TRAFFIC IMPACT STUDY FOR

DRI #4192
DOUGLAS WALDROP
DATA CENTER DEVELOPMENT

DATE:
July 19, 2024

LOCATION:
Douglas County, Georgia

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A. Executive Summary

A new data center development consisting of 1,760,850 square feet of floor space is proposed for construction on several parcels along US 78 and Old Post Road in the Winston area of Douglas County, Georgia. The development is expected to be built-out by 2027 and will generate a total of 1,744 new daily trips according to data from the Institute of Transportation Engineers (ITE) trip generation manual. Of these daily volumes, 223 new trips (123 entering and 100 exiting) are expected to occur during the AM peak hour while 188 new trips (56 entering and 132 exiting) are expected to occur during the PM peak hour.

The development will include two (2) access points in total. The primary access point will be a full-access driveway directly onto US 78, just west of the driveway for the nearby Dollar General. The secondary access point will be a full-access driveway onto Old Post Road. Since the data centers are not for public access, both access points will be secured with gate and fences.

Existing intersections adjacent to the planned development were evaluated to determine if new roadway geometries or traffic controls will be needed once the development is built. The following intersections were evaluated:

1. Post Road & Mason Creek Road (South of I-20)
2. Post Road & I-20 Eastbound Ramps
3. Post Road & I-20 Westbound Ramps
4. Post Road & Mason Creek Road (North of I-20)
5. Post Road & Mattie McCoy Lane
6. US 78 & Post Road / Mann Road
7. US 78 & Old Post Road
8. US 78 & Strawn Road
9. US 78 & Site Driveway 1
10. Old Post Road & Site Driveway 2

In Existing Conditions, traffic operations at the study intersections are satisfactory at all approaches except for the traffic coming off of the I-20 eastbound ramp which operates at a level of service (LOS) F during both the AM and the PM peak hours.

In No-Build Conditions, the issue previously seen at the I-20 eastbound ramp is expected to be remedied with the planned construction of a traffic signal and additional turn lanes at the intersection. However, similar issues begin to appear at the westbound ramps during the PM peak hour with southbound traffic expected to operate at LOS E.

In Build Conditions, the addition of project traffic is expected to have minor impacts on future traffic operations at the study intersections, though the southbound approach and the overall operations at the intersection of Post Road and the I-20 westbound ramps is expected to operate at LOS F and LOS

E, respectively. The proposed driveway along US 78 is expected to operate with slightly high delay, which is somewhat expected for a side street approach on a single-lane highway with significant traffic.

Table A summarizes the changes observed at the intersection of Post Road at the I-20 westbound ramps that operates with undesirable LOS approaches during the No-Build and Build Conditions during the PM peak. The table also compares a relationship between the percent of site traffic associated with future movements and approaches with LOS E or F in Build Conditions, and the capacity analysis results of Build Mitigation Conditions. No traffic control or signal timing improvements have been made between No-Build and Build Conditions and no other intersections were seen to be operating with unsatisfactory delay.

Parameters evaluated for Build Mitigation Conditions are identified on the following pages of the Executive Summary, labelled as Recommended Roadway Improvement Advisory Conditions. These parameters are also identified in Report Section D: Traffic Impact Analysis and Report Section F: Recommendations, for reference.

Table B summarizes where the turn storage lengths and taper lengths are exceeded by either existing or future through-movement traffic volumes where there is a LOS E or F present.

The General Conditions and Recommended Roadway Improvement Conditions of Approval for DRI #4192 are on the pages following Table B results.

Table A: Capacity Analysis Result Summary – No-Build, Build, and Build Mitigation Condition Relationships

ID	Intersection	Existing Control	Mitigation Measure	Movement	AM									PM								
					No-Build		Build		Site Traffic	Total Traffic	% of Total Traffic	Mitigation		No-Build		Build		Site Traffic	Total Traffic	% of Total Traffic	Mitigation	
					LOS	Delay	LOS	Delay				LOS	Delay	LOS	Delay	LOS	Delay				LOS	Delay
3	Post Rd & I-20 WB Ramps	Signal	Add SB Right-Turn Lane	**Overall**	**C**	**27.3**	**C**	**28.4**	89	1,439	6%	**B**	**14.7**	**D**	**50.5**	**E**	**61.4**	75	1,915	4%	**C**	**26.5**
				WB	C	23.8	C	24.8	18	298	6%	**C**	**30.4**	**D**	**45.4**	**D**	**45.4**	8	721	1%	**C**	**31.1**
				NB	C	30.7	C	31.9	31	560	6%	**A**	**8.1**	**D**	**37.7**	**D**	**38.1**	14	519	3%	**B**	**18**
				SB	C	26.2	C	27.4	40	581	7%	**B**	**16.7**	**E**	**63.9**	**F**	**88.4**	53	675	8%	**C**	**29.7**

Table B: Queue Analysis Result Summary – Existing, No-Build, and Build Condition Relationships

ID	Intersection	LOS E/F Approach - Movement	50th (95th) Percentile Queues, in feet							
			Lengths (ft)		Existing		No-Build		Build	
			Storage	Taper	AM	PM	AM	PM	AM	PM
3	Post Rd & I-20 WB Ramps	WB-LTR	N/A	N/A	120 (276)	605 (846)	134 (296)	656 (900)	154 (315)	672 (916)
		NB-L	260	120	40 (90)	157 (328)	44 (94)	175 (347)	47 (103)	175 (347)
		NB-T	N/A	N/A	71 (150)	117 (175)	78 (156)	123 (182)	94 (173)	131 (193)
		SB-TR	N/A	N/A	242 (473)	576 (766)	269 (506)	626 (817)	317 (564)	723 (917)

To receive the Notice of Decision Request for Non-Expedited DRI #4192 – Douglas Waldrop, the following General Conditions and Roadway Improvement Conditions of Approval are recommended.

General Conditions:

Pedestrian, Bicycle, and Transit Facilities

- Provide sidewalk along road frontage of US 78 & Old Post Road including ramps and crosswalks across the proposed access points.

Recommended Roadway Improvement Conditions of Approval:

Driveway 1 at US 78

- Install an eastbound right-turn deceleration lane for access into the site.
- Install a westbound left-turn lane for access into the site.
- Allow for full-access out of the site.

Driveway 2 at Old Post Road

- Allow for full-access out of the site (though site traffic is expected to only turn right-out and left-in at this driveway).

Recommended Roadway Improvement Advisory Conditions:

Post Road at the I-20 Westbound Ramps

- Recommend that the Douglas County and/or GDOT investigate the inclusion of a southbound right-turn lane for traffic trying to enter the interstate.

These conditions are based on the approved Methodology Meeting inputs and parameters identified in the Georgia Regional Transportation Authority (GRTA) Letter of Understanding (LOU), dated Thursday, July 11, 2024. The GRTA LOU is provided at the end of this report for reference.

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A. Introduction

A new data center development comprised of 1,760,850 square feet of floor space is proposed for construction on several parcels along US 78 and Old Post Road in the Winston area of Douglas County, Georgia.

The development will include two (2) gated access points in total. The primary access point will be a full-access driveway directly onto US 78, just west of the driveway for the nearby Dollar General. The secondary access point will be a full-access driveway onto Old Post Road.

The purpose of this assessment is to identify the traffic expected to be generated by new vehicular trips when the development is complete in the year 2027. The traffic study includes existing traffic volumes, future traffic volumes (2027), trip generation, directional distribution, and anticipated traffic impacts at the following existing intersections:

1. Post Road & Mason Creek Road (South of I-20)
2. Post Road & I-20 Eastbound Ramps
3. Post Road & I-20 Westbound Ramps
4. Post Road & Mason Creek Road (North of I-20)
5. Post Road & Mattie McCoy Lane
6. US 78 & Post Road / Mann Road
7. US 78 & Old Post Road
8. US 78 & Strawn Road
9. US 78 & Site Driveway 1
10. Old Post Road & Site Driveway 2

Figure 1 shows the site location and study intersections mentioned above. Figure 2 shows the proposed development with associated driveway locations. Access to the site will be via the two (2) outlets shown in Figure 2 and mentioned above. The proposed site plan is provided in Appendix A.

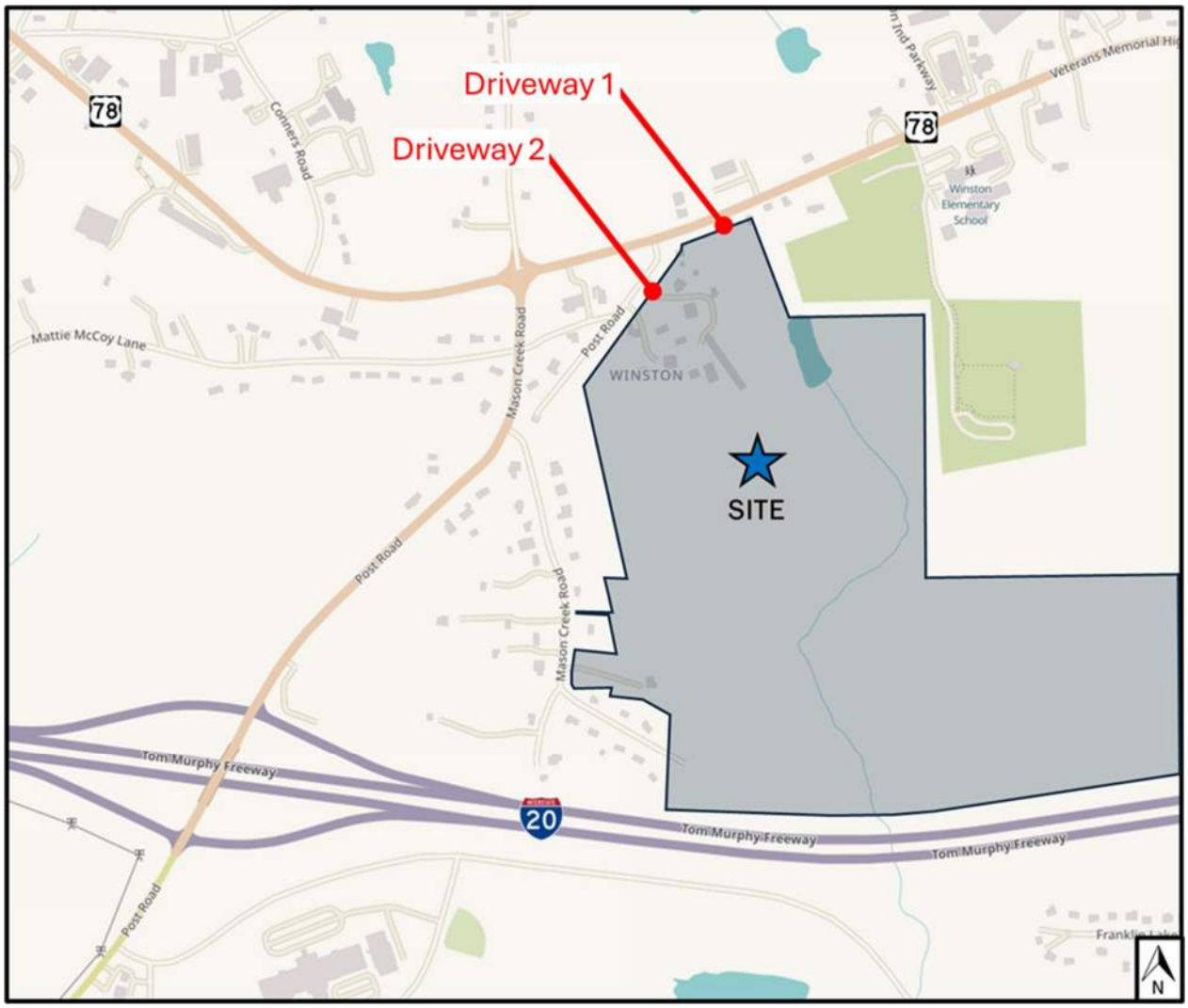
A.1. Programmed & Planned Regional Transportation Improvements

Regional transportation improvements were investigated using the Atlanta Regional Commission's (ARC's) Transportation Improvement Program (TIP) database to verify if any large-scale infrastructure projects are planned for in the immediate area. There is one project planned for construction that will signalize the intersection of Post Road and the I-20 eastbound ramps and include the construction of additional turn lanes. It is expected that this project will be completed before 2027 and is included in the future scenario analysis.

Figure 1. Site Location Aerial & Study Intersections

1. Post Road & Mason Creek Road (South of I-20)
2. Post Road & I-20 Eastbound Ramps
3. Post Road & I-20 Westbound Ramps
4. Post Road & Mason Creek Road (North of I-20)
5. Post Road & Mattie McCoy Lane
6. US 78 & Post Road / Mann Road
7. US 78 & Old Post Road
8. US 78 & Strawn Road
9. US 78 & Site Driveway 1
10. Old Post Road & Site Driveway 2

Figure 2. Site Driveway Locations



B. Existing Conditions

B.1. Project Phasing

The development will be completed in a single phase by 2027.

B.2. Transportation Facilities and LOS Standards

Post Road is a two-lane minor undivided arterial roadway with north / south orientation that intersects with Veterans Memorial Highway approximately 0.25 miles west of the proposed site access at Veterans Memorial Highway. SR 124 has a posted speed limit of 45 miles per hour and provides access to various residential land uses and to Interstate 20.

I-20/GA-402/Tom Murphy Freeway is a six-lane divided interstate with east / west orientation that crosses and exits to Post Rd approximately 1.3 miles south of the proposed site access. I-20 has a posted speed limit of 70 miles per hour and provides access to various industrial, commercial, and residential land uses along its length.

Mann Road is a two-lane undivided local roadway with north / south orientation that intersects with Veterans Memorial Highway west of the proposed development. Mann Road has a posted speed limit of 35 miles per hour and provides access to various residential land uses along its length.

US 78 (Veterans Memorial Highway) is a two-lane undivided minor arterial roadway with east / west orientation. The road intersects with the proposed site access. Veterans Memorial Highway has a posted speed limit of 45 miles per hour and provides access to various industrial and residential land uses along its length.

LOS D is considered the minimum standard unless Existing Conditions are lower.

B.3. Pedestrian and Multi-Use Facilities

There is minimal pedestrian infrastructure and no bicycle/on-road bicycle routes that exist within the site area and its periphery. One (1) sidewalk exists across from the site along Veterans Memorial Highway. Additional pedestrian infrastructure is found west of the site along Post Road, between Veterans Memorial Highway and Mason Creek Road. Figure 3 illustrates existing and future pedestrian and multi-use path infrastructure that surround the proposed development.

B.4. Transit and Bicycle Facilities

There are currently no public transit routes that serve the study area. There are also no dedicated bike lanes on the roads in the study area, though bikes are permitted to use the roads. The Douglas County Winston Area Plan includes possible future trails along US 78, Mann Road, Post Road, and Old Post Road. Figure 4 illustrates the future proposed trails that surround the proposed development.

Figure 3. Alternative Transportation Map – Pedestrian & Multi-Use Path Infrastructure

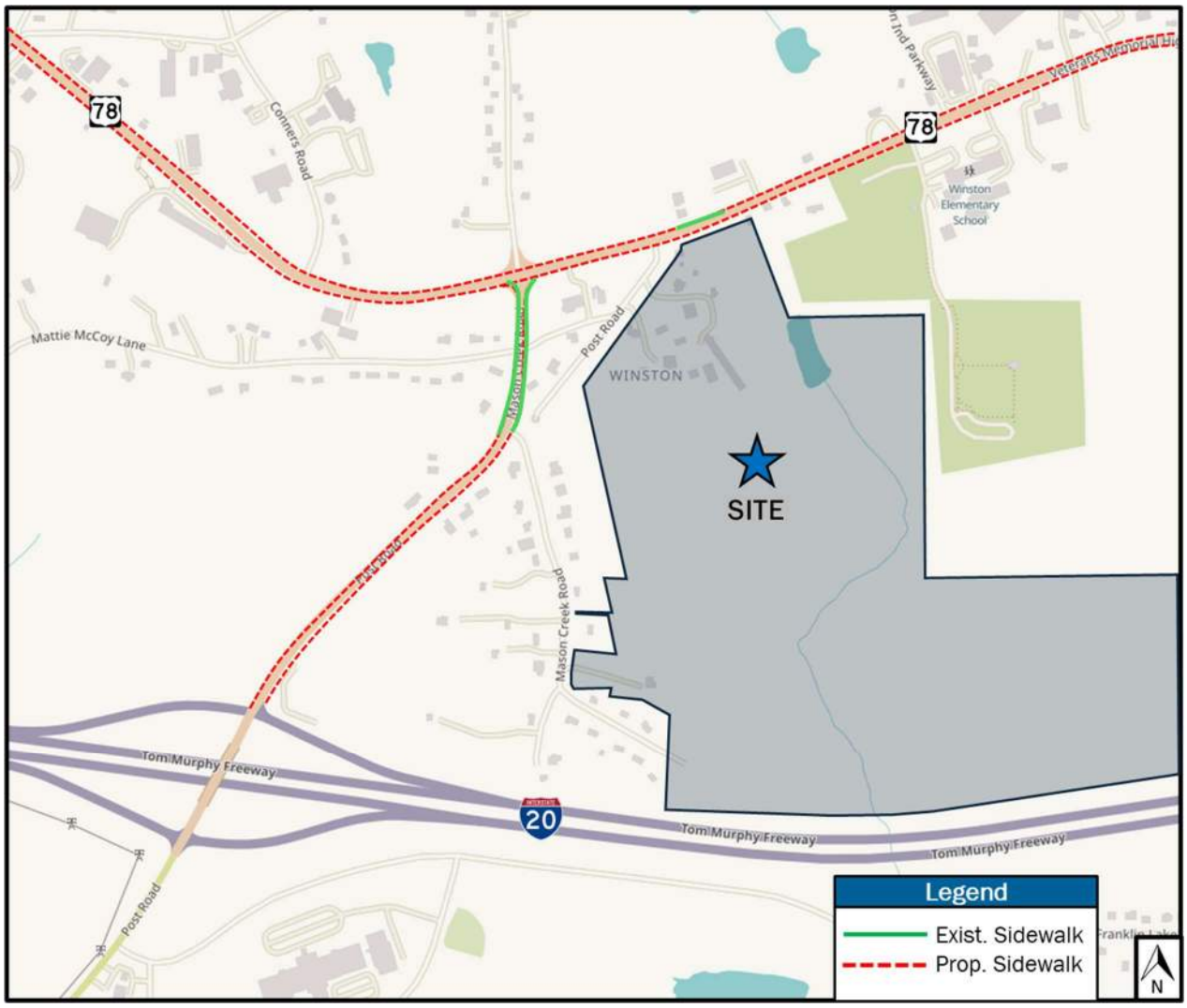
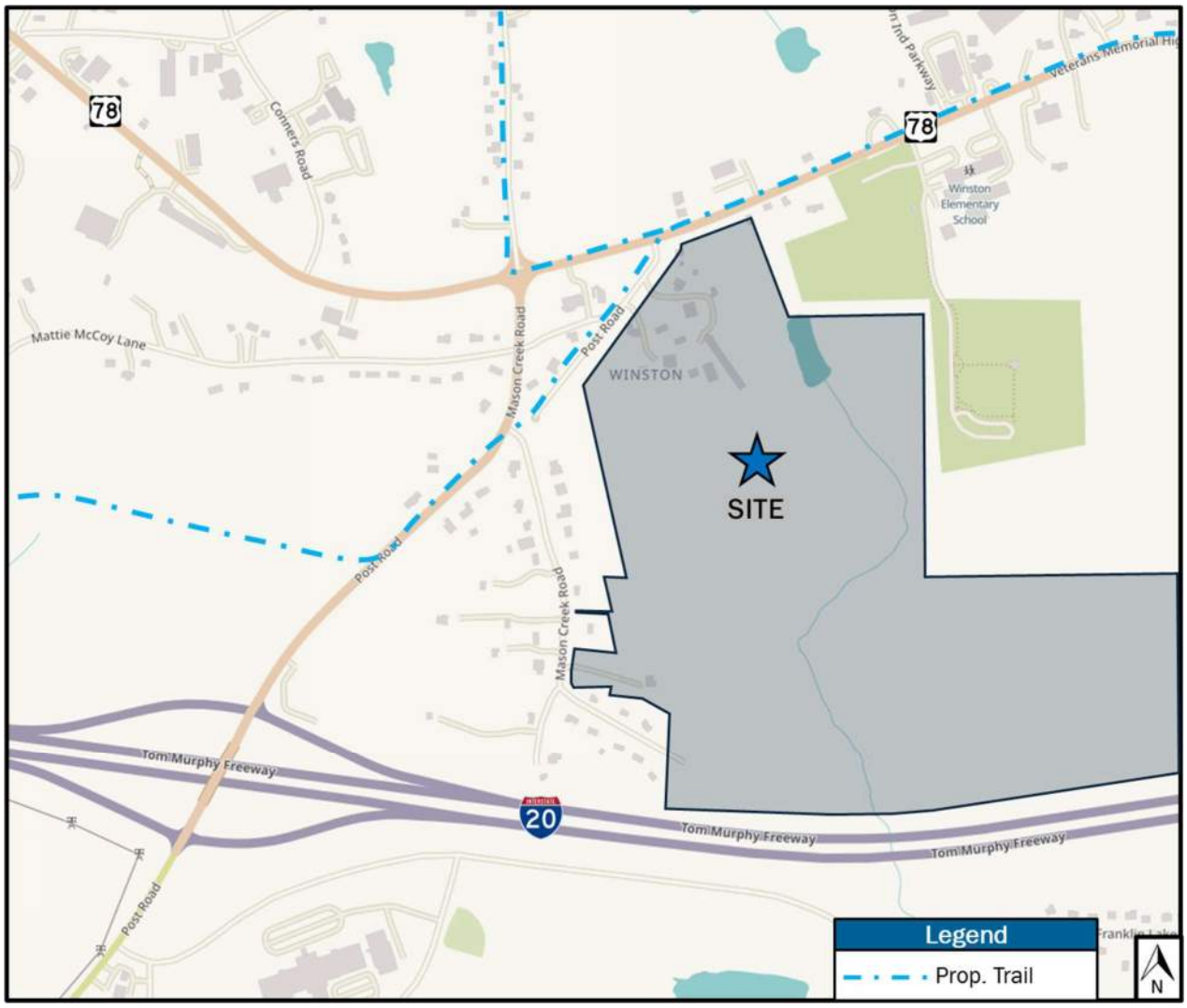


Figure 4. Alternative Transportation Map – Trail & Bicycle Infrastructure Services

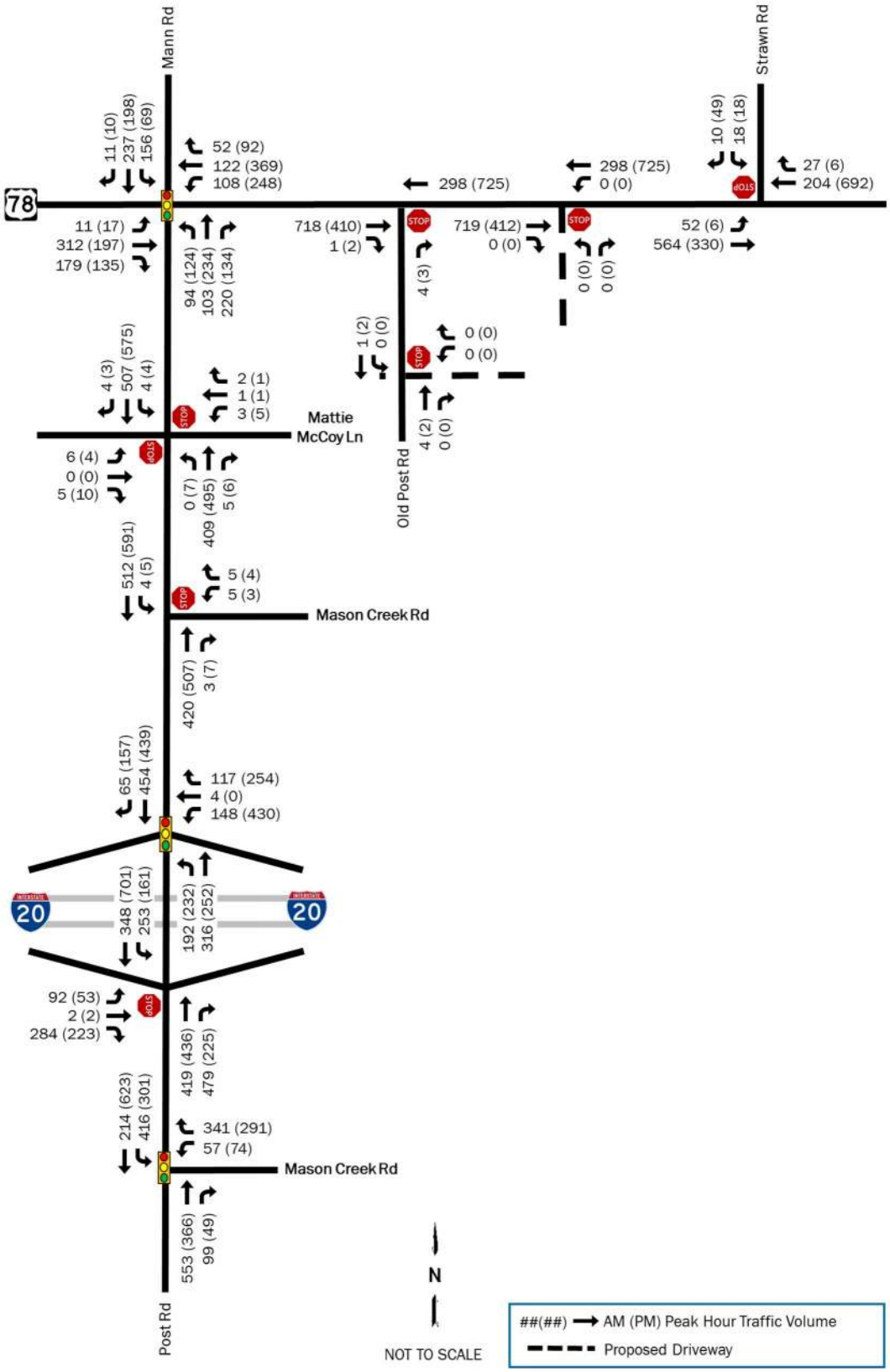


B.5. Traffic Counts

Turning movement counts (TMCs) were collected on Wednesday, May 15, 2024, at the study intersections. Also, 24-hour bi-directional counts were collected along US-78 and Old Post Road near the proposed site driveways. Average daily weekday traffic the two roadways is 12,000 vehicles and 170 vehicles, respectively.

Traffic count data is provided in Appendix B and depicted in Figure 5: 2024 Existing Traffic Volumes.

Figure 5. 2024 Existing Traffic Volumes

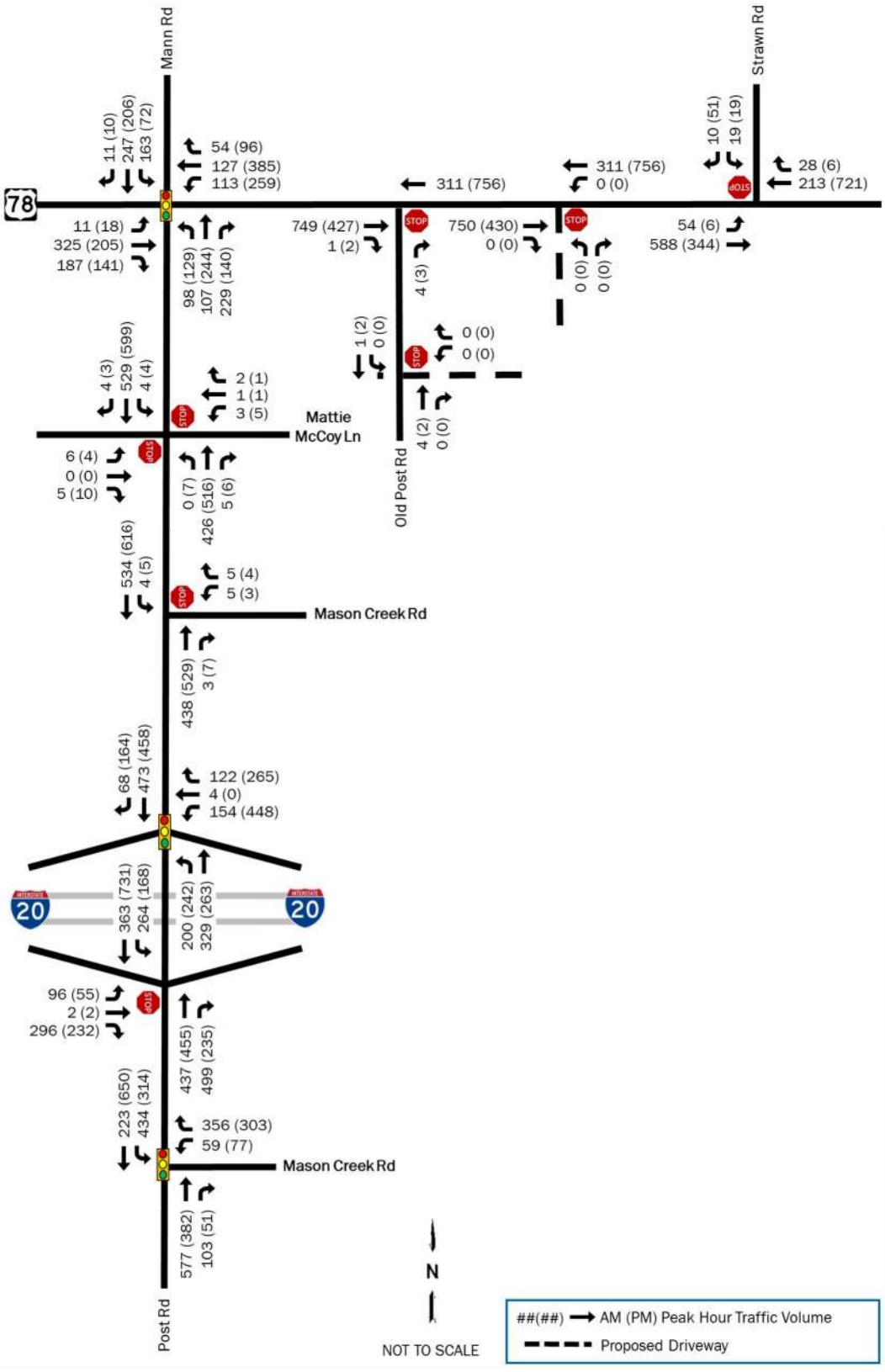


C. Future Conditions

C.1. Background Growth

The growth rate in the study area is based on an analysis of US Census data. The project will be built out in 2027. To account for future traffic growth, the existing base year traffic volumes are grown by 1.4% for three (3) years to develop the 2027 No-Build and 2027 Build traffic volumes. Supporting census data used in this analysis are provided in Appendix C. Figure 6 depicts the 2027 No-Build traffic volumes.

Figure 6. 2027 No-Build Traffic Volumes



C.2. Project Trip Generation

Table 1 summarizes the project trip generation calculated using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, 2021. While these numbers were used to evaluate the impact of the construction of the proposed data center, it is noted that data centers normally do not generate much traffic.

Table 1: Project Trip Generation

LAND USE	PERIOD	TOTAL	IN	OUT
Data Center, LUC 150 (1,760,850 Square Feet)	Daily	1,744	872	872
	AM Peak Hour	223	123	100
	PM Peak Hour	188	56	132

The development will generate a total of 223 new trips (123 entering and 100 exiting) in the AM peak hour and 188 new trips (56 entering and 132 exiting) in the PM peak hour.

C.3. Trip Distribution and Assignment

The assignment and directional distribution of new project trips is based on existing traffic patterns observed in the overall study area and based on a collaboration with the Georgia Regional Transportation Authority (GRTA) and Georgia Department of Transportation (GDOT) during the DRI MMP Meetings held for this development.

From the trips generated, the following distribution of traffic is expected through the site:

- 30% of traffic will enter and exit the site from the west via US 78.
- 5% of traffic will enter and exit the site from the northwest via Mann Road.
- 10% of traffic will enter and exit the site from the southwest via Post Road.
- 10% of traffic will enter and exit the site from the west via I-20.
- 15% of traffic will enter and exit the site from the east via I-20.
- 5% of traffic will enter and exit the site from the southeast via Mason Creek Road
- 25% of traffic will enter and exit the site from the east via US 78.

Figure 7 depicts the Trip Distribution for the proposed data center. Figure 8 depicts the Trip Assignments for the development based on the trip distribution. Figure 9 depicts the 2027 Build Traffic Volumes for the site (No Build + Total Combined Project Trips).

Figure 7. Site Traffic Distribution

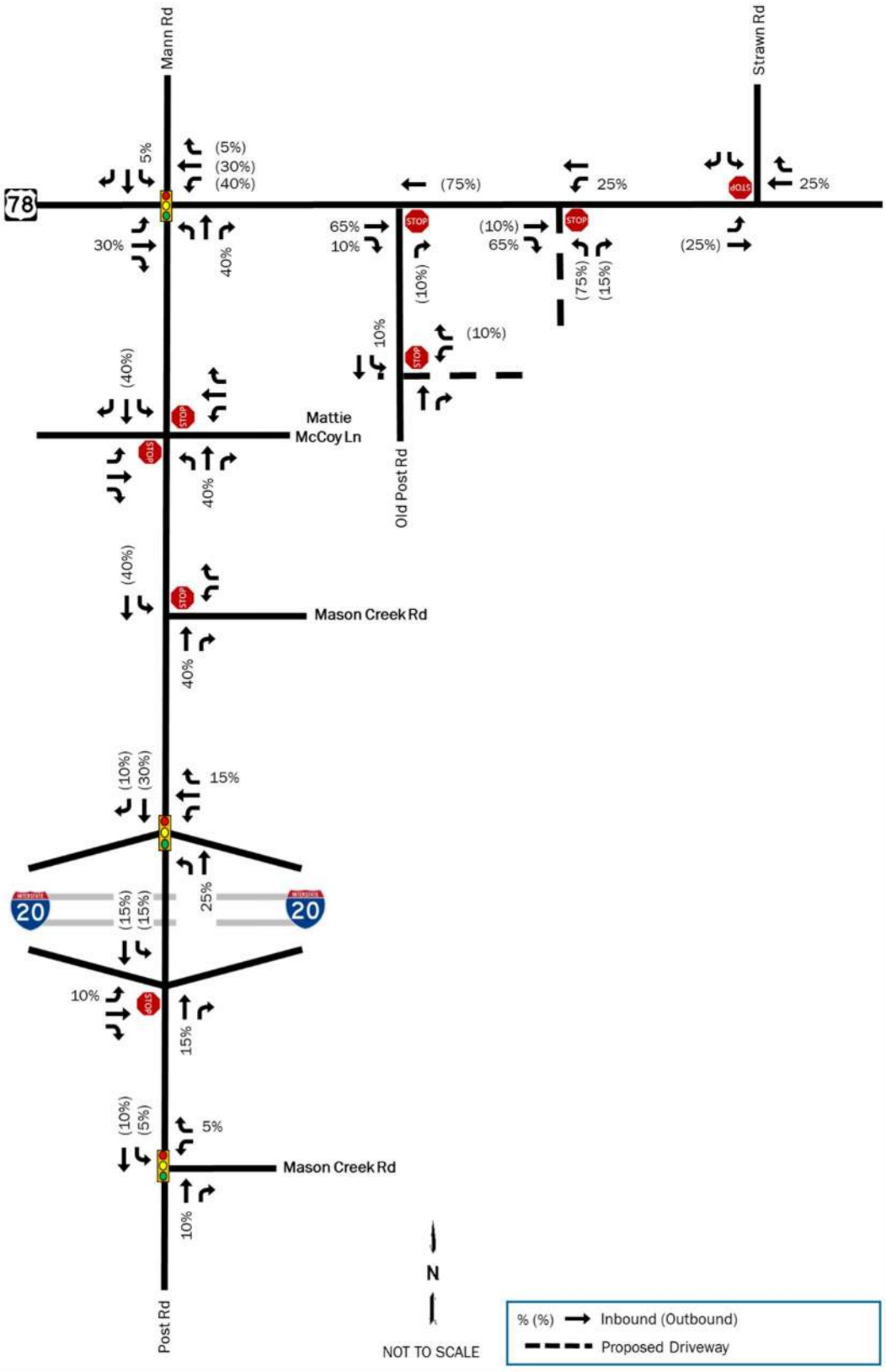


Figure 8. Trip Assignment

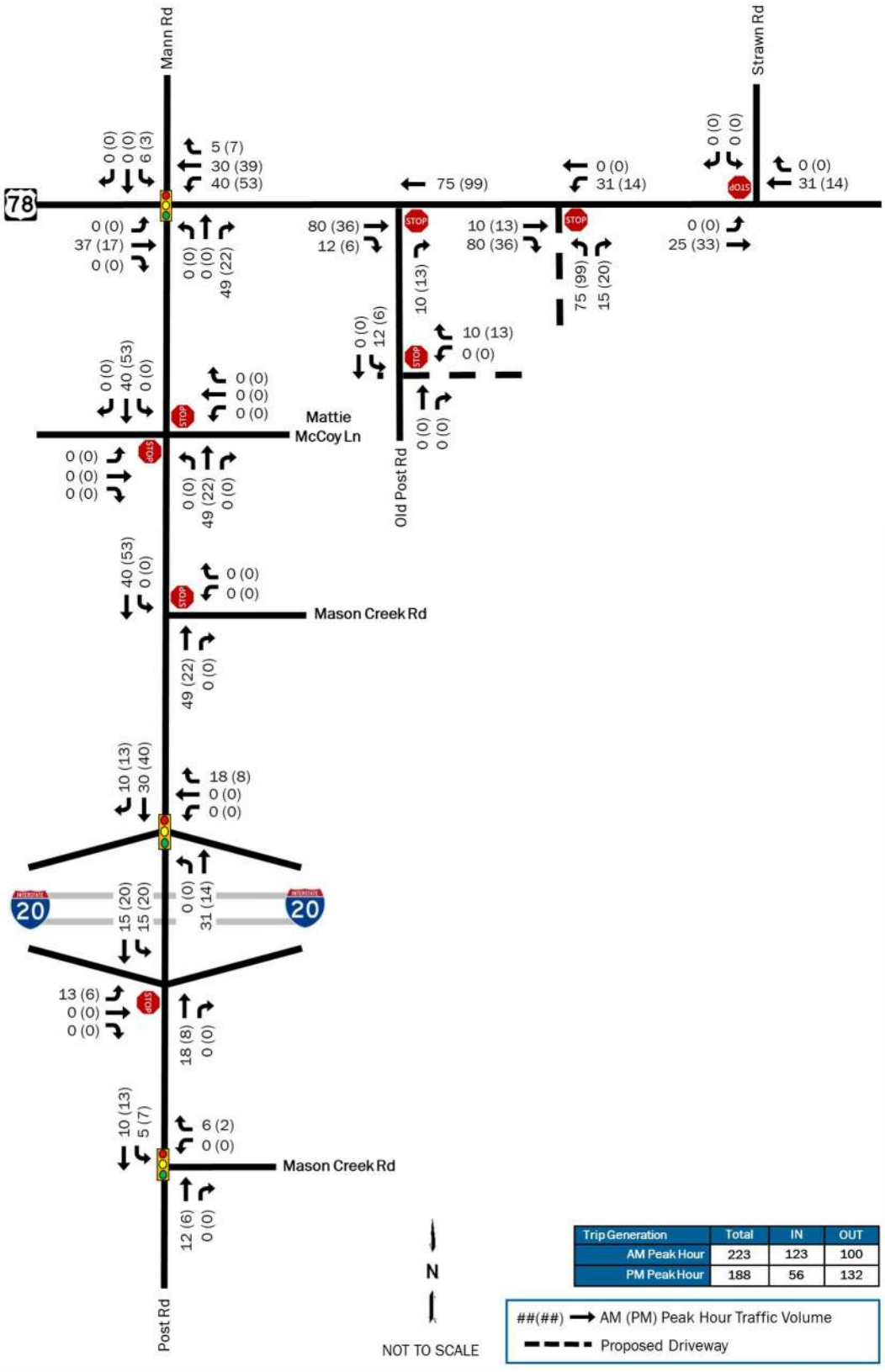
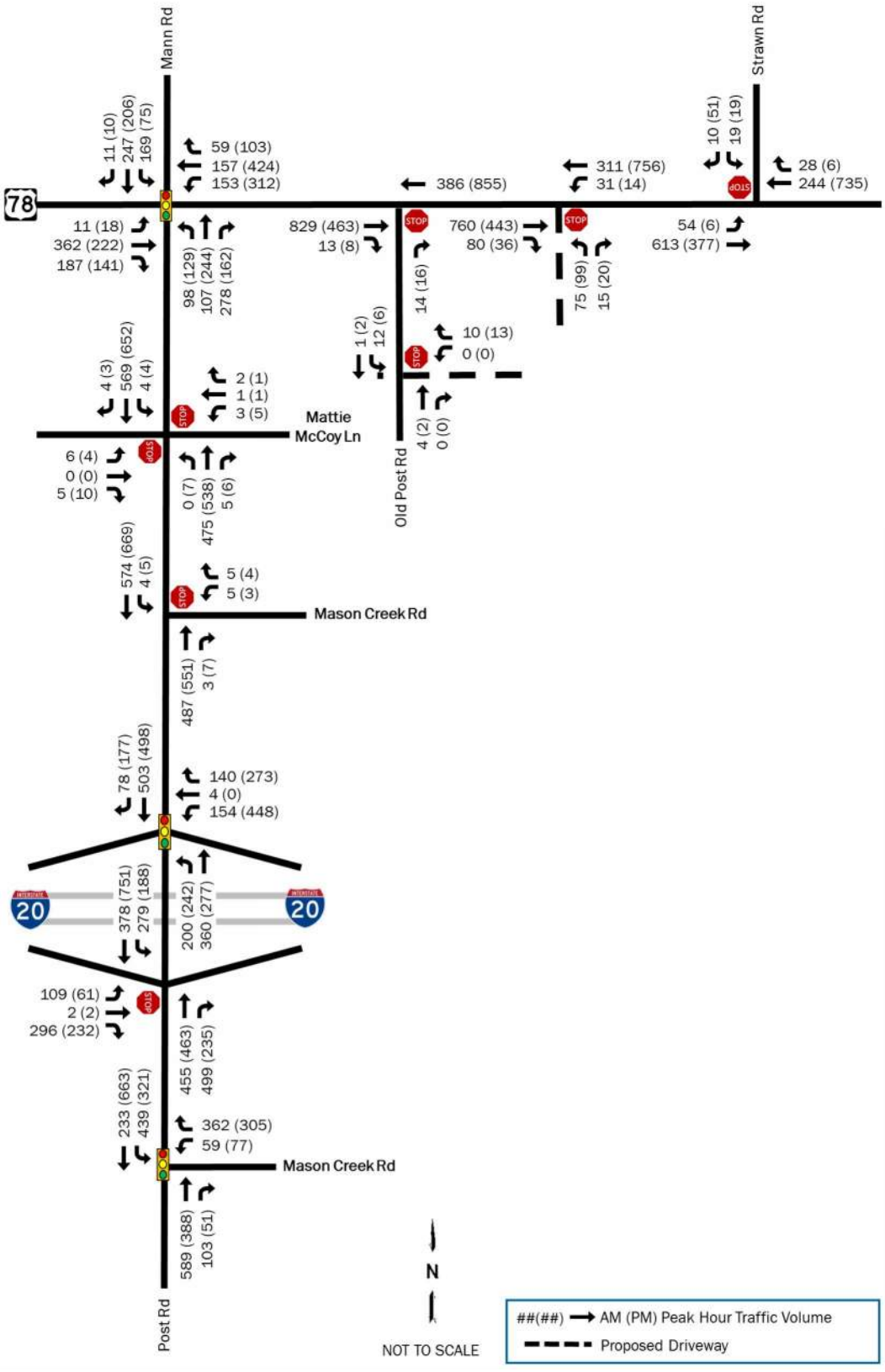


Figure 9. 2027 Build Traffic Volumes



D. Traffic Impact Analysis

The analysis in each of the scenarios for the study was performed using the traffic analysis software Synchro® 12. Average vehicular delays are calculated and reported as Levels of Service (LOS) as defined by the Highway Capacity Manual, 7th Edition (HCM 7).

Performance Criteria pertaining to the HCM methodology is shown in Table 2. The study considers an LOS D as a benchmark for acceptable intersection operation. Synchro® output reports for the study intersections are included in Appendix D.

Table 2: HCM Level-of-Service Performance Criteria

Levels of Service (LOS)	Average Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0	≤ 10.0
B	> 10.1 – 20.0	> 10.1 – 15.0
C	> 20.1 – 35.0	> 15.1 – 25.0
D	> 35.1 – 55.0	> 25.1 – 35.0
E	> 55.1 – 80.0	> 35.1 – 50.0
F	> 80.0	> 50.0

D.1. Existing Capacity Analysis

The capacity analysis results of the Existing Conditions are shown in Table 3, representing volumes presented in Figure 5.

Table 3: Capacity Analysis Results –Existing Conditions

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	Post Rd & Mason Creek Rd	Signal	**Overall**	**C**	**24.5**	**B**	**14.9**
			WB	C	22.0	B	16.5
			NB	C	28.1	C	21.2
			SB	C	22.6	B	11.0
2	Post Rd & I-20 EB Ramps	Stop-Control	EB	F	94.1	F	128.6
			SBL	B	13.2	B	10.2
3	Post Rd & I-20 WB Ramps	Signal	**Overall**	**B**	**15.3**	**D**	**36.8**
			WB	C	31.3	D	38.6
			NB	A	7.9	C	25.0
			SB	B	17.5	D	44.6
4	Post Rd & Mason Creek Rd	Stop-Control	WB	C	16.7	C	18.1
			SBL	A	9.0	A	8.6
5	Post Rd & Mattie McCoy Ln	Stop-Control	EB	C	19.2	C	19.1
			WB	C	20.7	D	28.1
			NBL	A	0.0	A	8.9
			SBL	A	8.2	A	8.5

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
6	Post Rd / Mann Rd & US 78	Signal	**Overall**	**C**	**21.6**	**C**	**22.8**
			EB	C	23.8	C	27.1
			WB	B	16.0	B	19.6
			NB	C	21.7	C	23.7
			SB	C	23.3	C	25.6
7	Old Post Rd & US 78	Stop-Control	NB	B	14.8	B	10.9
8	Strawn Rd & US 78	Stop-Control	SB	C	16.9	C	16.3
			EBL	A	7.9	A	10.0

As shown in Table 3, all study intersections operate at acceptable overall Levels of Service (LOS) D or better during the AM and PM peak hours except for the eastbound approach at the intersection of Post Road with the I-20 eastbound ramps which currently operate at LOS F during both the AM and PM peak hours.

D.2. 2027 No-Build Capacity Analysis

The results of the 2027 No-Build Condition's capacity analysis are shown in Table 4 and include analysis of the volumes presented in Figure 6.

Table 4: Capacity Analysis Results –2027 No-Build Conditions

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	Post Rd & Mason Creek Rd	Signal	**Overall**	**C**	**27.3**	**B**	**15.7**
			WB	C	23.8	B	17.3
			NB	C	30.7	C	22.2
			SB	C	26.2	B	11.7
2	Post Rd & I-20 EB Ramps	Signal	**Overall**	**A**	**7.7**	**A**	**5.6**
			EB	D	42.4	C	21.5
			NB	A	4.3	A	3.8
			SB	A	7.3	A	6.0
3	Post Rd & I-20 WB Ramps	Signal	**Overall**	**B**	**16.0**	**D**	**50.5**
			WB	C	32.4	D	45.4
			NB	A	8.4	D	37.7
			SB	B	18.3	E	63.9
4	Post Rd & Mason Creek Rd	Stop-Control	WB	C	17.4	C	19.0
			SBL	A	9.1	A	8.7
5	Post Rd & Mattie McCoy Ln	Stop-Control	EB	C	20.1	C	20.1
			WB	C	21.9	D	30.2
			NBL	A	0.0	A	9.0
			SBL	A	8.3	A	8.5

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
6	Post Rd / Mann Rd & US 78	Signal	**Overall**	**C**	**22.2**	**C**	**23.6**
			EB	C	24.7	C	28.1
			WB	B	16.3	C	20.3
			NB	C	22.5	C	24.4
			SB	C	24.1	C	26.6
7	Old Post Rd & US 78	Stop-Control	NB	C	15.3	B	11.1
8	Strawn Rd & US 78	Stop-Control	SB	C	18.0	C	17.5
			EBL	A	7.9	B	10.1

As shown in Table 4, with the applied background growth rate, operations at the study intersections are expected to worsen slightly with due to the growth in the study area. The planned project to signalize the intersection of Post Road with the I-20 eastbound ramps is expected to mitigate the issues seen in the 2024 Existing Conditions capacity analysis. However, the intersection with the westbound ramps is expected to begin to suffer during the PM peak hours for traffic traveling towards the interstate (southbound).

D.3. 2027 Build Capacity Analysis

The results of the 2027 Build Condition's capacity analysis are shown in Table 5 and includes analysis of the volumes presented in Figure 9.

Table 5: Capacity Analysis Results – 2027 Build Conditions

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	Post Rd & Mason Creek Rd	Signal	**Overall**	**C**	**28.4**	**B**	**15.9**
			WB	C	24.8	B	17.5
			NB	C	31.9	C	22.5
			SB	C	27.4	B	12.0
2	Post Rd & I-20 EB Ramps	Signal	**Overall**	**A**	**8.7**	**A**	**5.7**
			EB	D	44.9	C	23.2
			NB	A	4.6	A	3.7
			SB	A	8.6	A	6.0
3	Post Rd & I-20 WB Ramps	Signal	**Overall**	**B**	**16.4**	**E**	**61.4**
			WB	C	34.1	D	45.4
			NB	A	8.7	D	38.1
			SB	B	18.8	F	88.4
4	Post Rd & Mason Creek Rd	Stop-Control	WB	C	19.2	C	20.4
			SB	A	9.3	A	8.8

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
5	Post Rd & Mattie McCoy Ln	Stop-Control	EB	C	22.4	C	22.2
			WB	C	24.8	D	34.1
			NB	A	0.0	A	9.3
			SB	A	8.4	A	8.6
6	Post Rd / Mann Rd & US 78	Signal	**Overall**	**C**	**24.0**	**C**	**25.1**
			EB	C	26.6	C	30.3
			WB	B	16.9	C	21.3
			NB	C	25.3	C	26.6
			SB	C	27.0	C	29.2
7	Old Post Rd & US 78	Stop-Control	NB	C	17.1	B	11.6
8	Strawn Rd & US 78	Stop-Control	SB	C	19.5	C	18.3
			EBL	A	8.0	B	10.2
9	US 78 & Site Dwy 1	Stop-Control	NB	E	49.2	F	75.3
			WBL	B	10.3	A	8.5
10	Old Post Rd & Site Dwy 2	Stop-Control	WB	A	8.4	A	8.4
			SBL	A	7.2	A	7.2

As shown in Table 5, with the addition of project traffic, the study intersections are expected see a slight increase in delay due to the addition of project traffic. The intersection of Post Road with the I-20 westbound ramps is expected to operate at LOS E during the PM peak hour because the southbound approach is expected to operate at LOS F. This is most likely due to the lack of separate lanes for the southbound traffic.

The site driveways are expected to have little impact on traffic operations along US 78 and Old Post Road; however, traffic leaving via driveway 1 along US 78 is expected to experience some backup during both the AM and PM hours since there is a much larger volume of traffic along the highway that site traffic needs to wait for. This is somewhat expected for a stop-controlled side street intersecting with a high-volume highway.

D.4. Queue Length Analysis

Queue length analysis was conducted for the intersection of Post Road with the I-20 westbound ramps that are expected to have at least one approach operate at LOS E or F in future conditions. Queue length analysis results are modeled according to Highway Capacity Manual procedures, using the traffic analysis software Synchro® 12. Queue lengths reported on include 50th percentile (average) queues, 95th percentile queues, existing storage lengths, and existing taper lengths to intersection approaches.

Table 6 shows intersection queue results comparing Existing, No-Build, and Build Conditions where study intersections have failing LOS, and/or queues exceeding storage lengths under future traffic

conditions. An inventory of queue length output reports is included in Appendix E.

Table 6: Queue Analysis Comparisons

ID	Intersection	LOS E/F Approach - Movement	50th (95th) Percentile Queues, in feet							
			Lengths (ft)		Existing		No-Build		Build	
			Storage	Taper	AM	PM	AM	PM	AM	PM
3	Post Rd & I-20 WB Ramps	WB-LTR	N/A	N/A	120 (276)	605 (846)	134 (296)	656 (900)	154 (315)	672 (916)
		NB-L	260	120	40 (90)	157 (328)	44 (94)	175 (347)	47 (103)	175 (347)
		NB-T	N/A	N/A	71 (150)	117 (175)	78 (156)	123 (182)	94 (173)	131 (193)
		SB-TR	N/A	N/A	242 (473)	576 (766)	269 (506)	626 (817)	317 (564)	723 (917)

Queueing analysis suggests that the intersection of Post Road with the I-20 westbound ramps is already exceeding capacity, though it is operating with satisfactory LOS. Queues are expected to continue to increase with the addition of future background and project traffic. It is likely that the intersection needs some form of mitigation to improve traffic.

D.5. 2027 Build Mitigation Capacity Analysis

The intersection of Post Road with the I-20 westbound ramps was analyzed with possible improvements to determine how feasible it would be to lower the LOS back to acceptable (LOS D) levels. Looking at the distribution of vehicles at the intersection, it is likely that the simple inclusion of a southbound right-turn lane onto the I-20 westbound ramp will be sufficient for allowing more traffic to travel through the intersection.

The capacity analysis results of the Build Condition with mitigations are shown in Table 7. The Synchro® output reports for the Mitigation Conditions are included in Appendix F.

Table 7: Capacity Analysis Results –2027 Mitigation Conditions

ID	Intersection	Mitigation Measure	Movement	AM		PM	
				LOS	Delay	LOS	Delay
3	Post Rd & I-20 WB Ramps	Add SB Right-Turn Lane	**Overall**	**B**	**14.7**	**C**	**26.5**
			WB	C	30.4	C	31.1
			NB	A	8.1	B	18.0
			SB	B	16.7	C	29.7

As shown in Table 7, the inclusion of a southbound right-turn lane at the intersection significantly reduces the delay and LOS back to satisfactory levels, improving from Existing Conditions. The Douglas County and/or the Georgia Department of Transportation (GDOT) should look into making this improvement at the intersection as it shouldn't require the acquisition of additional right-of-way.

E. Driveway Turn Lane Analysis

E.1. GDOT Turn Lane Analysis

The need for turn lanes at each proposed driveway was evaluated using methodologies from the GDOT Access Manual. The speed limit along US 78 is 45 miles per hour and the speed limit along Old Post Road is 25 Miles per hour. The ADT data collected along the three roadways shows that the average weekday traffic along US 78 is over 6,000 vehicles per day and the traffic along Old Post Road is under 6,000 vehicles per day. The results of the evaluation are summarized in Table 8.

Table 8: GDOT Turn Lane Analysis

ID	Intersection	Movement/ Turn Lane	Turn Volume	GDOT Volume Criteria	GDOT Criteria met?
9	US 78 & Site Driveway 1	SBR	567 RT/Day	75 RT/Day	YES
		NBL	218 LT/Day	200 LT/Day	YES
10	Old Post Rd & Site Driveway 2	SBR	87 RT/Day	200 RT/Day	NO
		NBL	0 LT/Day	300 LT/Day	NO

As Shown in Table 8. The driveway along US 78 warrants both a right-turn deceleration lane and a left-turn lane.

F. Conclusion

A new data center development comprised of 1,760,850 square feet of floor space is proposed for construction on several parcels along US 78 and Old Post Road in the Winston area of Douglas County, Georgia.

The development will include two (2) gated access points in total. The primary access point will be a full-access driveway directly onto US 78, just west of the driveway for the nearby Dollar General. The secondary access point will be a full-access driveway onto Old Post Road.

The development is expected to be built-out by 2027 and will generate a total of 1,744 new daily trips. Of these daily volumes, 223 new trips (123 entering and 100 exiting) are expected to occur during the AM peak hour while 188 new trips (56 entering and 132 exiting) are expected to occur during the PM peak hour.

Under Existing Conditions, all study intersections operate at LOS D or better except for the intersection of Post Road with the I-20 eastbound ramps which operate at LOS F during both the AM and PM peak hours. Planned improvements to the eastbound ramps are expected to reduce the LOS at the intersection back to acceptable levels.

By 2027, with only background growth, the southbound approach at the intersection of Post Road with the I-20 westbound ramps is expected to operate at LOS E during the peak hour. Other intersections and approaches are expected to see a slight increase in delay but operate acceptably.

For Build Conditions, the addition of project traffic to the study intersections causes slight increases to the delays at the intersections and continues to worsen the southbound approach at the intersection of Post Road with the I-20 westbound ramps, pushing it to operate at LOS F during the PM peak hour.

Queueing analysis suggests that the intersection of Post Road with the I-20 westbound ramps already experiences some queuing issues and is only expected to get slightly worse in future conditions and likely already needs improvements.

G. Recommendations

From the conducted analysis, the following roadway improvement mitigations will be needed at the below study intersections:

Driveway 1 at US 78

- Install an eastbound right-turn deceleration lane for access into the site.
- Install a westbound left-turn lane for access into the site.
- Allow for full-access out of the site.

Driveway 2 at Old Post Road

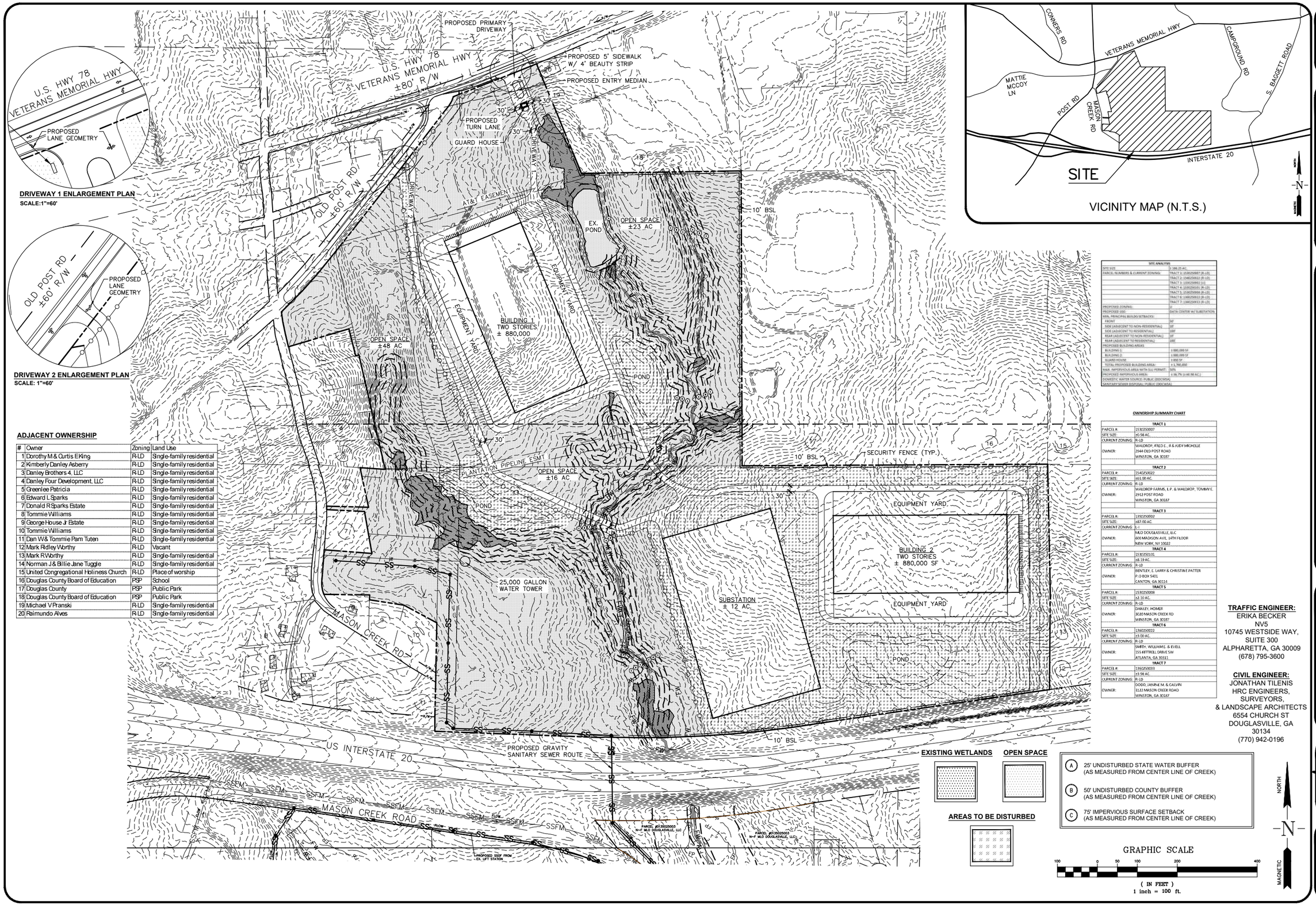
- Allow for full-access out of the site (though site traffic is expected to only turn right-out and left-in at this driveway).

The Douglas County and/or GDOT should also look into installing a southbound right-turn deceleration lane at the intersection of Post Road with the I-20 westbound ramps to alleviate the queuing issues for the southbound traffic.

APPENDIX

APPENDIX A

SITE PLAN



ADJACENT OWNERSHIP

#	Owner	Zoning	Land Use
1	Dorothy M & Curtis E King	R-LD	Single-family residential
2	Kimberly Danley Asberry	R-LD	Single-family residential
3	Danley Brothers 4, LLC	R-LD	Single-family residential
4	Danley Four Development, LLC	R-LD	Single-family residential
5	Greenlee Patricia	R-LD	Single-family residential
6	Edward L Sparks	R-LD	Single-family residential
7	Donald R Sparks Estate	R-LD	Single-family residential
8	Tommie Williams	R-LD	Single-family residential
9	George House Jr Estate	R-LD	Single-family residential
10	Tommie Williams	R-LD	Single-family residential
11	Dan W & Tommie Pam Tuten	R-LD	Single-family residential
12	Mark Ridley Worthy	R-LD	Vacant
13	Mark R Worthy	R-LD	Single-family residential
14	Norman J & Billie Jane Tuggle	R-LD	Single-family residential
15	United Congregational Holiness Church	R-LD	Place of worship
16	Douglas County Board of Education	PSP	School
17	Douglas County	PSP	Public Park
18	Douglas County Board of Education	PSP	Public Park
19	Michael V Pranski	R-LD	Single-family residential
20	Raimundo Alves	R-LD	Single-family residential

SITE ANALYSIS	
SITE SIZE:	± 186.25 AC.
PARCEL NUMBERS & CURRENT ZONING:	TRACT 1: 1530250007 (R-LD)
	TRACT 2: 1540250022 (R-LD)
	TRACT 3: 1390250002 (LI)
	TRACT 4: 1530250101 (R-LD)
	TRACT 5: 1530250008 (R-LD)
	TRACT 6: 1360250022 (R-LD)
	TRACT 7: 1360250033 (R-LD)
PROPOSED ZONING:	SI
PROPOSED USE:	DATA CENTER W/ SUBSTATION
MIN. PRINCIPAL BUILDG SETBACKS:	
FRONT	30'
SIDE (ADJACENT TO NON-RESIDENTIAL)	20'
SIDE (ADJACENT TO RESIDENTIAL)	100'
REAR (ADJACENT TO NON-RESIDENTIAL)	20'
REAR (ADJACENT TO RESIDENTIAL)	100'
PROPOSED BUILDING AREAS:	
BUILDING 1:	± 880,000 SF
BUILDING 2:	± 880,000 SF
GUARD HOUSE:	± 855 SF
TOTAL PROPOSED BUILDING AREA:	± 1,760,850
MAX. IMPERVIOUS AREA WITH SUI PERMIT:	50%
PROPOSED IMPERVIOUS AREA:	± 76.7% (142.90 AC.)
DOMESTIC WATER SOURCE: PUBLIC (DDCWSA)	
SANITARY SEWER DISPOSAL: PUBLIC (DDCWSA)	

OWNERSHIP SUMMARY CHART

TRACT 1	
PARCEL #:	1530250007
SITE SIZE:	±5.98 AC.
CURRENT ZONING:	R-LD
OWNER:	WALDROP, FRED E., III & JUDY MICHELLE 2944 OLD POST ROAD WINSTON, GA 30187
TRACT 2	
PARCEL #:	1540250022
SITE SIZE:	±63.00 AC.
CURRENT ZONING:	R-LD
OWNER:	WALDROP FARMS, L.P. & WALDROP, TOMMY E. 2912 POST ROAD WINSTON, GA 30187
TRACT 3	
PARCEL #:	1390250002
SITE SIZE:	±87.00 AC.
CURRENT ZONING:	L-I
OWNER:	MLO DOUGLASVILLE, LLC 600 MADISON AVE, 16TH FLOOR NEW YORK, NY 10022
TRACT 4	
PARCEL #:	1530250101
SITE SIZE:	±8.19 AC.
CURRENT ZONING:	R-LD
OWNER:	BENTLEY, E. LARRY & CHRISTINE PATTER P.O BOX 5401 CANTON, GA 30114
TRACT 5	
PARCEL #:	1530250008
SITE SIZE:	±2.10 AC.
CURRENT ZONING:	R-LD
OWNER:	DANLEY, HOMER 3020 MASON CREEK RD WINSTON, GA 30187
TRACT 6	
PARCEL #:	1360250022
SITE SIZE:	±3.00 AC.
CURRENT ZONING:	R-LD
OWNER:	SMITH, WILLIAM E. & EVELL 155 KITTRELL DRIVE SW ATLANTA, GA 30311
TRACT 7	
PARCEL #:	1360250033
SITE SIZE:	±3.56 AC.
CURRENT ZONING:	R-LD
OWNER:	DODD, JANINE M. & CALVIN 3120 MASON CREEK ROAD WINSTON, GA 30187

EXISTING WETLANDS **OPEN SPACE**

AREAS TO BE DISTURBED

- (A) 25' UNDISTURBED STATE WATER BUFFER (AS MEASURED FROM CENTER LINE OF CREEK)
- (B) 50' UNDISTURBED COUNTY BUFFER (AS MEASURED FROM CENTER LINE OF CREEK)
- (C) 75' IMPERVIOUS SURFACE SETBACK (AS MEASURED FROM CENTER LINE OF CREEK)

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

NORTH

MAGNETIC

TRAFFIC ENGINEER:
ERIKA BECKER
NV5
10745 WESTSIDE WAY,
SUITE 300
ALPHARETTA, GA 30009
(678) 795-3600

CIVIL ENGINEER:
JONATHAN TILENIS
HRC ENGINEERS,
SURVEYORS,
& LANDSCAPE ARCHITECTS
6554 CHURCH ST
DOUGLASVILLE, GA
30134
(770) 942-0196

PREPARED BY:
HRC
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6554 EAST CHURCH STREET
DOUGLASVILLE, GEORGIA 30134
p 770.942.0196
f 770.942.0152
www.HughesRay.com

No.	DATE:	REVISION
1	5/8/24	CLIENT COMMENTS
2	6/6/24	ARC COMMENTS
3	6/21/24	MMP MEETING COMMENTS
4	7/18/24	CLIENT COMMENTS

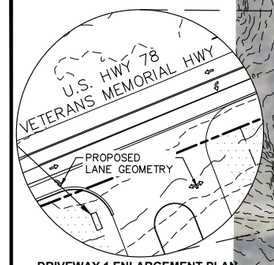
OVERALL CONCEPTUAL SITE PLAN
OF
DOUGLAS WALDROP DRI 4192
L.L. 135, 153, & 154, 2nd DISTRICT, 5th SECTION
DOUGLAS COUNTY, GEORGIA

OWNER:
SEE 'OWNERSHIP SUMMARY TABLE'

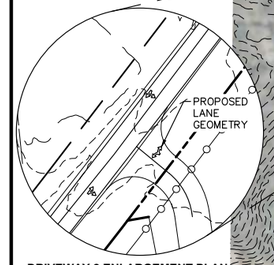
APPLICANT:
TC ATLANTA DEVELOPMENT, INC.
3550 LENOX RD NE
STE 2200
ATLANTA, GA 30326
(404) 441-1992

GEORGIA REGISTERED No. PE050382 PROFESSIONAL ENGINEER JONATHAN J. TILENIS

DATE:	5/30/24
DRAWN BY:	SAK
CHECKED BY:	JJT
JOB#: H23100	
OVSP	



DRIVEWAY 1 ENLARGEMENT PLAN
SCALE:1"=60'



DRIVEWAY 2 ENLARGEMENT PLAN
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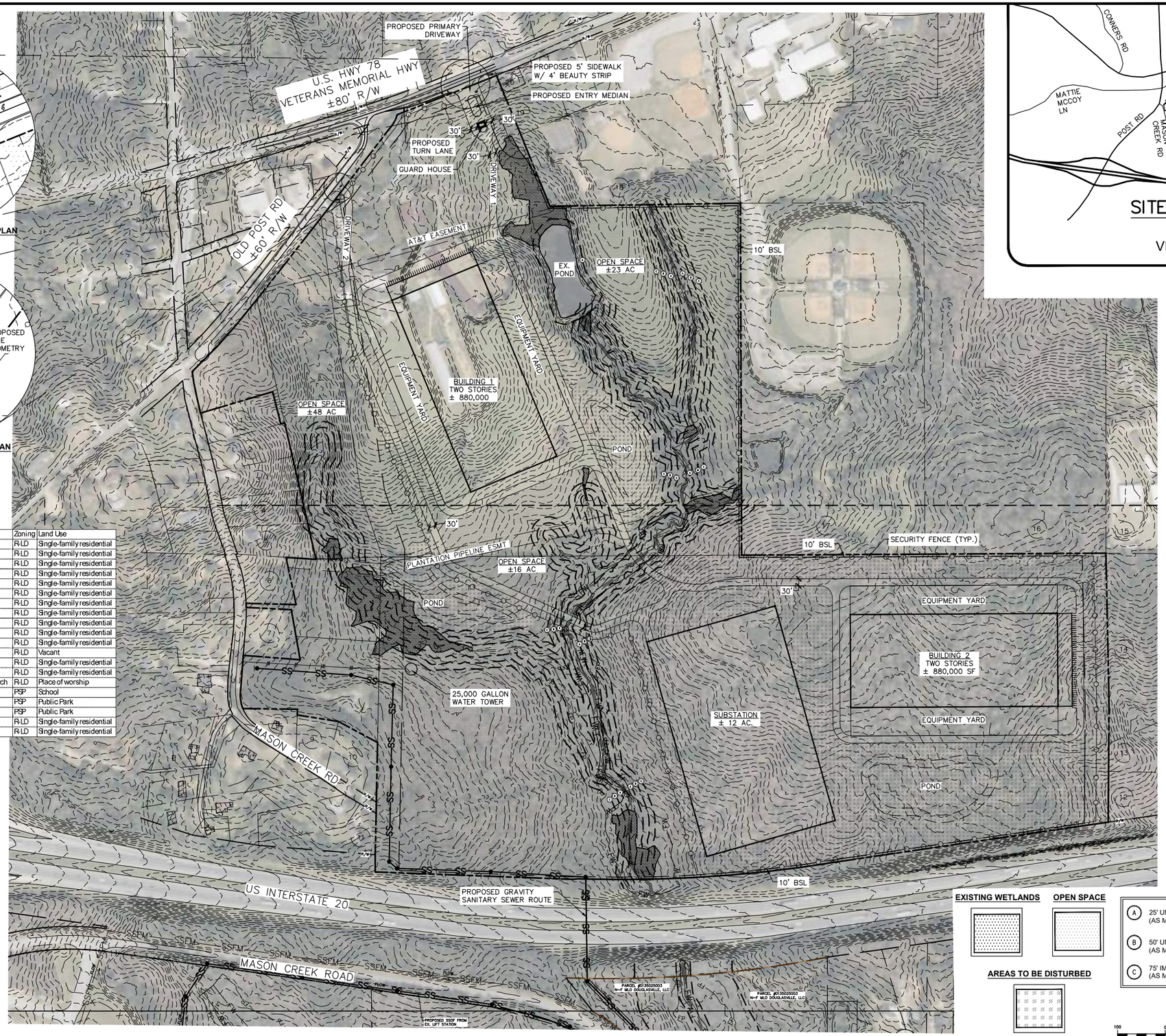

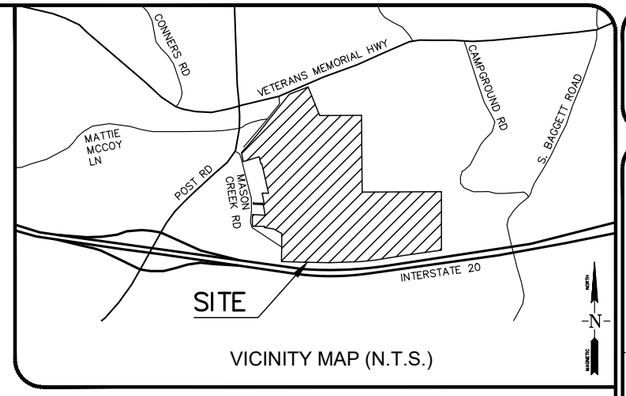

VICINITY MAP (N.T.S.)

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BUILDING 1:	± 880,000 SF
BUILDING 2:	± 880,000 SF
GUARD HOUSE	± 850 SF
TOTAL PROPOSED BUILDING AREA:	± 1,760,850
MAX. IMPERVIOUS AREA WITH SLU PERMIT:	50%
PROPOSED IMPERVIOUS AREA:	± 76.7% (± 66.98 AC.)
DOMESTIC WATER SOURCE: PUBLIC (DDCWSA)	
SANITARY SEWER DISPOSAL: PUBLIC (DDCWSA)	

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GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

NORTH
MAGNETIC

TRAFFIC ENGINEER:
ERIKA BECKER
NV5
10745 WESTSIDE WAY,
SUITE 300
ALPHARETTA, GA 30009
(678) 795-3600

CIVIL ENGINEER:
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f 770.942.0152
www.HughesRay.com

No.	DATE:	REVISION
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3	6/21/24	MMP MEETING COMMENTS
4	7/18/24	CLIENT COMMENTS

OVERALL CONCEPTUAL SITE PLAN
OF

DOUGLAS WALDROP DRI 4192

L.L. 135, 153, & 154, 2nd DISTRICT, 5th SECTION
DOUGLAS COUNTY, GEORGIA

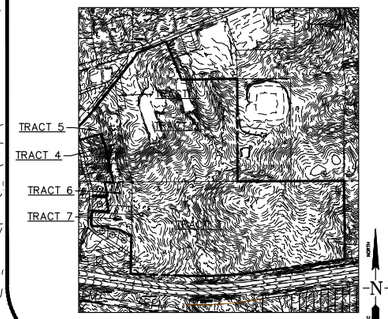
OWNER:
SEE 'OWNERSHIP SUMMARY TABLE'

APPLICANT:
TC ATLANTA DEVELOPMENT, INC.
3550 LENOX RD NE
STE 2200
ATLANTA, GA 30326
(404) 441-1992

STATE OF GEORGIA
No. PE0003829
PROFESSIONAL ENGINEER
JONATHAN J. TILENIS
7/10/24

DATE:	5/30/24
DRAWN BY:	SAK
CHECKED BY:	JJT
JOB#: H23100	
OVSP	

D.R.I. #4192



KEY MAP (N.T.S.)

SITE ANALYSIS TABLE AND OWNERSHIP SUMMARY TABLE CAN BE FOUND ON SHEET OVSP.

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GRAPHIC SCALE

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NORTH
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MAGNETIC

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L.L. 135, 153, & 154, 2nd DISTRICT, 5th SECTION
DOUGLAS COUNTY, GEORGIA

OWNER:

SEE 'OWNERSHIP SUMMARY TABLE'

APPLICANT:

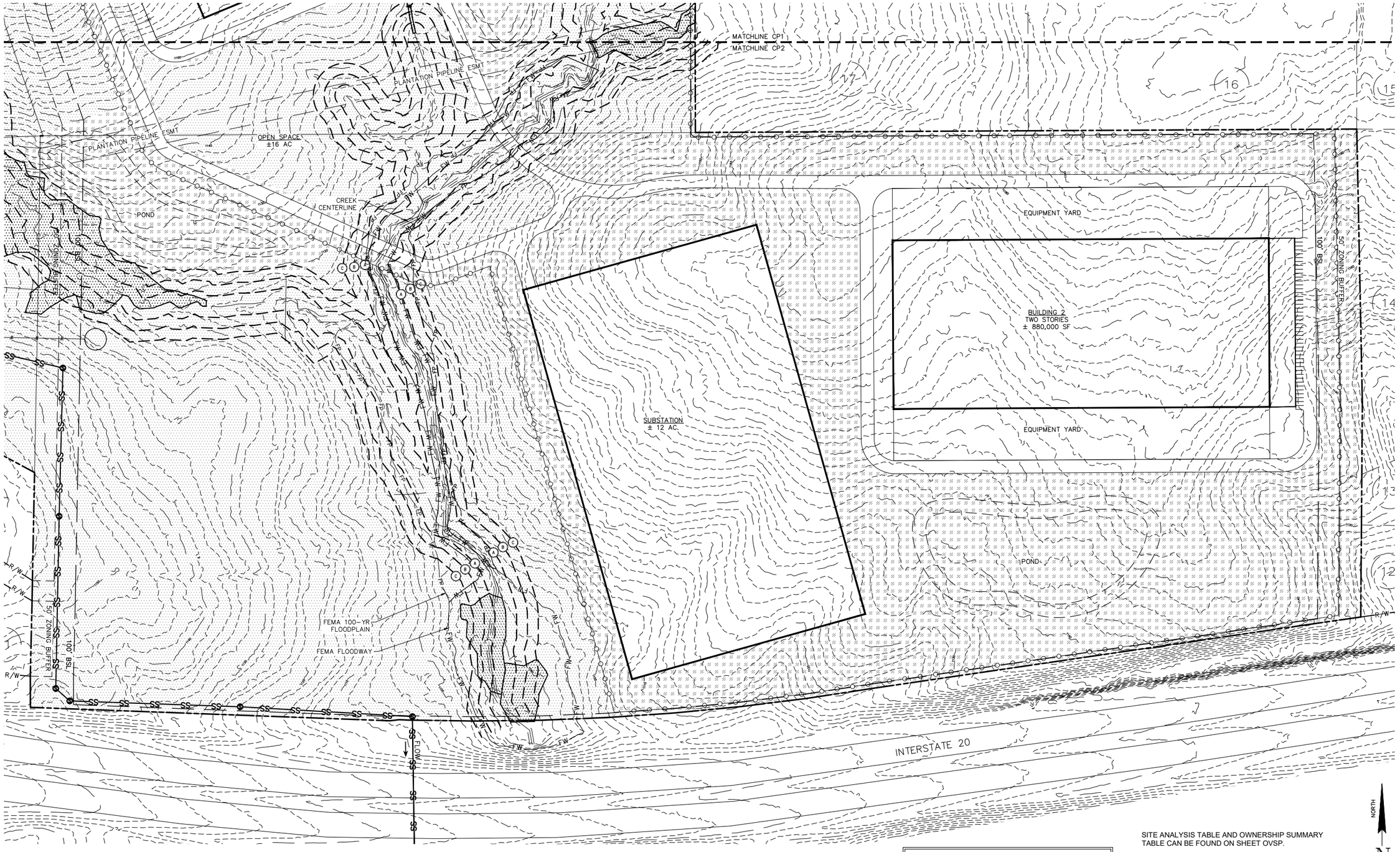
TC ATLANTA DEVELOPMENT, INC.
3550 LENOX RD NE
STE 2200
ATLANTA, GA 30326
(404) 441-1992

REGISTERED PROFESSIONAL ENGINEER
No. PE030392
JONATHAN J. THEVIS
7-16-24

DATE:	5/30/24
DRAWN BY:	SAK
CHECKED BY:	JJT
JOB#:	H23100

CP1

D.R.I. #4192



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GRAPHIC SCALE

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(IN FEET)
1 inch = 100 ft.

NORTH

MAGNETIC

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CONCEPTUAL SITE PLAN
OF

DOUGLAS WALDROP DRI 4192

L.L. 135, 153, & 154, 2nd DISTRICT, 5th SECTION
DOUGLAS COUNTY, GEORGIA

OWNER:

SEE 'OWNERSHIP SUMMARY TABLE'

APPLICANT:

TC ATLANTA
DEVELOPMENT, INC.
3550 LENOX RD NE
STE 2200
ATLANTA, GA 30326
(404) 441-1992

GEORGIA REGISTERED No. PEN003187 PROFESSIONAL ENGINEER JONATHAN J. TILLEY
7-16-24

DATE:	5/30/24
DRAWN BY:	SAK
CHECKED BY:	JJT

JOB#: H23100

CP2

APPENDIX B

TRAFFIC COUNT DATA

Prepared by National Data & Surveying Services

Post Rd & Mason Creek Rd

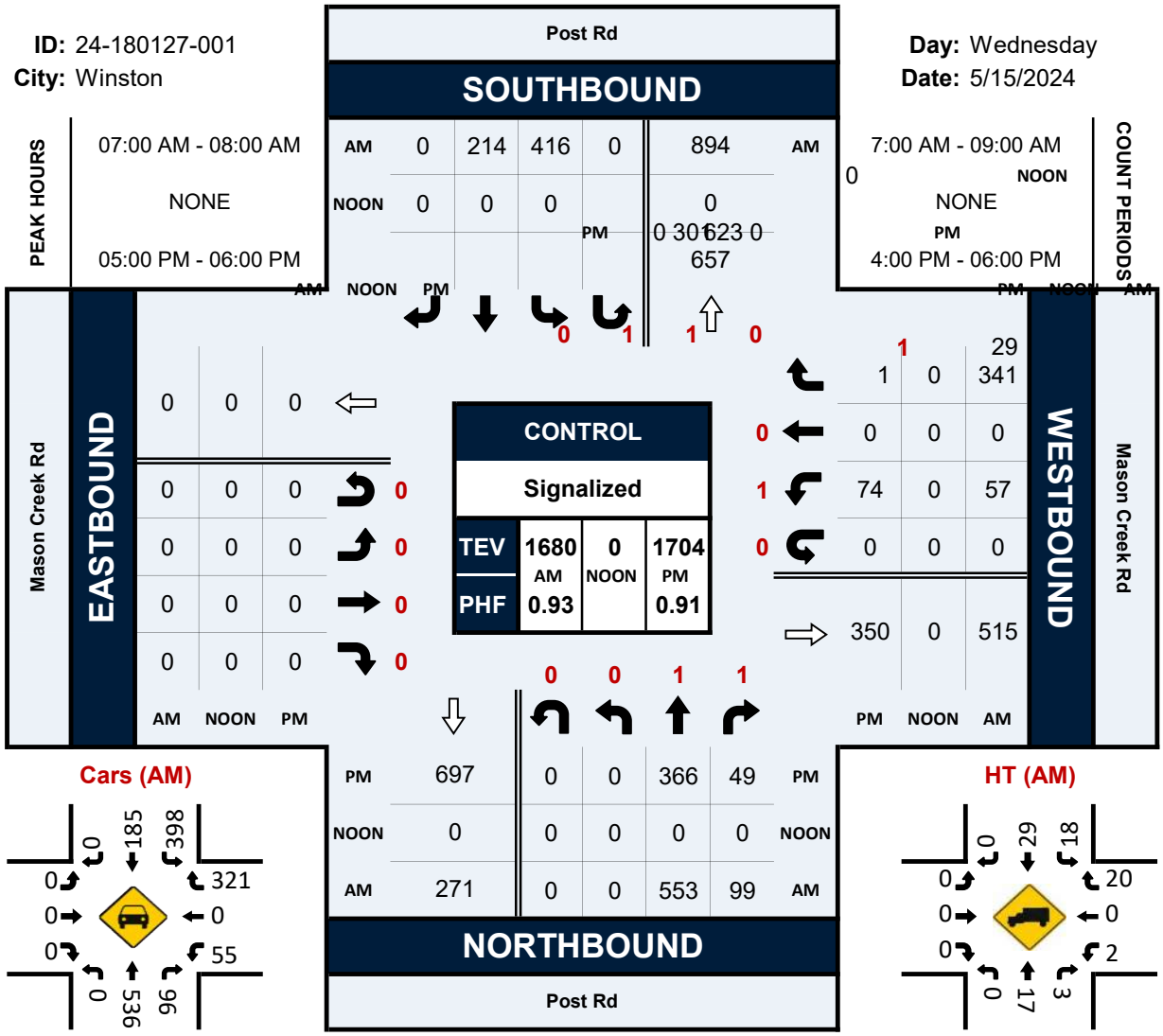
Peak Hour Turning Movement Count

ID: 24-180127-001
City: Winston

Day: Wednesday
Date: 5/15/2024

PEAK HOURS
AM: 07:00 AM - 08:00 AM
NOON: NONE
PM: 05:00 PM - 06:00 PM

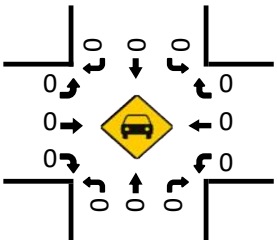
COUNT PERIODS
AM: 7:00 AM - 09:00 AM
NOON: NONE
PM: 4:00 PM - 06:00 PM



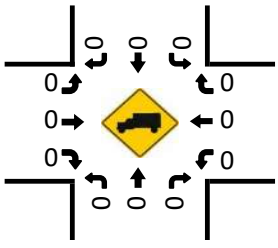
Cars (AM)

HT (AM)

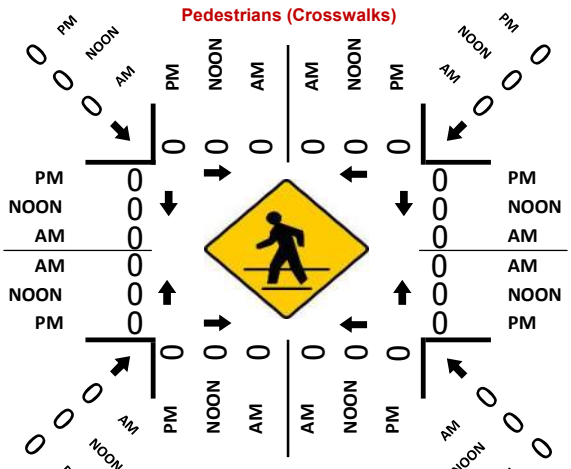
Cars (NOON)



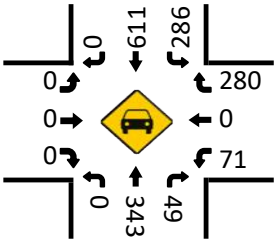
HT (NOON)



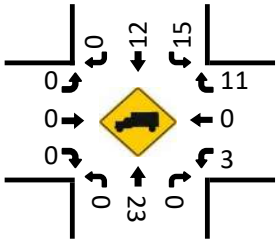
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Post Rd & I-20 EB Ramps

Peak Hour Turning Movement Count

ID: 24-180127-002
City: Winston

Day: Wednesday
Date: 5/15/2024

PEAK HOURS	
AM	07:00 AM - 08:00 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS	
AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

CONTROL: 1-Way Stop(EB)

	AM	NOON	PM
TEV	1877	0	1801
PHF	0.96		0.93

SOUTHBOUND (Post Rd)

	L	T	R	U	Total	
AM	0	348	253	0	511	AM
NOON	0	0	0	0	0	NOON
PM	0	701	161	0	489	PM

EASTBOUND (I-20 EB Ramps)

AM	NOON	PM	
0	0	0	⇦
0	0	0	↶ 0
92	0	53	↰ 0
2	0	2	→ 1
284	0	223	↱ 1

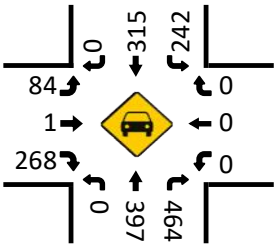
WESTBOUND (I-20 EB Ramps)

PM	NOON	AM	
0	0	0	↶ 0
0	0	0	← 0
0	0	0	↰ 0
0	0	0	↱ 0
388	0	734	⇨

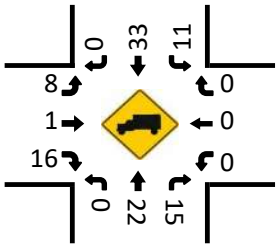
NORTHBOUND (Post Rd)

	L	T	R	U	Total	
PM	924	0	0	436	225	PM
NOON	0	0	0	0	0	NOON
AM	632	0	0	419	479	AM

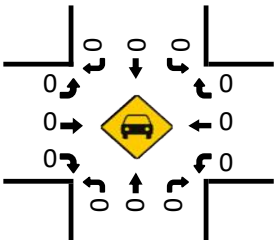
Cars (AM)



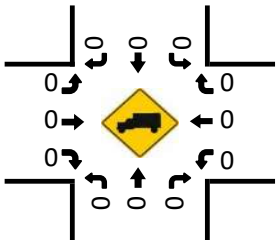
HT (AM)



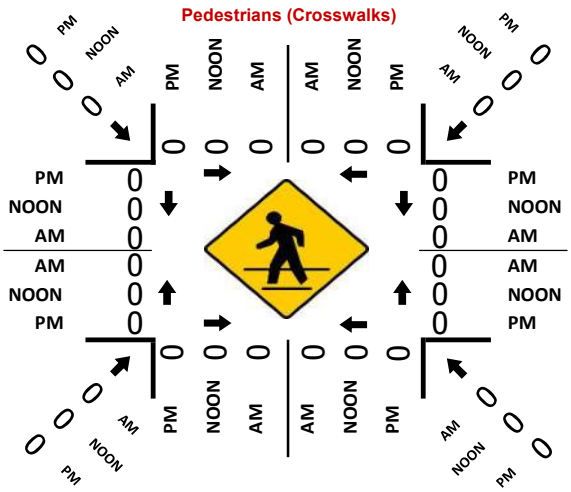
Cars (NOON)



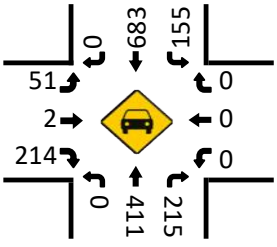
HT (NOON)



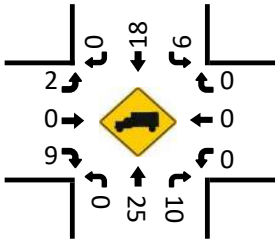
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Post Rd & I-20 WB Ramps

Peak Hour Turning Movement Count

ID: 24-180127-003
City: Winston

Day: Wednesday
Date: 5/15/2024

PEAK HOURS	
AM	07:00 AM - 08:00 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS	
AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

Post Rd

SOUTHBOUND

AM	65	454	0	0	433	AM
NOON	0	0	0	0	0	NOON
PM	157	439	0	0	506	PM

EASTBOUND

AM	NOON	PM	
261	0	389	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND

PM	NOON	AM	
254	0	117	1
0	0	4	1
430	0	148	0
0	0	0	0
0	0	0	
PM	NOON	AM	

CONTROL

1-Way Stop(WB)

TEV	1296 AM	0 NOON	1764 PM
PHF	0.94		0.92

0	1	0	0	
0	1	1	0	

PM	869	0	232	252	0	PM
NOON	0	0	0	0	0	NOON
AM	602	0	192	316	0	AM

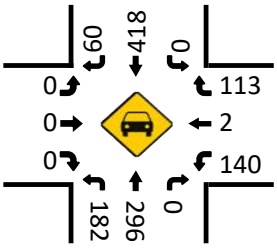
NORTHBOUND

Post Rd

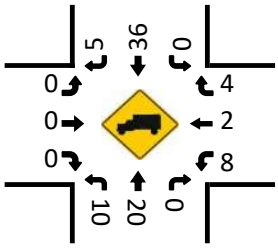
I-20 WB Ramps (left)

I-20 WB Ramps (right)

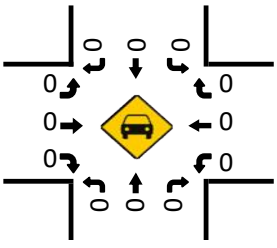
Cars (AM)



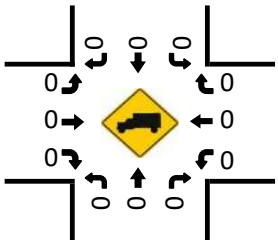
HT (AM)



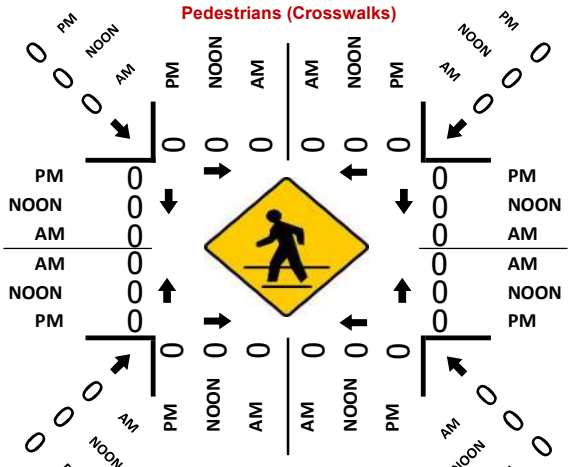
Cars (NOON)



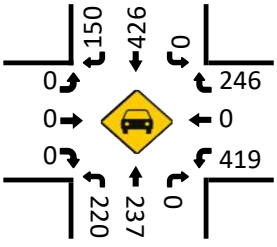
HT (NOON)



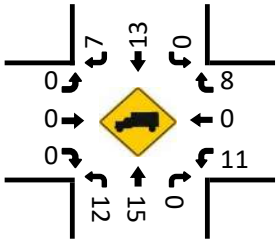
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Post Rd & Mason Creek Rd

Peak Hour Turning Movement Count

ID: 24-180127-004
City: Winston

Day: Wednesday
Date: 5/15/2024

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NONE	NONE
05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Post Rd)

AM	0	512	4	0	425	AM
NOON	0	0	0	0	0	NOON
PM	0	591	5	0	511	PM

EASTBOUND (Mason Creek Rd)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Mason Creek Rd)

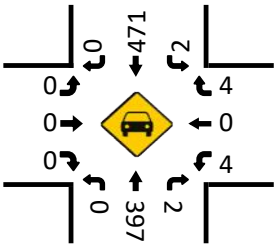
PM	NOON	AM	
4	0	5	0
0	0	0	1
3	0	5	0
0	0	0	0
12	0	7	
PM	NOON	AM	

NORTHBOUND (Post Rd)

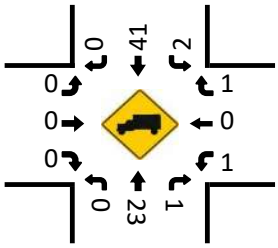
PM	594	0	0	507	7	PM
NOON	0	0	0	0	0	NOON
AM	517	0	0	420	3	AM

CONTROL			
1-Way Stop(WB)			
TEV	949	0	1117
	AM	NOON	PM
PHF	0.88		0.95

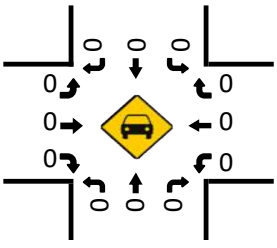
Cars (AM)



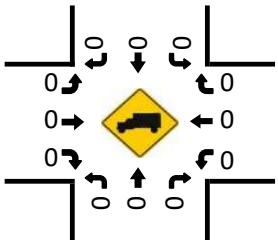
HT (AM)



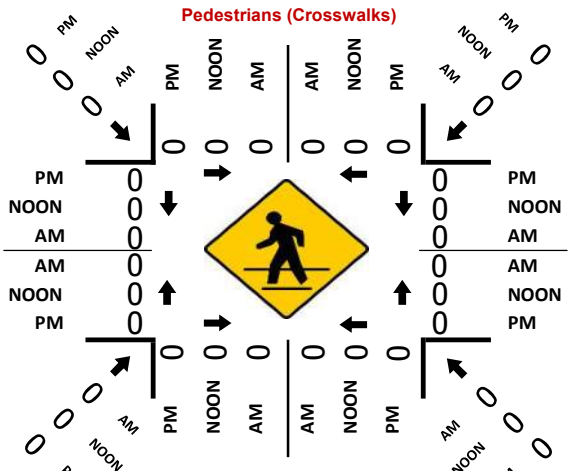
Cars (NOON)



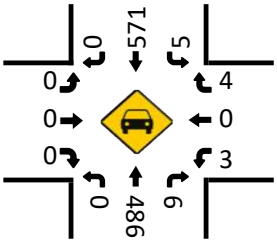
HT (NOON)



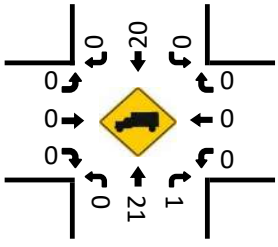
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Post Rd & Mattie McCoy Ln

Peak Hour Turning Movement Count

ID: 24-180127-005
City: Winston

Day: Wednesday
Date: 5/15/2024

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NONE	NONE
05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

CONTROL: 2-Way Stop(EB/WB)

	AM	NOON	PM
TEV	946	0	1111
PHF	0.92		0.95

SOUTHBOUND (Post Rd)

	Left	Thru	Right	U-Turn	Approach
AM	4	507	4	0	417
NOON	0	0	0	0	0
PM	3	575	4	0	500

EASTBOUND (Mattie McCoy Ln)

	Left	Thru	Right	U-Turn	Approach
AM	5	0	11	0	16
NOON	0	0	0	0	0
PM	6	0	4	0	10

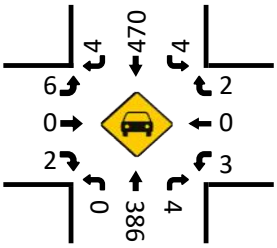
WESTBOUND (Mattie McCoy Ln)

	Left	Thru	Right	U-Turn	Approach
AM	2	0	1	0	3
NOON	1	0	1	0	2
PM	5	0	3	0	8

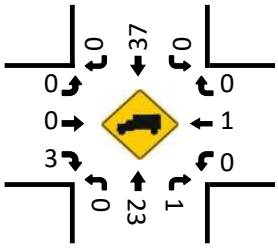
NORTHBOUND (Post Rd)

	Left	Thru	Right	U-Turn	Approach
AM	515	0	0	409	5	924
NOON	0	0	0	0	0	0
PM	590	0	7	495	6	1098

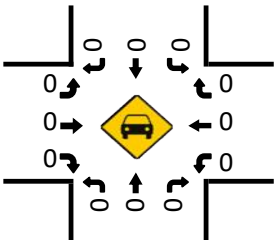
Cars (AM)



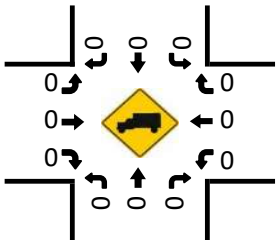
HT (AM)



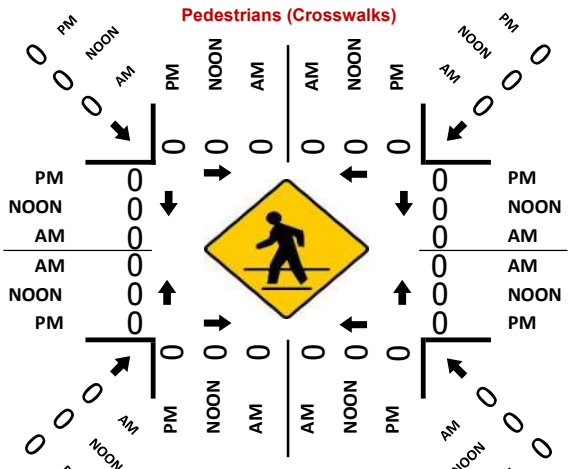
Cars (NOON)



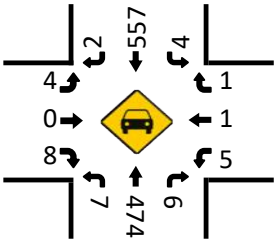
HT (NOON)



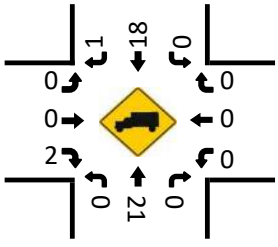
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Post Rd/Mann Rd & Veterans Memorial Hwy/US 78/SR 8

Peak Hour Turning Movement Count

ID: 24-180127-006
City: Winston

Day: Wednesday
Date: 5/15/2024

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NONE	NONE
05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	1605	0	1827
PHF	0.95		0.92

SOUTHBOUND — Post Rd/Mann Rd

	Left	Thru	Right	U-Turn	
AM	11	237	156	0	166 AM
NOON	0	0	0	0	0 NOON
PM	10	198	69	0	343 PM
	0.5	0.5	1	0	

EASTBOUND — Veterans Memorial Hwy/US 78/SR 8

	AM	NOON	PM	
U-Turn	0	0	0	0
Left	11	0	17	1
Thru	312	0	197	1
Right	179	0	135	1
	227 AM	0 NOON	503 PM	

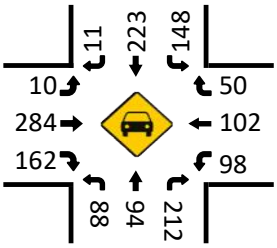
WESTBOUND — Veterans Memorial Hwy/US 78/SR 8

	PM	NOON	AM
Right	92	0	52	1
Thru	369	0	122	1
Left	248	0	108	1
U-Turn	0	0	0	0
	400 PM	0 NOON	688 AM	

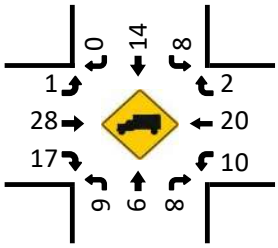
NORTHBOUND — Post Rd/Mann Rd

	Left	Thru	Right	U-Turn	
PM	581	0	124	234	134 PM
NOON	0	0	0	0	0 NOON
AM	524	0	94	103	220 AM
		0	1	1	1

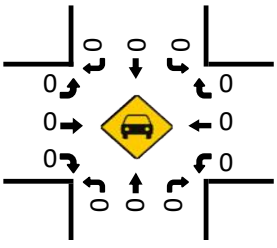
Cars (AM)



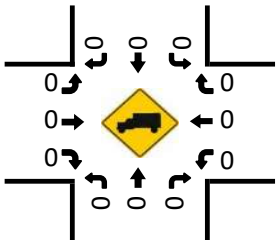
HT (AM)



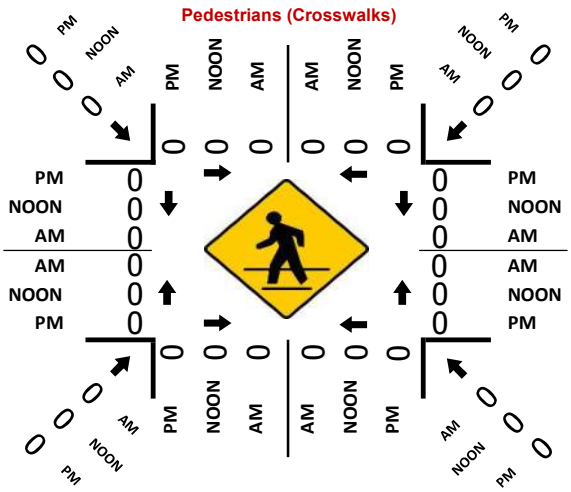
Cars (NOON)



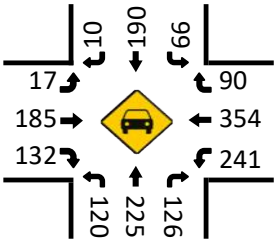
HT (NOON)



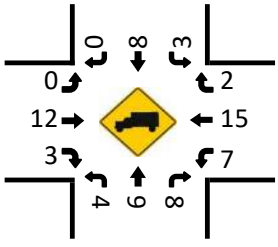
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Strawn Rd & Veterans Memorial Hwy/US 78/SR 8

Peak Hour Turning Movement Count

ID: 24-180127-007
City: Winston

Day: Wednesday
Date: 5/15/2024

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NONE	NONE
05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Strawn Rd)

AM	10	0	18	0	79	AM
NOON	0	0	0	0	0	NOON
PM	49	0	18	0	12	PM
	0.5	0.5	0	0		

EASTBOUND (Veterans Memorial Hwy/US 78/SR 8)

AM	NOON	PM	
214	0	741	
0	0	0	0
52	0	6	1
564	0	330	1
0	0	0	0

WESTBOUND (Veterans Memorial Hwy/US 78/SR 8)

	PM	NOON	AM
1	6	0	27
1	692	0	204
0	0	0	0
0	0	0	0
	348	0	582

CONTROL

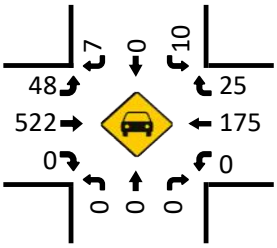
1-Way Stop(SB)

	AM	NOON	PM
TEV	875	0	1101
PHF	0.88		0.82

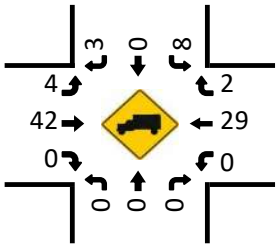
NORTHBOUND (Strawn Rd)

	0	0	0	0		
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

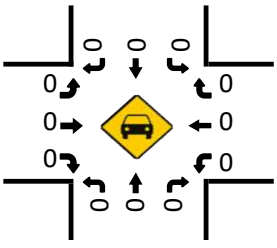
Cars (AM)



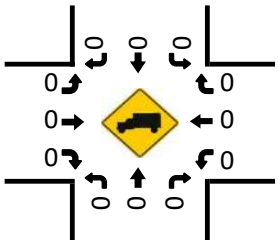
HT (AM)



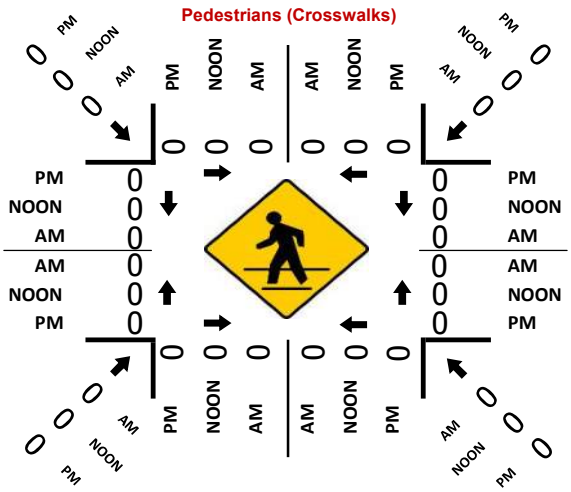
Cars (NOON)



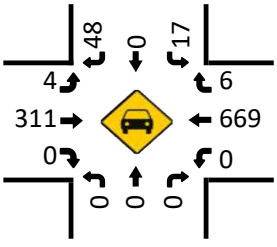
HT (NOON)



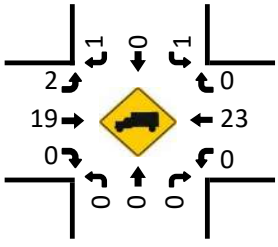
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

VOLUME

Veterans Memorial Hwy/US 78/SR 8 E/O Old Post Rd

Day: Wednesday
Date: 5/15/2024

City: Winston
Project #: GA24_180128_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,839	6,175	12,014

DAILY TOTALS

15-Minutes Interval

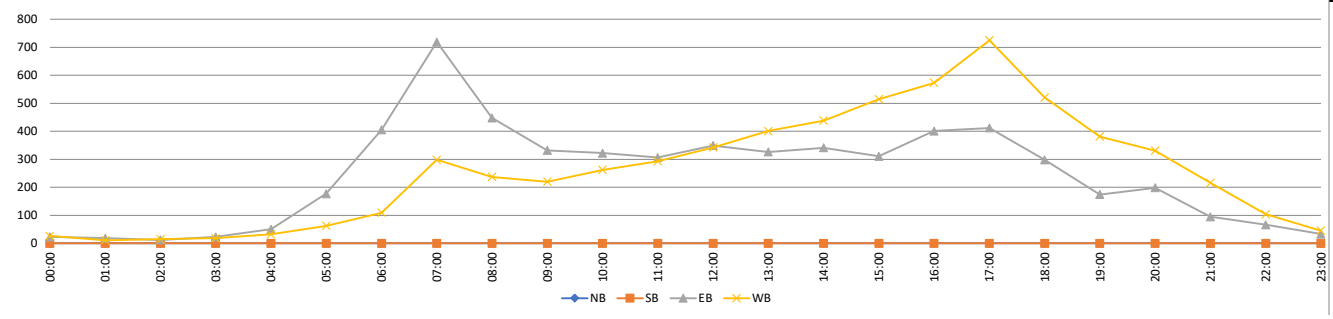
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
0:00			5	10	15	12:00			83	79	162
0:15			4	2	6	12:15			97	70	167
0:30			3	8	11	12:30			75	104	179
0:45			11	6	17	12:45			94	89	183
1:00			5	2	7	13:00			76	82	158
1:15			4	4	8	13:15			78	96	174
1:30			4	3	7	13:30			90	104	194
1:45			5	2	7	13:45			82	119	201
2:00			3	3	6	14:00			97	90	187
2:15			3	2	5	14:15			75	136	211
2:30			2	5	7	14:30			87	103	190
2:45			4	5	9	14:45			82	109	191
3:00			3	5	8	15:00			76	117	193
3:15			5	4	9	15:15			75	130	205
3:30			5	3	8	15:30			84	139	223
3:45			10	6	16	15:45			76	129	205
4:00			8	11	19	16:00			109	163	272
4:15			15	9	24	16:15			102	124	226
4:30			13	6	19	16:30			94	148	242
4:45			14	6	20	16:45			96	138	234
5:00			16	10	26	17:00			108	213	321
5:15			41	14	55	17:15			97	182	279
5:30			49	13	62	17:30			92	186	278
5:45			71	25	96	17:45			115	144	259
6:00			76	15	91	18:00			88	157	245
6:15			82	21	103	18:15			59	138	197
6:30			124	35	159	18:30			74	112	186
6:45			123	38	161	18:45			77	114	191
7:00			155	70	225	19:00			53	83	136
7:15			209	76	285	19:15			42	101	143
7:30			168	90	258	19:30			42	105	147
7:45			187	62	249	19:45			37	92	129
8:00			110	63	173	20:00			48	89	137
8:15			130	50	180	20:15			51	98	149
8:30			106	70	176	20:30			58	81	139
8:45			102	54	156	20:45			41	63	104
9:00			90	49	139	21:00			34	60	94
9:15			76	51	127	21:15			30	57	87
9:30			80	54	134	21:30			16	66	82
9:45			86	66	152	21:45			15	33	48
10:00			67	64	131	22:00			20	30	50
10:15			74	68	142	22:15			13	21	34
10:30			77	63	140	22:30			19	29	48
10:45			104	67	171	22:45			14	24	38
11:00			66	75	141	23:00			12	14	26
11:15			83	77	160	23:15			6	17	23
11:30			77	63	140	23:30			4	7	11
11:45			80	78	158	23:45			11	7	18
TOTALS	0	0	2835	1583	4418	TOTALS	0	0	3004	4592	7596
SPLIT %	0%	0%	64%	36%	37%	SPLIT %	0%	0%	40%	60%	63%

Hourly Intervals

TIME		NB	SB	EB	WB	TOTAL
00:00	01:00			23	26	49
01:00	02:00			18	11	29
02:00	03:00			12	15	27
03:00	04:00			23	18	41
04:00	05:00			50	32	82
05:00	06:00			177	62	239
06:00	07:00			405	109	514
07:00	08:00			719	298	1017
08:00	09:00			448	237	685
09:00	10:00			332	220	552
10:00	11:00			322	262	584
11:00	12:00			306	293	599
12:00	13:00			349	342	691
13:00	14:00			326	401	727
14:00	15:00			341	438	779
15:00	16:00			311	515	826
16:00	17:00			401	573	974
17:00	18:00			412	725	1137
18:00	19:00			298	521	819
19:00	20:00			174	381	555
20:00	21:00			198	331	529
21:00	22:00			95	216	311
22:00	23:00			66	104	170
23:00	00:00			33	45	78

STATISTICS

	NB	SB	EB	WB	TOTAL
Peak Period	00:00	to	12:00		
Volume			2835	1583	4418
Peak Hour			7:00	7:00	7:00
Peak Volume			719	298	1017
Peak Hour Factor			0.860	0.828	0.892
Peak Period	12:00	to	00:00		
Volume			3004	4592	7596
Peak Hour			17:00	17:00	17:00
Peak Volume			412	725	1137
Peak Hour Factor			0.896	0.851	0.886
Peak Period	07:00	to	09:00		
Volume			1167	535	1702
Peak Hour			7:00	7:00	7:00
Peak Volume			719	298	1017
Peak Hour Factor			0.860	0.828	0.892
Peak Period	16:00	to	18:00		
Volume			813	1298	2111
Peak Hour			17:00	17:00	17:00
Peak Volume			412	725	1137
Peak Hour Factor			0.896	0.851	0.886



Prepared by National Data & Surveying Services

VOLUME

Old Post Rd Bet Mattie McCoy Ln & Veterans Memorial Hwy/US 78/SR 8

Day: Wednesday
Date: 5/15/2024

City: Winston
Project #: GA24_180128_002

DAILY TOTALS	NB	SB	EB	WB	Total
	110	62	0	0	172

DAILY TOTALS

15-Minutes Interval

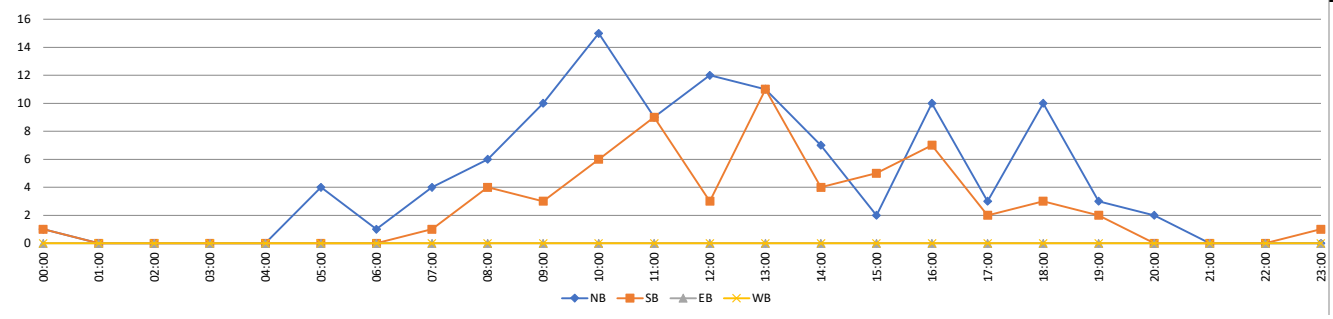
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
0:00	0	0			0	12:00	1	2			3
0:15	0	0			0	12:15	6	0			6
0:30	1	1			2	12:30	4	1			5
0:45	0	0			0	12:45	1	0			1
1:00	0	0			0	13:00	4	3			7
1:15	0	0			0	13:15	2	2			4
1:30	0	0			0	13:30	2	2			4
1:45	0	0			0	13:45	3	4			7
2:00	0	0			0	14:00	5	3			8
2:15	0	0			0	14:15	2	0			2
2:30	0	0			0	14:30	0	1			1
2:45	0	0			0	14:45	0	0			0
3:00	0	0			0	15:00	0	2			2
3:15	0	0			0	15:15	1	1			2
3:30	0	0			0	15:30	1	1			2
3:45	0	0			0	15:45	0	1			1
4:00	0	0			0	16:00	5	0			5
4:15	0	0			0	16:15	3	1			4
4:30	0	0			0	16:30	1	4			5
4:45	0	0			0	16:45	1	2			3
5:00	0	0			0	17:00	2	1			3
5:15	2	0			2	17:15	0	1			1
5:30	1	0			1	17:30	0	0			0
5:45	1	0			1	17:45	1	0			1
6:00	0	0			0	18:00	5	0			5
6:15	0	0			0	18:15	1	2			3
6:30	0	0			0	18:30	4	1			5
6:45	1	0			1	18:45	0	0			0
7:00	1	1			2	19:00	2	1			3
7:15	0	0			0	19:15	1	1			2
7:30	3	0			3	19:30	0	0			0
7:45	0	0			0	19:45	0	0			0
8:00	2	0			2	20:00	0	0			0
8:15	1	2			3	20:15	0	0			0
8:30	2	0			2	20:30	2	0			2
8:45	1	2			3	20:45	0	0			0
9:00	4	1			5	21:00	0	0			0
9:15	3	1			4	21:15	0	0			0
9:30	2	0			2	21:30	0	0			0
9:45	1	1			2	21:45	0	0			0
10:00	3	0			3	22:00	0	0			0
10:15	3	3			6	22:15	0	0			0
10:30	3	1			4	22:30	0	0			0
10:45	6	2			8	22:45	0	0			0
11:00	3	1			4	23:00	0	1			1
11:15	3	2			5	23:15	0	0			0
11:30	1	1			2	23:30	0	0			0
11:45	2	5			7	23:45	0	0			0
TOTALS	50	24	0	0	74	TOTALS	60	38	0	0	98
SPLIT %	68%	32%	0%	0%	43%	SPLIT %	61%	39%	0%	0%	57%

Hourly Intervals

TIME		NB	SB	EB	WB	TOTAL
00:00	01:00	1	1			2
01:00	02:00	0	0			0
02:00	03:00	0	0			0
03:00	04:00	0	0			0
04:00	05:00	0	0			0
05:00	06:00	4	0			4
06:00	07:00	1	0			1
07:00	08:00	4	1			5
08:00	09:00	6	4			10
09:00	10:00	10	3			13
10:00	11:00	15	6			21
11:00	12:00	9	9			18
12:00	13:00	12	3			15
13:00	14:00	11	11			22
14:00	15:00	7	4			11
15:00	16:00	2	5			7
16:00	17:00	10	7			17
17:00	18:00	3	2			5
18:00	19:00	10	3			13
19:00	20:00	3	2			5
20:00	21:00	2	0			2
21:00	22:00	0	0			0
22:00	23:00	0	0			0
23:00	00:00	0	1			1

STATISTICS

	NB	SB	EB	WB	TOTAL
Peak Period	00:00	to	12:00		
Volume	50	24			74
Peak Hour	10:00	11:00			10:15
Peak Volume	15	9			22
Peak Hour Factor	0.625	0.450			0.688
Peak Period	12:00	to	00:00		
Volume	60	38			98
Peak Hour	12:15	13:00			13:15
Peak Volume	15	11			23
Peak Hour Factor	0.625	0.688			0.719
Peak Period	07:00	to	09:00		
Volume	10	5			15
Peak Hour	7:30	8:00			8:00
Peak Volume	6	4			10
Peak Hour Factor	0.500	0.500			0.833
Peak Period	16:00	to	18:00		
Volume	13	9			22
Peak Hour	16:00	16:15			16:00
Peak Volume	10	8			17
Peak Hour Factor	0.500	0.500			0.850



APPENDIX C

HISTORICAL TRAFFIC DATA &

GROWTH RATE

0000097_0056 - 097-0056 - CRY 080800 R
County: Douglas
Route number: 00000800
LRS section: 0971000800
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 33.7307071662771, -84.8056003133743

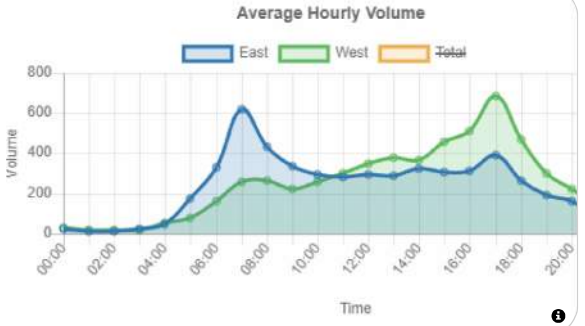
Site Data

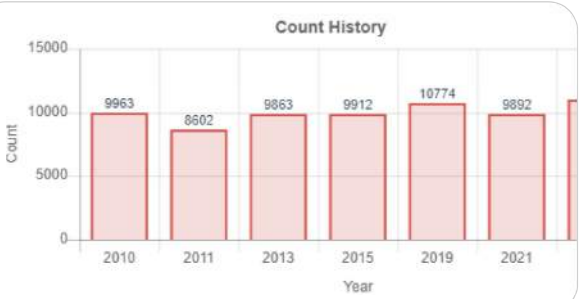
Count History

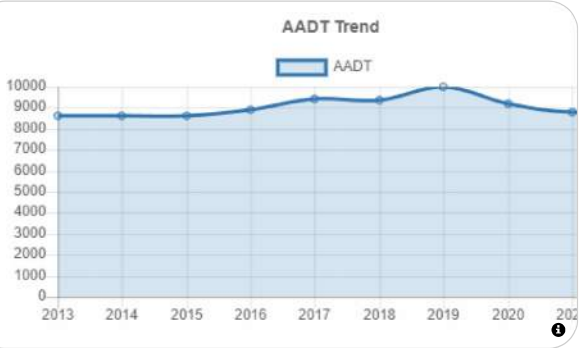
Year	Month	Count type	Duration	Count
2023	September	Volume	48 hours	10,990
2021	June	Class	48 hours	9,892
2019	February	Volume	48 hours	10,774
2015	August	Volume	48 hours	9,912
2013	October	Volume	48 hours	9,863
2011	January	Class	48 hours	8,602
2010	May	Class	48 hours	9,963

Annual Statistics

Data Item	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Statistics type	-	-	Actual	Estimated	Estimated	Estimated	Actual	Estimated	Actual	**Estimated**
AADT	8,630	8,630	8,600	8,880	9,400	9,390	9,990	9,210	8,780	**8,980**
K-Factor	0.090	0.090	0.104	0.104	-	-	0.101	0.101	0.113	**0.113**
D-Factor	-	-	0.500	0.500	-	-	0.630	0.630	0.690	**0.690**
Future AADT	-	-	-	9,940	11,800	11,800	12,600	12,600	14,700	**11,600**

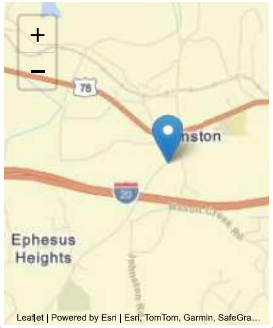






0000097_0143 - 097-0143 - RPX 402026L402027R
County: Douglas
Route number: 00080800
LRS section: 0972080800
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 33.72291278, -84.82904911

Site Data

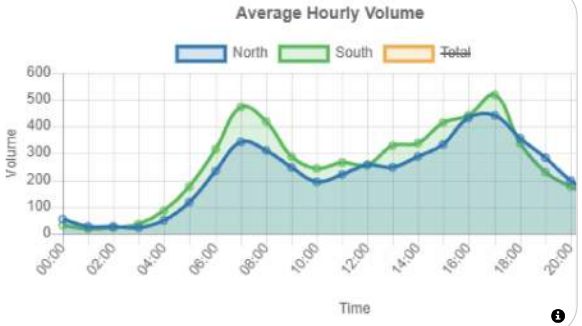


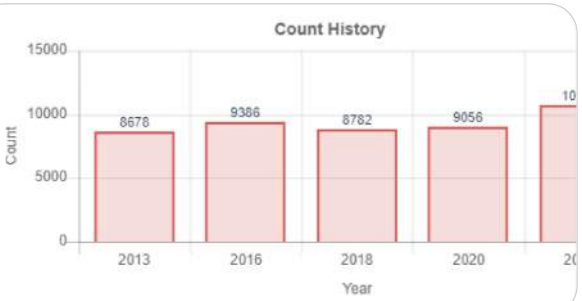
Count History

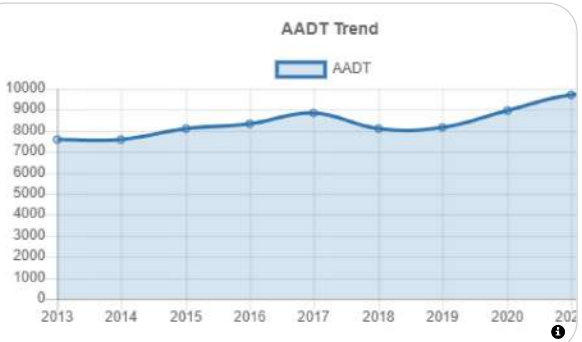
Year	Month	Count type	Duration	Count
2022	August	Class	48 hours	10,708
2020	March	Class	48 hours	9,056
2018	March	Class	48 hours	8,782
2016	August	Class	48 hours	9,386
2013	October	Class	48 hours	8,678

Annual Statistics

Data Item	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Statistics type	-	-	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	**Actual**
AADT	7,560	7,560	8,130	8,340	8,830	8,100	8,160	8,970	9,690	**9,720**
K-Factor	0.090	0.090	0.090	0.110	-	0.104	0.104	0.100	0.100	**0.104**
D-Factor	0.500	0.500	0.500	0.500	-	0.560	0.560	0.540	0.540	**0.520**
Future AADT	-	-	-	9,260	9,960	11,100	11,300	11,300	12,200	**13,400**







Vehicle Classification 2022

1. Motorcycles 2 axles, 2 or 3 wheels.	**0.34%**
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	**66.95%**
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	**24.58%**
4. Buses 2- or 3-axle, full length.	**0.66%**
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	**5.08%**
6. Single-unit trucks 3-axle, single-unit trucks.	**0.59%**
7. Single-unit trucks 4 or more axle, single-unit trucks.	**0.02%**
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.	**1.17%**
9. Single-trailer trucks 5-axle, single-trailer trucks.	**0.57%**
10. Single-trailer trucks 6 or more axle, single-trailer trucks.	**0.02%**
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.	**0%**
12. Multi-trailer trucks 6-axle, multi-trailer trucks.	**0%**
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.	**0.00%**

DRI #4192 Waldrop Farms Data Center - Growth Rate Calculation Worksheet

Percent Growth										
Roadway	**County**	**Traffic Count Station**	**2018 Traffic Volumes**	**2019 Traffic Volumes**	**2020 Traffic Volumes**	**2021 Traffic Volumes**	**2022 Traffic Volumes**	**2024 Traffic Volumes by Linear Regress.**	**2034 Traffic Volumes by Linear Regress.**	**Annual Growth 2024 to 2034**
Veterans Memorial Hwy	Douglas	097-0056	9,390	9,990	9,210	8,780	8,980	8,458	6,428	-2.4%
Post Rd	Douglas	097-0143	8,100	8,160	8,970	9,690	9,720	10,836	15,606	4.4%
		Weighted Average	**17,490**	**18,150**	**18,180**	**18,470**	**18,700**	**19,294**	**22,034**	**1.4%**

APPENDIX D

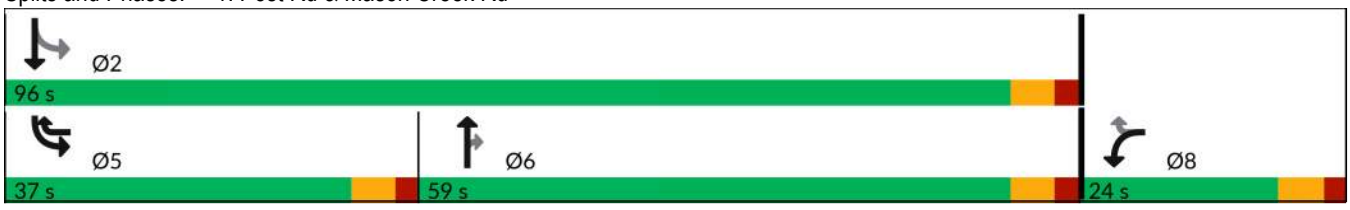
EXISTING, NO-BUILD, & BUILD SYNCHRO REPORTS

EXISTING SYNCHRO REPORTS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	57	341	553	99	416	214
Future Volume (vph)	57	341	553	99	416	214
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	5	6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	5	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	22.5	22.5	11.0	22.5
Total Split (s)	24.0	37.0	59.0	59.0	37.0	96.0
Total Split (%)	20.0%	30.8%	49.2%	49.2%	30.8%	80.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	None	Min
Act Effct Green (s)	9.4	38.5	31.8	31.8	65.8	68.3
Actuated g/C Ratio	0.11	0.46	0.38	0.38	0.78	0.81
v/c Ratio	0.34	0.49	0.85	0.16	0.68	0.18
Control Delay (s/veh)	47.3	11.5	37.9	4.4	21.5	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.3	11.5	37.9	4.4	21.5	3.3
LOS	D	B	D	A	C	A
Approach Delay (s/veh)	16.6		32.9			15.3
Approach LOS	B		C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 84	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 22.2	Intersection LOS: C
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Post Rd & Mason Creek Rd



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	57	341	553	99	416	214
Future Volume (veh/h)	57	341	553	99	416	214
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	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	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1811	1856	1856	1841	1693
Adj Flow Rate, veh/h	66	392	595	106	467	240
Peak Hour Factor	0.87	0.87	0.93	0.93	0.89	0.89
Percent Heavy Veh, %	4	6	3	3	4	14
Cap, veh/h	364	652	683	579	515	1107
Arrive On Green	0.21	0.21	0.37	0.37	0.22	0.65
Sat Flow, veh/h	1753	1535	1856	1572	1753	1693
Grp Volume(v), veh/h	66	392	595	106	467	240
Grp Sat Flow(s),veh/h/ln	1753	1535	1856	1572	1753	1693
Q Serve(g_s), s	2.7	17.1	25.9	4.0	15.6	5.0
Cycle Q Clear(g_c), s	2.7	17.1	25.9	4.0	15.6	5.0
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	364	652	683	579	515	1107
V/C Ratio(X)	0.18	0.60	0.87	0.18	0.91	0.22
Avail Cap(c_a), veh/h	364	652	1133	960	760	1755
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	19.3	25.5	18.6	20.4	6.0
Incr Delay (d2), s/veh	0.2	1.6	4.2	0.2	10.7	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	5.8	11.0	1.4	6.9	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	28.6	20.8	29.8	18.7	31.1	6.1
LnGrp LOS	C	C	C	B	C	A
Approach Vol, veh/h	458		701			707
Approach Delay, s/veh	22.0		28.1			22.6
Approach LOS	C		C			C

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		62.8			24.9	37.9	24.0
Change Period (Y+Rc), s		6.0			6.0	6.0	6.0
Max Green Setting (Gmax), s		90.0			31.0	53.0	18.0
Max Q Clear Time (g_c+I1), s		7.0			17.6	27.9	19.1
Green Ext Time (p_c), s		1.4			1.2	4.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	24.5
HCM 7th LOS	C

Intersection	
Int Delay, s/veh	20.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	92	2	284	0	0	0	0	419	479	253	348	0
Future Vol, veh/h	92	2	284	0	0	0	0	419	479	253	348	0
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	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	305	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	92	92	92	95	95	95	91	91	91
Heavy Vehicles, %	9	50	6	2	2	2	0	5	3	4	10	0
Mvmt Flow	97	2	299	0	0	0	0	441	504	278	382	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1380	1884	382	-	0	0	945	0	0
Stage 1	938	938	-	-	-	-	-	-	-
Stage 2	441	945	-	-	-	-	-	-	-
Critical Hdwy	6.49	7	6.26	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.49	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.49	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.45	3.354	-	-	-	2.236	-	-
Pot Cap-1 Maneuver	154	54	656	0	-	-	718	-	0
Stage 1	370	286	-	0	-	-	-	-	0
Stage 2	634	284	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 94	0	656	-	-	-	718	-	-
Mov Cap-2 Maneuver	~ 94	0	-	-	-	-	-	-	-
Stage 1	370	0	-	-	-	-	-	-	-
Stage 2	388	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	94.06	0	5.54
HCM LOS	F		

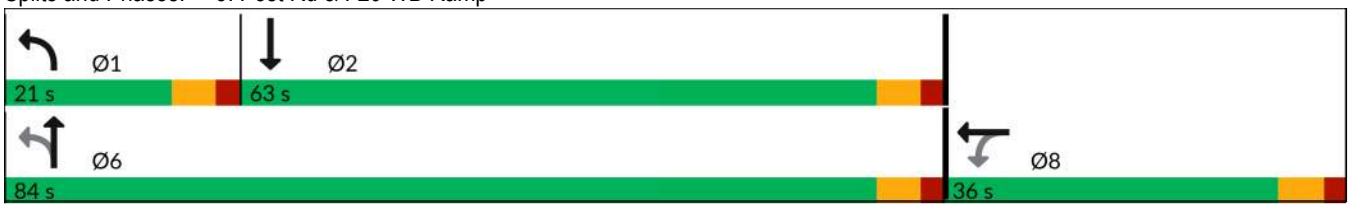
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	379	718	-
HCM Lane V/C Ratio	-	-	1.051	0.387	-
HCM Control Delay (s/veh)	-	-	94.1	13.2	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	13.5	1.8	-

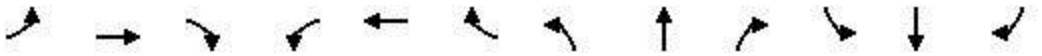
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	4	192	316	454
Future Volume (vph)	4	192	316	454
Turn Type	NA	pm+pt	NA	NA
Protected Phases	8	1	6	2
Permitted Phases		6		
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	24.0	24.0
Total Split (s)	36.0	21.0	84.0	63.0
Total Split (%)	30.0%	17.5%	70.0%	52.5%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	Min	Min
Act Effct Green (s)	19.1	50.9	50.9	33.9
Actuated g/C Ratio	0.23	0.61	0.61	0.41
v/c Ratio	0.72	0.51	0.30	0.81
Control Delay (s/veh)	39.3	12.3	8.7	31.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.3	12.3	8.7	31.7
LOS	D	B	A	C
Approach Delay (s/veh)	39.3		10.1	31.7
Approach LOS	D		B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 82.9	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 25.1	Intersection LOS: C
Intersection Capacity Utilization 98.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Post Rd & I-20 WB Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	148	4	117	192	316	0	0	454	65
Future Volume (veh/h)	0	0	0	148	4	117	192	316	0	0	454	65
Initial Q (Qb), veh				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
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1826	1159	1856	1826	1811	0	0	1781	1781
Adj Flow Rate, veh/h				161	4	0	202	333	0	0	504	72
Peak Hour Factor				0.92	0.92	0.92	0.95	0.95	0.95	0.90	0.90	0.90
Percent Heavy Veh, %				5	50	3	5	6	0	0	8	8
Cap, veh/h				192	5		386	1099	0	0	611	87
Arrive On Green				0.18	0.18	0.00	0.10	0.61	0.00	0.00	0.40	0.40
Sat Flow, veh/h				1078	27	0	1739	1811	0	0	1524	218
Grp Volume(v), veh/h				165	0	0	202	333	0	0	0	576
Grp Sat Flow(s),veh/h/ln				1105	0	0	1739	1811	0	0	0	1742
Q Serve(g_s), s				8.1	0.0	0.0	3.4	4.9	0.0	0.0	0.0	16.5
Cycle Q Clear(g_c), s				8.1	0.0	0.0	3.4	4.9	0.0	0.0	0.0	16.5
Prop In Lane				0.98		0.00	1.00		0.00	0.00		0.12
Lane Grp Cap(c), veh/h				197	0		386	1099	0	0	0	698
V/C Ratio(X)				0.84	0.00		0.52	0.30	0.00	0.00	0.00	0.82
Avail Cap(c_a), veh/h				594	0		682	2529	0	0	0	1778
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				22.2	0.0	0.0	10.9	5.3	0.0	0.0	0.0	15.0
Incr Delay (d2), s/veh				9.1	0.0	0.0	1.1	0.2	0.0	0.0	0.0	2.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.2	0.0	0.0	0.9	1.1	0.0	0.0	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				31.3	0.0	0.0	12.0	5.4	0.0	0.0	0.0	17.5
LnGrp LOS				C			B	A				B
Approach Vol, veh/h					165			535			576	
Approach Delay, s/veh					31.3			7.9			17.5	
Approach LOS					C			A			B	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.5	28.4				39.9		15.9				
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0				
Max Green Setting (Gmax), s	15.0	57.0				78.0		30.0				
Max Q Clear Time (g_c+I1), s	5.4	18.5				6.9		10.1				
Green Ext Time (p_c), s	0.4	3.9				1.9		0.7				

Intersection Summary		
HCM 7th Control Delay, s/veh	15.3	
HCM 7th LOS	B	

Notes

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

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	420	3	4	512
Future Vol, veh/h	5	5	420	3	4	512
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	-	-	-	180	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	94	94	85	85
Heavy Vehicles, %	20	20	6	33	50	8
Mvmt Flow	10	10	447	3	5	602

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1060	448	0	0	450	0
Stage 1	448	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Critical Hdwy	6.6	6.4	-	-	4.6	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.48	-	-	2.65	-
Pot Cap-1 Maneuver	229	574	-	-	898	-
Stage 1	607	-	-	-	-	-
Stage 2	508	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	228	574	-	-	898	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	505	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	16.74	0	0.07
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	327	898	-
HCM Lane V/C Ratio	-	-	0.061	0.005	-
HCM Control Delay (s/veh)	-	-	16.7	9	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	5	3	1	2	0	409	5	4	507	4
Future Vol, veh/h	6	0	5	3	1	2	0	409	5	4	507	4
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	-	-	-	-	-	-	160	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	30	30	30	91	91	91	88	88	88
Heavy Vehicles, %	0	0	60	0	100	0	0	6	20	0	7	0
Mvmt Flow	7	0	5	10	3	7	0	449	5	5	576	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1039	1042	578	1037	1042	452	581	0	0	455	0	0
Stage 1	588	588	-	452	452	-	-	-	-	-	-	-
Stage 2	451	455	-	585	590	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.8	7.1	7.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.84	3.5	4.9	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	211	231	421	211	157	612	1003	-	-	1116	-	-
Stage 1	499	499	-	591	435	-	-	-	-	-	-	-
Stage 2	592	572	-	500	368	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	230	421	207	156	612	1003	-	-	1116	-	-
Mov Cap-2 Maneuver	203	230	-	207	156	-	-	-	-	-	-	-
Stage 1	497	497	-	591	435	-	-	-	-	-	-	-
Stage 2	581	572	-	492	367	-	-	-	-	-	-	-

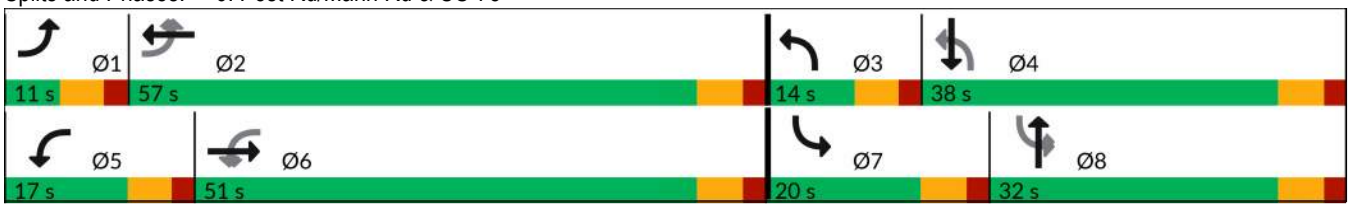
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.19	20.74	0	0.06
HCM LOS	C	C		

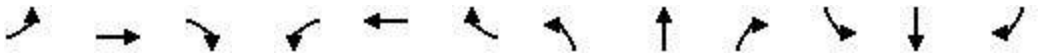
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1003	-	-	266	249	1116	-	-
HCM Lane V/C Ratio	-	-	-	0.045	0.08	0.004	-	-
HCM Control Delay (s/veh)	0	-	-	19.2	20.7	8.2	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	11	312	179	108	122	52	94	103	220	156	237
Future Volume (vph)	11	312	179	108	122	52	94	103	220	156	237
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	1	6		5	2		3	8		7	4
Permitted Phases	2		6	6		2	4		8	8	
Detector Phase	1	6	6	5	2	2	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0
Total Split (s)	11.0	51.0	51.0	17.0	57.0	57.0	14.0	32.0	32.0	20.0	38.0
Total Split (%)	9.2%	42.5%	42.5%	14.2%	47.5%	47.5%	11.7%	26.7%	26.7%	16.7%	31.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None
Act Effct Green (s)	38.3	23.5	23.5	33.0	37.6	37.6	27.3	14.5	14.5	25.5	21.3
Actuated g/C Ratio	0.46	0.28	0.28	0.39	0.45	0.45	0.33	0.17	0.17	0.31	0.25
v/c Ratio	0.02	0.72	0.36	0.37	0.21	0.09	0.31	0.38	0.52	0.40	0.61
Control Delay (s/veh)	13.5	37.4	5.7	17.0	17.1	0.2	21.8	37.0	9.1	22.5	37.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.5	37.4	5.7	17.0	17.1	0.2	21.8	37.0	9.1	22.5	37.0
LOS	B	D	A	B	B	A	C	D	A	C	D
Approach Delay (s/veh)		25.6			14.0			18.9			31.4
Approach LOS		C			B			B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 83.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay (s/veh): 23.1	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Post Rd/Mann Rd & US-78





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	312	179	108	122	52	94	103	220	156	237	11
Future Volume (veh/h)	11	312	179	108	122	52	94	103	220	156	237	11
Initial Q (Qb), 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	
Adj Sat Flow, veh/h/ln	1767	1767	1752	1767	1663	1841	1811	1767	1841	1826	1811	1900
Adj Flow Rate, veh/h	12	355	0	138	156	0	103	113	0	175	266	0
Peak Hour Factor	0.88	0.88	0.88	0.78	0.78	0.78	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	9	9	10	9	16	4	6	9	4	5	6	0
Cap, veh/h	440	449		327	539		298	265		431	354	
Arrive On Green	0.02	0.25	0.00	0.09	0.32	0.00	0.07	0.15	0.00	0.11	0.20	0.00
Sat Flow, veh/h	1682	1767	1485	1682	1663	1560	1725	1767	1560	1739	1811	0
Grp Volume(v), veh/h	12	355	0	138	156	0	103	113	0	175	266	0
Grp Sat Flow(s),veh/h/ln	1682	1767	1485	1682	1663	1560	1725	1767	1560	1739	1811	0
Q Serve(g_s), s	0.3	11.3	0.0	3.6	4.2	0.0	2.8	3.5	0.0	5.0	8.4	0.0
Cycle Q Clear(g_c), s	0.3	11.3	0.0	3.6	4.2	0.0	2.8	3.5	0.0	5.0	8.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	440	449		327	539		298	265		431	354	
V/C Ratio(X)	0.03	0.79		0.42	0.29		0.35	0.43		0.41	0.75	
Avail Cap(c_a), veh/h	554	1316		490	1404		409	761		637	960	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.4	21.0	0.0	15.6	15.2	0.0	18.1	23.3	0.0	18.3	22.9	0.0
Incr Delay (d2), s/veh	0.0	3.2	0.0	0.9	0.3	0.0	0.7	1.1	0.0	0.6	3.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.4	0.0	1.2	1.4	0.0	1.0	1.4	0.0	1.9	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.5	24.2	0.0	16.5	15.5	0.0	18.8	24.4	0.0	19.0	26.2	0.0
LnGrp LOS	B	C		B	B		B	C		B	C	
Approach Vol, veh/h		367			294			216			441	
Approach Delay, s/veh		23.8			16.0			21.7			23.3	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	25.6	10.1	17.8	11.1	21.3	12.8	15.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	51.0	8.0	32.0	11.0	45.0	14.0	26.0
Max Q Clear Time (g_c+I1), s	2.3	6.2	4.8	10.4	5.6	13.3	7.0	5.5
Green Ext Time (p_c), s	0.0	0.8	0.1	1.4	0.1	2.0	0.2	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	21.6
HCM 7th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	718	1	0	298	0	4
Future Vol, veh/h	718	1	0	298	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	83	83	92	92
Heavy Vehicles, %	6	0	0	11	0	0
Mvmt Flow	835	1	0	359	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	835
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	371
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	371
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	14.83
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	371	-	-
HCM Lane V/C Ratio	0.012	-	-
HCM Control Delay (s/veh)	14.8	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	564	204	27	18	10
Future Vol, veh/h	52	564	204	27	18	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	160	-	-	180	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	96	96	88	88
Heavy Vehicles, %	8	7	14	7	44	30
Mvmt Flow	61	664	213	28	20	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	213	0	-	0	998	213
Stage 1	-	-	-	-	213	-
Stage 2	-	-	-	-	786	-
Critical Hdwy	4.18	-	-	-	6.84	6.5
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.272	-	-	-	3.896	3.57
Pot Cap-1 Maneuver	1323	-	-	-	227	762
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	383	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1323	-	-	-	216	762
Mov Cap-2 Maneuver	-	-	-	-	216	-
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	383	-

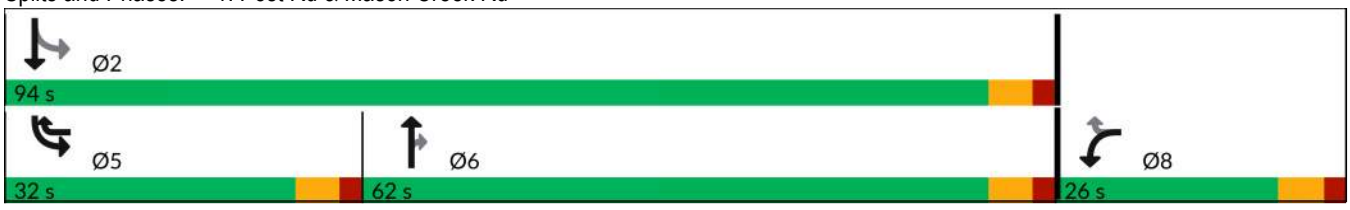
Approach	EB	WB	SB
HCM Control Delay, s/v	0.66	0	16.86
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1323	-	-	-	335
HCM Lane V/C Ratio	0.046	-	-	-	0.095
HCM Control Delay (s/veh)	7.9	-	-	-	16.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	74	291	366	49	301	623
Future Volume (vph)	74	291	366	49	301	623
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	5	6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	5	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	22.5	22.5	11.0	22.5
Total Split (s)	26.0	32.0	62.0	62.0	32.0	94.0
Total Split (%)	21.7%	26.7%	51.7%	51.7%	26.7%	78.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	None	Min
Act Effct Green (s)	9.5	29.7	21.8	21.8	46.8	49.2
Actuated g/C Ratio	0.15	0.46	0.33	0.33	0.72	0.76
v/c Ratio	0.36	0.41	0.77	0.11	0.51	0.50
Control Delay (s/veh)	35.2	4.2	31.0	5.7	7.7	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	35.2	4.2	31.0	5.7	7.7	6.4
LOS	D	A	C	A	A	A
Approach Delay (s/veh)	10.5		28.0			6.8
Approach LOS	B		C			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 65.1	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 13.2	Intersection LOS: B
Intersection Capacity Utilization 55.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Post Rd & Mason Creek Rd



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	74	291	366	49	301	623
Future Volume (veh/h)	74	291	366	49	301	623
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	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	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1811	1900	1826	1870
Adj Flow Rate, veh/h	90	355	463	62	338	700
Peak Hour Factor	0.82	0.82	0.79	0.79	0.89	0.89
Percent Heavy Veh, %	4	4	6	0	5	2
Cap, veh/h	397	609	573	510	472	1081
Arrive On Green	0.23	0.23	0.32	0.32	0.16	0.58
Sat Flow, veh/h	1753	1560	1811	1610	1739	1870
Grp Volume(v), veh/h	90	355	463	62	338	700
Grp Sat Flow(s),veh/h/ln	1753	1560	1811	1610	1739	1870
Q Serve(g_s), s	2.6	11.0	14.4	1.7	7.2	15.5
Cycle Q Clear(g_c), s	2.6	11.0	14.4	1.7	7.2	15.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	397	609	573	510	472	1081
V/C Ratio(X)	0.23	0.58	0.81	0.12	0.72	0.65
Avail Cap(c_a), veh/h	570	763	1650	1467	923	2677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.4	14.8	19.3	14.9	12.3	8.7
Incr Delay (d2), s/veh	0.3	0.9	2.8	0.1	2.0	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	3.4	5.5	0.5	2.3	4.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.7	15.7	22.0	15.0	14.3	9.4
LnGrp LOS	B	B	C	B	B	A
Approach Vol, veh/h	445		525			1038
Approach Delay, s/veh	16.5		21.2			11.0
Approach LOS	B		C			B

Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	41.5			16.1	25.5	19.9
Change Period (Y+Rc), s	6.0			6.0	6.0	6.0
Max Green Setting (Gmax), s	88.0			26.0	56.0	20.0
Max Q Clear Time (g_c+I1), s	17.5			9.2	16.4	13.0
Green Ext Time (p_c), s	5.1			0.9	3.0	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	14.9
HCM 7th LOS	B

Intersection	
Int Delay, s/veh	20.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	2	223	0	0	0	0	436	225	161	701	0
Future Vol, veh/h	53	2	223	0	0	0	0	436	225	161	701	0
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	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	305	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	92	92	92	91	91	91	89	89	89
Heavy Vehicles, %	4	0	4	0	0	0	0	6	4	4	3	0
Mvmt Flow	59	2	248	0	0	0	0	479	247	181	788	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1629	1876	788	-	0	0	726	0	0
Stage 1	1149	1149	-	-	-	-	-	-	-
Stage 2	479	726	-	-	-	-	-	-	-
Critical Hdwy	6.44	6.5	6.24	-	-	-	4.14	-	-
Critical Hdwy Stg 1	5.44	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.44	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4	3.336	-	-	-	2.236	-	-
Pot Cap-1 Maneuver	111	72	388	0	-	-	868	-	0
Stage 1	299	275	-	0	-	-	-	-	0
Stage 2	619	432	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	88	0	388	-	-	-	868	-	-
Mov Cap-2 Maneuver	88	0	-	-	-	-	-	-	-
Stage 1	299	0	-	-	-	-	-	-	-
Stage 2	490	0	-	-	-	-	-	-	-

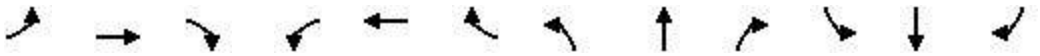
Approach	EB	NB	SB
HCM Control Delay, s/v	28.65	0	1.91
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	SBL	SBT
Capacity (veh/h)	-	-	277	868	-
HCM Lane V/C Ratio	-	-	1.115	0.208	-
HCM Control Delay (s/veh)	-	-	128.6	10.2	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	12.9	0.8	-

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	0	232	252	439
Future Volume (vph)	0	232	252	439
Turn Type	NA	pm+pt	NA	NA
Protected Phases	8	1	6	2
Permitted Phases		6		
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	24.0	24.0
Total Split (s)	52.0	19.0	68.0	49.0
Total Split (%)	43.3%	15.8%	56.7%	40.8%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	Min	Min
Act Effct Green (s)	46.0	62.0	62.0	43.0
Actuated g/C Ratio	0.38	0.52	0.52	0.36
v/c Ratio	1.07	1.02	0.30	1.06
Control Delay (s/veh)	87.1	95.9	17.7	89.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	87.1	95.9	17.7	89.8
LOS	F	F	B	F
Approach Delay (s/veh)	87.1		55.1	89.8
Approach LOS	F		E	F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay (s/veh): 79.5	Intersection LOS: E
Intersection Capacity Utilization 99.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Post Rd & I-20 WB Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	430	0	254	232	252	0	0	439	157
Future Volume (veh/h)	0	0	0	430	0	254	232	252	0	0	439	157
Initial Q (Qb), veh				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
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1856	1826	1811	0	0	1856	1826
Adj Flow Rate, veh/h				473	0	0	252	274	0	0	505	180
Peak Hour Factor				0.91	0.91	0.91	0.92	0.92	0.92	0.87	0.87	0.87
Percent Heavy Veh, %				3	0	3	5	6	0	0	3	5
Cap, veh/h				536	0		286	1048	0	0	539	192
Arrive On Green				0.30	0.00	0.00	0.10	0.58	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1810	0	0	1739	1811	0	0	1306	466
Grp Volume(v), veh/h				473	0	0	252	274	0	0	0	685
Grp Sat Flow(s),veh/h/ln				1810	0	0	1739	1811	0	0	0	1772
Q Serve(g_s), s				23.9	0.0	0.0	7.7	7.2	0.0	0.0	0.0	35.5
Cycle Q Clear(g_c), s				23.9	0.0	0.0	7.7	7.2	0.0	0.0	0.0	35.5
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.26
Lane Grp Cap(c), veh/h				536	0		286	1048	0	0	0	731
V/C Ratio(X)				0.88	0.00		0.88	0.26	0.00	0.00	0.00	0.94
Avail Cap(c_a), veh/h				869	0		343	1172	0	0	0	795
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				32.1	0.0	0.0	21.3	10.0	0.0	0.0	0.0	26.9
Incr Delay (d2), s/veh				6.5	0.0	0.0	19.8	0.1	0.0	0.0	0.0	17.6
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.4	0.0	0.0	4.2	2.5	0.0	0.0	0.0	17.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				38.6	0.0	0.0	41.1	10.1	0.0	0.0	0.0	44.6
LnGrp LOS				D			D	B				D
Approach Vol, veh/h					473			526			685	
Approach Delay, s/veh					38.6			25.0			44.6	
Approach LOS					D			C			D	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	15.9	45.5				61.4		34.4				
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0				
Max Green Setting (Gmax), s	13.0	43.0				62.0		46.0				
Max Q Clear Time (g_c+I1), s	9.7	37.5				9.2		25.9				
Green Ext Time (p_c), s	0.2	2.1				1.5		2.5				

Intersection Summary		
HCM 7th Control Delay, s/veh	36.8	
HCM 7th LOS	D	

Notes

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

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	4	507	7	5	591
Future Vol, veh/h	3	4	507	7	5	591
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	-	-	-	180	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	88	88	86	86
Heavy Vehicles, %	0	0	4	14	0	3
Mvmt Flow	7	9	576	8	6	687

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1279	580	0	0	584	0
Stage 1	580	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	185	518	-	-	1000	-
Stage 1	564	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	184	518	-	-	1000	-
Mov Cap-2 Maneuver	184	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	494	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.07	0	0.07
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	291	1000	-
HCM Lane V/C Ratio	-	-	0.055	0.006	-
HCM Control Delay (s/veh)	-	-	18.1	8.6	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	10	5	1	1	7	495	6	4	575	3
Future Vol, veh/h	4	0	10	5	1	1	7	495	6	4	575	3
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	-	-	-	-	-	-	160	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	58	58	58	58	58	93	93	93	85	85	85
Heavy Vehicles, %	0	0	20	0	0	0	0	4	0	0	3	33
Mvmt Flow	7	0	17	9	2	2	8	532	6	5	676	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1236	1241	678	1236	1240	535	680	0	0	539	0	0
Stage 1	688	688	-	551	551	-	-	-	-	-	-	-
Stage 2	548	554	-	686	689	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.4	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.48	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	154	176	422	154	177	549	922	-	-	1040	-	-
Stage 1	440	450	-	523	519	-	-	-	-	-	-	-
Stage 2	524	517	-	441	449	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	151	174	422	146	174	549	922	-	-	1040	-	-
Mov Cap-2 Maneuver	151	174	-	146	174	-	-	-	-	-	-	-
Stage 1	438	448	-	518	515	-	-	-	-	-	-	-
Stage 2	516	513	-	421	447	-	-	-	-	-	-	-

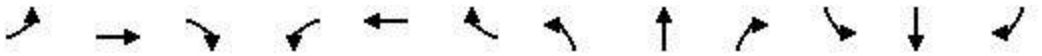
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	19.14	28.14	0.12	0.06
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	922	-	-	279	168	1040	-	-
HCM Lane V/C Ratio	0.008	-	-	0.087	0.072	0.005	-	-
HCM Control Delay (s/veh)	8.9	-	-	19.1	28.1	8.5	-	-
HCM Lane LOS	A	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	17	197	135	248	369	92	124	234	134	69	198
Future Volume (vph)	17	197	135	248	369	92	124	234	134	69	198
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	1	6		5	2		3	8		7	4
Permitted Phases	2		6	6		2	4		8	8	
Detector Phase	1	6	6	5	2	2	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0
Total Split (s)	11.0	41.0	41.0	27.0	57.0	57.0	16.0	40.0	40.0	12.0	36.0
Total Split (%)	9.2%	34.2%	34.2%	22.5%	47.5%	47.5%	13.3%	33.3%	33.3%	10.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None
Act Effct Green (s)	37.0	17.3	17.3	32.7	35.3	35.3	26.6	23.7	23.7	28.2	17.5
Actuated g/C Ratio	0.44	0.21	0.21	0.39	0.42	0.42	0.32	0.28	0.28	0.33	0.21
v/c Ratio	0.06	0.65	0.35	0.61	0.60	0.15	0.40	0.51	0.27	0.24	0.68
Control Delay (s/veh)	13.9	41.5	5.4	21.2	25.0	3.1	22.7	32.7	3.2	20.8	41.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.9	41.5	5.4	21.2	25.0	3.1	22.7	32.7	3.2	20.8	41.8
LOS	B	D	A	C	C	A	C	C	A	C	D
Approach Delay (s/veh)		26.2			20.8			22.1			36.6
Approach LOS		C			C			C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 84.3	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay (s/veh): 24.6	Intersection LOS: C
Intersection Capacity Utilization 62.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Post Rd/Mann Rd & US-78



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	197	135	248	369	92	124	234	134	69	198	10
Future Volume (veh/h)	17	197	135	248	369	92	124	234	134	69	198	10
Initial Q (Qb), 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	
Adj Sat Flow, veh/h/ln	1900	1811	1870	1856	1841	1870	1856	1841	1811	1841	1841	1900
Adj Flow Rate, veh/h	21	240	0	306	456	0	139	263	0	85	244	0
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.89	0.89	0.89	0.81	0.81	0.81
Percent Heavy Veh, %	0	6	2	3	4	2	3	4	6	4	4	0
Cap, veh/h	261	320		484	605		328	375		300	326	
Arrive On Green	0.02	0.18	0.00	0.18	0.33	0.00	0.09	0.20	0.00	0.06	0.18	0.00
Sat Flow, veh/h	1810	1811	1585	1767	1841	1585	1767	1841	1535	1753	1841	0
Grp Volume(v), veh/h	21	240	0	306	456	0	139	263	0	85	244	0
Grp Sat Flow(s),veh/h/ln	1810	1811	1585	1767	1841	1585	1767	1841	1535	1753	1841	0
Q Serve(g_s), s	0.5	7.9	0.0	8.5	13.9	0.0	3.9	8.4	0.0	2.4	7.9	0.0
Cycle Q Clear(g_c), s	0.5	7.9	0.0	8.5	13.9	0.0	3.9	8.4	0.0	2.4	7.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	261	320		484	605		328	375		300	326	
V/C Ratio(X)	0.08	0.75		0.63	0.75		0.42	0.70		0.28	0.75	
Avail Cap(c_a), veh/h	361	1008		762	1492		454	995		360	878	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.9	24.6	0.0	16.6	18.8	0.0	19.0	23.3	0.0	18.5	24.5	0.0
Incr Delay (d2), s/veh	0.1	3.5	0.0	1.4	1.9	0.0	0.9	2.4	0.0	0.5	3.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.3	0.0	3.0	5.3	0.0	1.5	3.4	0.0	0.9	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.0	28.1	0.0	18.0	20.8	0.0	19.9	25.7	0.0	19.0	28.0	0.0
LnGrp LOS	B	C		B	C		B	C		B	C	
Approach Vol, veh/h		261			762			402			329	
Approach Delay, s/veh		27.1			19.6			23.7			25.6	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	26.7	11.5	17.2	17.1	17.1	9.9	18.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	51.0	10.0	30.0	21.0	35.0	6.0	34.0
Max Q Clear Time (g_c+I1), s	2.5	15.9	5.9	9.9	10.5	9.9	4.4	10.4
Green Ext Time (p_c), s	0.0	2.7	0.1	1.2	0.6	1.2	0.0	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	22.8
HCM 7th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	410	2	0	725	0	3
Future Vol, veh/h	410	2	0	725	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	85	85	92	92
Heavy Vehicles, %	6	0	0	3	0	0
Mvmt Flow	456	2	0	853	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	456
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	609
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	609
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	10.94
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	609	-	-
HCM Lane V/C Ratio	0.005	-	-
HCM Control Delay (s/veh)	10.9	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	330	692	6	18	49
Future Vol, veh/h	6	330	692	6	18	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	160	-	-	180	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	92	92	40	40
Heavy Vehicles, %	33	6	3	0	6	2
Mvmt Flow	7	402	752	7	45	123

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	752	0	-	0	1169	752
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	417	-
Critical Hdwy	4.43	-	-	-	6.46	6.22
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.497	-	-	-	3.554	3.318
Pot Cap-1 Maneuver	733	-	-	-	209	410
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	656	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	733	-	-	-	207	410
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	656	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.18	0	16.27
HCM LOS			C

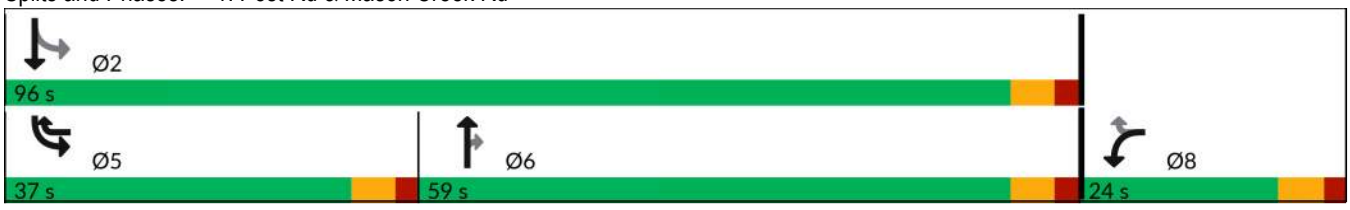
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	733	-	-	-	485
HCM Lane V/C Ratio	0.01	-	-	-	0.345
HCM Control Delay (s/veh)	10	-	-	-	16.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.5

NO-BUILD SYNCHRO REPORTS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	59	356	577	103	434	223
Future Volume (vph)	59	356	577	103	434	223
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	5	6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	5	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	22.5	22.5	11.0	22.5
Total Split (s)	24.0	37.0	59.0	59.0	37.0	96.0
Total Split (%)	20.0%	30.8%	49.2%	49.2%	30.8%	80.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	None	Min
Act Effct Green (s)	9.6	40.0	34.2	34.2	69.5	71.9
Actuated g/C Ratio	0.11	0.46	0.39	0.39	0.79	0.82
v/c Ratio	0.36	0.52	0.86	0.16	0.72	0.18
Control Delay (s/veh)	49.1	13.2	38.8	4.2	25.1	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.1	13.2	38.8	4.2	25.1	3.2
LOS	D	B	D	A	C	A
Approach Delay (s/veh)	18.3		33.5			17.7
Approach LOS	B		C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 87.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 23.8	Intersection LOS: C
Intersection Capacity Utilization 73.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Post Rd & Mason Creek Rd



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	59	356	577	103	434	223
Future Volume (veh/h)	59	356	577	103	434	223
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	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	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1811	1856	1856	1841	1693
Adj Flow Rate, veh/h	68	409	620	111	488	251
Peak Hour Factor	0.87	0.87	0.93	0.93	0.89	0.89
Percent Heavy Veh, %	4	6	3	3	4	14
Cap, veh/h	342	655	702	595	532	1143
Arrive On Green	0.19	0.19	0.38	0.38	0.23	0.68
Sat Flow, veh/h	1753	1535	1856	1572	1753	1693
Grp Volume(v), veh/h	68	409	620	111	488	251
Grp Sat Flow(s),veh/h/ln	1753	1535	1856	1572	1753	1693
Q Serve(g_s), s	3.0	18.0	28.8	4.4	18.2	5.2
Cycle Q Clear(g_c), s	3.0	18.0	28.8	4.4	18.2	5.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	342	655	702	595	532	1143
V/C Ratio(X)	0.20	0.62	0.88	0.19	0.92	0.22
Avail Cap(c_a), veh/h	342	655	1065	902	714	1649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	20.7	26.8	19.2	22.9	5.7
Incr Delay (d2), s/veh	0.3	1.9	6.0	0.1	13.8	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	6.7	12.7	1.5	11.7	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	31.4	22.6	32.8	19.3	36.7	5.8
LnGrp LOS	C	C	C	B	D	A
Approach Vol, veh/h	477		731			739
Approach Delay, s/veh	23.8		30.7			26.2
Approach LOS	C		C			C

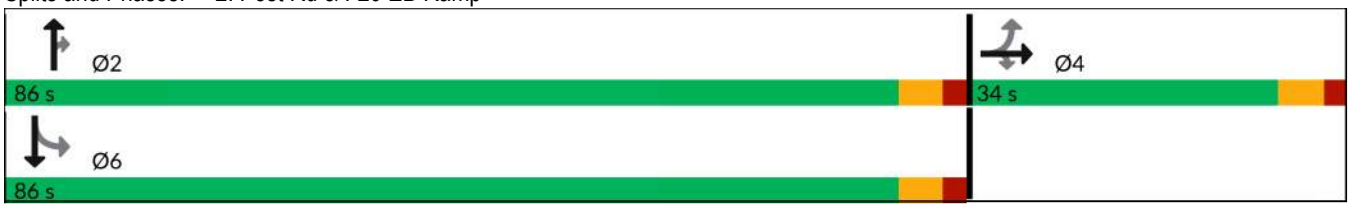
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	68.4			27.4	41.0	24.0
Change Period (Y+Rc), s	6.0			6.0	6.0	6.0
Max Green Setting (Gmax), s	90.0			31.0	53.0	18.0
Max Q Clear Time (g_c+I1), s	7.2			20.2	30.8	20.0
Green Ext Time (p_c), s	1.4			1.2	4.2	0.0

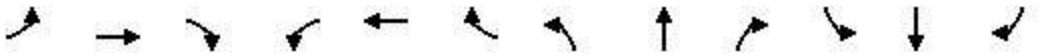
Intersection Summary	
HCM 7th Control Delay, s/veh	27.3
HCM 7th LOS	C

Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	296	437	499	264	363
Future Volume (vph)	2	296	437	499	264	363
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	34.0	34.0	86.0	86.0	86.0	86.0
Total Split (%)	28.3%	28.3%	71.7%	71.7%	71.7%	71.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Min	Min	Min	Min
Act Effct Green (s)	9.2	9.2	22.3	22.3	22.3	22.3
Actuated g/C Ratio	0.21	0.21	0.50	0.50	0.50	0.50
v/c Ratio	0.30	0.56	0.51	0.50	0.67	0.46
Control Delay (s/veh)	20.7	7.5	9.2	2.5	16.9	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.7	7.5	9.2	2.5	16.9	8.7
LOS	C	A	A	A	B	A
Approach Delay (s/veh)	10.7		5.6			12.1
Approach LOS	B		A			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 44.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay (s/veh): 8.8	Intersection LOS: A
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Post Rd & I-20 EB Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	96	2	296	0	0	0	0	437	499	264	363	0
Future Volume (veh/h)	96	2	296	0	0	0	0	437	499	264	363	0
Initial Q (Qb), veh	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
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1767	1159	1811				0	1826	1856	1841	1752	0
Adj Flow Rate, veh/h	101	2	0				0	460	525	290	399	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.91	0.91	0.91
Percent Heavy Veh, %	9	50	6				0	5	3	4	10	0
Cap, veh/h	117	2					0	1261	1086	451	1210	0
Arrive On Green	0.11	0.11	0.00				0.00	0.69	0.69	0.69	0.69	0.00
Sat Flow, veh/h	1083	21	1535				0	1826	1572	562	1752	0
Grp Volume(v), veh/h	103	0	0				0	460	525	290	399	0
Grp Sat Flow(s),veh/h/ln	1105	0	1535				0	1826	1572	562	1752	0
Q Serve(g_s), s	5.5	0.0	0.0				0.0	6.2	9.2	26.2	5.4	0.0
Cycle Q Clear(g_c), s	5.5	0.0	0.0				0.0	6.2	9.2	32.4	5.4	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	119	0					0	1261	1086	451	1210	0
V/C Ratio(X)	0.86	0.00					0.00	0.36	0.48	0.64	0.33	0.00
Avail Cap(c_a), veh/h	519	0					0	2450	2110	817	2351	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	0.0				0.0	3.8	4.3	10.5	3.7	0.0
Incr Delay (d2), s/veh	16.2	0.0	0.0				0.0	0.2	0.3	1.5	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0				0.0	1.0	1.3	2.2	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.4	0.0	0.0				0.0	4.0	4.6	12.1	3.9	0.0
LnGrp LOS	D							A	A	B	A	
Approach Vol, veh/h		103						985			689	
Approach Delay, s/veh		42.4						4.3			7.3	
Approach LOS		D						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	47.2	12.4	47.2
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	80.0	28.0	80.0
Max Q Clear Time (g_c+I1), s	11.2	7.5	34.4
Green Ext Time (p_c), s	5.2	0.4	6.7

Intersection Summary	
HCM 7th Control Delay, s/veh	7.7
HCM 7th LOS	A

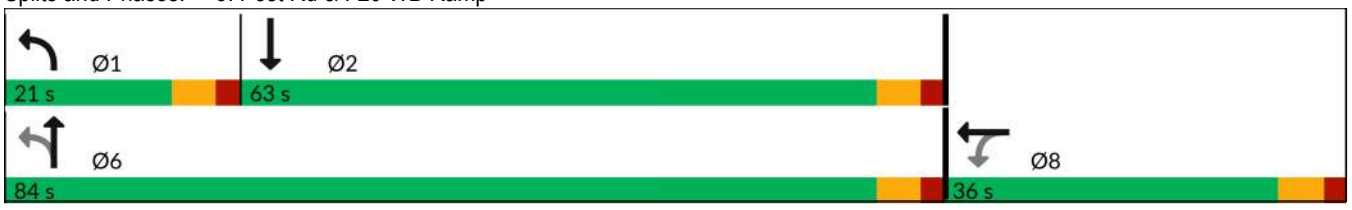
Notes

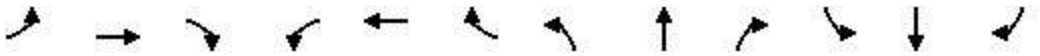
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	4	200	329	473
Future Volume (vph)	4	200	329	473
Turn Type	NA	pm+pt	NA	NA
Protected Phases	8	1	6	2
Permitted Phases		6		
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	24.0	24.0
Total Split (s)	36.0	21.0	84.0	63.0
Total Split (%)	30.0%	17.5%	70.0%	52.5%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	Min	Min
Act Effct Green (s)	20.1	53.4	53.4	36.1
Actuated g/C Ratio	0.23	0.62	0.62	0.42
v/c Ratio	0.74	0.56	0.31	0.83
Control Delay (s/veh)	41.9	13.4	8.9	33.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.9	13.4	8.9	33.3
LOS	D	B	A	C
Approach Delay (s/veh)	41.9		10.6	33.3
Approach LOS	D		B	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 86.3	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay (s/veh): 26.4	Intersection LOS: C
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Post Rd & I-20 WB Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	154	4	122	200	329	0	0	473	68
Future Volume (veh/h)	0	0	0	154	4	122	200	329	0	0	473	68
Initial Q (Qb), veh				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
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1826	1159	1856	1826	1811	0	0	1781	1781
Adj Flow Rate, veh/h				167	4	0	211	346	0	0	526	76
Peak Hour Factor				0.92	0.92	0.92	0.95	0.95	0.95	0.90	0.90	0.90
Percent Heavy Veh, %				5	50	3	5	6	0	0	8	8
Cap, veh/h				199	5		376	1111	0	0	628	91
Arrive On Green				0.18	0.18	0.00	0.10	0.61	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1079	26	0	1739	1811	0	0	1522	220
Grp Volume(v), veh/h				171	0	0	211	346	0	0	0	602
Grp Sat Flow(s),veh/h/ln				1105	0	0	1739	1811	0	0	0	1742
Q Serve(g_s), s				8.9	0.0	0.0	3.7	5.4	0.0	0.0	0.0	18.4
Cycle Q Clear(g_c), s				8.9	0.0	0.0	3.7	5.4	0.0	0.0	0.0	18.4
Prop In Lane				0.98		0.00	1.00		0.00	0.00		0.13
Lane Grp Cap(c), veh/h				203	0		376	1111	0	0	0	719
V/C Ratio(X)				0.84	0.00		0.56	0.31	0.00	0.00	0.00	0.84
Avail Cap(c_a), veh/h				559	0		644	2384	0	0	0	1675
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				23.3	0.0	0.0	11.7	5.5	0.0	0.0	0.0	15.6
Incr Delay (d2), s/veh				9.0	0.0	0.0	1.3	0.2	0.0	0.0	0.0	2.7
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.4	0.0	0.0	1.1	1.3	0.0	0.0	0.0	6.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				32.4	0.0	0.0	13.0	5.6	0.0	0.0	0.0	18.3
LnGrp LOS				C			B	A				B
Approach Vol, veh/h					171			557			602	
Approach Delay, s/veh					32.4			8.4			18.3	
Approach LOS					C			A			B	

Timer - Assigned Phs	1	2			6		8					
Phs Duration (G+Y+Rc), s	11.9	30.5			42.4		16.9					
Change Period (Y+Rc), s	6.0	6.0			6.0		6.0					
Max Green Setting (Gmax), s	15.0	57.0			78.0		30.0					
Max Q Clear Time (g_c+I1), s	5.7	20.4			7.4		10.9					
Green Ext Time (p_c), s	0.4	4.1			2.0		0.7					

Intersection Summary		
HCM 7th Control Delay, s/veh	16.0	
HCM 7th LOS	B	

Notes

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

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	438	3	4	534
Future Vol, veh/h	5	5	438	3	4	534
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	-	-	-	180	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	94	94	85	85
Heavy Vehicles, %	20	20	6	33	50	8
Mvmt Flow	10	10	466	3	5	628

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1105	468	0	0	469	0
Stage 1	468	-	-	-	-	-
Stage 2	638	-	-	-	-	-
Critical Hdwy	6.6	6.4	-	-	4.6	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.48	-	-	2.65	-
Pot Cap-1 Maneuver	215	560	-	-	882	-
Stage 1	595	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	214	560	-	-	882	-
Mov Cap-2 Maneuver	214	-	-	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	491	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	17.42	0	0.07
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	310	882	-
HCM Lane V/C Ratio	-	-	0.065	0.005	-
HCM Control Delay (s/veh)	-	-	17.4	9.1	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	5	3	1	2	0	426	5	4	529	4
Future Vol, veh/h	6	0	5	3	1	2	0	426	5	4	529	4
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	-	-	-	-	-	-	160	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	30	30	30	91	91	91	88	88	88
Heavy Vehicles, %	0	0	60	0	100	0	0	6	20	0	7	0
Mvmt Flow	7	0	5	10	3	7	0	468	5	5	601	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1082	1086	603	1081	1086	471	606	0	0	474	0	0
Stage 1	613	613	-	471	471	-	-	-	-	-	-	-
Stage 2	470	474	-	610	615	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.8	7.1	7.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.84	3.5	4.9	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	197	218	407	197	147	597	982	-	-	1099	-	-
Stage 1	484	487	-	577	425	-	-	-	-	-	-	-
Stage 2	578	561	-	485	357	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	189	217	407	194	146	597	982	-	-	1099	-	-
Mov Cap-2 Maneuver	189	217	-	194	146	-	-	-	-	-	-	-
Stage 1	482	485	-	577	425	-	-	-	-	-	-	-
Stage 2	567	561	-	476	356	-	-	-	-	-	-	-

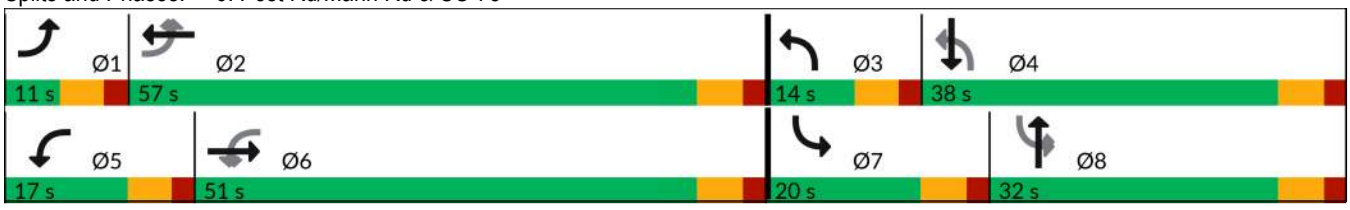
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	20.12	21.86	0	0.06
HCM LOS	C	C		

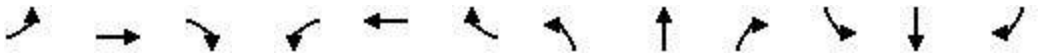
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	982	-	-	250	234	1099	-	-
HCM Lane V/C Ratio	-	-	-	0.048	0.086	0.004	-	-
HCM Control Delay (s/veh)	0	-	-	20.1	21.9	8.3	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	11	325	187	113	127	54	98	107	229	163	247
Future Volume (vph)	11	325	187	113	127	54	98	107	229	163	247
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	1	6		5	2		3	8		7	4
Permitted Phases	2		6	6		2	4		8	8	
Detector Phase	1	6	6	5	2	2	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0
Total Split (s)	11.0	51.0	51.0	17.0	57.0	57.0	14.0	32.0	32.0	20.0	38.0
Total Split (%)	9.2%	42.5%	42.5%	14.2%	47.5%	47.5%	11.7%	26.7%	26.7%	16.7%	31.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None
Act Effct Green (s)	39.7	24.7	24.7	34.3	38.9	38.9	28.2	15.1	15.1	26.5	22.2
Actuated g/C Ratio	0.46	0.29	0.29	0.40	0.45	0.45	0.33	0.18	0.18	0.31	0.26
v/c Ratio	0.02	0.74	0.37	0.40	0.22	0.09	0.34	0.39	0.53	0.41	0.63
Control Delay (s/veh)	13.7	38.3	5.7	17.7	17.5	0.2	22.7	37.8	9.1	23.2	38.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.7	38.3	5.7	17.7	17.5	0.2	22.7	37.8	9.1	23.2	38.0
LOS	B	D	A	B	B	A	C	D	A	C	D
Approach Delay (s/veh)		26.1			14.4			19.2			32.3
Approach LOS		C			B			B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 85.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 23.6	Intersection LOS: C
Intersection Capacity Utilization 62.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Post Rd/Mann Rd & US-78





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	325	187	113	127	54	98	107	229	163	247	11
Future Volume (veh/h)	11	325	187	113	127	54	98	107	229	163	247	11
Initial Q (Qb), 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	
Adj Sat Flow, veh/h/ln	1767	1767	1752	1767	1663	1841	1811	1767	1841	1826	1811	1900
Adj Flow Rate, veh/h	12	369	0	145	163	0	108	118	0	183	278	0
Peak Hour Factor	0.88	0.88	0.88	0.78	0.78	0.78	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	9	9	10	9	16	4	6	9	4	5	6	0
Cap, veh/h	441	460		325	554		293	270		432	363	
Arrive On Green	0.02	0.26	0.00	0.09	0.33	0.00	0.07	0.15	0.00	0.12	0.20	0.00
Sat Flow, veh/h	1682	1767	1485	1682	1663	1560	1725	1767	1560	1739	1811	0
Grp Volume(v), veh/h	12	369	0	145	163	0	108	118	0	183	278	0
Grp Sat Flow(s),veh/h/ln	1682	1767	1485	1682	1663	1560	1725	1767	1560	1739	1811	0
Q Serve(g_s), s	0.3	12.3	0.0	3.9	4.6	0.0	3.1	3.8	0.0	5.4	9.1	0.0
Cycle Q Clear(g_c), s	0.3	12.3	0.0	3.9	4.6	0.0	3.1	3.8	0.0	5.4	9.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	441	460		325	554		293	270		432	363	
V/C Ratio(X)	0.03	0.80		0.45	0.29		0.37	0.44		0.42	0.77	
Avail Cap(c_a), veh/h	550	1265		472	1350		393	731		617	922	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	21.7	0.0	16.0	15.5	0.0	18.6	24.2	0.0	18.9	23.7	0.0
Incr Delay (d2), s/veh	0.0	3.3	0.0	1.0	0.3	0.0	0.8	1.1	0.0	0.7	3.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.8	0.0	1.3	1.5	0.0	1.1	1.5	0.0	2.0	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.6	25.0	0.0	17.0	15.8	0.0	19.4	25.3	0.0	19.5	27.1	0.0
LnGrp LOS	B	C		B	B		B	C		B	C	
Approach Vol, veh/h		381			308			226			461	
Approach Delay, s/veh		24.7			16.3			22.5			24.1	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	27.0	10.3	18.6	11.5	22.4	13.3	15.6
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	51.0	8.0	32.0	11.0	45.0	14.0	26.0
Max Q Clear Time (g_c+I1), s	2.3	6.6	5.1	11.1	5.9	14.3	7.4	5.8
Green Ext Time (p_c), s	0.0	0.9	0.1	1.5	0.1	2.1	0.3	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	22.2
HCM 7th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	749	1	0	311	0	4
Future Vol, veh/h	749	1	0	311	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	83	83	92	92
Heavy Vehicles, %	6	0	0	11	0	0
Mvmt Flow	871	1	0	375	0	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	871
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	353
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	353
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	15.31
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	353	-	-
HCM Lane V/C Ratio	0.012	-	-
HCM Control Delay (s/veh)	15.3	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	588	213	28	19	10
Future Vol, veh/h	54	588	213	28	19	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	160	-	-	180	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	96	96	88	88
Heavy Vehicles, %	8	7	14	7	44	30
Mvmt Flow	64	692	222	29	22	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	222	0	-	0	1041	222
Stage 1	-	-	-	-	222	-
Stage 2	-	-	-	-	819	-
Critical Hdwy	4.18	-	-	-	6.84	6.5
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.272	-	-	-	3.896	3.57
Pot Cap-1 Maneuver	1312	-	-	-	213	753
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	369	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1312	-	-	-	203	753
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	369	-

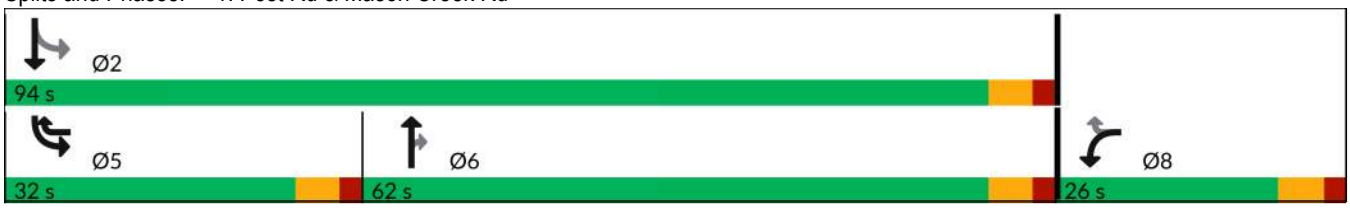
Approach	EB	WB	SB
HCM Control Delay, s/v	0.66	0	18.05
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1312	-	-	-	309
HCM Lane V/C Ratio	0.048	-	-	-	0.107
HCM Control Delay (s/veh)	7.9	-	-	-	18
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	77	303	382	51	314	650
Future Volume (vph)	77	303	382	51	314	650
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	5	6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	5	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	22.5	22.5	11.0	22.5
Total Split (s)	26.0	32.0	62.0	62.0	32.0	94.0
Total Split (%)	21.7%	26.7%	51.7%	51.7%	26.7%	78.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	None	Min
Act Effct Green (s)	9.7	31.0	24.1	24.1	49.8	52.0
Actuated g/C Ratio	0.14	0.45	0.35	0.35	0.73	0.76
v/c Ratio	0.38	0.43	0.77	0.11	0.53	0.52
Control Delay (s/veh)	37.0	5.3	30.8	5.5	8.7	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.0	5.3	30.8	5.5	8.7	6.6
LOS	D	A	C	A	A	A
Approach Delay (s/veh)	11.7		27.8			7.3
Approach LOS	B		C			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 68.4	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 13.7	Intersection LOS: B
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Post Rd & Mason Creek Rd



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	77	303	382	51	314	650
Future Volume (veh/h)	77	303	382	51	314	650
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	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	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1811	1900	1826	1870
Adj Flow Rate, veh/h	94	370	484	65	353	730
Peak Hour Factor	0.82	0.82	0.79	0.79	0.89	0.89
Percent Heavy Veh, %	4	4	6	0	5	2
Cap, veh/h	405	620	590	525	467	1093
Arrive On Green	0.23	0.23	0.33	0.33	0.17	0.58
Sat Flow, veh/h	1753	1560	1811	1610	1739	1870
Grp Volume(v), veh/h	94	370	484	65	353	730
Grp Sat Flow(s),veh/h/ln	1753	1560	1811	1610	1739	1870
Q Serve(g_s), s	2.8	12.2	16.0	1.8	7.9	17.3
Cycle Q Clear(g_c), s	2.8	12.2	16.0	1.8	7.9	17.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	405	620	590	525	467	1093
V/C Ratio(X)	0.23	0.60	0.82	0.12	0.76	0.67
Avail Cap(c_a), veh/h	539	739	1559	1386	873	2531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	15.5	20.2	15.4	12.9	9.2
Incr Delay (d2), s/veh	0.3	0.9	2.9	0.1	2.5	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.8	6.2	0.6	2.6	4.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.6	16.4	23.1	15.5	15.5	9.9
LnGrp LOS	C	B	C	B	B	A
Approach Vol, veh/h	464		549			1083
Approach Delay, s/veh	17.3		22.2			11.7
Approach LOS	B		C			B

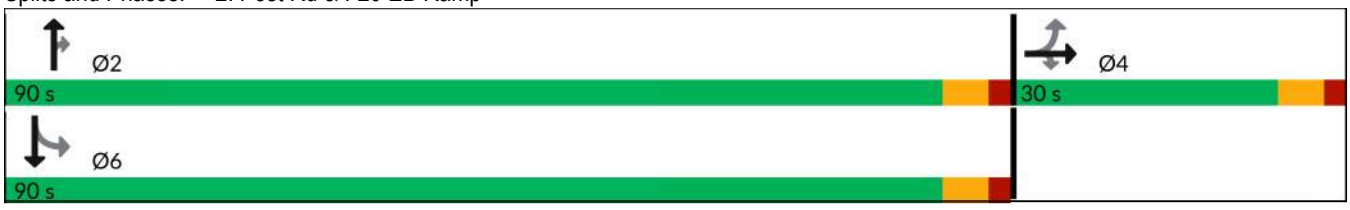
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		44.0			16.8	27.2	21.0
Change Period (Y+Rc), s		6.0			6.0	6.0	6.0
Max Green Setting (Gmax), s		88.0			26.0	56.0	20.0
Max Q Clear Time (g_c+I1), s		19.3			9.9	18.0	14.2
Green Ext Time (p_c), s		5.4			0.9	3.2	0.9

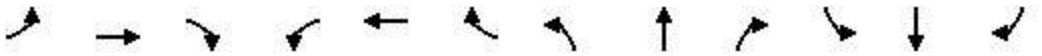
Intersection Summary	
HCM 7th Control Delay, s/veh	15.7
HCM 7th LOS	B

Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	232	455	235	168	731
Future Volume (vph)	2	232	455	235	168	731
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Min	Min	Min	Min
Act Effct Green (s)	8.3	8.3	30.6	30.6	30.6	30.6
Actuated g/C Ratio	0.16	0.16	0.59	0.59	0.59	0.59
v/c Ratio	0.22	0.58	0.47	0.25	0.39	0.75
Control Delay (s/veh)	24.1	11.0	7.5	1.4	8.2	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (s/veh)	24.1	11.0	7.5	1.4	8.2	12.9
LOS	C	B	A	A	A	B
Approach Delay (s/veh)	13.6		5.4			12.1
Approach LOS	B		A			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 51.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay (s/veh): 9.9	Intersection LOS: A
Intersection Capacity Utilization 103.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 2: Post Rd & I-20 EB Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	2	232	0	0	0	0	455	235	168	731	0
Future Volume (veh/h)	55	2	232	0	0	0	0	455	235	168	731	0
Initial Q (Qb), veh	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
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1841				0	1811	1841	1841	1856	0
Adj Flow Rate, veh/h	61	2	0				0	500	258	189	821	0
Peak Hour Factor	0.90	0.90	0.90				0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	4	0	4				0	6	4	4	3	0
Cap, veh/h	112	4					0	1133	976	522	1161	0
Arrive On Green	0.06	0.06	0.00				0.00	0.63	0.63	0.63	0.63	0.00
Sat Flow, veh/h	1755	58	1560				0	1811	1560	696	1856	0
Grp Volume(v), veh/h	63	0	0				0	500	258	189	821	0
Grp Sat Flow(s),veh/h/ln	1812	0	1560				0	1811	1560	696	1856	0
Q Serve(g_s), s	1.3	0.0	0.0				0.0	5.5	2.9	7.4	11.5	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0				0.0	5.5	2.9	13.0	11.5	0.0
Prop In Lane	0.97		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	115	0					0	1133	976	522	1161	0
V/C Ratio(X)	0.55	0.00					0.00	0.44	0.26	0.36	0.71	0.00
Avail Cap(c_a), veh/h	1126	0					0	3940	3394	1601	4037	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.5	0.0	0.0				0.0	3.7	3.2	7.1	4.9	0.0
Incr Delay (d2), s/veh	4.0	0.0	0.0				0.0	0.3	0.1	0.4	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0				0.0	0.4	0.2	0.6	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.5	0.0	0.0				0.0	4.0	3.4	7.5	5.7	0.0
LnGrp LOS	C							A	A	A	A	
Approach Vol, veh/h		63						758			1010	
Approach Delay, s/veh		21.5						3.8			6.0	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		30.2		8.5		30.2						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		84.0		24.0		84.0						
Max Q Clear Time (g_c+I1), s		7.5		3.3		15.0						
Green Ext Time (p_c), s		4.1		0.2		9.2						

Intersection Summary	
HCM 7th Control Delay, s/veh	5.6
HCM 7th LOS	A

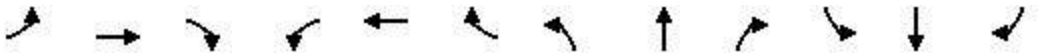
Notes

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

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	0	242	263	458
Future Volume (vph)	0	242	263	458
Turn Type	NA	pm+pt	NA	NA
Protected Phases	8	1	6	2
Permitted Phases		6		
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	24.0	24.0
Total Split (s)	52.0	19.0	68.0	49.0
Total Split (%)	43.3%	15.8%	56.7%	40.8%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	Min	Min
Act Effct Green (s)	46.0	62.0	62.0	43.0
Actuated g/C Ratio	0.38	0.52	0.52	0.36
v/c Ratio	1.12	1.07	0.31	1.11
Control Delay (s/veh)	102.2	108.4	17.8	105.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	102.2	108.4	17.8	105.6
LOS	F	F	B	F
Approach Delay (s/veh)	102.2		61.2	105.6
Approach LOS	F		E	F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay (s/veh): 92.4	Intersection LOS: F
Intersection Capacity Utilization 103.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 3: Post Rd & I-20 WB Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	448	0	265	242	263	0	0	458	164
Future Volume (veh/h)	0	0	0	448	0	265	242	263	0	0	458	164
Initial Q (Qb), veh				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
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1856	1826	1811	0	0	1856	1826
Adj Flow Rate, veh/h				492	0	0	263	286	0	0	526	189
Peak Hour Factor				0.91	0.91	0.91	0.92	0.92	0.92	0.87	0.87	0.87
Percent Heavy Veh, %				3	0	3	5	6	0	0	3	5
Cap, veh/h				547	0		283	1059	0	0	528	190
Arrive On Green				0.30	0.00	0.00	0.12	0.58	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1810	0	0	1739	1811	0	0	1303	468
Grp Volume(v), veh/h				492	0	0	263	286	0	0	0	715
Grp Sat Flow(s),veh/h/ln				1810	0	0	1739	1811	0	0	0	1771
Q Serve(g_s), s				27.6	0.0	0.0	11.6	8.3	0.0	0.0	0.0	42.7
Cycle Q Clear(g_c), s				27.6	0.0	0.0	11.6	8.3	0.0	0.0	0.0	42.7
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.26
Lane Grp Cap(c), veh/h				547	0		283	1059	0	0	0	718
V/C Ratio(X)				0.90	0.00		0.93	0.27	0.00	0.00	0.00	1.00
Avail Cap(c_a), veh/h				785	0		283	1059	0	0	0	718
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				35.5	0.0	0.0	31.6	10.9	0.0	0.0	0.0	31.4
Incr Delay (d2), s/veh				10.0	0.0	0.0	35.2	0.1	0.0	0.0	0.0	32.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.7	0.0	0.0	5.8	3.0	0.0	0.0	0.0	23.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				45.4	0.0	0.0	66.8	11.0	0.0	0.0	0.0	63.9
LnGrp LOS				D			E	B				E
Approach Vol, veh/h					492			549			715	
Approach Delay, s/veh					45.4			37.7			63.9	
Approach LOS					D			D			E	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	19.0	49.0				68.0		38.1				
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0				
Max Green Setting (Gmax), s	13.0	43.0				62.0		46.0				
Max Q Clear Time (g_c+I1), s	13.6	44.7				10.3		29.6				
Green Ext Time (p_c), s	0.0	0.0				1.6		2.4				

Intersection Summary		
HCM 7th Control Delay, s/veh	50.5	
HCM 7th LOS	D	

Notes

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

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	4	529	7	5	616
Future Vol, veh/h	3	4	529	7	5	616
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	-	-	-	180	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	88	88	86	86
Heavy Vehicles, %	0	0	4	14	0	3
Mvmt Flow	7	9	601	8	6	716

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1333	605	0	0	609	0
Stage 1	605	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	172	501	-	-	979	-
Stage 1	549	-	-	-	-	-
Stage 2	482	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	171	501	-	-	979	-
Mov Cap-2 Maneuver	171	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	479	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	18.96	0	0.07
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	274	979	-
HCM Lane V/C Ratio	-	-	0.058	0.006	-
HCM Control Delay (s/veh)	-	-	19	8.7	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	10	5	1	1	7	516	6	4	599	3
Future Vol, veh/h	4	0	10	5	1	1	7	516	6	4	599	3
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	-	-	-	-	-	-	160	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	58	58	58	58	58	93	93	93	85	85	85
Heavy Vehicles, %	0	0	20	0	0	0	0	4	0	0	3	33
Mvmt Flow	7	0	17	9	2	2	8	555	6	5	705	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1287	1292	706	1287	1291	558	708	0	0	561	0	0
Stage 1	716	716	-	573	573	-	-	-	-	-	-	-
Stage 2	571	576	-	714	718	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.4	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.48	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	143	164	407	142	165	533	900	-	-	1020	-	-
Stage 1	424	437	-	508	507	-	-	-	-	-	-	-
Stage 2	510	505	-	425	436	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	162	407	135	163	533	900	-	-	1020	-	-
Mov Cap-2 Maneuver	139	162	-	135	163	-	-	-	-	-	-	-
Stage 1	422	435	-	504	503	-	-	-	-	-	-	-
Stage 2	502	501	-	405	434	-	-	-	-	-	-	-

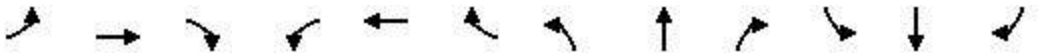
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	20.13	30.19	0.12	0.06
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	900	-	-	262	155	1020	-	-
HCM Lane V/C Ratio	0.008	-	-	0.092	0.078	0.005	-	-
HCM Control Delay (s/veh)	9	-	-	20.1	30.2	8.5	-	-
HCM Lane LOS	A	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	18	205	141	259	385	96	129	244	140	72	206
Future Volume (vph)	18	205	141	259	385	96	129	244	140	72	206
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	1	6		5	2		3	8		7	4
Permitted Phases	2		6	6		2	4		8	8	
Detector Phase	1	6	6	5	2	2	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0
Total Split (s)	11.0	41.0	41.0	27.0	57.0	57.0	16.0	40.0	40.0	12.0	36.0
Total Split (%)	9.2%	34.2%	34.2%	22.5%	47.5%	47.5%	13.3%	33.3%	33.3%	10.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None
Act Effct Green (s)	38.4	18.1	18.1	34.1	36.7	36.7	27.5	24.6	24.6	29.1	18.3
Actuated g/C Ratio	0.44	0.21	0.21	0.39	0.42	0.42	0.32	0.28	0.28	0.34	0.21
v/c Ratio	0.07	0.67	0.36	0.64	0.61	0.16	0.42	0.53	0.28	0.26	0.69
Control Delay (s/veh)	14.2	42.5	5.9	22.2	25.7	3.4	23.7	33.5	3.7	21.6	43.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.2	42.5	5.9	22.2	25.7	3.4	23.7	33.5	3.7	21.6	43.0
LOS	B	D	A	C	C	A	C	C	A	C	D
Approach Delay (s/veh)		26.9			21.6			22.9			37.7
Approach LOS		C			C			C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 86.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 25.4	Intersection LOS: C
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: Post Rd/Mann Rd & US-78



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	205	141	259	385	96	129	244	140	72	206	10
Future Volume (veh/h)	18	205	141	259	385	96	129	244	140	72	206	10
Initial Q (Qb), 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	
Adj Sat Flow, veh/h/ln	1900	1811	1870	1856	1841	1870	1856	1841	1811	1841	1841	1900
Adj Flow Rate, veh/h	22	250	0	320	475	0	145	274	0	89	254	0
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.89	0.89	0.89	0.81	0.81	0.81
Percent Heavy Veh, %	0	6	2	3	4	2	3	4	6	4	4	0
Cap, veh/h	255	328		486	620		326	387		296	334	
Arrive On Green	0.03	0.18	0.00	0.18	0.34	0.00	0.09	0.21	0.00	0.06	0.18	0.00
Sat Flow, veh/h	1810	1811	1585	1767	1841	1585	1767	1841	1535	1753	1841	0
Grp Volume(v), veh/h	22	250	0	320	475	0	145	274	0	89	254	0
Grp Sat Flow(s),veh/h/ln	1810	1811	1585	1767	1841	1585	1767	1841	1535	1753	1841	0
Q Serve(g_s), s	0.5	8.6	0.0	9.2	15.1	0.0	4.3	9.0	0.0	2.6	8.6	0.0
Cycle Q Clear(g_c), s	0.5	8.6	0.0	9.2	15.1	0.0	4.3	9.0	0.0	2.6	8.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	255	328		486	620		326	387		296	334	
V/C Ratio(X)	0.09	0.76		0.66	0.77		0.45	0.71		0.30	0.76	
Avail Cap(c_a), veh/h	347	967		732	1433		436	955		349	843	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.3	25.5	0.0	17.1	19.4	0.0	19.6	24.0	0.0	19.0	25.5	0.0
Incr Delay (d2), s/veh	0.1	3.7	0.0	1.5	2.0	0.0	1.0	2.4	0.0	0.6	3.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	3.6	0.0	3.3	5.8	0.0	1.6	3.7	0.0	1.0	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.4	29.2	0.0	18.6	21.4	0.0	20.5	26.4	0.0	19.6	29.1	0.0
LnGrp LOS	B	C		B	C		C	C		B	C	
Approach Vol, veh/h		272			795			419			343	
Approach Delay, s/veh		28.1			20.3			24.4			26.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	28.1	11.9	17.9	17.9	17.9	10.0	19.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	51.0	10.0	30.0	21.0	35.0	6.0	34.0
Max Q Clear Time (g_c+I1), s	2.5	17.1	6.3	10.6	11.2	10.6	4.6	11.0
Green Ext Time (p_c), s	0.0	2.9	0.1	1.3	0.7	1.3	0.0	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	23.6
HCM 7th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	427	2	0	756	0	3
Future Vol, veh/h	427	2	0	756	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	85	85	92	92
Heavy Vehicles, %	6	0	0	3	0	0
Mvmt Flow	474	2	0	889	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	474
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	594
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	594
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	11.09
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	594	-	-
HCM Lane V/C Ratio	0.005	-	-
HCM Control Delay (s/veh)	11.1	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	344	721	6	19	51
Future Vol, veh/h	6	344	721	6	19	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	160	-	-	180	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	92	92	40	40
Heavy Vehicles, %	33	6	3	0	6	2
Mvmt Flow	7	420	784	7	48	128

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	784	0	-	0	1218	784			
Stage 1	-	-	-	-	784	-			
Stage 2	-	-	-	-	434	-			
Critical Hdwy	4.43	-	-	-	6.46	6.22			
Critical Hdwy Stg 1	-	-	-	-	5.46	-			
Critical Hdwy Stg 2	-	-	-	-	5.46	-			
Follow-up Hdwy	2.497	-	-	-	3.554	3.318			
Pot Cap-1 Maneuver	712	-	-	-	196	393			
Stage 1	-	-	-	-	443	-			
Stage 2	-	-	-	-	645	-			
Platoon blocked, %		-	-	-					
Mov Cap-1 Maneuver	712	-	-	-	194	393			
Mov Cap-2 Maneuver	-	-	-	-	194	-			
Stage 1	-	-	-	-	439	-			
Stage 2	-	-	-	-	645	-			

Approach	EB	WB	SB
HCM Control Delay, s/v	0.17	0	17.49
HCM LOS			C

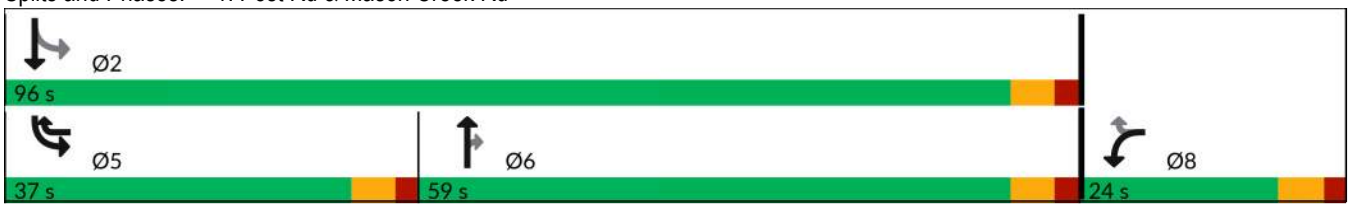
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	712	-	-	-	461
HCM Lane V/C Ratio	0.01	-	-	-	0.379
HCM Control Delay (s/veh)	10.1	-	-	-	17.5
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.7

BUILD SYNCHRO REPORTS

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	59	362	589	103	439	233
Future Volume (vph)	59	362	589	103	439	233
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	5	6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	5	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	22.5	22.5	11.0	22.5
Total Split (s)	24.0	37.0	59.0	59.0	37.0	96.0
Total Split (%)	20.0%	30.8%	49.2%	49.2%	30.8%	80.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	None	Min
Act Effct Green (s)	9.6	40.4	35.3	35.3	70.8	73.3
Actuated g/C Ratio	0.11	0.45	0.40	0.40	0.79	0.82
v/c Ratio	0.36	0.53	0.87	0.16	0.74	0.19
Control Delay (s/veh)	49.7	14.1	39.2	4.2	26.7	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	49.7	14.1	39.2	4.2	26.7	3.2
LOS	D	B	D	A	C	A
Approach Delay (s/veh)	19.1		34.0			18.6
Approach LOS	B		C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 89.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay (s/veh): 24.5	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Post Rd & Mason Creek Rd



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	59	362	589	103	439	233
Future Volume (veh/h)	59	362	589	103	439	233
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	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	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1811	1856	1856	1841	1693
Adj Flow Rate, veh/h	68	416	633	111	493	262
Peak Hour Factor	0.87	0.87	0.93	0.93	0.89	0.89
Percent Heavy Veh, %	4	6	3	3	4	14
Cap, veh/h	333	653	713	604	535	1156
Arrive On Green	0.19	0.19	0.38	0.38	0.24	0.68
Sat Flow, veh/h	1753	1535	1856	1572	1753	1693
Grp Volume(v), veh/h	68	416	633	111	493	262
Grp Sat Flow(s),veh/h/ln	1753	1535	1856	1572	1753	1693
Q Serve(g_s), s	3.1	18.0	30.2	4.4	19.1	5.5
Cycle Q Clear(g_c), s	3.1	18.0	30.2	4.4	19.1	5.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	333	653	713	604	535	1156
V/C Ratio(X)	0.20	0.64	0.89	0.18	0.92	0.23
Avail Cap(c_a), veh/h	333	653	1039	880	696	1609
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	21.4	27.2	19.3	23.9	5.6
Incr Delay (d2), s/veh	0.3	2.1	6.8	0.1	15.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	7.1	13.5	1.5	12.3	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	32.6	23.5	34.1	19.5	38.9	5.7
LnGrp LOS	C	C	C	B	D	A
Approach Vol, veh/h	484		744			755
Approach Delay, s/veh	24.8		31.9			27.4
Approach LOS	C		C			C

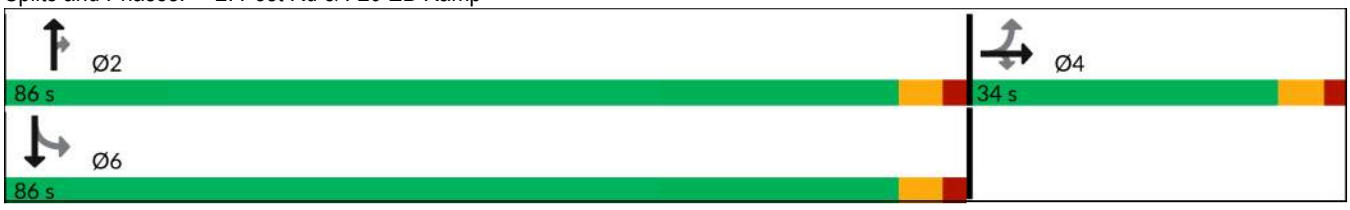
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		70.7			28.3	42.4	24.0
Change Period (Y+Rc), s		6.0			6.0	6.0	6.0
Max Green Setting (Gmax), s		90.0			31.0	53.0	18.0
Max Q Clear Time (g_c+I1), s		7.5			21.1	32.2	20.0
Green Ext Time (p_c), s		1.5			1.2	4.2	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	28.4
HCM 7th LOS	C

Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	296	455	499	279	378
Future Volume (vph)	2	296	455	499	279	378
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	34.0	34.0	86.0	86.0	86.0	86.0
Total Split (%)	28.3%	28.3%	71.7%	71.7%	71.7%	71.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Min	Min	Min	Min
Act Effct Green (s)	10.0	10.0	25.3	25.3	25.3	25.3
Actuated g/C Ratio	0.21	0.21	0.52	0.52	0.52	0.52
v/c Ratio	0.34	0.56	0.51	0.49	0.72	0.46
Control Delay (s/veh)	23.2	7.7	9.1	2.3	19.0	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.2	7.7	9.1	2.3	19.0	8.7
LOS	C	A	A	A	B	A
Approach Delay (s/veh)	11.9		5.6			13.0
Approach LOS	B		A			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 48.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay (s/veh): 9.3	Intersection LOS: A
Intersection Capacity Utilization 74.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Post Rd & I-20 EB Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	2	296	0	0	0	0	455	499	279	378	0
Future Volume (veh/h)	109	2	296	0	0	0	0	455	499	279	378	0
Initial Q (Qb), veh	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
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1767	1159	1811				0	1826	1856	1841	1752	0
Adj Flow Rate, veh/h	115	2	0				0	479	525	307	415	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.91	0.91	0.91
Percent Heavy Veh, %	9	50	6				0	5	3	4	10	0
Cap, veh/h	135	2					0	1301	1120	435	1248	0
Arrive On Green	0.12	0.12	0.00				0.00	0.71	0.71	0.71	0.71	0.00
Sat Flow, veh/h	1086	19	1535				0	1826	1572	552	1752	0
Grp Volume(v), veh/h	117	0	0				0	479	525	307	415	0
Grp Sat Flow(s),veh/h/ln	1105	0	1535				0	1826	1572	552	1752	0
Q Serve(g_s), s	7.6	0.0	0.0				0.0	7.5	10.6	35.9	6.6	0.0
Cycle Q Clear(g_c), s	7.6	0.0	0.0				0.0	7.5	10.6	43.4	6.6	0.0
Prop In Lane	0.98		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	138	0					0	1301	1120	435	1248	0
V/C Ratio(X)	0.85	0.00					0.00	0.37	0.47	0.71	0.33	0.00
Avail Cap(c_a), veh/h	420	0					0	1985	1710	642	1905	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.5	0.0	0.0				0.0	4.1	4.6	12.6	4.0	0.0
Incr Delay (d2), s/veh	13.4	0.0	0.0				0.0	0.2	0.3	2.1	0.2	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0				0.0	1.6	1.9	3.3	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.9	0.0	0.0				0.0	4.3	4.9	14.7	4.1	0.0
LnGrp LOS	D							A	A	B	A	
Approach Vol, veh/h		117						1004			722	
Approach Delay, s/veh		44.9						4.6			8.6	
Approach LOS		D						A			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	58.4	15.2	58.4
Change Period (Y+Rc), s	6.0	6.0	6.0
Max Green Setting (Gmax), s	80.0	28.0	80.0
Max Q Clear Time (g_c+I1), s	12.6	9.6	45.4
Green Ext Time (p_c), s	5.3	0.4	7.0

Intersection Summary	
HCM 7th Control Delay, s/veh	8.7
HCM 7th LOS	A

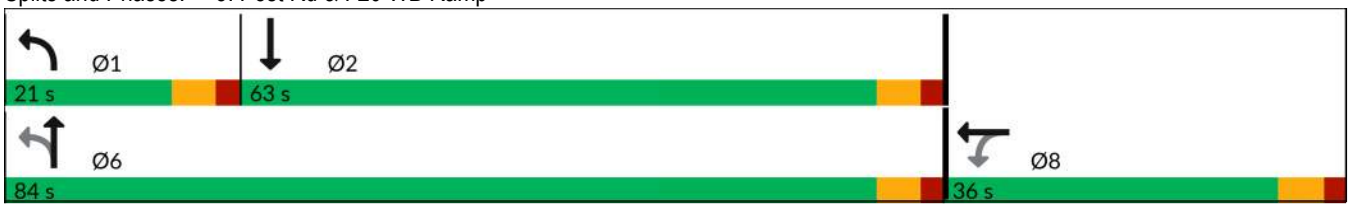
Notes

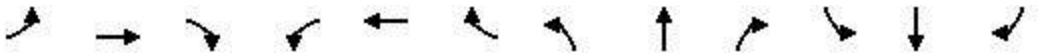
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	4	200	360	503
Future Volume (vph)	4	200	360	503
Turn Type	NA	pm+pt	NA	NA
Protected Phases	8	1	6	2
Permitted Phases		6		
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	24.0	24.0
Total Split (s)	36.0	21.0	84.0	63.0
Total Split (%)	30.0%	17.5%	70.0%	52.5%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	Min	Min
Act Effct Green (s)	21.6	56.8	56.8	39.5
Actuated g/C Ratio	0.24	0.62	0.62	0.43
v/c Ratio	0.77	0.60	0.34	0.86
Control Delay (s/veh)	44.4	16.2	9.5	36.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.4	16.2	9.5	36.2
LOS	D	B	A	D
Approach Delay (s/veh)	44.4		11.9	36.2
Approach LOS	D		B	D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.2	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 28.7	Intersection LOS: C
Intersection Capacity Utilization 74.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Post Rd & I-20 WB Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	154	4	140	200	360	0	0	503	78
Future Volume (veh/h)	0	0	0	154	4	140	200	360	0	0	503	78
Initial Q (Qb), veh				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
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1826	1159	1856	1826	1811	0	0	1781	1781
Adj Flow Rate, veh/h				167	4	0	211	379	0	0	559	87
Peak Hour Factor				0.92	0.92	0.92	0.95	0.95	0.95	0.90	0.90	0.90
Percent Heavy Veh, %				5	50	3	5	6	0	0	8	8
Cap, veh/h				198	5		359	1135	0	0	656	102
Arrive On Green				0.18	0.18	0.00	0.10	0.63	0.00	0.00	0.44	0.44
Sat Flow, veh/h				1079	26	0	1739	1811	0	0	1505	234
Grp Volume(v), veh/h				171	0	0	211	379	0	0	0	646
Grp Sat Flow(s),veh/h/ln				1105	0	0	1739	1811	0	0	0	1739
Q Serve(g_s), s				9.4	0.0	0.0	3.8	6.2	0.0	0.0	0.0	21.0
Cycle Q Clear(g_c), s				9.4	0.0	0.0	3.8	6.2	0.0	0.0	0.0	21.0
Prop In Lane				0.98		0.00	1.00		0.00	0.00		0.13
Lane Grp Cap(c), veh/h				202	0		359	1135	0	0	0	758
V/C Ratio(X)				0.84	0.00		0.59	0.33	0.00	0.00	0.00	0.85
Avail Cap(c_a), veh/h				525	0		606	2239	0	0	0	1571
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				24.9	0.0	0.0	12.5	5.6	0.0	0.0	0.0	16.0
Incr Delay (d2), s/veh				9.2	0.0	0.0	1.5	0.2	0.0	0.0	0.0	2.8
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.6	0.0	0.0	1.1	1.5	0.0	0.0	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				34.1	0.0	0.0	14.1	5.7	0.0	0.0	0.0	18.8
LnGrp LOS				C			B	A				B
Approach Vol, veh/h					171			590			646	
Approach Delay, s/veh					34.1			8.7			18.8	
Approach LOS					C			A			B	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	12.0	33.5				45.5		17.6				
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0				
Max Green Setting (Gmax), s	15.0	57.0				78.0		30.0				
Max Q Clear Time (g_c+I1), s	5.8	23.0				8.2		11.4				
Green Ext Time (p_c), s	0.4	4.5				2.3		0.7				

Intersection Summary		
HCM 7th Control Delay, s/veh	16.4	
HCM 7th LOS	B	

Notes

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

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	5	487	3	4	574
Future Vol, veh/h	5	5	487	3	4	574
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	-	-	-	180	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	50	50	94	94	85	85
Heavy Vehicles, %	20	20	6	33	50	8
Mvmt Flow	10	10	518	3	5	675

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1204	520	0	0	521	0
Stage 1	520	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Critical Hdwy	6.6	6.4	-	-	4.6	-
Critical Hdwy Stg 1	5.6	-	-	-	-	-
Critical Hdwy Stg 2	5.6	-	-	-	-	-
Follow-up Hdwy	3.68	3.48	-	-	2.65	-
Pot Cap-1 Maneuver	187	522	-	-	840	-
Stage 1	562	-	-	-	-	-
Stage 2	469	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	186	522	-	-	840	-
Mov Cap-2 Maneuver	186	-	-	-	-	-
Stage 1	562	-	-	-	-	-
Stage 2	466	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	19.16	0	0.06
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	274	840	-
HCM Lane V/C Ratio	-	-	0.073	0.006	-
HCM Control Delay (s/veh)	-	-	19.2	9.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	5	3	1	2	0	475	5	4	569	4
Future Vol, veh/h	6	0	5	3	1	2	0	475	5	4	569	4
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	-	-	-	-	-	-	160	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	30	30	30	91	91	91	88	88	88
Heavy Vehicles, %	0	0	60	0	100	0	0	6	20	0	7	0
Mvmt Flow	7	0	5	10	3	7	0	522	5	5	647	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1182	1185	649	1180	1185	525	651	0	0	527	0	0
Stage 1	658	658	-	525	525	-	-	-	-	-	-	-
Stage 2	524	527	-	656	660	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.8	7.1	7.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	6.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	6.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.84	3.5	4.9	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	168	190	381	169	125	557	945	-	-	1050	-	-
Stage 1	457	464	-	540	399	-	-	-	-	-	-	-
Stage 2	540	531	-	458	338	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	161	190	381	165	125	557	945	-	-	1050	-	-
Mov Cap-2 Maneuver	161	190	-	165	125	-	-	-	-	-	-	-
Stage 1	455	462	-	540	399	-	-	-	-	-	-	-
Stage 2	530	531	-	449	337	-	-	-	-	-	-	-

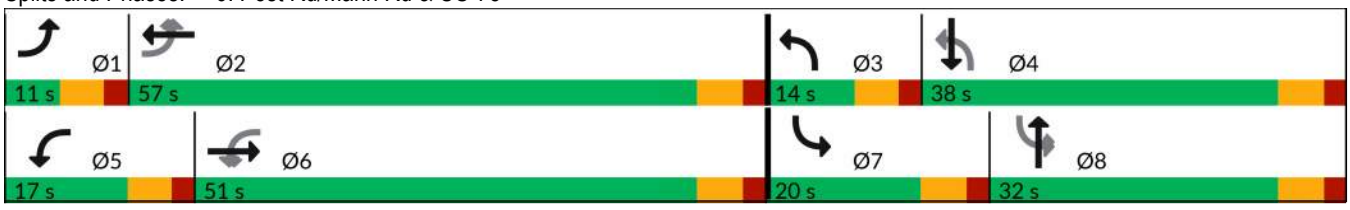
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	22.43	24.8	0	0.06
HCM LOS	C	C		

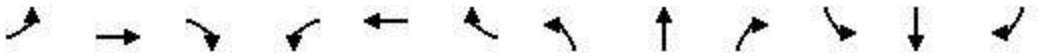
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	945	-	-	218	202	1050	-	-
HCM Lane V/C Ratio	-	-	-	0.055	0.099	0.004	-	-
HCM Control Delay (s/veh)	0	-	-	22.4	24.8	8.4	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	11	362	187	153	157	59	98	107	278	169	247
Future Volume (vph)	11	362	187	153	157	59	98	107	278	169	247
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	1	6		5	2		3	8		7	4
Permitted Phases	2		6	6		2	4		8	8	
Detector Phase	1	6	6	5	2	2	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0
Total Split (s)	11.0	51.0	51.0	17.0	57.0	57.0	14.0	32.0	32.0	20.0	38.0
Total Split (%)	9.2%	42.5%	42.5%	14.2%	47.5%	47.5%	11.7%	26.7%	26.7%	16.7%	31.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None
Act Effct Green (s)	43.4	27.6	27.6	38.0	42.6	42.6	29.0	15.5	15.5	27.2	22.9
Actuated g/C Ratio	0.48	0.31	0.31	0.42	0.47	0.47	0.32	0.17	0.17	0.30	0.25
v/c Ratio	0.02	0.77	0.36	0.54	0.26	0.09	0.35	0.39	0.59	0.44	0.64
Control Delay (s/veh)	13.6	40.0	5.3	20.8	17.6	0.3	24.7	39.9	9.5	25.3	40.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.6	40.0	5.3	20.8	17.6	0.3	24.7	39.9	9.5	25.3	40.2
LOS	B	D	A	C	B	A	C	D	A	C	D
Approach Delay (s/veh)		27.9			16.1			19.3			34.3
Approach LOS		C			B			B			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 90.4	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 24.6	Intersection LOS: C
Intersection Capacity Utilization 66.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Post Rd/Mann Rd & US-78





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	362	187	153	157	59	98	107	278	169	247	11
Future Volume (veh/h)	11	362	187	153	157	59	98	107	278	169	247	11
Initial Q (Qb), 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	
Adj Sat Flow, veh/h/ln	1767	1767	1752	1767	1663	1841	1811	1767	1841	1826	1811	1900
Adj Flow Rate, veh/h	12	411	0	196	201	0	108	118	0	190	278	0
Peak Hour Factor	0.88	0.88	0.88	0.78	0.78	0.78	0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	9	9	10	9	16	4	6	9	4	5	6	0
Cap, veh/h	451	496		345	623		276	257		416	354	
Arrive On Green	0.01	0.28	0.00	0.11	0.37	0.00	0.07	0.15	0.00	0.12	0.20	0.00
Sat Flow, veh/h	1682	1767	1485	1682	1663	1560	1725	1767	1560	1739	1811	0
Grp Volume(v), veh/h	12	411	0	196	201	0	108	118	0	190	278	0
Grp Sat Flow(s),veh/h/ln	1682	1767	1485	1682	1663	1560	1725	1767	1560	1739	1811	0
Q Serve(g_s), s	0.3	15.1	0.0	5.6	6.0	0.0	3.4	4.2	0.0	6.3	10.1	0.0
Cycle Q Clear(g_c), s	0.3	15.1	0.0	5.6	6.0	0.0	3.4	4.2	0.0	6.3	10.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	451	496		345	623		276	257		416	354	
V/C Ratio(X)	0.03	0.83		0.57	0.32		0.39	0.46		0.46	0.78	
Avail Cap(c_a), veh/h	547	1145		428	1221		356	661		559	835	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.3	23.4	0.0	16.7	15.4	0.0	20.9	27.2	0.0	21.2	26.5	0.0
Incr Delay (d2), s/veh	0.0	3.6	0.0	1.5	0.3	0.0	0.9	1.3	0.0	0.8	3.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.0	0.0	2.0	2.0	0.0	1.3	1.7	0.0	2.4	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.3	27.0	0.0	18.2	15.7	0.0	21.8	28.5	0.0	22.0	30.4	0.0
LnGrp LOS	B	C		B	B		C	C		C	C	
Approach Vol, veh/h		423			397			226			468	
Approach Delay, s/veh		26.6			16.9			25.3			27.0	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	32.0	10.8	19.6	13.6	25.5	14.3	16.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	51.0	8.0	32.0	11.0	45.0	14.0	26.0
Max Q Clear Time (g_c+I1), s	2.3	8.0	5.4	12.1	7.6	17.1	8.3	6.2
Green Ext Time (p_c), s	0.0	1.1	0.1	1.5	0.2	2.4	0.2	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	24.0
HCM 7th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	829	13	0	386	0	14
Future Vol, veh/h	829	13	0	386	0	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	83	83	92	92
Heavy Vehicles, %	6	0	0	11	0	0
Mvmt Flow	964	15	0	465	0	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	964
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	312
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	312
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	17.12
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	312	-	-
HCM Lane V/C Ratio	0.049	-	-
HCM Control Delay (s/veh)	17.1	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	613	244	28	19	10
Future Vol, veh/h	54	613	244	28	19	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	160	-	-	180	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	96	96	88	88
Heavy Vehicles, %	8	7	14	7	44	30
Mvmt Flow	64	721	254	29	22	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	254	0	-	0	1102	254
Stage 1	-	-	-	-	254	-
Stage 2	-	-	-	-	848	-
Critical Hdwy	4.18	-	-	-	6.84	6.5
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.272	-	-	-	3.896	3.57
Pot Cap-1 Maneuver	1277	-	-	-	195	721
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	357	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1277	-	-	-	185	721
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	357	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.65	0	19.45
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1277	-	-	-	282
HCM Lane V/C Ratio	0.05	-	-	-	0.117
HCM Control Delay (s/veh)	8	-	-	-	19.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4

Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	760	80	31	311	75	15
Future Vol, veh/h	760	80	31	311	75	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	-	175	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	83	83	92	92
Heavy Vehicles, %	6	0	0	11	2	2
Mvmt Flow	884	93	37	375	82	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	977	0	1333	884
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	449	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	714	-	170	345
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	643	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	714	-	159	345
Mov Cap-2 Maneuver	-	-	-	-	159	-
Stage 1	-	-	-	-	404	-
Stage 2	-	-	-	-	600	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.94	49.24
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	174	-	-	163	-
HCM Lane V/C Ratio	0.561	-	-	0.052	-
HCM Control Delay (s/veh)	49.2	-	-	10.3	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	2.9	-	-	0.2	-

Intersection	
Int Delay, s/veh	6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	10	4	0	12	1
Future Vol, veh/h	0	10	4	0	12	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	11	4	0	13	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	32	4	0	0	4	0
Stage 1	4	-	-	-	-	-
Stage 2	27	-	-	-	-	-
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	982	1079	-	-	1617	-
Stage 1	1019	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	974	1079	-	-	1617	-
Mov Cap-2 Maneuver	974	-	-	-	-	-
Stage 1	1019	-	-	-	-	-
Stage 2	987	-	-	-	-	-

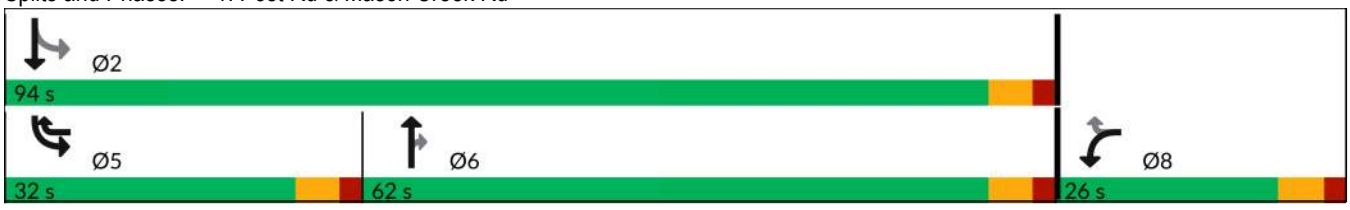
Approach	WB	NB	SB
HCM Control Delay, s/v	8.37	0	6.69
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1079	1616	-
HCM Lane V/C Ratio	-	-	0.01	0.008	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	77	305	388	51	321	663
Future Volume (vph)	77	305	388	51	321	663
Turn Type	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases	8	5	6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	5	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	22.5	22.5	11.0	22.5
Total Split (s)	26.0	32.0	62.0	62.0	32.0	94.0
Total Split (%)	21.7%	26.7%	51.7%	51.7%	26.7%	78.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag		Lead	Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	None	Min
Act Effct Green (s)	9.8	31.4	24.7	24.7	50.8	53.0
Actuated g/C Ratio	0.14	0.45	0.36	0.36	0.73	0.76
v/c Ratio	0.38	0.44	0.77	0.11	0.54	0.52
Control Delay (s/veh)	37.7	5.6	30.9	5.5	9.3	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.7	5.6	30.9	5.5	9.3	6.7
LOS	D	A	C	A	A	A
Approach Delay (s/veh)	12.1		28.0			7.5
Approach LOS	B		C			A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 69.4	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 13.9	Intersection LOS: B
Intersection Capacity Utilization 57.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Post Rd & Mason Creek Rd



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	77	305	388	51	321	663
Future Volume (veh/h)	77	305	388	51	321	663
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	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	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1841	1841	1811	1900	1826	1870
Adj Flow Rate, veh/h	94	372	491	65	361	745
Peak Hour Factor	0.82	0.82	0.79	0.79	0.89	0.89
Percent Heavy Veh, %	4	4	6	0	5	2
Cap, veh/h	405	622	596	530	467	1099
Arrive On Green	0.23	0.23	0.33	0.33	0.17	0.59
Sat Flow, veh/h	1753	1560	1811	1610	1739	1870
Grp Volume(v), veh/h	94	372	491	65	361	745
Grp Sat Flow(s),veh/h/ln	1753	1560	1811	1610	1739	1870
Q Serve(g_s), s	2.9	12.5	16.5	1.9	8.2	18.1
Cycle Q Clear(g_c), s	2.9	12.5	16.5	1.9	8.2	18.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	405	622	596	530	467	1099
V/C Ratio(X)	0.23	0.60	0.82	0.12	0.77	0.68
Avail Cap(c_a), veh/h	530	734	1532	1362	858	2487
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	15.7	20.4	15.5	13.1	9.3
Incr Delay (d2), s/veh	0.3	1.0	2.9	0.1	2.8	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.9	6.4	0.6	2.7	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.0	16.7	23.4	15.6	15.9	10.1
LnGrp LOS	C	B	C	B	B	B
Approach Vol, veh/h	466		556			1106
Approach Delay, s/veh	17.5		22.5			12.0
Approach LOS	B		C			B

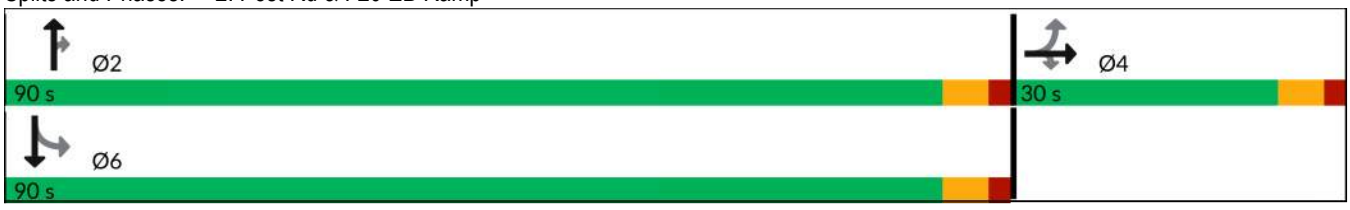
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	44.9			17.1	27.8	21.3
Change Period (Y+Rc), s	6.0			6.0	6.0	6.0
Max Green Setting (Gmax), s	88.0			26.0	56.0	20.0
Max Q Clear Time (g_c+I1), s	20.1			10.2	18.5	14.5
Green Ext Time (p_c), s	5.6			0.9	3.3	0.8

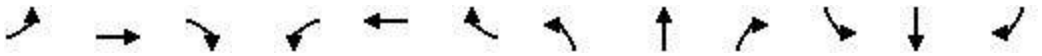
Intersection Summary	
HCM 7th Control Delay, s/veh	15.9
HCM 7th LOS	B

Lane Group	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	232	463	235	188	751
Future Volume (vph)	2	232	463	235	188	751
Turn Type	NA	Perm	NA	Perm	Perm	NA
Protected Phases	4		2			6
Permitted Phases		4		2	6	
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	24.0	24.0	24.0	24.0	24.0
Total Split (s)	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	Min	Min	Min	Min
Act Effct Green (s)	8.7	8.7	32.3	32.3	32.3	32.3
Actuated g/C Ratio	0.16	0.16	0.60	0.60	0.60	0.60
v/c Ratio	0.25	0.59	0.47	0.25	0.43	0.76
Control Delay (s/veh)	25.4	12.1	7.5	1.4	9.0	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (s/veh)	25.4	12.1	7.5	1.4	9.0	13.3
LOS	C	B	A	A	A	B
Approach Delay (s/veh)	14.9		5.5			12.5
Approach LOS	B		A			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 53.8	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay (s/veh): 10.3	Intersection LOS: B
Intersection Capacity Utilization 106.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 2: Post Rd & I-20 EB Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	2	232	0	0	0	0	463	235	188	751	0
Future Volume (veh/h)	61	2	232	0	0	0	0	463	235	188	751	0
Initial Q (Qb), veh	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
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1841	1900	1841				0	1811	1841	1841	1856	0
Adj Flow Rate, veh/h	68	2	0				0	509	258	211	844	0
Peak Hour Factor	0.90	0.90	0.90				0.91	0.91	0.91	0.89	0.89	0.89
Percent Heavy Veh, %	4	0	4				0	6	4	4	3	0
Cap, veh/h	117	3					0	1167	1006	522	1196	0
Arrive On Green	0.07	0.07	0.00				0.00	0.64	0.64	0.64	0.64	0.00
Sat Flow, veh/h	1760	52	1560				0	1811	1560	690	1856	0
Grp Volume(v), veh/h	70	0	0				0	509	258	211	844	0
Grp Sat Flow(s),veh/h/ln	1812	0	1560				0	1811	1560	690	1856	0
Q Serve(g_s), s	1.6	0.0	0.0				0.0	5.8	2.9	9.1	12.3	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0				0.0	5.8	2.9	14.8	12.3	0.0
Prop In Lane	0.97		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	121	0					0	1167	1006	522	1196	0
V/C Ratio(X)	0.58	0.00					0.00	0.44	0.26	0.40	0.71	0.00
Avail Cap(c_a), veh/h	1046	0					0	3660	3153	1472	3750	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	0.0	0.0				0.0	3.7	3.1	7.3	4.8	0.0
Incr Delay (d2), s/veh	4.3	0.0	0.0				0.0	0.3	0.1	0.5	0.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0				0.0	0.5	0.2	0.7	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.2	0.0	0.0				0.0	3.9	3.3	7.8	5.6	0.0
LnGrp LOS	C							A	A	A	A	
Approach Vol, veh/h		70						767			1055	
Approach Delay, s/veh		23.2						3.7			6.0	
Approach LOS		C						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		32.8		8.8		32.8						
Change Period (Y+Rc), s		6.0		6.0		6.0						
Max Green Setting (Gmax), s		84.0		24.0		84.0						
Max Q Clear Time (g_c+I1), s		7.8		3.6		16.8						
Green Ext Time (p_c), s		4.2		0.2		10.0						

Intersection Summary	
HCM 7th Control Delay, s/veh	5.7
HCM 7th LOS	A

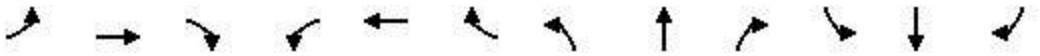
Notes

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

Lane Group	WBT	NBL	NBT	SBT
Lane Configurations				
Traffic Volume (vph)	0	242	277	498
Future Volume (vph)	0	242	277	498
Turn Type	NA	pm+pt	NA	NA
Protected Phases	8	1	6	2
Permitted Phases		6		
Detector Phase	8	1	6	2
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	24.0	24.0
Total Split (s)	52.0	19.0	68.0	49.0
Total Split (%)	43.3%	15.8%	56.7%	40.8%
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0
Lead/Lag		Lead		Lag
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	Min	Min
Act Effct Green (s)	46.0	62.0	62.0	43.0
Actuated g/C Ratio	0.38	0.52	0.52	0.36
v/c Ratio	1.13	1.07	0.33	1.20
Control Delay (s/veh)	107.5	108.4	18.1	139.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	107.5	108.4	18.1	139.4
LOS	F	F	B	F
Approach Delay (s/veh)	107.5		60.2	139.4
Approach LOS	F		E	F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay (s/veh): 106.6	Intersection LOS: F
Intersection Capacity Utilization 106.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 3: Post Rd & I-20 WB Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	448	0	273	242	277	0	0	498	177
Future Volume (veh/h)	0	0	0	448	0	273	242	277	0	0	498	177
Initial Q (Qb), veh				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
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1856	1826	1811	0	0	1856	1826
Adj Flow Rate, veh/h				492	0	0	263	301	0	0	572	203
Peak Hour Factor				0.91	0.91	0.91	0.92	0.92	0.92	0.87	0.87	0.87
Percent Heavy Veh, %				3	0	3	5	6	0	0	3	5
Cap, veh/h				547	0		281	1059	0	0	530	188
Arrive On Green				0.30	0.00	0.00	0.12	0.58	0.00	0.00	0.41	0.41
Sat Flow, veh/h				1810	0	0	1739	1811	0	0	1308	464
Grp Volume(v), veh/h				492	0	0	263	301	0	0	0	775
Grp Sat Flow(s),veh/h/ln				1810	0	0	1739	1811	0	0	0	1772
Q Serve(g_s), s				27.6	0.0	0.0	11.7	8.8	0.0	0.0	0.0	43.0
Cycle Q Clear(g_c), s				27.6	0.0	0.0	11.7	8.8	0.0	0.0	0.0	43.0
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.26
Lane Grp Cap(c), veh/h				547	0		281	1059	0	0	0	718
V/C Ratio(X)				0.90	0.00		0.94	0.28	0.00	0.00	0.00	1.08
Avail Cap(c_a), veh/h				785	0		281	1059	0	0	0	718
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				35.5	0.0	0.0	32.0	11.0	0.0	0.0	0.0	31.5
Incr Delay (d2), s/veh				10.0	0.0	0.0	36.9	0.1	0.0	0.0	0.0	56.9
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.7	0.0	0.0	5.9	3.2	0.0	0.0	0.0	28.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				45.4	0.0	0.0	69.0	11.1	0.0	0.0	0.0	88.4
LnGrp LOS				D			E	B				F
Approach Vol, veh/h					492			564			775	
Approach Delay, s/veh					45.4			38.1			88.4	
Approach LOS					D			D			F	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	19.0	49.0				68.0		38.1				
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0				
Max Green Setting (Gmax), s	13.0	43.0				62.0		46.0				
Max Q Clear Time (g_c+I1), s	13.7	45.0				10.8		29.6				
Green Ext Time (p_c), s	0.0	0.0				1.7		2.4				

Intersection Summary		
HCM 7th Control Delay, s/veh		61.4
HCM 7th LOS		E

Notes

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

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	4	551	7	5	669
Future Vol, veh/h	3	4	551	7	5	669
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	-	-	-	180	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	44	44	88	88	86	86
Heavy Vehicles, %	0	0	4	14	0	3
Mvmt Flow	7	9	626	8	6	778

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1420	630	0	0	634	0
Stage 1	630	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	152	485	-	-	959	-
Stage 1	535	-	-	-	-	-
Stage 2	451	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	151	485	-	-	959	-
Mov Cap-2 Maneuver	151	-	-	-	-	-
Stage 1	535	-	-	-	-	-
Stage 2	448	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	20.43	0	0.07
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	249	959	-
HCM Lane V/C Ratio	-	-	0.064	0.006	-
HCM Control Delay (s/veh)	-	-	20.4	8.8	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	10	5	1	1	7	538	6	4	652	3
Future Vol, veh/h	4	0	10	5	1	1	7	538	6	4	652	3
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	-	-	-	-	-	-	160	-	-	40	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	58	58	58	58	58	93	93	93	85	85	85
Heavy Vehicles, %	0	0	20	0	0	0	0	4	0	0	3	33
Mvmt Flow	7	0	17	9	2	2	8	578	6	5	767	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1373	1378	769	1373	1377	582	771	0	0	585	0	0
Stage 1	778	778	-	597	597	-	-	-	-	-	-	-
Stage 2	594	600	-	776	780	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.4	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.48	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	124	146	374	124	146	517	853	-	-	1000	-	-
Stage 1	392	409	-	493	495	-	-	-	-	-	-	-
Stage 2	495	493	-	393	409	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	121	144	374	117	144	517	853	-	-	1000	-	-
Mov Cap-2 Maneuver	121	144	-	117	144	-	-	-	-	-	-	-
Stage 1	390	408	-	489	490	-	-	-	-	-	-	-
Stage 2	487	489	-	373	407	-	-	-	-	-	-	-

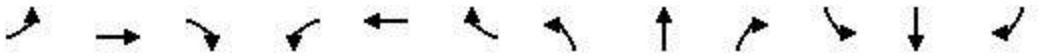
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	22.16	34.14	0.12	0.05
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	853	-	-	234	136	1000	-	-
HCM Lane V/C Ratio	0.009	-	-	0.103	0.089	0.005	-	-
HCM Control Delay (s/veh)	9.3	-	-	22.2	34.1	8.6	-	-
HCM Lane LOS	A	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	18	222	141	312	424	103	129	244	162	75	206
Future Volume (vph)	18	222	141	312	424	103	129	244	162	75	206
Turn Type	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA
Protected Phases	1	6		5	2		3	8		7	4
Permitted Phases	2		6	6		2	4		8	8	
Detector Phase	1	6	6	5	2	2	3	8	8	7	4
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0	24.0	11.0	24.0
Total Split (s)	11.0	41.0	41.0	27.0	57.0	57.0	16.0	40.0	40.0	12.0	36.0
Total Split (%)	9.2%	34.2%	34.2%	22.5%	47.5%	47.5%	13.3%	33.3%	33.3%	10.0%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None
Act Effct Green (s)	42.2	20.1	20.1	37.9	40.5	40.5	28.2	25.3	25.3	29.9	18.9
Actuated g/C Ratio	0.46	0.22	0.22	0.42	0.44	0.44	0.31	0.28	0.28	0.33	0.21
v/c Ratio	0.07	0.69	0.35	0.74	0.64	0.16	0.44	0.54	0.32	0.29	0.70
Control Delay (s/veh)	13.9	43.4	5.6	26.5	26.3	3.7	26.1	35.7	5.8	23.9	45.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.9	43.4	5.6	26.5	26.3	3.7	26.1	35.7	5.8	23.9	45.6
LOS	B	D	A	C	C	A	C	D	A	C	D
Approach Delay (s/veh)		28.0			23.6			24.3			40.0
Approach LOS		C			C			C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.2	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 27.0	Intersection LOS: C
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: Post Rd/Mann Rd & US-78



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	222	141	312	424	103	129	244	162	75	206	10
Future Volume (veh/h)	18	222	141	312	424	103	129	244	162	75	206	10
Initial Q (Qb), 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	
Adj Sat Flow, veh/h/ln	1900	1811	1870	1856	1841	1870	1856	1841	1811	1841	1841	1900
Adj Flow Rate, veh/h	22	271	0	385	523	0	145	274	0	93	254	0
Peak Hour Factor	0.82	0.82	0.82	0.81	0.81	0.81	0.89	0.89	0.89	0.81	0.81	0.81
Percent Heavy Veh, %	0	6	2	3	4	2	3	4	6	4	4	0
Cap, veh/h	254	344		517	683		311	383		280	327	
Arrive On Green	0.02	0.19	0.00	0.21	0.37	0.00	0.09	0.21	0.00	0.06	0.18	0.00
Sat Flow, veh/h	1810	1811	1585	1767	1841	1585	1767	1841	1535	1753	1841	0
Grp Volume(v), veh/h	22	271	0	385	523	0	145	274	0	93	254	0
Grp Sat Flow(s),veh/h/ln	1810	1811	1585	1767	1841	1585	1767	1841	1535	1753	1841	0
Q Serve(g_s), s	0.5	10.2	0.0	12.0	17.8	0.0	4.7	9.9	0.0	2.9	9.4	0.0
Cycle Q Clear(g_c), s	0.5	10.2	0.0	12.0	17.8	0.0	4.7	9.9	0.0	2.9	9.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	254	344		517	683		311	383		280	327	
V/C Ratio(X)	0.09	0.79		0.74	0.77		0.47	0.72		0.33	0.78	
Avail Cap(c_a), veh/h	337	890		674	1318		401	879		325	775	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.4	27.5	0.0	17.7	19.7	0.0	21.5	26.2	0.0	20.9	27.9	0.0
Incr Delay (d2), s/veh	0.1	4.1	0.0	3.2	1.8	0.0	1.1	2.5	0.0	0.7	4.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	4.4	0.0	4.6	6.8	0.0	1.8	4.2	0.0	1.2	4.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.6	31.5	0.0	20.9	21.5	0.0	22.6	28.7	0.0	21.6	31.9	0.0
LnGrp LOS	B	C		C	C		C	C		C	C	
Approach Vol, veh/h		293			908			419			347	
Approach Delay, s/veh		30.3			21.3			26.6			29.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	32.4	12.4	18.7	20.7	19.5	10.2	20.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	51.0	10.0	30.0	21.0	35.0	6.0	34.0
Max Q Clear Time (g_c+I1), s	2.5	19.8	6.7	11.4	14.0	12.2	4.9	11.9
Green Ext Time (p_c), s	0.0	3.2	0.1	1.3	0.7	1.4	0.0	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	25.1
HCM 7th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	463	8	0	855	0	16
Future Vol, veh/h	463	8	0	855	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	85	85	92	92
Heavy Vehicles, %	6	0	0	3	0	0
Mvmt Flow	514	9	0	1006	0	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	-	-	-	514
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	-	0	564
Stage 1	-	0	0	-	0	-
Stage 2	-	0	0	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	-	-	-	564
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0	11.58
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	564	-	-
HCM Lane V/C Ratio	0.031	-	-
HCM Control Delay (s/veh)	11.6	-	-
HCM Lane LOS	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	377	735	6	19	51
Future Vol, veh/h	6	377	735	6	19	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	160	-	-	180	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	92	92	40	40
Heavy Vehicles, %	33	6	3	0	6	2
Mvmt Flow	7	460	799	7	48	128

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	799	0	-	0	1273	799
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	474	-
Critical Hdwy	4.43	-	-	-	6.46	6.22
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	2.497	-	-	-	3.554	3.318
Pot Cap-1 Maneuver	703	-	-	-	181	386
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	618	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	703	-	-	-	179	386
Mov Cap-2 Maneuver	-	-	-	-	179	-
Stage 1	-	-	-	-	431	-
Stage 2	-	-	-	-	618	-

Approach	EB	WB	SB
HCM Control Delay, s/v	0.16	0	18.32
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	703	-	-	-	443
HCM Lane V/C Ratio	0.01	-	-	-	0.395
HCM Control Delay (s/veh)	10.2	-	-	-	18.3
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.9

Intersection	
Int Delay, s/veh	6.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	443	36	14	756	99	20
Future Vol, veh/h	443	36	14	756	99	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	175	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	85	85	92	92
Heavy Vehicles, %	6	0	0	3	2	2
Mvmt Flow	492	40	16	889	108	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	532	0	1415	492
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	922	-
Critical Hdwy	-	-	4.1	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1046	-	152	577
Stage 1	-	-	-	-	614	-
Stage 2	-	-	-	-	387	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1046	-	147	577
Mov Cap-2 Maneuver	-	-	-	-	147	-
Stage 1	-	-	-	-	614	-
Stage 2	-	-	-	-	375	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.15	75.33
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	168	-	-	33	-
HCM Lane V/C Ratio	0.771	-	-	0.016	-
HCM Control Delay (s/veh)	75.3	-	-	8.5	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	5	-	-	0	-

Intersection	
Int Delay, s/veh	6.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	13	2	0	6	2
Future Vol, veh/h	0	13	2	0	6	2
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	0	0	2	2
Mvmt Flow	0	14	2	0	7	2

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	17	2	0	0	2	0
Stage 1	2	-	-	-	-	-
Stage 2	15	-	-	-	-	-
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	1001	1082	-	-	1620	-
Stage 1	1021	-	-	-	-	-
Stage 2	1008	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	996	1082	-	-	1620	-
Mov Cap-2 Maneuver	996	-	-	-	-	-
Stage 1	1021	-	-	-	-	-
Stage 2	1004	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	8.37	0	5.42
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	1082	1350	-
HCM Lane V/C Ratio	-	-	0.013	0.004	-
HCM Control Delay (s/veh)	-	-	8.4	7.2	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

APPENDIX E

QUEUE LENGTH REPORTS

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	292	202	333	576
v/c Ratio	0.72	0.51	0.30	0.81
Control Delay (s/veh)	39.3	12.3	8.7	31.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.3	12.3	8.7	31.7
Queue Length 50th (ft)	120	40	71	242
Queue Length 95th (ft)	276	90	150	473
Internal Link Dist (ft)	881		733	2031
Turn Bay Length (ft)		260		
Base Capacity (vph)	665	485	1596	1261
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.44	0.42	0.21	0.46

Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	752	252	274	685
v/c Ratio	1.07	1.02	0.30	1.06
Control Delay (s/veh)	87.1	95.9	17.7	89.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	87.1	95.9	17.7	89.8
Queue Length 50th (ft)	~605	~157	117	~576
Queue Length 95th (ft)	#846	#328	175	#766
Internal Link Dist (ft)	881		733	2031
Turn Bay Length (ft)		260		
Base Capacity (vph)	702	246	925	645
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.07	1.02	0.30	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	304	211	346	602
v/c Ratio	0.74	0.56	0.31	0.83
Control Delay (s/veh)	41.9	13.4	8.9	33.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.9	13.4	8.9	33.3
Queue Length 50th (ft)	134	44	78	269
Queue Length 95th (ft)	296	94	156	506
Internal Link Dist (ft)	881		733	2031
Turn Bay Length (ft)		260		
Base Capacity (vph)	639	464	1557	1222
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.48	0.45	0.22	0.49

Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	783	263	286	715
v/c Ratio	1.12	1.07	0.31	1.11
Control Delay (s/veh)	102.2	108.4	17.8	105.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	102.2	108.4	17.8	105.6
Queue Length 50th (ft)	~656	~175	123	~626
Queue Length 95th (ft)	#900	#347	182	#817
Internal Link Dist (ft)	881		733	2031
Turn Bay Length (ft)		260		
Base Capacity (vph)	702	246	925	644
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.12	1.07	0.31	1.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	323	211	379	646
v/c Ratio	0.77	0.60	0.34	0.86
Control Delay (s/veh)	44.4	16.2	9.5	36.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	44.4	16.2	9.5	36.2
Queue Length 50th (ft)	154	47	94	317
Queue Length 95th (ft)	315	103	173	564
Internal Link Dist (ft)	881		733	2031
Turn Bay Length (ft)		260		
Base Capacity (vph)	605	431	1511	1155
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.53	0.49	0.25	0.56

Intersection Summary

Lane Group	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	792	263	301	775
v/c Ratio	1.13	1.07	0.33	1.20
Control Delay (s/veh)	107.5	108.4	18.1	139.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	107.5	108.4	18.1	139.4
Queue Length 50th (ft)	~672	~175	131	~723
Queue Length 95th (ft)	#916	#347	193	#917
Internal Link Dist (ft)	881		733	2031
Turn Bay Length (ft)		260		
Base Capacity (vph)	701	246	925	645
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.13	1.07	0.33	1.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

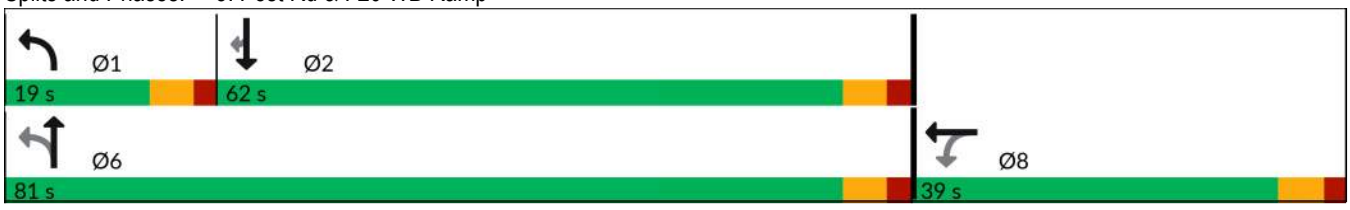
APPENDIX F

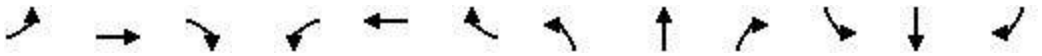
BUILD MITIGATION SYNCHRO REPORTS

Lane Group	WBT	NBL	NBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	4	200	360	503	78
Future Volume (vph)	4	200	360	503	78
Turn Type	NA	pm+pt	NA	NA	Perm
Protected Phases	8	1	6	2	
Permitted Phases		6			2
Detector Phase	8	1	6	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	24.0	24.0	24.0
Total Split (s)	39.0	19.0	81.0	62.0	62.0
Total Split (%)	32.5%	15.8%	67.5%	51.7%	51.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0
Lead/Lag		Lead		Lag	Lag
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	Min	Min	Min
Act Effct Green (s)	20.7	50.5	50.5	33.4	33.4
Actuated g/C Ratio	0.25	0.60	0.60	0.40	0.40
v/c Ratio	0.74	0.54	0.35	0.80	0.13
Control Delay (s/veh)	38.9	13.6	10.1	32.6	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.9	13.6	10.1	32.6	4.6
LOS	D	B	B	C	A
Approach Delay (s/veh)	38.9		11.3	28.8	
Approach LOS	D		B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 84.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 24.3	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 3: Post Rd & I-20 WB Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	154	4	140	200	360	0	0	503	78
Future Volume (veh/h)	0	0	0	154	4	140	200	360	0	0	503	78
Initial Q (Qb), veh				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
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1826	1159	1856	1826	1811	0	0	1781	1781
Adj Flow Rate, veh/h				167	4	0	211	379	0	0	559	87
Peak Hour Factor				0.92	0.92	0.92	0.95	0.95	0.95	0.90	0.90	0.90
Percent Heavy Veh, %				5	50	3	5	6	0	0	8	8
Cap, veh/h				200	5		391	1084	0	0	690	585
Arrive On Green				0.19	0.19	0.00	0.10	0.60	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1079	26	0	1739	1811	0	0	1781	1510
Grp Volume(v), veh/h				171	0	0	211	379	0	0	559	87
Grp Sat Flow(s),veh/h/ln				1105	0	0	1739	1811	0	0	1781	1510
Q Serve(g_s), s				8.3	0.0	0.0	3.6	5.9	0.0	0.0	15.5	2.1
Cycle Q Clear(g_c), s				8.3	0.0	0.0	3.6	5.9	0.0	0.0	15.5	2.1
Prop In Lane				0.98		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				205	0		391	1084	0	0	690	585
V/C Ratio(X)				0.84	0.00		0.54	0.35	0.00	0.00	0.81	0.15
Avail Cap(c_a), veh/h				657	0		619	2449	0	0	1798	1524
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				21.8	0.0	0.0	10.9	5.7	0.0	0.0	15.2	11.1
Incr Delay (d2), s/veh				8.6	0.0	0.0	1.2	0.2	0.0	0.0	2.3	0.1
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.2	0.0	0.0	1.0	1.3	0.0	0.0	5.2	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				30.4	0.0	0.0	12.1	5.8	0.0	0.0	17.5	11.2
LnGrp LOS				C			B	A			B	B
Approach Vol, veh/h					171			590			646	
Approach Delay, s/veh					30.4			8.1			16.7	
Approach LOS					C			A			B	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	11.7	27.5				39.2		16.3				
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0				
Max Green Setting (Gmax), s	13.0	56.0				75.0		33.0				
Max Q Clear Time (g_c+I1), s	5.6	17.5				7.9		10.3				
Green Ext Time (p_c), s	0.3	3.9				2.3		0.8				

Intersection Summary		
HCM 7th Control Delay, s/veh	14.7	
HCM 7th LOS	B	

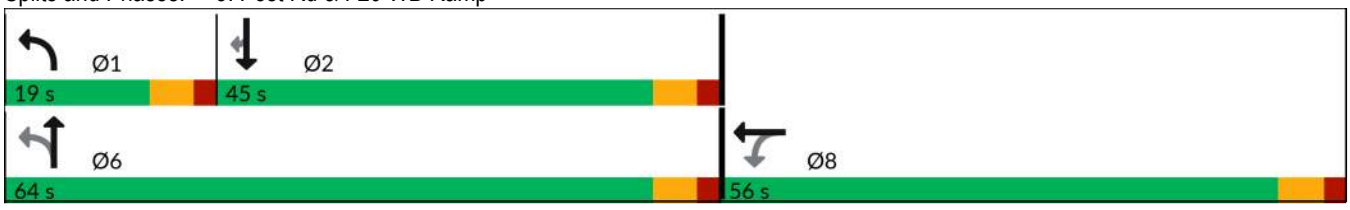
Notes

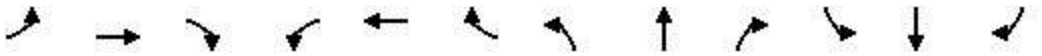
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBT	NBL	NBT	SBT	SBR
Lane Configurations					
Traffic Volume (vph)	0	242	277	498	177
Future Volume (vph)	0	242	277	498	177
Turn Type	NA	pm+pt	NA	NA	Perm
Protected Phases	8	1	6	2	
Permitted Phases		6			2
Detector Phase	8	1	6	2	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	24.0	11.0	24.0	24.0	24.0
Total Split (s)	56.0	19.0	64.0	45.0	45.0
Total Split (%)	46.7%	15.8%	53.3%	37.5%	37.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0
Lead/Lag		Lead		Lag	Lag
Lead-Lag Optimize?		Yes		Yes	Yes
Recall Mode	None	None	Min	Min	Min
Act Effct Green (s)	50.0	57.3	57.3	38.3	38.3
Actuated g/C Ratio	0.42	0.48	0.48	0.32	0.32
v/c Ratio	1.04	1.06	0.35	0.97	0.32
Control Delay (s/veh)	75.7	106.3	20.8	70.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	75.7	106.3	20.8	70.2	5.4
LOS	E	F	C	E	A
Approach Delay (s/veh)	75.7		60.7	53.2	
Approach LOS	E		E	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.3	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay (s/veh): 63.6	Intersection LOS: E
Intersection Capacity Utilization 96.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Post Rd & I-20 WB Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	448	0	273	242	277	0	0	498	177
Future Volume (veh/h)	0	0	0	448	0	273	242	277	0	0	498	177
Initial Q (Qb), veh				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
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1900	1856	1826	1811	0	0	1856	1826
Adj Flow Rate, veh/h				492	0	0	263	301	0	0	572	203
Peak Hour Factor				0.91	0.91	0.91	0.92	0.92	0.92	0.87	0.87	0.87
Percent Heavy Veh, %				3	0	3	5	6	0	0	3	5
Cap, veh/h				568	0		334	982	0	0	655	546
Arrive On Green				0.31	0.00	0.00	0.12	0.54	0.00	0.00	0.35	0.35
Sat Flow, veh/h				1810	0	0	1739	1811	0	0	1856	1547
Grp Volume(v), veh/h				492	0	0	263	301	0	0	572	203
Grp Sat Flow(s),veh/h/ln				1810	0	0	1739	1811	0	0	1856	1547
Q Serve(g_s), s				21.3	0.0	0.0	7.5	7.6	0.0	0.0	24.0	8.1
Cycle Q Clear(g_c), s				21.3	0.0	0.0	7.5	7.6	0.0	0.0	24.0	8.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				568	0		334	982	0	0	655	546
V/C Ratio(X)				0.87	0.00		0.79	0.31	0.00	0.00	0.87	0.37
Avail Cap(c_a), veh/h				1087	0		402	1262	0	0	869	725
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				26.9	0.0	0.0	18.0	10.5	0.0	0.0	25.2	20.1
Incr Delay (d2), s/veh				4.2	0.0	0.0	8.4	0.2	0.0	0.0	7.7	0.4
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.7	0.0	0.0	3.3	2.6	0.0	0.0	10.8	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				31.1	0.0	0.0	26.5	10.6	0.0	0.0	32.9	20.5
LnGrp LOS				C			C	B			C	C
Approach Vol, veh/h					492			564			775	
Approach Delay, s/veh					31.1			18.0			29.7	
Approach LOS					C			B			C	

Timer - Assigned Phs	1	2				6		8				
Phs Duration (G+Y+Rc), s	15.7	35.4				51.1		32.1				
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0				
Max Green Setting (Gmax), s	13.0	39.0				58.0		50.0				
Max Q Clear Time (g_c+I1), s	9.5	26.0				9.6		23.3				
Green Ext Time (p_c), s	0.3	3.4				1.7		2.8				

Intersection Summary		
HCM 7th Control Delay, s/veh	26.5	
HCM 7th LOS	C	

Notes

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

APPENDIX G

GRTA LETTER OF UNDERSTANDING (LOU)

LETTER OF UNDERSTANDING

July 11th, 2024

Stephanie Harris
Trammell Crow Company
3550 Lenox Road, Suite 2200
Atlanta, GA 30326

RE: **Douglas Waldrop** (**DRI#: 4192)**

Dear Stephanie Harris:

The purpose of this Letter of Understanding is to document the discussions during the Methodology Meeting held virtually on June 10th, 2024 regarding **Douglas Waldrop DRI # 4192**Development of Regional Impact (DRI). The *GRTA DRI Review Procedures*, as well as the inputs and parameters documented in this Letter of Understanding and the revised Methodology Meeting Packet, shall be adhered to in preparing the GRTA required Transportation Study.

PROJECT OVERVIEW

- The proposed site is located at GPS Coordinates: 33°43'21.40"N, 84°49'19.75"W . Located along Veterans Memorial Highway, located north of I-20, in Douglas County, Georgia.
- The proposed development includes 1,760,850 square feet (sf) of industrial space across seven (4) buildings on a 166.25-acre plot. Of the total plot of land, 92.85 acres will be used and considered as the Disturbed Area of the total site area. The development has a 0.31 floor area ratio and has 73.4 acres of open space.
- The projected build-out is one phase to be completed by 2027.
- The proposed development includes (2) full site accesses. One (1) full-access driveway (primary access) is just east of the intersection of Veterans Memorial Highway and Post Road and a second full-access Right-in/Right-Out driveway (secondary access) onto Old Post Road. The proposed driveway location is planned to connect to Veterans Memorial Highway once completed.
- The DRI trigger for this development is a Rezoning.
- The vehicular trip generation is estimated to be 1,744 net daily trips based on the *ITE Trip Generation Manual 11h edition.*
- The applicant is applying for approval under GRTA's expedited Traffic Impact Study review process.

STUDY NETWORK

1. Post Road at I-20 Eastbound Ramps
2. Post Road at I-20 Westbound Ramps
3. Veterans Memorial Highway at Post Road / Mason Road
4. Veterans Memorial Highway at Old Post Road
5. Veterans Memorial Highway at Strawn Road
6. Veterans Memorial Highway at Site Driveway 1
7. Old Post Road at Site Driveway 2

METHODOLOGY MEETING PACKET INPUTS & PARAMETERS

- The Site Plan shall meet all the applicable requirements in Section 7.1 of the *GRTA DRI Review Procedures*.

- All Study Network intersections shall be analyzed during the AM and PM peak hours for (1) existing conditions, (2) future "no-build" conditions, and (3) future "build" conditions as specified in the *GRTA DRI Review Procedures*.

- This DRI shall be modeled and reviewed in one phase to be completed by 2027.

- The Level of Service (LOS) standard for all analysis shall be LOS D unless specified otherwise in Section 3.2.2.1. For example, a LOS E standard is allowed if the existing LOS for the intersection or approach is a LOS F.

- Default values should not be assumed in the traffic modeling. Existing conditions shall be taken into account as required in Section 3.2.2.

- The trip generation calculations in the revised Methodology Meeting Packet shall be used in the Transportation Study. Mixed-use and pass-by reductions are not allowed for this site. Pass-by reductions shall not exceed 15% of a roadway's traffic volume standard established in Appendix 7.2.

- The trip assignment approach in the revised Methodology Meeting Packet shall be utilized for all Study Network intersection movements.

- The applicant shall research TIP, STIP, RTP and GDOT's construction work program, as well as any local government and transit operator plans (SPLOST, CIP, etc.), to determine the open date, sponsor, cost of the project, funding source(s), for future roadway projects in the project vicinity. Programmed transportation projects anticipated to open on or before the Build Out year of the DRI Project shall be modeled as completed in the No-Build and Build conditions unless approved otherwise.

- A 1.4% annual traffic Background Growth Rate shall be used for all roadways.

- Capacity analysis shall be based on turning movement counts collected not more than 12-months prior to the date of the actual DRI submittal to GRTA, unless specified otherwise. As specified in Section 2.3, turning movement counts shall be collected while local schools are in session, on a Tuesday, Wednesday or Thursday (unless approved otherwise) and not during holiday periods (weeks of July 4th, Thanksgiving and +/- 5 days of Christmas).

- COVID-19: The transportation analysis shall utilize existing turning movement count data when available during COVID. All counts older than a year shall be grown by the Background Growth Rate unless approved otherwise. If new counts are required, a control count location where existing count data is available shall be used for developing traffic growth extrapolation rates. The traffic engineer shall submit the proposed growth rates to GRTA, GDOT and local government stakeholders for input and GRTA approval before submitting the Transportation Study.

- If the *GRTA DRI Review Procedures* requires an Enhanced Focus Area for Heavy Vehicles or an Enhanced Focus Area for Dense Urban Environments, the Transportation Study shall incorporate the inputs and parameters agreed to at the Methodology Meeting and documented in the revised Methodology Meeting Packet. These inputs may include a Heavy Vehicle modeling percentages, a Heavy Vehicle route map, a pedestrian crosswalk delay adjustment and a bus blockage adjustment factor.

ADDITIONAL REQUIREMENTS

All applicable requirements of the *GRTA DRI Review Procedures* must be met for the Transportation Study to be considered complete. The *GRTA DRI Review Procedures* are located on GRTA's DRI website: https://www.srta.ga.gov/programs-projects/dev-of-regional-impact/ Contact GRTA staff if you have any questions on these requirements.

The Transportation Study shall also include as attachments the native LOS modeling file (i.e., Synchro modeling files) as well as the modeling reports (PDFs) for all Study Network intersections for the Existing, No-Build and Build

conditions for all phases. The PDF reports shall be numbered (in page headers) and organized in order according to the Study Network numbering sequence in this Letter of Understanding. The reports shall also be organized in the following sequence: *Existing condition AM, Existing condition PM, No-build condition AM, No-Build condition PM, Build condition AM, Build condition PM*. If improvements are modeled, those PDFs shall be labeled as such and follow the appropriate condition's applicable peak period.

The Transportation Study appendices shall also include all turning movement count data, regardless of if using historic data or newly collected turning movement counts.

When documenting any Queue Length impacts required in Section 3.2.3.6, the TIS Executive Summary shall also note any individual *movements* not meeting the LOS standard where the DRI Project adds trips in the Build condition and exceeds available storage capacity for that movement.

When identifying mitigations in the existing, no-build and build conditions, the mitigations identified in preceding conditions shall not be modeled as complete when conducting the LOS analysis. The same mitigation may still be proposed as mitigation in the subsequent condition but it shall not be included as completed in the default analysis. For example, a turn lane may be identified as a needed improvement in the no-build condition. The turn lane should not be modeled as completed in the build condition. The turn lane should only be modeled as complete in the no-build with improvements condition and the build with improvements condition.

DRI REVIEW PACKAGE SUBMITTAL

GRTA will begin reviewing the DRI once the DRI Review Package is submitted and deemed complete. The DRI Review Package includes: the permitting Local Government inputting both Department of Community Affairs (DCA) forms into the DCA DRI website; and the **Traffic Engineer submittal of the GRTA Transportation Study (including LOS appendices, traffic count data and any other required attachments) and Site Plan to GRTA staff and ALL stakeholders included in the CC list of this Letter of Understanding**.

All DRI Review Packages shall be submitted electronically via email to all stakeholders in the CC list of the Letter of Understanding. If the DRI Review Package total file size is greater than 10 MB, the DRI Review Package shall be submitted via email with a FTP link provided for downloading the files.

Please contact me if you have any questions about the Letter of Understanding or the *GRTA DRI Review Procedures*.

Sincerely,

Brittany Williams
Program Manager

Cc:

Zane Grennell, DCA
Donald Shockey, ARC
Brittany Williams, GRTA/SRTA
Megan Wilson, GDOT District 7
Landan Perry, GDOT District 7
Bruce Mercer, Douglas County
Allison Duncan, Douglas County
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