.00	1.00	0.00	0.49	0.00	1.00
Lane Grp Cap (c), veh/h	0	922	0	171	0	1048	0	250
V/C Ratio (X)	0.00	0.18	0.00	0.46	0.00	0.24	0.00	0.83
Avail Cap (c_a), veh/h	0	922	0	403	0	1048	0	337
Upstream Filter (I)	0.00	0.92	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	50.2	0.0	10.8	0.0	49.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	1.9	0.0	0.6	0.0	12.4
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	0.4	0.0	52.2	0.0	11.3	0.0	61.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.2	0.0	3.0	0.0	6.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	2.3	0.0	3.2	0.0	6.9
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.42	0.00	0.12	0.00	0.13
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 7th Control Delay, s/veh	21.5
HCM 7th LOS	C

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	35	167	43	99	323	52	31	4	28	4	4	9
Future Vol, veh/h	35	167	43	99	323	52	31	4	28	4	4	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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	182	47	108	351	57	34	4	30	4	4	10

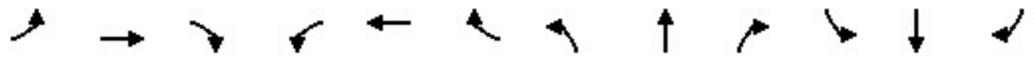
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	408	0	0	228	0	0	674	904	114	735	871	176
Stage 1	-	-	-	-	-	-	281	281	-	566	566	-
Stage 2	-	-	-	-	-	-	393	623	-	169	304	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1148	-	-	1337	-	-	340	275	917	307	288	837
Stage 1	-	-	-	-	-	-	702	677	-	476	505	-
Stage 2	-	-	-	-	-	-	603	477	-	816	661	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1148	-	-	1337	-	-	295	245	917	260	256	837
Mov Cap-2 Maneuver	-	-	-	-	-	-	295	245	-	260	256	-
Stage 1	-	-	-	-	-	-	679	655	-	438	465	-
Stage 2	-	-	-	-	-	-	543	438	-	758	639	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	1.18			1.66			15.41			14.26		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	414	1148	-	-	1337	-	-	407
HCM Lane V/C Ratio	0.165	0.033	-	-	0.08	-	-	0.045
HCM Ctrl Dly (s/v)	15.4	8.2	-	-	7.9	-	-	14.3
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.6	0.1	-	-	0.3	-	-	0.1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕		↙	↕			↕			↕	↙
Traffic Volume (veh/h)	77	481	3	9	435	48	12	3	7	25	2	38
Future Volume (veh/h)	77	481	3	9	435	48	12	3	7	25	2	38
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	523	3	10	473	52	13	3	8	27	2	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	107	2146	12	21	1757	192	259	66	139	187	29	247
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	0.06	0.59	0.59	0.02	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.3	12.2	12.2	73.9	0.7	0.7	32.2	0.0	0.0	33.6	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			C		
Approach Vol, veh/h		610			535			24			70	
Approach Delay, s/veh		19.8			2.0			32.2			33.6	
Approach LOS		B			A			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	5.9	76.1		38.0	11.7	70.3			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.4	3.8	5.2		5.4	3.8	5.3			
Max Q Clear (g_c+I1), s			3.2	2.7	10.3		5.8	7.6	2.0			
Green Ext Time (g_e), s			0.1	0.0	3.5		0.3	0.1	3.6			
Prob of Phs Call (p_c)			1.00	0.28	1.00		1.00	0.94	1.00			
Prob of Max Out (p_x)			0.00	0.00	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			774	1781			528	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			239		3623		107		3230			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			506		21		898		354			
<b>Left Lane Group Data</b>												
Assigned Mvmt	0	5	3	0	0	1	7	0				

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Lane Assignment	L+T+R L (Prot)			L+T+R L (Prot)				
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	24	10	0	0	70	84	0
Grp Sat Flow (s), veh/h/ln	0	1519	1781	0	0	1533	1781	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.6	5.6	0.0
Cycle Q Clear Time (g_c), s	0.0	1.2	0.7	0.0	0.0	3.8	5.6	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1385	0	0	0	1426	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1821	0	0	0	1835	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	29.2	0.0	0.0	0.0	31.8	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Time to First Blk (g_f), s	0.0	1.7	0.0	0.0	0.0	3.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.2	0.0	0.0	0.0	3.2	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.54	1.00	0.00	0.00	0.39	1.00	0.00
Lane Grp Cap (c), veh/h	0	464	21	0	0	463	107	0
V/C Ratio (X)	0.00	0.05	0.48	0.00	0.00	0.15	0.78	0.00
Avail Cap (c_a), veh/h	0	464	141	0	0	463	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.0	58.2	0.0	0.0	32.9	55.6	0.0
Incr Delay (d2), s/veh	0.0	0.2	15.7	0.0	0.0	0.7	11.6	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	0.0	32.2	73.9	0.0	0.0	33.6	67.3	0.0
1st-Term Q (Q1), veh/ln	0.0	0.5	0.3	0.0	0.0	1.6	2.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.1	0.3	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	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.5	0.4	0.0	0.0	1.6	2.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.11	0.00	0.00	0.18	0.81	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	256	0	0	0	259
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1053	0	0	0	966
V/C Ratio (X)	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.27
Avail Cap (c_a), veh/h	0	0	0	1053	0	0	0	966
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.7
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	12.2	0.0	0.0	0.0	0.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.05	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	270	0	0	0	266
Grp Sat Flow (s), veh/h/ln	0	0	0	1867	0	0	0	1807
Q Serve Time (g_s), s	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.3	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	0.33	0.00	0.01	0.00	0.59	0.00	0.20
Lane Grp Cap (c), veh/h	0	0	0	1106	0	0	0	983
V/C Ratio (X)	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.27
Avail Cap (c_a), veh/h	0	0	0	1106	0	0	0	983
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.7
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	12.2	0.0	0.0	0.0	0.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.05	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 7th Control Delay, s/veh	13.1
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	16	490	456	66	0	61
Future Vol, veh/h	16	490	456	66	0	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	17	533	496	72	0	66

Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	567	0	-	0	-	284
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	1001	-	-	-	0	713
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1001	-	-	-	-	713
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.27	0	10.56
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1001	-	-	-	713
HCM Lane V/C Ratio	0.017	-	-	-	0.093
HCM Ctrl Dly (s/v)	8.7	-	-	-	10.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	144	8	47	52	4	5	2	30	2	3	4
Future Vol, veh/h	4	144	8	47	52	4	5	2	30	2	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	157	9	51	57	4	5	2	33	2	3	4

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	61	0	0	165	0	0	330	333	161	327	335	59
Stage 1	-	-	-	-	-	-	170	170	-	161	161	-
Stage 2	-	-	-	-	-	-	160	163	-	166	174	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1542	-	-	1413	-	-	623	587	884	626	586	1007
Stage 1	-	-	-	-	-	-	832	758	-	841	765	-
Stage 2	-	-	-	-	-	-	842	763	-	836	755	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1542	-	-	1413	-	-	592	563	884	576	562	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	592	563	-	576	562	-
Stage 1	-	-	-	-	-	-	830	756	-	810	736	-
Stage 2	-	-	-	-	-	-	803	735	-	800	753	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0.19		3.49		9.7		10.18	
HCM LOS					A		B	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	806	46	-	-	810	-	-	704
HCM Lane V/C Ratio	0.05	0.003	-	-	0.036	-	-	0.014
HCM Ctrl Dly (s/v)	9.7	7.3	0	-	7.6	0	-	10.2
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	199	0	119	23	0	37	221	524	125	75	383	96
Future Volume (veh/h)	199	0	119	23	0	37	221	524	125	75	383	96
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	216	0	129	25	0	40	240	570	136	82	416	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	306	0	318	224	0	318	691	2039	485	591	2073	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.20	0.00	0.20	0.20	0.00	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	50.9	0.0	42.6	46.6	0.0	39.5	1.4	0.5	0.6	0.5	0.3	0.4
Ln Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		345			65			946			602	
Approach Delay, s/veh		47.8			42.2			0.8			0.4	
Approach LOS		D			D			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			6.0		6.0		6.0		6.0			
Phs Duration (G+Y+Rc), s			90.9		29.1		90.9		29.1			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			75.0		35.0		75.0		35.0			
Max Allow Headway (MAH), s			5.3		4.5		5.4		5.0			
Max Q Clear (g_c+I1), s			2.0		22.9		2.0		12.6			
Green Ext Time (g_e), s			7.4		1.1		4.4		0.2			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.03		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			882		1367		742		1261			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2848		0		2895		0			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			677		1585		717		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	0	5	0	7	0	1	0	3				

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Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	240	0	216	0	82	0	25
Grp Sat Flow (s), veh/h/ln	0	882	0	1367	0	742	0	1261
Q Serve Time (g_s), s	0.0	0.0	0.0	18.5	0.0	0.0	0.0	2.1
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	20.9	0.0	0.0	0.0	10.6
Perm LT Sat Flow (s_l), veh/h/ln	0	882	0	1367	0	742	0	1261
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	85.9	0.0	24.1	0.0	85.9	0.0	24.1
Perm LT Serve Time (g_u), s	0.0	85.9	0.0	21.6	0.0	85.9	0.0	15.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	18.5	0.0	0.0	0.0	2.1
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	691	0	306	0	591	0	224
V/C Ratio (X)	0.00	0.35	0.00	0.71	0.00	0.14	0.00	0.11
Avail Cap (c_a), veh/h	0	691	0	430	0	591	0	339
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.96	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	47.9	0.0	0.0	0.0	46.3
Incr Delay (d2), s/veh	0.0	1.4	0.0	3.0	0.0	0.5	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	1.4	0.0	50.9	0.0	0.5	0.0	46.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.3	0.0	0.0	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.3	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	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	6.5	0.0	0.1	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	1.02	0.00	0.02	0.00	0.08
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
<b>Middle Lane Group Data</b>								
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	355	0	0	0	267	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	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	1272	0	0	0	1339	0	0
V/C Ratio (X)	0.00	0.28	0.00	0.00	0.00	0.20	0.00	0.00
Avail Cap (c_a), veh/h	0	1272	0	0	0	1339	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.96	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	0.3	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	0.5	0.0	0.0	0.0	0.3	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

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2nd-Term Q (Q2), veh/ln	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.1	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

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	351	0	129	0	253	0	40
Grp Sat Flow (s), veh/h/ln	0	1748	0	1585	0	1741	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	8.5	0.0	0.0	0.0	2.5
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.5	0.0	0.0	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	0.39	0.00	1.00	0.00	0.41	0.00	1.00
Lane Grp Cap (c), veh/h	0	1252	0	318	0	1247	0	318
V/C Ratio (X)	0.00	0.28	0.00	0.41	0.00	0.20	0.00	0.13
Avail Cap (c_a), veh/h	0	1252	0	462	0	1247	0	462
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.96	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	41.7	0.0	0.0	0.0	39.3
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.8	0.0	0.4	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	0.6	0.0	42.6	0.0	0.4	0.0	39.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.3	0.0	0.0	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	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	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	3.4	0.0	0.1	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.53	0.00	0.00	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 7th Control Delay, s/veh	10.3
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	237	0	870	288	237
Future Vol, veh/h	0	237	0	870	288	237
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	258	0	946	313	258

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	285	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	711	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	711	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	12.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	711	-	-
HCM Lane V/C Ratio	-	0.362	-	-
HCM Ctrl Dly (s/v)	-	12.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	1.7	-	-

Intersection						
Int Delay, s/veh	4.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	45	23	36	45	23	16
Future Vol, veh/h	45	23	36	45	23	16
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	25	39	49	25	17

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	131	64	0	0	88	0
Stage 1	64	-	-	-	-	-
Stage 2	67	-	-	-	-	-
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	863	1001	-	-	1508	-
Stage 1	959	-	-	-	-	-
Stage 2	955	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	849	1001	-	-	1508	-
Mov Cap-2 Maneuver	849	-	-	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.39	0	4.38
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	895	1062
HCM Lane V/C Ratio	-	-	0.083	0.017
HCM Ctrl Dly (s/v)	-	-	9.4	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1



# 2029 INFORMATION

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**Supermarket — Douglas Street & Tudor Road**

**Lee's Summit, Missouri**

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## **Phase 2 - 2029**

**AM Peak Calculations**

**AM Background Traffic Synchro**

**AM Total Traffic Synchro w/ Signal**

**PM Peak Calculations**

**PM Background Traffic Synchro**

**PM Total Traffic Synchro w/ Signal**

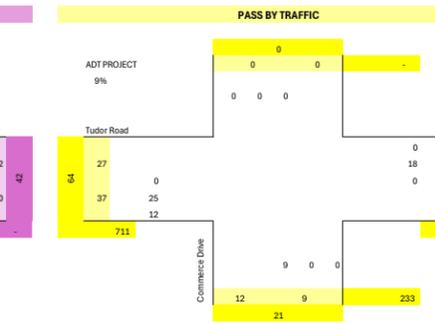
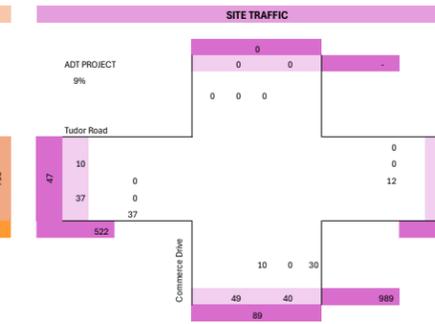
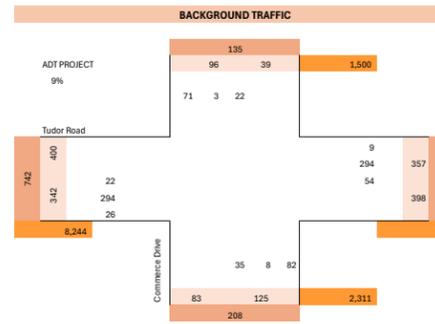
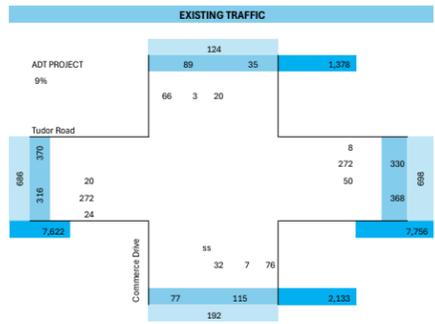
**Prepared by:**

**Traffic Engineering Consultants, Inc.**

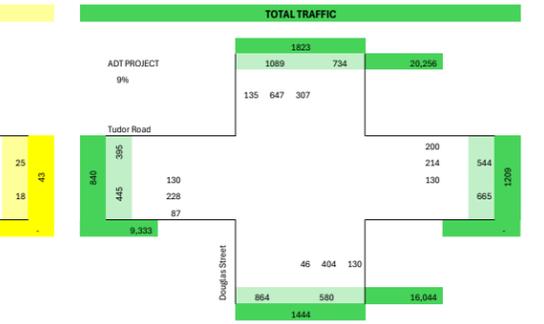
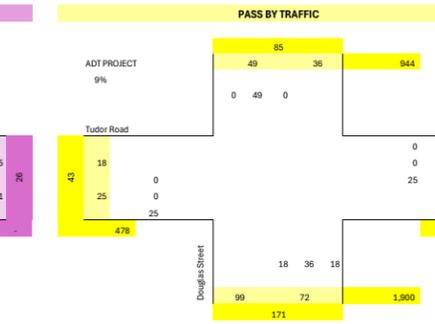
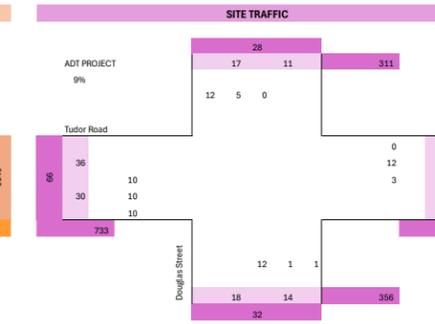
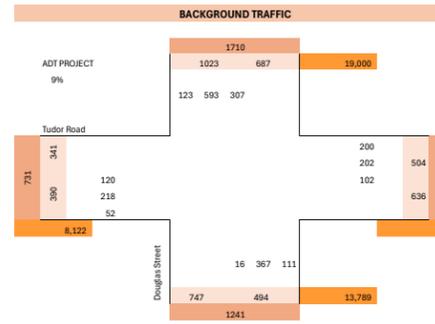
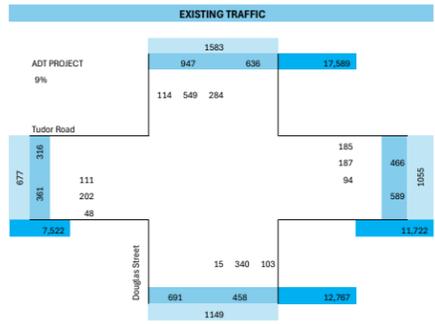
**2029 PHASE 2 INFORMATION**

PHASE 2 - AM PEAK HOUR CALCULATIONS

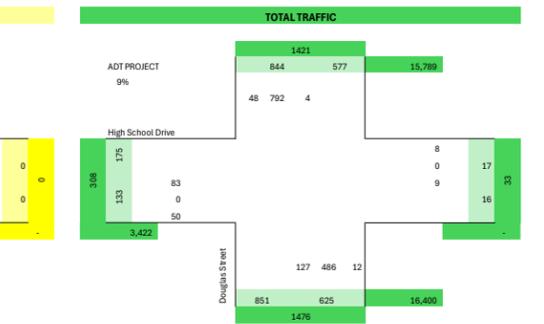
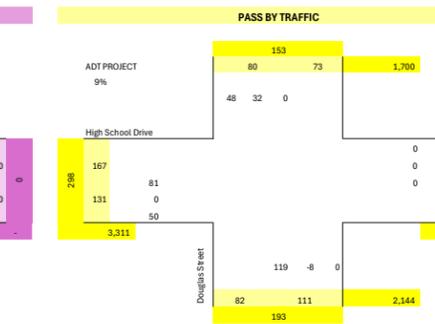
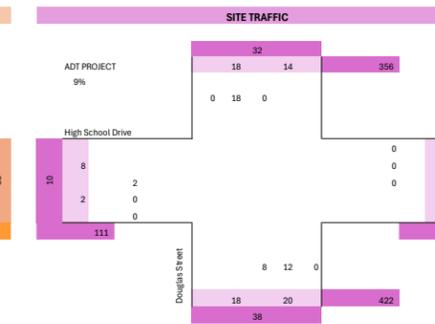
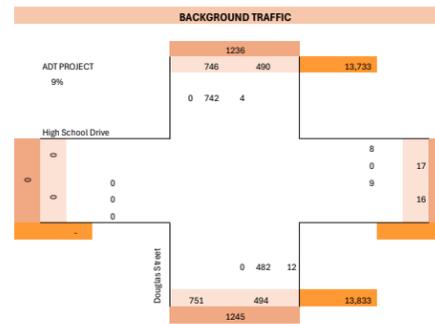
N/S	Commerce Drive				PH 2 SITE TRIP AM PEAK HOUR				PH 1 VOLUME AM PEAK HOUR				TOTAL	
E/W	Tudor Road				AM PEAK HOUR				AM PEAK HOUR				TOTAL	
GR	2.0%				IN	15	IN	61						
YRS	4				OUT	3	OUT	50						
INT #	50200													
MVMT	EXT	GRW	BKGRD		DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/
TRFC	x	x	TRFC		%	OUT	%	OUT	%	OUT	%	OUT	%	OUT
EBL	20	1.08	22											22
EBT	272	1.08	294											25
EBR	24	1.08	26											12
WBL	50	1.08	54			60%	61	37						0
WBT	272	1.08	294				20%	61	12					0
WBR	8	1.08	9											0
NBL	32	1.08	35				20%	50	10					9
NBT	7	1.08	8											0
NBR	76	1.08	82				60%	50	30					0
SBL	20	1.08	22											0
SBT	3	1.08	3											0
SBR	66	1.08	71											0



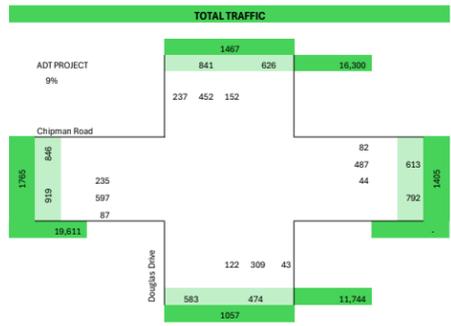
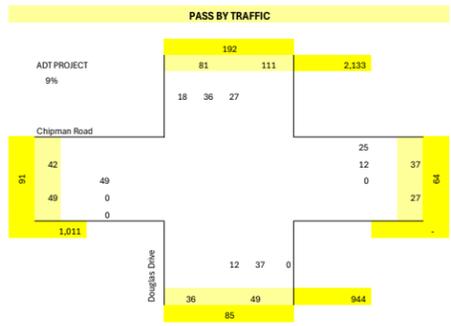
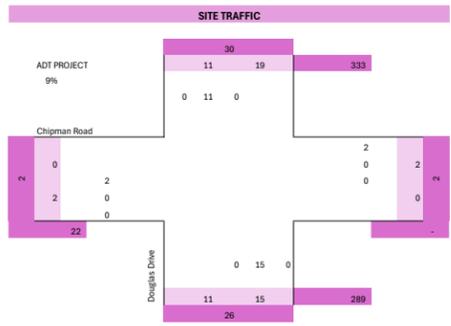
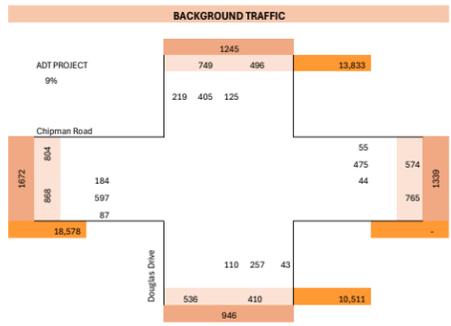
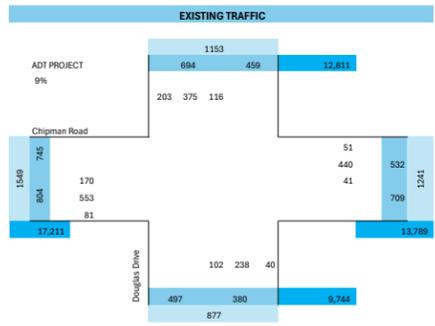
N/S	Douglas Street				SITE TRIP AM PEAK HOUR				PHASE 1 VOLUME AM PEAK HOUR				TOTAL	
E/W	Tudor Road				AM PEAK HOUR				AM PEAK HOUR				TOTAL	
GR	2.0%				IN	15	IN	61						
YRS	4				OUT	3	OUT	50						
INT #	60200													
MVMT	EXT	GRW	BKGRD		DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/
TRFC	x	x	TRFC		%	OUT	%	OUT	%	OUT	%	OUT	%	OUT
EBL	111	1.08	120											130
EBT	202	1.08	218											0
EBR	48	1.08	52											25
WBL	94	1.08	102											25
WBT	187	1.08	202			20%	15	3						0
WBR	185	1.08	200											0
NBL	15	1.08	16											18
NBT	340	1.08	367											36
NBR	103	1.08	111											18
SBL	284	1.08	307											0
SBT	549	1.08	593											49
SBR	114	1.08	123											0



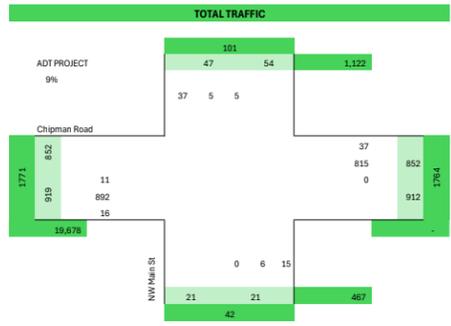
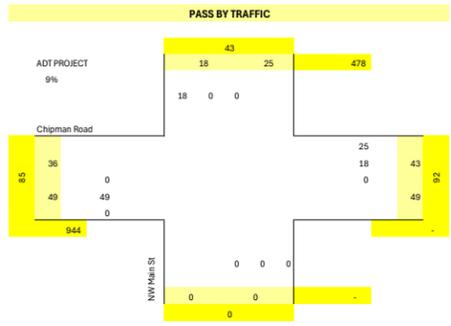
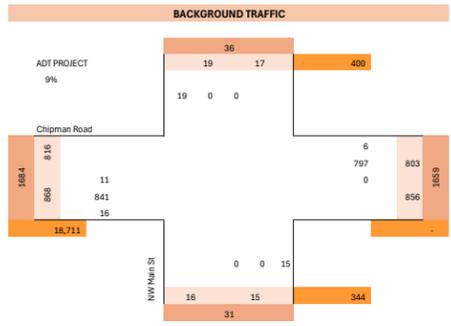
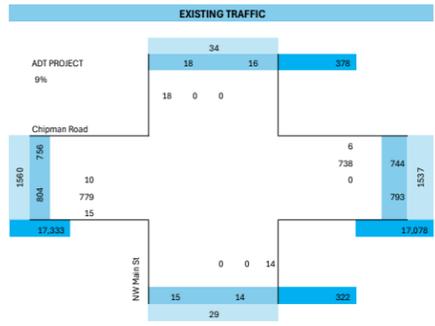
N/S	Douglas Street				SITE TRIP AM PEAK HOUR				PHASE 1 VOLUME AM PEAK HOUR				TOTAL	
E/W	High School Drive				AM PEAK HOUR				AM PEAK HOUR				TOTAL	
GR	2.0%				IN	15	IN	61						
YRS	4				OUT	3	OUT	50						
INT #	70200													
MVMT	EXT	GRW	BKGRD		DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/
TRFC	x	x	TRFC		%	OUT	%	OUT	%	OUT	%	OUT	%	OUT
EBL	0	1.08	0											81
EBT	0	1.08	0											0
EBR	0	1.08	0											0
WBL	8	1.08	9											0
WBT	0	1.08	0											0
WBR	7	1.08	8											0
NBL	0	1.08	0											8
NBT	446	1.08	482											119
NBR	11	1.08	12											0
SBL	4	1.08	4											0
SBT	607	1.08	742											32
SBR	0	1.08	0											48



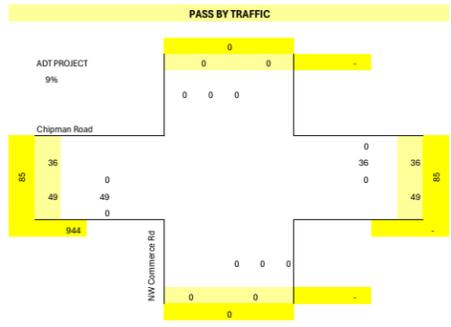
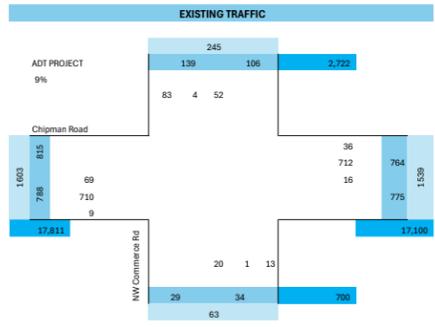
N/S	Douglas Drive	SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Chipman Road	AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%	IN	15	IN	61	DIR	IN/	DIR	IN/	TL	
YRS	4	OUT	3	OUT	50	%	OUT	%	OUT		
INT #	80200										
MVMT	EXT	GRW	BKGRD								TOTAL
	TRFC	x	TRFC	%	OUT	%	OUT	%	OUT	TL	
EBL	170	1.08	184	15%	15					49	
EBT	553	1.08	597							0	
EBR	81	1.08	87							0	
WBL	41	1.08	44							0	
WBT	440	1.08	475							12	
WBR	51	1.08	55	15%	15					25	
NBL	102	1.08	110							12	
NBT	238	1.08	257	20%	15	20%	61	15		37	
NBR	40	1.08	43							0	
SBL	116	1.08	125							27	
SBT	375	1.08	405	20%	3	20%	50	11		36	
SBR	203	1.08	219	15%	3					18	



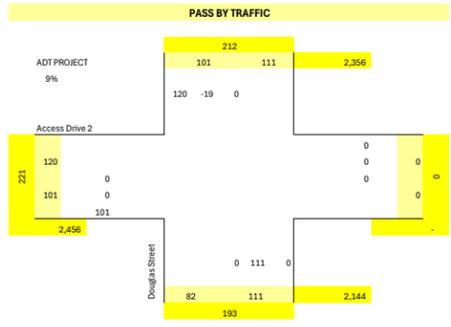
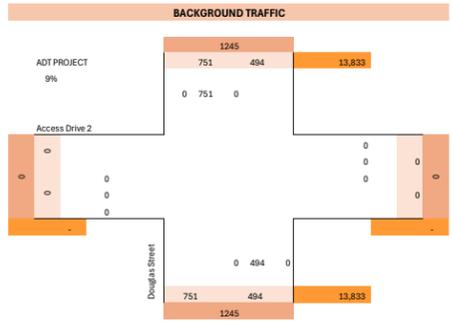
N/S	NW Main St	SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Chipman Road	AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%	IN	15	IN	61	DIR	IN/	DIR	IN/	TL	
YRS	4	OUT	3	OUT	50	%	OUT	%	OUT		
INT #	90200										
MVMT	EXT	GRW	BKGRD								TOTAL
	TRFC	x	TRFC	%	OUT	%	OUT	%	OUT	TL	
EBL	10	1.08	11	15%	15					0	
EBT	779	1.08	841							49	
EBR	15	1.08	16							0	
WBL	0	1.08	0							0	
WBT	738	1.08	797	15%	3					18	
WBR	6	1.08	6			10%	61			25	
NBL	0	1.08	0							0	
NBT	0	1.08	0			10%	61	6		0	
NBR	14	1.08	15							0	
SBL	0	1.08	0			10%	50	5		0	
SBT	0	1.08	0			10%	50	5		0	
SBR	18	1.08	19							18	



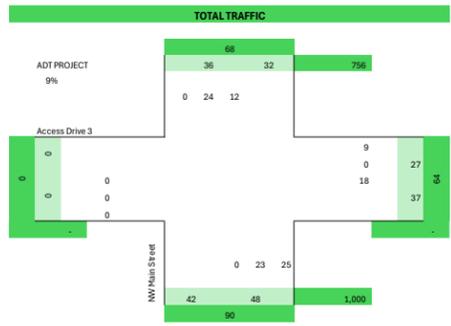
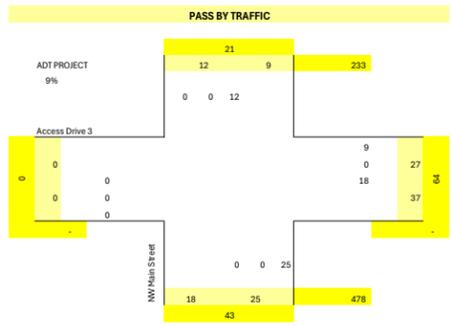
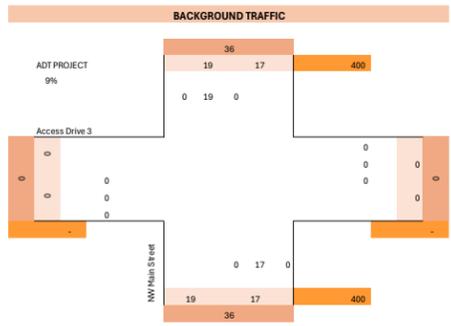
N/S	NW Commerce Rd	SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Chipman Road	AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%	IN	15	IN	61	DIR	IN/	DIR	IN/	TL	
YRS	4	OUT	3	OUT	50	%	OUT	%	OUT		
INT #	100200										
MVMT	EXT	GRW	BKGRD								TOTAL
	TRFC	x	TRFC	%	OUT	%	OUT	%	OUT	TL	
EBL	69	1.08	75	15%	15	10%	61	6		0	
EBT	710	1.08	767							49	
EBR	9	1.08	10							0	
WBL	16	1.08	17							0	
WBT	712	1.08	769	15%	3	10%	50	5		36	
WBR	36	1.08	39							0	
NBL	20	1.08	22							0	
NBT	1	1.08	1							0	
NBR	13	1.08	14							0	
SBL	52	1.08	56							0	
SBT	4	1.08	4							0	
SBR	83	1.08	90	10%	50	5				0	



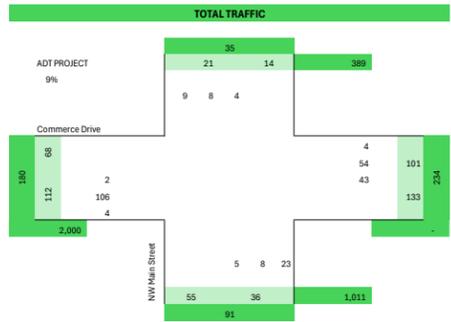
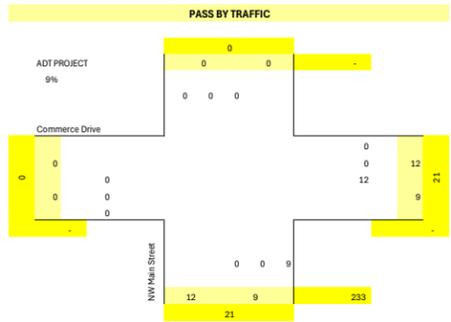
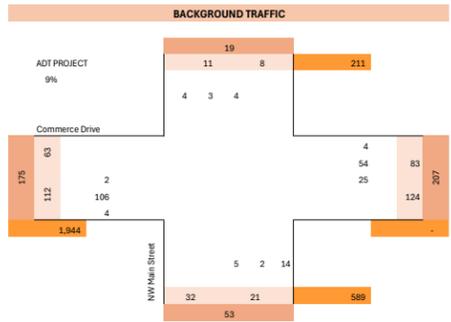
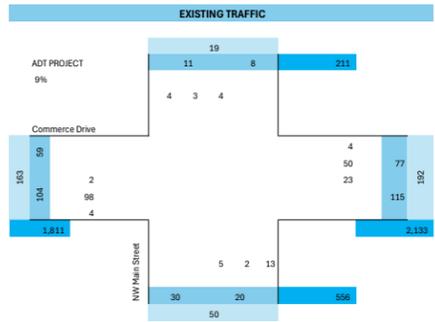
N/S	Douglas Street	SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Access Drive 2	AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%	IN	15	IN	61	DIR	IN/	DIR	IN/	TL	
YRS	4	OUT	3	OUT	50	%	OUT	%	OUT		
INT #	10200										
MVMT	EXT	GRW	BKGRD								TOTAL
	TRFC	x	TRFC	%	OUT	%	OUT	%	OUT	TL	
EBL	0	1.08	0							0	
EBT	0	1.08	0							0	
EBR	0	1.08	0	50%	3			2		101	
WBL	0	1.08	0							0	
WBT	0	1.08	0							0	
WBR	0	1.08	0							0	
NBL	0	1.08	0							0	
NBT	457	1.08	494			20%	61	12		111	
NBR	0	1.08	0							0	
SBL	0	1.08	0							0	
SBT	695	1.08	751	20%	50	10				-19	
SBR	0	1.08	0	50%	15	8				120	



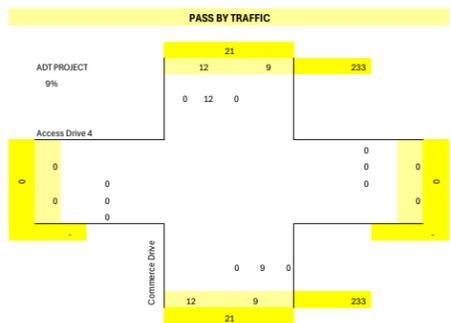
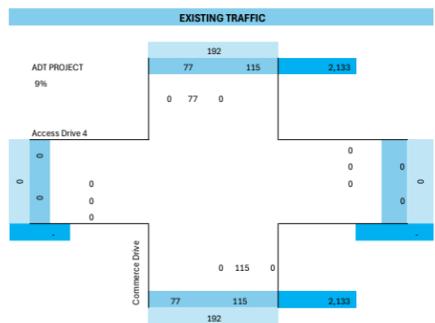
N/S	NW Main Street				SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Access Drive 3				AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%				IN	15	IN	61						
YRS	4				OUT	3	OUT	50						
INT #	20200													
MVMT	EXT	GRW	BKGRD	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
	TRFC	x	TRFC	%	OUT	%	OUT	%	OUT	%	OUT	%	OUT	TRFC
EBL	1.08	0												0
EBT	1.08	0												0
EBR	1.08	0												0
WBL	1.08	0												18
WBT	1.08	0												18
WBR	1.08	0												9
NBL	1.08	0												0
NBT	16	1.08	17			10%	61							23
NBR	1.08	0												25
SBL	1.08	0												12
SBT	18	1.08	19			10%	50							24
SBR	1.08	0												0



N/S	NW Main Street				SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Commerce Drive				AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%				IN	15	IN	61						
YRS	4				OUT	3	OUT	50						
INT #	110200													
MVMT	EXT	GRW	BKGRD	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
	TRFC	x	TRFC	%	OUT	%	OUT	%	OUT	%	OUT	%	OUT	TRFC
EBL	2	1.08	2											0
EBT	98	1.08	106											106
EBR	4	1.08	4											4
WBL	23	1.08	25			10%	61							43
WBT	50	1.08	54											54
WBR	4	1.08	4											4
NBL	5	1.08	5											5
NBT	2	1.08	2			10%	61							8
NBR	13	1.08	14											23
SBL	4	1.08	4											4
SBT	3	1.08	3			10%	50							8
SBR	4	1.08	4			10%	50							9



N/S	Commerce Drive				SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Access Drive 4				AM PEAK HOUR				AM PEAK HOUR					
GR	2.0%				IN	15	IN	61						
YRS	4				OUT	3	OUT	50						
INT #	30200													
MVMT	EXT	GRW	BKGRD	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	DIR	IN/	TOTAL
	TRFC	x	TRFC	%	OUT	%	OUT	%	OUT	%	OUT	%	OUT	TRFC
EBL	1.08	0				80%	50							40
EBT	1.08	0												0
EBR	1.08	0												0
WBL	1.08	0												0
WBT	1.08	0												0
WBR	1.08	0												0
NBL	1.08	0												0
NBT	115	1.08	124											133
NBR	1.08	0												0
SBL	1.08	0												0
SBT	77	1.08	83											95
SBR	1.08	0				80%	61							49



HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

12/11/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	597	87	44	475	55	110	257	43	125	405	219
Future Volume (veh/h)	184	597	87	44	475	55	110	257	43	125	405	219
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	649	95	48	516	60	120	279	47	136	440	238
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	227	1110	162	62	940	419	296	1194	199	496	721	611
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Prop Arrive On Green	0.25	0.71	0.71	0.03	0.26	0.26	0.06	0.39	0.39	0.03	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	61.5	16.7	16.7	75.8	40.3	34.5	24.0	25.2	25.3	21.5	40.4	34.7
Ln Grp LOS	E	B	B	E	D	C	C	C	C	C	D	C
Approach Vol, veh/h		944			624			446			814	
Approach Delay, s/veh		26.2			42.4			24.9			35.6	
Approach LOS		C			D			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		11.0	52.0	9.2	47.8	11.7	51.3	20.3	36.7			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	5.1			
Max Q Clear (g_c+I1), s		7.5	9.5	5.2	14.3	6.8	26.9	15.0	17.0			
Green Ext Time (g_e), s		0.0	2.1	0.0	5.0	0.0	3.5	0.3	2.3			
Prob of Phs Call (p_c)		0.99	1.00	0.80	1.00	0.98	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	1.00	0.00	1.00	0.00	0.08	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3049		3111		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			507		455		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)	L (Prot)						
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	136	0	48	0	120	0	200	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.5	0.0	3.2	0.0	4.8	0.0	13.0	0.0
Cycle Q Clear Time (g_c), s	5.5	0.0	3.2	0.0	4.8	0.0	13.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1054	0	0	0	762	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	46.3	0.0	0.0	0.0	46.3	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	39.5	0.0	0.0	0.0	21.4	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	1.0	0.0	0.0	0.0	4.6	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	496	0	62	0	296	0	227	0
V/C Ratio (X)	0.27	0.00	0.77	0.00	0.41	0.00	0.88	0.00
Avail Cap (c_a), veh/h	496	0	134	0	300	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	21.3	0.0	57.4	0.0	23.1	0.0	43.9	0.0
Incr Delay (d2), s/veh	0.3	0.0	18.3	0.0	0.9	0.0	17.6	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	21.5	0.0	75.8	0.0	24.0	0.0	61.5	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	1.4	0.0	2.0	0.0	5.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.3	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.4	0.0	1.8	0.0	2.1	0.0	6.1	0.0
%ile Storage Ratio (RQ%)	0.06	0.00	0.22	0.00	0.16	0.00	0.45	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	161	0	370	0	440	0	516
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	7.3	0.0	12.3	0.0	24.9	0.0	15.0
Cycle Q Clear Time (g_c), s	0.0	7.3	0.0	12.3	0.0	24.9	0.0	15.0
Lane Grp Cap (c), veh/h	0	696	0	634	0	721	0	940
V/C Ratio (X)	0.00	0.23	0.00	0.58	0.00	0.61	0.00	0.55
Avail Cap (c_a), veh/h	0	696	0	634	0	721	0	940
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.4	0.0	12.8	0.0	36.5	0.0	38.0
Incr Delay (d2), s/veh	0.0	0.8	0.0	3.9	0.0	3.8	0.0	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	25.2	0.0	16.7	0.0	40.4	0.0	40.3
1st-Term Q (Q1), veh/ln	0.0	3.1	0.0	3.4	0.0	11.9	0.0	6.5

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.7	0.0	0.8	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.2	0.0	4.1	0.0	12.7	0.0	6.8
%ile Storage Ratio (RQ%)	0.00	0.24	0.00	0.22	0.00	0.30	0.00	0.10
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		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	165	0	374	0	238	0	60
Grp Sat Flow (s), veh/h/ln	0	1779	0	1789	0	1585	0	1585
Q Serve Time (g_s), s	0.0	7.5	0.0	12.3	0.0	14.9	0.0	3.5
Cycle Q Clear Time (g_c), s	0.0	7.5	0.0	12.3	0.0	14.9	0.0	3.5
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	0.29	0.00	0.25	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	697	0	638	0	611	0	419
V/C Ratio (X)	0.00	0.24	0.00	0.59	0.00	0.39	0.00	0.14
Avail Cap (c_a), veh/h	0	697	0	638	0	611	0	419
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.5	0.0	12.8	0.0	32.8	0.0	33.7
Incr Delay (d2), s/veh	0.0	0.8	0.0	3.9	0.0	1.9	0.0	0.7
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	25.3	0.0	16.7	0.0	34.7	0.0	34.5
1st-Term Q (Q1), veh/ln	0.0	3.2	0.0	3.4	0.0	6.0	0.0	1.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.7	0.0	0.3	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.3	0.0	4.1	0.0	6.3	0.0	1.4
%ile Storage Ratio (RQ%)	0.00	0.25	0.00	0.22	0.00	0.89	0.00	0.18
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 7th Control Delay, s/veh	32.3
HCM 7th LOS	C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	218	52	102	202	200	16	367	111	307	593	123
Future Volume (veh/h)	120	218	52	102	202	200	16	367	111	307	593	123
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	237	57	111	220	217	17	399	121	334	645	134
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	225	615	274	302	289	258	423	1776	792	698	1736	360
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.17	0.17	0.07	0.16	0.16	0.04	1.00	1.00	0.11	0.59	0.59
Unsig. Movement Delay												
Ln Grp Delay, s/veh	41.0	44.4	42.9	38.9	54.4	62.4	13.9	0.3	0.4	10.8	13.8	13.8
Ln Grp LOS	D	D	D	D	D	E	B	A	A	B	B	B
Approach Vol, veh/h		424			548			537			1113	
Approach Delay, s/veh		43.1			54.5			0.8			12.9	
Approach LOS		D			D			A			B	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		17.8	64.5	12.5	25.3	6.7	75.6	13.7	24.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	5.0	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		12.3	2.0	8.1	9.1	2.6	15.8	9.2	17.9			
Green Ext Time (g_e), s		1.0	3.2	0.1	1.6	0.0	5.8	0.2	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.98	1.00	0.43	1.00	0.99	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	0.78	0.00	0.09	0.55			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2930		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		608		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	334	0	111	0	17	0	130	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	10.3	0.0	6.1	0.0	0.6	0.0	7.2	0.0
Cycle Q Clear Time (g_c), s	10.3	0.0	6.1	0.0	0.6	0.0	7.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	882	0	1085	0	693	0	952	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	62.0	0.0	19.5	0.0	60.0	0.0	19.5	0.0
Perm LT Serve Time (g_u), s	60.0	0.0	13.7	0.0	57.3	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	1.2	0.0	0.7	0.0	0.1	0.0	2.5	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	698	0	302	0	423	0	225	0
V/C Ratio (X)	0.48	0.00	0.37	0.00	0.04	0.00	0.58	0.00
Avail Cap (c_a), veh/h	968	0	339	0	487	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	10.3	0.0	38.2	0.0	13.9	0.0	38.7	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.7	0.0	0.0	0.0	2.3	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	10.8	0.0	38.9	0.0	13.9	0.0	41.0	0.0
1st-Term Q (Q1), veh/ln	3.9	0.0	2.7	0.0	0.2	0.0	3.1	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.0	0.0	2.8	0.0	0.2	0.0	3.3	0.0
%ile Storage Ratio (RQ%)	0.29	0.00	0.47	0.00	0.04	0.00	0.51	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	399	0	237	0	391	0	220
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	7.1	0.0	13.8	0.0	14.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.1	0.0	13.8	0.0	14.2
Lane Grp Cap (c), veh/h	0	1776	0	615	0	1053	0	289
V/C Ratio (X)	0.00	0.22	0.00	0.39	0.00	0.37	0.00	0.76
Avail Cap (c_a), veh/h	0	1776	0	903	0	1053	0	378
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	44.0	0.0	12.8	0.0	48.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.4	0.0	1.0	0.0	6.4
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	0.3	0.0	44.4	0.0	13.8	0.0	54.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.1	0.0	5.4	0.0	6.3

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	3.2	0.0	5.7	0.0	6.8
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.08	0.00	0.21	0.00	0.13
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	121	0	57	0	388	0	217
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1761	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	3.7	0.0	13.8	0.0	15.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.7	0.0	13.8	0.0	15.9
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	0.35	0.00	1.00
Lane Grp Cap (c), veh/h	0	792	0	274	0	1043	0	258
V/C Ratio (X)	0.00	0.15	0.00	0.21	0.00	0.37	0.00	0.84
Avail Cap (c_a), veh/h	0	792	0	403	0	1043	0	337
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	42.6	0.0	12.8	0.0	48.7
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.4	0.0	1.0	0.0	13.7
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	0.4	0.0	42.9	0.0	13.8	0.0	62.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	5.3	0.0	6.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.3	0.0	1.0
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.5	0.0	5.6	0.0	7.3
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.27	0.00	0.21	0.00	0.13
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 7th Control Delay, s/veh	24.0
HCM 7th LOS	C

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	294	26	54	294	9	35	8	82	22	3	71
Future Vol, veh/h	22	294	26	54	294	9	35	8	82	22	3	71
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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	320	28	59	320	10	38	9	89	24	3	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	329	0	0	348	0	0	660	828	174	649	833	160
Stage 1	-	-	-	-	-	-	382	382	-	437	437	-
Stage 2	-	-	-	-	-	-	279	447	-	212	396	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1227	-	-	1208	-	-	348	305	839	355	303	857
Stage 1	-	-	-	-	-	-	613	611	-	568	578	-
Stage 2	-	-	-	-	-	-	704	572	-	770	603	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1227	-	-	1208	-	-	292	284	839	287	283	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	292	284	-	287	283	-
Stage 1	-	-	-	-	-	-	601	599	-	541	550	-
Stage 2	-	-	-	-	-	-	606	544	-	665	591	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.51			1.23			14.63			12.81		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	509	1227	-	-	1208	-	-	565
HCM Lane V/C Ratio	0.267	0.019	-	-	0.049	-	-	0.185
HCM Ctrl Dly (s/v)	14.6	8	-	-	8.1	-	-	12.8
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.2	-	-	0.7

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕		↙	↕			↕			↕	
Traffic Volume (veh/h)	75	767	10	17	769	39	22	1	14	56	4	90
Future Volume (veh/h)	75	767	10	17	769	39	22	1	14	56	4	90
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	82	834	11	18	836	42	24	1	15	61	4	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	105	2102	28	33	1877	94	263	21	142	181	28	253
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	0.06	0.59	0.59	0.04	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.5	14.6	14.5	70.0	1.5	1.4	32.7	0.0	0.0	37.2	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			D		
Approach Vol, veh/h		927			896			40			163	
Approach Delay, s/veh		19.2			2.8			32.7			37.2	
Approach LOS		B			A			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	6.8	75.2		38.0	11.6	70.4			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.5	3.8	5.2		5.5	3.8	5.3			
Max Q Clear (g_c+I1), s			4.3	3.2	17.1		12.1	7.4	2.0			
Green Ext Time (g_e), s			0.2	0.0	6.4		0.9	0.1	6.9			
Prob of Phs Call (p_c)			1.00	0.45	1.00		1.00	0.93	1.00			
Prob of Max Out (p_x)			0.00	0.01	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			783	1781			509	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			77		3591		102		3443			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			516		47		921		173			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

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Lane Assignment	L+T+R L (Prot)			L+T+R L (Prot)				
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	40	18	0	0	163	82	0
Grp Sat Flow (s), veh/h/ln	0	1376	1781	0	0	1532	1781	0
Q Serve Time (g_s), s	0.0	0.0	1.2	0.0	0.0	6.7	5.4	0.0
Cycle Q Clear Time (g_c), s	0.0	2.3	1.2	0.0	0.0	10.1	5.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1313	0	0	0	1419	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1256	0	0	0	1836	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	22.9	0.0	0.0	0.0	30.7	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	6.7	0.0	0.0
Time to First Blk (g_f), s	0.0	1.3	0.0	0.0	0.0	3.3	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	0.0	0.0	3.3	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.60	1.00	0.00	0.00	0.37	1.00	0.00
Lane Grp Cap (c), veh/h	0	427	33	0	0	463	105	0
V/C Ratio (X)	0.00	0.09	0.54	0.00	0.00	0.35	0.78	0.00
Avail Cap (c_a), veh/h	0	427	141	0	0	463	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.3	57.2	0.0	0.0	35.1	55.7	0.0
Incr Delay (d2), s/veh	0.0	0.4	12.7	0.0	0.0	2.1	11.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	32.7	70.0	0.0	0.0	37.2	67.5	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	0.5	0.0	0.0	3.9	2.4	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.3	0.3	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	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.6	0.0	0.0	4.1	2.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.18	0.00	0.00	0.45	0.79	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	413	0	0	0	431
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1040	0	0	0	969
V/C Ratio (X)	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	0	0	1040	0	0	0	969
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.5
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	0.0	0.0	14.6	0.0	0.0	0.0	1.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	5.9	0.0	0.0	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.10	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	432	0	0	0	447
Grp Sat Flow (s), veh/h/ln	0	0	0	1862	0	0	0	1839
Q Serve Time (g_s), s	0.0	0.0	0.0	15.1	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	15.1	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	0.37	0.00	0.03	0.00	0.60	0.00	0.09
Lane Grp Cap (c), veh/h	0	0	0	1090	0	0	0	1003
V/C Ratio (X)	0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.45
Avail Cap (c_a), veh/h	0	0	0	1090	0	0	0	1003
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.1	0.0	0.0	0.0	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	14.5	0.0	0.0	0.0	1.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.2	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	0.4
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.10	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 7th Control Delay, s/veh	13.7
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	11	841	797	6	0	19
Future Vol, veh/h	11	841	797	6	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	12	914	866	7	0	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	873	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	769	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	769	-	568
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.13	0	11.58
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	769	-	-	-	568
HCM Lane V/C Ratio	0.016	-	-	-	0.036
HCM Ctrl Dly (s/v)	9.8	-	-	-	11.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	106	4	25	54	4	5	2	14	4	3	4
Future Vol, veh/h	2	106	4	25	54	4	5	2	14	4	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	115	4	27	59	4	5	2	15	4	3	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	120	0	0	236	239	117	236	239	61
Stage 1	-	-	-	-	-	-	122	122	-	115	115	-
Stage 2	-	-	-	-	-	-	115	117	-	121	124	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1540	-	-	1468	-	-	718	662	935	719	662	1004
Stage 1	-	-	-	-	-	-	882	795	-	890	800	-
Stage 2	-	-	-	-	-	-	890	798	-	884	793	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1540	-	-	1468	-	-	697	648	935	690	648	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	697	648	-	690	648	-
Stage 1	-	-	-	-	-	-	881	794	-	872	785	-
Stage 2	-	-	-	-	-	-	866	783	-	866	792	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.13			2.26			9.45			9.79		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	832	32	-	-	535	-	-	764
HCM Lane V/C Ratio	0.027	0.001	-	-	0.019	-	-	0.016
HCM Ctrl Dly (s/v)	9.4	7.3	0	-	7.5	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	9	8	482	12	4	742
Future Vol, veh/h	9	8	482	12	4	742
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	9	524	13	4	807

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	942	268	0	0	537	0
Stage 1	530	-	-	-	-	-
Stage 2	412	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	261	730	-	-	1027	-
Stage 1	554	-	-	-	-	-
Stage 2	637	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	260	730	-	-	1027	-
Mov Cap-2 Maneuver	260	-	-	-	-	-
Stage 1	554	-	-	-	-	-
Stage 2	633	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.16	0	0.09
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	373	19
HCM Lane V/C Ratio	-	-	0.05	0.004
HCM Ctrl Dly (s/v)	-	-	15.2	8.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	597	87	44	487	82	122	309	43	152	452	237
Future Volume (veh/h)	235	597	87	44	487	82	122	309	43	152	452	237
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	255	649	95	48	529	89	133	336	47	165	491	258
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	279	1110	162	62	836	373	345	1228	170	467	717	608
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Prop Arrive On Green	0.31	0.71	0.71	0.03	0.24	0.24	0.06	0.39	0.39	0.10	0.77	0.77
Unsig. Movement Delay												
Ln Grp Delay, s/veh	67.2	16.7	16.7	75.8	44.9	38.7	22.1	25.8	25.9	21.9	15.7	11.6
Ln Grp LOS	E	B	B	E	D	D	C	C	C	C	B	B
Approach Vol, veh/h		999			666			516			914	
Approach Delay, s/veh		29.6			46.3			24.9			15.7	
Approach LOS		C			D			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		11.0	52.0	9.2	47.8	12.0	51.0	23.8	33.2			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	5.1			
Max Q Clear (g_c+I1), s		8.0	10.9	5.2	14.3	7.4	17.5	18.5	18.1			
Green Ext Time (g_e), s		0.0	2.4	0.0	5.0	0.0	4.4	0.3	2.2			
Prob of Phs Call (p_c)		1.00	1.00	0.80	1.00	0.99	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			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3134		3111		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			435		455		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)		L (Prot)		L (Pr/Pm)		L (Prot)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	165	0	48	0	133	0	255	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.0	0.0	3.2	0.0	5.4	0.0	16.5	0.0
Cycle Q Clear Time (g_c), s	6.0	0.0	3.2	0.0	5.4	0.0	16.5	0.0
Perm LT Sat Flow (s_l), veh/h/ln	1000	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	46.0	0.0	0.0	0.0	46.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	38.1	0.0	0.0	0.0	30.5	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	3.7	0.0	0.0	0.0	3.5	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	467	0	62	0	345	0	279	0
V/C Ratio (X)	0.35	0.00	0.77	0.00	0.39	0.00	0.91	0.00
Avail Cap (c_a), veh/h	467	0	134	0	345	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	21.5	0.0	57.4	0.0	21.4	0.0	40.4	0.0
Incr Delay (d2), s/veh	0.5	0.0	18.3	0.0	0.7	0.0	26.7	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	21.9	0.0	75.8	0.0	22.1	0.0	67.2	0.0
1st-Term Q (Q1), veh/ln	2.7	0.0	1.4	0.0	2.2	0.0	6.1	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.3	0.0	0.1	0.0	2.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.8	0.0	1.8	0.0	2.3	0.0	8.2	0.0
%ile Storage Ratio (RQ%)	0.11	0.00	0.22	0.00	0.17	0.00	0.61	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment	T		T		T		T	
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	189	0	370	0	491	0	529
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	8.7	0.0	12.3	0.0	15.5	0.0	16.1
Cycle Q Clear Time (g_c), s	0.0	8.7	0.0	12.3	0.0	15.5	0.0	16.1
Lane Grp Cap (c), veh/h	0	696	0	634	0	717	0	836
V/C Ratio (X)	0.00	0.27	0.00	0.58	0.00	0.68	0.00	0.63
Avail Cap (c_a), veh/h	0	696	0	634	0	717	0	836
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.9	0.0	12.8	0.0	10.4	0.0	41.2
Incr Delay (d2), s/veh	0.0	1.0	0.0	3.9	0.0	5.3	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	25.8	0.0	16.7	0.0	15.7	0.0	44.9
1st-Term Q (Q1), veh/ln	0.0	3.7	0.0	3.4	0.0	3.6	0.0	7.0

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.7	0.0	1.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	3.9	0.0	4.1	0.0	4.7	0.0	7.4
%ile Storage Ratio (RQ%)	0.00	0.29	0.00	0.22	0.00	0.19	0.00	0.10
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		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	194	0	374	0	258	0	89
Grp Sat Flow (s), veh/h/ln	0	1792	0	1789	0	1585	0	1585
Q Serve Time (g_s), s	0.0	8.9	0.0	12.3	0.0	6.8	0.0	5.5
Cycle Q Clear Time (g_c), s	0.0	8.9	0.0	12.3	0.0	6.8	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	0.24	0.00	0.25	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	702	0	638	0	608	0	373
V/C Ratio (X)	0.00	0.28	0.00	0.59	0.00	0.42	0.00	0.24
Avail Cap (c_a), veh/h	0	702	0	638	0	608	0	373
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	24.9	0.0	12.8	0.0	9.4	0.0	37.2
Incr Delay (d2), s/veh	0.0	1.0	0.0	3.9	0.0	2.2	0.0	1.5
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	25.9	0.0	16.7	0.0	11.6	0.0	38.7
1st-Term Q (Q1), veh/ln	0.0	3.8	0.0	3.4	0.0	1.8	0.0	2.1
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.7	0.0	0.4	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.0	0.0	4.1	0.0	2.2	0.0	2.3
%ile Storage Ratio (RQ%)	0.00	0.30	0.00	0.22	0.00	0.31	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

Intersection Summary

HCM 7th Control Delay, s/veh	28.3
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	228	87	130	214	200	46	404	130	307	647	135
Future Volume (veh/h)	130	228	87	130	214	200	46	404	130	307	647	135
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	141	248	95	141	233	217	50	439	141	334	703	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	235	584	260	310	290	259	402	1751	781	668	1670	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.08	0.16	0.16	0.08	0.16	0.16	0.07	0.99	0.99	0.11	0.57	0.57
Unsig. Movement Delay												
Ln Grp Delay, s/veh	40.8	45.5	45.4	38.5	57.4	62.2	13.7	0.8	0.9	11.2	15.8	15.8
Ln Grp LOS	D	D	D	D	E	E	B	A	A	B	B	B
Approach Vol, veh/h		484			591			630			1184	
Approach Delay, s/veh		44.1			54.7			1.9			14.5	
Approach LOS		D			D			A			B	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		17.9	63.6	14.2	24.2	8.6	73.0	14.4	24.1			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.9	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		12.5	2.3	9.8	9.5	3.6	18.3	9.8	17.9			
Green Ext Time (g_e), s		1.0	3.6	0.0	1.8	0.0	6.5	0.2	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	0.81	1.00	0.99	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.17	0.56			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2926		1779			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		611		1584			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	334	0	141	0	50	0	141	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	10.5	0.0	7.8	0.0	1.6	0.0	7.8	0.0
Cycle Q Clear Time (g_c), s	10.5	0.0	7.8	0.0	1.6	0.0	7.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	834	0	1038	0	649	0	940	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	61.1	0.0	19.6	0.0	59.1	0.0	19.6	0.0
Perm LT Serve Time (g_u), s	58.8	0.0	12.2	0.0	52.2	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	1.5	0.0	1.2	0.0	0.6	0.0	2.8	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	668	0	310	0	402	0	235	0
V/C Ratio (X)	0.50	0.00	0.46	0.00	0.12	0.00	0.60	0.00
Avail Cap (c_a), veh/h	936	0	321	0	439	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.98	0.00	1.00	0.00
Uniform Delay (d1), s/veh	10.6	0.0	37.5	0.0	13.6	0.0	38.4	0.0
Incr Delay (d2), s/veh	0.6	0.0	1.0	0.0	0.1	0.0	2.5	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	11.2	0.0	38.5	0.0	13.7	0.0	40.8	0.0
1st-Term Q (Q1), veh/ln	4.0	0.0	3.4	0.0	0.6	0.0	3.4	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	4.1	0.0	3.5	0.0	0.7	0.0	3.6	0.0
%ile Storage Ratio (RQ%)	0.30	0.00	0.59	0.00	0.11	0.00	0.55	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	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	439	0	248	0	427	0	233
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.3	0.0	7.5	0.0	16.3	0.0	15.1
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	7.5	0.0	16.3	0.0	15.1
Lane Grp Cap (c), veh/h	0	1751	0	584	0	1014	0	290
V/C Ratio (X)	0.00	0.25	0.00	0.42	0.00	0.42	0.00	0.80
Avail Cap (c_a), veh/h	0	1751	0	903	0	1014	0	378
Upstream Filter (I)	0.00	0.98	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.5	0.0	45.0	0.0	14.5	0.0	48.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.5	0.0	1.3	0.0	9.1
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	0.8	0.0	45.5	0.0	15.8	0.0	57.4
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	3.3	0.0	6.4	0.0	6.7

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.4	0.0	0.7
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	3.4	0.0	6.8	0.0	7.4
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.08	0.00	0.25	0.00	0.14
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	141	0	95	0	423	0	217
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1760	0	1585
Q Serve Time (g_s), s	0.0	0.2	0.0	6.4	0.0	16.3	0.0	15.9
Cycle Q Clear Time (g_c), s	0.0	0.2	0.0	6.4	0.0	16.3	0.0	15.9
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	0.35	0.00	1.00
Lane Grp Cap (c), veh/h	0	781	0	260	0	1005	0	259
V/C Ratio (X)	0.00	0.18	0.00	0.36	0.00	0.42	0.00	0.84
Avail Cap (c_a), veh/h	0	781	0	403	0	1005	0	337
Upstream Filter (I)	0.00	0.98	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.5	0.0	44.6	0.0	14.5	0.0	48.7
Incr Delay (d2), s/veh	0.0	0.5	0.0	0.9	0.0	1.3	0.0	13.6
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	0.9	0.0	45.4	0.0	15.8	0.0	62.2
1st-Term Q (Q1), veh/ln	0.0	0.1	0.0	2.5	0.0	6.4	0.0	6.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.4	0.0	1.0
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	2.6	0.0	6.7	0.0	7.3
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.47	0.00	0.25	0.00	0.13
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 7th Control Delay, s/veh	24.9
HCM 7th LOS	C

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↔			↔	
Traffic Vol, veh/h	22	319	75	66	312	9	54	8	112	22	3	71
Future Vol, veh/h	22	319	75	66	312	9	54	8	112	22	3	71
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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	347	82	72	339	10	59	9	122	24	3	77

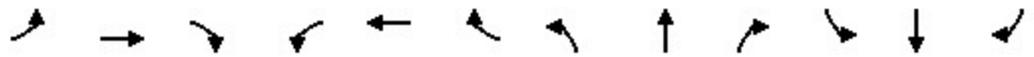
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	349	0	0	428	0	0	750	928	214	708	959	170
Stage 1	-	-	-	-	-	-	435	435	-	483	483	-
Stage 2	-	-	-	-	-	-	315	492	-	226	476	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1207	-	-	1128	-	-	300	267	791	322	256	845
Stage 1	-	-	-	-	-	-	569	579	-	534	551	-
Stage 2	-	-	-	-	-	-	671	546	-	757	555	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1207	-	-	1128	-	-	247	245	791	242	235	845
Mov Cap-2 Maneuver	-	-	-	-	-	-	247	245	-	242	235	-
Stage 1	-	-	-	-	-	-	558	567	-	500	516	-
Stage 2	-	-	-	-	-	-	567	511	-	618	544	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.43			1.43			19.06			13.85		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	443	1207	-	-	1128	-	-	511
HCM Lane V/C Ratio	0.427	0.02	-	-	0.064	-	-	0.204
HCM Ctrl Dly (s/v)	19.1	8	-	-	8.4	-	-	13.8
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	2.1	0.1	-	-	0.2	-	-	0.8

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Volume (veh/h)	81	824	10	17	810	39	22	1	14	56	4	95
Future Volume (veh/h)	81	824	10	17	810	39	22	1	14	56	4	95
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	896	11	18	880	42	24	1	15	61	4	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	112	2104	26	33	1869	89	261	21	141	176	28	259
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	0.06	0.59	0.59	0.04	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.8	15.0	15.0	70.0	1.7	1.6	32.8	0.0	0.0	37.4	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			D		
Approach Vol, veh/h		995			940			40			168	
Approach Delay, s/veh		19.6			2.9			32.8			37.4	
Approach LOS		B			A			C			D	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	6.8	75.2		38.0	12.0	70.0			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.5	3.8	5.2		5.5	3.8	5.3			
Max Q Clear (g_c+I1), s			4.3	3.2	18.5		12.4	7.8	2.0			
Green Ext Time (g_e), s			0.2	0.0	7.1		0.9	0.1	7.4			
Prob of Phs Call (p_c)			1.00	0.45	1.00		1.00	0.95	1.00			
Prob of Max Out (p_x)			0.00	0.01	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			776	1781			492	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			77		3595		102		3453			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			512		44		941		165			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
 12: Olive St/Commerce Dr & Chipman Road

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Lane Assignment	L+T+R L (Prot)			L+T+R L (Prot)				
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	40	18	0	0	168	88	0
Grp Sat Flow (s), veh/h/ln	0	1365	1781	0	0	1534	1781	0
Q Serve Time (g_s), s	0.0	0.0	1.2	0.0	0.0	6.9	5.8	0.0
Cycle Q Clear Time (g_c), s	0.0	2.3	1.2	0.0	0.0	10.4	5.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1307	0	0	0	1419	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1229	0	0	0	1837	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	22.6	0.0	0.0	0.0	30.7	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	6.9	0.0	0.0
Time to First Blk (g_f), s	0.0	1.3	0.0	0.0	0.0	3.5	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	0.0	0.0	3.5	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.60	1.00	0.00	0.00	0.36	1.00	0.00
Lane Grp Cap (c), veh/h	0	423	33	0	0	463	112	0
V/C Ratio (X)	0.00	0.09	0.54	0.00	0.00	0.36	0.79	0.00
Avail Cap (c_a), veh/h	0	423	141	0	0	463	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.3	57.2	0.0	0.0	35.2	55.4	0.0
Incr Delay (d2), s/veh	0.0	0.4	12.7	0.0	0.0	2.2	11.4	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	0.0	32.8	70.0	0.0	0.0	37.4	66.8	0.0
1st-Term Q (Q1), veh/ln	0.0	0.9	0.5	0.0	0.0	4.0	2.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.3	0.4	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%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.9	0.6	0.0	0.0	4.3	3.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.11	0.18	0.00	0.00	0.47	0.84	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	443	0	0	0	453
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1040	0	0	0	962
V/C Ratio (X)	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.47
Avail Cap (c_a), veh/h	0	0	0	1040	0	0	0	962
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.3	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	0.0	0.0	0.0	15.0	0.0	0.0	0.0	1.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.4	0.0	0.0	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.4	0.0	0.0	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.11	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	464	0	0	0	469
Grp Sat Flow (s), veh/h/ln	0	0	0	1862	0	0	0	1841
Q Serve Time (g_s), s	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	16.5	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	0.37	0.00	0.02	0.00	0.61	0.00	0.09
Lane Grp Cap (c), veh/h	0	0	0	1090	0	0	0	996
V/C Ratio (X)	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.47
Avail Cap (c_a), veh/h	0	0	0	1090	0	0	0	996
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	13.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.6
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	0.0	0.0	15.0	0.0	0.0	0.0	1.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.8	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	0.4
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.4
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.11	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 7th Control Delay, s/veh	13.9
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	892	815	37	5	37
Future Vol, veh/h	11	892	815	37	5	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	12	970	886	40	5	40

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	926	0	-	0	1415 463
Stage 1	-	-	-	-	906 -
Stage 2	-	-	-	-	509 -
Critical Hdwy	4.14	-	-	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	2.22	-	-	-	3.52 3.32
Pot Cap-1 Maneuver	734	-	-	-	128 546
Stage 1	-	-	-	-	355 -
Stage 2	-	-	-	-	569 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	734	-	-	-	126 546
Mov Cap-2 Maneuver	-	-	-	-	126 -
Stage 1	-	-	-	-	349 -
Stage 2	-	-	-	-	569 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.12	0	12.12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	734	-	-	-	546
HCM Lane V/C Ratio	0.016	-	-	-	0.074
HCM Ctrl Dly (s/v)	10	-	-	-	12.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	106	4	43	54	4	5	8	23	4	8	9
Future Vol, veh/h	2	106	4	43	54	4	5	8	23	4	8	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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	115	4	47	59	4	5	9	25	4	9	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	120	0	0	278	278	117	278	278	61
Stage 1	-	-	-	-	-	-	122	122	-	154	154	-
Stage 2	-	-	-	-	-	-	157	157	-	124	124	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1540	-	-	1468	-	-	674	630	935	674	630	1004
Stage 1	-	-	-	-	-	-	882	795	-	848	770	-
Stage 2	-	-	-	-	-	-	846	768	-	880	793	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1540	-	-	1468	-	-	636	608	935	625	608	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	636	608	-	625	608	-
Stage 1	-	-	-	-	-	-	881	794	-	820	744	-
Stage 2	-	-	-	-	-	-	800	743	-	846	792	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.13			3.21			9.8			10.05		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	789	32	-	-	756	-	-	736
HCM Lane V/C Ratio	0.05	0.001	-	-	0.032	-	-	0.031
HCM Ctrl Dly (s/v)	9.8	7.3	0	-	7.5	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	0	50	9	0	8	127	486	12	4	792	48
Future Volume (veh/h)	83	0	50	9	0	8	127	486	12	4	792	48
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	0	54	10	0	9	138	528	13	4	861	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	174	0	137	133	0	137	567	2942	72	778	2898	175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	56.4	0.0	53.6	54.3	0.0	50.5	1.0	0.3	0.3	0.0	0.4	0.5
Ln Grp LOS	E		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		144			19			679			917	
Approach Delay, s/veh		55.4			52.5			0.4			0.4	
Approach LOS		E			D			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			6.0		6.0		6.0		6.0			
Phs Duration (G+Y+Rc), s			104.6		15.4		104.6		15.4			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			92.0		18.0		92.0		18.0			
Max Allow Headway (MAH), s			5.6		4.4		5.3		4.7			
Max Q Clear (g_c+I1), s			2.0		10.2		2.0		6.7			
Green Ext Time (g_e), s			5.6		0.3		7.4		0.0			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.08		0.00		0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			611		1406		865		1350			
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3544		0		3492		0			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			87		1585		211		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	0	5	0	7	0	1	0	3				

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Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	138	0	90	0	4	0	10
Grp Sat Flow (s), veh/h/ln	0	611	0	1406	0	865	0	1350
Q Serve Time (g_s), s	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.8
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.2	0.0	0.0	0.0	4.7
Perm LT Sat Flow (s_l), veh/h/ln	0	611	0	1406	0	865	0	1350
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	99.6	0.0	10.4	0.0	99.6	0.0	10.4
Perm LT Serve Time (g_u), s	0.0	99.6	0.0	9.8	0.0	99.6	0.0	6.5
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	7.5	0.0	0.0	0.0	0.8
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	567	0	174	0	778	0	133
V/C Ratio (X)	0.00	0.24	0.00	0.52	0.00	0.01	0.00	0.07
Avail Cap (c_a), veh/h	0	567	0	264	0	778	0	219
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.91	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	54.1	0.0	0.0	0.0	54.0
Incr Delay (d2), s/veh	0.0	1.0	0.0	2.4	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	1.0	0.0	56.4	0.0	0.0	0.0	54.3
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.3
2nd-Term Q (Q2), veh/ln	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	2.8	0.0	0.0	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.04	0.00	0.44	0.00	0.00	0.00	0.03
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
<b>Middle Lane Group Data</b>								
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	264	0	0	0	461	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	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	1475	0	0	0	1552	0	0
V/C Ratio (X)	0.00	0.18	0.00	0.00	0.00	0.30	0.00	0.00
Avail Cap (c_a), veh/h	0	1475	0	0	0	1552	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.91	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	0.4	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	0.3	0.0	0.0	0.0	0.4	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

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.00	0.00	0.01	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		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	277	0	54	0	452	0	9
Grp Sat Flow (s), veh/h/ln	0	1855	0	1585	0	1832	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.9	0.0	0.0	0.0	0.6
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	0.05	0.00	1.00	0.00	0.12	0.00	1.00
Lane Grp Cap (c), veh/h	0	1539	0	137	0	1521	0	137
V/C Ratio (X)	0.00	0.18	0.00	0.39	0.00	0.30	0.00	0.07
Avail Cap (c_a), veh/h	0	1539	0	238	0	1521	0	238
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.91	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	51.8	0.0	0.0	0.0	50.3
Incr Delay (d2), s/veh	0.0	0.3	0.0	1.8	0.0	0.5	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	0.3	0.0	53.6	0.0	0.5	0.0	50.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.2
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.6	0.0	0.2	0.0	0.3
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.25	0.00	0.01	0.00	0.03
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 7th Control Delay, s/veh	5.5
HCM 7th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	103	0	617	742	128
Future Vol, veh/h	0	103	0	617	742	128
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	112	0	671	807	139

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	473	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	538	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	538	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.45	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	538	-	-
HCM Lane V/C Ratio	-	0.208	-	-
HCM Ctrl Dly (s/v)	-	13.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

Intersection						
Int Delay, s/veh	3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	18	9	23	25	12	24
Future Vol, veh/h	18	9	23	25	12	24
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	10	25	27	13	26

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	91	39	0	0	52	0
Stage 1	39	-	-	-	-	-
Stage 2	52	-	-	-	-	-
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	910	1033	-	-	1554	-
Stage 1	984	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	902	1033	-	-	1554	-
Mov Cap-2 Maneuver	902	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	962	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.95	0	2.45
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	942	600
HCM Lane V/C Ratio	-	-	0.031	0.008
HCM Ctrl Dly (s/v)	-	-	8.9	7.3
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y			4	4	
Traffic Vol, veh/h	40	0	0	133	95	49
Future Vol, veh/h	40	0	0	133	95	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	0	145	103	53

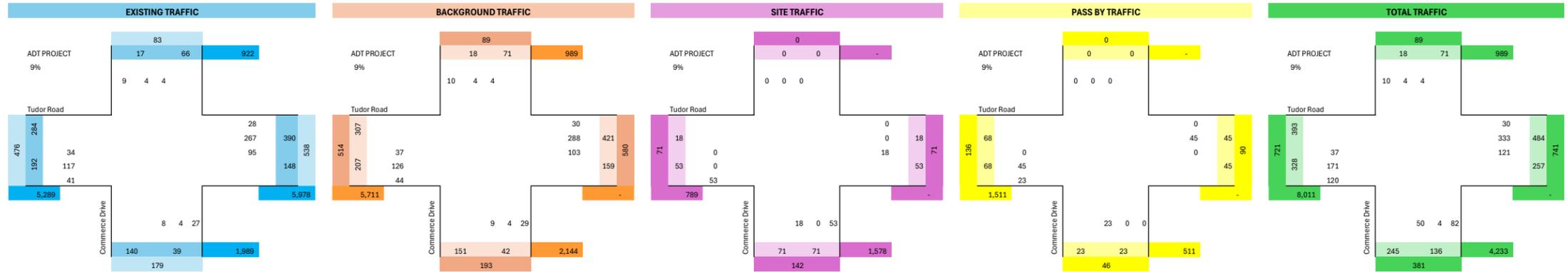
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	274	130	157	0	-	0
Stage 1	130	-	-	-	-	-
Stage 2	145	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	715	920	1423	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	883	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	715	920	1423	-	-	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	883	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.36	0	0
HCM LOS	B		

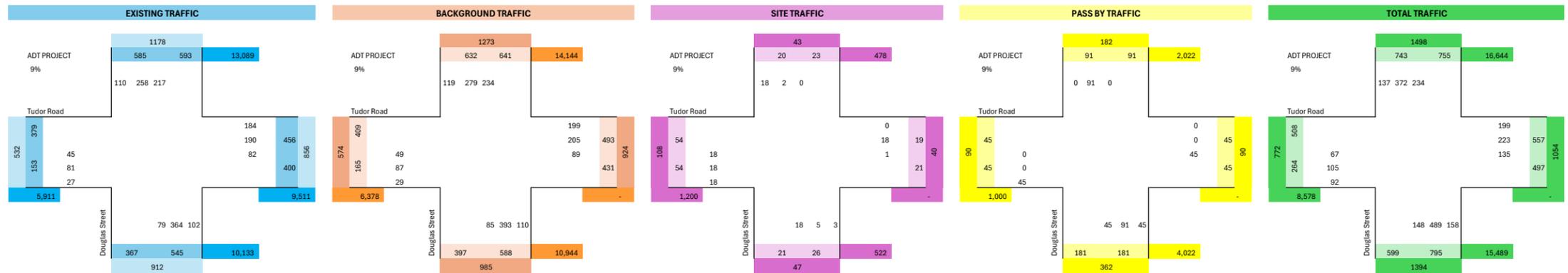
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1423	-	715	-	-
HCM Lane V/C Ratio	-	-	0.061	-	-
HCM Ctrl Dly (s/v)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

PHASE 2 - PM PEAK HOUR CALCULATIONS

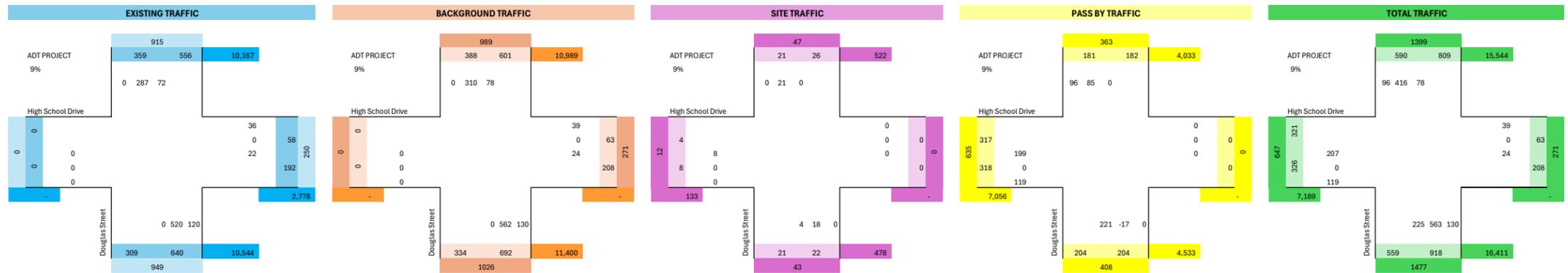
N/S	Commerce Drive	PH 2 SITE TRIP PM PEAK HOUR				PHASE 1 VOLUME PM PEAK HOUR				TOTAL
E/W	Tudor Road	IN	IN	IN	IN	DIR	IN/	DIR	IN/	TOTAL
GR	2.0%	7	88	88	88	DIR <td>IN/</td> <td>DIR <td>IN/</td> <td>TRAFFIC</td> </td>	IN/	DIR <td>IN/</td> <td>TRAFFIC</td>	IN/	TRAFFIC
YRS	4	OUT	16	OUT	88	%	OUT	%	OUT	TL
INT #	50200									
MVMT	EXT TRFC	GRW x	BKGRD TRFC							
EBL	34	1.08	37							37
EBT	117	1.08	126							45
EBR	41	1.08	44		60%	88	53			120
WBL	95	1.08	103		20%	88	18			121
WBT	267	1.08	288				0			333
WBR	28	1.08	30				0			30
NBL	8	1.08	9		20%	88	18			23
NBT	4	1.08	4				0			4
NBR	27	1.08	29		60%	88	53			82
SBL	4	1.08	4				0			4
SBT	4	1.08	4				0			4
SBR	9	1.08	10				0			10



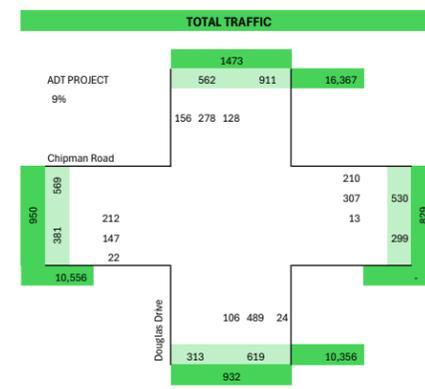
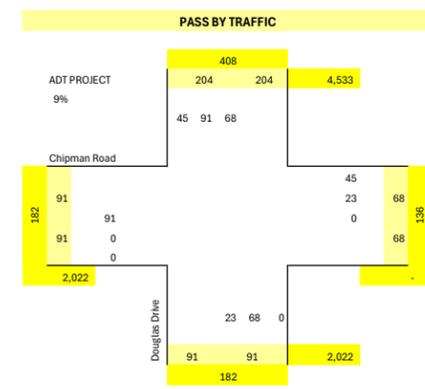
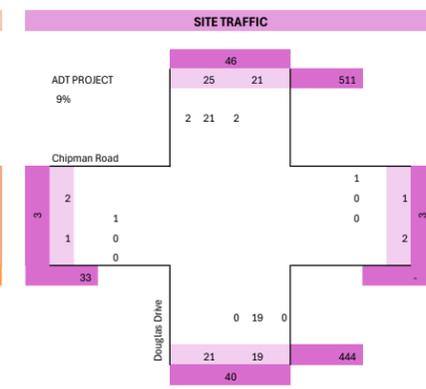
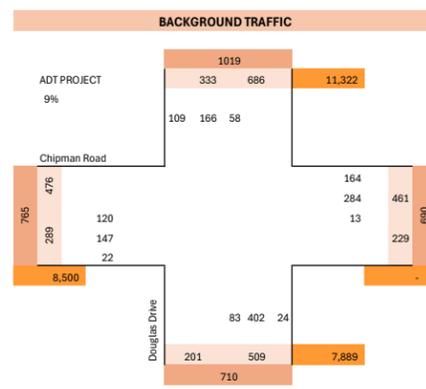
N/S	Douglas Street	SITE TRIP PM PEAK HOUR				PHASE 1 VOLUME PM PEAK HOUR				TOTAL
E/W	Tudor Road	IN	IN	IN	IN	DIR	IN/	DIR	IN/	TOTAL
GR	2.0%	7	88	88	88	DIR <td>IN/</td> <td>DIR <td>IN/</td> <td>TRAFFIC</td> </td>	IN/	DIR <td>IN/</td> <td>TRAFFIC</td>	IN/	TRAFFIC
YRS	4	OUT	16	OUT	88	%	OUT	%	OUT	TL
INT #	60200									
MVMT	EXT TRFC	GRW x	BKGRD TRFC							
EBL	45	1.08	49		20%	88	18			67
EBT	81	1.08	87		20%	88	18			105
EBR	27	1.08	29		20%	88	18			45
WBL	82	1.08	89		20%	7	1			135
WBT	190	1.08	205		20%	88	18			223
WBR	184	1.08	199				0			199
NBL	79	1.08	85		20%	88	18			148
NBT	364	1.08	393		30%	16	5			489
NBR	102	1.08	110		20%	16	3			158
SBL	217	1.08	234				0			234
SBT	258	1.08	279		30%	7	2			372
SBR	110	1.08	119		20%	88	18			137



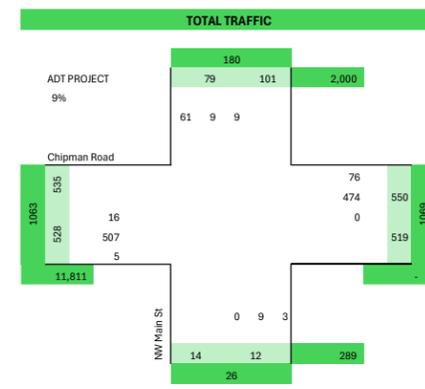
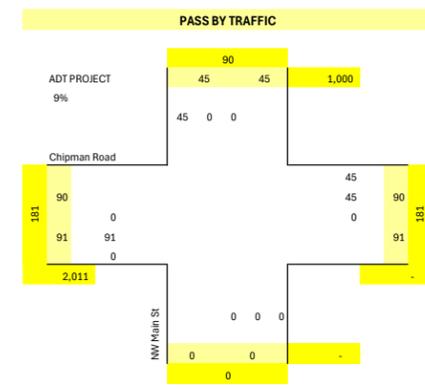
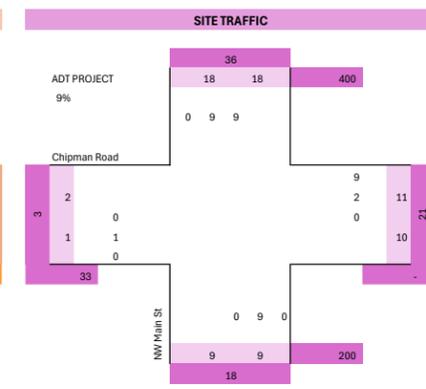
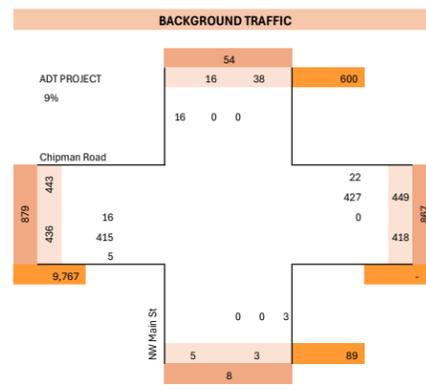
N/S	Douglas Street	SITE TRIP PM PEAK HOUR				PHASE 1 VOLUME PM PEAK HOUR				TOTAL
E/W	High School Drive	IN	IN	IN	IN	DIR	IN/	DIR	IN/	TOTAL
GR	2.0%	7	88	88	88	DIR <td>IN/</td> <td>DIR <td>IN/</td> <td>TRAFFIC</td> </td>	IN/	DIR <td>IN/</td> <td>TRAFFIC</td>	IN/	TRAFFIC
YRS	4	OUT	16	OUT	88	%	OUT	%	OUT	TL
INT #	70200									
MVMT	EXT TRFC	GRW x	BKGRD TRFC							
EBL	0	1.08	0		50%	16	8			199
EBT	0	1.08	0				0			0
EBR	0	1.08	0				0			119
WBL	22	1.08	24				0			24
WBT	0	1.08	0				0			0
WBR	36	1.08	39				0			39
NBL	0	1.08	0		50%	7	4			221
NBT	520	1.08	562		20%	88	18			-17
NBR	120	1.08	130				0			130
SBL	72	1.08	78				0			78
SBT	287	1.08	310		50%	7	21			85
SBR	0	1.08	0				0			96



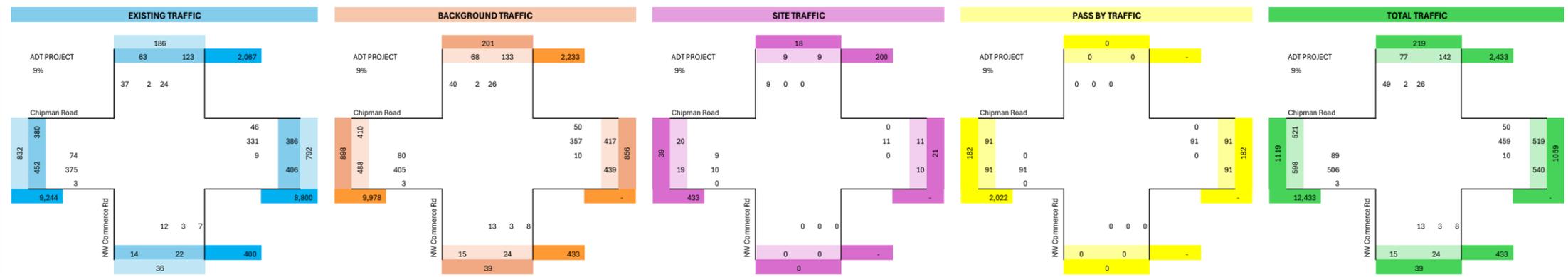
N/S	Douglas Drive	SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Chipman Road	PM PEAK HOUR				PM PEAK HOUR				TOTAL	
GR	2.0%	IN	7	IN	88	DIR	IN/	DIR	IN/	TL	
YRS	4	OUT	16	OUT	88	%	OUT	%	OUT	TL	
INT #	80200										
MVMT	EXT	GRW	BKGRD								TOTAL
TRFC	x	TRFC	TRFC	%	OUT	%	OUT	%	OUT	TL	
EBL	111	1.08	120	15%	7					91	
EBT	136	1.08	147							0	
EBR	20	1.08	22							0	
WBL	12	1.08	13							0	
WBT	263	1.08	284							23	
WBR	152	1.08	164	15%	7					45	
NBL	77	1.08	83							0	
NBT	372	1.08	402	20%	7	20%	88			19	
NBR	22	1.08	24							0	
SBL	54	1.08	58	15%	16					2	
SBT	154	1.08	166	20%	16	20%	88			21	
SBR	101	1.08	109	15%	16					2	
										45	



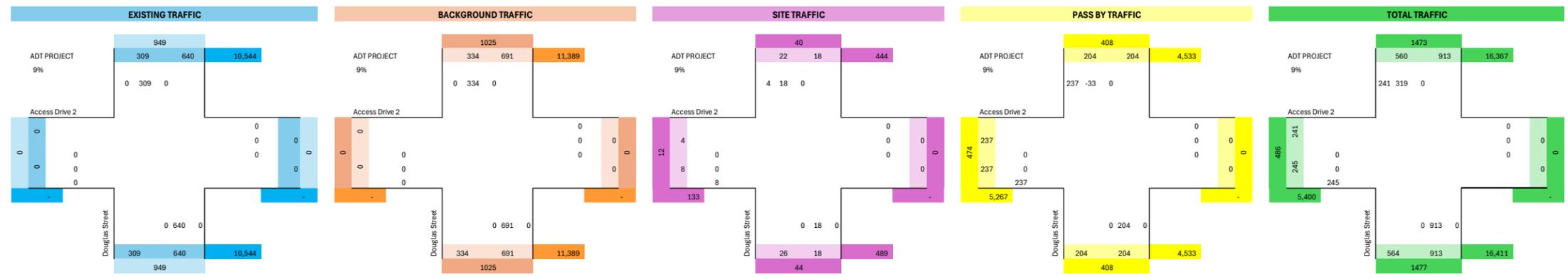
N/S	NW Main St	SITE TRIP				PHASE 1 VOLUME				TOTAL	
E/W	Chipman Road	PM PEAK HOUR				PM PEAK HOUR				TOTAL	
GR	2.0%	IN	7	IN	88	DIR	IN/	DIR	IN/	TL	
YRS	4	OUT	16	OUT	88	%	OUT	%	OUT	TL	
INT #	90200										
MVMT	EXT	GRW	BKGRD								TOTAL
TRFC	x	TRFC	TRFC	%	OUT	%	OUT	%	OUT	TL	
EBL	15	1.08	16	15%	7					0	
EBT	384	1.08	415							91	
EBR	5	1.08	5							0	
WBL	0	1.08	0							0	
WBT	395	1.08	427	15%	16					45	
WBR	20	1.08	22			10%	88			9	
NBL	0	1.08	0							0	
NBT	0	1.08	0			10%	88			9	
NBR	3	1.08	3							0	
SBL	0	1.08	0			10%	88			9	
SBT	0	1.08	0			10%	88			9	
SBR	15	1.08	16							0	
										45	



N/S E/W	NW Commerce Rd Chipman Road			SITE TRIP PM PEAK HOUR				PHASE 1 VOLUME PM PEAK HOUR				TOTAL		
GR	2.0%			IN	7	IN	88							
YRS	4			OUT	16	OUT	88							
INT #	1E+05													
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	TOTAL TRAFFIC
EBL	74	1.08	80			10%	88	9						0
EBT	375	1.08	405	15%	7	10%	88	10						91
EBR	3	1.08	3					0						0
WBL	9	1.08	10					0						3
WBT	331	1.08	357	15%	16	10%	88	11						91
WBR	46	1.08	50					0						50
NBL	12	1.08	13					0						13
NBT	3	1.08	3					0						3
NBR	7	1.08	8					0						8
SBL	24	1.08	26					0						26
SBT	2	1.08	2					0						2
SBR	37	1.08	40			10%	88	9						49



N/S E/W	Douglas Street Access Drive 2			SITE TRIP PM PEAK HOUR				PHASE 1 VOLUME PM PEAK HOUR				TOTAL		
GR	2.0%			IN	7	IN	88							
YRS	4			OUT	16	OUT	88							
INT #	10200													
MVMT	EXT TRFC	GRW x	BKGRD TRFC	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	DIR %	IN/ OUT	DIR %	IN/ OUT	TL	TOTAL TRAFFIC
EBL		1.08	0					0						0
EBT		1.08	0					0						0
EBR		1.08	0	50%	16			8						237
WBL		1.08	0					0						0
WBT		1.08	0					0						0
WBR		1.08	0					0						0
NBL		1.08	0					0						0
NBT	640	1.08	691			20%	88	18						204
NBR		1.08	0					0						0
SBL		1.08	0					0						0
SBT	309	1.08	334			20%	88	18						-33
SBR		1.08	0	50%	7			4						237



N/S	NW Main Street				SITE TRIP				PHASE 1 VOLUME				TOTAL	EXISTING TRAFFIC				BACKGROUND TRAFFIC				SITE TRAFFIC				PASS BY TRAFFIC				TOTAL TRAFFIC					
E/W	Access Drive 3				PM PEAK HOUR				PM PEAK HOUR				TOTAL																						
GR	2.0%				IN	7	IN	88	DIR	IN/	DIR	IN/	TL	DIR	IN/	DIR	IN/	TL	TOTAL																
YRS	4				OUT	16	OUT	88	%	OUT	%	OUT	TL	%	OUT	%	OUT	TL	TOTAL																
INT #	20200												TOTAL																						
MVMT	EXT	GRW	BKGRD	DIR	IN/	DIR	IN/	TL	DIR	IN/	DIR	IN/	TL	TOTAL																					
	TRFC	x	TRFC	%	OUT	%	OUT	TL	%	OUT	%	OUT	TL	TRAFFIC																					
EBL	1.08	0	0					0					0	0																					
EBT	1.08	0	0					0					0	0																					
EBR	1.08	0	0					0					0	0																					
WBL	1.08	0	0					0					45	45																					
WBT	1.08	0	0					0					0	0																					
WBR	1.08	0	0					0					23	23																					
NBL	1.08	0	0					0					0	0																					
NBT	35	1.08	38					10%	88				9	9																					
NBR	1.08	0	0					0					45	45																					
SBL	1.08	0	0					0					23	23																					
SBT	15	1.08	16					10%	88				9	9																					
SBR	1.08	0	0					0					0	0																					

N/S	NW Main Street				SITE TRIP				PHASE 1 VOLUME				TOTAL	EXISTING TRAFFIC				BACKGROUND TRAFFIC				SITE TRAFFIC				PASS BY TRAFFIC				TOTAL TRAFFIC					
E/W	Commerce Drive				PM PEAK HOUR				PM PEAK HOUR				TOTAL																						
GR	2.0%				IN	7	IN	88	DIR	IN/	DIR	IN/	TL	DIR	IN/	DIR	IN/	TL	TOTAL																
YRS	4				OUT	16	OUT	88	%	OUT	%	OUT	TL	%	OUT	%	OUT	TL	TOTAL																
INT #	1E+05												TOTAL																						
MVMT	EXT	GRW	BKGRD	DIR	IN/	DIR	IN/	TL	DIR	IN/	DIR	IN/	TL	TOTAL																					
	TRFC	x	TRFC	%	OUT	%	OUT	TL	%	OUT	%	OUT	TL	TRAFFIC																					
EBL	4	1.08	4					0					0	4																					
EBT	138	1.08	149					0					149	149																					
EBR	8	1.08	9					0					9	9																					
WBL	23	1.08	25					10%	88				23	23																					
WBT	50	1.08	54					0					54	54																					
WBR	4	1.08	4					0					4	4																					
NBL	5	1.08	5					0					5	5																					
NBT	2	1.08	2					10%	88				2	2																					
NBR	7	1.08	8					0					23	31																					
SBL	2	1.08	2					0					2	2																					
SBT	3	1.08	3					10%	88				0	12																					
SBR	4	1.08	4					10%	88				0	13																					

N/S	Commerce Drive				SITE TRIP				PHASE 1 VOLUME				TOTAL	EXISTING TRAFFIC				BACKGROUND TRAFFIC				SITE TRAFFIC				PASS BY TRAFFIC				TOTAL TRAFFIC					
E/W	Access Drive 4				PM PEAK HOUR				PM PEAK HOUR				TOTAL																						
GR	2.0%				IN	7	IN	88	DIR	IN/	DIR	IN/	TL	DIR	IN/	DIR	IN/	TL	TOTAL																
YRS	4				OUT	16	OUT	88	%	OUT	%	OUT	TL	%	OUT	%	OUT	TL	TOTAL																
INT #	30200												TOTAL																						
MVMT	EXT	GRW	BKGRD	DIR	IN/	DIR	IN/	TL	DIR	IN/	DIR	IN/	TL	TOTAL																					
	TRFC	x	TRFC	%	OUT	%	OUT	TL	%	OUT	%	OUT	TL	TRAFFIC																					
EBL	1.08	0	0					80%	88				70	70																					
EBT	1.08	0	0					0					0	0																					
EBR	1.08	0	0					0					0	0																					
WBL	1.08	0	0					0					0	0																					
WBT	1.08	0	0					0					0	0																					
WBR	1.08	0	0					0					0	0																					
NBL	1.08	0	0					0					0	0																					
NBT	39	1.08	42					23	65																										
NBR	1.08	0	0					0	0																										
SBL	1.08	0	0					0	0																										
SBT	140	1.08	151					23	174																										
SBR	1.08	0	0					80%	88				70	70																					

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	147	22	13	284	164	83	402	24	58	166	109
Future Volume (veh/h)	120	147	22	13	284	164	83	402	24	58	166	109
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	130	160	24	14	309	178	90	437	26	63	180	118
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	158	1210	179	28	1124	501	472	1335	79	406	717	608
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Prop Arrive On Green	0.18	0.78	0.78	0.02	0.32	0.32	0.04	0.39	0.39	0.02	0.26	0.26
Unsig. Movement Delay												
Ln Grp Delay, s/veh	58.5	8.6	8.7	72.2	31.3	33.6	21.2	26.7	26.7	21.8	31.7	30.8
Ln Grp LOS	E	A	A	E	C	C	C	C	C	C	C	C
Approach Vol, veh/h		314			501			553			361	
Approach Delay, s/veh		29.3			33.3			25.8			29.7	
Approach LOS		C			C			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		9.4	52.0	6.9	51.7	10.4	51.0	15.7	42.9			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	4.8			
Max Q Clear (g_c+I1), s		4.6	12.8	2.9	3.6	5.7	11.2	10.4	12.4			
Green Ext Time (g_e), s		0.0	3.0	0.0	1.1	0.0	1.5	0.2	2.1			
Prob of Phs Call (p_c)		0.88	1.00	0.37	1.00	0.95	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.01	0.00	1.00	0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3409		3106		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			202		458		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt		1	0	3	0	5	0	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

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Lane Assignment	L (Pr/Pm)	L (Prot)						
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	63	0	14	0	90	0	130	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	2.6	0.0	0.9	0.0	3.7	0.0	8.4	0.0
Cycle Q Clear Time (g_c), s	2.6	0.0	0.9	0.0	3.7	0.0	8.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	929	0	0	0	1081	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	46.0	0.0	0.0	0.0	46.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	36.2	0.0	0.0	0.0	36.8	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.7	0.0	0.0	0.0	0.8	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	406	0	28	0	472	0	158	0
V/C Ratio (X)	0.16	0.00	0.51	0.00	0.19	0.00	0.82	0.00
Avail Cap (c_a), veh/h	430	0	134	0	496	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	21.6	0.0	58.6	0.0	21.0	0.0	48.4	0.0
Incr Delay (d2), s/veh	0.2	0.0	13.6	0.0	0.2	0.0	10.0	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	21.8	0.0	72.2	0.0	21.2	0.0	58.5	0.0
1st-Term Q (Q1), veh/ln	1.1	0.0	0.4	0.0	1.5	0.0	3.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.0	0.4	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	1.1	0.0	0.5	0.0	1.6	0.0	3.9	0.0
%ile Storage Ratio (RQ%)	0.03	0.00	0.07	0.00	0.12	0.00	0.29	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	227	0	90	0	180	0	309
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	10.7	0.0	1.5	0.0	9.2	0.0	7.8
Cycle Q Clear Time (g_c), s	0.0	10.7	0.0	1.5	0.0	9.2	0.0	7.8
Lane Grp Cap (c), veh/h	0	696	0	692	0	717	0	1124
V/C Ratio (X)	0.00	0.33	0.00	0.13	0.00	0.25	0.00	0.27
Avail Cap (c_a), veh/h	0	696	0	692	0	717	0	1124
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.5	0.0	8.3	0.0	30.9	0.0	30.7
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.4	0.0	0.8	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
Control Delay (d), s/veh	0.0	26.7	0.0	8.6	0.0	31.7	0.0	31.3
1st-Term Q (Q1), veh/ln	0.0	4.5	0.0	0.6	0.0	4.3	0.0	3.4

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

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2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.8	0.0	0.7	0.0	4.5	0.0	3.5
%ile Storage Ratio (RQ%)	0.00	0.36	0.00	0.04	0.00	0.11	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

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	236	0	94	0	118	0	178
Grp Sat Flow (s), veh/h/ln	0	1834	0	1788	0	1585	0	1585
Q Serve Time (g_s), s	0.0	10.8	0.0	1.6	0.0	7.0	0.0	10.4
Cycle Q Clear Time (g_c), s	0.0	10.8	0.0	1.6	0.0	7.0	0.0	10.4
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	0.11	0.00	0.26	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	718	0	696	0	608	0	501
V/C Ratio (X)	0.00	0.33	0.00	0.13	0.00	0.19	0.00	0.36
Avail Cap (c_a), veh/h	0	718	0	696	0	608	0	501
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	25.5	0.0	8.3	0.0	30.1	0.0	31.6
Incr Delay (d2), s/veh	0.0	1.2	0.0	0.4	0.0	0.7	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	0.0	26.7	0.0	8.7	0.0	30.8	0.0	33.6
1st-Term Q (Q1), veh/ln	0.0	4.7	0.0	0.6	0.0	2.8	0.0	4.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	0.0	0.1	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.9	0.0	0.7	0.0	2.9	0.0	4.3
%ile Storage Ratio (RQ%)	0.00	0.37	0.00	0.04	0.00	0.41	0.00	0.54
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 7th Control Delay, s/veh	29.4
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis  
6: Douglas Street & Tudor Road

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	87	29	89	205	199	85	393	110	234	279	119
Future Volume (veh/h)	49	87	29	89	205	199	85	393	110	234	279	119
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	53	95	32	97	223	216	92	427	120	254	303	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	151	487	217	311	288	257	663	2042	911	693	1498	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.04	0.14	0.14	0.06	0.16	0.16	0.08	1.00	1.00	0.08	0.61	0.61
Unsig. Movement Delay												
Ln Grp Delay, s/veh	44.5	46.1	45.9	41.0	55.3	62.2	9.1	0.2	0.3	8.0	10.7	10.8
Ln Grp LOS	D	D	D	D	E	E	A	A	A	A	B	B
Approach Vol, veh/h		180			536			639			686	
Approach Delay, s/veh		45.6			55.5			1.5			9.7	
Approach LOS		D			E			A			A	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		13.8	73.5	11.8	20.9	9.3	78.0	8.7	24.0			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.9	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		8.6	2.0	7.5	4.8	4.6	8.7	5.0	17.9			
Green Ext Time (g_e), s		0.7	3.4	0.1	0.6	0.0	2.9	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.96	1.00	0.95	1.00	0.83	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.54			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2446		1777			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		1018		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis  
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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	254	0	97	0	92	0	53	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	6.6	0.0	5.5	0.0	2.6	0.0	3.0	0.0
Cycle Q Clear Time (g_c), s	6.6	0.0	5.5	0.0	2.6	0.0	3.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	860	0	1264	0	956	0	950	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	71.0	0.0	17.0	0.0	69.0	0.0	16.4	0.0
Perm LT Serve Time (g_u), s	69.0	0.0	13.6	0.0	66.8	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	0.8	0.0	0.3	0.0	0.2	0.0	0.8	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	693	0	311	0	663	0	151	0
V/C Ratio (X)	0.37	0.00	0.31	0.00	0.14	0.00	0.35	0.00
Avail Cap (c_a), veh/h	1022	0	359	0	689	0	319	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	7.7	0.0	40.5	0.0	9.0	0.0	43.1	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.6	0.0	0.1	0.0	1.4	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	8.0	0.0	41.0	0.0	9.1	0.0	44.5	0.0
1st-Term Q (Q1), veh/ln	2.4	0.0	2.4	0.0	0.9	0.0	1.3	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.5	0.0	2.5	0.0	0.9	0.0	1.4	0.0
%ile Storage Ratio (RQ%)	0.18	0.00	0.42	0.00	0.16	0.00	0.22	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	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	427	0	95	0	218	0	223
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	2.8	0.0	6.5	0.0	14.4
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.8	0.0	6.5	0.0	14.4
Lane Grp Cap (c), veh/h	0	2042	0	487	0	1089	0	288
V/C Ratio (X)	0.00	0.21	0.00	0.20	0.00	0.20	0.00	0.77
Avail Cap (c_a), veh/h	0	2042	0	903	0	1089	0	378
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	45.9	0.0	10.3	0.0	48.1
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.0	0.4	0.0	7.1
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	0.2	0.0	46.1	0.0	10.7	0.0	55.3
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.3	0.0	2.5	0.0	6.4

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.6
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.3	0.0	2.6	0.0	7.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.03	0.00	0.10	0.00	0.13
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	120	0	32	0	214	0	216
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1687	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	2.1	0.0	6.7	0.0	15.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	2.1	0.0	6.7	0.0	15.9
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	0.60	0.00	1.00
Lane Grp Cap (c), veh/h	0	911	0	217	0	1034	0	257
V/C Ratio (X)	0.00	0.13	0.00	0.15	0.00	0.21	0.00	0.84
Avail Cap (c_a), veh/h	0	911	0	403	0	1034	0	337
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	45.6	0.0	10.3	0.0	48.7
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.5	0.0	13.5
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	0.3	0.0	45.9	0.0	10.8	0.0	62.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.8	0.0	2.5	0.0	6.3
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.0
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.9	0.0	2.6	0.0	7.2
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.16	0.00	0.10	0.00	0.13
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 7th Control Delay, s/veh	22.3
HCM 7th LOS	C

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↔			↔	
Traffic Vol, veh/h	37	126	44	103	288	30	9	4	29	4	4	10
Future Vol, veh/h	37	126	44	103	288	30	9	4	29	4	4	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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	137	48	112	313	33	10	4	32	4	4	11

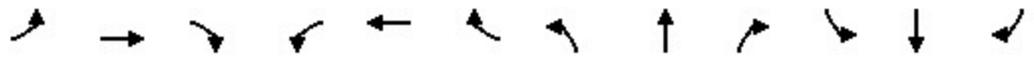
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	346	0	0	185	0	0	624	811	92	688	802	157
Stage 1	-	-	-	-	-	-	241	241	-	537	537	-
Stage 2	-	-	-	-	-	-	383	570	-	151	265	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1210	-	-	1387	-	-	370	312	947	333	316	861
Stage 1	-	-	-	-	-	-	741	705	-	496	521	-
Stage 2	-	-	-	-	-	-	612	504	-	836	688	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1210	-	-	1387	-	-	320	277	947	282	281	861
Mov Cap-2 Maneuver	-	-	-	-	-	-	320	277	-	282	281	-
Stage 1	-	-	-	-	-	-	716	681	-	456	479	-
Stage 2	-	-	-	-	-	-	550	463	-	776	665	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	1.44			1.91			11.81			13.38		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	574	1210	-	-	1387	-	-	449
HCM Lane V/C Ratio	0.08	0.033	-	-	0.081	-	-	0.044
HCM Ctrl Dly (s/v)	11.8	8.1	-	-	7.8	-	-	13.4
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.3	-	-	0.1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Volume (veh/h)	80	405	3	10	357	50	13	3	8	26	2	40
Future Volume (veh/h)	80	405	3	10	357	50	13	3	8	26	2	40
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	440	3	11	388	54	14	3	9	28	2	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	111	2140	15	23	1699	235	257	62	145	186	29	248
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	0.06	0.59	0.59	0.03	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.9	11.8	11.8	73.0	0.5	0.6	32.2	0.0	0.0	33.7	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			C		
Approach Vol, veh/h		530			453			26			73	
Approach Delay, s/veh		20.9			2.3			32.2			33.7	
Approach LOS		C			A			C			C	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	6.0	76.0		38.0	12.0	70.0			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.4	3.8	5.2		5.5	3.8	5.3			
Max Q Clear (g_c+I1), s			3.3	2.7	8.8		6.0	7.8	2.0			
Green Ext Time (g_e), s			0.1	0.0	2.9		0.4	0.1	2.9			
Prob of Phs Call (p_c)			1.00	0.31	1.00		1.00	0.94	1.00			
Prob of Max Out (p_x)			0.00	0.00	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			768	1781			525	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			224		3618		105		3136			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			526		25		903		433			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

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Lane Assignment	L+T+R L (Prot)				L+T+R L (Prot)			
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	26	11	0	0	73	87	0
Grp Sat Flow (s), veh/h/ln	0	1518	1781	0	0	1533	1781	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.8	5.8	0.0
Cycle Q Clear Time (g_c), s	0.0	1.3	0.7	0.0	0.0	4.0	5.8	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1383	0	0	0	1424	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1821	0	0	0	1835	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	29.0	0.0	0.0	0.0	31.7	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0
Time to First Blk (g_f), s	0.0	1.7	0.0	0.0	0.0	3.2	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	0.0	0.0	3.2	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.54	1.00	0.00	0.00	0.38	1.00	0.00
Lane Grp Cap (c), veh/h	0	464	23	0	0	463	111	0
V/C Ratio (X)	0.00	0.06	0.48	0.00	0.00	0.16	0.78	0.00
Avail Cap (c_a), veh/h	0	464	141	0	0	463	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.0	58.1	0.0	0.0	33.0	55.5	0.0
Incr Delay (d2), s/veh	0.0	0.2	15.0	0.0	0.0	0.7	11.4	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	0.0	32.2	73.0	0.0	0.0	33.7	66.9	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.3	0.0	0.0	1.6	2.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.1	0.4	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%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.4	0.0	0.0	1.7	2.9	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.12	0.00	0.00	0.19	0.83	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	216	0	0	0	219
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1051	0	0	0	963
V/C Ratio (X)	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.23
Avail Cap (c_a), veh/h	0	0	0	1051	0	0	0	963
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	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	0.0	0.0	11.8	0.0	0.0	0.0	0.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis  
 12: Olive St/Commerce Dr & Chipman Road

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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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	227	0	0	0	223
Grp Sat Flow (s), veh/h/ln	0	0	0	1866	0	0	0	1792
Q Serve Time (g_s), s	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	6.8	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	0.35	0.00	0.01	0.00	0.59	0.00	0.24
Lane Grp Cap (c), veh/h	0	0	0	1103	0	0	0	971
V/C Ratio (X)	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.23
Avail Cap (c_a), veh/h	0	0	0	1103	0	0	0	971
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	11.8	0.0	0.0	0.0	0.6
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.8	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	0.1
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.05	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 7th Control Delay, s/veh	14.2
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	16	415	427	22	0	16
Future Vol, veh/h	16	415	427	22	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	17	451	464	24	0	17

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	488	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	1071	-	757
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1071	-	757
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.31	0	9.87
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1071	-	-	-	757
HCM Lane V/C Ratio	0.016	-	-	-	0.023
HCM Ctrl Dly (s/v)	8.4	-	-	-	9.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	149	9	25	54	4	5	2	8	2	3	4
Future Vol, veh/h	4	149	9	25	54	4	5	2	8	2	3	4
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	162	10	27	59	4	5	2	9	2	3	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	172	0	0	290	293	167	287	296	61
Stage 1	-	-	-	-	-	-	176	176	-	115	115	-
Stage 2	-	-	-	-	-	-	115	117	-	172	180	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1540	-	-	1405	-	-	662	618	877	665	616	1004
Stage 1	-	-	-	-	-	-	826	754	-	890	800	-
Stage 2	-	-	-	-	-	-	890	798	-	830	750	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1540	-	-	1405	-	-	640	604	877	641	602	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	640	604	-	641	602	-
Stage 1	-	-	-	-	-	-	824	751	-	872	784	-
Stage 2	-	-	-	-	-	-	865	782	-	817	748	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.18			2.29			9.97			9.9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	741	44	-	-	535	-	-	744
HCM Lane V/C Ratio	0.022	0.003	-	-	0.019	-	-	0.013
HCM Ctrl Dly (s/v)	10	7.3	0	-	7.6	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		↑↑			↑↑
Traffic Vol, veh/h	24	39	562	130	78	310
Future Vol, veh/h	24	39	562	130	78	310
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	42	611	141	85	337

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1020	376	0	0	752
Stage 1	682	-	-	-	-
Stage 2	338	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	233	621	-	-	853
Stage 1	464	-	-	-	-
Stage 2	694	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	207	621	-	-	853
Mov Cap-2 Maneuver	207	-	-	-	-
Stage 1	464	-	-	-	-
Stage 2	618	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	17.64	0	2.51
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	353	724
HCM Lane V/C Ratio	-	-	0.194	0.099
HCM Ctrl Dly (s/v)	-	-	17.6	9.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.7	0.3

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

12/11/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	147	22	13	307	210	106	489	24	128	278	156
Future Volume (veh/h)	212	147	22	13	307	210	106	489	24	128	278	156
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	230	160	24	14	334	228	115	532	26	139	302	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	257	1168	172	28	880	392	442	1351	66	388	725	614
HCM Platoon Ratio	1.67	1.67	1.67	1.00	1.00	1.00	1.00	1.00	1.00	1.67	1.67	1.67
Prop Arrive On Green	0.24	0.63	0.63	0.02	0.25	0.25	0.05	0.39	0.39	0.08	0.65	0.65
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.7	14.8	14.8	72.2	38.7	45.8	20.7	27.9	27.9	21.2	16.4	15.1
Ln Grp LOS	E	B	B	E	D	D	C	C	C	C	B	B
Approach Vol, veh/h		414			576			673			611	
Approach Delay, s/veh		43.7			42.4			26.7			17.1	
Approach LOS		D			D			C			B	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs		1	2	3	4	5	6	7	8			
Case No		1.1	4.0	2.0	4.0	1.1	3.0	2.0	3.0			
Phs Duration (G+Y+Rc), s		11.0	52.0	6.9	50.1	11.5	51.5	22.3	34.7			
Change Period (Y+Rc), s		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Max Green (Gmax), s		6.0	47.0	9.0	38.0	7.0	46.0	22.0	25.0			
Max Allow Headway (MAH), s		3.8	5.3	3.8	5.3	3.8	4.8	3.8	4.8			
Max Q Clear (g_c+I1), s		7.8	15.3	2.9	4.6	6.6	11.4	17.0	17.2			
Green Ext Time (g_e), s		0.0	3.7	0.0	1.1	0.0	2.5	0.3	1.9			
Prob of Phs Call (p_c)		0.99	1.00	0.37	1.00	0.98	1.00	1.00	1.00			
Prob of Max Out (p_x)		1.00	0.00	0.01	0.00	1.00	0.00	0.42	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3449		3106		1870		3554			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			168		458		1585		1585			
<b>Left Lane Group Data</b>												
Assigned Mvmt		1	0	3	0	5	0	7	0			

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

12/11/2025

Lane Assignment	L (Pr/Pm)	L (Prot)						
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	139	0	14	0	115	0	230	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	5.8	0.0	0.9	0.0	4.6	0.0	15.0	0.0
Cycle Q Clear Time (g_c), s	5.8	0.0	0.9	0.0	4.6	0.0	15.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	851	0	0	0	922	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	46.5	0.0	0.0	0.0	46.5	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	33.7	0.0	0.0	0.0	37.2	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	2.4	0.0	0.0	0.0	1.3	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	388	0	28	0	442	0	257	0
V/C Ratio (X)	0.36	0.00	0.51	0.00	0.26	0.00	0.90	0.00
Avail Cap (c_a), veh/h	388	0	134	0	449	0	327	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	20.7	0.0	58.6	0.0	20.4	0.0	44.7	0.0
Incr Delay (d2), s/veh	0.6	0.0	13.6	0.0	0.3	0.0	22.1	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	21.2	0.0	72.2	0.0	20.7	0.0	66.7	0.0
1st-Term Q (Q1), veh/ln	2.3	0.0	0.4	0.0	1.9	0.0	6.0	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	0.0	0.0	0.0	1.6	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.4	0.0	0.5	0.0	2.0	0.0	7.6	0.0
%ile Storage Ratio (RQ%)	0.10	0.00	0.07	0.00	0.15	0.00	0.57	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment		T		T		T		T
Lanes in Grp	0	1	0	1	0	1	0	2
Grp Vol (v), veh/h	0	274	0	90	0	302	0	334
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1870	0	1777
Q Serve Time (g_s), s	0.0	13.3	0.0	2.5	0.0	9.4	0.0	9.4
Cycle Q Clear Time (g_c), s	0.0	13.3	0.0	2.5	0.0	9.4	0.0	9.4
Lane Grp Cap (c), veh/h	0	696	0	668	0	725	0	880
V/C Ratio (X)	0.00	0.39	0.00	0.14	0.00	0.42	0.00	0.38
Avail Cap (c_a), veh/h	0	696	0	668	0	725	0	880
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	26.2	0.0	14.4	0.0	14.6	0.0	37.5
Incr Delay (d2), s/veh	0.0	1.7	0.0	0.4	0.0	1.8	0.0	1.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	27.9	0.0	14.8	0.0	16.4	0.0	38.7
1st-Term Q (Q1), veh/ln	0.0	5.6	0.0	1.0	0.0	3.4	0.0	4.1

HCM 7th Signalized Intersection Capacity Analysis  
 3: Douglas Street & Chipman Road

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2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	0.0	0.4	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.9	0.0	1.1	0.0	3.7	0.0	4.2
%ile Storage Ratio (RQ%)	0.00	0.44	0.00	0.06	0.00	0.15	0.00	0.06
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		T+R		T+R		R		R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	284	0	94	0	170	0	228
Grp Sat Flow (s), veh/h/ln	0	1840	0	1788	0	1585	0	1585
Q Serve Time (g_s), s	0.0	13.3	0.0	2.6	0.0	5.5	0.0	15.2
Cycle Q Clear Time (g_c), s	0.0	13.3	0.0	2.6	0.0	5.5	0.0	15.2
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	0.09	0.00	0.26	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	721	0	672	0	614	0	392
V/C Ratio (X)	0.00	0.39	0.00	0.14	0.00	0.28	0.00	0.58
Avail Cap (c_a), veh/h	0	721	0	672	0	614	0	392
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	26.3	0.0	14.4	0.0	13.9	0.0	39.7
Incr Delay (d2), s/veh	0.0	1.6	0.0	0.4	0.0	1.1	0.0	6.2
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	27.9	0.0	14.8	0.0	15.1	0.0	45.8
1st-Term Q (Q1), veh/ln	0.0	5.8	0.0	1.0	0.0	1.8	0.0	5.9
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.1	0.0	0.2	0.0	0.7
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.2	0.0	1.1	0.0	2.0	0.0	6.6
%ile Storage Ratio (RQ%)	0.00	0.46	0.00	0.06	0.00	0.28	0.00	0.84
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 7th Control Delay, s/veh	31.2
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	105	92	135	223	199	148	489	158	234	372	137
Future Volume (veh/h)	67	105	92	135	223	199	148	489	158	234	372	137
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	114	100	147	242	216	161	532	172	254	404	149
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	174	454	203	328	300	257	587	1972	880	618	1486	542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Prop Arrive On Green	0.05	0.13	0.13	0.09	0.17	0.17	0.11	1.00	1.00	0.08	0.58	0.58
Unsig. Movement Delay												
Ln Grp Delay, s/veh	44.7	47.4	50.6	39.9	57.8	62.5	10.0	0.3	0.5	9.3	13.1	13.1
Ln Grp LOS	D	D	D	D	E	E	A	A	A	A	B	B
Approach Vol, veh/h		287			605			865			807	
Approach Delay, s/veh		47.8			55.2			2.1			11.9	
Approach LOS		D			E			A			B	
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	1.1	3.0	1.1	4.0	1.1	4.0			
Phs Duration (G+Y+Rc), s		14.3	71.1	14.7	19.8	11.0	74.4	10.3	24.3			
Change Period (Y+Rc), s		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5			
Max Green (Gmax), s		31.5	29.5	10.5	30.5	6.5	54.5	15.5	25.5			
Max Allow Headway (MAH), s		3.8	5.0	3.8	4.7	3.8	5.3	3.8	5.4			
Max Q Clear (g_c+I1), s		9.1	2.0	10.3	9.0	6.9	11.6	6.2	18.2			
Green Ext Time (g_e), s		0.7	4.5	0.0	0.9	0.0	3.9	0.1	1.6			
Prob of Phs Call (p_c)		1.00	1.00	0.99	1.00	1.00	1.00	0.91	1.00			
Prob of Max Out (p_x)		0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.60			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt		1		3		5		7				
Mvmt Sat Flow, veh/h		1781		1781		1781		1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			3554		3554		2550		1814			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			1585		1585		930		1553			
<b>Left Lane Group Data</b>												
Assigned Mvmt	1	0	3	0	5	0	7	0				

HCM 7th Signalized Intersection Capacity Analysis  
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Lane Assignment	L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)		L (Pr/Pm)	
Lanes in Grp	1	0	1	0	1	0	1	0
Grp Vol (v), veh/h	254	0	147	0	161	0	73	0
Grp Sat Flow (s), veh/h/ln	1781	0	1781	0	1781	0	1781	0
Q Serve Time (g_s), s	7.1	0.0	8.3	0.0	4.9	0.0	4.2	0.0
Cycle Q Clear Time (g_c), s	7.1	0.0	8.3	0.0	4.9	0.0	4.2	0.0
Perm LT Sat Flow (s_l), veh/h/ln	743	0	1167	0	855	0	934	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	67.4	0.0	17.3	0.0	66.6	0.0	15.3	0.0
Perm LT Serve Time (g_u), s	66.6	0.0	11.9	0.0	60.4	0.0	3.6	0.0
Perm LT Q Serve Time (g_ps), s	0.4	0.0	0.8	0.0	1.3	0.0	1.0	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	618	0	328	0	587	0	174	0
V/C Ratio (X)	0.41	0.00	0.45	0.00	0.27	0.00	0.42	0.00
Avail Cap (c_a), veh/h	940	0	331	0	587	0	318	0
Upstream Filter (I)	1.00	0.00	1.00	0.00	0.91	0.00	1.00	0.00
Uniform Delay (d1), s/veh	8.9	0.0	38.9	0.0	9.7	0.0	43.1	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.0	0.0	0.2	0.0	1.6	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	9.3	0.0	39.9	0.0	10.0	0.0	44.7	0.0
1st-Term Q (Q1), veh/ln	2.6	0.0	3.6	0.0	1.7	0.0	1.9	0.0
2nd-Term Q (Q2), veh/ln	0.1	0.0	0.1	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%)	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	2.7	0.0	3.7	0.0	1.7	0.0	1.9	0.0
%ile Storage Ratio (RQ%)	0.20	0.00	0.63	0.00	0.29	0.00	0.30	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	2	0	2	0	1	0	1
Grp Vol (v), veh/h	0	532	0	114	0	280	0	237
Grp Sat Flow (s), veh/h/ln	0	1777	0	1777	0	1777	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	3.5	0.0	9.4	0.0	15.4
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	3.5	0.0	9.4	0.0	15.4
Lane Grp Cap (c), veh/h	0	1972	0	454	0	1035	0	294
V/C Ratio (X)	0.00	0.27	0.00	0.25	0.00	0.27	0.00	0.81
Avail Cap (c_a), veh/h	0	1972	0	903	0	1035	0	378
Upstream Filter (I)	0.00	0.91	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	47.2	0.0	12.4	0.0	48.2
Incr Delay (d2), s/veh	0.0	0.3	0.0	0.3	0.0	0.6	0.0	9.6
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	0.3	0.0	47.4	0.0	13.1	0.0	57.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	1.5	0.0	3.7	0.0	6.8

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2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.8
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	1.6	0.0	3.8	0.0	7.6
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.04	0.00	0.14	0.00	0.14
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		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	172	0	100	0	273	0	221
Grp Sat Flow (s), veh/h/ln	0	1585	0	1585	0	1703	0	1591
Q Serve Time (g_s), s	0.0	0.0	0.0	7.0	0.0	9.6	0.0	16.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	7.0	0.0	9.6	0.0	16.2
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	0.55	0.00	0.98
Lane Grp Cap (c), veh/h	0	880	0	203	0	992	0	263
V/C Ratio (X)	0.00	0.20	0.00	0.49	0.00	0.28	0.00	0.84
Avail Cap (c_a), veh/h	0	880	0	403	0	992	0	338
Upstream Filter (I)	0.00	0.91	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	48.7	0.0	12.4	0.0	48.6
Incr Delay (d2), s/veh	0.0	0.5	0.0	1.9	0.0	0.7	0.0	14.0
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	50.6	0.0	13.1	0.0	62.5
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	2.8	0.0	3.6	0.0	6.4
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.0	0.1	0.0	0.2	0.0	1.0
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	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	2.9	0.0	3.8	0.0	7.4
%ile Storage Ratio (RQ%)	0.00	0.03	0.00	0.53	0.00	0.14	0.00	0.14
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 7th Control Delay, s/veh	22.8
HCM 7th LOS	C

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖↗	↖		↔			↔	
Traffic Vol, veh/h	37	171	120	121	333	30	50	4	82	4	4	10
Future Vol, veh/h	37	171	120	121	333	30	50	4	82	4	4	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									
Storage Length	190	-	-	120	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	186	130	132	362	33	54	4	89	4	4	11

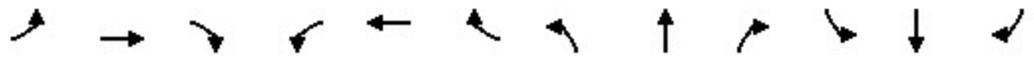
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	395	0	0	316	0	0	778	989	158	801	1022	181
Stage 1	-	-	-	-	-	-	332	332	-	625	625	-
Stage 2	-	-	-	-	-	-	446	658	-	176	397	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1161	-	-	1241	-	-	286	245	859	276	235	831
Stage 1	-	-	-	-	-	-	656	643	-	439	475	-
Stage 2	-	-	-	-	-	-	561	460	-	809	602	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1161	-	-	1241	-	-	239	212	859	209	202	831
Mov Cap-2 Maneuver	-	-	-	-	-	-	239	212	-	209	202	-
Stage 1	-	-	-	-	-	-	633	621	-	393	425	-
Stage 2	-	-	-	-	-	-	490	411	-	695	581	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.93			2.06			18.11			15.77		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	421	1161	-	-	1241	-	-	354
HCM Lane V/C Ratio	0.351	0.035	-	-	0.106	-	-	0.055
HCM Ctrl Dly (s/v)	18.1	8.2	-	-	8.2	-	-	15.8
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.6	0.1	-	-	0.4	-	-	0.2

HCM 7th Signalized Intersection Capacity Analysis  
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕		↙	↕			↕			↕	
Traffic Volume (veh/h)	89	506	3	10	459	50	13	3	8	26	2	49
Future Volume (veh/h)	89	506	3	10	459	50	13	3	8	26	2	49
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	97	550	3	11	499	54	14	3	9	28	2	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	122	2143	12	23	1733	187	257	62	144	165	29	271
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	0.07	0.59	0.59	0.03	1.00	1.00	0.28	0.28	0.28	0.28	0.28	0.28
Unsig. Movement Delay												
Ln Grp Delay, s/veh	66.0	12.4	12.4	73.0	0.8	0.8	32.2	0.0	0.0	34.0	0.0	0.0
Ln Grp LOS	E	B	B	E	A	A	C			C		
Approach Vol, veh/h		650			564			26				83
Approach Delay, s/veh		20.4			2.2			32.2				34.0
Approach LOS		C			A			C				C
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2	3	4		6	7	8			
Case No			8.0	2.0	4.0		8.0	2.0	4.0			
Phs Duration (G+Y+Rc), s			38.0	6.0	76.0		38.0	12.7	69.3			
Change Period (Y+Rc), s			5.0	4.5	5.0		5.0	4.5	5.0			
Max Green (Gmax), s			33.0	9.5	63.0		33.0	18.5	54.0			
Max Allow Headway (MAH), s			5.4	3.8	5.2		5.5	3.8	5.3			
Max Q Clear (g_c+I1), s			3.3	2.7	10.8		6.6	8.4	2.0			
Green Ext Time (g_e), s			0.1	0.0	3.8		0.4	0.1	3.8			
Prob of Phs Call (p_c)			1.00	0.31	1.00		1.00	0.96	1.00			
Prob of Max Out (p_x)			0.00	0.00	0.00		0.00	0.00	0.00			
<b>Left-Turn Movement Data</b>												
Assigned Mvmt			5	3			1	7				
Mvmt Sat Flow, veh/h			768	1781			453	1781				
<b>Through Movement Data</b>												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			224		3624		104		3235			
<b>Right-Turn Movement Data</b>												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			525		20		985		349			
<b>Left Lane Group Data</b>												
Assigned Mvmt		0	5	3	0	0	1	7	0			

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Lane Assignment	L+T+R L (Prot)			L+T+R L (Prot)				
Lanes in Grp	0	1	1	0	0	1	1	0
Grp Vol (v), veh/h	0	26	11	0	0	83	97	0
Grp Sat Flow (s), veh/h/ln	0	1518	1781	0	0	1542	1781	0
Q Serve Time (g_s), s	0.0	0.0	0.7	0.0	0.0	0.7	6.4	0.0
Cycle Q Clear Time (g_c), s	0.0	1.3	0.7	0.0	0.0	4.6	6.4	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1370	0	0	0	1424	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	1821	0	0	0	1839	0	0
Perm LT Eff Green (g_p), s	0.0	33.0	0.0	0.0	0.0	33.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	28.4	0.0	0.0	0.0	31.7	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	1.7	0.0	0.0	0.0	3.9	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	1.3	0.0	0.0	0.0	3.9	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.54	1.00	0.00	0.00	0.34	1.00	0.00
Lane Grp Cap (c), veh/h	0	463	23	0	0	464	122	0
V/C Ratio (X)	0.00	0.06	0.48	0.00	0.00	0.18	0.79	0.00
Avail Cap (c_a), veh/h	0	463	141	0	0	464	275	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	32.0	58.1	0.0	0.0	33.2	55.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	15.0	0.0	0.0	0.8	10.9	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	0.0	32.2	73.0	0.0	0.0	34.0	66.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.6	0.3	0.0	0.0	1.9	2.9	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.1	0.0	0.0	0.1	0.4	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%)	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.6	0.4	0.0	0.0	2.0	3.3	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.12	0.00	0.00	0.22	0.92	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
<b>Middle Lane Group Data</b>								
Assigned Mvmt	0	2	0	4	0	6	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	270	0	0	0	273
Grp Sat Flow (s), veh/h/ln	0	0	0	1777	0	0	0	1777
Q Serve Time (g_s), s	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	1051	0	0	0	952
V/C Ratio (X)	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.29
Avail Cap (c_a), veh/h	0	0	0	1051	0	0	0	952
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	12.4	0.0	0.0	0.0	0.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0

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2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.06	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				T+R				T+R
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	283	0	0	0	280
Grp Sat Flow (s), veh/h/ln	0	0	0	1867	0	0	0	1808
Q Serve Time (g_s), s	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.8	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	0.35	0.00	0.01	0.00	0.64	0.00	0.19
Lane Grp Cap (c), veh/h	0	0	0	1104	0	0	0	968
V/C Ratio (X)	0.00	0.00	0.00	0.26	0.00	0.00	0.00	0.29
Avail Cap (c_a), veh/h	0	0	0	1104	0	0	0	968
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	11.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.6	0.0	0.0	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
Control Delay (d), s/veh	0.0	0.0	0.0	12.4	0.0	0.0	0.0	0.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.2	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%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.2
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.06	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 7th Control Delay, s/veh	13.7
HCM 7th LOS	B

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↑↑			↗
Traffic Vol, veh/h	16	507	474	76	9	61
Future Vol, veh/h	16	507	474	76	9	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	-	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	17	551	515	83	10	66

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	598	0	0	867	299
Stage 1	-	-	-	557	-
Stage 2	-	-	-	310	-
Critical Hdwy	4.14	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	3.52	3.32
Pot Cap-1 Maneuver	975	-	-	292	697
Stage 1	-	-	-	538	-
Stage 2	-	-	-	717	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	975	-	-	287	697
Mov Cap-2 Maneuver	-	-	-	287	-
Stage 1	-	-	-	528	-
Stage 2	-	-	-	717	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.27	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	975	-	-	-	697
HCM Lane V/C Ratio	0.018	-	-	-	0.095
HCM Ctrl Dly (s/v)	8.8	-	-	-	10.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	149	9	57	54	4	5	11	31	2	12	13
Future Vol, veh/h	4	149	9	57	54	4	5	11	31	2	12	13
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									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	162	10	62	59	4	5	12	34	2	13	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	63	0	0	172	0	0	365	363	167	361	365	61
Stage 1	-	-	-	-	-	-	176	176	-	185	185	-
Stage 2	-	-	-	-	-	-	189	187	-	177	180	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1540	-	-	1405	-	-	591	565	877	594	563	1004
Stage 1	-	-	-	-	-	-	826	754	-	817	747	-
Stage 2	-	-	-	-	-	-	813	745	-	825	750	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1540	-	-	1405	-	-	542	538	877	532	536	1004
Mov Cap-2 Maneuver	-	-	-	-	-	-	542	538	-	532	536	-
Stage 1	-	-	-	-	-	-	824	751	-	780	713	-
Stage 2	-	-	-	-	-	-	751	711	-	778	748	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.18			3.81			10.36			10.45		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	723	44	-	-	880	-	-	690
HCM Lane V/C Ratio	0.071	0.003	-	-	0.044	-	-	0.043
HCM Ctrl Dly (s/v)	10.4	7.3	0	-	7.7	0	-	10.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0.1	-	-	0.1

HCM 7th Signalized Intersection Capacity Analysis  
 20: Douglas Street & Access Drive 1

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	207	0	119	24	0	39	225	563	130	78	416	96
Future Volume (veh/h)	207	0	119	24	0	39	225	563	130	78	416	96
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
Lane Width 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
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	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	225	0	129	26	0	42	245	612	141	85	452	104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	315	0	330	234	0	330	664	2033	467	563	2088	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Prop Arrive On Green	0.21	0.00	0.21	0.21	0.00	0.21	1.00	1.00	1.00	1.00	1.00	1.00
Unsig. Movement Delay												
Ln Grp Delay, s/veh	51.1	0.0	41.7	45.7	0.0	38.8	1.6	0.6	0.6	0.5	0.4	0.4
Ln Grp LOS	D		D	D		D	A	A	A	A	A	A
Approach Vol, veh/h		354			68			998			641	
Approach Delay, s/veh		47.7			41.5			0.9			0.4	
Approach LOS		D			D			A			A	
Timer:		1	2	3	4	5	6	7	8			
Assigned Phs			2		4		6		8			
Case No			6.0		6.0		6.0		6.0			
Phs Duration (G+Y+Rc), s			90.0		30.0		90.0		30.0			
Change Period (Y+Rc), s			5.0		5.0		5.0		5.0			
Max Green (Gmax), s			75.0		35.0		75.0		35.0			
Max Allow Headway (MAH), s			5.3		4.5		5.4		5.0			
Max Q Clear (g_c+I1), s			2.0		23.9		2.0		12.6			
Green Ext Time (g_e), s			8.1		1.1		4.8		0.2			
Prob of Phs Call (p_c)			1.00		1.00		1.00		1.00			
Prob of Max Out (p_x)			0.00		0.05		0.00		0.00			
Left-Turn Movement Data												
Assigned Mvmt			5		7		1		3			
Mvmt Sat Flow, veh/h			853		1365		710		1261			
Through Movement Data												
Assigned Mvmt			2		4		6		8			
Mvmt Sat Flow, veh/h			2869		0		2947		0			
Right-Turn Movement Data												
Assigned Mvmt			12		14		16		18			
Mvmt Sat Flow, veh/h			660		1585		673		1585			
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

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Lane Assignment		L		L		L		L
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	245	0	225	0	85	0	26
Grp Sat Flow (s), veh/h/ln	0	853	0	1365	0	710	0	1261
Q Serve Time (g_s), s	0.0	0.0	0.0	19.3	0.0	0.0	0.0	2.2
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	21.9	0.0	0.0	0.0	10.6
Perm LT Sat Flow (s_l), veh/h/ln	0	853	0	1365	0	710	0	1261
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	85.0	0.0	25.0	0.0	85.0	0.0	25.0
Perm LT Serve Time (g_u), s	0.0	85.0	0.0	22.4	0.0	85.0	0.0	16.6
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	19.3	0.0	0.0	0.0	2.2
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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Lane Grp Cap (c), veh/h	0	664	0	315	0	563	0	234
V/C Ratio (X)	0.00	0.37	0.00	0.72	0.00	0.15	0.00	0.11
Avail Cap (c_a), veh/h	0	664	0	429	0	563	0	339
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.96	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	47.5	0.0	0.0	0.0	45.5
Incr Delay (d2), s/veh	0.0	1.6	0.0	3.6	0.0	0.5	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	1.6	0.0	51.1	0.0	0.5	0.0	45.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.7
2nd-Term Q (Q2), veh/ln	0.0	0.3	0.0	0.3	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	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.0	6.8	0.0	0.1	0.0	0.7
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	1.07	0.00	0.02	0.00	0.08
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	379	0	0	0	286	0	0
Grp Sat Flow (s), veh/h/ln	0	1777	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	1259	0	0	0	1325	0	0
V/C Ratio (X)	0.00	0.30	0.00	0.00	0.00	0.22	0.00	0.00
Avail Cap (c_a), veh/h	0	1259	0	0	0	1325	0	0
Upstream Filter (I)	0.00	1.00	0.00	0.00	0.00	0.96	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	0.6	0.0	0.0	0.0	0.4	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	0.6	0.0	0.0	0.0	0.4	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

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2nd-Term Q (Q2), veh/ln	0.0	0.2	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	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	0.0	0.0	0.1	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

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	374	0	129	0	270	0	42
Grp Sat Flow (s), veh/h/ln	0	1752	0	1585	0	1749	0	1585
Q Serve Time (g_s), s	0.0	0.0	0.0	8.4	0.0	0.0	0.0	2.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	8.4	0.0	0.0	0.0	2.6
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	0.38	0.00	1.00	0.00	0.38	0.00	1.00
Lane Grp Cap (c), veh/h	0	1241	0	330	0	1239	0	330
V/C Ratio (X)	0.00	0.30	0.00	0.39	0.00	0.22	0.00	0.13
Avail Cap (c_a), veh/h	0	1241	0	462	0	1239	0	462
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.96	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	41.0	0.0	0.0	0.0	38.6
Incr Delay (d2), s/veh	0.0	0.6	0.0	0.8	0.0	0.4	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	0.6	0.0	41.7	0.0	0.4	0.0	38.8
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	3.3	0.0	0.0	0.0	1.0
2nd-Term Q (Q2), veh/ln	0.0	0.2	0.0	0.1	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	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.2	0.0	3.4	0.0	0.1	0.0	1.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.00	0.53	0.00	0.00	0.00	0.12
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 7th Control Delay, s/veh	10.1
HCM 7th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations		↗		↑↑	↑↑	
Traffic Vol, veh/h	0	245	0	913	319	241
Future Vol, veh/h	0	245	0	913	319	241
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	266	0	992	347	262

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	-	304	-	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-
Pot Cap-1 Maneuver	0	692	0	-	-
Stage 1	0	-	0	-	-
Stage 2	0	-	0	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	-	692	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	13.43	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	692	-	-
HCM Lane V/C Ratio	-	0.385	-	-
HCM Ctrl Dly (s/v)	-	13.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	1.8	-	-

Intersection						
Int Delay, s/veh	3.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	45	23	47	45	23	25
Future Vol, veh/h	45	23	47	45	23	25
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	25	51	49	25	27

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	153	76	0	0	100	0
Stage 1	76	-	-	-	-	-
Stage 2	77	-	-	-	-	-
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	839	986	-	-	1493	-
Stage 1	947	-	-	-	-	-
Stage 2	946	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	825	986	-	-	1493	-
Mov Cap-2 Maneuver	825	-	-	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	930	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.51	0	3.57
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	873	863
HCM Lane V/C Ratio	-	-	0.085	0.017
HCM Ctrl Dly (s/v)	-	-	9.5	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		L		T	
Traffic Vol, veh/h	70	0	0	65	174	70
Future Vol, veh/h	70	0	0	65	174	70
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	0	0	71	189	76

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	298	227	265	0	0
Stage 1	227	-	-	-	-
Stage 2	71	-	-	-	-
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	693	812	1299	-	-
Stage 1	811	-	-	-	-
Stage 2	952	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	693	812	1299	-	-
Mov Cap-2 Maneuver	693	-	-	-	-
Stage 1	811	-	-	-	-
Stage 2	952	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	10.83	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1299	-	693	-	-
HCM Lane V/C Ratio	-	-	0.11	-	-
HCM Ctrl Dly (s/v)	0	-	10.8	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-