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TRAFFIC IMPACT STUDY

PROPOSED RESIDENTIAL DEVELOPMENT "OXFORD SQUARE"

PLAINFIELD, INDIANA

PREPARED FOR

LENNAR®

***REVISED
AUGUST 2025***

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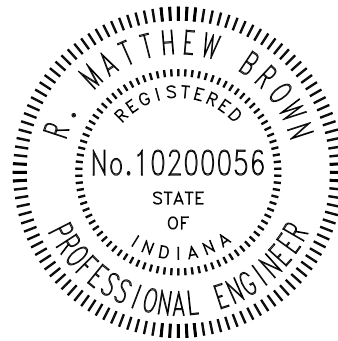
CERTIFICATION

I certify that this **TRAFFIC IMPACT STUDY** has been prepared by me and under my immediate supervision and that I have experience and training in the field of traffic and transportation engineering.

A&F ENGINEERING Co., LLC



August 5, 2025
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INTRODUCTION

This **TRAFFIC IMPACT STUDY**, prepared at the request of the City of Plainfield, on behalf of Lennar, is for a proposed residential development, known as “Oxford Square”, that is to be located the south of Hadley Road and east of Moon Road in Plainfield, Indiana.

PURPOSE

The purpose of this analysis is to determine what impact the traffic generated by the proposed development will have on the existing adjacent roadway system. This analysis will identify any existing roadway deficiencies or ones that may occur when this site is developed.

Conclusions will be reached that will determine if the roadway system can accommodate the anticipated traffic volumes or will determine the modifications that will be required to the system if there are identified deficiencies.

Recommendations will be made that will address the conclusions resulting from this analysis. These recommendations will address feasible roadway system improvements to provide safe ingress and egress, to and from the proposed development, with minimal interference to traffic on the public street system.

SCOPE OF WORK

The scope of work for this analysis is as follows:

First, make use of year 2020 traffic volume counts from a traffic study conducted by Traffic Engineering Inc for the near-by Drees Homes development, at the following intersections:

- Moon Road & Hadley Road
- Hadley Road & Byscane Boulevard
- Hadley Road & Glen Haven Boulevard
- Hadley Road & CR 675 E

Second, estimate the year 2025 background traffic volumes by applying a 3% per year growth rate to the year 2020 traffic volumes.

Third, estimate the year 2030 background traffic volumes by applying a 3% per year growth rate to the 2025 traffic volumes.

Fourth, estimate the number of peak hour trips that will be generated by the proposed development.

Fifth, assign and distribute the generated traffic from the proposed development to the study intersections.

Sixth, prepare a capacity analysis/level of service analysis, and turn lane analysis at the study intersections for each of the following scenarios:

Scenario 1: Year 2025 Traffic Volumes – Based on inflating the year 2020 traffic volumes to year 2025.

Scenario 2: Year 2030 Background Traffic Volumes – Based on inflating the year 2025 volumes to year 2030.

Scenario 3: Year 2030 Proposed Development – Based on the sum of year 2030 background traffic volumes and generated traffic volumes from the proposed development.

Seventh, prepare recommendations for the roadway cross-sections that will be needed to accommodate the total traffic volumes for each of the above traffic volumes scenarios.

Finally, prepare a **TRAFFIC IMPACT STUDY** report documenting all data, analyses, conclusions, and recommendations to provide for the safe and efficient movement of traffic through the study area.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The proposed development will be located south of Hadley Road and east of Moon Road in Plainfield, Indiana. As proposed, the development will consist of 87 single-family detached homes. The site will be served by a full access drive along Moon Road and via a connection to the partially constructed Drees Homes Trescott Subdivision. **Figure 1** is an area map showing the location and general layout of the proposed site and a detailed site plan is included in the **Appendix**.

STUDY AREA

The study area for this analysis has been defined to include the following intersections:

- Moon Road & Hadley Road
- Hadley Road & Byscane Boulevard
- Hadley Road & Glen Haven Boulevard
- Hadley Road & CR 675 E
- Moon Road & Proposed access

Figure 2 shows the intersection geometrics at the existing study intersections.

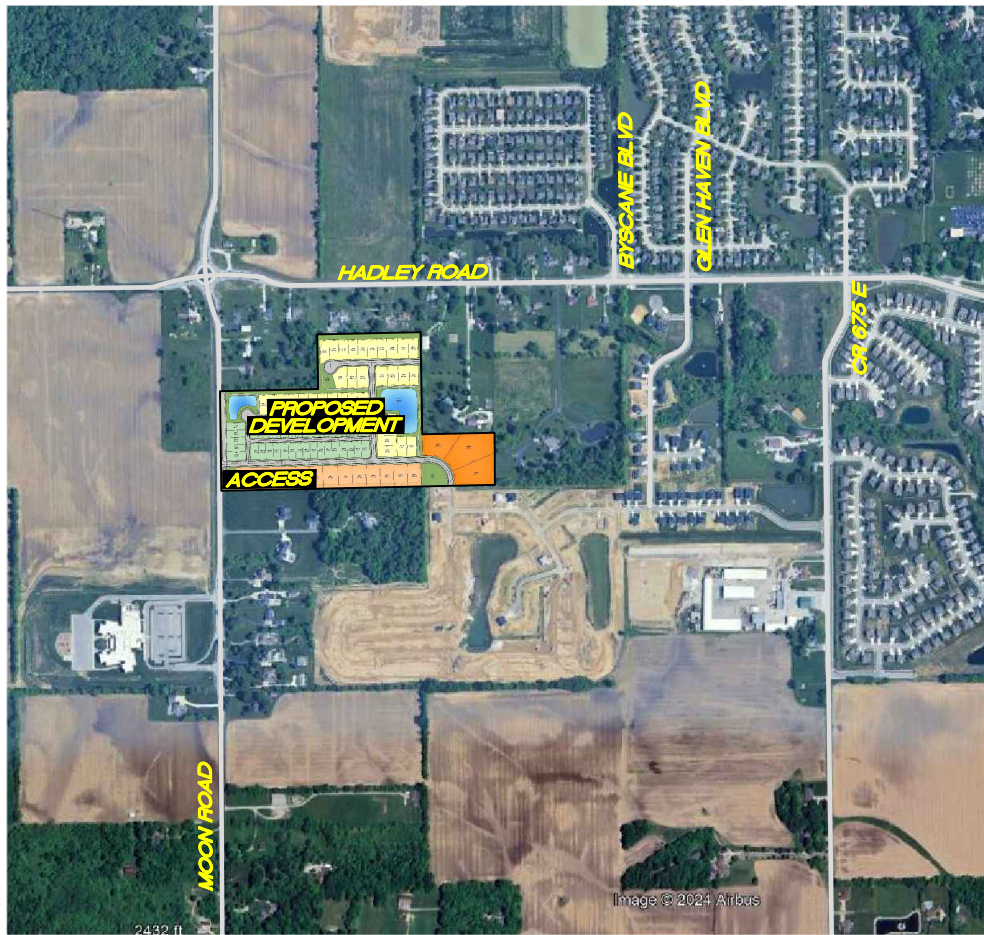
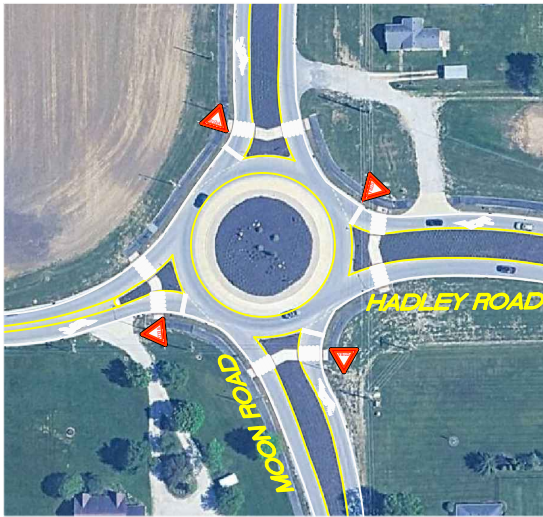
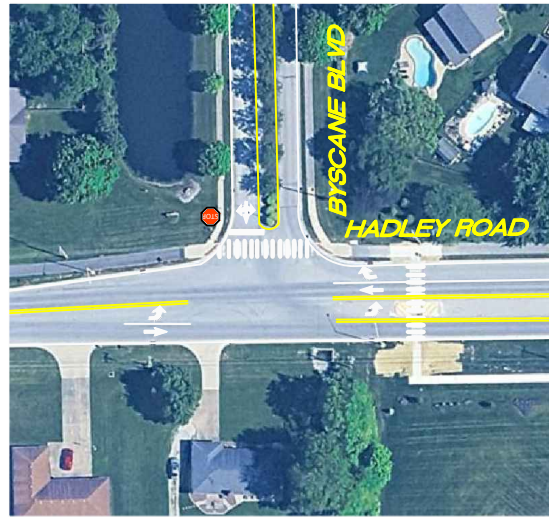


FIGURE 1
AREA MAP

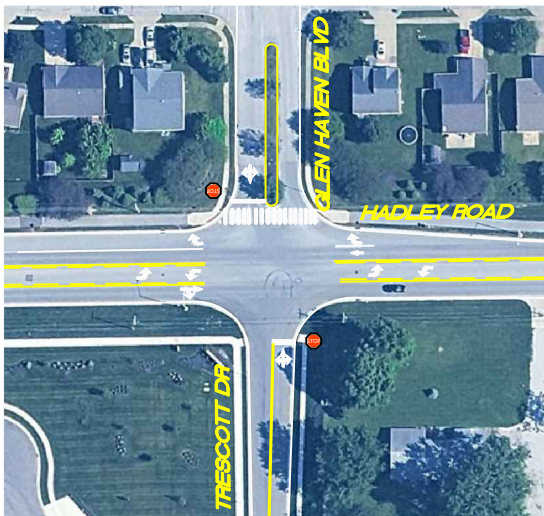
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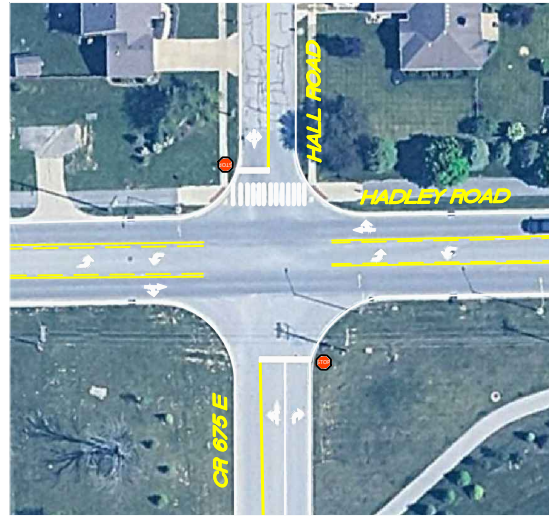
MOON RD & HADLEY RD



HADLEY RD & BYSCANE BLVD



HADLEY RD & GLEN HAVEN BLVD



HADLEY RD & CR 675 E

FIGURE 2
EXISTING INTERSECTION
GEOMETRICS

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DESCRIPTION OF ABUTTING STREET SYSTEM

The proposed development will be primarily served by the public roadway system that includes Hadley Road, Moon Road, Byscane Boulevard, Glen Haven Boulevard, and CR 675 E.

TABLE 1 – DESCRIPTION OF THE ABUTTING STREET SYSTEM

STREET NAME	NUMBER OF LANES	SPEED LIMIT (MPH)	FUNCTIONAL CLASS
Hadley Road	2	35	Major Collector
Moon Road	2	35	Local Road
Byscane Boulevard	2	Not posted	Local Road
Glen Haven Boulevard	2	30	Local Road
CR 675 E	2	35	Local Road

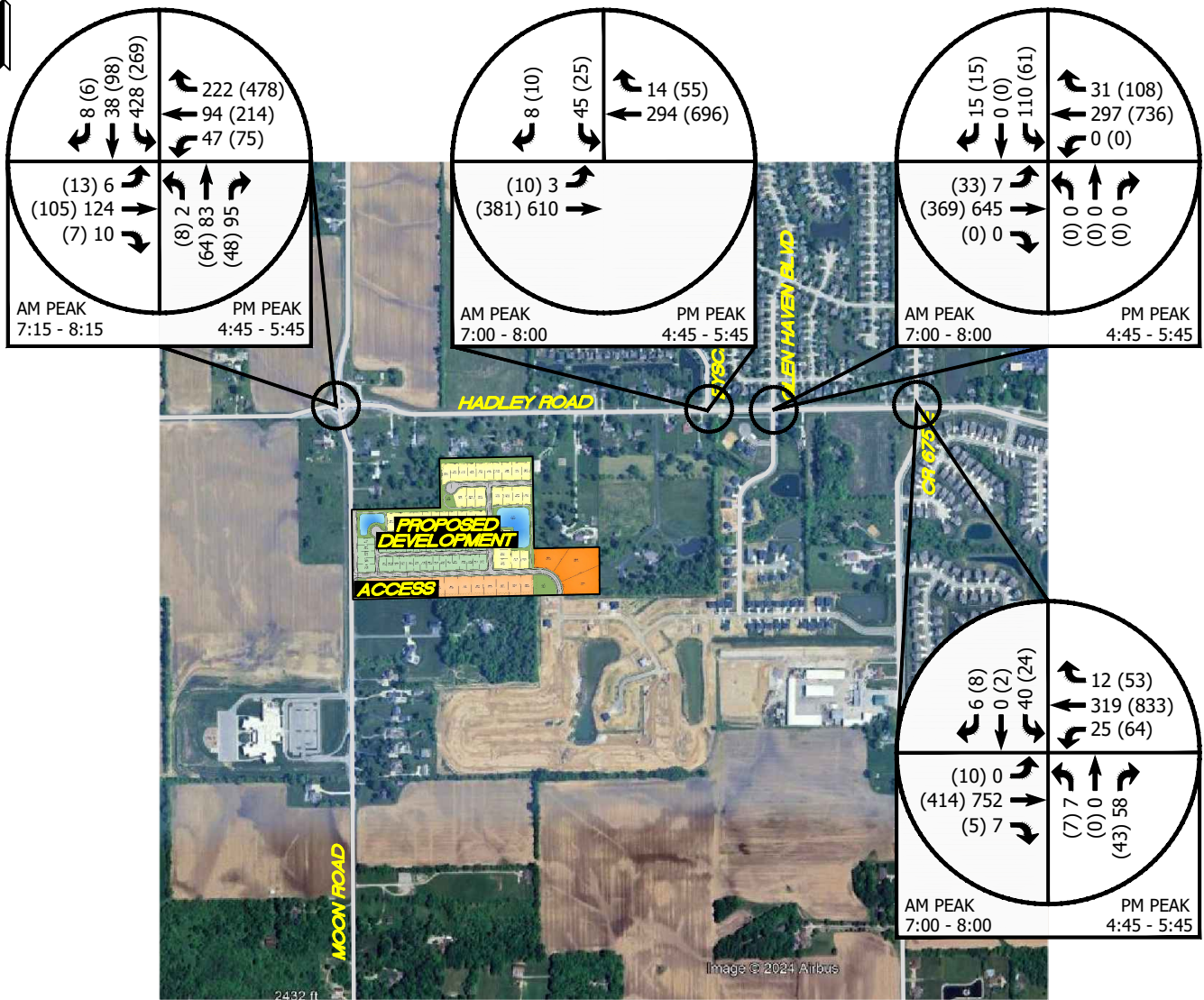
Functional classification based on INDOT Roadway Inventory & Functional Classification Viewer.

YEAR 2025 TRAFFIC VOLUMES

Year 2020 turning movement traffic volume counts were obtained from a traffic study conducted by Traffic Engineering Inc for the near-by Drees Homes development. These traffic volumes were grown by 3% per year for 5 years. Therefore, a growth rate factor of 1.15 was applied to the year 2020 traffic volumes to yield the year 2025 background traffic volumes. The intersection count output summary sheets are included in the **Appendix**, and the AM and PM peak hour traffic volumes at the study intersections are shown in **Figure 3**.

YEAR 2030 BACKGROUND TRAFFIC VOLUMES

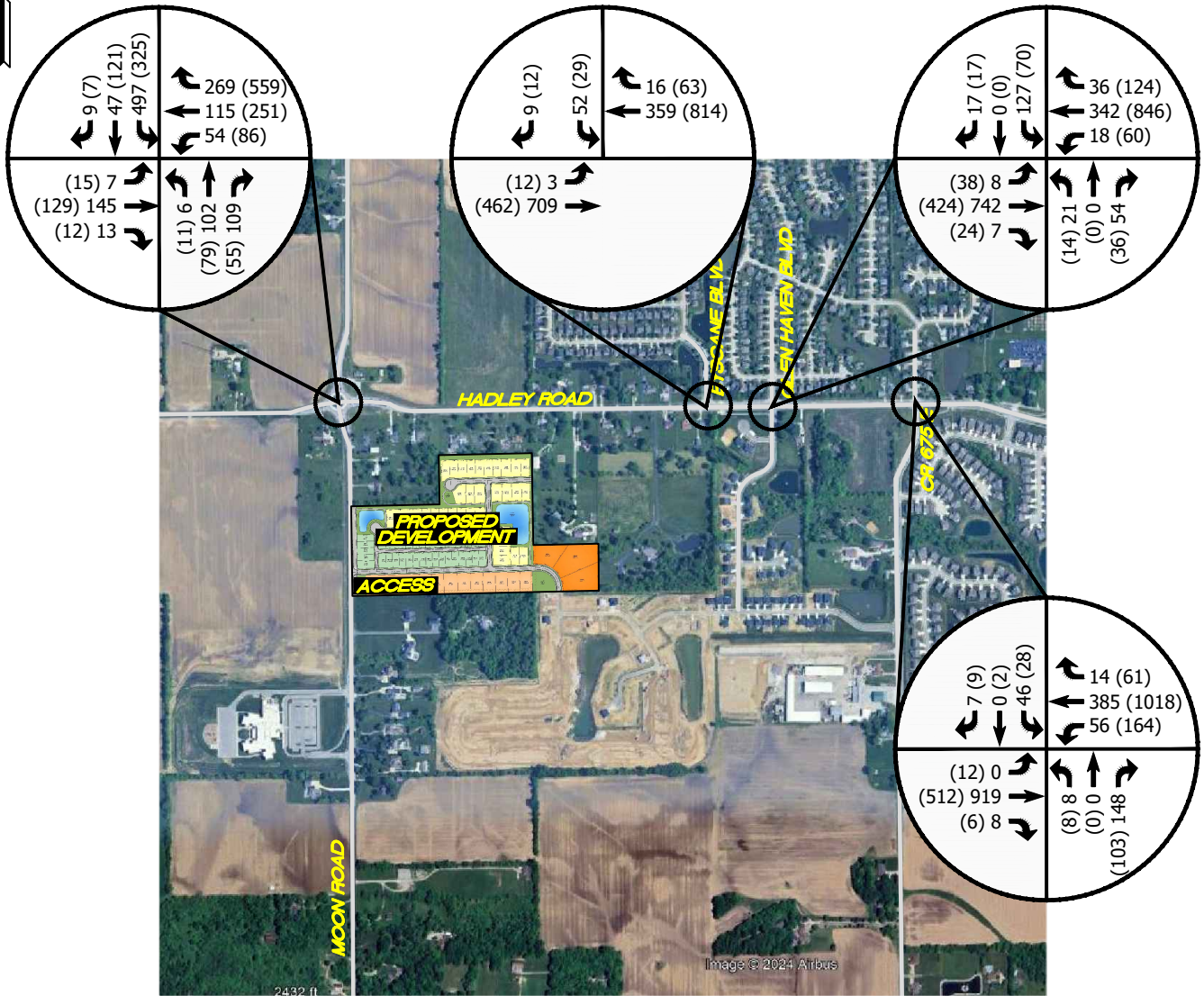
In order to account for growth in background traffic volumes that may occur due to future development outside of the study area, the year 2025 traffic volumes were grown by 3% per year for 5 years. Therefore, a growth rate factor of 1.15 was applied to the year 2025 traffic volumes to grow the traffic volumes to year 2030. Additionally, generated traffic volumes from the partially constructed Drees Homes Trescott subdivision were assigned and distributed to the study intersections to account for the internal connection to the proposed development. These generated traffic volumes were then added to the grown traffic volumes to yield the total year 2030 background traffic volumes shown in **Figure 4**.



LEGEND
 XX = A.M. PEAK HOUR
 (XX) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE 3
YEAR 2025 BACKGROUND
TRAFFIC VOLUMES

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LEGEND
 XX = A.M. PEAK HOUR
 (XX) = P.M. PEAK HOUR
 * = NEGLIGIBLE

FIGURE 4
YEAR 2030 BACKGROUND
TRAFFIC VOLUMES

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GENERATED TRIPS FOR PROPOSED DEVELOPMENT

The estimate of newly generated traffic is a function of the development size and of the character of the land use. The ITE *Trip Generation Manual*¹ was used to calculate the number of trips that will be generated by the proposed development. This report is a compilation of trip data for various land uses as collected by transportation professionals throughout the United States in order to establish the average number of trips generated by those land uses. **Table 2** summarizes the trips that will be generated by the subject site.

TABLE 2 – GENERATED TRIPS FOR PROPOSED DEVELOPMENT

DEVELOPMENT INFORMATION			GENERATED TRIPS			
LAND USE	ITE CODE	SIZE	AM PEAK HOUR		PM PEAK HOUR	
			ENTER	EXIT	ENTER	EXIT
Single-Family Detached Housing	210	87 DU	17	49	55	32

PASS-BY & INTERNAL TRIPS

Pass-by trips are trips that are already in the existing traffic stream along the adjacent public roadway system that enter a site, utilize the site, and then return to the existing traffic stream. Residential developments don't typically generate a significant number of pass-by trips. Therefore, pass-by trips were not considered in this study.

An internal trip results when a trip is made between two or more land uses without traversing the external public roadway system. The proposed development is a single land use. Therefore, internal trips were not considered in this study.

ASSIGNMENT AND DISTRIBUTION OF GENERATED TRIPS

The study methodology used to determine the traffic volumes from the site that will be added to the street system is defined as follows:

1. The volume of traffic that will enter and exit the proposed development must be assigned to the access points and to the public street system. Using the traffic volume data collected for this analysis, traffic to and from the site has been assigned to the proposed driveways and to the public street system that will be serving the site.
2. To determine the volumes of traffic that will be added to the public roadway system, the generated traffic must be distributed by direction to the public roadways at their intersection with

¹ *Trip Generation Manual*, Institute of Transportation Engineers, Eleventh Edition, 2021.

the driveways. For the proposed development, the trip distribution was based on the location of the development, the existing traffic patterns, and the assignment of generated traffic.

Figure 5 illustrates the assignment and distribution of generated traffic volumes for the proposed development.

GENERATED TRIPS ADDED TO THE STREET SYSTEM

The generated traffic volumes that can be expected from the proposed development have been assigned to each of the study intersections. These volumes were determined based on the previously discussed trip generation data, assignment and distribution of generated traffic. The total peak hour generated traffic volumes from the proposed development are shown in **Figure 6**. **Figure 7** shows the sum of the year 2030 background traffic volumes and generated traffic volumes from the proposed development.

TURN LANE ANALYSIS

The year 2030 background traffic volumes were combined with the generated traffic volumes from the proposed development to determine if turn lanes would be required along Moon Road at the proposed access drive location. This analysis was done in accordance with the INDOT *Driveway Permit Guide*². The results are summarized in the following table.

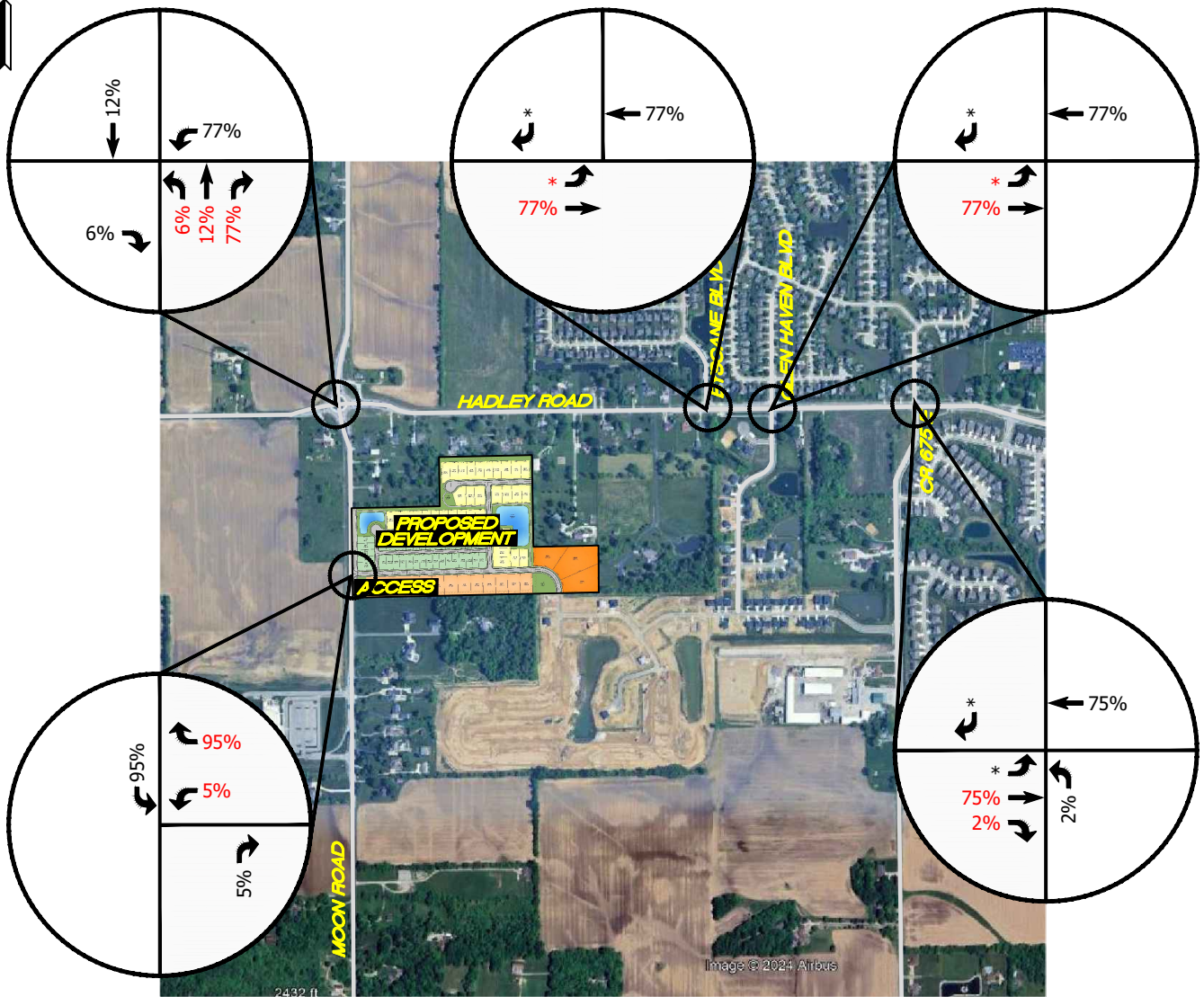
TABLE 3 –TURN LANE WARRANT ANALYSIS SUMMARY

LOCATION	SCENARIO	RIGHT- TURN LANE	LEFT-TURN LANE
Moon Road & Proposed Access Drive	Total Year 2030 Traffic Volumes + Generated Traffic Volumes	X	X

✓ =Turn Lane warranted; X =Turn Lane not warranted

It should be noted that where turn lanes are not shown to be warranted, turn treatments could be required by the Town of Plainfield based on local standards. The graphs that show the turn lane warrant criteria are shown in the **Appendix**.

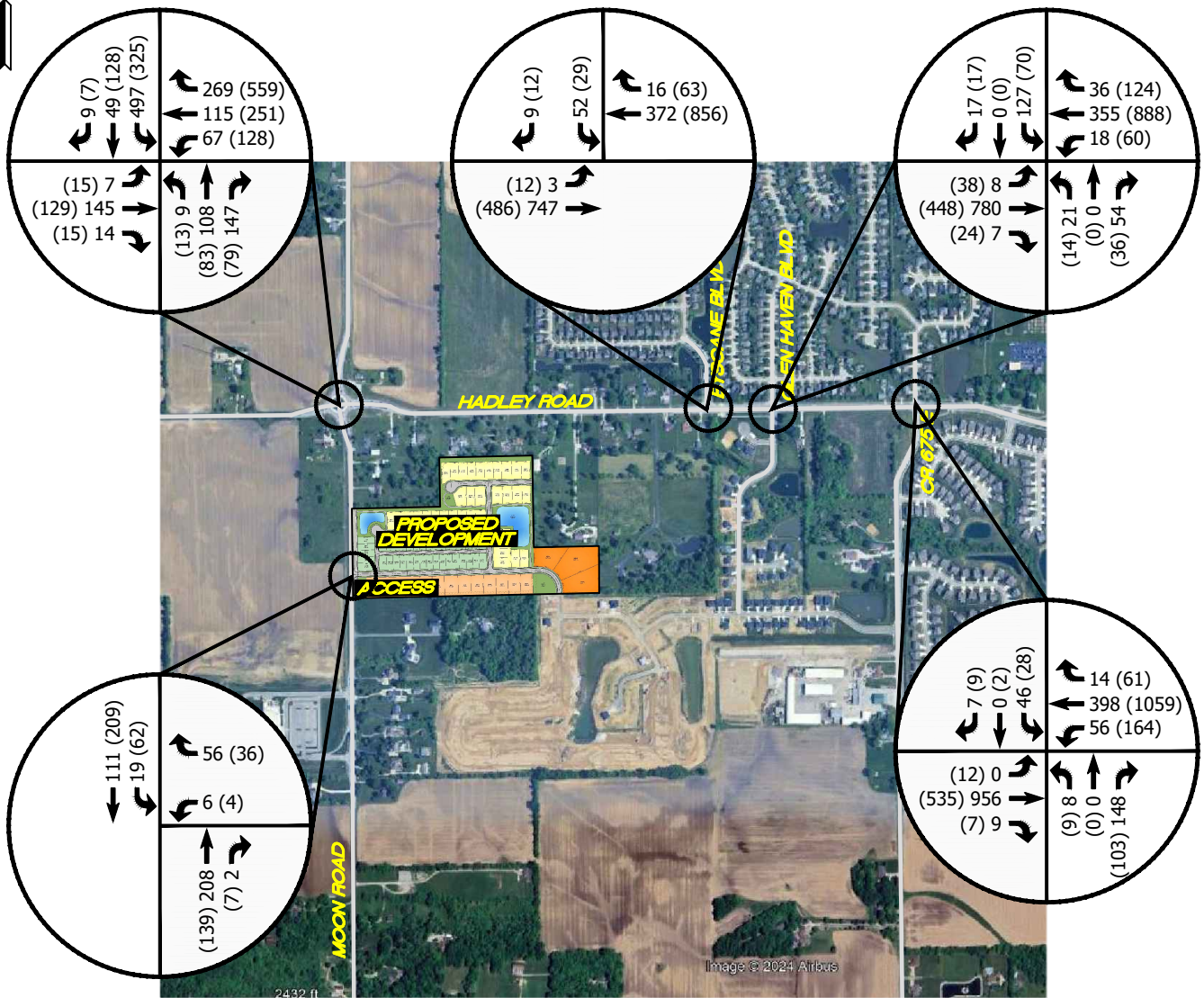
² INDOT *Driveway Permit Guide, Version 1.4*, Indiana Department of Transportation, April 2024



LEGEND
 XX = INBOUND TRAFFIC
 XX = OUTBOUND TRAFFIC
 * = NEGLIGIBLE

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**FIGURE 5
 ASSIGNMENT & DISTRIBUTION
 OF GENERATED
 TRAFFIC VOLUMES FROM
 PROPOSED DEVELOPMENT**



LEGEND
 XX = A.M. PEAK HOUR
 (XX) = P.M. PEAK HOUR
 * = NEGLIGIBLE

**TRAFFIC IMPACT STUDY
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**FIGURE 7
 SUM OF YEAR 2030 BACKGROUND
 TRAFFIC VOLUMES & GENERATED
 TRAFFIC VOLUMES FROM
 PROPOSED DEVELOPMENT**

CAPACITY ANALYSIS

The "efficiency" of an intersection is based on its ability to accommodate the traffic volumes that approach the intersection. It is defined by the Level-of-Service (LOS) of the intersection. The LOS is determined by a series of calculations commonly called a "capacity analysis". Input data into a capacity analysis include traffic volumes, intersection geometry, and number and use of lanes. To determine the LOS at each of the study intersections, a capacity analysis has been made using the recognized computer program *Synchro/Sim Traffic*³. This program allows intersections to be analyzed and optimized using the capacity calculation methods outlined within the *Highway Capacity Manual (HCM 7th Edition)*⁴. The following list shows the delays related to the levels of service for unsignalized/roundabout intersections:

<u>Level of Service</u>	<u>Control Delay (seconds/vehicle)</u>
	<u>UNSIGNALIZED/RAB</u>
A	Less than or equal to 10
B	Between 10.1 and 15
C	Between 15.1 and 25
D	Between 25.1 and 35
E	Between 35.1 and 50
F	greater than 50

CAPACITY ANALYSIS SCENARIOS

To evaluate the proposed development's effect on the public street system, a series of traffic volume scenarios were analyzed to determine the adequacy of the existing roadway network. From this analysis, necessary recommendations can be made to improve the public street system so it will accommodate future traffic volumes. An analysis has been made for the peak hours at each of the study intersections for the following traffic volume scenarios:

Scenario 1: Year 2025 Traffic Volumes – Based on growing the year 2020 traffic volumes to year 2025.

Figure 3 is a summary of these traffic volumes.

Scenario 2: Year 2030 Background Traffic Volumes – Based on growing the year 2025 volumes to year 2030. **Figure 4** is a summary of these traffic volumes.

Scenario 3: Year 2030 Proposed Development Traffic Volumes – Based on the sum of year 2030 background traffic volumes and generated traffic volumes from the proposed development. **Figure 7** is a summary of these traffic volumes.

³ *Synchro/Sim Traffic 12*, Cubic Transportation Systems, 2023.

⁴ *Highway Capacity Manual (HCM), 7th Edition* Transportation Research Board, The National Academies of Sciences, Washington, DC, 2022.

The following tables summarize the level of service results at each study intersection. The *Synchro* (HCM 7th Edition) intersection reports illustrating the capacity analysis results are included in the **Appendix**.

TABLE 4 – LEVEL OF SERVICE SUMMARY: MOON ROAD & HADLEY ROAD

APPROACH	AM PEAK			PM PEAK		
	Scenarios			Scenarios		
	1	2	3	1	2	3
Northbound Approach	A	B	B	A	A	A
Southbound Approach	A	A	B	A	B	B
Eastbound Approach	A	A	A	A	A	A
Westbound Approach	A	A	A	B	C	C
Intersection	A	A	A	B	B	C

TABLE 5 – LEVEL OF SERVICE SUMMARY: HADLEY ROAD & BYSCANE BOULEVARD

APPROACH	AM PEAK			PM PEAK		
	Scenarios			Scenarios		
	1	2	3	1	2	3
Southbound Approach	C	D	D	C	D	E
Eastbound Left-Turn	A	A	A	A	B	B

TABLE 6 – LEVEL OF SERVICE SUMMARY: HADLEY ROAD & GLEN HAVEN BOULEVARD

APPROACH	AM PEAK			PM PEAK		
	Scenarios			Scenarios		
	1	2	3	1	2	3
Northbound Approach	A	D	D	A	D	D
Southbound Approach	E	F	F	F	F	F
Eastbound Left-Turn	A	A	A	B	B	B
Westbound Left-Turn	A	A	A	A	A	A

TABLE 7 – LEVEL OF SERVICE SUMMARY: HADLEY ROAD & CR 675 E

APPROACH	AM PEAK			PM PEAK		
	Scenarios			Scenarios		
	1	2	3	1	2	3
Northbound Approach	C	D	E	C	C	D
Southbound Approach	E	F	F	F	F	F
Eastbound Left-Turn	A	A	A	B	B	B
Westbound Left-Turn	A	B	B	A	A	A

TABLE 8 – LEVEL OF SERVICE SUMMARY: MOON ROAD & PROPOSED ACCESS DRIVE

APPROACH	AM PEAK	PM PEAK
	Scenario 3	Scenario 3
Westbound Approach	B	A
Southbound Left-Turn	A	A

Analysis considers construction of the access drive with one inbound and one outbound lane that will stop for Moon Road.

CONCLUSIONS & RECOMMENDATIONS

The conclusions that follow are based on existing traffic volume data, trip generation, assignment and distribution of generated traffic, and the capacity analyses/level of service results. Based on the analysis and the resulting conclusions of this study, the following recommendations are formulated to ensure that the roadway system will accommodate the increased traffic volumes from the proposed development.

MOON ROAD & HADLEY ROAD

Capacity analyses for all traffic volume scenarios have shown that the intersection currently operates and will continue to operate at acceptable levels of service during the AM and PM peak hours with existing intersection conditions. Therefore, no improvements are recommended at this intersection.

HADLEY ROAD & BYSCANE BOULEVARD

Capacity analyses have shown that the southbound approach of the intersection will operate below acceptable level of service during the PM peak hour when considering the year 2030 background + proposed traffic volume scenario (Scenario 3). However, it is not uncommon for a minor street to experience increased delays when the major street has high traffic volumes. Therefore, no improvements are recommended at this location.

HADLEY ROAD & GLEN HAVEN BOULEVARD

Capacity analyses for all traffic volume scenarios have shown that the southbound approach currently operates and will continue to operate below acceptable levels of service during the AM and PM peak hours. However, it is not uncommon for a minor street to experience increased delays when the major street has high traffic volumes. Therefore, no improvements are recommended at this intersection.

HADLEY ROAD & CR 675 E

Capacity analyses for all traffic volume scenarios have shown that the southbound approach currently operates and will continue to operate below acceptable levels of service during the AM and PM peak hours. Additionally, the northbound approach will operate below an acceptable level of service during

the AM peak hour when considering the year 2030 background + proposed traffic volume scenario (Scenario 3). However, it is not uncommon for a minor street to experience increased delays when the major street has high traffic volumes. Therefore, no improvements are recommended at this intersection.

MOON ROAD & PROPOSED ACCESS DRIVE

Capacity analyses have shown that all approaches to this intersection will operate at acceptable levels of service during the AM and PM peak hours with the following recommended intersection conditions:

- Construction of the proposed full access drive with one inbound and one outbound lane.
- The intersection should be stop-controlled with the access drive stopping for Moon Road.

It should be noted that while no turn lanes were shown to be warranted, the Town of Plainfield could require turn lane treatments based on local standards.

APPENDIX



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ADDITIONAL FIGURES

MOON ROAD & HADLEY ROAD

***TRAFFIC VOLUME COUNTS
CAPACITY ANALYSIS***

Existing Traffic Information (continued)

Turning Movements for All Vehicles (Non-trucks plus Trucks) Moon Road (S 600 E) at Hadley Road

The following traffic data was collected the week of November 16, 2020:

24 Hour Traffic Data - Hourly Moon Road (S 600 E) at Hadley Road Week of November 16, 2020													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
0-1	1	1	8	18	6	3	1	2	0	0	3	0	43
1-2	1	3	8	8	8	1	4	1	0	0	6	0	40
2-3	0	3	9	11	6	0	6	3	0	0	9	0	47
3-4	1	1	12	18	5	0	2	1	1	0	8	0	49
4-5	0	4	41	28	9	2	5	4	0	1	26	0	120
5-6	0	10	121	85	23	19	22	10	5	6	35	1	337
6-7	0	28	256	107	47	47	52	30	2	4	101	1	675
7-8	3	37	386	178	70	43	85	65	4	6	108	2	987
8-9	6	34	168	158	58	24	37	52	1	4	72	8	622
9-10	3	39	125	122	42	32	25	34	4	5	46	4	481
10-11	9	36	98	104	53	23	25	34	3	4	40	5	434
11-12	9	44	112	131	48	31	30	33	3	2	37	9	489
12-13	7	44	148	140	49	39	39	41	7	3	42	9	568
13-14	11	40	126	139	54	32	25	36	8	5	46	6	528
14-15	6	48	166	188	86	37	64	45	14	7	58	8	727
15-16	12	57	227	304	125	64	50	63	14	7	82	6	1011
16-17	4	87	210	326	199	65	64	60	9	9	101	9	1143
17-18	4	74	236	415	184	60	43	51	8	7	81	12	1175
18-19	6	52	159	218	87	38	20	43	2	5	40	5	675
19-20	4	36	110	160	46	23	15	22	2	4	29	4	455
20-21	6	39	79	114	31	27	17	20	1	3	25	3	365
21-22	4	23	46	71	21	16	11	6	0	4	20	2	224
22-23	4	9	26	27	10	5	2	2	0	1	16	0	102
23-24	3	6	21	19	8	1	2	1	1	1	11	0	74
Totals	104	755	2898	3089	1275	632	646	659	89	88	1042	94	11371
% Trucks	7%	5%	5%	6%	5%	5%	4%	5%	12%	10%	4%	10%	5%

AM & PM Peak Hours Moon Road (S 600 E) at Hadley Road													
Total Vehicles - AM Peak Hour													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
0715-0730	1	5	76	39	19	15	19	21	0	2	32	0	229
0730-0745	1	13	126	44	21	8	28	15	2	1	31	2	292
0745-0800	1	11	116	57	23	12	23	17	0	3	24	0	287
0800-0815	4	4	54	53	19	6	13	19	0	3	21	3	199
Totals	7	33	372	193	82	41	83	72	2	9	108	5	1007
PHF	0.44	0.63	0.74	0.85	0.89	0.68	0.74	0.86	0.25	0.75	0.84	0.42	0.86
% Trucks	0%	0%	3%	7%	9%	7%	4%	1%	0%	33%	6%	20%	5%
Total Vehicles - PM Peak Hour													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
1645-1700	1	25	50	96	51	18	14	19	1	1	31	4	311
1700-1715	0	21	64	100	48	14	8	15	2	2	20	4	298
1715-1730	2	19	57	119	47	18	12	13	1	2	23	1	314
1730-1745	2	20	63	101	40	15	8	9	3	1	17	2	281
Totals	5	85	234	416	186	65	42	56	7	6	91	11	1204
PHF	0.63	0.85	0.91	0.87	0.91	0.90	0.75	0.74	0.58	0.75	0.73	0.69	0.96
% Trucks	0%	1%	1%	3%	3%	2%	0%	5%	14%	17%	2%	0%	2%

Note: An adjustment factor of 1.09 was applied to account for the COVID-19 anomaly. This factor is based on data collected by A&F Engineering in 2019 with two years of background growth at an annual rate of 1.5%

Intersection				
Intersection Delay, s/veh	7.2			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	153	394	195	515
Demand Flow Rate, veh/h	156	402	199	525
Vehicles Circulating, veh/h	568	101	619	158
Vehicles Exiting, veh/h	115	717	105	345
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.9	6.0	8.2	7.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	156	402	199	525
Cap Entry Lane, veh/h	773	1245	734	1174
Entry HV Adj Factor	0.983	0.980	0.981	0.981
Flow Entry, veh/h	153	394	195	515
Cap Entry, veh/h	760	1220	720	1153
V/C Ratio	0.202	0.323	0.271	0.447
Control Delay, s/veh	6.9	6.0	8.2	7.9
LOS	A	A	A	A
95th %tile Queue, veh	1	1	1	2

Intersection				
Intersection Delay, s/veh	10.1			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	136	835	131	406
Demand Flow Rate, veh/h	138	852	133	414
Vehicles Circulating, veh/h	491	94	428	331
Vehicles Exiting, veh/h	254	467	201	615
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.1	12.3	5.6	8.5
Approach LOS	A	B	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	138	852	133	414
Cap Entry Lane, veh/h	836	1254	892	985
Entry HV Adj Factor	0.984	0.980	0.982	0.980
Flow Entry, veh/h	136	835	131	406
Cap Entry, veh/h	823	1229	876	965
V/C Ratio	0.165	0.680	0.149	0.421
Control Delay, s/veh	6.1	12.3	5.6	8.5
LOS	A	B	A	A
95th %tile Queue, veh	1	6	1	2

Intersection				
Intersection Delay, s/veh	8.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	180	476	236	601
Demand Flow Rate, veh/h	183	486	240	613
Vehicles Circulating, veh/h	663	128	720	195
Vehicles Exiting, veh/h	145	832	126	419
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.4	7.1	10.5	9.7
Approach LOS	A	A	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	183	486	240	613
Cap Entry Lane, veh/h	702	1211	662	1131
Entry HV Adj Factor	0.983	0.980	0.982	0.980
Flow Entry, veh/h	180	476	236	601
Cap Entry, veh/h	690	1187	650	1109
V/C Ratio	0.261	0.401	0.362	0.542
Control Delay, s/veh	8.4	7.1	10.5	9.7
LOS	A	A	B	A
95th %tile Queue, veh	1	2	2	3

Intersection				
Intersection Delay, s/veh	14.3			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	169	974	158	493
Demand Flow Rate, veh/h	172	993	161	503
Vehicles Circulating, veh/h	590	116	519	385
Vehicles Exiting, veh/h	298	564	243	724
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.4	18.3	6.6	11.2
Approach LOS	A	C	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	172	993	161	503
Cap Entry Lane, veh/h	756	1226	813	932
Entry HV Adj Factor	0.984	0.980	0.983	0.981
Flow Entry, veh/h	169	974	158	493
Cap Entry, veh/h	744	1202	799	914
V/C Ratio	0.228	0.810	0.198	0.540
Control Delay, s/veh	7.4	18.3	6.6	11.2
LOS	A	C	A	B
95th %tile Queue, veh	1	10	1	3

Intersection				
Intersection Delay, s/veh	9.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	181	490	287	603
Demand Flow Rate, veh/h	184	500	292	615
Vehicles Circulating, veh/h	679	137	720	212
Vehicles Exiting, veh/h	148	875	143	425
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.6	7.3	12.0	10.1
Approach LOS	A	A	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	184	500	292	615
Cap Entry Lane, veh/h	690	1200	662	1112
Entry HV Adj Factor	0.983	0.981	0.982	0.980
Flow Entry, veh/h	181	490	287	603
Cap Entry, veh/h	679	1177	650	1090
V/C Ratio	0.267	0.417	0.441	0.553
Control Delay, s/veh	8.6	7.3	12.0	10.1
LOS	A	A	B	B
95th %tile Queue, veh	1	2	2	4

Intersection				
Intersection Delay, s/veh	16.5			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	172	1020	190	500
Demand Flow Rate, veh/h	175	1040	194	510
Vehicles Circulating, veh/h	644	122	519	434
Vehicles Exiting, veh/h	300	591	300	728
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.0	21.7	7.1	12.5
Approach LOS	A	C	A	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
A (Intercept)	1380	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	175	1040	194	510
Cap Entry Lane, veh/h	715	1218	813	886
Entry HV Adj Factor	0.984	0.980	0.980	0.981
Flow Entry, veh/h	172	1020	190	500
Cap Entry, veh/h	704	1194	797	869
V/C Ratio	0.245	0.854	0.239	0.575
Control Delay, s/veh	8.0	21.7	7.1	12.5
LOS	A	C	A	B
95th %tile Queue, veh	1	11	1	4

HADLEY ROAD & BYSCANE BOULEVARD

***TRAFFIC VOLUME COUNTS
CAPACITY ANALYSIS***

Existing Traffic Information (continued)

Turning Movements for All Vehicles (Non-trucks plus Trucks)

Byscane Boulevard at Hadley Road

The following traffic data was collected the week of November 16, 2020:

24 Hour Traffic Data - Hourly													
Byscane Blvd at Hadley Road													
Week of November 16, 2020													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
0-1	0	0	1	5	23	0	0	0	0	0	10	1	40
1-2	0	0	2	2	12	0	0	0	0	0	14	1	31
2-3	0	0	2	3	12	0	0	0	0	0	19	1	37
3-4	0	0	4	3	19	0	0	0	0	0	17	1	44
4-5	1	0	6	1	33	0	0	0	0	0	64	0	105
5-6	3	0	14	3	137	0	0	0	0	0	158	1	316
6-7	4	0	26	1	175	0	0	0	0	0	367	1	574
7-8	7	0	39	12	256	0	0	0	0	0	530	3	847
8-9	10	0	37	10	205	0	0	0	0	0	243	5	510
9-10	5	0	13	11	167	0	0	0	0	0	175	4	375
10-11	7	0	18	13	163	0	0	0	0	0	142	3	346
11-12	5	0	17	16	178	0	0	0	0	0	156	5	377
12-13	4	0	18	18	195	0	0	0	0	0	199	10	444
13-14	7	0	16	15	191	0	0	0	0	0	174	8	411
14-15	6	0	19	18	277	0	0	0	0	0	258	6	584
15-16	12	0	27	46	448	0	0	0	0	0	322	8	863
16-17	9	0	33	45	530	0	0	0	0	0	338	12	967
17-18	9	0	20	51	594	0	0	0	0	0	331	8	1013
18-19	7	0	16	36	308	0	0	0	0	0	193	7	567
19-20	4	0	10	23	209	0	0	0	0	0	132	8	386
20-21	6	0	13	18	153	0	0	0	0	0	98	9	297
21-22	3	0	10	16	88	0	0	0	0	0	63	4	184
22-23	1	0	7	6	37	0	0	0	0	0	37	2	90
23-24	0	0	2	4	26	0	0	0	0	0	27	3	62
Totals	110	0	370	376	4436	0	0	0	0	0	4067	111	9470
% Trucks	5%	0%	4%	3%	5%	0%	0%	0%	0%	0%	5%	7%	5%

AM & PM Peak Hours													
Byscane Blvd at Hadley Road													
Total Vehicles - AM Peak Hour													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
0700-0715	3	0	12	3	49	0	0	0	0	0	96	1	164
0715-0730	2	0	9	1	57	0	0	0	0	0	113	1	183
0730-0745	1	0	10	3	66	0	0	0	0	0	168	0	248
0745-0800	1	0	8	5	84	0	0	0	0	0	153	1	252
Totals	7	0	39	12	256	0	0	0	0	0	530	3	847
PHF	0.58	0.00	0.81	0.60	0.76	0.00	0.00	0.00	0.00	0.00	0.79	0.75	0.84
% Trucks	0%	0%	3%	8%	5%	0%	0%	0%	0%	0%	4%	33%	4%
Total Vehicles - PM Peak Hour													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
1645-1700	2	0	10	8	149	0	0	0	0	0	83	3	255
1700-1715	3	0	3	15	151	0	0	0	0	0	87	2	261
1715-1730	2	0	5	12	162	0	0	0	0	0	79	2	262
1730-1745	2	0	4	13	143	0	0	0	0	0	82	2	246
Totals	9	0	22	48	605	0	0	0	0	0	331	9	1024
PHF	0.75	0.00	0.55	0.80	0.93	0.00	0.00	0.00	0.00	0.00	0.95	0.75	0.98
% Trucks	0%	0%	5%	2%	2%	0%	0%	0%	0%	0%	3%	11%	3%

Note: An adjustment factor of 1.09 was applied to account for the COVID-19 anomaly. This factor is based on data collected by A&F Engineering in 2019 with two years of background growth at an annual rate of 1.5%

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↗	↘	↘
Traffic Vol, veh/h	3	610	294	14	45	8
Future Vol, veh/h	3	610	294	14	45	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	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	3	663	320	15	49	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	335	0	-	0	989 320
Stage 1	-	-	-	-	320 -
Stage 2	-	-	-	-	670 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1225	-	-	-	274 721
Stage 1	-	-	-	-	736 -
Stage 2	-	-	-	-	509 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1225	-	-	-	273 721
Mov Cap-2 Maneuver	-	-	-	-	273 -
Stage 1	-	-	-	-	734 -
Stage 2	-	-	-	-	509 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.04	0	19.76
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1225	-	-	-	301
HCM Lane V/C Ratio	0.003	-	-	-	0.191
HCM Ctrl Dly (s/v)	7.9	-	-	-	19.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	10	381	696	55	25	10
Future Vol, veh/h	10	381	696	55	25	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	414	757	60	27	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	816	0	-	0	1192 757
Stage 1	-	-	-	-	757 -
Stage 2	-	-	-	-	436 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	811	-	-	-	207 408
Stage 1	-	-	-	-	463 -
Stage 2	-	-	-	-	652 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	811	-	-	-	204 408
Mov Cap-2 Maneuver	-	-	-	-	204 -
Stage 1	-	-	-	-	457 -
Stage 2	-	-	-	-	652 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.24	0	22.99
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	811	-	-	-	238
HCM Lane V/C Ratio	0.013	-	-	-	0.16
HCM Ctrl Dly (s/v)	9.5	-	-	-	23
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↗	↘	↘
Traffic Vol, veh/h	3	709	359	16	52	9
Future Vol, veh/h	3	709	359	16	52	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	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	3	771	390	17	57	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	408	0	-	0	1167 390
Stage 1	-	-	-	-	390 -
Stage 2	-	-	-	-	777 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1151	-	-	-	214 658
Stage 1	-	-	-	-	684 -
Stage 2	-	-	-	-	453 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1151	-	-	-	213 658
Mov Cap-2 Maneuver	-	-	-	-	213 -
Stage 1	-	-	-	-	682 -
Stage 2	-	-	-	-	453 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.03	0	25.99
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1151	-	-	-	237
HCM Lane V/C Ratio	0.003	-	-	-	0.28
HCM Ctrl Dly (s/v)	8.1	-	-	-	26
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	1.1

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↗	↘	↘
Traffic Vol, veh/h	12	462	814	63	29	12
Future Vol, veh/h	12	462	814	63	29	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	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	13	502	885	68	32	13

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	953	0	-	0	1413 885
Stage 1	-	-	-	-	885 -
Stage 2	-	-	-	-	528 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	721	-	-	-	152 344
Stage 1	-	-	-	-	403 -
Stage 2	-	-	-	-	591 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	721	-	-	-	149 344
Mov Cap-2 Maneuver	-	-	-	-	149 -
Stage 1	-	-	-	-	396 -
Stage 2	-	-	-	-	591 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.26	0	31.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	721	-	-	-	179
HCM Lane V/C Ratio	0.018	-	-	-	0.249
HCM Ctrl Dly (s/v)	10.1	-	-	-	31.7
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↗	↘	↘
Traffic Vol, veh/h	3	747	372	16	52	9
Future Vol, veh/h	3	747	372	16	52	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	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	3	812	404	17	57	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	422	0	-	0	1223 404
Stage 1	-	-	-	-	404 -
Stage 2	-	-	-	-	818 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1137	-	-	-	198 646
Stage 1	-	-	-	-	674 -
Stage 2	-	-	-	-	434 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1137	-	-	-	198 646
Mov Cap-2 Maneuver	-	-	-	-	198 -
Stage 1	-	-	-	-	672 -
Stage 2	-	-	-	-	434 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.03	0	28.26
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1137	-	-	-	220
HCM Lane V/C Ratio	0.003	-	-	-	0.301
HCM Ctrl Dly (s/v)	8.2	-	-	-	28.3
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0	-	-	-	1.2

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↗	↘	↘
Traffic Vol, veh/h	12	486	856	63	29	12
Future Vol, veh/h	12	486	856	63	29	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	0	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	13	528	930	68	32	13

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	999	0	-	0	1485 930
Stage 1	-	-	-	-	930 -
Stage 2	-	-	-	-	554 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	693	-	-	-	137 324
Stage 1	-	-	-	-	384 -
Stage 2	-	-	-	-	575 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	693	-	-	-	135 324
Mov Cap-2 Maneuver	-	-	-	-	135 -
Stage 1	-	-	-	-	377 -
Stage 2	-	-	-	-	575 -

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.25	0	35.32
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	693	-	-	-	162
HCM Lane V/C Ratio	0.019	-	-	-	0.274
HCM Ctrl Dly (s/v)	10.3	-	-	-	35.3
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	1.1

HADLEY ROAD & GLEN HAVEN BOULEVARD

***TURN VOLUME COUNTS
CAPACITY ANALYSIS***

Existing Traffic Information (continued)

Turning Movements for All Vehicles (Non-trucks plus Trucks) Glen Haven Boulevard at Hadley Road

The following traffic data was collected the week of November 16, 2020:

24 Hour Traffic Data - Hourly Glen Haven Boulevard at Hadley Road Week of November 16, 2020													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
0-1	0	0	3	4	30	0	0	0	0	0	10	0	47
1-2	0	0	3	3	12	0	0	0	0	0	13	2	33
2-3	0	0	3	3	14	0	0	0	0	0	19	1	40
3-4	1	0	3	4	21	0	0	0	0	0	21	2	52
4-5	3	0	11	6	29	0	0	0	0	0	71	1	121
5-6	3	0	37	5	114	0	0	0	0	0	171	1	331
6-7	9	0	47	11	164	0	0	0	0	0	393	1	625
7-8	13	0	96	27	258	0	0	0	0	0	561	6	961
8-9	7	0	62	28	206	0	0	0	0	0	273	8	584
9-10	4	0	30	18	175	0	0	0	0	0	184	4	415
10-11	11	0	28	24	167	0	0	0	0	0	152	7	389
11-12	12	0	38	33	183	0	0	0	0	0	166	10	442
12-13	12	0	32	34	202	0	0	0	0	0	210	12	502
13-14	12	0	40	32	197	0	0	0	0	0	177	15	473
14-15	16	0	39	48	282	0	0	0	0	0	259	15	659
15-16	12	0	50	59	479	0	0	0	0	0	336	16	952
16-17	18	0	48	83	554	0	0	0	0	0	350	21	1074
17-18	16	0	54	92	630	0	0	0	0	0	319	29	1140
18-19	12	0	34	56	325	0	0	0	0	0	197	10	634
19-20	12	0	31	46	221	0	0	0	0	0	135	11	456
20-21	8	0	17	38	166	0	0	0	0	0	96	16	341
21-22	6	0	10	28	100	0	0	0	0	0	66	6	216
22-23	4	0	13	13	39	0	0	0	0	0	38	6	113
23-24	3	0	9	9	26	0	0	0	0	0	25	6	78
Totals	194	0	738	704	4594	0	0	0	0	0	4242	206	10678
% Trucks	8%	0%	2%	3%	4%	0%	0%	0%	0%	0%	3%	4%	4%

AM & PM Peak Hours Glen Haven Boulevard at Hadley Road													
Total Vehicles - AM Peak Hour													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
0700-0715	3	0	24	7	50	0	0	0	0	0	106	0	190
0715-0730	2	0	21	2	55	0	0	0	0	0	120	2	202
0730-0745	4	0	25	11	67	0	0	0	0	0	176	2	285
0745-0800	4	0	26	7	86	0	0	0	0	0	159	2	284
Totals	13	0	96	27	258	0	0	0	0	0	561	6	961
PHF	0.81	0.00	0.92	0.61	0.75	0.00	0.00	0.00	0.00	0.00	0.80	0.75	0.84
% Trucks	23%	0%	3%	15%	4%	0%	0%	0%	0%	0%	3%	0%	4%
Total Vehicles - PM Peak Hour													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
1645-1700	4	0	9	24	152	0	0	0	0	0	87	5	281
1700-1715	4	0	15	21	159	0	0	0	0	0	80	9	288
1715-1730	4	0	15	23	174	0	0	0	0	0	73	10	299
1730-1745	1	0	14	26	155	0	0	0	0	0	81	5	282
Totals	13	0	53	94	640	0	0	0	0	0	321	29	1150
PHF	0.81	0.00	0.88	0.90	0.92	0.00	0.00	0.00	0.00	0.00	0.92	0.73	0.96
% Trucks	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	2%	0%	2%

Note: An adjustment factor of 1.09 was applied to account for the COVID-19 anomaly. This factor is based on data collected by A&F Engineering in 2019 with two years of background growth at an annual rate of 1.5%

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↘		↙	↘	↙		↔			↔	
Traffic Vol, veh/h	7	645	0	0	297	31	0	0	0	110	0	15
Future Vol, veh/h	7	645	0	0	297	31	0	0	0	110	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	25	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	701	0	0	323	34	0	0	0	120	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	357	0	0	701	0	0	1039	1073	701	1039	1039	323
Stage 1	-	-	-	-	-	-	716	716	-	323	323	-
Stage 2	-	-	-	-	-	-	323	357	-	716	716	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1202	-	-	896	-	-	209	220	439	209	231	718
Stage 1	-	-	-	-	-	-	421	434	-	689	650	-
Stage 2	-	-	-	-	-	-	689	629	-	421	434	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1202	-	-	896	-	-	203	219	439	207	229	718
Mov Cap-2 Maneuver	-	-	-	-	-	-	203	219	-	207	229	-
Stage 1	-	-	-	-	-	-	418	431	-	689	650	-
Stage 2	-	-	-	-	-	-	674	629	-	418	431	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.09	0	0	42.13
HCM LOS			A	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1202	-	-	896	-	-	227
HCM Lane V/C Ratio	-	0.006	-	-	-	-	-	0.599
HCM Ctrl Dly (s/v)	-	0	8	-	-	0	-	42.1
HCM Lane LOS	-	A	A	-	-	A	-	E
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	3.4

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↘		↙	↘	↙		↔			↔	
Traffic Vol, veh/h	33	369	0	0	736	108	0	0	0	61	0	15
Future Vol, veh/h	33	369	0	0	736	108	0	0	0	61	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	25	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	401	0	0	800	117	0	0	0	66	0	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	917	0	0	401	0	0	1273	1390	401	1273	1273	800
Stage 1	-	-	-	-	-	-	473	473	-	800	800	-
Stage 2	-	-	-	-	-	-	800	917	-	473	473	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	744	-	-	1158	-	-	144	142	649	144	167	385
Stage 1	-	-	-	-	-	-	572	558	-	379	397	-
Stage 2	-	-	-	-	-	-	379	351	-	572	558	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	744	-	-	1158	-	-	131	135	649	137	159	385
Mov Cap-2 Maneuver	-	-	-	-	-	-	131	135	-	137	159	-
Stage 1	-	-	-	-	-	-	544	532	-	379	397	-
Stage 2	-	-	-	-	-	-	363	351	-	544	532	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.83	0	0	50.76
HCM LOS			A	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	744	-	-	1158	-	-	157
HCM Lane V/C Ratio	-	0.048	-	-	-	-	-	0.525
HCM Ctrl Dly (s/v)	0	10.1	-	-	0	-	-	50.8
HCM Lane LOS	A	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	-	0.2	-	-	0	-	-	2.6

Intersection												
Int Delay, s/veh	20.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖		↕			↕	
Traffic Vol, veh/h	8	742	7	18	342	36	21	0	54	127	0	17
Future Vol, veh/h	8	742	7	18	342	36	21	0	54	127	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	25	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	807	8	20	372	39	23	0	59	138	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	411	0	0	814	0	0	1239	1278	810	1235	1242	372
Stage 1	-	-	-	-	-	-	828	828	-	411	411	-
Stage 2	-	-	-	-	-	-	411	450	-	824	832	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1148	-	-	813	-	-	152	166	380	153	175	674
Stage 1	-	-	-	-	-	-	365	386	-	618	595	-
Stage 2	-	-	-	-	-	-	618	572	-	367	384	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1148	-	-	813	-	-	143	161	380	~ 125	169	674
Mov Cap-2 Maneuver	-	-	-	-	-	-	143	161	-	~ 125	169	-
Stage 1	-	-	-	-	-	-	363	383	-	603	581	-
Stage 2	-	-	-	-	-	-	587	558	-	308	381	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.09			0.43			25.05			177.85		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	260	1148	-	-	813	-	-	139
HCM Lane V/C Ratio	0.314	0.008	-	-	0.024	-	-	1.127
HCM Ctrl Dly (s/v)	25.1	8.2	-	-	9.5	-	-	177.9
HCM Lane LOS	D	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.3	0	-	-	0.1	-	-	8.8

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

Intersection												
Int Delay, s/veh	13.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖		↕			↕	
Traffic Vol, veh/h	38	424	24	60	846	124	14	0	36	70	0	17
Future Vol, veh/h	38	424	24	60	846	124	14	0	36	70	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	25	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	461	26	65	920	135	15	0	39	76	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1054	0	0	487	0	0	1607	1741	474	1593	1620	920
Stage 1	-	-	-	-	-	-	557	557	-	1050	1050	-
Stage 2	-	-	-	-	-	-	1050	1185	-	543	570	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	660	-	-	1076	-	-	85	87	590	86	103	328
Stage 1	-	-	-	-	-	-	515	512	-	275	304	-
Stage 2	-	-	-	-	-	-	275	263	-	524	506	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	660	-	-	1076	-	-	70	76	590	~ 71	91	328
Mov Cap-2 Maneuver	-	-	-	-	-	-	70	76	-	~ 71	91	-
Stage 1	-	-	-	-	-	-	483	480	-	258	286	-
Stage 2	-	-	-	-	-	-	243	247	-	458	474	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.85			0.5			30.95			226.93		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	192	660	-	-	1076	-	-	84
HCM Lane V/C Ratio	0.283	0.063	-	-	0.061	-	-	1.127
HCM Ctrl Dly (s/v)	30.9	10.8	-	-	8.6	-	-	226.9
HCM Lane LOS	D	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.1	0.2	-	-	0.2	-	-	6.7

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

Intersection												
Int Delay, s/veh	24.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖		↕			↕	
Traffic Vol, veh/h	8	780	7	18	355	36	21	0	54	127	0	17
Future Vol, veh/h	8	780	7	18	355	36	21	0	54	127	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	25	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	848	8	20	386	39	23	0	59	138	0	18

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	425	0	0	855	0	0	1294	1333	852	1290	1298	386
Stage 1	-	-	-	-	-	-	869	869	-	425	425	-
Stage 2	-	-	-	-	-	-	425	464	-	865	873	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1134	-	-	785	-	-	139	154	360	140	162	662
Stage 1	-	-	-	-	-	-	347	369	-	607	586	-
Stage 2	-	-	-	-	-	-	607	563	-	348	368	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1134	-	-	785	-	-	131	149	360	~ 114	156	662
Mov Cap-2 Maneuver	-	-	-	-	-	-	131	149	-	~ 114	156	-
Stage 1	-	-	-	-	-	-	344	366	-	592	572	-
Stage 2	-	-	-	-	-	-	575	549	-	289	365	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.08	0.43	27.29	225.97
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	242	1134	-	-	785	-	-	126
HCM Lane V/C Ratio	0.337	0.008	-	-	0.025	-	-	1.243
HCM Ctrl Dly (s/v)	27.3	8.2	-	-	9.7	-	-	226
HCM Lane LOS	D	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	9.8

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

Intersection												
Int Delay, s/veh	16.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖		↕			↕	
Traffic Vol, veh/h	38	448	24	60	888	124	14	0	36	70	0	17
Future Vol, veh/h	38	448	24	60	888	124	14	0	36	70	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	25	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	41	487	26	65	965	135	15	0	39	76	0	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1100	0	0	513	0	0	1678	1813	500	1665	1691	965
Stage 1	-	-	-	-	-	-	583	583	-	1096	1096	-
Stage 2	-	-	-	-	-	-	1096	1230	-	570	596	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	635	-	-	1052	-	-	75	78	571	77	93	309
Stage 1	-	-	-	-	-	-	498	499	-	259	289	-
Stage 2	-	-	-	-	-	-	259	250	-	507	492	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	635	-	-	1052	-	-	62	69	571	~ 63	82	309
Mov Cap-2 Maneuver	-	-	-	-	-	-	62	69	-	~ 63	82	-
Stage 1	-	-	-	-	-	-	466	466	-	243	271	-
Stage 2	-	-	-	-	-	-	228	234	-	441	460	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.82			0.48			34.98			291.28		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	173	635	-	-	1052	-	-	74
HCM Lane V/C Ratio	0.314	0.065	-	-	0.062	-	-	1.27
HCM Ctrl Dly (s/v)	35	11.1	-	-	8.6	-	-	291.3
HCM Lane LOS	D	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.3	0.2	-	-	0.2	-	-	7.3

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

HADLEY ROAD & CR 675 E

***TURN VOLUME COUNTS
CAPACITY ANALYSIS***

Existing Traffic Information (continued)

Turning Movements for All Vehicles (Non-trucks plus Trucks) Hall Road (S 675 E) at Hadley Road

The following traffic data was collected the week of November 16, 2020:

24 Hour Traffic Data - Hourly Hall Road (S 675 E) at Hadley Road Week of November 16, 2020													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
0-1	0	0	3	3	33	0	2	0	0	0	11	1	53
1-2	0	0	0	1	14	0	0	0	0	0	17	0	32
2-3	0	0	3	1	15	0	0	0	0	0	21	1	41
3-4	0	1	2	1	23	0	0	0	0	0	23	0	50
4-5	0	0	6	4	34	2	3	0	0	0	81	0	130
5-6	3	0	17	8	116	3	11	0	0	2	204	0	364
6-7	5	0	28	7	174	15	24	0	0	7	427	3	690
7-8	5	0	35	10	277	22	50	0	6	6	654	0	1065
8-9	3	1	41	10	229	21	35	0	6	6	330	2	684
9-10	5	0	20	11	187	22	28	1	5	5	206	3	493
10-11	3	0	24	13	180	30	31	0	7	7	171	2	468
11-12	2	0	23	22	205	30	34	1	8	3	199	3	530
12-13	2	1	33	30	228	23	27	1	4	10	230	6	595
13-14	4	2	24	29	221	32	28	0	5	9	204	4	562
14-15	6	3	19	20	322	47	27	1	5	3	289	4	746
15-16	4	0	22	43	529	49	44	0	11	5	378	3	1088
16-17	6	4	24	45	628	49	37	1	5	7	389	5	1200
17-18	6	2	26	49	712	56	37	1	7	6	357	11	1270
18-19	8	1	19	37	368	27	15	1	6	3	226	5	716
19-20	2	0	7	27	263	18	14	1	1	4	158	4	499
20-21	1	0	8	12	198	12	5	1	2	3	112	2	356
21-22	1	1	5	11	123	5	4	0	4	2	73	2	231
22-23	2	0	8	7	48	5	3	1	0	2	48	1	125
23-24	0	0	0	5	35	2	2	1	0	1	31	1	78
Totals	68	16	397	406	5162	470	461	11	82	91	4839	63	12066
% Trucks	4%	0%	4%	3%	5%	12%	14%	9%	26%	30%	4%	6%	5%

AM & PM Peak Hours Hall Road (S 675 E) at Hadley Road													
Total Vehicles - AM Peak Hour													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
0700-0715	2	0	3	1	53	2	11	0	2	1	128	0	203
0715-0730	1	0	11	3	58	3	12	0	3	1	140	0	232
0730-0745	1	0	10	2	77	7	14	0	1	1	198	0	311
0745-0800	1	0	11	4	89	10	13	0	0	3	188	0	319
Totals	5	0	35	10	277	22	50	0	6	6	654	0	1065
PHF	0.63	0.00	0.80	0.63	0.78	0.55	0.89	0.00	0.50	0.50	0.83	0.00	0.83
% Trucks	0%	0%	0%	10%	5%	0%	8%	0%	50%	33%	5%	0%	5%
Total Vehicles - PM Peak Hour													
Time	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL	Total
1645-1700	3	1	5	10	174	13	11	0	1	1	92	2	313
1700-1715	0	0	7	12	180	14	9	0	1	1	91	3	318
1715-1730	3	1	5	10	193	13	11	0	2	1	87	2	328
1730-1745	1	0	4	14	177	16	6	0	2	1	90	2	313
Totals	7	2	21	46	724	56	37	0	6	4	360	9	1272
PHF	0.58	0.50	0.75	0.82	0.94	0.88	0.84	0.00	0.75	1.00	0.98	0.75	0.97
% Trucks	0%	0%	10%	0%	2%	4%	5%	0%	17%	25%	3%	0%	3%

Note: An adjustment factor of 1.09 was applied to account for the COVID-19 anomaly. This factor is based on data collected by A&F Engineering in 2019 with two years of background growth at an annual rate of 1.5%

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗		↘	↗			↘	↗		↔	
Traffic Vol, veh/h	0	752	7	25	319	12	7	0	58	40	0	6
Future Vol, veh/h	0	752	7	25	319	12	7	0	58	40	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	817	8	27	347	13	8	0	63	43	0	7

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	360	0	0	825	0	0	1222	1235	821	1225	1233	353
Stage 1	-	-	-	-	-	-	821	821	-	408	408	-
Stage 2	-	-	-	-	-	-	401	414	-	817	825	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1199	-	-	805	-	-	156	176	374	156	177	690
Stage 1	-	-	-	-	-	-	368	388	-	620	597	-
Stage 2	-	-	-	-	-	-	625	593	-	370	387	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1199	-	-	805	-	-	150	170	374	125	171	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	150	170	-	125	171	-
Stage 1	-	-	-	-	-	-	368	388	-	600	577	-
Stage 2	-	-	-	-	-	-	599	573	-	308	387	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0		0.68		18.04		44.35	
HCM LOS					C		E	

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	150	374	1199	-	-	805	-	-	140
HCM Lane V/C Ratio	0.051	0.168	-	-	-	0.034	-	-	0.357
HCM Ctrl Dly (s/v)	30.3	16.6	0	-	-	9.6	-	-	44.3
HCM Lane LOS	D	C	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	0.2	0.6	0	-	-	0.1	-	-	1.5

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑		↘	↑			↘	↑		↔	
Traffic Vol, veh/h	10	414	5	64	833	53	7	0	43	24	2	8
Future Vol, veh/h	10	414	5	64	833	53	7	0	43	24	2	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	450	5	70	905	58	8	0	47	26	2	9

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	963	0	0	455	0	0	1520	1577	453	1545	1551	934
Stage 1	-	-	-	-	-	-	474	474	-	1073	1073	-
Stage 2	-	-	-	-	-	-	1046	1102	-	472	477	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	715	-	-	1105	-	-	97	110	607	93	114	322
Stage 1	-	-	-	-	-	-	571	558	-	266	296	-
Stage 2	-	-	-	-	-	-	276	287	-	573	556	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	715	-	-	1105	-	-	86	101	607	80	105	322
Mov Cap-2 Maneuver	-	-	-	-	-	-	86	101	-	80	105	-
Stage 1	-	-	-	-	-	-	562	549	-	250	278	-
Stage 2	-	-	-	-	-	-	250	269	-	521	548	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	0.24		0.57		16.98		62.13	
HCM LOS					C		F	

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	86	607	715	-	-	1105	-	-	98
HCM Lane V/C Ratio	0.089	0.077	0.015	-	-	0.063	-	-	0.376
HCM Ctrl Dly (s/v)	51.1	11.4	10.1	-	-	8.5	-	-	62.1
HCM Lane LOS	F	B	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.3	0.2	0	-	-	0.2	-	-	1.5

Intersection												
Int Delay, s/veh	16.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑		↘	↑			↘	↑		↔	
Traffic Vol, veh/h	0	919	8	56	385	14	8	0	148	46	0	7
Future Vol, veh/h	0	919	8	56	385	14	8	0	148	46	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	999	9	61	418	15	9	0	161	50	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	434	0	0	1008	0	0	1543	1559	1003	1547	1555	426
Stage 1	-	-	-	-	-	-	1003	1003	-	548	548	-
Stage 2	-	-	-	-	-	-	540	555	-	999	1008	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1126	-	-	688	-	-	94	112	294	93	113	628
Stage 1	-	-	-	-	-	-	292	320	-	521	517	-
Stage 2	-	-	-	-	-	-	526	513	-	293	318	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1126	-	-	688	-	-	84	102	294	~ 38	103	628
Mov Cap-2 Maneuver	-	-	-	-	-	-	84	102	-	~ 38	103	-
Stage 1	-	-	-	-	-	-	292	320	-	475	471	-
Stage 2	-	-	-	-	-	-	473	468	-	133	318	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.32	32.24	\$ 389.15
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	84	294	1126	-	-	688	-	-	44
HCM Lane V/C Ratio	0.103	0.548	-	-	-	0.089	-	-	1.314
HCM Ctrl Dly (s/v)	52.6	31.1	0	-	-	10.7	-	-	\$ 389.2
HCM Lane LOS	F	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.3	3.1	0	-	-	0.3	-	-	5.6

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

Intersection												
Int Delay, s/veh	11.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑		↖	↑			↖	↖		↕	
Traffic Vol, veh/h	12	512	6	164	1018	61	8	0	103	28	2	9
Future Vol, veh/h	12	512	6	164	1018	61	8	0	103	28	2	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	557	7	178	1107	66	9	0	112	30	2	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1173	0	0	563	0	0	2050	2115	560	2079	2085	1140
Stage 1	-	-	-	-	-	-	586	586	-	1496	1496	-
Stage 2	-	-	-	-	-	-	1464	1529	-	583	589	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	596	-	-	1008	-	-	41	51	528	39	53	245
Stage 1	-	-	-	-	-	-	496	497	-	153	186	-
Stage 2	-	-	-	-	-	-	160	179	-	498	495	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	596	-	-	1008	-	-	30	41	528	~ 25	43	245
Mov Cap-2 Maneuver	-	-	-	-	-	-	30	41	-	~ 25	43	-
Stage 1	-	-	-	-	-	-	486	486	-	126	153	-
Stage 2	-	-	-	-	-	-	124	147	-	384	485	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.25			1.23			24.55			\$ 454.03		
HCM LOS							C			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	30	528	596	-	-	1008	-	-	32
HCM Lane V/C Ratio	0.286	0.212	0.022	-	-	0.177	-	-	1.315
HCM Ctrl Dly (s/v)	165	13.6	11.2	-	-	9.3	-	-	\$ 454
HCM Lane LOS	F	B	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	0.9	0.8	0.1	-	-	0.6	-	-	4.7

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

Intersection												
Int Delay, s/veh	20.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑		↙	↑			↘	↗		↕	
Traffic Vol, veh/h	0	956	9	56	398	14	8	0	148	46	0	7
Future Vol, veh/h	0	956	9	56	398	14	8	0	148	46	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1039	10	61	433	15	9	0	161	50	0	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	448	0	0	1049	0	0	1598	1614	1044	1601	1611	440
Stage 1	-	-	-	-	-	-	1044	1044	-	562	562	-
Stage 2	-	-	-	-	-	-	554	570	-	1039	1049	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1112	-	-	663	-	-	86	104	278	85	104	617
Stage 1	-	-	-	-	-	-	277	306	-	512	510	-
Stage 2	-	-	-	-	-	-	516	506	-	278	304	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1112	-	-	663	-	-	77	94	278	~ 33	95	617
Mov Cap-2 Maneuver	-	-	-	-	-	-	77	94	-	~ 33	95	-
Stage 1	-	-	-	-	-	-	277	306	-	465	463	-
Stage 2	-	-	-	-	-	-	463	459	-	117	304	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			1.31			35.48			\$ 509.26		
HCM LOS							E			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	77	278	1112	-	-	663	-	-	37
HCM Lane V/C Ratio	0.113	0.578	-	-	-	0.092	-	-	1.542
HCM Ctrl Dly (s/v)	57.7	34.3	0	-	-	11	-	-	\$ 509.3
HCM Lane LOS	F	D	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.4	3.3	0	-	-	0.3	-	-	6.1

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

Intersection												
Int Delay, s/veh	13.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗		↔	
Traffic Vol, veh/h	12	535	7	164	1059	61	9	0	103	28	2	9
Future Vol, veh/h	12	535	7	164	1059	61	9	0	103	28	2	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	582	8	178	1151	66	10	0	112	30	2	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1217	0	0	589	0	0	2120	2185	585	2148	2156	1184
Stage 1	-	-	-	-	-	-	611	611	-	1541	1541	-
Stage 2	-	-	-	-	-	-	1509	1574	-	608	615	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	573	-	-	986	-	-	37	46	511	35	48	230
Stage 1	-	-	-	-	-	-	481	484	-	144	177	-
Stage 2	-	-	-	-	-	-	151	170	-	483	482	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	573	-	-	986	-	-	27	37	511	~ 22	38	230
Mov Cap-2 Maneuver	-	-	-	-	-	-	27	37	-	~ 22	38	-
Stage 1	-	-	-	-	-	-	470	473	-	118	145	-
Stage 2	-	-	-	-	-	-	116	140	-	369	471	-

Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0.25			1.21			29.18			\$ 554.46		
HCM LOS							D			F		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	27	511	573	-	-	986	-	-	28
HCM Lane V/C Ratio	0.365	0.219	0.023	-	-	0.181	-	-	1.492
HCM Ctrl Dly (s/v)	202.7	14	11.4	-	-	9.5	-	-	\$ 554.5
HCM Lane LOS	F	B	B	-	-	A	-	-	F
HCM 95th %tile Q(veh)	1.1	0.8	0.1	-	-	0.7	-	-	5

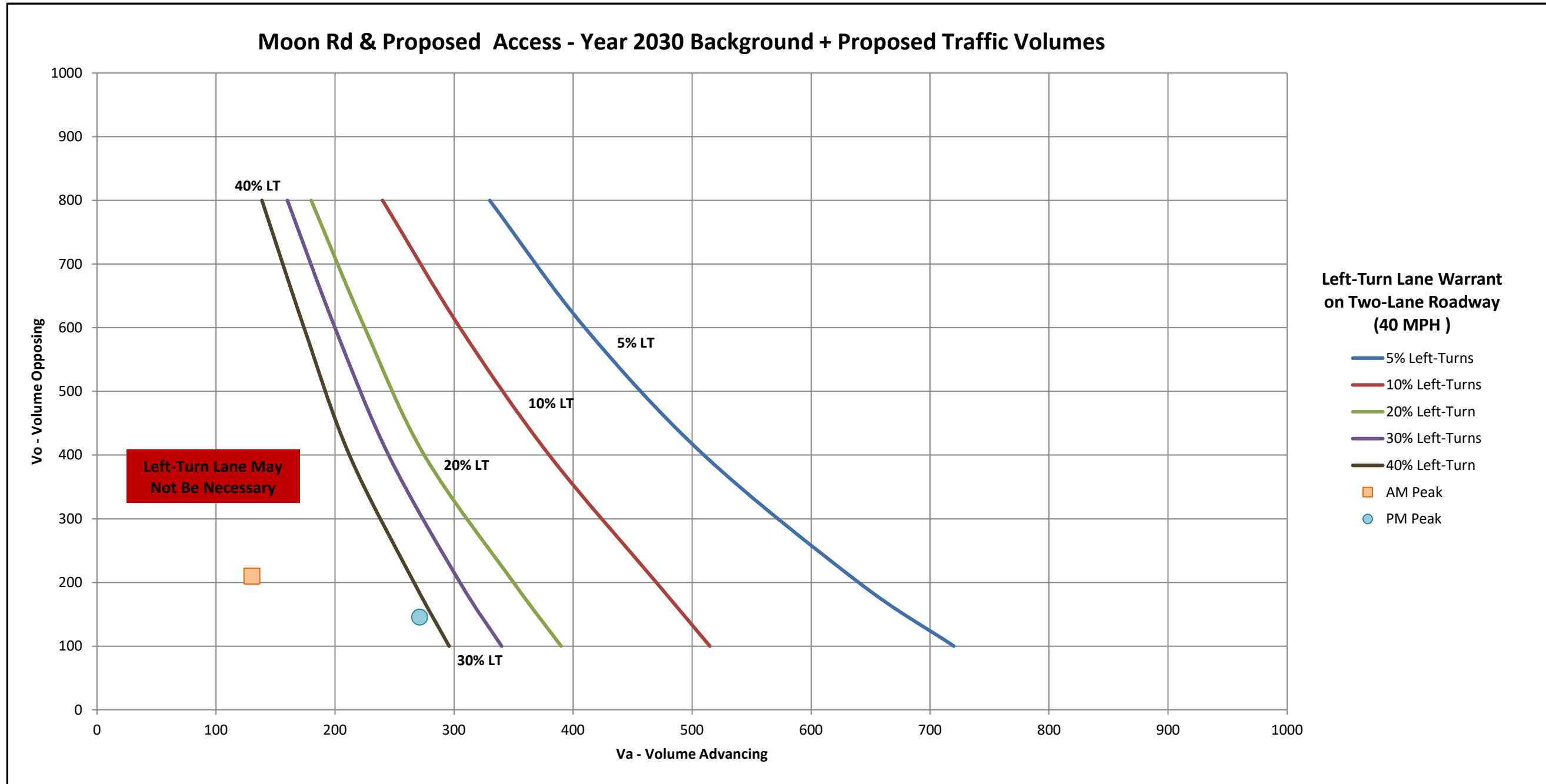
Notes	
~: Volume exceeds capacity	\$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

HADLEY ROAD & PROPOSED ACCESS

***TURN LANE WARRANTS
CAPACITY ANALYSIS***

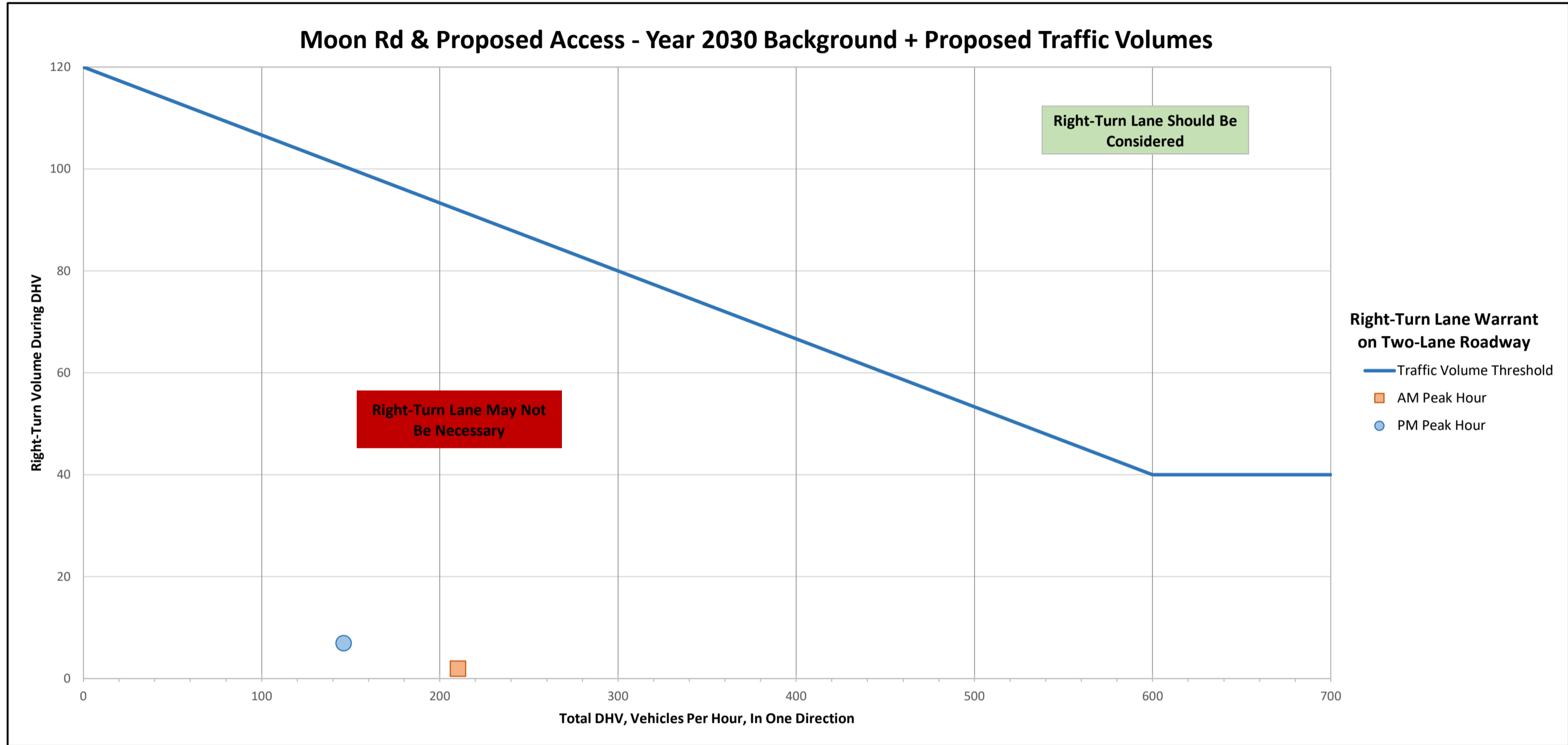
Operating Speed (mph)	Opposing Volume (veh/h)	Advancing Volume (veh/h)							
		5% Left Turns	10% Left Turns	15% Left Turns	20% Left Turns	25% Left Turns	30% Left Turns	35% Left Turns	40% Left Turns
40	800	330	240	207	180	168	160	146	139
	600	410	305	260	225	211	200	184	174
	400	510	380	320	275	258	245	224	212
	200	640	470	401	350	324	305	282	266
	100	720	515	446	390	360	340	313	296

AM Peak Hour Traffic Volume Input		PM Peak Hour Traffic Volume Input	
Advancing Volume (Va)	130	Advancing Volume (Va)	271
Opposing Volume (Vo)	210	Opposing Volume (Vo)	146
Left-Turn Volume	19	Left-Turn Volume	62
% Left-Turn	15%	% Left-Turn	23%
WARRANTED?	NO	WARRANTED?	NO



Total Approach Volume	Right-Turn Volume
0	120
600	40
700	40

AM Peak Hour Traffic Volume Input		PM Peak Hour Traffic Volume Input	
Total Approach Volume	210	Total Approach Volume	146
Right-Turn Volume	2	Right-Turn Volume	7
WARRANTED?	NO	WARRANTED?	NO



Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑			↑
Traffic Vol, veh/h	6	56	208	2	19	111
Future Vol, veh/h	6	56	208	2	19	111
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	7	61	226	2	21	121

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	389	227	0	0	228
Stage 1	227	-	-	-	-
Stage 2	162	-	-	-	-
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	615	812	-	-	1340
Stage 1	811	-	-	-	-
Stage 2	867	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	604	812	-	-	1340
Mov Cap-2 Maneuver	604	-	-	-	-
Stage 1	811	-	-	-	-
Stage 2	853	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.01	0	1.13
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	786	1340
HCM Lane V/C Ratio	-	-	0.086	0.015
HCM Ctrl Dly (s/v)	-	-	10	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↑			↑
Traffic Vol, veh/h	4	36	139	7	62	209
Future Vol, veh/h	4	36	139	7	62	209
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	4	39	151	8	67	227

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	517	155	0	0	159
Stage 1	155	-	-	-	-
Stage 2	362	-	-	-	-
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	519	891	-	-	1421
Stage 1	873	-	-	-	-
Stage 2	705	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	490	891	-	-	1421
Mov Cap-2 Maneuver	490	-	-	-	-
Stage 1	873	-	-	-	-
Stage 2	666	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	9.61	0	1.75
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	824	1421
HCM Lane V/C Ratio	-	-	0.053	0.047
HCM Ctrl Dly (s/v)	-	-	9.6	7.7
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1