



TRAFFIC IMPACT STUDY

**Proposed Active Adult Residential Community
Union Road Townhomes
Union Road
Village of New Hempstead, Rockland County, NY 10994**

Prepared by
**DTS Provident Design Engineering, LLP
1 North Broadway
White Plains, New York**

**July 31, 2024
Updated November 19, 2024**

DTS Provident Project No. 1130

INTRODUCTION

DTS Provident Design Engineering, LLP (DTS Provident), a licensed Professional Engineering firm in the state of New York, has prepared this Traffic Study to evaluate the traffic for the proposed Active Adult Residential Community consisting of 55 senior housing units along Union Road in the Village of New Hempstead, Rockland County, New York. The Site Location is illustrated on Figure No. 1 in Appendix A.

DTS Provident, has been retained to analyze the traffic impact associated with the proposed Project and to identify improvements, if any, to mitigate any adverse impact. This Traffic Study has been prepared using industry-standard traffic engineering procedures to document the findings and conclusions of the analysis undertaken to measure the traffic impacts associated with the proposed Project.

The initial Traffic Impact Study followed the Preliminary Scope prepared by the previous Village Traffic Consultant. To perform that Study, field observations and traffic counts were performed, and capacity analyses were conducted. This updated Traffic Study incorporates comments from Village Planning Board and the current Village Traffic Consultant and includes additional intersections as well as new traffic counts.

The following is a summary of our findings and conclusions.

LOCATION AND PROPOSED USE OF SITE

The Project is proposed to consist of 55 senior housing units along Union Road in the Village of New Hempstead.

The Site is located east of the intersection of Michael Street and Union Road, adjacent to the New York Country Club golf course. The proposed access to the site was analyzed to be an unsignalized driveway along Union Road, south of Michael Street. An emergency access only driveway will be provided north of Michael Street and will be gated. This was analyzed based upon discussions with the Village's current Traffic Consultant and to be conservative.

EXISTING CONDITIONS

Below is a summary of some of the key roadways in the Study Area:

1. Union Road is under local jurisdiction. It is a one-lane per direction roadway and double-yellow roadway striping and white edge lines. The posted speed limit along Union Road is 30 miles per hour.
2. New Hempstead Road (County Road 80) is under the jurisdiction of Rockland County. It is a one-lane per direction roadway with double yellow striping and white edge lines. The posted speed limit is 30 miles per hour.

3. Summit Park Road (County Road 51) is under the jurisdiction of Rockland County. It is a one-lane per direction roadway with double yellow striping and white edge lines. The posted speed limit is 30 miles per hour.

Viola Road is also under the jurisdiction of Rockland County as County Road 74 while Grandview Avenue is part of County Road 80. The other roadways in this Study are under local jurisdiction.

Based upon information received from Rockland County, the traffic signal at the intersection of Summit Park Road (County Road 51) and New Hempstead Road (County Road 80) is owned and operated by the Village of New Hempstead. The traffic signal at the intersection of Viola Road (County Road 74) and Union Road is owned and operated by the Town of Ramapo.

EXISTING TRAFFIC VOLUMES

In the original scope, and Traffic Study, the previous Village Traffic Consultant suggested that the following six intersections be analyzed for the Weekday AM and Weekday PM time periods:

1. Sandy Brook Drive and Summit Park Road
2. Summit Park Road and New Hempstead Road
3. Viola Road and Union Road
4. Brockton Road and Union Road
5. Ivy Lane and Union Road
6. Pennington Way and New Hempstead Road

Upon further review, the current Village Traffic Consultant requested the following three intersections be added to the traffic analysis:

1. New Hempstead Road/Union Road & McNamara Road
2. Union Road & Grandview Avenue
3. Union Road & Brick Church Road

To analyze the traffic impacts associated with the proposed project, DTS Provident first determined the existing traffic volume conditions. Representatives of DTS Provident conducted traffic counts in, June 2024. It has since been determined that some of the previous June traffic counts were during the Shavuot and therefore new counts have since been performed on Tuesday October 1, 2024, at the three new intersections listed above and on Tuesday October 29, 2024 for the original 6 intersections. Automatic Traffic Recorder Counts (ATR) were also conducted and were coordinated with the intersection traffic counts. Based on the updated traffic counts, the peak hours for each time period (which slightly changed from the earlier traffic counts) were calculated as follows:

1. Weekday AM Peak Hour: 7:30 AM – 8:30 AM
2. Weekday PM Peak Hour: 3:45 PM – 4:45 PM

The Existing Traffic Volumes are illustrated on Figure No. 2 in Appendix A. The traffic count sheets are contained in Appendix E.

The ATR speed data indicated an average speed of 32 mph and an 85th percentile speed of 38 mph.

TRIP GENERATION AND FUTURE TRAFFIC VOLUME CONDITIONS

Upon establishing the existing traffic volume conditions, DTS Provident projected the existing volumes to a future design year of 2027 using a conservative growth rate of 2.0% per year compounded annually based upon information from the NYSDOT. These form the Grown Traffic Volumes which are illustrated on Figure No. 3 in Appendix A.

In addition, DTS Provident also conservatively considered the following adjacent developments:

TABLE - OTHER PROJECTS				
Location	Type	Square Footage/Density	Trip Gen	Source
48 Grandview Avenue	Bais Malka - Academic Institution (Expansion)	2 Classrooms	*N/A	
103 Brick Church Road	Residential Redevelopment	325 Proposed Residential Lots	223 AM Trips 309 PM Trips	*N/A
585 Union Road	Residential Development	One 2-family dwelling Unit	*N/A	
698 Union Road	Congregation Knesset Israel - Residential and Commercial	Subdivision of Lot	*N/A	
755 Union Road	Religious Services - Commercial	1,000 SF	*N/A	
775 Route 45	Illinois Properties - Commercial and Residential	18,554 SF Addition	*N/A	
870 Route 45	Denton Acres - Commercial Development	13,500 SF Office Building	*N/A	

*No trip generation was provided

Traffic volumes from the majority of these developments were obtained from the respective Studies, where available. The majority of these projects generate limited traffic that would travel past the proposed Project Site during the peak hours and thus were incorporated in the growth rate. Site-specific traffic for 103 Brick Church Road was added separately to the Grown Traffic Volumes. The Traffic Volumes for 103 Brick Church Road are illustrated in Figure 4.

The Grown Traffic volumes in Figure No. 3 were combined with the adjacent development volumes in Figure No. 4 to form the 2027 No-Build Traffic Volumes which are illustrated on Figure No. 5 in Appendix A.

DTS Provident consulted the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition to calculate the proposed trip generation for the Site. Land Use Code (LUC) 251 – Senior Adult Housing – Single-Family was utilized at the request of the Village's current Traffic Consultant.

Below is a summary table of the trip generation for the Proposed Project:

TABLE NO. 1 TRIP GENERATION				
LUC 251 – Senior Adult Housing – Single-Family	WEEKDAY AM PEAK HOUR		WEEKDAY PM PEAK HOUR	
	Enter	Exit	Enter	Exit
	8	17	17	11

*Trips were obtained from the Institute of Transportation Engineers Trip Generation Manual – 11th Edition utilizing Land Use Code 251 – Senior Adult Housing – Single-Family

The proposed trips were added to the adjacent roads in conjunction with the Arrival and Departure Distributions illustrated on Figures 6 and 7 in Appendix A to form the Site-Generated Volumes illustrated on Figure No. 8. The No-Build Volumes were combined with the Site-Generated Volumes to form the Build Traffic Volumes which are illustrated on Figure No. 9.

TRAFFIC CAPACITY ANALYSIS

DTS Provident utilized Synchro software and actual field timings to calculate the capacity analysis of the intersections for the Existing, No-Build, and Build traffic volume conditions. The Synchro software was used to obtain levels of service (LOS) and delays (seconds per vehicle). A Level of Service ‘A’ represents the best roadway operating conditions while a Level of Service ‘F’ represents the worst roadway operating conditions. A description of Level of Service Standards is contained in Appendix C. The following tables below summarizes the capacity analysis results for the intersections:

Intersection	TABLE NO. 2 OVERALL LEVEL OF SERVICE SUMMARY – SENIOR ADULT HOUSING			
	PEAK WEEKDAY AM HOUR		PEAK WEEKDAY PM HOUR	
	No-Build	Build	No-Build	Build
Intersection	LOS Delay (sec/veh)	LOS Delay (sec/veh)	LOS Delay (sec/veh)	LOS Delay (sec/veh)
Sandy Brook Drive & Summit Park Road	a 7.4	a 7.4	a 7.7	a 7.7
Summit Park Road & New Hempstead Road	B 16.9	B 16.9	B 20.2	B 20.3
Pennington Way & New Hempstead Road	a 1.4	a 1.4	a 1.3	a 1.3
New Hempstead Road/Union Road & McNamara Road	a 9.6	a 9.6	a 7.0	a 7.1
Union Road & Grandview Avenue	f 74.4	f 76.4	e 36.8	e 38.4
Union Road & Brick Church Road	f 77.3	f 78.6	e 49.4	f 52.1
Ivy Lane & Union Road	a 1.4	a 1.3	a 1.5	a 1.5
Brockton Road & Union Road	a 2.4	a 2.4	a 1.3	a 1.3
Site Driveway & Union Road	-	a 0.5	-	a 0.3
Viola Road & Union Road	C 31.7	C 31.9	C 26.8	C 26.9

Notes:

*Levels of Service for signalized intersections are denoted by uppercase letters

*Levels of Service for unsignalized intersections are denoted by lowercase letters.

*Average delay is represented in seconds per vehicle.

As shown in Table No. 2 above, the change from No-Build (without the Project) to Build (with the Project) is minimal. Without or With the Project, some left turn movements from the side street will experience some delays. The Project's traffic at these locations is not significant and will not have a significant impact on those locations. More detailed Level of Service Tables by intersection approach lane group are contained in Appendix B and copies of the capacity analysis summary sheets are contained in Appendix D.

CRASH DATA REVIEW

Crash data was obtained from the NYSDOT for the last three years from December 31, 2020, to December 31, 2023. This data indicates that there were 173 crashes during the three years that occurred along the intersections and portions of Union Road, New Hempstead Road, and Summit Park Road in the Study Area. Below is a summary of the crashes that occurred in the area:

Approximately 70% of the crashes occurred along Union Road:

- 34 Crashes occurred at or close to the intersection of Union Road and Viola Road
- 7 Crashes occurred along Union Road between the intersections Jonathan Place and Brockton Road
- 21 Crashes occurred close to the intersection of Brick Church Road and Union Road
- 61 Crashes occurred close to the intersection of McNamara Road and Union Road

Approximately 25% of the crashes occurred along New Hempstead:

- 12 Crashes occurred close to the intersection of Pennington Way and New Hempstead Road
- 31 Crashes occurred close to the intersection of Summit Park Road and New Hempstead Road

Approximately 5% of the crashes occurred along Summit Park Road:

- 4 crashes occurred close to the intersection of Sanatorium Road and Summit Park Road
- 3 crashes occurred close to the intersection of Brook Drive and Summit Park Road

Approximately 81% of the crashes were property damage only while 19% resulted in an injury. There were no fatalities based upon the information provided by the NYSDOT. The majority of the crashes were driver error with 33% of the total involving rear end, left turn and right turn as the main types of collision. Approximately 38% were described as other, unknown, or not entered. The remaining 29% involved head-on, overtaking, right angle, and sideswipe collisions. Additional crash data information details are included in Appendix F.

It is noted that after the crash data from the NYSDOT was obtained, there was a fatal crash that occurred at the intersection of New Hempstead Road and Summit Park Road. This occurred on October 14, 2024. One vehicle was traveling westbound on New Hempstead Road and the other vehicle was traveling eastbound attempting to turn left onto Summit Park Road.

A table was prepared comparing crash rates at the study intersections to the statewide average. This is illustrated in Appendix F. According to the table the following intersections show higher crash rates than the statewide average:

- Sandy Brook Drive & Summit Park Road
- Union Road & Brick Church Road
- Viola Road & Union Road
- Pennington Way & New Hempstead Road
- New Hempstead Road/Union Road & McNamara Road
- Union Road & Grandview Avenue

It should be noted that due to being a statewide average, half of all intersections in the state will be above the statewide rates. Most of the crashes in the area are unable to be attributed to a single factor and it is likely that they are mainly due to driver error.

Viola Road and Union Road shows the highest rate of crashes out of any other study location. This location has seen 28 intersection related crashes over 3 years. The intersection is already signalized with proper turning lanes, pedestrian signals and crosswalks, etc. The crashes are likely mainly driver error.

Another location showing crashes higher than the statewide average is Union Road and Brick Church Road. The higher rate of crashes at this location can likely be attributed to the offset eastern and western legs of the intersection and the fact that many drivers find all-way stop locations confusing.

As the Project will not generate a significant amount of peak hour traffic, it is not projected to have a significant impact on future crashes in the area.

CONCLUSION

Based upon the information contained herein including the limited amount of traffic to be generated by the Project, it is the considered professional opinion of DTS Provident that the traffic associated with the proposed Project will not have an adverse impact upon the adjacent roadway network. There are some unsignalized intersections that operate with some delays for left turns, but this is unrelated to the Project.

Very truly yours,
DTS Provident Design Engineering, LLP

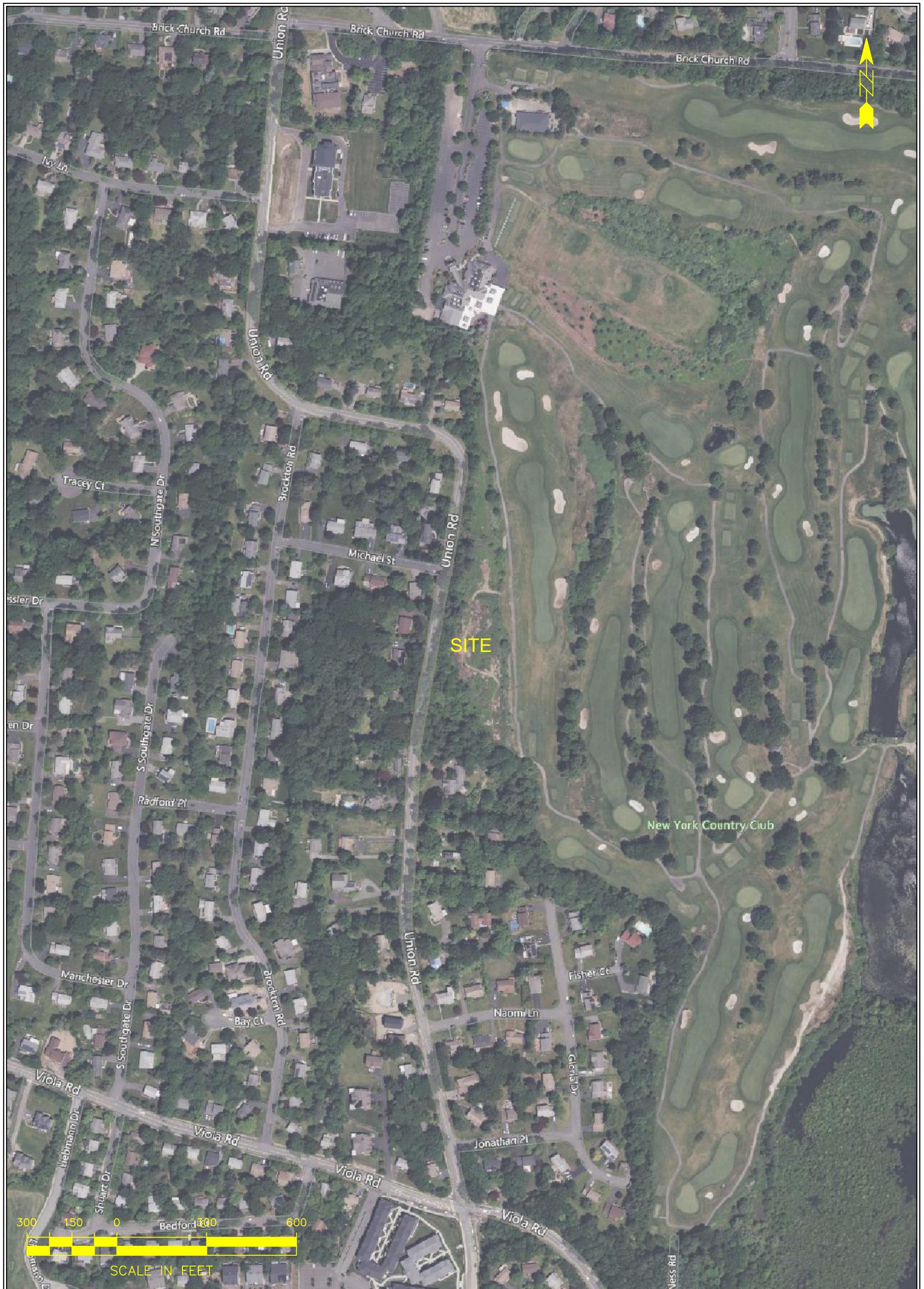


Brian E. Dempsey P.E., P.T.O.E., RSP1
Partner



Brian Haggarty EIT

APPENDIX A
TRAFFIC FIGURES



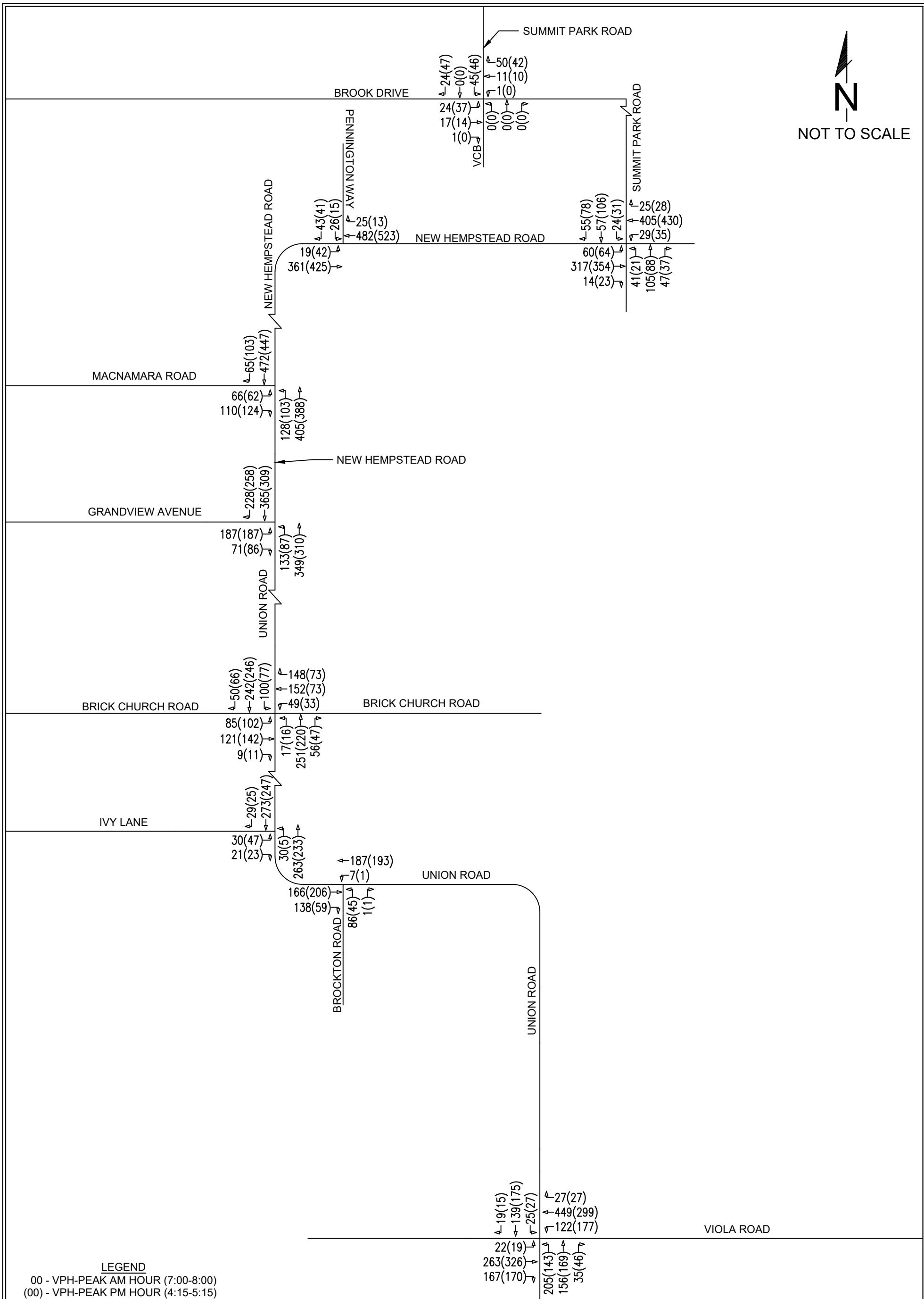
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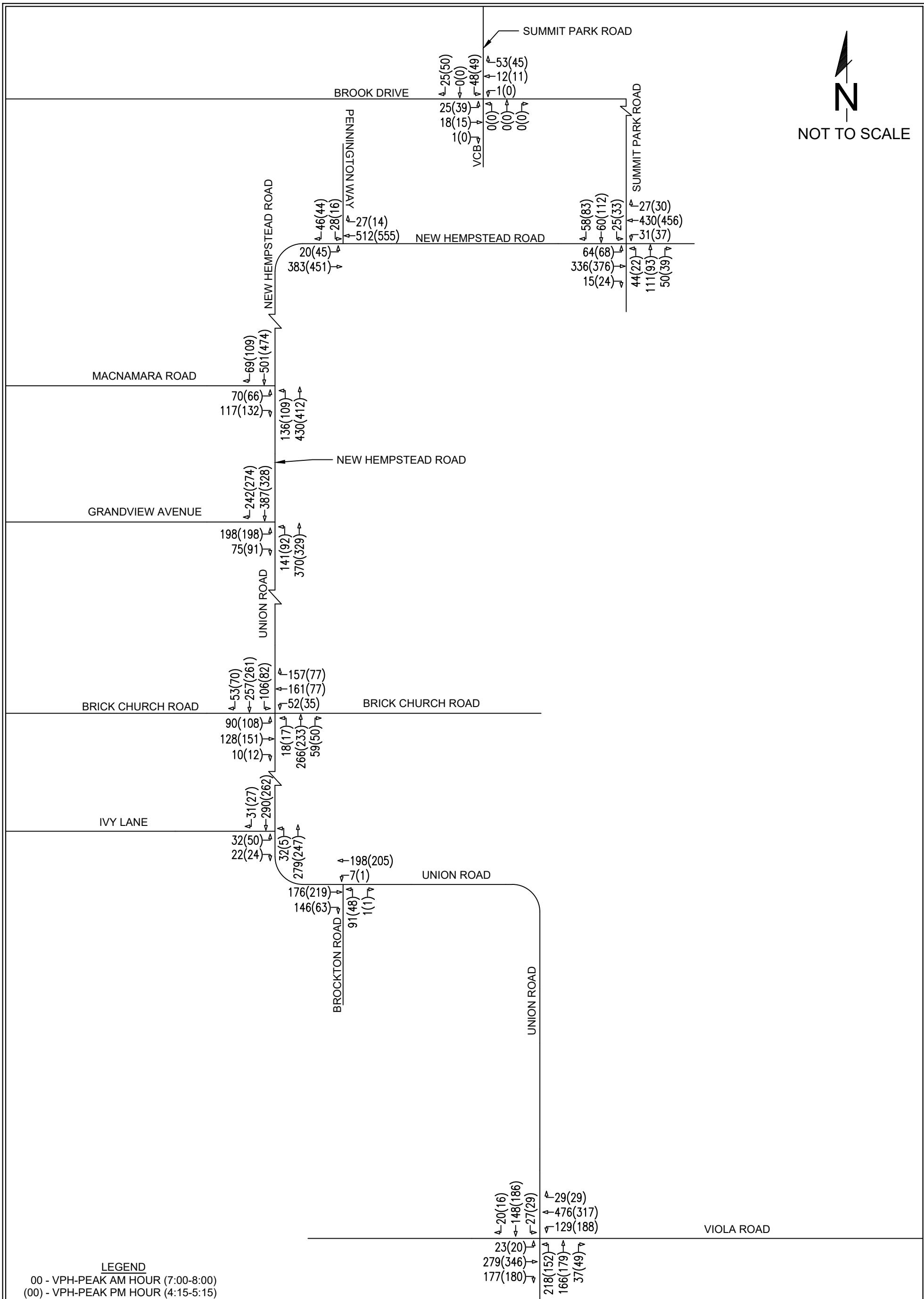
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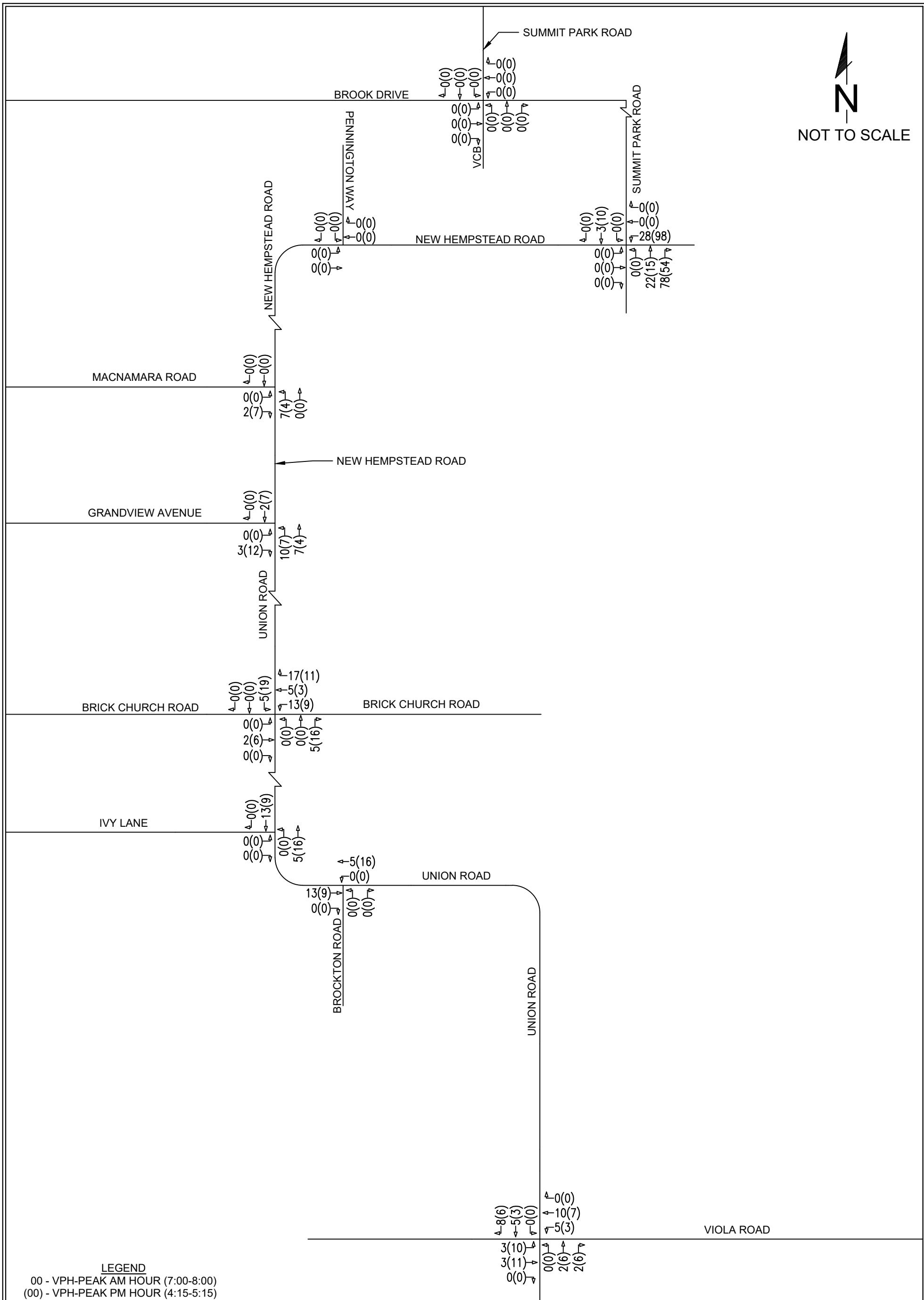
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Scale: 1"=300'
November, 2024

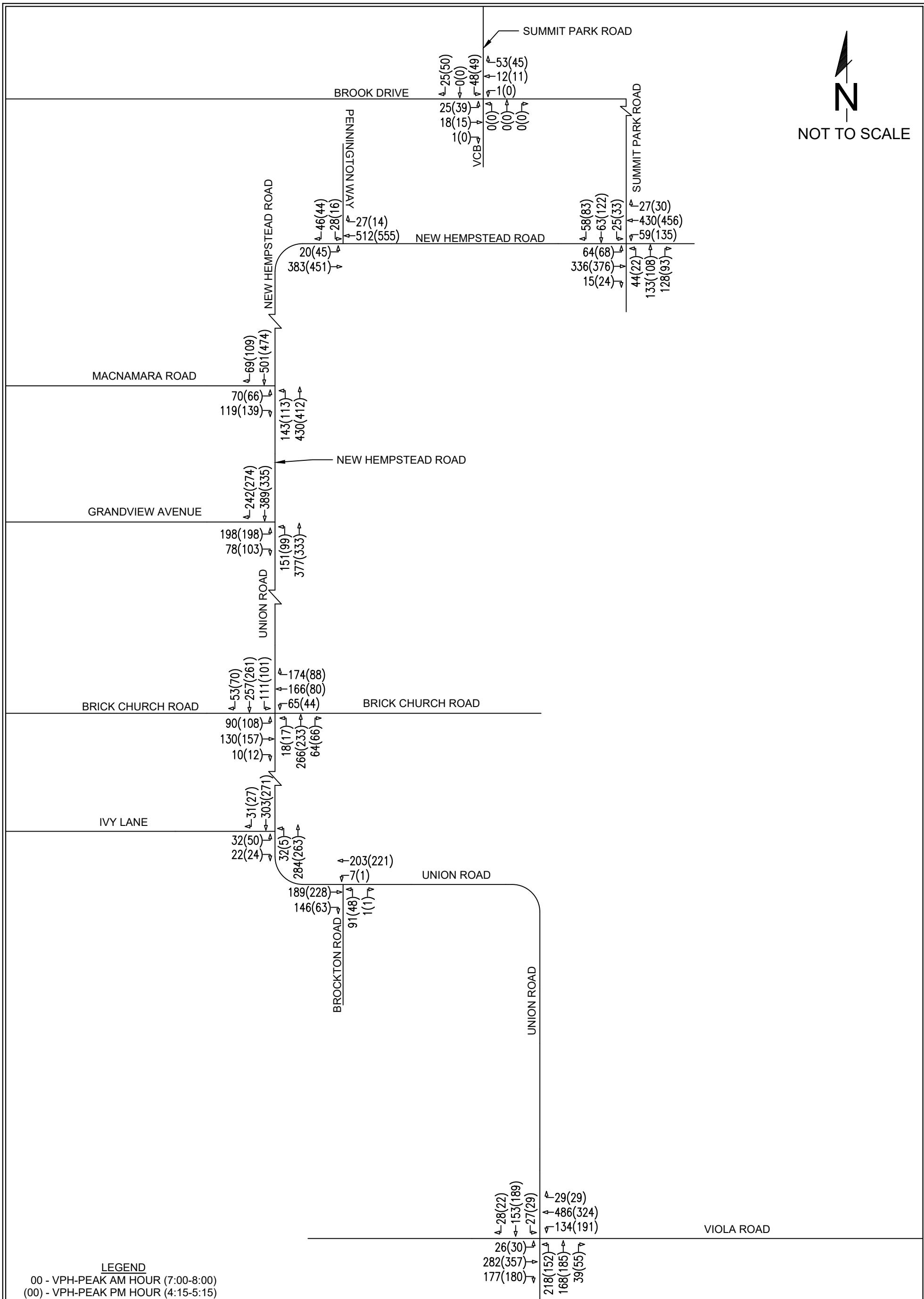
Site Location
Union Road Townhomes
Village of New Hempstead, Rockland County, New York

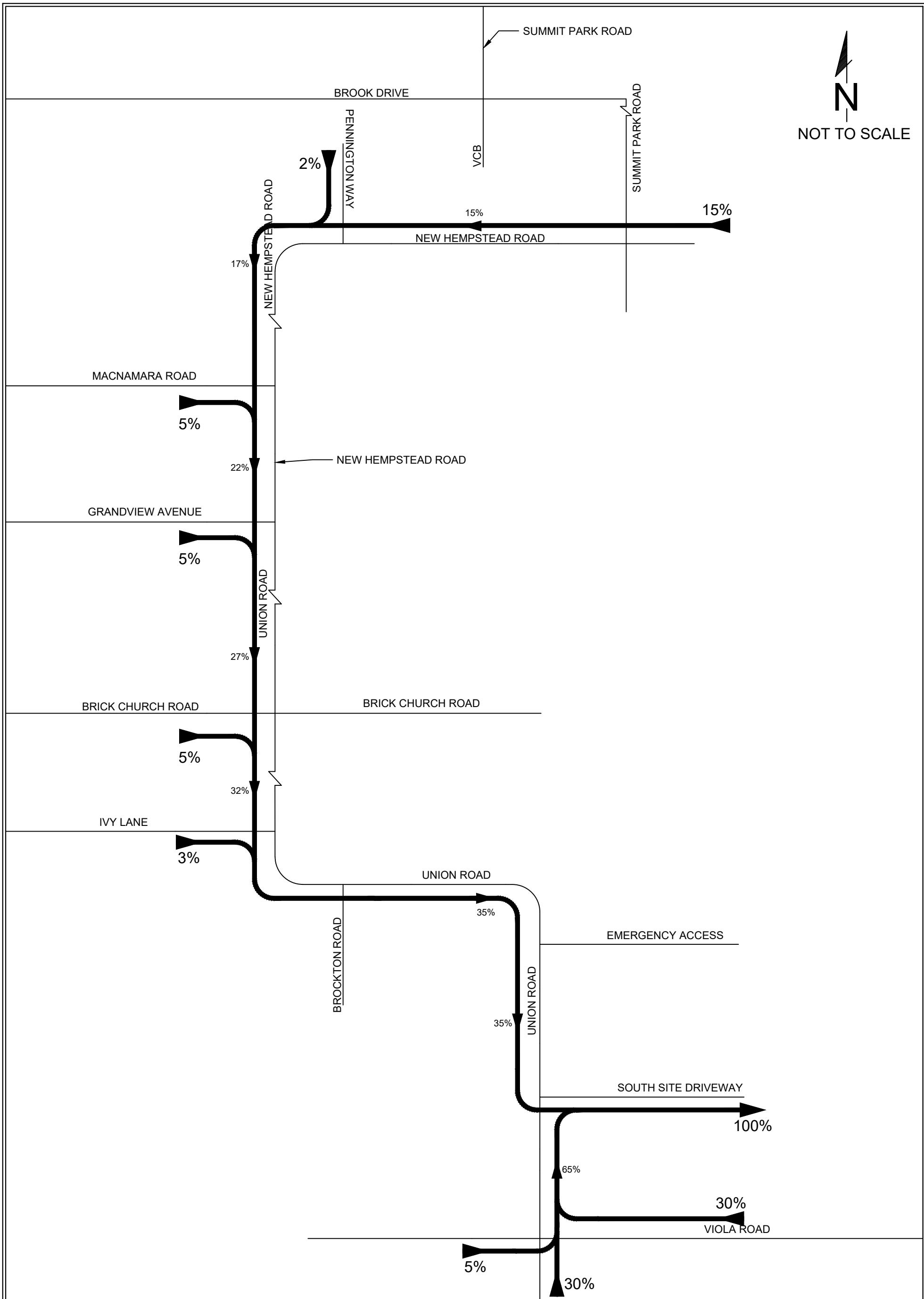
Figure No. 01

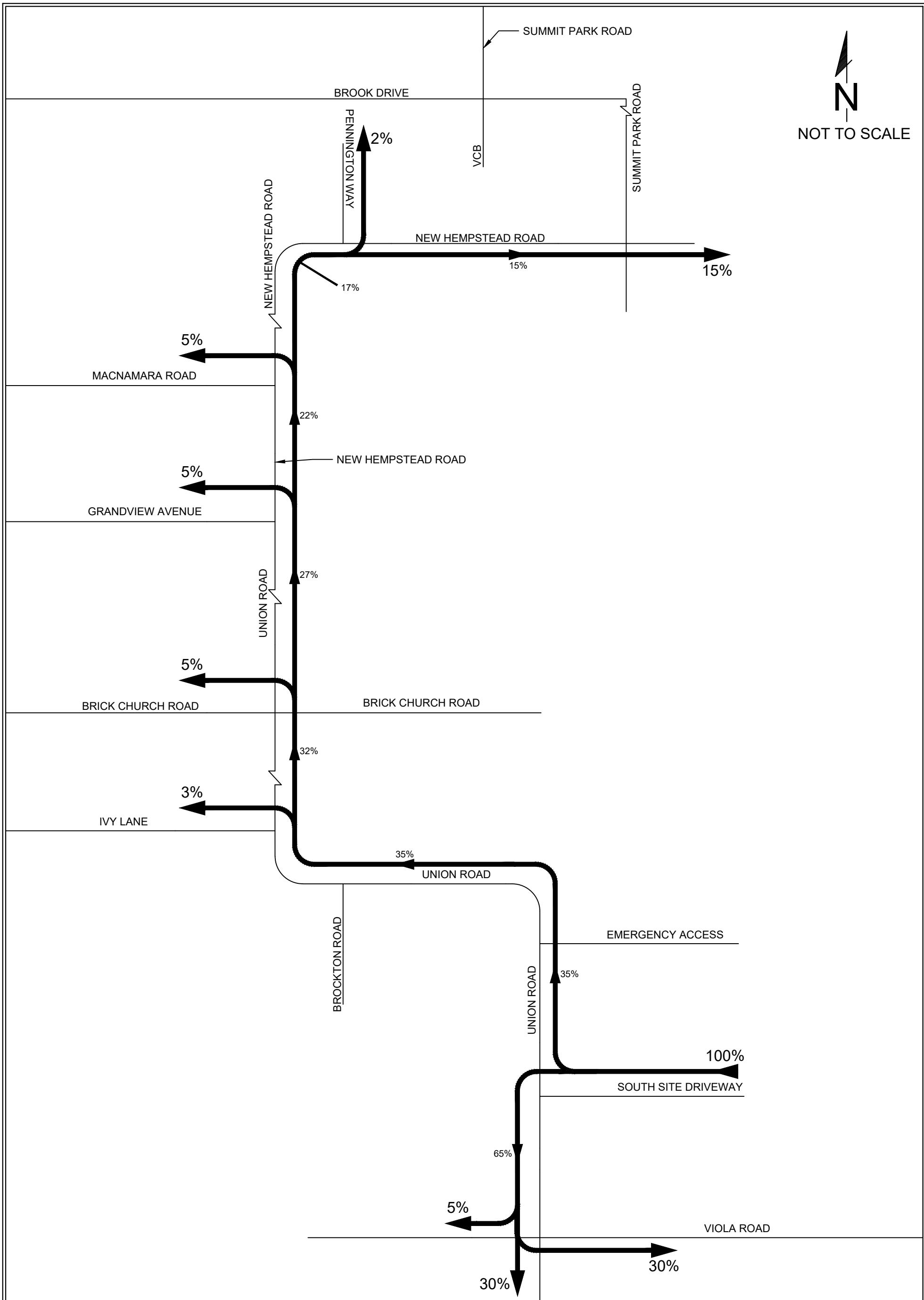


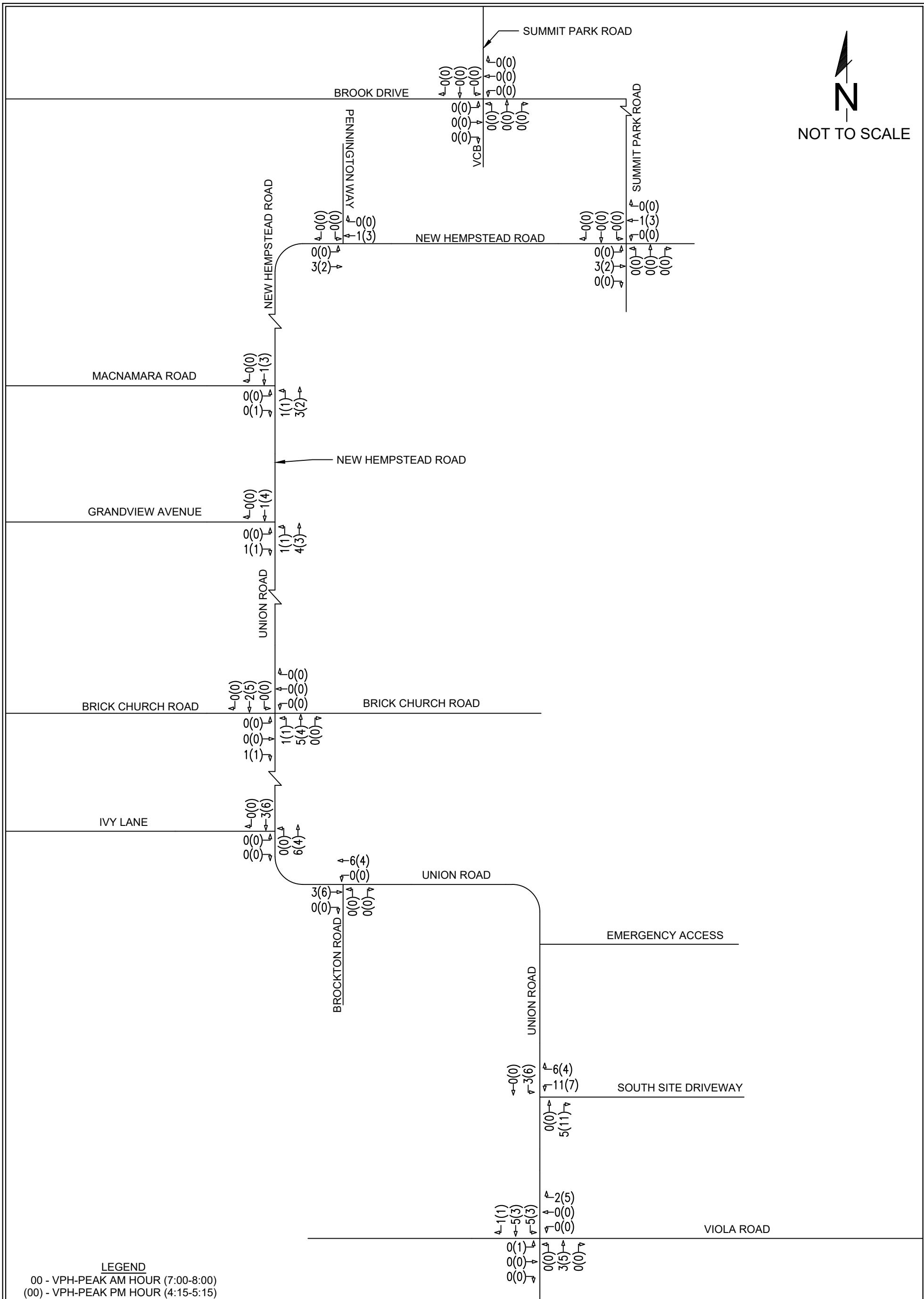


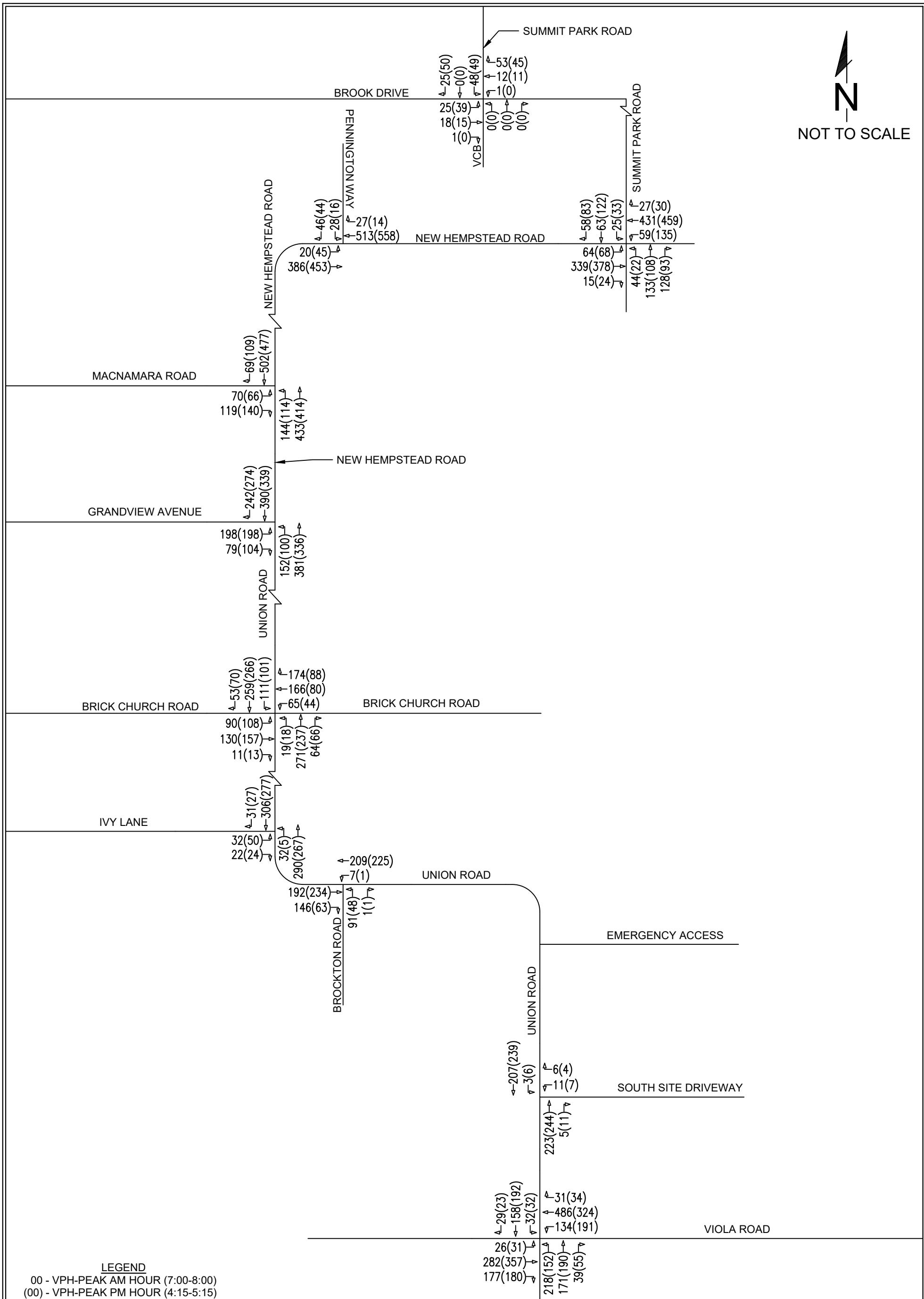












APPENDIX B

LEVEL OF SERVICE SUMMARY

TABLES

TABLE NO. 1
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
SUMMIT PARK ROAD AND BROOK DRIVE

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weekday Peak AM Hour (7 AM - 8 AM)						
Brook Drive EB Approach Left/Thru/Right	7.5	a	7.6	a	7.6	a
Summit Park Road WB Approach Left/Thru/Right	7.0	a	7.0	a	7.0	a
Summit Park Road NB Approach Left/Thru/Right	7.2	a	7.3	a	7.3	a
VCB Driveway SB Approach Left/Thru/Right	7.5	a	7.6	a	7.6	a
OVERALL	7.3	a	7.4	a	7.4	a
Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)						
Brook Drive EB Approach Left/Thru/Right	7.8	a	7.9	a	7.9	a
Summit Park Road WB Approach Left/Thru/Right	7.1	a	7.2	a	7.2	a
Summit Park Road NB Approach Left/Thru/Right	7.4	a	7.4	a	7.4	a
VCB Driveway SB Approach Left/Thru/Right	7.8	a	7.8	a	7.8	a
OVERALL	7.6	a	7.7	a	7.7	a

TABLE NO. 2
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
NEW HEMPSTEAD ROAD AND SUMMIT PARK ROAD/HEMPSTEAD ROAD

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weekday Peak AM Hour (7 AM - 8 AM)						
New Hempstead Road EB Approach Left/Thru/Right	15.4	B	16.0	B	16.1	B
New Hempstead Road WB Approach Left/Thru/Right	14.0	B	15.0	B	15.0	B
Hempstead Road NB Approach Left/Thru/Right	18.4	B	21.2	C	21.2	C
Summit Park Road SB Approach Left/Thru/Right	17.2	B	17.4	B	17.4	B
OVERALL	15.5	B	16.9	B	16.9	B
Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)						
New Hempstead Road EB Approach Left/Thru/Right	16.5	B	18.4	B	18.5	B
New Hempstead Road WB Approach Left/Thru/Right	14.5	B	22.3	C	22.5	C
Hempstead Road NB Approach Left/Thru/Right	17.6	B	19.2	B	19.2	B
Summit Park Road SB Approach Left/Thru/Right	18.6	B	19.0	B	19.0	B
OVERALL	16.2	B	20.2	C	20.3	C

TABLE NO. 3
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
NEW HEMPSTEAD ROAD AND PENNINGTON WAY

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weekday Peak AM Hour (7 AM - 8 AM)						
New Hempstead Road EB Approach Left/Thru	8.6	a	8.7	a	8.7	a
New Hempstead Road WB Approach Right/Thru	0.0	a	0.0	a	0.0	a
Pennington Way SB Approach Left/Right	16.0	c	17.1	c	17.2	c
OVERALL	1.3	a	1.4	a	1.4	a
Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)						
New Hempstead Road EB Approach Left/Thru	8.7	a	8.9	a	8.9	a
New Hempstead Road WB Approach Right/Thru	0.0	a	0.0	a	0.0	a
Pennington Way SB Approach Left/Right	15.8	c	16.9	c	16.9	c
OVERALL	1.2	a	1.3	a	1.3	a

TABLE NO. 4
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
NEW HEMPSTEAD ROAD/UNION ROAD AND McNAMARA ROAD

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weekday Peak AM Hour (7 AM - 8 AM)						
McNamara Road EB Approach Left/Right	40.0	e	60.2	f	60.4	f
New Hempstead Road SB Approach Thru/Right	0.0	a	0.0	a	0.0	a
Union Road NB Approach Left/Thru	9.3	a	9.6	a	9.6	a
OVERALL	6.6	a	9.6	a	9.6	a
Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)						
McNamara Road EB Approach Left/Right	29.9	d	39.6	e	40.6	e
New Hempstead Road SB Approach Thru/Right	0.0	a	0.0	a	0.0	a
Union Road NB Approach Left/Thru	9.1	a	9.3	a	9.3	a
OVERALL	5.3	a	7.0	a	7.1	a

TABLE NO. 5
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
UNION ROAD AND GRANDVIEW AVENUE

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
<i>Weekday Peak AM Hour (7 AM - 8 AM)</i>						
<i>Grandview Avenue EB Approach Left/Right</i>	224.9	f	381.5	f	392.0	f
<i>Union Road SB Approach Thru/Right</i>	0.0	a	0.0	a	0.0	a
<i>Union Road NB Approach Left/Thru</i>	9.7	a	10.0	a	10.0	a
OVERALL	44.5	e	74.4	f	76.4	f
<i>Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)</i>						
<i>Grandview Avenue EB Approach Left/Right</i>	85.4	f	161.1	f	168.7	f
<i>Union Road SB Approach Thru/Right</i>	0.0	a	0.0	a	0.0	a
<i>Union Road NB Approach Left/Thru</i>	9.3	a	9.6	a	9.6	a
OVERALL	19.5	c	36.8	e	38.4	e

TABLE NO. 6
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
UNION ROAD AND BRICK CHURCH ROAD

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weekday Peak AM Hour (7 AM - 8 AM)						
Brick Church Road EB Approach Left/Thru/Right	23.6	c	30.9	d	31.2	d
Brick Church Road W/B Approach Left/Thru/Right	43.9	e	87.3	f	87.5	f
Union Road NB Approach Left/Thru/Right	40.1	e	63.3	f	66.2	f
Union Road SB Approach Left/Thru/Right	59.6	f	104.5	f	106.3	f
OVERALL	44.3	e	77.3	f	78.6	f
Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)						
Brick Church Road EB Approach Left/Thru/Right	21.0	c	30.6	d	30.8	d
Brick Church Road W/B Approach Left/Thru/Right	15.8	c	21.8	c	21.8	c
Union Road NB Approach Left/Thru/Right	24.6	c	40.8	e	42.0	e
Union Road SB Approach Left/Thru/Right	35.5	e	81.3	f	87.9	f
OVERALL	26.2	d	49.4	e	52.1	f

TABLE NO. 7
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
IVY LANE AND UNION ROAD

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
<i>Weekday Peak AM Hour (7 AM - 8 AM)</i>						
Ivy Lane EB Approach Left/Right	12.2	b	12.8	b	12.9	b
Union Road NB Approach Left/Thru	8.0	a	8.1	a	8.1	a
Union Road SB Approach Right/Thru	0.0	a	0.0	a	0.0	a
OVERALL	1.3	a	1.4	a	1.3	a
<i>Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)</i>						
Ivy Lane EB Approach Left/Right	12.0	b	12.6	b	12.7	b
Union Road NB Approach Left/Thru	7.9	a	7.9	a	7.9	a
Union Road SB Approach Right/Thru	0.0	a	0.0	a	0.0	a
OVERALL	1.5	a	1.5	a	1.5	a

TABLE NO. 8
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
UNION ROAD AND BROCKTON ROAD

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
<i>Weekday Peak AM Hour (7 AM - 8 AM)</i>						
Union Road EB Approach Thru/Right	0.0	a	0.0	a	0.0	a
Union Road WB Approach Left/Thru	7.9	a	8.0	a	8.0	a
Brockton Road NB Approach Left/Right	14.9	b	16.1	c	16.3	c
OVERALL	2.3	a	2.4	a	2.4	a
<i>Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)</i>						
Union Road EB Approach Thru/Right	0.0	a	0.0	a	0.0	a
Union Road WB Approach Left/Thru	7.8	a	7.9	a	7.9	a
Brockton Road NB Approach Left/Right	13.8	b	14.9	b	15.1	c
OVERALL	1.3	a	1.3	a	1.3	a

TABLE NO. 9
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
UNION ROAD AND SITE DRIVEWAY

	2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS
<i>Weekday Peak AM Hour (7 AM - 8 AM)</i>		
<i>Site Driveway WB Approach Left/Right</i>	11.1	b
<i>Union Road NB Approach Thru/Right</i>	0.0	a
<i>Union Road SB Approach Left/Thru</i>	7.7	a
OVERALL	0.5	a
<i>Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)</i>		
<i>Site Driveway WB Approach Left/Right</i>	11.4	b
<i>Union Road NB Approach Thru/Right</i>	0.0	a
<i>Union Road SB Approach Left/Thru</i>	7.8	a
OVERALL	0.3	a

TABLE NO. 10
INTERSECTION CAPACITY ANALYSIS RESULTS SUMMARY TABLE
UNION ROAD AND VIOLA ROAD

	2024 EXISTING		2027 NO-BUILD		2027 BUILD SENIOR HOUSING	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Weekday Peak AM Hour (7 AM - 8 AM)						
Viola Road EB Left	16.4	B	17.3	B	17.3	B
Viola Road EB Thru/Right	17.4	B	18.0	B	18.0	B
<i>Viola Road EB Approach</i>	17.4	B	18.0	B	18.0	B
Viola Road WB Left	29.0	C	30.0	C	30.0	C
Viola Road WB Thru/Right	42.8	D	49.0	D	49.5	D
<i>Viola Road WB Approach</i>	40.0	D	45.1	D	45.5	D
Union Road NB Left	33.4	C	36.1	D	36.5	D
Union Road NB Thru/Right	24.2	C	24.6	C	24.7	C
<i>Union Road NB Approach</i>	29.0	C	30.5	C	30.7	C
Union Road SB Left	26.7	C	27.4	C	27.6	C
Union Road SB Thru/Right	23.4	C	24.0	C	24.1	C
<i>Union Road SB Approach</i>	23.9	C	24.4	C	24.6	C
OVERALL	29.2	C	31.7	C	31.9	C
Weekday Peak Afternoon Hour (4:15 PM - 5:15 PM)						
Viola Road EB Left	13.6	B	14.0	B	14.1	B
Viola Road EB Thru/Right	17.7	B	18.7	B	18.7	B
<i>Viola Road EB Approach</i>	17.6	B	18.4	B	18.4	B
Viola Road WB Left	31.7	C	35.9	D	35.9	D
Viola Road WB Thru/Right	29.7	C	30.7	C	30.9	C
<i>Viola Road WB Approach</i>	30.4	C	32.5	C	32.6	C
Union Road NB Left	34.2	C	36.3	D	36.5	D
Union Road NB Thru/Right	26.7	C	27.5	C	27.6	C
<i>Union Road NB Approach</i>	29.7	C	30.9	C	31.0	C
Union Road SB Left	29.7	C	30.9	C	31.2	C
Union Road SB Thru/Right	26.0	C	26.6	C	26.7	C
<i>Union Road SB Approach</i>	26.4	C	27.1	C	27.3	C
OVERALL	25.5	C	26.8	C	26.9	C

APPENDIX C

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE DEFINITIONS

CONCEPT

The Highway Capacity Manual, published by the Transportation Research Board of the U.S. Government, established a system by which highway facilities are examined for their adequacy to handle traffic volumes. The terminology "Level of Service" is used to provide a "qualitative" evaluation based on certain "quantitative" calculations which are related to empirical values.

Intersection Capacity, Delay and resultant Levels of Service are dependent upon a number of factors, including the following:

- Area Type
- Intersection geometrics
- Traffic volumes
- Parking conditions
- Pedestrian activity
- Vehicle Mix
- Bus Stop location and activity
- Peak Hour Factor
- Traffic Signal operation, if applicable

Ramp and weaving area Densities and resultant Levels of Service are dependent upon a number of factors, including the following:

- Number of lanes
- Configuration of weaving area
- Length of acceleration/deceleration lanes
- Vehicle speeds
- Traffic volumes
- Vehicle Mix
- Peak Hour Factor

FACTORS

SIGNALIZED INTERSECTIONS

Level of Service for Signalized Intersections is defined in terms of Delay, which is a measure of driver discomfort, frustration, fuel consumption, and loss of travel time. Specifically, Level of Service criteria are stated in terms of the Average Control Delay per vehicle for the peak 15-minute period within the hour analyzed.

Delay is a complex measure and is dependent upon a number of variables, including:

- Cycle length
- Ratio of Green time to Cycle length (G/C)

- Ratio of Volume to Capacity (V/C) for lane group or approach
- Traffic signal progression

UNSIGNALIZED INTERSECTIONS

Level of Service for Unsignalized Intersections is also defined in terms of Delay. The amount of Delay is based upon the availability of "gaps" in the mainline traffic stream and the acceptance of these gaps by motorists waiting on the side street to enter the main street traffic flow.

ROUNDABOUTS

Level of Service for Roundabout Intersections is also defined in terms of Delay. The amount of Delay is based upon the availability of "gaps" in the roundabout traffic stream and the acceptance of these gaps by motorists waiting on the roundabout approach legs to enter the roundabout traffic flow.

RAMP AND RAMP JUNCTIONS

Level of Service for ramp freeway junctions and the ramp proper are defined in terms of Density (passenger cars per mile per lane). Density is related to the traffic flow in the area of influence.

WEAVING AREAS

Level of Service for weaving areas is defined in terms of Density (passenger cars per mile per lane). Density is based on the ratio of weaving vehicles to non-weaving vehicles and on vehicle speeds in the weaving area of influence

CRITERIA

The criteria for the various Level of Service designations are as follows:

	SIGNALIZED	UNSIGNALIZED/ROUNABOUT
LEVEL OF SERVICE	Average Control Delay per Vehicle (Seconds)	Average Control Delay per Vehicle (Seconds)
A	10.0 or less	10.0 or less
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	80.1 or greater	50.1 or greater

	RAMP-FREEWAY JUNCTION	RAMP PROPER	WEAVING AREAS	
LEVEL OF SERVICE	Maximum Density (pc/mi/ln)	Density Range (pc/mi/ln)	Maximum Density (pc/mi/ln)	
			Freeway Weaving Area	Multi-lane + C-D Weaving Area
A	≤ 10	≤ 11	≤ 10	≤ 12
B	$>10 - 20$	$>11 - 18$	$>10 - 20$	$>12 - 24$
C	$>20 - 28$	$>18 - 26$	$> 20 - 28$	$>24 - 32$
D	$>28 - 35$	$>26 - 35$	$>28 - 35$	$>32 - 36$
E	>35	$>35 - 45$	$>35 - 43$	$>36 - 40$
F	Demand exceeds capacity	>45	>43	>40

DESCRIPTION

The following is a brief description of each of the six Level of Service designations as defined by the Highway Capacity Manual:

SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE A

Average Control Delay - 10.0 secs. or less

Describes operations with very low delay. Occurs when progression is extremely favorable and most vehicles arrive during the Green Phase and do not stop at all. Short cycle lengths may also contribute to low delay.

LEVEL OF SERVICE B

Average Control Delay - 10.1 to 20.0 secs.

Generally occurs with good progression and/or short cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average delay.

LEVEL OF SERVICE C

Average Control Delay - 20.1 to 35.0 secs.

Higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this Level of Service. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.

LEVEL OF SERVICE D

Average Control Delay - 35.1 to 55.0 secs.

The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high Volume/Capacity (V/C) Ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

LEVEL OF SERVICE E

Average Control Delay - 55.1 to 80.0 secs.

The limit of acceptable delay.

Higher delay values generally indicate poor progression, long cycle lengths, and high V/C Ratios. Individual cycle failures are frequent occurrences.

LEVEL OF SERVICE F

Average Control Delay - in excess of 80.0 secs.

Unacceptable to most drivers.

Occurs with oversaturation, i.e., arrival flow rates exceed the capacity of the intersection. May also occur at high V/C Ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.

UNSIGNALIZED/ROUNDABOUT INTERSECTIONS

LEVEL OF SERVICE A

Average Control Delay - 10.0 secs. or less

Operations with little or no delay to minor turning movements.

LEVEL OF SERVICE B

Average Control Delay - 10.1 to 15.0 secs.

Operations with short delays on minor turning movements.

LEVEL OF SERVICE C

Average Control Delay - 15.1 to 25.0 secs.

Operations with average delays on minor turning movements.

LEVEL OF SERVICE D

Average Control Delay - 25.1 to 35.0 secs.

Operations with some delays on minor turning movements.

LEVEL OF SERVICE E

Average Control Delay - 35.1 to 50.0 secs.

Operations with long delays on minor turning movements.

LEVEL OF SERVICE F

Average Control Delay - In excess of 50.0 secs.

Operations where demand exceeds capacity. Very long delays with queuing may be experienced on the minor street approach.

RAMPS AND RAMP JUNCTIONS

LEVEL OF SERVICE A

Maximum Density - 10 pc/mi/ln

Unrestricted operations with no noticeable turbulence in the ramp influence area.

LEVEL OF SERVICE B

Maximum Density - 20 pc/mi/ln

Minimal levels of turbulence exist and speeds of vehicles in the influence area begin to decline.

LEVEL OF SERVICE C

Maximum Density - 28 pc/mi/ln

Level of turbulence becomes noticeable as average speed within the influence area declines. Driving conditions are still relatively comfortable at this level.

LEVEL OF SERVICE D

Maximum Density - 35 pc/mi/ln

Turbulence levels become intrusive. Queues may form on some high volume on-ramps but freeway operation remains stable.

LEVEL OF SERVICE E

Maximum Density - >35 pc/mi/ln

Conditions approaching and reaching capacity. Speeds are reduced and turbulence of merging/diverging vehicles becomes intrusive to all vehicles in the influence area. Flow levels approach capacity limits and minor changes in demand can cause ramp and freeway queues to occur.

LEVEL OF SERVICE F

Maximum Density – Demand flow exceeds limits

Unstable, or breakdown, operation. Approaching demand flows exceed the discharge capacity of the downstream freeway or ramp. Queues are visibly formed on the freeway and on-ramps and will continue to grow as long as the approaching demand exceeds the discharge capacity.

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APPENDIX D
CAPACITY ANALYSIS SHEETS

Intersection

Intersection Delay, s/veh 7.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	24	17	1	1	11	50	0	0	0	45	0	24
Future Vol, veh/h	24	17	1	1	11	50	0	0	0	45	0	24
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	12	0	0	0	2	0	0	0	0	0	8
Mvmt Flow	29	21	1	1	13	61	0	0	0	55	0	29
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB		SB			
Opposing Approach	WB			EB			SB		NB			
Opposing Lanes	1			1			1		1			
Conflicting Approach Left	SB			NB			EB		WB			
Conflicting Lanes Left	1			1			1		1			
Conflicting Approach Right	NB			SB			WB		EB			
Conflicting Lanes Right	1			1			1		1			
HCM Control Delay, s/veh	7.5			7			0		7.5			
HCM LOS	A			A			-		A			

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	57%	2%	65%
Vol Thru, %	100%	40%	18%	0%
Vol Right, %	0%	2%	81%	35%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	42	62	69
LT Vol	0	24	1	45
Through Vol	0	17	11	0
RT Vol	0	1	50	24
Lane Flow Rate	0	51	76	84
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.06	0.076	0.094
Departure Headway (Hd)	4.186	4.206	3.606	4.04
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	848	986	883
Service Time	2.248	2.252	1.656	2.084
HCM Lane V/C Ratio	0	0.06	0.077	0.095
HCM Control Delay, s/veh	7.2	7.5	7	7.5
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.2	0.2	0.3

Intersection

Intersection Delay, s/veh 44.3

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	85	121	9	49	152	148	17	251	56	100	242	50
Future Vol, veh/h	85	121	9	49	152	148	17	251	56	100	242	50
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	8	13	33	18	7	7	24	15	20	13	12	16
Mvmt Flow	91	130	10	53	163	159	18	270	60	108	260	54
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	23.6			43.9			40.1			59.6		
HCM LOS	C			E			E			F		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	40%	14%	26%
Vol Thru, %	77%	56%	44%	62%
Vol Right, %	17%	4%	42%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	324	215	349	392
LT Vol	17	85	49	100
Through Vol	251	121	152	242
RT Vol	56	9	148	50
Lane Flow Rate	348	231	375	422
Geometry Grp	1	1	1	1
Degree of Util (X)	0.819	0.575	0.856	0.948
Departure Headway (Hd)	8.465	8.947	8.209	8.097
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	429	402	443	447
Service Time	6.52	7.034	6.259	6.147
HCM Lane V/C Ratio	0.811	0.575	0.847	0.944
HCM Control Delay, s/veh	40.1	23.6	43.9	59.6
HCM Lane LOS	E	C	E	F
HCM 95th-tile Q	7.6	3.5	8.5	11.2

HCM 7th Signalized Intersection Capacity Analysis
7: Hempstead Road/Summit Park Road & New Hempstead Road

2024 Existing
Timing Plan: Peak AM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	317	14	29	405	25	41	105	47	24	57	55
Future Volume (veh/h)	60	317	14	29	405	25	41	105	47	24	57	55
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1688	1614	1688	2091	2061	2076	1909	1924	1879	2076	2076	2106
Adj Flow Rate, veh/h	62	330	15	30	422	26	43	109	49	25	59	57
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	5	0	3	5	4	2	1	4	4	4	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	130	612	26	84	884	53	151	363	146	131	307	257
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
Prop Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	15.4	0.0	0.0	14.0	0.0	0.0	18.4	0.0	0.0	17.2	0.0	0.0
Ln Grp LOS	B			B			B			B		
Approach Vol, veh/h		407			478			201			141	
Approach Delay, s/veh		15.4			14.0			18.4			17.2	
Approach LOS		B			B			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Case No		8.0		8.0		8.0		8.0				
Phs Duration (G+Y+Rc), s		41.0		31.0		41.0		31.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green (Gmax), s		35.0		25.0		35.0		25.0				
Max Allow Headway (MAH), s		5.5		5.5		5.3		5.4				
Max Q Clear (g_c+l1), s		14.9		5.7		13.3		7.8				
Green Ext Time (g_e), s		2.7		0.7		3.2		1.0				
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt		5		7		1		3				
Mvmt Sat Flow, veh/h		149		209		64		259				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1258		883		1818		1047				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		54		741		108		421				
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
 7: Hempstead Road/Summit Park Road & New Hempstead Road

2024 Existing
 Timing Plan: Peak AM Hour

Lane Assignment	L+T+R	L+T+R	L+T+R	L+T+R
Lanes in Grp	0	1	0	1
Grp Vol (v), veh/h	0	407	0	141
Grp Sat Flow (s), veh/h/ln	0	1462	0	1832
Q Serve Time (g_s), s	0.0	1.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	12.9	0.0	3.7
Perm LT Sat Flow (s_l), veh/h/ln	0	955	0	1247
Shared LT Sat Flow (s_sh), veh/h/ln	0	1601	0	2057
Perm LT Eff Green (g_p), s	0.0	35.0	0.0	25.0
Perm LT Serve Time (g_u), s	0.0	23.7	0.0	19.2
Perm LT Q Serve Time (g_ps), s	0.0	1.5	0.0	0.0
Time to First Blk (g_f), s	0.0	10.5	0.0	8.5
Serve Time pre Blk (g_fs), s	0.0	10.5	0.0	3.7
Prop LT Inside Lane (P_L)	0.00	0.15	0.00	0.18
Lane Grp Cap (c), veh/h	0	768	0	695
V/C Ratio (X)	0.00	0.53	0.00	0.20
Avail Cap (c_a), veh/h	0	768	0	695
Upstream Filter (l)	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	12.7	0.0	16.5
Incr Delay (d2), s/veh	0.0	2.6	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	15.4	0.0	17.2
1st-Term Q (Q1), veh/ln	0.0	4.0	0.0	1.5
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	4.6	0.0	1.7
%ile Storage Ratio (RQ%)	0.00	0.06	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0

Middle Lane Group Data	0	2	0	4	0	6	0	8
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
 7: Hempstead Road/Summit Park Road & New Hempstead Road

2024 Existing
 Timing Plan: Peak AM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.04	0.00	0.40	0.00	0.05	0.00	0.24
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	15.5
HCM 7th LOS	B

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2024 Existing
Timing Plan: Peak AM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (veh/h)	22	263	167	122	449	27	205	156	35	25	139	19
Future Volume (veh/h)	22	263	167	122	449	27	205	156	35	25	139	19
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	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		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1826	1856	1870	1904	1904	1919	1909	1849	1804	1939	1849	1864
Adj Flow Rate, veh/h	23	271	172	126	463	28	211	161	36	26	143	20
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	3	2	5	5	4	2	6	9	0	6	5
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	421	551	349	379	568	34	442	527	118	417	571	80
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
Prop Arrive On Green	0.16	0.52	0.52	0.32	0.32	0.32	0.36	0.36	0.36	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.4	0.0	17.4	29.0	0.0	42.8	33.4	0.0	24.2	26.7	0.0	23.4
Ln Grp LOS	B		B	C		D	C		C	C		C
Approach Vol, veh/h	466			617			408			189		
Approach Delay, s/veh	17.4			40.0			29.0			23.9		
Approach LOS	B			D			C			C		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Case No		4.0		6.0	1.2	6.3		6.0				
Phs Duration (G+Y+Rc), s	58.0		42.0	20.0	38.0		42.0					
Change Period (Y+Rc), s	6.0		6.0	4.0	6.0		6.0					
Max Green (Gmax), s	52.0		36.0	16.0	32.0		36.0					
Max Allow Headway (MAH), s	5.4		5.1	3.8	5.2		4.7					
Max Q Clear (g_c+l1), s	18.5		11.5	2.7	26.0		22.7					
Green Ext Time (g_e), s	3.2		1.0	0.0	2.0		1.6					
Prob of Phs Call (p_c)	1.00		1.00	1.00	1.00		1.00					
Prob of Max Out (p_x)	0.00		0.00	0.00	0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt			7	5	1		3					
Mvmt Sat Flow, veh/h			1229	1739	959		1247					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1059		1587		1776		1463				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		672		222		107		327				
Left Lane Group Data												
Assigned Mvmt	0	0	0	7	5	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

22: Viola Road & Union Road

2024 Existing

Timing Plan: Peak AM Hour

Lane Assignment			LL (Pr/Pm)	L	L	
Lanes in Grp	0	0	0	1	1	0
Grp Vol (v), veh/h	0	0	0	26	23	126
Grp Sat Flow (s), veh/h/ln	0	0	0	1229	1739	959
Q Serve Time (g_s), s	0.0	0.0	0.0	1.6	0.7	10.3
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	9.5	0.7	10.3
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1229	884	959
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	36.0	34.0	32.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	28.1	8.0	32.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	1.6	0.7	10.3
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	417	421	379
V/C Ratio (X)	0.00	0.00	0.00	0.06	0.05	0.33
Avail Cap (c_a), veh/h	0	0	0	417	421	379
Upstream Filter (l)	0.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	26.4	16.1	26.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.2	2.3
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	26.7	16.4	29.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.5	0.3	2.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.5	0.3	2.6
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.01	0.01	0.12
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2024 Existing
Timing Plan: Peak AM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data							
Assigned Mvmt	0	12	0	14	0	16	0
Lane Assignment		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0
Grp Vol (v), veh/h	0	443	0	163	0	491	0
Grp Sat Flow (s), veh/h/ln	0	1731	0	1809	0	1883	0
Q Serve Time (g_s), s	0.0	16.5	0.0	6.3	0.0	24.0	0.0
Cycle Q Clear Time (g_c), s	0.0	16.5	0.0	6.3	0.0	24.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.39	0.00	0.12	0.00	0.06	0.00
Lane Grp Cap (c), veh/h	0	900	0	651	0	603	0
V/C Ratio (X)	0.00	0.49	0.00	0.25	0.00	0.81	0.00
Avail Cap (c_a), veh/h	0	900	0	651	0	603	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	15.5	0.0	22.5	0.0	31.3	0.0
Incr Delay (d2), s/veh	0.0	1.9	0.0	0.9	0.0	11.5	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.4	0.0	23.4	0.0	42.8	0.0
1st-Term Q (Q1), veh/ln	0.0	6.2	0.0	2.7	0.0	10.6	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.2	0.0	1.9	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	6.7	0.0	2.8	0.0	12.6	0.0
%ile Storage Ratio (RQ%)	0.00	0.26	0.00	0.07	0.00	0.57	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary							
HCM 7th Control Delay, s/veh		29.2					
HCM 7th LOS		C					

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	361	482	25	26	43
Future Vol, veh/h	19	361	482	25	26	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	4	-	-1	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	5	4	0	4	2
Mvmt Flow	21	397	530	27	29	47
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	557	0	-	0	982	543
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	438	-
Critical Hdwy	4.1	-	-	-	6.24	6.12
Critical Hdwy Stg 1	-	-	-	-	5.24	-
Critical Hdwy Stg 2	-	-	-	-	5.24	-
Follow-up Hdwy	2.2	-	-	-	3.536	3.318
Pot Cap-1 Maneuver	1024	-	-	-	289	548
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	662	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1024	-	-	-	282	548
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	662	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0.43	-	0	15.96	-	-
HCM LOS	-	-	-	C	-	-
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	90	-	-	-	404	-
HCM Lane V/C Ratio	0.02	-	-	-	0.188	-
HCM Control Delay (s/veh)	8.6	0	-	-	16	-
HCM Lane LOS	A	A	-	-	C	-
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7	-

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	30	21	30	263	273	29
Future Vol, veh/h	30	21	30	263	273	29
Conflicting Peds, #/hr	0	3	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	1	-1	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	4	2	0
Mvmt Flow	32	22	32	280	290	31
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	653	313	325	0	-	0
Stage 1	310	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.1	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	485	751	1246	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	467	746	1241	-	-	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	761	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s/v	12.23	0.82	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	184	-	552	-	-	
HCM Lane V/C Ratio	0.026	-	0.098	-	-	
HCM Control Delay (s/veh)	8	0	12.2	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-	

Intersection						
Int Delay, s/veh	2.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↔	↔		
Traffic Vol, veh/h	166	138	7	187	86	1
Future Vol, veh/h	166	138	7	187	86	1
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	1	7	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	5	2	0
Mvmt Flow	177	147	7	199	91	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	329	0	470	256
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	214	-
Critical Hdwy	-	-	4.1	-	7.82	6.9
Critical Hdwy Stg 1	-	-	-	-	6.82	-
Critical Hdwy Stg 2	-	-	-	-	6.82	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1241	-	460	749
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1234	-	454	745
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	751	-
Approach	EB	WB	NB			
HCM Control Delay, s/v	0	0.29	14.89			
HCM LOS			B			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	456	-	-	65	-	
HCM Lane V/C Ratio	0.203	-	-	0.006	-	
HCM Control Delay (s/veh)	14.9	-	-	7.9	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.8	-	-	0	-	

Intersection

Int Delay, s/veh 44.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	187	71	133	349	365	228
Future Vol, veh/h	187	71	133	349	365	228
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	-	-	-5	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	14	13	12	10	12
Mvmt Flow	197	75	140	367	384	240

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	1152	504	624	0	-
Stage 1	504	-	-	-	-
Stage 2	647	-	-	-	-
Critical Hdwy	6.57	6.34	4.23	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-
Follow-up Hdwy	3.653	3.426	2.317	-	-
Pot Cap-1 Maneuver	204	544	906	-	-
Stage 1	577	-	-	-	-
Stage 2	494	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 165	544	906	-	-
Mov Cap-2 Maneuver	~ 165	-	-	-	-
Stage 1	465	-	-	-	-
Stage 2	494	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/224.92		2.68	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	497	-	204	-	-
HCM Lane V/C Ratio	0.155	-	1.333	-	-
HCM Control Delay (s/veh)	9.7	0	224.9	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.5	-	15.2	-	-

Notes

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

Intersection						
Int Delay, s/veh	6.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	66	110	128	405	472	65
Future Vol, veh/h	66	110	128	405	472	65
Conflicting Peds, #/hr	0	0	2	0	0	2
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	-	-	-5	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	14	11	11	14	11	14
Mvmt Flow	69	115	133	422	492	68
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1216	528	561	0	-	0
Stage 1	528	-	-	-	-	-
Stage 2	689	-	-	-	-	-
Critical Hdwy	6.54	6.31	4.21	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.399	2.299	-	-	-
Pot Cap-1 Maneuver	189	533	966	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	477	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	154	532	965	-	-	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	465	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s/v40.04		2.24	0			
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	432	-	277	-	-	
HCM Lane V/C Ratio	0.138	-	0.661	-	-	
HCM Control Delay (s/veh)	9.3	0	40	-	-	
HCM Lane LOS	A	A	E	-	-	
HCM 95th %tile Q(veh)	0.5	-	4.3	-	-	

Intersection

Intersection Delay, s/veh 7.6

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	37	14	0	0	10	42	0	0	0	46	0	47
Future Vol, veh/h	37	14	0	0	10	42	0	0	0	46	0	47
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	2	0	0
Mvmt Flow	54	20	0	0	14	61	0	0	0	67	0	68
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB		SB			
Opposing Approach	WB				EB			SB		NB		
Opposing Lanes	1				1			1		1		
Conflicting Approach Left	SB				NB			EB		WB		
Conflicting Lanes Left	1				1			1		1		
Conflicting Approach Right	NB				SB			WB		EB		
Conflicting Lanes Right	1				1			1		1		
HCM Control Delay, s/veh	7.8				7.1			0		7.8		
HCM LOS	A				A			-		A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	73%	0%	49%
Vol Thru, %	100%	27%	19%	0%
Vol Right, %	0%	0%	81%	51%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	51	52	93
LT Vol	0	37	0	46
Through Vol	0	14	10	0
RT Vol	0	0	42	47
Lane Flow Rate	0	74	75	135
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.089	0.078	0.149
Departure Headway (Hd)	4.265	4.341	3.709	3.986
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	817	952	891
Service Time	2.358	2.409	1.787	2.051
HCM Lane V/C Ratio	0	0.091	0.079	0.152
HCM Control Delay, s/veh	7.4	7.8	7.1	7.8
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.3	0.3	0.5

Intersection

Intersection Delay, s/veh 26.2

Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	102	142	11	33	73	73	16	220	47	77	246	66
Future Vol, veh/h	102	142	11	33	73	73	16	220	47	77	246	66
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	7	5	27	3	8	5	38	17	13	10	17	8
Mvmt Flow	116	161	13	38	83	83	18	250	53	88	280	75
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	21			15.8			24.6			35.5		
HCM LOS	C			C			C			E		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	40%	18%	20%
Vol Thru, %	78%	56%	41%	63%
Vol Right, %	17%	4%	41%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	283	255	179	389
LT Vol	16	102	33	77
Through Vol	220	142	73	246
RT Vol	47	11	73	66
Lane Flow Rate	322	290	203	442
Geometry Grp	1	1	1	1
Degree of Util (X)	0.67	0.598	0.42	0.834
Departure Headway (Hd)	7.501	7.43	7.439	6.795
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	482	484	482	530
Service Time	5.561	5.491	5.51	4.849
HCM Lane V/C Ratio	0.668	0.599	0.421	0.834
HCM Control Delay, s/veh	24.6	21	15.8	35.5
HCM Lane LOS	C	C	C	E
HCM 95th-tile Q	4.9	3.8	2.1	8.5

HCM 7th Signalized Intersection Capacity Analysis
7: Hempstead Road/Summit Park Road & New Hempstead Road

2024 Existing
Timing Plan: Peak PM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	354	23	35	430	28	21	88	37	31	106	78
Future Volume (veh/h)	64	354	23	35	430	28	21	88	37	31	106	78
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1688	1673	1688	2091	2091	2136	1864	1909	1939	2136	2091	2061
Adj Flow Rate, veh/h	68	377	24	37	457	30	22	94	39	33	113	83
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	0	3	3	0	5	2	0	0	3	5
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	130	628	38	91	879	56	106	405	153	112	364	238
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
Prop Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.5	0.0	0.0	14.5	0.0	0.0	17.6	0.0	0.0	18.6	0.0	0.0
Ln Grp LOS	B			B			B			B		
Approach Vol, veh/h		469			524			155			229	
Approach Delay, s/veh		16.5			14.5			17.6			18.6	
Approach LOS		B			B			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Case No		8.0		8.0		8.0		8.0				
Phs Duration (G+Y+Rc), s		41.0		31.0		41.0		31.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green (Gmax), s		35.0		25.0		35.0		25.0				
Max Allow Headway (MAH), s		5.5		5.4		5.3		5.4				
Max Q Clear (g_c+l1), s		17.1		8.2		14.5		6.4				
Green Ext Time (g_e), s		3.0		1.2		3.5		0.8				
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt		5		7		1		3				
Mvmt Sat Flow, veh/h		149		157		78		141				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1291		1048		1808		1167				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		78		685		115		440				
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
 7: Hempstead Road/Summit Park Road & New Hempstead Road

2024 Existing
 Timing Plan: Peak PM Hour

Lane Assignment	L+T+R	L+T+R	L+T+R	L+T+R
Lanes in Grp	0	1	0	1
Grp Vol (v), veh/h	0	469	0	229
Grp Sat Flow (s), veh/h/ln	0	1518	0	1891
Q Serve Time (g_s), s	0.0	2.5	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	15.1	0.0	6.2
Perm LT Sat Flow (s_l), veh/h/ln	0	923	0	1277
Shared LT Sat Flow (s_sh), veh/h/ln	0	1661	0	2076
Perm LT Eff Green (g_p), s	0.0	35.0	0.0	25.0
Perm LT Serve Time (g_u), s	0.0	22.5	0.0	20.6
Perm LT Q Serve Time (g_ps), s	0.0	2.5	0.0	0.0
Time to First Blk (g_f), s	0.0	10.3	0.0	10.2
Serve Time pre Blk (g_fs), s	0.0	10.3	0.0	6.2
Prop LT Inside Lane (P_L)	0.00	0.14	0.00	0.14
Lane Grp Cap (c), veh/h	0	795	0	714
V/C Ratio (X)	0.00	0.59	0.00	0.32
Avail Cap (c_a), veh/h	0	795	0	714
Upstream Filter (l)	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.3	0.0	17.4
Incr Delay (d2), s/veh	0.0	3.2	0.0	1.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.5	0.0	18.6
1st-Term Q (Q1), veh/ln	0.0	4.8	0.0	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.5	0.0	2.9
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0

Middle Lane Group Data	0	2	0	4	0	6	0	8
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
 7: Hempstead Road/Summit Park Road & New Hempstead Road

2024 Existing
 Timing Plan: Peak PM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.05	0.00	0.36	0.00	0.06	0.00	0.25
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.2
HCM 7th LOS	B

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2024 Existing
Timing Plan: Peak PM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↓		↑	↓		↑	↓		↑	↓	
Traffic Volume (veh/h)	19	326	170	177	299	27	143	169	46	27	175	15
Future Volume (veh/h)	19	326	170	177	299	27	143	169	46	27	175	15
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	1.00		0.99	1.00		0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1900	1885	1885	1949	1949	1979	1894	1924	1879	1939	1909	1939
Adj Flow Rate, veh/h	20	336	175	182	308	28	147	174	47	28	180	15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	2	2	0	3	1	4	0	2	0
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	568	628	327	389	609	55	394	504	136	378	601	50
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
Prop Arrive On Green	0.15	0.54	0.54	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	13.6	0.0	17.7	31.7	0.0	29.7	34.2	0.0	26.7	29.7	0.0	26.0
Ln Grp LOS	B		B	C		C	C		C	C		C
Approach Vol, veh/h		531			518			368			223	
Approach Delay, s/veh		17.6			30.4			29.7			26.4	
Approach LOS		B			C			C			C	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Case No		4.0		6.0	1.2	6.3		6.0				
Phs Duration (G+Y+Rc), s		62.0		42.0	20.0	42.0		42.0				
Change Period (Y+Rc), s		6.0		6.0	4.0	6.0		6.0				
Max Green (Gmax), s		56.0		36.0	16.0	36.0		36.0				
Max Allow Headway (MAH), s		5.4		5.1	3.8	5.2		4.9				
Max Q Clear (g_c+l1), s		21.4		13.1	2.6	18.7		20.4				
Green Ext Time (g_e), s		3.9		1.2	0.0	2.9		1.6				
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt				7	5	1		3				
Mvmt Sat Flow, veh/h				1200	1810	924		1200				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1166		1737		1759		1457				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		607		145		160		394				
Left Lane Group Data												
Assigned Mvmt	0	0	0	7	5	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2024 Existing
Timing Plan: Peak PM Hour

Lane Assignment			LL (Pr/Pm)	L	L	
Lanes in Grp	0	0	0	1	1	0 1
Grp Vol (v), veh/h	0	0	0	28	20	182 0 147
Grp Sat Flow (s), veh/h/ln	0	0	0	1200	1810	924 0 1200
Q Serve Time (g_s), s	0.0	0.0	0.0	1.8	0.6	16.7 0.0 10.6
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	11.1	0.6	16.7 0.0 18.4
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1200	1061	924 0 1200
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0 0 0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	36.0	38.0	36.0 0.0 36.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	26.8	21.6	36.0 0.0 28.1
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	1.8	0.3	16.7 0.0 10.6
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	1.00 0.00 1.00
Lane Grp Cap (c), veh/h	0	0	0	378	568	389 0 394
V/C Ratio (X)	0.00	0.00	0.00	0.07	0.04	0.47 0.00 0.37
Avail Cap (c_a), veh/h	0	0	0	378	568	389 0 394
Upstream Filter (l)	0.00	0.00	0.00	1.00	1.00	1.00 0.00 1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	29.4	13.5	27.7 0.0 31.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.1	4.0 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
Control Delay (d), s/veh	0.0	0.0	0.0	29.7	13.6	31.7 0.0 34.2
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.5	0.2	3.6 0.0 3.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.4 0.0 0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00 0.00 1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.6	0.2	4.1 0.0 3.3
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.01	0.01	0.18 0.00 0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0 0 0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0

Middle Lane Group Data							
Assigned Mvmt	0	2	0	4	0	6	0 8
Lane Assignment							
Lanes in Grp	0	0	0	0	0	0	0 0
Grp Vol (v), veh/h	0	0	0	0	0	0	0 0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0 0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0 0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0 0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2024 Existing
Timing Plan: Peak PM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Right Lane Group Data							
Assigned Mvmt	0	12	0	14	0	16	0
Lane Assignment		T+R		T+R		T+R	
Lanes in Grp	0	1	0	1	0	1	0
Grp Vol (v), veh/h	0	511	0	195	0	336	0
Grp Sat Flow (s), veh/h/ln	0	1773	0	1882	0	1919	0
Q Serve Time (g_s), s	0.0	19.4	0.0	7.9	0.0	14.4	0.0
Cycle Q Clear Time (g_c), s	0.0	19.4	0.0	7.9	0.0	14.4	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.34	0.00	0.08	0.00	0.08	0.00
Lane Grp Cap (c), veh/h	0	955	0	652	0	664	0
V/C Ratio (X)	0.00	0.54	0.00	0.30	0.00	0.51	0.00
Avail Cap (c_a), veh/h	0	955	0	652	0	664	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	15.6	0.0	24.8	0.0	27.0	0.0
Incr Delay (d2), s/veh	0.0	2.1	0.0	1.2	0.0	2.7	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	17.7	0.0	26.0	0.0	29.7	0.0
1st-Term Q (Q1), veh/ln	0.0	7.5	0.0	3.5	0.0	6.5	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.2	0.0	0.5	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	8.1	0.0	3.7	0.0	7.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.31	0.00	0.09	0.00	0.31	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Intersection Summary							
HCM 7th Control Delay, s/veh		25.5					
HCM 7th LOS		C					

Intersection

Int Delay, s/veh 1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	425	523	13	15	41
Future Vol, veh/h	42	425	523	13	15	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	4	-	-1	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	1	3	0	0	2
Mvmt Flow	45	457	562	14	16	44

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	576	0	-
Stage 1	-	-	569
Stage 2	-	-	547
Critical Hdwy	4.1	-	6.2 6.12
Critical Hdwy Stg 1	-	-	5.2
Critical Hdwy Stg 2	-	-	5.2
Follow-up Hdwy	2.2	-	3.5 3.318
Pot Cap-1 Maneuver	1007	-	246 530
Stage 1	-	-	588
Stage 2	-	-	602
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1007	-	232 530
Mov Cap-2 Maneuver	-	-	232
Stage 1	-	-	553
Stage 2	-	-	602

Approach	EB	WB	SB
HCM Control Delay, s/v	0.79	0	15.78
HCM LOS		C	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	162	-	-	-	394
HCM Lane V/C Ratio	0.045	-	-	-	0.153
HCM Control Delay (s/veh)	8.7	0	-	-	15.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	47	23	5	233	247	25
Future Vol, veh/h	47	23	5	233	247	25
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	1	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	0	2	1	4
Mvmt Flow	52	26	6	259	274	28
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	559	289	303	0	-	0
Stage 1	289	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Critical Hdwy	5.82	5.94	4.1	-	-	-
Critical Hdwy Stg 1	4.82	-	-	-	-	-
Critical Hdwy Stg 2	4.82	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	2.2	-	-	-
Pot Cap-1 Maneuver	538	763	1269	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	534	763	1268	-	-	-
Mov Cap-2 Maneuver	534	-	-	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	11.99	0.16		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	38	-	592	-	-	
HCM Lane V/C Ratio	0.004	-	0.131	-	-	
HCM Control Delay (s/veh)	7.9	0	12	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.5	-	-	

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↔	↔	↔	↔	↔
Traffic Vol, veh/h	206	59	1	193	45	1
Future Vol, veh/h	206	59	1	193	45	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	1	7	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	0	0	3	2	0
Mvmt Flow	226	65	1	212	49	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	291	0	473	259
Stage 1	-	-	-	-	259	-
Stage 2	-	-	-	-	214	-
Critical Hdwy	-	-	4.1	-	7.82	6.9
Critical Hdwy Stg 1	-	-	-	-	6.82	-
Critical Hdwy Stg 2	-	-	-	-	6.82	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1282	-	457	746
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1282	-	457	746
Mov Cap-2 Maneuver	-	-	-	-	457	-
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	755	-
Approach	EB	WB	NB			
HCM Control Delay, s/v	0	0.04	13.77			
HCM LOS			B			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	461	-	-	9	-	
HCM Lane V/C Ratio	0.11	-	-	0.001	-	
HCM Control Delay (s/veh)	13.8	-	-	7.8	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Intersection						
Int Delay, s/veh	19.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	187	86	87	310	309	258
Future Vol, veh/h	187	86	87	310	309	258
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	-	-	-5	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	9	10	13	12	14	10
Mvmt Flow	197	91	92	326	325	272
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	971	461	597	0	-	0
Stage 1	461	-	-	-	-	-
Stage 2	509	-	-	-	-	-
Critical Hdwy	6.49	6.3	4.23	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.39	2.317	-	-	-
Pot Cap-1 Maneuver	272	584	928	-	-	-
Stage 1	620	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	240	584	928	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	546	-	-	-	-	-
Stage 2	589	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s/v85.42		2.04	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	394	-	294	-	-	
HCM Lane V/C Ratio	0.099	-	0.976	-	-	
HCM Control Delay (s/veh)	9.3	0	85.4	-	-	
HCM Lane LOS	A	A	F	-	-	
HCM 95th %tile Q(veh)	0.3	-	10	-	-	

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	62	124	103	388	447	103
Future Vol, veh/h	62	124	103	388	447	103
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	-	-	-5	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	11	15	5	12	11	4
Mvmt Flow	64	128	106	400	461	106
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1126	514	567	0	-	0
Stage 1	514	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Critical Hdwy	6.51	6.35	4.15	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.435	2.245	-	-	-
Pot Cap-1 Maneuver	217	536	990	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	187	536	990	-	-	-
Mov Cap-2 Maneuver	187	-	-	-	-	-
Stage 1	502	-	-	-	-	-
Stage 2	524	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	29.85	1.9		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	378	-	331	-	-	
HCM Lane V/C Ratio	0.107	-	0.58	-	-	
HCM Control Delay (s/veh)	9.1	0	29.9	-	-	
HCM Lane LOS	A	A	D	-	-	
HCM 95th %tile Q(veh)	0.4	-	3.5	-	-	

Intersection

Intersection Delay, s/veh 7.4

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	25	18	1	1	12	53	0	0	0	48	0	25
Future Vol, veh/h	25	18	1	1	12	53	0	0	0	48	0	25
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	12	0	0	0	2	0	0	0	0	0	8
Mvmt Flow	30	22	1	1	15	65	0	0	0	59	0	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB		SB			
Opposing Approach	WB			EB			SB		NB			
Opposing Lanes	1			1			1		1			
Conflicting Approach Left	SB			NB			EB		WB			
Conflicting Lanes Left	1			1			1		1			
Conflicting Approach Right	NB			SB			WB		EB			
Conflicting Lanes Right	1			1			1		1			
HCM Control Delay, s/veh	7.6			7			0		7.6			
HCM LOS	A			A			-		A			

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	57%	2%	66%
Vol Thru, %	100%	41%	18%	0%
Vol Right, %	0%	2%	80%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	44	66	73
LT Vol	0	25	1	48
Through Vol	0	18	12	0
RT Vol	0	1	53	25
Lane Flow Rate	0	54	80	89
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.063	0.081	0.1
Departure Headway (Hd)	4.203	4.218	3.618	4.058
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	844	982	879
Service Time	2.269	2.268	1.672	2.104
HCM Lane V/C Ratio	0	0.064	0.081	0.101
HCM Control Delay, s/veh	7.3	7.6	7	7.6
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.2	0.3	0.3

Intersection

Intersection Delay, s/veh 77.3

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	90	130	10	65	166	174	18	266	64	111	257	53
Future Vol, veh/h	90	130	10	65	166	174	18	266	64	111	257	53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	8	13	33	18	7	7	24	15	20	13	12	16
Mvmt Flow	97	140	11	70	178	187	19	286	69	119	276	57
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	30.9			87.3			63.3			104.5		
HCM LOS	D			F			F			F		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	39%	16%	26%
Vol Thru, %	76%	57%	41%	61%
Vol Right, %	18%	4%	43%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	348	230	405	421
LT Vol	18	90	65	111
Through Vol	266	130	166	257
RT Vol	64	10	174	53
Lane Flow Rate	374	247	435	453
Geometry Grp	1	1	1	1
Degree of Util (X)	0.937	0.659	1.042	1.098
Departure Headway (Hd)	9.532	10.194	9.045	9.058
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	382	356	405	403
Service Time	7.532	8.194	7.045	7.058
HCM Lane V/C Ratio	0.979	0.694	1.074	1.124
HCM Control Delay, s/veh	63.3	30.9	87.3	104.5
HCM Lane LOS	F	D	F	F
HCM 95th-tile Q	10.1	4.5	13.6	15.5

HCM 7th Signalized Intersection Capacity Analysis
7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 No Build
Timing Plan: Peak AM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	336	15	59	430	27	44	133	128	25	63	58
Future Volume (veh/h)	64	336	15	59	430	27	44	133	128	25	63	58
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1688	1614	1688	2091	2061	2076	1909	1924	1879	2076	2076	2106
Adj Flow Rate, veh/h	67	350	16	61	448	28	46	139	133	26	66	60
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	5	0	3	5	4	2	1	4	4	4	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	132	611	26	126	821	49	111	293	250	127	316	251
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
Prop Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.0	0.0	0.0	15.0	0.0	0.0	21.2	0.0	0.0	17.4	0.0	0.0
Ln Grp LOS	B			B			C			B		
Approach Vol, veh/h		433			537			318			152	
Approach Delay, s/veh		16.0			15.0			21.2			17.4	
Approach LOS		B			B			C			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Case No		8.0		8.0		8.0		8.0				
Phs Duration (G+Y+Rc), s		41.0		31.0		41.0		31.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green (Gmax), s		35.0		25.0		35.0		25.0				
Max Allow Headway (MAH), s		5.5		5.5		5.4		5.4				
Max Q Clear (g_c+l1), s		15.8		6.0		15.2		12.3				
Green Ext Time (g_e), s		2.8		0.8		3.6		1.6				
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt		5		7		1		3				
Mvmt Sat Flow, veh/h		153		197		145		155				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1257		911		1688		845				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		54		723		101		719				
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
 7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 No Build

Timing Plan: Peak AM Hour

Lane Assignment	L+T+R	L+T+R	L+T+R	L+T+R
Lanes in Grp	0	1	0	1
Grp Vol (v), veh/h	0	433	0	152
Grp Sat Flow (s), veh/h/ln	0	1465	0	1831
Q Serve Time (g_s), s	0.0	0.6	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	13.8	0.0	4.0
Perm LT Sat Flow (s_l), veh/h/ln	0	931	0	1124
Shared LT Sat Flow (s_sh), veh/h/ln	0	1601	0	2058
Perm LT Eff Green (g_p), s	0.0	35.0	0.0	25.0
Perm LT Serve Time (g_u), s	0.0	21.8	0.0	14.7
Perm LT Q Serve Time (g_ps), s	0.0	0.6	0.0	0.0
Time to First Blk (g_f), s	0.0	10.3	0.0	8.8
Serve Time pre Blk (g_fs), s	0.0	10.3	0.0	4.0
Prop LT Inside Lane (P_L)	0.00	0.15	0.00	0.17
Lane Grp Cap (c), veh/h	0	770	0	694
V/C Ratio (X)	0.00	0.56	0.00	0.22
Avail Cap (c_a), veh/h	0	770	0	694
Upstream Filter (l)	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.0	0.0	16.6
Incr Delay (d2), s/veh	0.0	3.0	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.0	0.0	17.4
1st-Term Q (Q1), veh/ln	0.0	4.4	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.0	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis

2027 No Build

7: Hempstead Road/Summit Park Road & New Hempstead Road

Timing Plan: Peak AM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.04	0.00	0.39	0.00	0.05	0.00	0.42
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	16.9
HCM 7th LOS	B

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 No Build
Timing Plan: Peak AM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (veh/h)	26	282	177	134	486	29	218	168	39	27	153	28
Future Volume (veh/h)	26	282	177	134	486	29	218	168	39	27	153	28
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	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		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1826	1856	1870	1904	1904	1919	1909	1849	1804	1939	1849	1864
Adj Flow Rate, veh/h	27	291	182	138	501	30	225	173	40	28	158	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	3	2	5	5	4	2	6	9	0	6	5
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	395	554	347	371	569	34	421	523	121	403	547	100
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
Prop Arrive On Green	0.16	0.52	0.52	0.32	0.32	0.32	0.36	0.36	0.36	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	17.3	0.0	18.0	30.0	0.0	49.0	36.1	0.0	24.6	27.4	0.0	24.0
Ln Grp LOS	B		B	C		D	D		C	C		C
Approach Vol, veh/h	500			669			438			215		
Approach Delay, s/veh	18.0			45.1			30.5			24.4		
Approach LOS	B			D			C			C		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Case No		4.0		6.0	1.2	6.3		6.0				
Phs Duration (G+Y+Rc), s	58.0		42.0	20.0	38.0		42.0					
Change Period (Y+Rc), s	6.0		6.0	4.0	6.0		6.0					
Max Green (Gmax), s	52.0		36.0	16.0	32.0		36.0					
Max Allow Headway (MAH), s	5.4		5.2	3.8	5.2		4.7					
Max Q Clear (g_c+l1), s	20.0		12.4	2.8	28.7		25.6					
Green Ext Time (g_e), s	3.5		1.1	0.0	1.3		1.5					
Prob of Phs Call (p_c)	1.00		1.00	1.00	1.00		1.00					
Prob of Max Out (p_x)	0.00		0.00	0.00	0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt			7	5	1		3					
Mvmt Sat Flow, veh/h			1211	1739	933		1221					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1065		1520		1777		1452				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		666		279		106		336				
Left Lane Group Data												
Assigned Mvmt	0	0	0	7	5	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 No Build
Timing Plan: Peak AM Hour

Lane Assignment			LL (Pr/Pm)	L	L	
Lanes in Grp	0	0	0	1	1	0
Grp Vol (v), veh/h	0	0	0	28	27	138
Grp Sat Flow (s), veh/h/ln	0	0	0	1211	1739	933
Q Serve Time (g_s), s	0.0	0.0	0.0	1.7	0.8	11.8
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.4	0.8	11.8
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1211	852	933
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	36.0	34.0	32.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	27.3	5.3	32.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	1.7	0.9	11.8
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	403	395	371
V/C Ratio (X)	0.00	0.00	0.00	0.07	0.07	0.37
Avail Cap (c_a), veh/h	0	0	0	403	395	371
Upstream Filter (l)	0.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	27.0	16.9	27.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.3	0.3	2.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	27.4	17.3	30.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.5	0.3	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.5	0.3	2.9
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.01	0.01	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data							
Assigned Mvmt	0	2	0	4	0	6	0
Lane Assignment							
Lanes in Grp	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 No Build
Timing Plan: Peak AM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	473	0	187	0	531	0	213
Grp Sat Flow (s), veh/h/ln	0	1732	0	1799	0	1883	0	1788
Q Serve Time (g_s), s	0.0	18.0	0.0	7.4	0.0	26.7	0.0	8.7
Cycle Q Clear Time (g_c), s	0.0	18.0	0.0	7.4	0.0	26.7	0.0	8.7
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.38	0.00	0.16	0.00	0.06	0.00	0.19
Lane Grp Cap (c), veh/h	0	901	0	647	0	603	0	644
V/C Ratio (X)	0.00	0.53	0.00	0.29	0.00	0.88	0.00	0.33
Avail Cap (c_a), veh/h	0	901	0	647	0	603	0	644
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.8	0.0	22.9	0.0	32.2	0.0	23.2
Incr Delay (d2), s/veh	0.0	2.2	0.0	1.1	0.0	16.8	0.0	1.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.0	0.0	24.0	0.0	49.0	0.0	24.6
1st-Term Q (Q1), veh/ln	0.0	6.8	0.0	3.1	0.0	11.8	0.0	3.6
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.2	0.0	2.8	0.0	0.2
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.3	0.0	3.3	0.0	14.6	0.0	3.8
%ile Storage Ratio (RQ%)	0.00	0.29	0.00	0.08	0.00	0.67	0.00	0.15
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	31.7
HCM 7th LOS	C

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	383	512	27	28	46
Future Vol, veh/h	20	383	512	27	28	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	4	-	-1	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	5	4	0	4	2
Mvmt Flow	22	421	563	30	31	51
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	592	0	-	0	1042	577
Stage 1	-	-	-	-	577	-
Stage 2	-	-	-	-	465	-
Critical Hdwy	4.1	-	-	-	6.24	6.12
Critical Hdwy Stg 1	-	-	-	-	5.24	-
Critical Hdwy Stg 2	-	-	-	-	5.24	-
Follow-up Hdwy	2.2	-	-	-	3.536	3.318
Pot Cap-1 Maneuver	993	-	-	-	267	524
Stage 1	-	-	-	-	576	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	993	-	-	-	259	524
Mov Cap-2 Maneuver	-	-	-	-	259	-
Stage 1	-	-	-	-	559	-
Stage 2	-	-	-	-	645	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0.43	0	17.11			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	89	-	-	-	378	
HCM Lane V/C Ratio	0.022	-	-	-	0.215	
HCM Control Delay (s/veh)	8.7	0	-	-	17.1	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8	

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	32	22	32	284	303	31
Future Vol, veh/h	32	22	32	284	303	31
Conflicting Peds, #/hr	0	3	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	1	-1	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	4	2	0
Mvmt Flow	34	23	34	302	322	33
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	713	346	359	0	-	0
Stage 1	343	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.1	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	452	722	1211	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	433	717	1206	-	-	-
Mov Cap-2 Maneuver	433	-	-	-	-	-
Stage 1	737	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s/v	12.84	0.82	0			
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	182	-	517	-	-	
HCM Lane V/C Ratio	0.028	-	0.111	-	-	
HCM Control Delay (s/veh)	8.1	0	12.8	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-	

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↔	↔	↑	↔	↑
Traffic Vol, veh/h	189	146	7	203	91	1
Future Vol, veh/h	189	146	7	203	91	1
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	1	7	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	5	2	0
Mvmt Flow	201	155	7	216	97	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	362	0	516	285
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	231	-
Critical Hdwy	-	-	4.1	-	7.82	6.9
Critical Hdwy Stg 1	-	-	-	-	6.82	-
Critical Hdwy Stg 2	-	-	-	-	6.82	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1207	-	425	718
Stage 1	-	-	-	-	684	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1200	-	420	714
Mov Cap-2 Maneuver	-	-	-	-	420	-
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	733	-
Approach	EB	WB	NB			
HCM Control Delay, s/v	0	0.27	16.1			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	422	-	-	60	-	
HCM Lane V/C Ratio	0.232	-	-	0.006	-	
HCM Control Delay (s/veh)	16.1	-	-	8	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.9	-	-	0	-	

Intersection						
Int Delay, s/veh	74.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	198	78	151	377	389	242
Future Vol, veh/h	198	78	151	377	389	242
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	-	-	-5	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	14	13	12	10	12
Mvmt Flow	208	82	159	397	409	255

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1252	537	664	0	-	0
Stage 1	537	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Critical Hdwy	6.57	6.34	4.23	-	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-	-
Follow-up Hdwy	3.653	3.426	2.317	-	-	-
Pot Cap-1 Maneuver	~ 177	521	875	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	459	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 136	521	875	-	-	-
Mov Cap-2 Maneuver	~ 136	-	-	-	-	-
Stage 1	427	-	-	-	-	-
Stage 2	459	-	-	-	-	-

Approach	EB	NB	SB		
HCM Control Delay, \$/381.47		2.87	0		
HCM LOS	F				

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	515	-	172	-	-	
HCM Lane V/C Ratio	0.182	-	1.69	-	-	
HCM Control Delay (s/veh)	10	\$ 381.5		-	-	
HCM Lane LOS	B	A	F	-	-	
HCM 95th %tile Q(veh)	0.7	-	20.2	-	-	

Notes

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

Intersection						
Int Delay, s/veh	9.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	70	119	143	430	501	69
Future Vol, veh/h	70	119	143	430	501	69
Conflicting Peds, #/hr	0	0	2	0	0	2
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	-	-	-5	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	14	11	11	14	11	14
Mvmt Flow	73	124	149	448	522	72
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1306	560	596	0	-	0
Stage 1	560	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Critical Hdwy	6.54	6.31	4.21	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.399	2.299	-	-	-
Pot Cap-1 Maneuver	167	511	938	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	448	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	131	510	936	-	-	-
Mov Cap-2 Maneuver	131	-	-	-	-	-
Stage 1	432	-	-	-	-	-
Stage 2	447	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s/v60.15		2.39	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	449	-	246	-	-	
HCM Lane V/C Ratio	0.159	-	0.801	-	-	
HCM Control Delay (s/veh)	9.6	0	60.2	-	-	
HCM Lane LOS	A	A	F	-	-	
HCM 95th %tile Q(veh)	0.6	-	6.1	-	-	

Intersection

Intersection Delay, s/veh 7.7

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	39	15	0	0	11	45	0	0	0	49	0	50
Future Vol, veh/h	39	15	0	0	11	45	0	0	0	49	0	50
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	2	0	0
Mvmt Flow	57	22	0	0	16	65	0	0	0	71	0	72
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB		SB			
Opposing Approach	WB				EB			SB		NB		
Opposing Lanes	1				1			1		1		
Conflicting Approach Left	SB				NB			EB		WB		
Conflicting Lanes Left	1				1			1		1		
Conflicting Approach Right	NB				SB			WB		EB		
Conflicting Lanes Right	1				1			1		1		
HCM Control Delay, s/veh	7.9				7.2			0		7.8		
HCM LOS	A				A			-		A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	72%	0%	49%
Vol Thru, %	100%	28%	20%	0%
Vol Right, %	0%	0%	80%	51%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	54	56	99
LT Vol	0	39	0	49
Through Vol	0	15	11	0
RT Vol	0	0	45	50
Lane Flow Rate	0	78	81	143
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.095	0.084	0.16
Departure Headway (Hd)	4.392	4.361	3.731	4.003
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	812	945	885
Service Time	2.392	2.436	1.817	2.074
HCM Lane V/C Ratio	0	0.096	0.086	0.162
HCM Control Delay, s/veh	7.4	7.9	7.2	7.8
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.3	0.3	0.6

Intersection

Intersection Delay, s/veh 49.4

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Vol, veh/h	108	157	12	44	80	88	17	233	66	101	261	70
Future Vol, veh/h	108	157	12	44	80	88	17	233	66	101	261	70
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	7	5	27	3	8	5	38	17	13	10	17	8
Mvmt Flow	123	178	14	50	91	100	19	265	75	115	297	80
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	30.6			21.8			40.8			81.3		
HCM LOS	D			C			E			F		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	39%	21%	23%
Vol Thru, %	74%	57%	38%	60%
Vol Right, %	21%	4%	42%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	316	277	212	432
LT Vol	17	108	44	101
Through Vol	233	157	80	261
RT Vol	66	12	88	70
Lane Flow Rate	359	315	241	491
Geometry Grp	1	1	1	1
Degree of Util (X)	0.825	0.721	0.555	1.043
Departure Headway (Hd)	8.524	8.516	8.586	7.651
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	427	428	424	476
Service Time	6.524	6.516	6.586	5.711
HCM Lane V/C Ratio	0.841	0.736	0.568	1.032
HCM Control Delay, s/veh	40.8	30.6	21.8	81.3
HCM Lane LOS	E	D	C	F
HCM 95th-tile Q	7.7	5.6	3.3	14.8

HCM 7th Signalized Intersection Capacity Analysis
7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 No Build
Timing Plan: Peak PM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	376	24	135	456	30	22	108	93	33	122	83
Future Volume (veh/h)	68	376	24	135	456	30	22	108	93	33	122	83
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1688	1673	1688	2091	2091	2136	1864	1909	1939	2136	2091	2061
Adj Flow Rate, veh/h	72	400	26	144	485	32	23	115	99	35	130	88
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	0	3	3	0	5	2	0	0	3	5
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	125	593	36	207	616	39	83	322	251	108	376	228
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
Prop Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.4	0.0	0.0	22.3	0.0	0.0	19.2	0.0	0.0	19.0	0.0	0.0
Ln Grp LOS	B			C			B			B		
Approach Vol, veh/h		498			661			237			253	
Approach Delay, s/veh		18.4			22.3			19.2			19.0	
Approach LOS		B			C			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Case No		8.0		8.0		8.0		8.0				
Phs Duration (G+Y+Rc), s		41.0		31.0		41.0		31.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green (Gmax), s		35.0		25.0		35.0		25.0				
Max Allow Headway (MAH), s		5.5		5.4		5.5		5.4				
Max Q Clear (g_c+l1), s		20.6		8.9		27.5		9.2				
Green Ext Time (g_e), s		3.0		1.3		2.9		1.2				
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt		5		7		1		3				
Mvmt Sat Flow, veh/h		140		146		300		80				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1219		1083		1268		928				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		75		656		80		723				
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
 7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 No Build

Timing Plan: Peak PM Hour

Lane Assignment	L+T+R	L+T+R	L+T+R	L+T+R
Lanes in Grp	0	1	0	1
Grp Vol (v), veh/h	0	498	0	253
Grp Sat Flow (s), veh/h/ln	0	1434	0	1885
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.6	0.0	6.9
Perm LT Sat Flow (s_l), veh/h/ln	0	898	0	1186
Shared LT Sat Flow (s_sh), veh/h/ln	0	1296	0	2077
Perm LT Eff Green (g_p), s	0.0	35.0	0.0	25.0
Perm LT Serve Time (g_u), s	0.0	9.5	0.0	17.8
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	9.9	0.0	10.5
Serve Time pre Blk (g_fs), s	0.0	9.9	0.0	6.9
Prop LT Inside Lane (P_L)	0.00	0.14	0.00	0.14
Lane Grp Cap (c), veh/h	0	754	0	711
V/C Ratio (X)	0.00	0.66	0.00	0.36
Avail Cap (c_a), veh/h	0	754	0	711
Upstream Filter (l)	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.9	0.0	17.6
Incr Delay (d2), s/veh	0.0	4.5	0.0	1.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.4	0.0	19.0
1st-Term Q (Q1), veh/ln	0.0	5.4	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	0.9	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.3	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0

Middle Lane Group Data	0	2	0	4	0	6	0	8
Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis

2027 No Build

7: Hempstead Road/Summit Park Road & New Hempstead Road

Timing Plan: Peak PM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.05	0.00	0.35	0.00	0.05	0.00	0.42
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	20.2
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 No Build
Timing Plan: Peak PM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (veh/h)	30	357	180	191	324	29	152	185	55	29	189	22
Future Volume (veh/h)	30	357	180	191	324	29	152	185	55	29	189	22
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	1.00		0.99	1.00	0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1900	1885	1885	1949	1949	1979	1894	1924	1879	1939	1909	1939
Adj Flow Rate, veh/h	31	368	186	197	334	30	157	191	57	30	195	23
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	2	2	0	3	1	4	0	2	0
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	547	635	321	361	610	55	375	492	147	356	580	68
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
Prop Arrive On Green	0.15	0.54	0.54	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.0	0.0	18.7	35.9	0.0	30.7	36.3	0.0	27.5	30.9	0.0	26.6
Ln Grp LOS	B		B	D		C	D		C	C		C
Approach Vol, veh/h		585			561			405			248	
Approach Delay, s/veh		18.4			32.5			30.9			27.1	
Approach LOS		B			C			C			C	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Case No		4.0		6.0	1.2	6.3		6.0				
Phs Duration (G+Y+Rc), s		62.0		42.0	20.0	42.0		42.0				
Change Period (Y+Rc), s		6.0		6.0	4.0	6.0		6.0				
Max Green (Gmax), s		56.0		36.0	16.0	36.0		36.0				
Max Allow Headway (MAH), s		5.4		5.2	3.8	5.3		4.9				
Max Q Clear (g_c+l1), s		23.8		14.6	2.9	23.7		22.8				
Green Ext Time (g_e), s		4.3		1.3	0.0	2.8		1.7				
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt				7	5	1		3				
Mvmt Sat Flow, veh/h				1172	1810	888		1176				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1179		1675		1761		1421				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		596		198		158		424				
Left Lane Group Data												
Assigned Mvmt	0	0	0	7	5	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 No Build
Timing Plan: Peak PM Hour

Lane Assignment			LL (Pr/Pm)	L	L	
Lanes in Grp	0	0	0	1	1	0 1
Grp Vol (v), veh/h	0	0	0	30	31	197 0 157
Grp Sat Flow (s), veh/h/ln	0	0	0	1172	1810	888 0 1176
Q Serve Time (g_s), s	0.0	0.0	0.0	2.1	0.9	19.9 0.0 11.9
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	12.6	0.9	21.7 0.0 20.8
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1172	1034	888 0 1176
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0 0 0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	36.0	38.0	36.0 0.0 36.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	25.4	20.1	34.2 0.0 27.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	2.1	0.6	19.9 0.0 11.9
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	1.00 0.00 1.00
Lane Grp Cap (c), veh/h	0	0	0	356	547	361 0 375
V/C Ratio (X)	0.00	0.00	0.00	0.08	0.06	0.55 0.00 0.42
Avail Cap (c_a), veh/h	0	0	0	356	547	361 0 375
Upstream Filter (l)	0.00	0.00	0.00	1.00	1.00	1.00 0.00 1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	30.5	13.8	30.1 0.0 32.9
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.2	5.8 0.0 3.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Control Delay (d), s/veh	0.0	0.0	0.0	30.9	14.0	35.9 0.0 36.3
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.3	4.2 0.0 3.3
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.6 0.0 0.4
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00 0.00 1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.6	0.4	4.8 0.0 3.7
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.01	0.01	0.21 0.00 0.14
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0 0 0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0 0.0 0.0

Middle Lane Group Data							
Assigned Mvmt	0	2	0	4	0	6	0 8
Lane Assignment							
Lanes in Grp	0	0	0	0	0	0	0 0
Grp Vol (v), veh/h	0	0	0	0	0	0	0 0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0 0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0 0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0 0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 No Build
Timing Plan: Peak PM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	554	0	218	0	364	0	248
Grp Sat Flow (s), veh/h/ln	0	1775	0	1872	0	1919	0	1845
Q Serve Time (g_s), s	0.0	21.8	0.0	9.0	0.0	15.9	0.0	10.6
Cycle Q Clear Time (g_c), s	0.0	21.8	0.0	9.0	0.0	15.9	0.0	10.6
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.34	0.00	0.11	0.00	0.08	0.00	0.23
Lane Grp Cap (c), veh/h	0	956	0	648	0	664	0	639
V/C Ratio (X)	0.00	0.58	0.00	0.34	0.00	0.55	0.00	0.39
Avail Cap (c_a), veh/h	0	956	0	648	0	664	0	639
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.1	0.0	25.2	0.0	27.4	0.0	25.7
Incr Delay (d2), s/veh	0.0	2.6	0.0	1.4	0.0	3.2	0.0	1.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.7	0.0	26.6	0.0	30.7	0.0	27.5
1st-Term Q (Q1), veh/ln	0.0	8.4	0.0	3.9	0.0	7.2	0.0	4.6
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.3	0.0	0.6	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.1	0.0	4.2	0.0	7.8	0.0	4.9
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	0.10	0.00	0.35	0.00	0.18
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	26.8
HCM 7th LOS	C

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	451	555	14	16	44
Future Vol, veh/h	45	451	555	14	16	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	4	-	-1	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	1	3	0	0	2
Mvmt Flow	48	485	597	15	17	47
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	612	0	-	0	1186	604
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	582	-
Critical Hdwy	4.1	-	-	-	6.2	6.12
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.318
Pot Cap-1 Maneuver	977	-	-	-	225	507
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	581	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	977	-	-	-	210	507
Mov Cap-2 Maneuver	-	-	-	-	210	-
Stage 1	-	-	-	-	530	-
Stage 2	-	-	-	-	581	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0.81	0	16.87			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	163	-	-	-	368	-
HCM Lane V/C Ratio	0.05	-	-	-	0.176	-
HCM Control Delay (s/veh)	8.9	0	-	-	16.9	-
HCM Lane LOS	A	A	-	-	C	-
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	50	24	5	263	271	27
Future Vol, veh/h	50	24	5	263	271	27
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	1	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	0	2	1	4
Mvmt Flow	56	27	6	292	301	30
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	620	317	332	0	-	0
Stage 1	317	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	5.82	5.94	4.1	-	-	-
Critical Hdwy Stg 1	4.82	-	-	-	-	-
Critical Hdwy Stg 2	4.82	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	2.2	-	-	-
Pot Cap-1 Maneuver	501	738	1239	-	-	-
Stage 1	778	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	497	737	1237	-	-	-
Mov Cap-2 Maneuver	497	-	-	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	787	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	12.6	0.15		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	34	-	556	-	-	
HCM Lane V/C Ratio	0.004	-	0.148	-	-	
HCM Control Delay (s/veh)	7.9	0	12.6	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.5	-	-	

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↔	↔		
Traffic Vol, veh/h	228	63	1	221	48	1
Future Vol, veh/h	228	63	1	221	48	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	1	7	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	0	0	3	2	0
Mvmt Flow	251	69	1	243	53	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	320	0	530	285
Stage 1	-	-	-	-	285	-
Stage 2	-	-	-	-	245	-
Critical Hdwy	-	-	4.1	-	7.82	6.9
Critical Hdwy Stg 1	-	-	-	-	6.82	-
Critical Hdwy Stg 2	-	-	-	-	6.82	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1252	-	414	718
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	723	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1252	-	414	718
Mov Cap-2 Maneuver	-	-	-	-	414	-
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	723	-
Approach	EB	WB	NB			
HCM Control Delay, s/v	0	0.04	14.89			
HCM LOS			B			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	418	-	-	8	-	
HCM Lane V/C Ratio	0.129	-	-	0.001	-	
HCM Control Delay (s/veh)	14.9	-	-	7.9	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Intersection						
Int Delay, s/veh	36.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	198	103	99	333	335	274
Future Vol, veh/h	198	103	99	333	335	274
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	-	-	-5	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	9	10	13	12	14	10
Mvmt Flow	208	108	104	351	353	288

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1056	497	641	0	-	0
Stage 1	497	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Critical Hdwy	6.49	6.3	4.23	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.39	2.317	-	-	-
Pot Cap-1 Maneuver	242	557	893	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 207	557	893	-	-	-
Mov Cap-2 Maneuver	~ 207	-	-	-	-	-
Stage 1	511	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	EB	NB	SB		
HCM Control Delay, s/veh	61.11	2.19	0		
HCM LOS	F				

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	413	-	264	-	-	
HCM Lane V/C Ratio	0.117	-	1.201	-	-	
HCM Control Delay (s/veh)	9.6	0	161.1	-	-	
HCM Lane LOS	A	A	F	-	-	
HCM 95th %tile Q(veh)	0.4	-	14.7	-	-	

Notes

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

Intersection						
Int Delay, s/veh	7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	66	139	113	412	474	109
Future Vol, veh/h	66	139	113	412	474	109
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	-	-	-5	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	11	15	5	12	11	4
Mvmt Flow	68	143	116	425	489	112
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1203	545	601	0	-	0
Stage 1	545	-	-	-	-	-
Stage 2	658	-	-	-	-	-
Critical Hdwy	6.51	6.35	4.15	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.435	2.245	-	-	-
Pot Cap-1 Maneuver	195	514	962	-	-	-
Stage 1	563	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	164	514	962	-	-	-
Mov Cap-2 Maneuver	164	-	-	-	-	-
Stage 1	474	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	39.62	1.99		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	387	-	305	-	-	
HCM Lane V/C Ratio	0.121	-	0.693	-	-	
HCM Control Delay (s/veh)	9.3	0	39.6	-	-	
HCM Lane LOS	A	A	E	-	-	
HCM 95th %tile Q(veh)	0.4	-	4.8	-	-	

Intersection

Intersection Delay, s/veh 7.4

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	25	18	1	1	12	53	0	0	0	48	0	25
Future Vol, veh/h	25	18	1	1	12	53	0	0	0	48	0	25
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	0	12	0	0	0	2	0	0	0	0	0	8
Mvmt Flow	30	22	1	1	15	65	0	0	0	59	0	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB		SB			
Opposing Approach	WB			EB			SB		NB			
Opposing Lanes	1			1			1		1			
Conflicting Approach Left	SB			NB			EB		WB			
Conflicting Lanes Left	1			1			1		1			
Conflicting Approach Right	NB			SB			WB		EB			
Conflicting Lanes Right	1			1			1		1			
HCM Control Delay, s/veh	7.6			7			0		7.6			
HCM LOS	A			A			-		A			

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	57%	2%	66%
Vol Thru, %	100%	41%	18%	0%
Vol Right, %	0%	2%	80%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	44	66	73
LT Vol	0	25	1	48
Through Vol	0	18	12	0
RT Vol	0	1	53	25
Lane Flow Rate	0	54	80	89
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.063	0.081	0.1
Departure Headway (Hd)	4.203	4.218	3.618	4.058
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	844	982	879
Service Time	2.269	2.268	1.672	2.104
HCM Lane V/C Ratio	0	0.064	0.081	0.101
HCM Control Delay, s/veh	7.3	7.6	7	7.6
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.2	0.3	0.3

Intersection

Intersection Delay, s/veh 78.6

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	90	130	11	65	166	174	19	271	64	111	259	53
Future Vol, veh/h	90	130	11	65	166	174	19	271	64	111	259	53
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	8	13	33	18	7	7	24	15	20	13	12	16
Mvmt Flow	97	140	12	70	178	187	20	291	69	119	278	57
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	31.2			87.5			66.2			106.3		
HCM LOS	D			F			F			F		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	39%	16%	26%
Vol Thru, %	77%	56%	41%	61%
Vol Right, %	18%	5%	43%	13%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	354	231	405	423
LT Vol	19	90	65	111
Through Vol	271	130	166	259
RT Vol	64	11	174	53
Lane Flow Rate	381	248	435	455
Geometry Grp	1	1	1	1
Degree of Util (X)	0.95	0.662	1.042	1.103
Departure Headway (Hd)	9.554	10.24	9.092	9.095
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	381	355	401	405
Service Time	7.554	8.24	7.092	7.095
HCM Lane V/C Ratio	1	0.699	1.085	1.123
HCM Control Delay, s/veh	66.2	31.2	87.5	106.3
HCM Lane LOS	F	D	F	F
HCM 95th-tile Q	10.5	4.5	13.5	15.6

HCM 7th Signalized Intersection Capacity Analysis
7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 Build Senior Housing
Timing Plan: Peak AM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	339	15	59	431	27	44	133	128	25	63	58
Future Volume (veh/h)	64	339	15	59	431	27	44	133	128	25	63	58
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1688	1614	1688	2091	2061	2076	1909	1924	1879	2076	2076	2106
Adj Flow Rate, veh/h	67	353	16	61	449	28	46	139	133	26	66	60
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	5	0	3	5	4	2	1	4	4	4	2
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	132	613	26	126	821	49	111	293	250	127	316	251
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
Prop Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	16.1	0.0	0.0	15.0	0.0	0.0	21.2	0.0	0.0	17.4	0.0	0.0
Ln Grp LOS	B			B			C			B		
Approach Vol, veh/h		436			538			318			152	
Approach Delay, s/veh		16.1			15.0			21.2			17.4	
Approach LOS		B			B			C			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Case No		8.0		8.0		8.0		8.0				
Phs Duration (G+Y+Rc), s		41.0		31.0		41.0		31.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green (Gmax), s		35.0		25.0		35.0		25.0				
Max Allow Headway (MAH), s		5.5		5.5		5.4		5.4				
Max Q Clear (g_c+l1), s		16.0		6.0		15.2		12.3				
Green Ext Time (g_e), s		2.9		0.8		3.6		1.6				
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt		5		7		1		3				
Mvmt Sat Flow, veh/h		152		197		145		155				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1260		911		1689		845				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		54		723		101		719				
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 Build Senior Housing

Timing Plan: Peak AM Hour

Lane Assignment	L+T+R	L+T+R	L+T+R	L+T+R
Lanes in Grp	0	1	0	1
Grp Vol (v), veh/h	0	436	0	152
Grp Sat Flow (s), veh/h/ln	0	1466	0	1831
Q Serve Time (g_s), s	0.0	0.7	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	14.0	0.0	4.0
Perm LT Sat Flow (s_l), veh/h/ln	0	930	0	1124
Shared LT Sat Flow (s_sh), veh/h/ln	0	1601	0	2058
Perm LT Eff Green (g_p), s	0.0	35.0	0.0	25.0
Perm LT Serve Time (g_u), s	0.0	21.8	0.0	14.7
Perm LT Q Serve Time (g_ps), s	0.0	0.7	0.0	0.0
Time to First Blk (g_f), s	0.0	10.4	0.0	8.8
Serve Time pre Blk (g_fs), s	0.0	10.4	0.0	4.0
Prop LT Inside Lane (P_L)	0.00	0.15	0.00	0.17
Lane Grp Cap (c), veh/h	0	770	0	694
V/C Ratio (X)	0.00	0.57	0.00	0.22
Avail Cap (c_a), veh/h	0	770	0	694
Upstream Filter (l)	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.1	0.0	16.6
Incr Delay (d2), s/veh	0.0	3.0	0.0	0.7
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	16.1	0.0	17.4
1st-Term Q (Q1), veh/ln	0.0	4.4	0.0	1.7
2nd-Term Q (Q2), veh/ln	0.0	0.6	0.0	0.1
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	5.1	0.0	1.8
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.02
Initial Q (Qb), veh	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis

7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 Build Senior Housing

Timing Plan: Peak AM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.04	0.00	0.39	0.00	0.05	0.00	0.42
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh 16.9

HCM 7th LOS B

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 Build Senior Housing
Timing Plan: Peak AM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (veh/h)	26	282	177	134	486	31	218	171	39	32	158	29
Future Volume (veh/h)	26	282	177	134	486	31	218	171	39	32	158	29
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	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		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1826	1856	1870	1904	1904	1919	1909	1849	1804	1939	1849	1864
Adj Flow Rate, veh/h	27	291	182	138	501	32	225	176	40	33	163	30
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	5	3	2	5	5	4	2	6	9	0	6	5
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	394	554	347	371	566	36	416	525	119	401	547	101
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
Prop Arrive On Green	0.16	0.52	0.52	0.32	0.32	0.32	0.36	0.36	0.36	0.36	0.36	0.36
Unsig. Movement Delay												
Ln Grp Delay, s/veh	17.3	0.0	18.0	30.0	0.0	49.5	36.5	0.0	24.7	27.6	0.0	24.1
Ln Grp LOS	B		B	C		D	D		C	C		C
Approach Vol, veh/h	500			671			441			226		
Approach Delay, s/veh	18.0			45.5			30.7			24.6		
Approach LOS	B			D			C			C		
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Case No		4.0		6.0	1.2	6.3		6.0				
Phs Duration (G+Y+Rc), s	58.0		42.0	20.0	38.0		42.0					
Change Period (Y+Rc), s	6.0		6.0	4.0	6.0		6.0					
Max Green (Gmax), s	52.0		36.0	16.0	32.0		36.0					
Max Allow Headway (MAH), s	5.4		5.1	3.8	5.2		4.7					
Max Q Clear (g_c+l1), s	20.0		12.8	2.8	28.9		26.0					
Green Ext Time (g_e), s	3.5		1.2	0.0	1.3		1.5					
Prob of Phs Call (p_c)	1.00		1.00	1.00	1.00		1.00					
Prob of Max Out (p_x)	0.00		0.00	0.00	0.00		0.00					
Left-Turn Movement Data												
Assigned Mvmt			7	5	1		3					
Mvmt Sat Flow, veh/h			1208	1739	933		1214					
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1065		1519		1769		1458				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		666		280		113		331				
Left Lane Group Data												
Assigned Mvmt	0	0	0	7	5	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 Build Senior Housing
Timing Plan: Peak AM Hour

Lane Assignment			LL (Pr/Pm)	L	L	
Lanes in Grp	0	0	0	1	1	1
Grp Vol (v), veh/h	0	0	0	33	27	138
Grp Sat Flow (s), veh/h/ln	0	0	0	1208	1739	933
Q Serve Time (g_s), s	0.0	0.0	0.0	2.0	0.8	11.8
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	10.8	0.8	11.8
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1208	850	933
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	36.0	34.0	32.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	27.2	5.1	32.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	2.0	0.9	11.8
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	1.00
Lane Grp Cap (c), veh/h	0	0	0	401	394	371
V/C Ratio (X)	0.00	0.00	0.00	0.08	0.07	0.37
Avail Cap (c_a), veh/h	0	0	0	401	394	371
Upstream Filter (l)	0.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	27.2	17.0	27.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.4	0.3	2.9
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	27.6	17.3	30.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.3	2.6
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.6	0.3	2.9
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.02	0.01	0.13
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data							
Assigned Mvmt	0	2	0	4	0	6	0
Lane Assignment							
Lanes in Grp	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 Build Senior Housing
Timing Plan: Peak AM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	473	0	193	0	533	0	216
Grp Sat Flow (s), veh/h/ln	0	1732	0	1798	0	1882	0	1789
Q Serve Time (g_s), s	0.0	18.0	0.0	7.7	0.0	26.9	0.0	8.8
Cycle Q Clear Time (g_c), s	0.0	18.0	0.0	7.7	0.0	26.9	0.0	8.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.38	0.00	0.16	0.00	0.06	0.00	0.19
Lane Grp Cap (c), veh/h	0	901	0	647	0	602	0	644
V/C Ratio (X)	0.00	0.53	0.00	0.30	0.00	0.88	0.00	0.34
Avail Cap (c_a), veh/h	0	901	0	647	0	602	0	644
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	15.8	0.0	22.9	0.0	32.3	0.0	23.3
Incr Delay (d2), s/veh	0.0	2.2	0.0	1.2	0.0	17.2	0.0	1.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.0	0.0	24.1	0.0	49.5	0.0	24.7
1st-Term Q (Q1), veh/ln	0.0	6.8	0.0	3.2	0.0	11.9	0.0	3.7
2nd-Term Q (Q2), veh/ln	0.0	0.5	0.0	0.2	0.0	2.9	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	7.3	0.0	3.4	0.0	14.8	0.0	3.9
%ile Storage Ratio (RQ%)	0.00	0.29	0.00	0.09	0.00	0.67	0.00	0.15
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	31.9
HCM 7th LOS	C

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	386	513	27	28	46
Future Vol, veh/h	20	386	513	27	28	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	4	-	-1	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	5	4	0	4	2
Mvmt Flow	22	424	564	30	31	51

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	593	0	-
Stage 1	-	-	579
Stage 2	-	-	468
Critical Hdwy	4.1	-	6.24 6.12
Critical Hdwy Stg 1	-	-	5.24
Critical Hdwy Stg 2	-	-	5.24
Follow-up Hdwy	2.2	-	3.536 3.318
Pot Cap-1 Maneuver	993	-	266 524
Stage 1	-	-	575
Stage 2	-	-	643
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	993	-	258 524
Mov Cap-2 Maneuver	-	-	258
Stage 1	-	-	558
Stage 2	-	-	643

Approach	EB	WB	SB
HCM Control Delay, s/v	0.43	0	17.17
HCM LOS		C	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	89	-	-	-	377
HCM Lane V/C Ratio	0.022	-	-	-	0.216
HCM Control Delay (s/veh)	8.7	0	-	-	17.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	U	U
Traffic Vol, veh/h	32	22	32	290	306	31
Future Vol, veh/h	32	22	32	290	306	31
Conflicting Peds, #/hr	0	3	4	0	0	4
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	1	-1	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	4	2	0
Mvmt Flow	34	23	34	309	326	33
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	723	349	363	0	-	0
Stage 1	346	-	-	-	-	-
Stage 2	377	-	-	-	-	-
Critical Hdwy	5.8	5.9	4.1	-	-	-
Critical Hdwy Stg 1	4.8	-	-	-	-	-
Critical Hdwy Stg 2	4.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	447	719	1207	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	428	715	1203	-	-	-
Mov Cap-2 Maneuver	428	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	12.92	0.8		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	179	-	512	-	-	
HCM Lane V/C Ratio	0.028	-	0.112	-	-	
HCM Control Delay (s/veh)	8.1	0	12.9	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-	

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↔	↔	↑	↔	↑
Traffic Vol, veh/h	192	146	7	209	91	1
Future Vol, veh/h	192	146	7	209	91	1
Conflicting Peds, #/hr	0	6	6	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	1	7	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	2	0	5	2	0
Mvmt Flow	204	155	7	222	97	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	366	0	525	288
Stage 1	-	-	-	-	288	-
Stage 2	-	-	-	-	237	-
Critical Hdwy	-	-	4.1	-	7.82	6.9
Critical Hdwy Stg 1	-	-	-	-	6.82	-
Critical Hdwy Stg 2	-	-	-	-	6.82	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1204	-	418	715
Stage 1	-	-	-	-	680	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1197	-	413	711
Mov Cap-2 Maneuver	-	-	-	-	413	-
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	726	-
Approach	EB	WB	NB			
HCM Control Delay, s/v	0	0.26	16.34			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	415	-	-	58	-	
HCM Lane V/C Ratio	0.236	-	-	0.006	-	
HCM Control Delay (s/veh)	16.3	-	-	8	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.9	-	-	0	-	

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		↑		↓	
Traffic Vol, veh/h	11	6	223	5	3	207
Future Vol, veh/h	11	6	223	5	3	207
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	12	7	242	5	3	225
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	477	245	0	0	248	0
Stage 1	245	-	-	-	-	-
Stage 2	232	-	-	-	-	-
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	547	794	-	-	1318	-
Stage 1	796	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	546	794	-	-	1318	-
Mov Cap-2 Maneuver	546	-	-	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s/11.05		0		0.11		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	613	26	-	
HCM Lane V/C Ratio	-	-	0.03	0.002	-	
HCM Control Delay (s/veh)	-	-	11.1	7.7	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection

Int Delay, s/veh 76.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			↑	↑	
Traffic Vol, veh/h	198	79	152	381	390	242
Future Vol, veh/h	198	79	152	381	390	242
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	-	-	-5	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	17	14	13	12	10	12
Mvmt Flow	208	83	160	401	411	255

Major/Minor	Minor2	Major1	Major2		
Conflicting Flow All	1259	538	665	0	-
Stage 1	538	-	-	-	-
Stage 2	721	-	-	-	-
Critical Hdwy	6.57	6.34	4.23	-	-
Critical Hdwy Stg 1	5.57	-	-	-	-
Critical Hdwy Stg 2	5.57	-	-	-	-
Follow-up Hdwy	3.653	3.426	2.317	-	-
Pot Cap-1 Maneuver	~ 175	521	874	-	-
Stage 1	556	-	-	-	-
Stage 2	455	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 134	521	874	-	-
Mov Cap-2 Maneuver	~ 134	-	-	-	-
Stage 1	425	-	-	-	-
Stage 2	455	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v\$	392	2.86	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	513	-	170	-	-
HCM Lane V/C Ratio	0.183	-	1.714	-	-
HCM Control Delay (s/veh)	10	0	\$ 392	-	-
HCM Lane LOS	B	A	F	-	-
HCM 95th %tile Q(veh)	0.7	-	20.5	-	-

Notes

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

Intersection						
Int Delay, s/veh	9.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	119	144	433	502	69
Future Vol, veh/h	70	119	144	433	502	69
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	-	-	-5	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	14	11	11	14	11	14
Mvmt Flow	73	124	150	451	523	72
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1310	559	595	0	-	0
Stage 1	559	-	-	-	-	-
Stage 2	751	-	-	-	-	-
Critical Hdwy	6.54	6.31	4.21	-	-	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.399	2.299	-	-	-
Pot Cap-1 Maneuver	166	512	939	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	130	512	939	-	-	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	432	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v60	45.45	2.39		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	449	-	245	-	-	
HCM Lane V/C Ratio	0.16	-	0.802	-	-	
HCM Control Delay (s/veh)	9.6	0	60.4	-	-	
HCM Lane LOS	A	A	F	-	-	
HCM 95th %tile Q(veh)	0.6	-	6.1	-	-	

Intersection

Intersection Delay, s/veh 7.7

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Traffic Vol, veh/h	39	15	0	0	11	45	0	0	0	49	0	50
Future Vol, veh/h	39	15	0	0	11	45	0	0	0	49	0	50
Peak Hour Factor	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	2	0	0
Mvmt Flow	57	22	0	0	16	65	0	0	0	71	0	72
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB		SB			
Opposing Approach	WB				EB			SB		NB		
Opposing Lanes	1				1			1		1		
Conflicting Approach Left	SB				NB			EB		WB		
Conflicting Lanes Left	1				1			1		1		
Conflicting Approach Right	NB				SB			WB		EB		
Conflicting Lanes Right	1				1			1		1		
HCM Control Delay, s/veh	7.9				7.2			0		7.8		
HCM LOS	A				A			-		A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	72%	0%	49%
Vol Thru, %	100%	28%	20%	0%
Vol Right, %	0%	0%	80%	51%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	54	56	99
LT Vol	0	39	0	49
Through Vol	0	15	11	0
RT Vol	0	0	45	50
Lane Flow Rate	0	78	81	143
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.095	0.084	0.16
Departure Headway (Hd)	4.392	4.361	3.731	4.003
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	812	945	885
Service Time	2.392	2.436	1.817	2.074
HCM Lane V/C Ratio	0	0.096	0.086	0.162
HCM Control Delay, s/veh	7.4	7.9	7.2	7.8
HCM Lane LOS	N	A	A	A
HCM 95th-tile Q	0	0.3	0.3	0.6

Intersection

Intersection Delay, s/veh 52.1

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⊕			⊕			⊕			⊕	
Traffic Vol, veh/h	108	157	13	44	80	88	18	237	66	101	266	70
Future Vol, veh/h	108	157	13	44	80	88	18	237	66	101	266	70
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	7	5	27	3	8	5	38	17	13	10	17	8
Mvmt Flow	123	178	15	50	91	100	20	269	75	115	302	80
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay, s/veh	30.8			21.8			42			87.9		
HCM LOS	D			C			E			F		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	39%	21%	23%
Vol Thru, %	74%	56%	38%	61%
Vol Right, %	21%	5%	42%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	321	278	212	437
LT Vol	18	108	44	101
Through Vol	237	157	80	266
RT Vol	66	13	88	70
Lane Flow Rate	365	316	241	497
Geometry Grp	1	1	1	1
Degree of Util (X)	0.833	0.721	0.553	1.065
Departure Headway (Hd)	8.561	8.571	8.654	7.721
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	427	423	419	472
Service Time	6.561	6.571	6.654	5.721
HCM Lane V/C Ratio	0.855	0.747	0.575	1.053
HCM Control Delay, s/veh	42	30.8	21.8	87.9
HCM Lane LOS	E	D	C	F
HCM 95th-tile Q	7.9	5.6	3.3	15.7

HCM 7th Signalized Intersection Capacity Analysis
7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 Build Senior Housing
Timing Plan: Peak PM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	378	24	135	459	30	22	108	93	33	122	83
Future Volume (veh/h)	68	378	24	135	459	30	22	108	93	33	122	83
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj (A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1688	1673	1688	2091	2091	2136	1864	1909	1939	2136	2091	2061
Adj Flow Rate, veh/h	72	402	26	144	488	32	23	115	99	35	130	88
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	1	0	3	3	0	5	2	0	0	3	5
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	125	592	36	206	616	39	83	322	251	108	376	228
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
Prop Arrive On Green	0.49	0.49	0.49	0.49	0.49	0.49	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	18.5	0.0	0.0	22.5	0.0	0.0	19.2	0.0	0.0	19.0	0.0	0.0
Ln Grp LOS	B			C			B			B		
Approach Vol, veh/h		500			664			237			253	
Approach Delay, s/veh		18.5			22.5			19.2			19.0	
Approach LOS		B			C			B			B	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Case No		8.0		8.0		8.0		8.0				
Phs Duration (G+Y+Rc), s		41.0		31.0		41.0		31.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green (Gmax), s		35.0		25.0		35.0		25.0				
Max Allow Headway (MAH), s		5.5		5.4		5.5		5.4				
Max Q Clear (g_c+l1), s		20.8		8.9		27.8		9.2				
Green Ext Time (g_e), s		3.0		1.3		2.8		1.2				
Prob of Phs Call (p_c)		1.00		1.00		1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00		0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt		5		7		1		3				
Mvmt Sat Flow, veh/h		139		146		298		80				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1218		1083		1267		928				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		74		656		79		723				
Left Lane Group Data												
Assigned Mvmt	0	5	0	7	0	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis

7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 Build Senior Housing

Timing Plan: Peak PM Hour

Lane Assignment	L+T+R	L+T+R	L+T+R	L+T+R
Lanes in Grp	0	1	0	1
Grp Vol (v), veh/h	0	500	0	253
Grp Sat Flow (s), veh/h/ln	0	1431	0	1885
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	18.8	0.0	6.9
Perm LT Sat Flow (s_l), veh/h/ln	0	896	0	1186
Shared LT Sat Flow (s_sh), veh/h/ln	0	1292	0	2077
Perm LT Eff Green (g_p), s	0.0	35.0	0.0	25.0
Perm LT Serve Time (g_u), s	0.0	9.2	0.0	17.8
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	9.9	0.0	10.5
Serve Time pre Blk (g_fs), s	0.0	9.9	0.0	6.9
Prop LT Inside Lane (P_L)	0.00	0.14	0.00	0.14
Lane Grp Cap (c), veh/h	0	753	0	711
V/C Ratio (X)	0.00	0.66	0.00	0.36
Avail Cap (c_a), veh/h	0	753	0	711
Upstream Filter (l)	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	13.9	0.0	17.6
Incr Delay (d2), s/veh	0.0	4.6	0.0	1.4
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.5	0.0	19.0
1st-Term Q (Q1), veh/ln	0.0	5.4	0.0	3.0
2nd-Term Q (Q2), veh/ln	0.0	1.0	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	6.3	0.0	3.2
%ile Storage Ratio (RQ%)	0.00	0.08	0.00	0.04
Initial Q (Qb), veh	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	6	0	8
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis

7: Hempstead Road/Summit Park Road & New Hempstead Road

2027 Build Senior Housing

Timing Plan: Peak PM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment								
Lanes in Grp	0	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.05	0.00	0.35	0.00	0.05	0.00	0.42
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0	0
Upstream Filter (I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	20.3
HCM 7th LOS	C

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 Build Senior Housing
Timing Plan: Peak PM Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑		↑	↑		↑	↑		↑	↑	
Traffic Volume (veh/h)	31	357	180	191	324	34	152	190	55	32	192	23
Future Volume (veh/h)	31	357	180	191	324	34	152	190	55	32	192	23
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q, veh	0	0	0	0	0	0	0	0	0	0	0	0
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		0.99	1.00		0.99	1.00	0.99
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No		No	
Lanes Open During Work Zone												
Adj Sat Flow, veh/h/ln	1900	1885	1885	1949	1949	1979	1894	1924	1879	1939	1909	1939
Adj Flow Rate, veh/h	32	368	186	197	334	35	157	196	57	33	198	24
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	2	2	0	3	1	4	0	2	0
Opposing Right Turn Influence	Yes			Yes			Yes			Yes		
Cap, veh/h	543	635	321	361	600	63	372	495	144	352	578	70
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
Prop Arrive On Green	0.15	0.54	0.54	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Unsig. Movement Delay												
Ln Grp Delay, s/veh	14.1	0.0	18.7	35.9	0.0	30.9	36.5	0.0	27.6	31.2	0.0	26.7
Ln Grp LOS	B		B	D		C	D		C	C		C
Approach Vol, veh/h		586			566			410			255	
Approach Delay, s/veh		18.4			32.6			31.0			27.3	
Approach LOS		B			C			C			C	
Timer:	1	2	3	4	5	6	7	8				
Assigned Phs		2		4	5	6		8				
Case No		4.0		6.0	1.2	6.3		6.0				
Phs Duration (G+Y+Rc), s		62.0		42.0	20.0	42.0		42.0				
Change Period (Y+Rc), s		6.0		6.0	4.0	6.0		6.0				
Max Green (Gmax), s		56.0		36.0	16.0	36.0		36.0				
Max Allow Headway (MAH), s		5.4		5.2	3.8	5.3		4.9				
Max Q Clear (g_c+l1), s		23.8		15.1	2.9	23.7		23.1				
Green Ext Time (g_e), s		4.3		1.3	0.0	2.8		1.7				
Prob of Phs Call (p_c)		1.00		1.00	1.00	1.00		1.00				
Prob of Max Out (p_x)		0.00		0.00	0.00	0.00		0.00				
Left-Turn Movement Data												
Assigned Mvmt				7	5	1		3				
Mvmt Sat Flow, veh/h				1166	1810	888		1171				
Through Movement Data												
Assigned Mvmt		2		4		6		8				
Mvmt Sat Flow, veh/h		1179		1669		1733		1431				
Right-Turn Movement Data												
Assigned Mvmt		12		14		16		18				
Mvmt Sat Flow, veh/h		596		202		182		416				
Left Lane Group Data												
Assigned Mvmt	0	0	0	7	5	1	0	3				

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 Build Senior Housing
Timing Plan: Peak PM Hour

Lane Assignment			LL (Pr/Pm)	L	L		
Lanes in Grp	0	0	0	1	1	1	0
Grp Vol (v), veh/h	0	0	0	33	32	197	0
Grp Sat Flow (s), veh/h/ln	0	0	0	1166	1810	888	0
Q Serve Time (g_s), s	0.0	0.0	0.0	2.3	0.9	19.9	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	13.1	0.9	21.7	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	0	0	1166	1029	888	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	36.0	38.0	36.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	25.2	19.8	34.2	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	2.3	0.6	19.9	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	0.00	0.00	1.00	1.00	1.00	0.00
Lane Grp Cap (c), veh/h	0	0	0	352	543	361	0
V/C Ratio (X)	0.00	0.00	0.00	0.09	0.06	0.55	0.00
Avail Cap (c_a), veh/h	0	0	0	352	543	361	0
Upstream Filter (l)	0.00	0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	30.7	13.9	30.1	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.2	5.8	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	31.2	14.1	35.9	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.6	0.4	4.2	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.6	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	0.00	0.00	1.00	1.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.7	0.4	4.8	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.02	0.01	0.21	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data							
Assigned Mvmt	0	2	0	4	0	6	0
Lane Assignment							
Lanes in Grp	0	0	0	0	0	0	0
Grp Vol (v), veh/h	0	0	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	0	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane Grp Cap (c), veh/h	0	0	0	0	0	0	0
V/C Ratio (X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	0	0	0	0	0	0
Upstream Filter (l)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0

HCM 7th Signalized Intersection Capacity Analysis
22: Viola Road & Union Road

2027 Build Senior Housing
Timing Plan: Peak PM Hour

2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	16	0	18
Lane Assignment		T+R		T+R		T+R		T+R
Lanes in Grp	0	1	0	1	0	1	0	1
Grp Vol (v), veh/h	0	554	0	222	0	369	0	253
Grp Sat Flow (s), veh/h/ln	0	1775	0	1872	0	1915	0	1847
Q Serve Time (g_s), s	0.0	21.8	0.0	9.2	0.0	16.2	0.0	10.8
Cycle Q Clear Time (g_c), s	0.0	21.8	0.0	9.2	0.0	16.2	0.0	10.8
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	0.34	0.00	0.11	0.00	0.09	0.00	0.23
Lane Grp Cap (c), veh/h	0	956	0	648	0	663	0	639
V/C Ratio (X)	0.00	0.58	0.00	0.34	0.00	0.56	0.00	0.40
Avail Cap (c_a), veh/h	0	956	0	648	0	663	0	639
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	16.1	0.0	25.2	0.0	27.5	0.0	25.8
Incr Delay (d2), s/veh	0.0	2.6	0.0	1.4	0.0	3.4	0.0	1.8
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	18.7	0.0	26.7	0.0	30.9	0.0	27.6
1st-Term Q (Q1), veh/ln	0.0	8.4	0.0	4.0	0.0	7.3	0.0	4.7
2nd-Term Q (Q2), veh/ln	0.0	0.7	0.0	0.3	0.0	0.6	0.0	0.3
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	9.1	0.0	4.3	0.0	7.9	0.0	5.0
%ile Storage Ratio (RQ%)	0.00	0.35	0.00	0.10	0.00	0.35	0.00	0.19
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary

HCM 7th Control Delay, s/veh	26.9
HCM 7th LOS	C

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	453	558	14	16	44
Future Vol, veh/h	45	453	558	14	16	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-5	4	-	-1	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	1	3	0	0	2
Mvmt Flow	48	487	600	15	17	47
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	615	0	-	0	1191	608
Stage 1	-	-	-	-	608	-
Stage 2	-	-	-	-	584	-
Critical Hdwy	4.1	-	-	-	6.2	6.12
Critical Hdwy Stg 1	-	-	-	-	5.2	-
Critical Hdwy Stg 2	-	-	-	-	5.2	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.318
Pot Cap-1 Maneuver	974	-	-	-	223	504
Stage 1	-	-	-	-	566	-
Stage 2	-	-	-	-	580	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	974	-	-	-	208	504
Mov Cap-2 Maneuver	-	-	-	-	208	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	580	-
Approach	EB	WB	SB			
HCM Control Delay, s/v	0.8	0	16.95			
HCM LOS			C			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBR
Capacity (veh/h)	163	-	-	-	366	-
HCM Lane V/C Ratio	0.05	-	-	-	0.177	-
HCM Control Delay (s/veh)	8.9	0	-	-	16.9	-
HCM Lane LOS	A	A	-	-	C	-
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6	-

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	50	24	5	267	277	27
Future Vol, veh/h	50	24	5	267	277	27
Conflicting Peds, #/hr	0	0	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-3	-	-	1	-1	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	4	0	2	1	4
Mvmt Flow	56	27	6	297	308	30
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	632	324	339	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	5.82	5.94	4.1	-	-	-
Critical Hdwy Stg 1	4.82	-	-	-	-	-
Critical Hdwy Stg 2	4.82	-	-	-	-	-
Follow-up Hdwy	3.518	3.336	2.2	-	-	-
Pot Cap-1 Maneuver	494	732	1232	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	785	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	490	731	1231	-	-	-
Mov Cap-2 Maneuver	490	-	-	-	-	-
Stage 1	769	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s/v	12.71	0.15		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	33	-	549	-	-	
HCM Lane V/C Ratio	0.005	-	0.15	-	-	
HCM Control Delay (s/veh)	7.9	0	12.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.5	-	-	

Intersection						
Int Delay, s/veh	1.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↔	↔		
Traffic Vol, veh/h	234	63	1	225	48	1
Future Vol, veh/h	234	63	1	225	48	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-6	-	-	1	7	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	4	0	0	3	2	0
Mvmt Flow	257	69	1	247	53	1
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	326	0	541	292
Stage 1	-	-	-	-	292	-
Stage 2	-	-	-	-	249	-
Critical Hdwy	-	-	4.1	-	7.82	6.9
Critical Hdwy Stg 1	-	-	-	-	6.82	-
Critical Hdwy Stg 2	-	-	-	-	6.82	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.3
Pot Cap-1 Maneuver	-	-	1245	-	407	711
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	719	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1245	-	406	711
Mov Cap-2 Maneuver	-	-	-	-	406	-
Stage 1	-	-	-	-	677	-
Stage 2	-	-	-	-	718	-
Approach	EB	WB	NB			
HCM Control Delay, s/v	0	0.03	15.11			
HCM LOS			C			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	410	-	-	8	-	
HCM Lane V/C Ratio	0.131	-	-	0.001	-	
HCM Control Delay (s/veh)	15.1	-	-	7.9	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.4	-	-	0	-	

Intersection

Int Delay, s/veh 0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	B			A	
Traffic Vol, veh/h	7	4	244	11	6	239
Future Vol, veh/h	7	4	244	11	6	239
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	8	4	265	12	7	260

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	544	271	0	0	277
Stage 1	271	-	-	-	-
Stage 2	273	-	-	-	-
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	500	767	-	-	1286
Stage 1	774	-	-	-	-
Stage 2	773	-	-	-	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	497	767	-	-	1286
Mov Cap-2 Maneuver	497	-	-	-	-
Stage 1	774	-	-	-	-
Stage 2	769	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/11.45		0	0.19
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	44	-
HCM Lane V/C Ratio	-	-	0.021	0.005	-
HCM Control Delay (s/veh)	-	-	11.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection						
Int Delay, s/veh	38.4					
Movement	EBL	EBC	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	198	104	100	336	339	274
Future Vol, veh/h	198	104	100	336	339	274
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	-	-	-5	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	9	10	13	12	14	10
Mvmt Flow	208	109	105	354	357	288

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1065	501	645	0	-	0
Stage 1	501	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Critical Hdwy	6.49	6.3	4.23	-	-	-
Critical Hdwy Stg 1	5.49	-	-	-	-	-
Critical Hdwy Stg 2	5.49	-	-	-	-	-
Follow-up Hdwy	3.581	3.39	2.317	-	-	-
Pot Cap-1 Maneuver	239	554	890	-	-	-
Stage 1	595	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 204	554	890	-	-	-
Mov Cap-2 Maneuver	~ 204	-	-	-	-	-
Stage 1	507	-	-	-	-	-
Stage 2	556	-	-	-	-	-

Approach	EB	NB	SB			
HCM Control Delay, s/veh	68.72	2.2	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	413	-	260	-	-	
HCM Lane V/C Ratio	0.118	-	1.221	-	-	
HCM Control Delay (s/veh)	9.6	0	168.7	-	-	
HCM Lane LOS	A	A	F	-	-	
HCM 95th %tile Q(veh)	0.4	-	15.1	-	-	

Notes

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

Intersection						
Int Delay, s/veh	7.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			U	R	
Traffic Vol, veh/h	66	140	114	414	477	109
Future Vol, veh/h	66	140	114	414	477	109
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	-	-	-5	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	11	15	5	12	11	4
Mvmt Flow	68	144	118	427	492	112
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1210	548	604	0	-	0
Stage 1	548	-	-	-	-	-
Stage 2	662	-	-	-	-	-
Critical Hdwy	6.51	6.35	4.15	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.435	2.245	-	-	-
Pot Cap-1 Maneuver	193	512	959	-	-	-
Stage 1	562	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	162	512	959	-	-	-
Mov Cap-2 Maneuver	162	-	-	-	-	-
Stage 1	471	-	-	-	-	-
Stage 2	497	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s/v40.58		2	0			
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	389	-	303	-	-	
HCM Lane V/C Ratio	0.123	-	0.701	-	-	
HCM Control Delay (s/veh)	9.3	0	40.6	-	-	
HCM Lane LOS	A	A	E	-	-	
HCM 95th %tile Q(veh)	0.4	-	4.9	-	-	

APPENDIX E
TRAFFIC COUNT SHEETS

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/CR 80 & Brick Church Rd
City: Spring Valley
Control: 4-Way Stop

Project ID: 24-380087-001
Date: 10/1/2024

Data - Total

NS/EW Streets:	Union Rd/CR 80				Union Rd/CR 80				Brick Church Rd				Brick Church Rd				TOTAL	
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU		
6:30 AM	0	35	3	0	5	21	7	0	24	4	1	0	1	7	3	0	111	
6:45 AM	1	25	0	0	1	27	11	0	32	7	1	0	6	9	14	0	134	
7:00 AM	1	39	4	0	5	42	15	0	10	10	1	0	8	13	11	0	159	
7:15 AM	1	30	7	0	9	61	14	0	18	7	1	0	19	21	15	0	203	
7:30 AM	1	58	13	0	18	74	7	0	17	22	3	0	13	32	23	0	281	
7:45 AM	5	65	14	0	20	71	14	0	25	30	0	0	14	45	42	0	345	
8:00 AM	2	73	15	0	23	53	17	0	19	34	4	0	12	40	45	0	337	
8:15 AM	9	55	14	0	39	44	12	0	24	35	2	0	10	35	38	0	317	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 1887	
APPROACH %'s :	20	380	70	0	120	393	97	0	169	149	13	0	83	202	191	0		
4.26% 80.85% 14.89% 0.00%	19.67%	64.43%	15.90%	0.00%	51.06%	45.02%	3.93%	0.00%	17.44%	42.44%	40.13%	0.00%						
PEAK HR :	07:30 AM - 08:30 AM																TOTAL	
PEAK HR VOL :	17	251	56	0	100	242	50	0	85	121	9	0	49	152	148	0	1280	
PEAK HR FACTOR :	0.472	0.860	0.933	0.000		0.641	0.818	0.735	0.000	0.850	0.864	0.563	0.000	0.875	0.844	0.822	0.000	0.928
0.900				0.933				0.881				0.864						

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU		
3:45 PM	6	46	5	0	15	60	10	0	25	36	2	0	2	19	17	0	243	
4:00 PM	4	58	15	0	25	72	19	0	20	34	1	0	14	26	26	0	314	
4:15 PM	4	52	15	0	20	70	24	0	33	36	1	0	10	16	13	0	294	
4:30 PM	2	64	12	0	17	44	13	0	24	36	7	0	7	12	17	0	255	
4:45 PM	1	60	9	0	18	58	16	0	24	37	5	0	8	17	20	0	273	
5:00 PM	7	35	7	0	28	61	12	0	18	41	2	0	12	34	28	0	285	
5:15 PM	4	54	9	0	31	70	11	0	20	33	3	0	13	20	19	0	287	
5:30 PM	2	42	16	0	20	41	20	0	25	39	2	0	8	16	17	0	248	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 2199	
APPROACH %'s :	30	411	88	0	174	476	125	0	189	292	23	0	74	160	157	0		
5.67% 77.69% 16.64% 0.00%	22.45%	61.42%	16.13%	0.00%	37.50%	57.94%	4.56%	0.00%	18.93%	40.92%	40.15%	0.00%						
PEAK HR :	04:00 PM - 05:00 PM																TOTAL	
PEAK HR VOL :	11	234	51	0	80	244	72	0	101	143	14	0	39	71	76	0	1136	
PEAK HR FACTOR :	0.688	0.914	0.850	0.000		0.800	0.847	0.750	0.000	0.765	0.966	0.500	0.000	0.696	0.683	0.731	0.000	0.904
0.949				0.853				0.921				0.705						

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/CR 80 & Brick Church Rd

City: Spring Valley

Control: 4-Way Stop

Project ID: 24-380087-001

Date: 10/1/2024

Data - Cars

NS/EW Streets:	Union Rd/CR 80				Union Rd/CR 80				Brick Church Rd				Brick Church Rd					
	NORTHBOUND		SOUTHBOUND		EASTBOUND		WESTBOUND		WL		WT		WR		WU			
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL	
6:30 AM	0	28	0	0	5	17	3	0	22	3	1	0	1	7	3	0	90	
6:45 AM	0	21	0	0	1	25	9	0	32	6	0	0	5	8	13	0	120	
7:00 AM	1	25	1	0	4	38	14	0	10	10	1	0	7	12	9	0	132	
7:15 AM	0	25	3	0	7	56	12	0	14	6	1	0	15	20	14	0	173	
7:30 AM	1	45	12	0	17	66	7	0	14	18	1	0	12	31	21	0	245	
7:45 AM	5	59	11	0	19	68	10	0	24	25	0	0	12	42	42	0	317	
8:00 AM	1	63	10	0	18	43	13	0	19	32	3	0	8	37	42	0	289	
8:15 AM	6	47	12	0	33	36	12	0	21	30	2	0	8	31	33	0	271	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	14 3.72%	313 83.24%	49 13.03%	0 0.00%	104 19.51%	349 65.48%	80 15.01%	0 0.00%	156 52.88%	130 44.07%	9 3.05%	0 0.00%	68 15.70%	188 43.42%	177 40.88%	0 0.00%	1637	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL	
PEAK HR VOL :	13	214	45	0	87	213	42	0	78	105	6	0	40	141	138	0	1122	
PEAK HR FACTOR :	0.542	0.849	0.938	0.000		0.659	0.783	0.808	0.000	0.813	0.820	0.500	0.000	0.833	0.839	0.821	0.000	0.885
0.907				0.881				0.875				0.831						

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL	
3:45 PM	4	39	5	0	12	44	8	0	23	35	1	0	2	17	17	0	207	
4:00 PM	3	49	14	0	23	63	17	0	19	32	1	0	13	23	23	0	280	
4:15 PM	3	41	14	0	18	61	23	0	30	34	1	0	10	15	12	0	262	
4:30 PM	0	53	8	0	16	37	13	0	23	34	5	0	7	12	17	0	225	
4:45 PM	0	53	7	0	15	50	15	0	21	36	5	0	6	16	18	0	242	
5:00 PM	6	35	5	0	27	50	12	0	15	39	2	0	10	34	26	0	261	
5:15 PM	4	46	8	0	29	60	9	0	19	31	3	0	11	20	19	0	259	
5:30 PM	1	36	13	0	20	37	20	0	22	37	2	0	8	16	17	0	229	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	21 4.70%	352 78.75%	74 16.55%	0 0.00%	160 23.56%	402 59.20%	117 17.23%	0 0.00%	172 36.60%	278 59.15%	20 4.26%	0 0.00%	67 18.16%	153 41.46%	149 40.38%	0 0.00%	1965	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL	
PEAK HR VOL :	6	196	43	0	72	211	68	0	93	136	12	0	36	66	70	0	1009	
PEAK HR FACTOR :	0.500	0.925	0.768	0.000		0.783	0.837	0.739	0.000	0.775	0.944	0.600	0.000	0.692	0.717	0.761	0.000	0.901
0.928				0.852				0.927				0.729						

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/CR 80 & Brick Church Rd
City: Spring Valley
Control: 4-Way Stop

Project ID: 24-380087-001
Date: 10/1/2024

Data - HT

NS/EW Streets:	Union Rd/CR 80				Union Rd/CR 80				Brick Church Rd				Brick Church Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
6:30 AM	0	7	3	0	0	4	4	0	2	1	0	0	0	0	0	0	21
6:45 AM	1	4	0	0	0	2	2	0	0	1	1	0	1	1	1	0	14
7:00 AM	0	14	3	0	1	4	1	0	0	0	0	0	1	1	2	0	27
7:15 AM	1	5	4	0	2	5	2	0	4	1	0	0	4	1	1	0	30
7:30 AM	0	13	1	0	1	8	0	0	3	4	2	0	1	1	2	0	36
7:45 AM	0	6	3	0	1	3	4	0	1	5	0	0	2	3	0	0	28
8:00 AM	1	10	5	0	5	10	4	0	0	2	1	0	4	3	3	0	48
8:15 AM	3	8	2	0	6	8	0	0	3	5	0	0	2	4	5	0	46
TOTAL VOLUMES :	NL 6 6.38%	NT 67 71.28%	NR 21 22.34%	NU 0 0.00%	SL 16 20.78%	ST 44 57.14%	SR 17 22.08%	SU 0 0.00%	EL 13 36.11%	ET 19 52.78%	ER 4 11.11%	EU 0 0.00%	WL 15 34.88%	WT 14 32.56%	WR 14 32.56%	WU 0 0.00%	TOTAL 250
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	4	37	11	0	13 0.542 0.813	29	8	0	7	16	3	0	9	11	10	0	158
PEAK HR FACTOR :	0.333	0.712	0.550	0.000		0.725	0.500	0.000	0.583	0.800	0.375	0.000	0.563	0.688	0.500	0.000	0.823
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
	2	7	0	0	3	16	2	0	2	1	1	0	0	2	0	0	36
3:45 PM	1	9	1	0	2	9	2	0	1	2	0	0	1	3	3	0	34
4:00 PM	1	11	1	0	2	9	1	0	3	2	0	0	0	1	1	0	32
4:15 PM	2	11	4	0	1	7	0	0	1	2	2	0	0	0	0	0	30
4:30 PM	1	7	2	0	3	8	1	0	3	1	0	0	2	1	2	0	31
4:45 PM	1	0	2	0	1	11	0	0	3	2	0	0	2	0	2	0	24
5:00 PM	0	8	1	0	2	10	2	0	1	2	0	0	2	0	0	0	28
5:15 PM	1	6	3	0	0	4	0	0	3	2	0	0	0	0	0	0	19
TOTAL VOLUMES :	NL 9 10.98%	NT 59 71.95%	NR 14 17.07%	NU 0 0.00%	SL 14 14.58%	ST 74 77.08%	SR 8 8.33%	SU 0 0.00%	EL 17 50.00%	ET 14 41.18%	ER 3 8.82%	EU 0 0.00%	WL 7 31.82%	WT 7 31.82%	WR 8 36.36%	WU 0 0.00%	TOTAL 234
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	5	38	8	0	8 0.667 0.750	33	4	0	8	7	2	0	3	5	6	0	127
PEAK HR FACTOR :	0.625	0.864	0.500	0.000		0.917	0.500	0.000	0.667	0.875	0.250	0.000	0.375	0.417	0.500	0.000	0.934

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/CR 80 & Brick Church Rd
City: Spring Valley
Control: 4-Way Stop

Project ID: 24-380087-001
Date: 10/1/2024

Data - Bikes

NS/EW Streets:	Union Rd/CR 80				Union Rd/CR 80				Brick Church Rd				Brick Church Rd				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
3:45 PM	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	3
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	1	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	1	2	0	0	0	0	0	0	2	0	0	2	1	0	0	8
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	4
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.250	0.000	0.000	0.333

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd/CR 80 & Brick Church Rd
City: Spring Valley

Project ID: 24-380087-001
Date: 10/1/2024

Data - Pedestrians (Crosswalks)

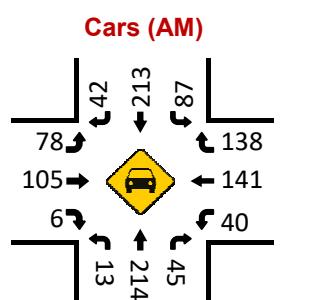
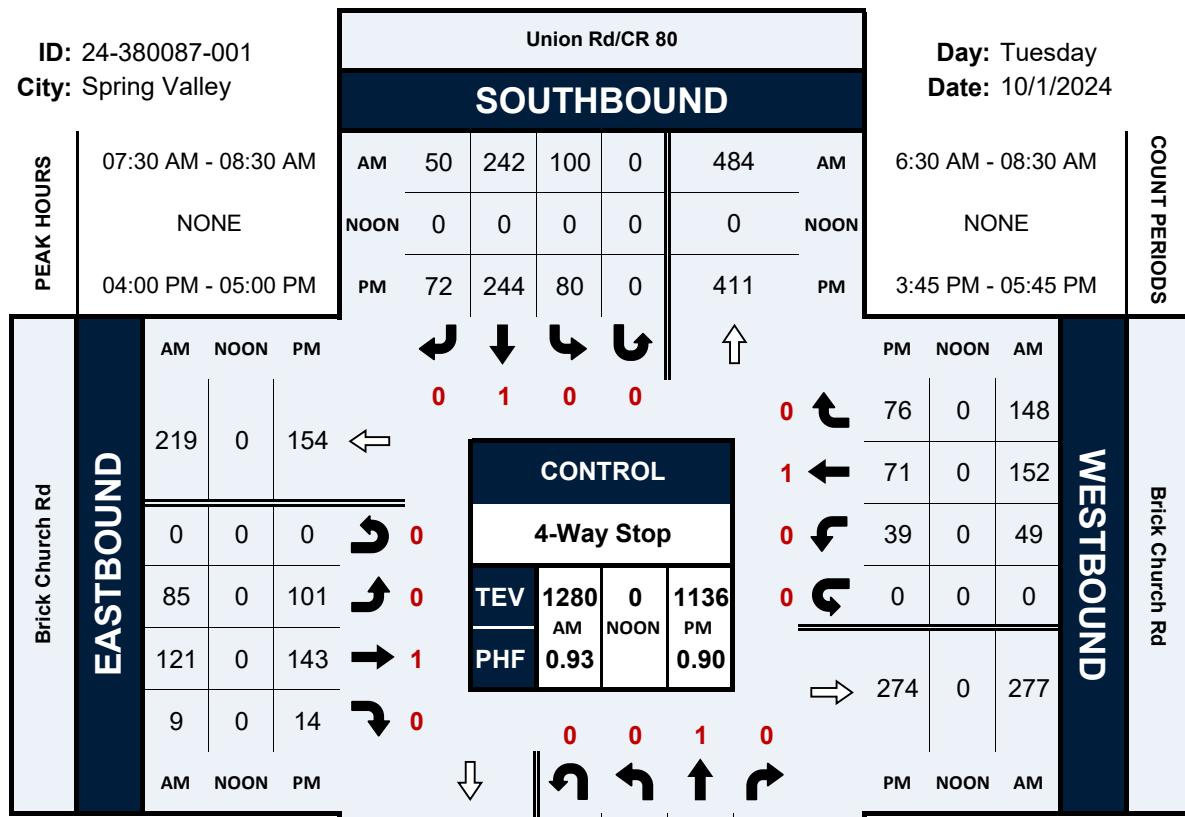
NS/EW Streets:	Union Rd/CR 80		Union Rd/CR 80		Brick Church Rd		Brick Church Rd				
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SCRAMBLE (NE/SW)		
AM	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	TOTAL
6:30 AM	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	2	0	0	2
7:00 AM	2	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	1	0	0	0	0	0	2	0	5
7:45 AM	0	0	0	0	1	3	1	0	0	0	5
8:00 AM	0	0	0	0	1	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	1	1	0	0	2
TOTAL VOLUMES :	EB 2 50.00%	WB 2 50.00%	EB 1 100.00%	WB 0 0.00%	NB 2 40.00%	SB 3 60.00%	NB 2 40.00%	SB 3 60.00%	NB 2 100.00%	SB 0 0.00%	TOTAL 17
APPROACH %'s :											
PEAK HR :	07:30 AM - 08:30 AM										TOTAL
PEAK HR VOL :	0	2	1	0	2	3	2	1	2	0	13
PEAK HR FACTOR :	0.250	0.250	0.250	0.250	0.500	0.250	0.500	0.250	0.250	0.250	0.650

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		SCRAMBLE (NE/SW)		
	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	1
5:30 PM	0	1	0	0	2	0	0	0	0	4	7
TOTAL VOLUMES :	EB 0 0.00%	WB 1 100.00%	EB 0 0.00%	WB 0 100.00%	NB 3 100.00%	SB 0 0.00%	NB 0 0.00%	SB 2 100.00%	NB 0 0.00%	SB 4 100.00%	TOTAL 10
APPROACH %'s :											
PEAK HR :	04:00 PM - 05:00 PM										TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	1	0	0	2
PEAK HR FACTOR :	0.250	0.250	0.250	0.250	0.500	0.250	0.500	0.250	0.250	0.250	0.500

Union Rd/CR 80 & Brick Church Rd**Peak Hour Turning Movement Count**

ID: 24-380087-001
City: Spring Valley

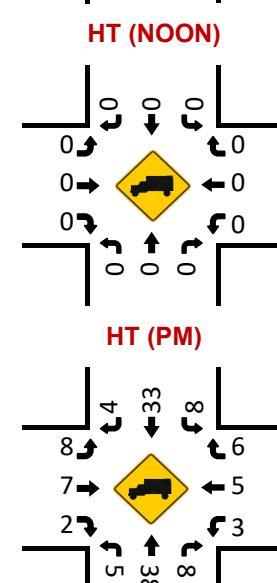
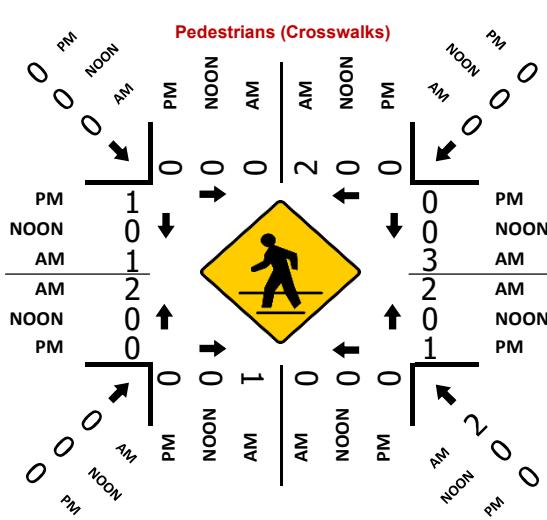
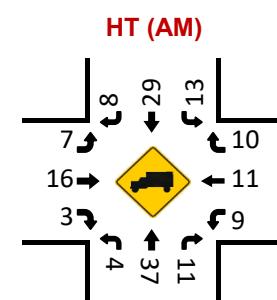
Day: Tuesday
Date: 10/1/2024



NORTHBOUND

Union Rd/CR 80

	PM	NOON	AM	PM	NOON	AM
PM	297	0	11	234	51	PM
NOON	0	0	0	0	0	NOON
AM	300	0	17	251	56	AM



National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/CR 80 & Grandview Ave
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380087-002
Date: 10/1/2024

Data - Total

NS/EW Streets:	Union Rd/CR 80				Union Rd/CR 80				Grandview Ave				Grandview Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
6:30 AM	8	57	0	0	0	25	18	0	57	0	5	0	0	0	0	0	170
6:45 AM	12	60	0	0	0	39	25	0	62	0	3	0	0	0	0	0	201
7:00 AM	16	43	0	0	0	62	27	0	32	0	9	0	0	0	0	0	189
7:15 AM	16	54	0	0	0	75	47	0	62	0	8	0	0	0	0	0	262
7:30 AM	17	76	0	0	0	109	42	0	51	0	14	0	0	0	0	0	309
7:45 AM	34	91	0	0	0	106	56	0	42	0	21	0	0	0	0	0	350
8:00 AM	39	87	0	0	0	85	62	0	47	0	16	0	0	0	0	0	336
8:15 AM	43	95	0	0	0	65	68	0	47	0	20	0	0	0	0	0	338
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	185	563	0	0	0	566	345	0	400	0	96	0	0	0	0	0	2155
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	133	349	0	0	0	365	228	0	187	0	71	0	0	0	0	0	1333
PEAK HR FACTOR :	0.773	0.918	0.000	0.000		0.000	0.837	0.838	0.000	0.917	0.000	0.845	0.000	0.000	0.000	0.000	0.952
	0.873					0.915				0.963							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
3:45 PM	25	68	0	0	0	77	69	0	46	0	11	0	0	0	0	0	296
4:00 PM	26	79	0	0	0	92	67	0	31	0	28	0	0	0	0	0	323
4:15 PM	14	81	0	0	0	82	69	0	48	0	30	0	0	0	0	0	324
4:30 PM	22	82	0	0	0	58	53	0	62	0	17	0	0	0	0	0	294
4:45 PM	26	79	0	0	0	64	53	0	40	0	23	0	0	0	0	0	285
5:00 PM	33	52	0	0	0	89	64	0	35	0	30	0	0	0	0	0	303
5:15 PM	24	79	0	0	0	77	67	0	52	0	28	0	0	0	0	0	327
5:30 PM	16	68	0	0	0	62	71	0	37	0	17	0	0	0	0	0	271
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	186	588	0	0	0	601	513	0	351	0	184	0	0	0	0	0	2423
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	87	310	0	0	0	309	258	0	187	0	86	0	0	0	0	0	1237
PEAK HR FACTOR :	0.837	0.945	0.000	0.000		0.000	0.840	0.935	0.000	0.754	0.000	0.717	0.000	0.000	0.000	0.000	0.954
	0.945					0.892				0.864							

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/CR 80 & Grandview Ave
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380087-002
Date: 10/1/2024

Data - Cars

NS/EW Streets:	Union Rd/CR 80				Union Rd/CR 80				Grandview Ave				Grandview Ave				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
6:30 AM	6 NL	50 NT	0 NR	0 NU	0 SL	18 ST	15 SR	0 SU	56 EL	0 ET	5 ER	0 EU	0 WL	0 WT	0 WR	0 WU	150
6:45 AM	11 NL	55 NT	0 NR	0 NU	0 SL	36 ST	24 SR	0 SU	57 EL	0 ET	3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	186
7:00 AM	12 NL	30 NT	0 NR	0 NU	0 SL	59 ST	22 SR	0 SU	31 EL	0 ET	7 ER	0 EU	0 WL	0 WT	0 WR	0 WU	161
7:15 AM	14 NL	46 NT	0 NR	0 NU	0 SL	68 ST	39 SR	0 SU	57 EL	0 ET	6 ER	0 EU	0 WL	0 WT	0 WR	0 WU	230
7:30 AM	14 NL	63 NT	0 NR	0 NU	0 SL	101 ST	40 SR	0 SU	42 EL	0 ET	11 ER	0 EU	0 WL	0 WT	0 WR	0 WU	271
7:45 AM	33 NL	85 NT	0 NR	0 NU	0 SL	97 ST	49 SR	0 SU	36 EL	0 ET	21 ER	0 EU	0 WL	0 WT	0 WR	0 WU	321
8:00 AM	33 NL	78 NT	0 NR	0 NU	0 SL	73 ST	52 SR	0 SU	40 EL	0 ET	14 ER	0 EU	0 WL	0 WT	0 WR	0 WU	290
8:15 AM	36 NL	82 NT	0 NR	0 NU	0 SL	57 ST	59 SR	0 SU	37 EL	0 ET	15 ER	0 EU	0 WL	0 WT	0 WR	0 WU	286
TOTAL VOLUMES :	NL 159	NT 489	NR 0	NU 0	SL 0	ST 509	SR 300	SU 0	EL 356	ET 0	ER 82	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 1895
APPROACH %'s :	24.54%	75.46%	0.00%	0.00%	0.00%	62.92%	37.08%	0.00%	81.28%	0.00%	18.72%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	116	308	0	0	0 0.000	328	200	0	155	0	61	0	0	0	0	0	1168
PEAK HR FACTOR :	0.806	0.906	0.000	0.000		0.812	0.847	0.000	0.923	0.000	0.726	0.000	0.000	0.000	0.000	0.000	0.910
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
3:45 PM	24 NL	59 NT	0 NR	0 NU	0 SL	58 ST	64 SR	0 SU	43 EL	0 ET	10 ER	0 EU	0 WL	0 WT	0 WR	0 WU	258
4:00 PM	22 NL	71 NT	0 NR	0 NU	0 SL	80 ST	59 SR	0 SU	26 EL	0 ET	27 ER	0 EU	0 WL	0 WT	0 WR	0 WU	285
4:15 PM	12 NL	71 NT	0 NR	0 NU	0 SL	75 ST	62 SR	0 SU	43 EL	0 ET	25 ER	0 EU	0 WL	0 WT	0 WR	0 WU	288
4:30 PM	18 NL	73 NT	0 NR	0 NU	0 SL	54 ST	46 SR	0 SU	58 EL	0 ET	15 ER	0 EU	0 WL	0 WT	0 WR	0 WU	264
4:45 PM	21 NL	74 NT	0 NR	0 NU	0 SL	57 ST	51 SR	0 SU	35 EL	0 ET	19 ER	0 EU	0 WL	0 WT	0 WR	0 WU	257
5:00 PM	30 NL	49 NT	0 NR	0 NU	0 SL	76 ST	58 SR	0 SU	32 EL	0 ET	27 ER	0 EU	0 WL	0 WT	0 WR	0 WU	272
5:15 PM	20 NL	71 NT	0 NR	0 NU	0 SL	70 ST	66 SR	0 SU	49 EL	0 ET	23 ER	0 EU	0 WL	0 WT	0 WR	0 WU	299
5:30 PM	15 NL	62 NT	0 NR	0 NU	0 SL	60 ST	68 SR	0 SU	31 EL	0 ET	15 ER	0 EU	0 WL	0 WT	0 WR	0 WU	251
TOTAL VOLUMES :	NL 162	NT 530	NR 0	NU 0	SL 0	ST 530	SR 474	SU 0	EL 317	ET 0	ER 161	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 2174
APPROACH %'s :	23.41%	76.59%	0.00%	0.00%	0.00%	52.79%	47.21%	0.00%	66.32%	0.00%	33.68%	0.00%					
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	76	274	0	0	0 0.000	267	231	0	170	0	77	0	0	0	0	0	1095
PEAK HR FACTOR :	0.792	0.938	0.000	0.000		0.834	0.902	0.000	0.733	0.000	0.713	0.000	0.000	0.000	0.000	0.000	0.951

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/CR 80 & Grandview Ave
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380087-002
Date: 10/1/2024

Data - HT

NS/EW Streets:	Union Rd/CR 80				Union Rd/CR 80				Grandview Ave				Grandview Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:30 AM	2	7	0	0	0	7	3	0	1	0	0	0	0	0	0	0	20
6:45 AM	1	5	0	0	0	3	1	0	5	0	0	0	0	0	0	0	15
7:00 AM	4	13	0	0	0	3	5	0	1	0	2	0	0	0	0	0	28
7:15 AM	2	8	0	0	0	7	8	0	5	0	2	0	0	0	0	0	32
7:30 AM	3	13	0	0	0	8	2	0	9	0	3	0	0	0	0	0	38
7:45 AM	1	6	0	0	0	9	7	0	6	0	0	0	0	0	0	0	29
8:00 AM	6	9	0	0	0	12	10	0	7	0	2	0	0	0	0	0	46
8:15 AM	7	13	0	0	0	8	9	0	10	0	5	0	0	0	0	0	52
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	26	74	0	0	0	57	45	0	44	0	14	0	0	0	0	0	260
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	17	41	0	0	0	37	28	0	32	0	10	0	0	0	0	0	165
PEAK HR FACTOR :	0.607	0.788	0.000	0.000	0.000	0.771	0.700	0.000	0.800	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.793
					0.725		0.739				0.700						

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd/CR 80 & Grandview Ave
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380087-002
Date: 10/1/2024

Data - Bikes

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 3	
	1 100.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 100.00%	0 0.00%	0 0.00%	0 0.00%	1 100.00%	0 0.00%	0 0.000	0 0.000	0 0.000	0 0.000		
PEAK HR : PEAK HR VOL :				03:45 PM - 04:45 PM												TOTAL 1		
PEAK HR FACTOR :				1 0.250	0 0.000	0 0.000	0 0.000	0 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0.250	

National Data & Surveying Services

Intersection Turning Movement Count
Location: Union Rd/CB 80 & Grandview Ave Project ID: 24-390087-002

Location: Union Rd/CR 80 & Grandview Ave

Project ID: 24-380087-002

City: Spring Valley

Date: 10/1/2024

Data - Pedestrians (Crosswalks)

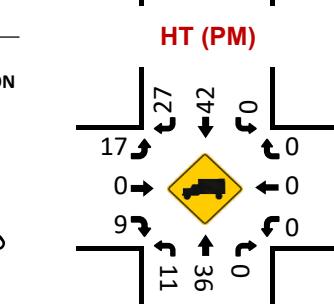
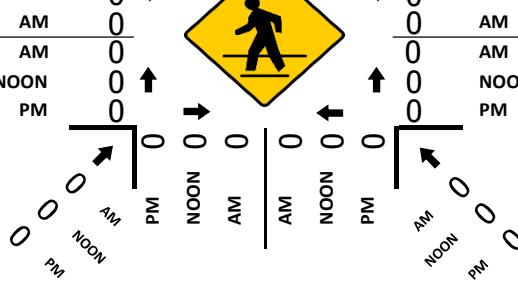
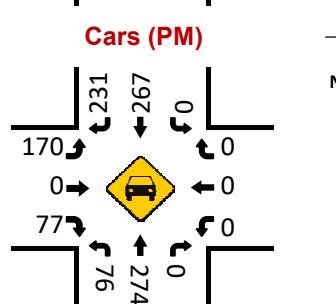
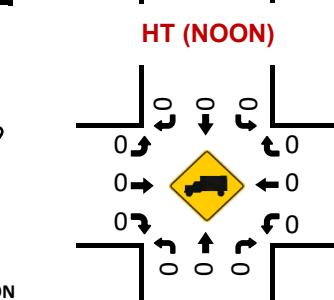
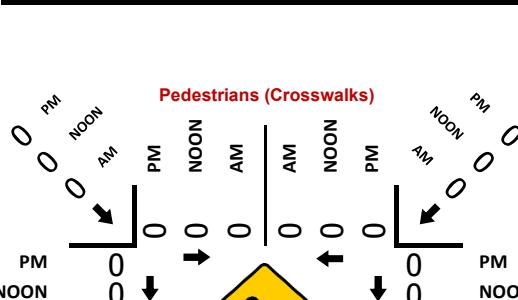
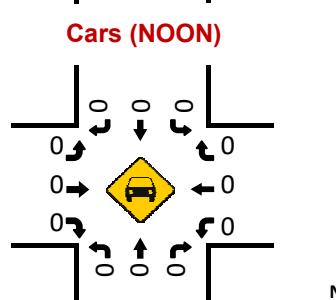
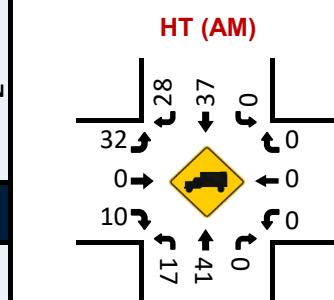
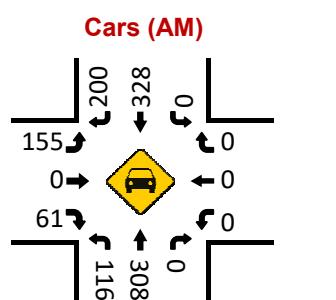
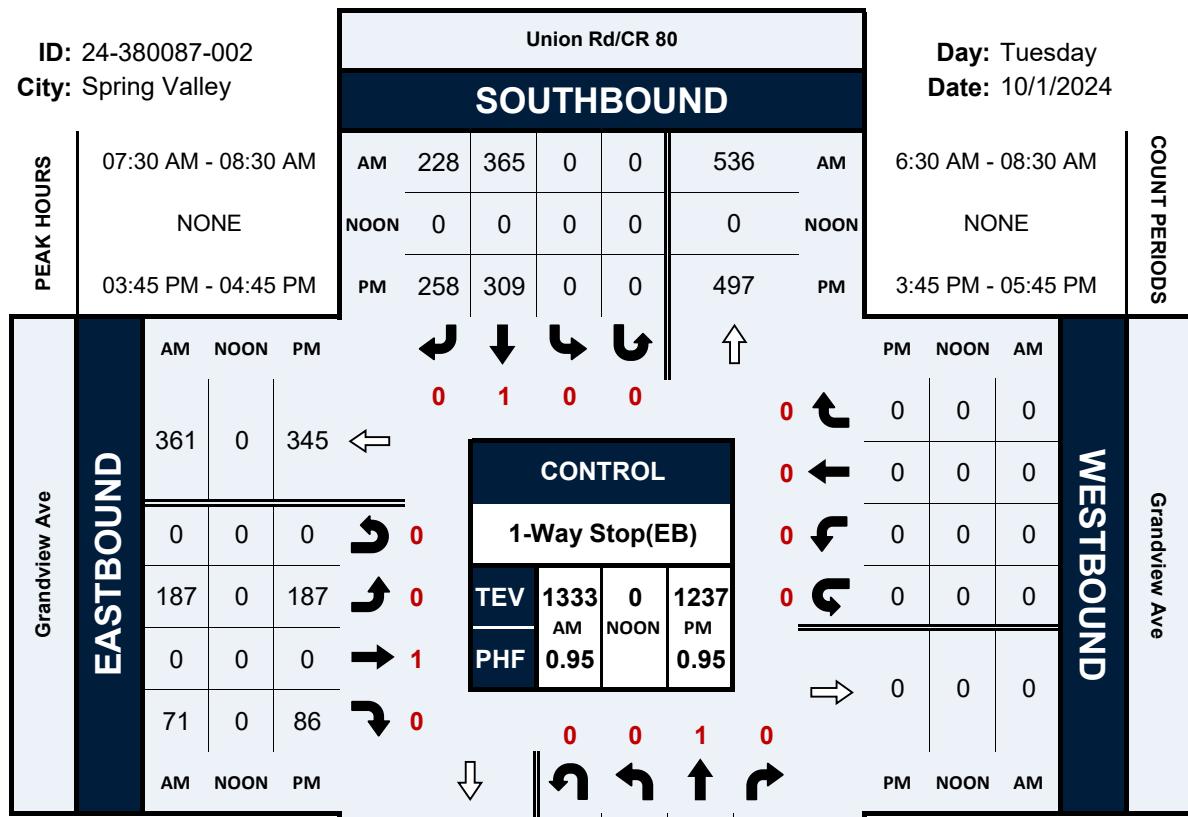
NS/EW Streets:	Union Rd/CR 80		Union Rd/CR 80		Grandview Ave		Grandview Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
6:30 AM	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES : APPROACH %'s :	EB 0	WB 0	EB 0	WB 0	NB 0	SB 0	NB 0	SB 0	TOTAL 0
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0		0		0		0		0
PEAK HR FACTOR :									0

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	1
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	1	0	0	0	1	
PEAK HR :	03:45 PM - 04:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	
PEAK HR FACTOR :									0

Union Rd/CR 80 & Grandview Ave**Peak Hour Turning Movement Count**

ID: 24-380087-002
City: Spring Valley

Day: Tuesday
Date: 10/1/2024



National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/New Hempstead Rd/CR 80 & McNamara Rd/CR 67

City: Spring Valley

Control: 1-Way Stop(EB)

Project ID: 24-380087-003

Date: 10/1/2024

Data - Total

NS/EW Streets:	Union Rd/New Hempstead Rd/CR 80				Union Rd/New Hempstead Rd/CR 80				McNamara Rd/CR 67				McNamara Rd/CR 67				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
6:30 AM	9	106	0	0	0	39	5	0	9	0	3	0	0	0	0	0	171
6:45 AM	16	102	0	0	0	62	12	0	7	0	2	0	0	0	0	0	201
7:00 AM	14	57	0	0	0	79	10	0	20	0	13	0	0	0	0	0	193
7:15 AM	10	108	0	0	0	104	12	0	15	0	17	0	0	0	0	0	266
7:30 AM	28	103	0	0	0	120	11	0	10	0	29	0	0	0	0	0	301
7:45 AM	40	88	0	0	0	130	19	0	18	0	31	0	0	0	0	0	326
8:00 AM	38	98	0	0	0	124	24	0	18	0	21	0	0	0	0	0	323
8:15 AM	22	116	0	0	0	98	11	0	20	0	29	0	0	0	0	0	296
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	177	778	0	0	0	756	104	0	117	0	145	0	0	0	0	0	2077
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	128	405	0	0	0	472	65	0	66	0	110	0	0	0	0	0	1246
PEAK HR FACTOR :	0.800	0.873	0.000	0.000		0.908	0.677	0.000	0.825	0.000	0.887	0.000	0.000	0.000	0.000	0.000	0.956
						0.966		0.901			0.898						

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
3:45 PM	18	91	0	0	0	116	25	0	22	0	35	0	0	0	0	0	307
4:00 PM	26	82	0	0	0	126	31	0	13	0	35	0	0	0	0	0	313
4:15 PM	27	102	0	0	0	120	26	0	11	0	31	0	0	0	0	0	317
4:30 PM	32	113	0	0	0	85	21	0	16	0	23	0	0	0	0	0	290
4:45 PM	20	93	0	0	0	102	21	0	18	0	20	0	0	0	0	0	274
5:00 PM	24	64	0	0	0	121	27	0	6	0	29	0	0	0	0	0	271
5:15 PM	35	92	0	0	0	111	22	0	15	0	29	0	0	0	0	0	304
5:30 PM	24	84	0	0	0	100	18	0	19	0	24	0	0	0	0	0	269
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	206	721	0	0	0	881	191	0	120	0	226	0	0	0	0	0	2345
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	103	388	0	0	0	447	103	0	62	0	124	0	0	0	0	0	1227
PEAK HR FACTOR :	0.805	0.858	0.000	0.000		0.887	0.831	0.000	0.705	0.000	0.886	0.000	0.000	0.000	0.000	0.000	0.968
						0.847		0.876			0.816						

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd/New Hempstead Rd/CR 80 & McNamara Rd/CR 67

City: Spring Valley

Control: 1-Way Stop(EB)

Project ID: 24-380087-003

Date: 10/1/2024

Data - Cars

NS/EW Streets:	Union Rd/New Hempstead Rd/CR 80				Union Rd/New Hempstead Rd/CR 80				McNamara Rd/CR 67				McNamara Rd/CR 67				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
6:30 AM	9	98	0	0	0	28	3	0	9	0	3	0	0	0	0	0	150
6:45 AM	12	96	0	0	0	59	11	0	7	0	2	0	0	0	0	0	187
7:00 AM	9	48	0	0	0	72	8	0	19	0	12	0	0	0	0	0	168
7:15 AM	8	97	0	0	0	92	8	0	10	0	15	0	0	0	0	0	230
7:30 AM	25	84	0	0	0	112	10	0	10	0	27	0	0	0	0	0	268
7:45 AM	36	80	0	0	0	116	14	0	18	0	29	0	0	0	0	0	293
8:00 AM	33	87	0	0	0	108	21	0	13	0	18	0	0	0	0	0	280
8:15 AM	20	98	0	0	0	86	11	0	16	0	24	0	0	0	0	0	255
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	152	688	0	0	0	673	86	0	102	0	130	0	0	0	0	0	1831
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	114	349	0	0	0	422	56	0	57	0	98	0	0	0	0	0	1096
PEAK HR FACTOR :	0.792	0.890	0.000	0.000		0.909	0.667	0.000	0.792	0.000	0.845	0.000	0.000	0.000	0.000	0.000	0.935
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
3:45 PM	16	81	0	0	0	98	24	0	22	0	26	0	0	0	0	0	267
4:00 PM	26	71	0	0	0	114	28	0	10	0	30	0	0	0	0	0	279
4:15 PM	25	87	0	0	0	107	26	0	11	0	29	0	0	0	0	0	285
4:30 PM	31	102	0	0	0	78	21	0	12	0	20	0	0	0	0	0	264
4:45 PM	20	84	0	0	0	95	20	0	17	0	18	0	0	0	0	0	254
5:00 PM	23	57	0	0	0	107	25	0	5	0	24	0	0	0	0	0	241
5:15 PM	29	87	0	0	0	106	22	0	14	0	26	0	0	0	0	0	284
5:30 PM	20	79	0	0	0	95	18	0	15	0	24	0	0	0	0	0	251
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	190	648	0	0	0	800	184	0	106	0	197	0	0	0	0	0	2125
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	98	341	0	0	0	397	99	0	55	0	105	0	0	0	0	0	1095
PEAK HR FACTOR :	0.790	0.836	0.000	0.000		0.871	0.884	0.000	0.625	0.000	0.875	0.000	0.000	0.000	0.000	0.000	0.961

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd/New Hempstead Rd/CR 80 & McNamara Rd/CR 67

City: Spring Valley

Control: 1-Way Stop(EB)

Project ID: 24-380087-003

Date: 10/1/2024

Data - HT

NS/EW Streets:	Union Rd/New Hempstead Rd/CR 80				Union Rd/New Hempstead Rd/CR 80				McNamara Rd/CR 67				McNamara Rd/CR 67				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
6:30 AM	0	8	0	0	0	11	2	0	0	0	0	0	0	0	0	0	21
6:45 AM	4	6	0	0	0	3	1	0	0	0	0	0	0	0	0	0	14
7:00 AM	5	9	0	0	0	7	2	0	1	0	1	0	0	0	0	0	25
7:15 AM	2	11	0	0	0	12	4	0	5	0	2	0	0	0	0	0	36
7:30 AM	3	19	0	0	0	8	1	0	0	0	2	0	0	0	0	0	33
7:45 AM	4	8	0	0	0	14	5	0	0	0	2	0	0	0	0	0	33
8:00 AM	5	11	0	0	0	16	3	0	5	0	3	0	0	0	0	0	43
8:15 AM	2	18	0	0	0	12	0	0	4	0	5	0	0	0	0	0	41
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	25	90	0	0	0	83	18	0	15	0	15	0	0	0	0	0	246
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	14	56	0	0	0	50	9	0	9	0	12	0	0	0	0	0	150
PEAK HR FACTOR :	0.700	0.737	0.000	0.000	0.000	0.781	0.450	0.000	0.450	0.000	0.600	0.000	0.000	0.000	0.000	0.872	
0.795																	
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
3:45 PM	2	10	0	0	0	18	1	0	0	0	9	0	0	0	0	0	40
4:00 PM	0	11	0	0	0	12	3	0	3	0	5	0	0	0	0	0	34
4:15 PM	2	15	0	0	0	13	0	0	0	0	2	0	0	0	0	0	32
4:30 PM	1	11	0	0	0	7	0	0	4	0	3	0	0	0	0	0	26
4:45 PM	0	9	0	0	0	7	1	0	1	0	2	0	0	0	0	0	20
5:00 PM	1	7	0	0	0	14	2	0	1	0	5	0	0	0	0	0	30
5:15 PM	6	5	0	0	0	5	0	0	1	0	3	0	0	0	0	0	20
5:30 PM	4	5	0	0	0	5	0	0	4	0	0	0	0	0	0	0	18
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	16	73	0	0	0	81	7	0	14	0	29	0	0	0	0	0	220
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	5	47	0	0	0	50	4	0	7	0	19	0	0	0	0	0	132
PEAK HR FACTOR :	0.625	0.783	0.000	0.000	0.000	0.694	0.333	0.000	0.438	0.000	0.528	0.000	0.000	0.000	0.000	0.825	
0.765																	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd/New Hempstead Rd/CR 80 & McNamara Rd/CR 67

City: Spring Valley

Control: 1-Way Stop(EB)

Project ID: 24-380087-003

Date: 10/1/2024

Data - Bikes

NS/EW Streets:	Union Rd/New Hempstead Rd/CR 80				Union Rd/New Hempstead Rd/CR 80				McNamara Rd/CR 67				McNamara Rd/CR 67				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES : APPROACH %'s :	NL 0	NT 0	NR 0	NU 0	SL 0	ST 0	SR 0	SU 0	EL 0	ET 0	ER 1	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 1
PEAK HR :	07:30 AM - 08:30 AM																TOTAL 1
PEAK HR VOL :	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0.250
PEAK HR FACTOR :																	0.250

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 2
	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR : PEAK HR VOL :				03:45 PM - 04:45 PM												TOTAL 2	
PEAK HR FACTOR :				0	2	0	0	0	0.000	0	0	0	0.000	0	0	0	0.250

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd/New Hempstead Rd/CR 80 & McNamara Rd/CR 67

Project ID: 24-380087-003

City: Spring Valley

Date: 10/1/2024

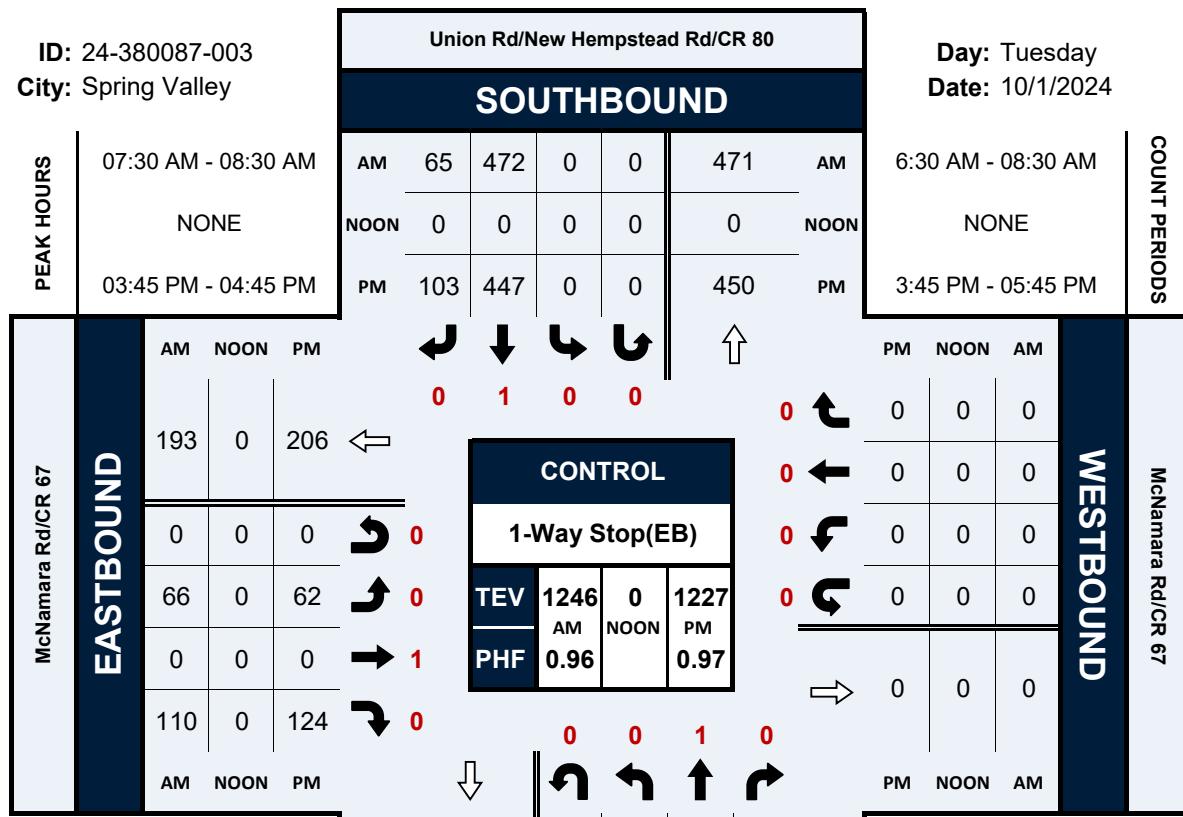
Data - Pedestrians (Crosswalks)

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	1	1
PEAK HR :	03:45 PM - 04:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									TOTAL
									0

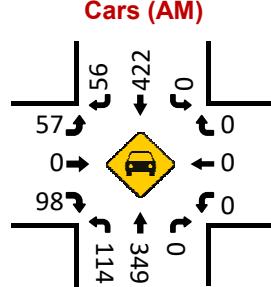
Union Rd/New Hempstead Rd/CR 80 & McNamara Rd/CR 67**Peak Hour Turning Movement Count**

ID: 24-380087-003
City: Spring Valley

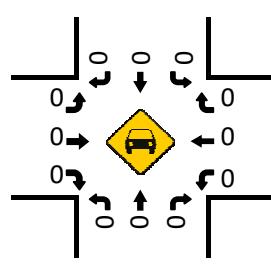
Day: Tuesday
Date: 10/1/2024



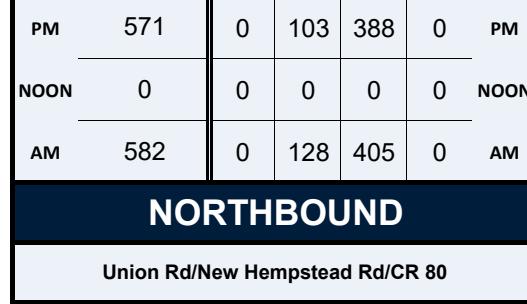
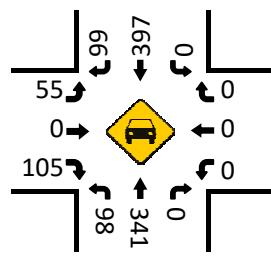
Cars (AM)



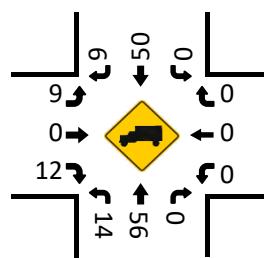
Cars (NOON)



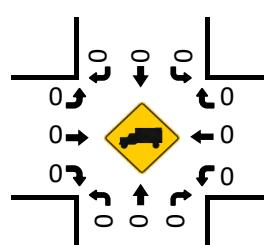
Cars (PM)



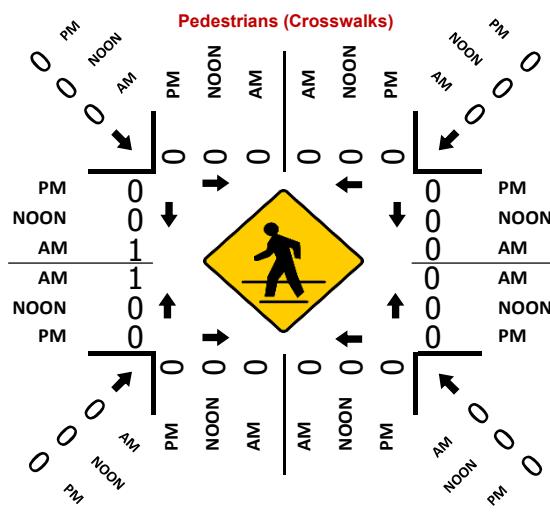
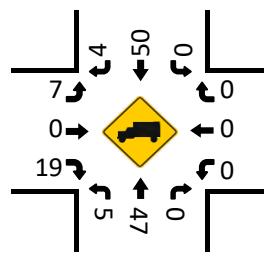
HT (AM)



HT (NOON)



HT (PM)



National Data & Surveying Services
Intersection Turning Movement Count

Location: Summit Park Rd & Sandy Brook Dr/Brook Dr/Summit Park Rd

City: Spring Valley

Control: 4-Way Stop

Project ID: 24-380102-001

Date: 10/29/2024

Data - Total

NS/EW Streets:	Summit Park Rd				Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd									
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND									
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL					
7:00 AM	0	0	0	0	2	0	2	0	3	0	0	0	0	3	5	0	15					
7:15 AM	0	0	0	0	5	0	8	0	2	1	0	0	0	1	3	0	20					
7:30 AM	0	0	0	0	6	0	5	0	2	2	0	0	0	4	8	0	27					
7:45 AM	0	0	0	0	6	0	10	0	9	10	0	0	0	2	16	0	53					
8:00 AM	0	0	0	0	21	0	7	0	5	3	1	0	0	1	12	0	50					
8:15 AM	0	0	0	0	12	0	2	0	8	2	0	0	1	4	14	0	43					
8:30 AM	0	1	0	0	19	0	12	0	1	4	0	0	0	3	6	0	46					
8:45 AM	0	0	0	0	22	0	14	0	13	2	0	0	1	2	23	0	77					
TOTAL VOLUMES :	NL 0	NT 1	NR 0	NU 0	SL 93	ST 0	SR 60	SU 0	EL 43	ET 24	ER 1	EU 0	WL 2	WT 20	WR 87	WU 0	TOTAL 331					
APPROACH %'s :	0.00% 100.00%	0.00% 0.00%	0.00% 0.00%	0.00% 0.00%	60.78% 0.00%	0.00% 39.22%	0.00% 0.00%	0.00% 0.00%	63.24% 35.29%	0.00% 1.47%	0.00% 0.00%	0.00% 0.00%	1.83% 18.35%	0.00% 79.82%	0.00% 0.00%	0.00% 0.00%	TOTAL 331					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL					
PEAK HR VOL :	0	1	0	0					74	0	35	0	27	11	1	0	216					
PEAK HR FACTOR :	0.000	0.250	0.000	0.000					0.841	0.000	0.625	0.000	0.519	0.688	0.250	0.000	0.500	0.625	0.598	0.000	0.644	0.701
0.250				0.757				0.650														

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND									
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL					
3:45 PM	0	0	0	0	24	0	13	1	11	6	0	2	0	4	13	0	74					
4:00 PM	0	0	0	0	9	0	16	0	7	5	0	0	0	3	13	0	53					
4:15 PM	0	0	0	0	10	0	13	0	12	3	0	0	0	1	8	0	47					
4:30 PM	0	0	0	0	3	0	5	0	7	0	0	0	0	2	8	0	25					
4:45 PM	0	0	0	0	5	0	14	0	11	5	0	0	0	3	10	0	48					
5:00 PM	0	0	1	1	11	0	13	0	14	2	0	0	1	1	16	0	60					
5:15 PM	0	0	0	0	10	0	10	0	8	3	0	0	1	6	11	0	49					
5:30 PM	0	1	1	0	12	0	8	0	8	6	0	0	1	4	14	0	55					
TOTAL VOLUMES :	NL 0	NT 1	NR 2	NU 1	SL 84	ST 0	SR 92	SU 1	EL 78	ET 30	ER 0	EU 2	WL 3	WT 24	WR 93	WU 0	TOTAL 411					
APPROACH %'s :	0.00% 25.00%	0.00% 50.00%	0.00% 25.00%	0.00% 0.00%	47.46%	0.00%	51.98%	0.56%	70.91%	27.27%	0.00%	1.82%	2.50%	20.00%	77.50%	0.00%	TOTAL					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL					
PEAK HR VOL :	0	1	2	1					38	0	45	0	41	16	0	0	212					
PEAK HR FACTOR :	0.000	0.250	0.500	0.250					0.792	0.000	0.804	0.000	0.732	0.667	0.000	0.000	0.750	0.583	0.797	0.000	0.895	0.883
0.500				0.865				0.891														

National Data & Surveying Services
Intersection Turning Movement Count

Location: Summit Park Rd & Sandy Brook Dr/Brook Dr/Summit Park Rd

City: Spring Valley

Control: 4-Way Stop

Project ID: 24-380102-001

Date: 10/29/2024

Data - Cars

NS/EW Streets:	Summit Park Rd				Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd					
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL	
7:00 AM	0	0	0	0	1	0	1	0	3	0	0	0	0	1	4	0	10	
7:15 AM	0	0	0	0	5	0	7	0	2	1	0	0	0	1	3	0	19	
7:30 AM	0	0	0	0	5	0	5	0	2	0	0	0	0	4	6	0	22	
7:45 AM	0	0	0	0	6	0	8	0	9	6	0	0	0	2	15	0	46	
8:00 AM	0	0	0	0	21	0	5	0	3	3	1	0	0	1	9	0	43	
8:15 AM	0	0	0	0	11	0	1	0	7	1	0	0	1	2	14	0	37	
8:30 AM	0	1	0	0	14	0	11	0	1	3	0	0	0	1	5	0	36	
8:45 AM	0	0	0	0	19	0	12	0	13	1	0	0	1	2	20	0	68	
TOTAL VOLUMES :	NL 0	NT 1	NR 0	NU 0	SL 82	ST 0	SR 50	SU 0	EL 40	ET 15	ER 1	EU 0	WL 2	WT 14	WR 76	WU 0	TOTAL 281	
APPROACH %'s :	0.00% 100.00%	0.00% 0.00%	0.00% 0.00%	0.00% 0.00%	62.12% 0.00%	0.00% 37.88%	0.00% 0.00%	0.00% 0.00%	71.43% 26.79%	0.00% 1.79%	0.00% 0.00%	0.00% 0.00%	2.17% 15.22%	0.00% 82.61%	0.00% 0.00%	0.00% 0.00%	TOTAL 281	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL	
PEAK HR VOL :	0	1	0	0	65	0	29	0	24	8	1	0	2	6	48	0	184	
PEAK HR FACTOR :	0.000	0.250	0.000	0.000		0.774	0.000	0.604	0.000	0.462	0.667	0.250	0.000	0.500	0.750	0.600	0.000	0.676
0.250																		
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL	
3:45 PM	0	0	0	0	18	0	12	1	10	5	0	2	0	3	11	0	62	
4:00 PM	0	0	0	0	8	0	12	0	7	4	0	0	0	2	10	0	43	
4:15 PM	0	0	0	0	9	0	10	0	11	3	0	0	0	1	4	0	38	
4:30 PM	0	0	0	0	3	0	5	0	5	0	0	0	0	1	6	0	20	
4:45 PM	0	0	0	0	5	0	14	0	10	4	0	0	0	3	9	0	45	
5:00 PM	0	0	1	1	8	0	13	0	13	2	0	0	1	1	14	0	54	
5:15 PM	0	0	0	0	9	0	7	0	8	2	0	0	1	4	10	0	41	
5:30 PM	0	1	1	0	11	0	8	0	8	6	0	0	1	4	14	0	54	
TOTAL VOLUMES :	NL 0	NT 1	NR 2	NU 1	SL 71	ST 0	SR 81	SU 1	EL 72	ET 26	ER 0	EU 2	WL 3	WT 19	WR 78	WU 0	TOTAL 357	
APPROACH %'s :	0.00% 25.00%	0.00% 50.00%	0.00% 25.00%	0.00% 0.00%	46.41% 0.00%	0.00% 52.94%	0.00% 0.65%	0.00% 0.00%	72.00% 26.00%	0.00% 0.00%	0.00% 2.00%	0.00% 0.00%	3.00% 19.00%	0.00% 78.00%	0.00% 0.00%	0.00% 0.00%	TOTAL 357	
PEAK HR :	04:45 PM - 05:45 PM				33	0	42	0	39	14	0	0	3	12	47	0	194	
PEAK HR VOL :	0	1	2	1		0.750	0.000	0.750	0.750	0.583	0.000	0.000	0.750	0.750	0.839	0.000	0.898	
PEAK HR FACTOR :	0.000	0.250	0.500	0.250	0.500				0.893				0.883				0.816	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Summit Park Rd & Sandy Brook Dr/Brook Dr/Summit Park Rd

City: Spring Valley

Control: 4-Way Stop

Project ID: 24-380102-001

Date: 10/29/2024

Data - HT

NS/EW Streets:		Summit Park Rd				Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM		0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3	
8:00 AM		0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	
8:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM		0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	
8:45 AM		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
TOTAL VOLUMES : APPROACH %'s :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
		0	0	0	0	2	0	2	0	0	2	0	0	0	0	2	0	8
PEAK HR :		08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :		0	0	0	0	2	0	1	0	0	0	0	0	0	0	2	0	5
PEAK HR FACTOR :		0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.625

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU		
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2	
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	3	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 7	
	0	0	0	0	2	0	0	0	2	0	0	0	0	2	1	0		
PEAK HR : 04:45 PM - 05:45 PM				100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%	TOTAL 6	
PEAK HR VOL : 0 0 0 0				0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	TOTAL 0.500	
PEAK HR FACTOR : 0.000 0.000 0.000 0.000				0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	TOTAL 0.375	

National Data & Surveying Services
Intersection Turning Movement Count

Location: Summit Park Rd & Sandy Brook Dr/Brook Dr/Summit Park Rd

City: Spring Valley

Control: 4-Way Stop

Project ID: 24-380102-001

Date: 10/29/2024

Data - Buses

NS/EW Streets:	Summit Park Rd				Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	2	1	0	5
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	1	0	0	0	0	2	0	0	0	0	2	0	5
7:45 AM	0	0	0	0	0	0	1	0	0	2	0	0	0	0	1	0	4
8:00 AM	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2	0	5
8:15 AM	0	0	0	0	1	0	1	0	1	1	0	0	0	0	2	0	6
8:30 AM	0	0	0	0	4	0	1	0	0	1	0	0	0	0	2	0	8
8:45 AM	0	0	0	0	2	0	2	0	0	1	0	0	0	0	3	0	8
TOTAL VOLUMES :	NL 0	NT 0	NR 0	NU 0	SL 9	ST 0	SR 8	SU 0	EL 3	ET 7	ER 0	EU 0	WL 0	WT 6	WR 9	WU 0	TOTAL 42
APPROACH %'s :	52.94% 0.00% 47.06% 0.00%				30.00% 70.00% 0.00% 0.00%				0.00% 40.00% 60.00% 0.00%				0.00% 40.00% 60.00% 0.00%				
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	7	0	5	0	3	3	0	0	0	4	5	0	27
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.438	0.000	0.625	0.000	0.375	0.750	0.000	0.000	0.000	0.500	0.417	0.000	0.844
0.600				0.750								0.750					

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
3:45 PM	0	0	0	0	6	0	1	0	1	1	0	0	0	1	2	0	12
4:00 PM	0	0	0	0	1	0	4	0	0	1	0	0	0	1	3	0	10
4:15 PM	0	0	0	0	0	0	3	0	1	0	0	0	0	0	4	0	8
4:30 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	1	2	0	5
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
5:00 PM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	4
5:15 PM	0	0	0	0	0	0	3	0	0	1	0	0	0	0	1	0	5
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES :	NL 0	NT 0	NR 0	NU 0	SL 11	ST 0	SR 11	SU 0	EL 4	ET 4	ER 0	EU 0	WL 0	WT 3	WR 14	WU 0	TOTAL 47
APPROACH %'s :	50.00% 0.00% 50.00% 0.00%				50.00% 50.00% 0.00% 0.00%				0.00% 17.65% 82.35% 0.00%				0.00% 17.65% 82.35% 0.00%				
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	4	0	3	0	0	2	0	0	0	0	3	0	12
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.333	0.000	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.750	0.000	0.600
0.583				0.500								0.500					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Summit Park Rd & Sandy Brook Dr/Brook Dr/Summit Park Rd

City: Spring Valley

Control: 4-Way Stop

Project ID: 24-380102-001

Date: 10/29/2024

Data - Bikes

NS/EW Streets:		Summit Park Rd				Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd				Sandy Brook Dr/Brook Dr/Summit Park Rd			
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND			
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES : APPROACH %'s :	NL 0	NT 0	NR 0	NU 0	SL 0	ST 0	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 0
PEAK HR :	08:00 AM - 09:00 AM																TOTAL 0
PEAK HR VOL :	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0	0	0	TOTAL 0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000								0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Summit Park Rd & Sandy Brook Dr/Brook Dr/Summit Park Rd

Project ID: 24-380102-001

City: Spring Valley

Date: 10/29/2024

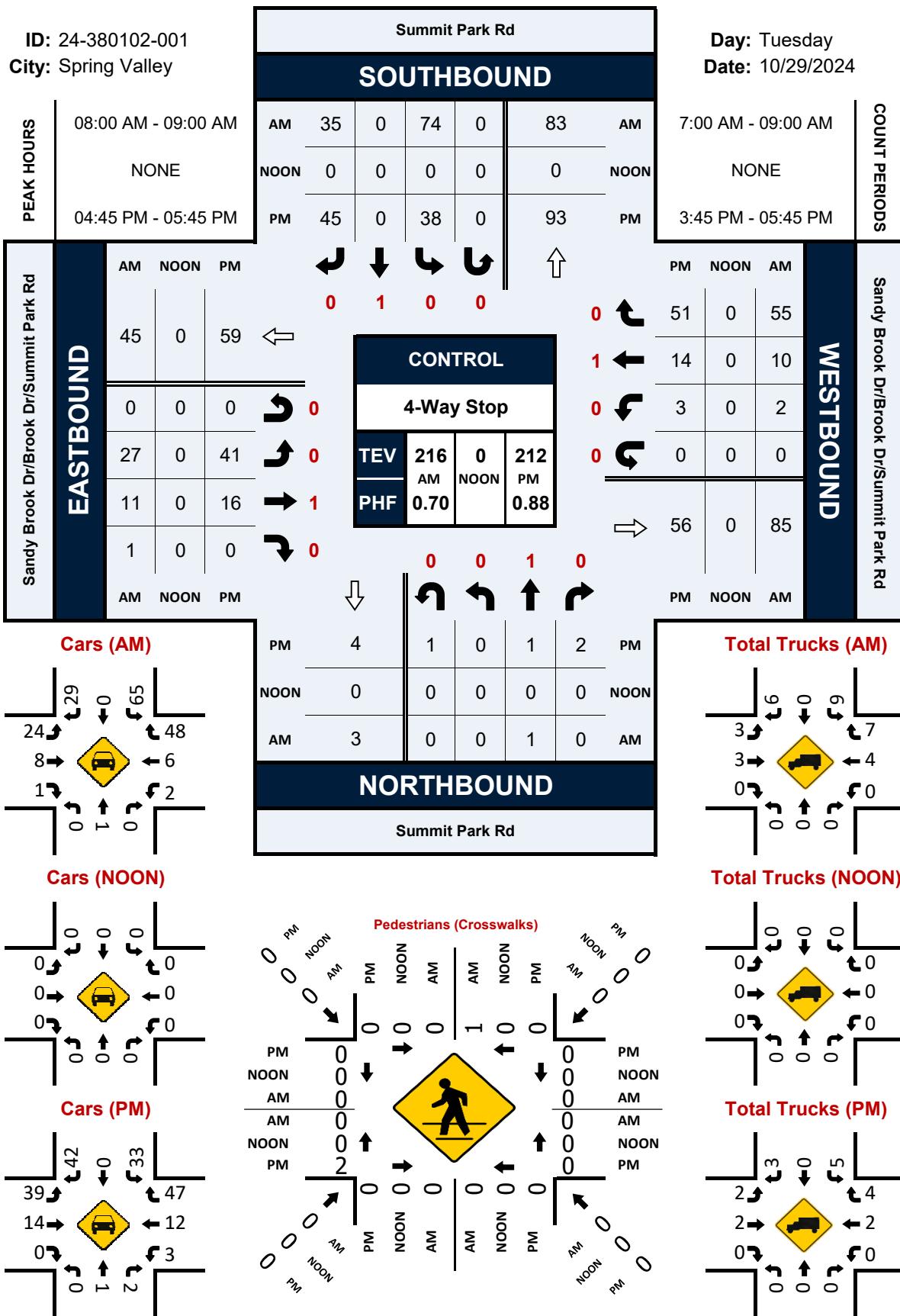
Data - Pedestrians (Crosswalks)

NS/EW Streets:	Summit Park Rd		Summit Park Rd		Sandy Brook Dr/Brook Dr/Summit Park Rd		Sandy Brook Dr/Brook Dr/Summit Park Rd		
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 0	WB 1	EB 0	WB 0	NB 0	SB 0	NB 0	SB 0	TOTAL 1
APPROACH %'s :	0.00%	100.00%							
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	0	1	0		0		0		TOTAL 1
PEAK HR FACTOR :	0.250		0.250		0.250		0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	2	0	2
TOTAL VOLUMES :	EB 0	WB 0	EB 0	WB 0	NB 0	SB 0	NB 2	SB 0	TOTAL 2
APPROACH %'s :	100.00%		0.00%						
PEAK HR :	04:45 PM - 05:45 PM		0		0		0		TOTAL
PEAK HR VOL :	0	0	0		0		2		TOTAL 2
PEAK HR FACTOR :	0.250		0.250		0.250		0.250		

Summit Park Rd & Sandy Brook Dr/Brook Dr/Summit Park Rd

Peak Hour Turning Movement Count



National Data & Surveying Services
Intersection Turning Movement Count

Location: Summit Park Rd/Hempstead Rd & New Hempstead Rd/CR 80

City: Spring Valley

Control: Signalized

Project ID: 24-380102-002

Date: 10/29/2024

Data - Total

NS/EW Streets:	Summit Park Rd/Hempstead Rd				Summit Park Rd/Hempstead Rd				New Hempstead Rd/CR 80				New Hempstead Rd/CR 80				
	NORTHBOUND		SOUTHBOUND		EASTBOUND		WESTBOUND										
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	1	12	6	0	3	10	12	0	13	63	2	0	11	65	1	0	199
7:15 AM	5	14	11	0	2	17	14	0	6	66	4	0	14	76	3	0	232
7:30 AM	6	22	12	0	4	15	10	0	11	87	1	0	11	98	4	0	281
7:45 AM	10	36	11	0	7	12	24	0	16	79	3	0	6	96	7	0	307
8:00 AM	16	19	15	0	3	16	10	0	20	70	6	0	7	100	8	0	290
8:15 AM	9	28	9	0	10	14	11	0	13	81	4	0	5	111	6	0	301
8:30 AM	7	28	12	0	10	26	18	0	18	83	8	0	8	92	11	0	321
8:45 AM	7	48	13	0	11	17	6	0	16	107	8	0	15	102	18	0	368
TOTAL VOLUMES :	NL 61	NT 207	NR 89	NU 0	SL 50	ST 127	SR 105	SU 0	EL 113	ET 636	ER 36	EU 0	WL 77	WT 740	WR 58	WU 0	TOTAL 2299
APPROACH %'s :	17.09%	57.98%	24.93%	0.00%	17.73%	45.04%	37.23%	0.00%	14.39%	81.02%	4.59%	0.00%	8.80%	84.57%	6.63%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	39	123	49	0	34	73	45	0	67	341	26	0	35	405	43	0	1280
PEAK HR FACTOR :	0.609	0.641	0.817	0.000		0.773	0.702	0.625	0.000	0.838	0.797	0.813	0.000	0.583	0.912	0.597	0.000
						0.776		0.704				0.828					
PM	NORTHBOUND		SOUTHBOUND		EASTBOUND		WESTBOUND										
PM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
3:45 PM	8	20	10	0	7	42	16	0	16	83	4	0	3	128	8	0	345
4:00 PM	3	29	14	0	15	31	22	0	25	79	6	0	9	100	10	0	343
4:15 PM	7	22	8	0	5	15	23	0	13	100	5	0	12	115	4	0	329
4:30 PM	3	17	5	0	4	18	17	0	10	92	8	0	11	87	6	0	278
4:45 PM	4	24	12	0	3	28	20	0	10	89	6	0	8	104	4	0	312
5:00 PM	6	17	16	0	23	30	29	0	7	84	7	0	8	95	7	0	329
5:15 PM	6	29	10	0	9	25	13	0	13	78	7	0	7	108	10	0	315
5:30 PM	3	20	8	0	13	23	19	0	11	77	11	0	10	114	5	0	314
TOTAL VOLUMES :	NL 40	NT 178	NR 83	NU 0	SL 79	ST 212	SR 159	SU 0	EL 105	ET 682	ER 54	EU 0	WL 68	WT 851	WR 54	WU 0	TOTAL 2565
APPROACH %'s :	13.29%	59.14%	27.57%	0.00%	17.56%	47.11%	35.33%	0.00%	12.49%	81.09%	6.42%	0.00%	6.99%	87.46%	5.55%	0.00%	
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	21	88	37	0	31	106	78	0	64	354	23	0	35	430	28	0	1295
PEAK HR FACTOR :	0.656	0.759	0.661	0.000		0.517	0.631	0.848	0.000	0.640	0.885	0.719	0.000	0.729	0.840	0.700	0.000
						0.793		0.790				0.934					

National Data & Surveying Services
Intersection Turning Movement Count

Location: Summit Park Rd/Hempstead Rd & New Hempstead Rd/CR 80

City: Spring Valley

Control: Signalized

Project ID: 24-380102-002

Date: 10/29/2024

Data - Cars

NS/EW Streets:	Summit Park Rd/Hempstead Rd				Summit Park Rd/Hempstead Rd				New Hempstead Rd/CR 80				New Hempstead Rd/CR 80				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	1	10	5	0	2	9	12	0	12	51	1	0	8	50	1	0	162
7:15 AM	2	14	11	0	2	16	14	0	3	59	2	0	13	64	3	0	203
7:30 AM	5	19	10	0	2	14	8	0	10	79	1	0	9	88	4	0	249
7:45 AM	7	33	11	0	4	10	21	0	15	73	2	0	5	85	6	0	272
8:00 AM	15	16	14	0	3	16	10	0	17	64	2	0	5	84	7	0	253
8:15 AM	5	25	7	0	7	12	7	0	11	70	3	0	4	99	5	0	255
8:30 AM	5	28	12	0	6	24	14	0	17	69	6	0	8	84	10	0	283
8:45 AM	6	45	11	0	9	13	6	0	15	94	7	0	15	87	17	0	325
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	46	190	81	0	35	114	92	0	100	559	24	0	67	641	53	0	2002
14.51% 59.94% 25.55% 0.00%	14.52%	47.30%	38.17%	0.00%	14.64%	81.84%	3.51%	0.00%	8.80%	84.23%	6.96%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	31	114	44	0	25	65	37	0	60	297	18	0	32	354	39	0	1116
PEAK HR FACTOR :	0.517	0.633	0.786	0.000		0.694	0.677	0.661	0.000	0.882	0.790	0.643	0.000	0.533	0.894	0.574	0.000
						0.762		0.722				0.808			0.893		
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
3:45 PM	7	17	9	0	6	34	15	0	14	79	4	0	3	113	8	0	309
4:00 PM	3	26	14	0	14	26	20	0	24	72	4	0	7	88	10	0	308
4:15 PM	6	19	8	0	5	15	20	0	13	93	4	0	12	106	3	0	304
4:30 PM	3	15	4	0	4	17	16	0	8	84	6	0	11	82	5	0	255
4:45 PM	3	23	9	0	2	28	15	0	10	80	5	0	6	94	4	0	279
5:00 PM	6	17	15	0	23	27	28	0	5	78	4	0	7	89	6	0	305
5:15 PM	6	25	8	0	9	23	13	0	13	74	6	0	7	104	10	0	298
5:30 PM	2	20	8	0	12	22	19	0	9	70	9	0	10	110	5	0	296
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	36	162	75	0	75	192	146	0	96	630	42	0	63	786	51	0	2354
13.19% 59.34% 27.47% 0.00%	18.16%	46.49%	35.35%	0.00%	12.50%	82.03%	5.47%	0.00%	7.00%	87.33%	5.67%	0.00%					
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	19	77	35	0	29	92	71	0	59	328	18	0	33	389	26	0	1176
PEAK HR FACTOR :	0.679	0.740	0.625	0.000		0.518	0.676	0.888	0.000	0.615	0.882	0.750	0.000	0.688	0.861	0.650	0.000
						0.762		0.800				0.920			0.903		

National Data & Surveying Services
Intersection Turning Movement Count

Location: Summit Park Rd/Hempstead Rd & New Hempstead Rd/CR 80

City: Spring Valley

Control: Signalized

Project ID: 24-380102-002

Date: 10/29/2024

Data - HT

NS/EW Streets:	Summit Park Rd/Hempstead Rd				Summit Park Rd/Hempstead Rd				New Hempstead Rd/CR 80				New Hempstead Rd/CR 80				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0	0	11
7:15 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	4	0	0	7
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	5	0	0	7
7:45 AM	0	0	0	0	1	2	1	0	0	4	0	0	0	3	0	0	11
8:00 AM	0	1	1	0	0	0	0	0	0	5	0	0	0	11	1	0	19
8:15 AM	1	0	1	0	0	0	0	0	0	6	0	0	0	3	0	0	11
8:30 AM	1	0	0	0	1	1	2	0	1	9	0	0	0	4	0	0	19
8:45 AM	0	0	0	0	0	2	0	0	1	4	0	0	0	10	0	0	17
TOTAL VOLUMES :	NL 2 40.00%	NT 1 20.00%	NR 2 40.00%	NU 0 0.00%	SL 2 20.00%	ST 5 50.00%	SR 3 30.00%	SU 0 0.00%	EL 3 7.50%	ET 37 92.50%	ER 0 0.00%	EU 0 0.00%	WL 1 2.13%	WT 45 95.74%	WR 1 2.13%	WU 0 0.00%	TOTAL 102
APPROACH %'s :																	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	2	1	2	0	1 0.250 0.375	3	2	0	2	24	0	0	0	28	1	0	66
PEAK HR FACTOR :	0.500	0.250	0.500	0.000		0.250	0.375	0.250	0.500	0.667	0.000	0.000	0.000	0.636	0.250	0.000	0.604
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
PM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
3:45 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	4	0	0	7
4:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	1	4	0	0	9
4:15 PM	1	1	0	0	0	0	2	0	0	1	0	0	0	3	0	0	8
4:30 PM	0	0	0	0	0	1	0	0	0	2	0	0	0	3	0	0	6
4:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9
5:00 PM	0	0	1	0	0	0	0	0	0	2	0	0	0	5	1	0	9
5:15 PM	0	2	0	0	0	0	0	0	0	2	1	0	0	1	0	0	6
5:30 PM	0	0	0	0	1	0	0	0	0	2	0	0	0	4	0	0	7
TOTAL VOLUMES :	NL 1 16.67%	NT 4 66.67%	NR 1 16.67%	NU 0 0.00%	SL 1 12.50%	ST 3 37.50%	SR 4 50.00%	SU 0 0.00%	EL 0 0.00%	ET 15 93.75%	ER 1 6.25%	EU 0 0.00%	WL 1 3.23%	WT 29 93.55%	WR 1 3.23%	WU 0 0.00%	TOTAL 61
APPROACH %'s :																	
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	1	2	0	0	0 0.250 0.375	3	4	0	0	5	0	0	1	14	0	0	30
PEAK HR FACTOR :	0.250	0.500	0.000	0.000		0.750	0.500	0.000	0.000	0.625	0.000	0.000	0.250	0.875	0.000	0.750	0.833

National Data & Surveying Services
Intersection Turning Movement Count

Location: Summit Park Rd/Hempstead Rd & New Hempstead Rd/CR 80

City: Spring Valley

Control: Signalized

Project ID: 24-380102-002

Date: 10/29/2024

Data - Buses

NS/EW Streets:	Summit Park Rd/Hempstead Rd				Summit Park Rd/Hempstead Rd				New Hempstead Rd/CR 80				New Hempstead Rd/CR 80				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	0	2	1	0	1	1	0	0	1	6	1	0	3	10	0	0	26
7:15 AM	3	0	0	0	0	1	0	0	2	5	2	0	1	8	0	0	22
7:30 AM	1	3	2	0	2	1	2	0	1	7	0	0	1	5	0	0	25
7:45 AM	3	3	0	0	2	0	2	0	1	2	1	0	1	8	1	0	24
8:00 AM	1	2	0	0	0	0	0	0	3	1	4	0	2	5	0	0	18
8:15 AM	3	3	1	0	3	2	4	0	2	5	1	0	1	9	1	0	35
8:30 AM	1	0	0	0	3	1	2	0	0	5	2	0	0	4	1	0	19
8:45 AM	1	3	2	0	2	2	0	0	0	9	1	0	0	5	1	0	26
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	13	16	6	0	13	8	10	0	10	40	12	0	9	54	4	0	195
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	6	8	3	0	8 0.667	5	6	0	5	20	8	0	3	23	3	0	98
PEAK HR FACTOR :	0.500	0.667	0.375	0.000		0.625	0.375	0.000	0.417	0.556	0.500	0.000	0.375	0.639	0.750	0.000	0.700
					0.528				0.825				0.659				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
PM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
3:45 PM	1	2	1	0	1	7	0	0	2	4	0	0	0	11	0	0	29
4:00 PM	0	3	0	0	1	4	1	0	1	5	2	0	1	8	0	0	26
4:15 PM	0	2	0	0	0	0	1	0	0	6	1	0	0	6	1	0	17
4:30 PM	0	2	1	0	0	0	1	0	2	6	2	0	0	2	1	0	17
4:45 PM	1	1	3	0	1	0	5	0	0	5	1	0	2	5	0	0	24
5:00 PM	0	0	0	0	0	3	1	0	2	4	3	0	1	1	0	0	15
5:15 PM	0	2	2	0	0	2	0	0	0	2	0	0	0	3	0	0	11
5:30 PM	1	0	0	0	0	1	0	0	2	5	2	0	0	0	0	0	11
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	3	12	7	0	3	17	9	0	9	37	11	0	4	36	2	0	150
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	1	9	2	0	2 0.500	11	3	0	5	21	5	0	1	27	2	0	89
PEAK HR FACTOR :	0.250	0.750	0.500	0.000		0.393	0.750	0.000	0.625	0.875	0.625	0.000	0.250	0.614	0.500	0.000	0.767
					0.500				0.775				0.682				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Summit Park Rd/Hempstead Rd & New Hempstead Rd/CR 80

City: Spring Valley

Control: Signalized

Project ID: 24-380102-002

Date: 10/29/2024

Data - Bikes

NS/EW Streets:	Summit Park Rd/Hempstead Rd				Summit Park Rd/Hempstead Rd				New Hempstead Rd/CR 80				New Hempstead Rd/CR 80					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	1 100.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	0 0.00%	1 100.00%	0 0.00%	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL	
PEAK HR VOL :	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.250	1 0.250	
PEAK HR FACTOR :																		

National Data & Surveying Services

Intersection Turning Movement Count

Location: Summit Park Rd/Hempstead Rd & New Hempstead Rd/CR 80

Project ID: 24-380102-002

City: Spring Valley

Date: 10/29/2024

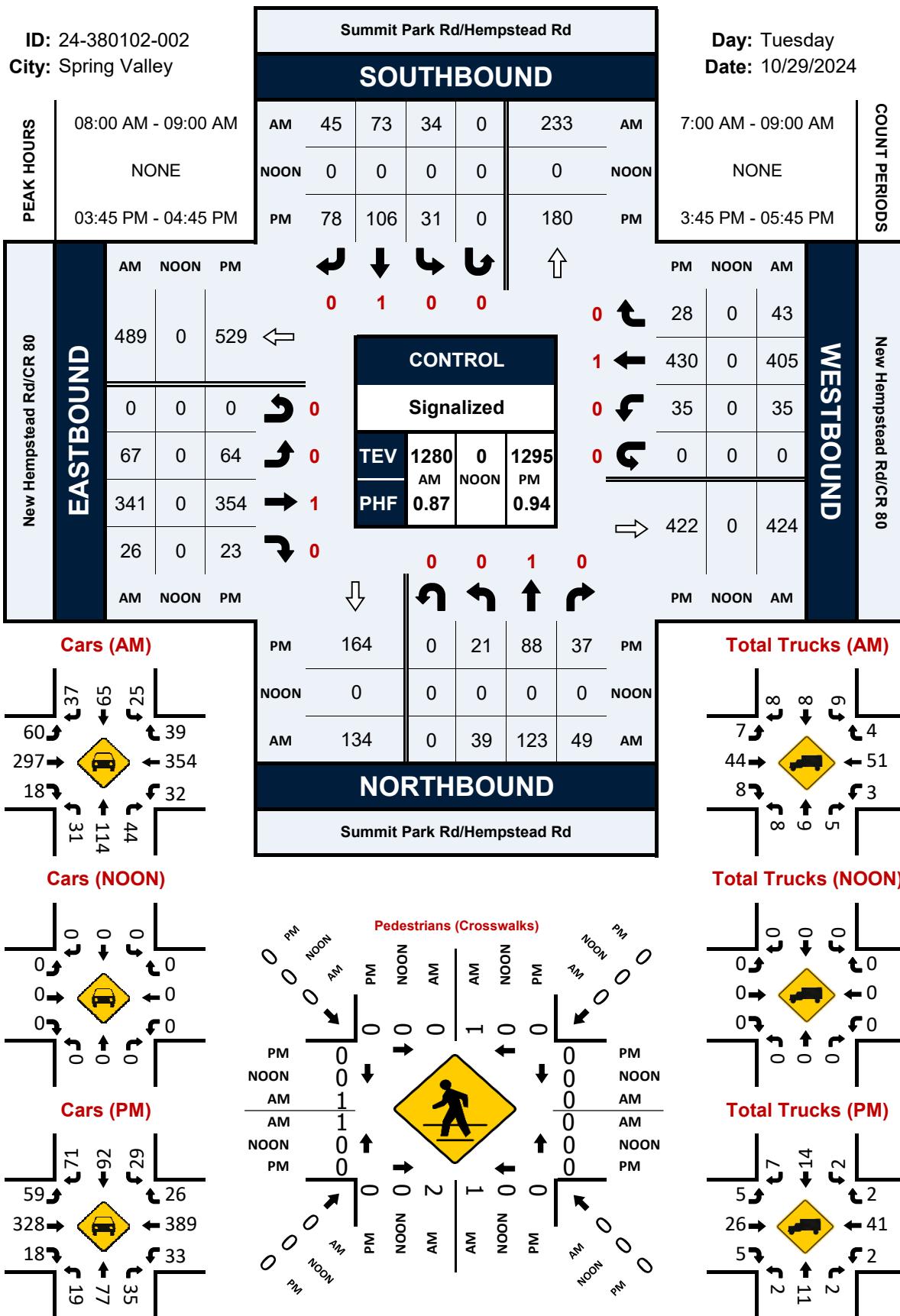
Data - Pedestrians (Crosswalks)

NS/EW Streets:	Summit Park Rd/Hempstead Rd		Summit Park Rd/Hempstead Rd		New Hempstead Rd/CR 80		New Hempstead Rd/CR 80		
	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
AM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	1	0	0	0	0	1
7:15 AM	0	1	0	1	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	2	0	0	0	0	0	2
8:00 AM	0	0	1	0	0	0	0	0	1
8:15 AM	0	1	1	1	0	0	0	1	4
8:30 AM	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 0 0.00%	WB 2 100.00%	EB 4 57.14%	WB 3 42.86%	NB 0	SB 0	NB 1 50.00%	SB 1 50.00%	TOTAL 11
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	0	1	2	1	0	0	1	1	6
PEAK HR FACTOR :	0.250 0.250		0.500 0.375		0.250 0.375		0.250 0.500		0.375

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	3	0	3
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	1	0	0	0	0	0	1	0	2
5:30 PM	0	0	0	0	1	0	0	0	1
TOTAL VOLUMES :	EB 1 100.00%	WB 0 0.00%	EB 0	WB 0	NB 1 100.00%	SB 0 0.00%	NB 4 100.00%	SB 0 0.00%	TOTAL 6
PEAK HR :	03:45 PM - 04:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									0

Summit Park Rd/Hempstead Rd & New Hempstead Rd/CR 80

Peak Hour Turning Movement Count



National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd & Viola Rd/CR 74
City: Spring Valley
Control: Signalized

Project ID: 24-380102-003
Date: 10/29/2024

Data - Total

NS/EW Streets:	Union Rd				Union Rd				Viola Rd/CR 74				Viola Rd/CR 74					
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
AM	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	TOTAL	
7:00 AM	37	27	6	0	2	18	4	0	1	48	23	0	17	89	2	0	274	
7:15 AM	30	18	4	0	1	21	6	0	3	78	27	0	26	100	3	0	317	
7:30 AM	48	40	8	0	2	29	6	0	3	71	35	0	26	115	5	0	388	
7:45 AM	51	34	5	0	3	32	4	0	11	58	43	0	32	128	6	0	407	
8:00 AM	63	44	12	0	6	31	2	0	5	67	40	0	33	102	9	0	414	
8:15 AM	43	38	10	0	14	47	7	0	3	67	49	0	31	104	7	0	420	
8:30 AM	44	43	12	0	14	43	10	0	2	61	55	0	27	78	7	0	396	
8:45 AM	59	46	12	0	3	54	7	0	4	73	53	0	50	109	13	0	483	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	375	290	69	0	45	275	46	0	32	523	325	0	242	825	52	0	3099	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL	
PEAK HR VOL :	209	171	46	0	37	175	26	0	14	268	197	0	141	393	36	0	1713	
PEAK HR FACTOR :	0.829	0.929	0.958	0.000		0.661	0.810	0.650	0.000	0.700	0.918	0.895	0.000	0.705	0.901	0.692	0.000	0.887

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU		
3:45 PM	32	54	8	0	7	36	6	0	4	88	41	0	39	65	4	0	384	
4:00 PM	37	48	18	0	6	39	3	0	6	78	47	0	42	81	6	0	411	
4:15 PM	42	44	10	0	5	45	4	0	1	76	42	1	52	79	10	0	411	
4:30 PM	32	23	10	0	9	55	2	0	8	84	40	0	44	74	7	0	388	
4:45 PM	32	55	11	1	8	46	4	0	5	87	40	0	44	77	4	0	414	
5:00 PM	41	52	7	0	9	63	4	0	2	71	35	0	37	75	8	0	404	
5:15 PM	44	42	8	0	8	50	6	0	3	75	52	0	40	90	3	0	421	
5:30 PM	30	48	15	0	5	37	7	0	5	87	39	0	47	75	5	0	400	
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	290	366	87	1	57	371	36	0	34	646	336	1	345	616	47	0	3233	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL	
PEAK HR VOL :	147	197	41	1	30	196	21	0	15	320	166	0	168	317	20	0	1639	
PEAK HR FACTOR :	0.835	0.895	0.683	0.250		0.833	0.778	0.750	0.000	0.750	0.920	0.798	0.000	0.894	0.881	0.625	0.000	0.973

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd & Viola Rd/CR 74
City: Spring Valley
Control: Signalized

Project ID: 24-380102-003
Date: 10/29/2024

Data - Cars

NS/EW Streets:	Union Rd				Union Rd				Viola Rd/CR 74				Viola Rd/CR 74				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	27	21	4	0	2	16	2	0	0	35	19	0	15	64	2	0	207
7:15 AM	22	9	4	0	1	18	4	0	3	61	19	0	25	89	2	0	257
7:30 AM	43	32	7	0	2	23	4	0	3	59	31	0	25	113	4	0	346
7:45 AM	47	29	4	0	2	29	4	0	8	56	35	0	26	119	5	0	364
8:00 AM	55	33	10	0	6	27	1	0	2	61	33	0	31	83	8	0	350
8:15 AM	34	33	7	0	13	36	4	0	2	60	38	0	26	87	6	0	346
8:30 AM	37	41	9	0	13	39	5	0	1	55	44	0	25	70	7	0	346
8:45 AM	54	41	11	0	2	46	6	0	3	59	42	0	46	101	13	0	424
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	319	239	56	0	41	234	30	0	22	446	261	0	219	726	47	0	2640
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	180	148	37	0	34	148	16	0	8	235	157	0	128	341	34	0	1466
PEAK HR FACTOR :	0.818	0.902	0.841	0.000		0.654	0.804	0.667	0.000	0.667	0.963	0.892	0.000	0.696	0.844	0.654	0.000
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	TOTAL
3:45 PM	29	50	8	0	7	30	4	0	4	83	38	0	33	54	4	0	344
4:00 PM	30	44	18	0	6	35	2	0	6	68	37	0	37	72	6	0	361
4:15 PM	33	35	7	0	4	39	3	0	1	70	35	1	46	76	8	0	358
4:30 PM	27	21	9	0	9	47	1	0	4	79	31	0	40	70	7	0	345
4:45 PM	25	51	10	1	8	33	2	0	4	83	36	0	42	72	4	0	371
5:00 PM	38	48	7	0	8	51	4	0	1	66	29	0	36	71	8	0	367
5:15 PM	41	39	8	0	7	45	5	0	2	70	46	0	37	84	2	0	386
5:30 PM	28	43	14	0	5	33	7	0	4	82	38	0	42	73	5	0	374
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	251	331	81	1	54	313	28	0	26	601	290	1	313	572	44	0	2906
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	132	181	39	1	28	162	18	0	11	301	149	0	157	300	19	0	1498
PEAK HR FACTOR :	0.805	0.887	0.696	0.250		0.875	0.794	0.643	0.000	0.688	0.907	0.810	0.000	0.935	0.893	0.594	0.000

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd & Viola Rd/CR 74
City: Spring Valley
Control: Signalized

Project ID: 24-380102-003
Date: 10/29/2024

Data - HT

NS/EW Streets:	Union Rd				Union Rd				Viola Rd/CR 74				Viola Rd/CR 74				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
7:15 AM	1	0	0	0	0	1	0	0	0	2	0	0	0	4	0	0	8
7:30 AM	2	0	0	0	0	2	1	0	0	5	1	0	1	1	0	0	13
7:45 AM	0	1	1	0	0	0	0	0	0	1	1	0	2	4	0	0	10
8:00 AM	1	7	1	0	0	2	0	0	0	1	1	0	1	6	0	0	20
8:15 AM	1	2	1	0	0	4	0	0	1	1	0	0	2	12	1	0	25
8:30 AM	6	1	1	0	0	0	1	0	0	2	2	0	2	4	0	0	19
8:45 AM	1	1	1	0	0	2	1	0	0	6	1	0	0	5	0	0	18
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	12	12	5	0	0	11	3	0	1	19	6	0	8	38	1	0	116
41.38% 41.38% 17.24% 0.00%	0.00%	78.57%	21.43%	0.00%	3.85%	73.08%	23.08%	0.00%	17.02%	80.85%	2.13%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	9	11	4	0					0	8	2	0	1	10	4	0	82
PEAK HR FACTOR :	0.375	0.393	1.000	0.000					0.250	0.417	0.500	0.000	0.625	0.563	0.250	0.000	0.820
				0.667													
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	TOTAL
3:45 PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	1	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0	6
4:15 PM	2	1	0	0	0	0	0	0	0	1	1	0	0	2	0	0	5
4:30 PM	2	1	1	0	0	3	0	0	0	2	1	0	2	1	0	0	10
4:45 PM	0	0	1	0	0	0	0	0	0	1	0	0	2	2	0	0	8
5:00 PM	2	0	0	0	0	5	0	0	0	1	0	0	0	0	0	0	8
5:15 PM	0	0	0	0	0	2	0	0	1	0	1	0	1	2	0	0	7
5:30 PM	0	0	1	0	0	1	0	0	0	3	0	0	0	1	0	0	5
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	7	3	3	0	0	12	0	0	1	13	3	0	6	10	0	0	58
53.85% 23.08% 23.08% 0.00%	0.00%	100.00%	0.00%	0.00%	5.88%	76.47%	17.65%	0.00%	37.50%	62.50%	0.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	2	1	1	0					0	8	0	0	1	9	1	0	29
PEAK HR FACTOR :	0.250	0.250	0.250	0.000					0.000	0.400	0.000	0.000	0.250	0.450	0.250	0.000	0.806
				0.500									0.375	0.375	0.000	0.500	

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd & Viola Rd/CR 74
City: Spring Valley
Control: Signalized

Project ID: 24-380102-003
Date: 10/29/2024

Data - Buses

NS/EW Streets:	Union Rd				Union Rd				Viola Rd/CR 74				Viola Rd/CR 74				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	10	6	2	0	0	2	2	0	1	12	4	0	2	23	0	0	64
7:15 AM	7	9	0	0	0	2	2	0	0	15	8	0	1	7	1	0	52
7:30 AM	3	8	1	0	0	4	1	0	0	7	3	0	0	1	1	0	29
7:45 AM	4	4	0	0	1	3	0	0	3	1	7	0	4	5	1	0	33
8:00 AM	7	4	1	0	0	2	1	0	3	5	6	0	1	13	1	0	44
8:15 AM	8	3	2	0	1	7	3	0	0	6	11	0	3	5	0	0	49
8:30 AM	1	1	2	0	1	4	4	0	1	4	9	0	0	4	0	0	31
8:45 AM	4	4	0	0	1	6	0	0	1	8	10	0	4	3	0	0	41
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	44	39	8	0	4	30	13	0	9	58	58	0	15	61	4	0	343
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	20	12	5	0	0.750	19	8	0	5	23	36	0	8	25	1	0	165
PEAK HR FACTOR :	0.625	0.750	0.625	0.000		0.679	0.500	0.000	0.417	0.719	0.818	0.000	0.500	0.481	0.250	0.000	0.842
	0.712				0.682				0.842				0.567				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	TOTAL
3:45 PM	2	4	0	0	0	5	2	0	0	4	3	0	5	9	0	0	34
4:00 PM	5	3	0	0	0	4	1	0	0	10	10	0	5	7	0	0	45
4:15 PM	7	8	2	0	1	3	1	0	0	5	6	0	6	2	2	0	43
4:30 PM	5	2	0	0	0	8	1	0	4	3	8	0	2	2	0	0	35
4:45 PM	5	4	1	0	0	8	2	0	1	3	4	0	2	5	0	0	35
5:00 PM	3	4	0	0	1	10	0	0	0	5	5	0	0	2	0	0	30
5:15 PM	3	3	0	0	1	4	1	0	1	2	6	0	3	5	1	0	30
5:30 PM	2	4	0	0	0	4	0	0	1	0	1	0	3	2	0	0	17
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	32	32	3	0	3	46	8	0	7	32	43	0	26	34	3	0	269
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	13	15	1	0	0.500	26	3	0	3	10	16	0	8	14	1	0	112
PEAK HR FACTOR :	0.650	0.938	0.250	0.000		0.650	0.375	0.000	0.750	0.500	0.667	0.000	0.667	0.700	0.250	0.000	0.800
	0.725				0.705				0.725				0.639				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Viola Rd/CR 74
City: Spring Valley
Control: Signalized

Project ID: 24-380102-003
Date: 10/29/2024

Data - Bikes

NS/EW Streets:	Union Rd				Union Rd				Viola Rd/CR 74				Viola Rd/CR 74					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0		
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0		
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES :	NL 1	NT 1	NR 0	NU 0	SL 0	ST 0	SR 1	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 2	WR 0	WU 0	TOTAL 5	
APPROACH %'s :	50.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	TOTAL 3.375	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL 3.375	
PEAK HR VOL :	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	1 0.250	0 0.000	0 0.000	TOTAL 3.375	
PEAK HR FACTOR :																		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	1 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	1 EL	1 ET	0 ER	0 EU	1 WL	1 WT	0 WR	0 WU	
3:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00 PM	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 8
	1	0	0	0	0	0	0	0	0	0	5	0	1	1	0	0	
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	50.00%	50.00%	0.00%	0.00%	TOTAL 3
	PEAK HR : 04:45 PM - 05:45 PM																
PEAK HR VOL :	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3
PEAK HR FACTOR :	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.375

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Viola Rd/CR 74

Project ID: 24-380102-003

City: Spring Valley

Date: 10/29/2024

Data - Pedestrians (Crosswalks)

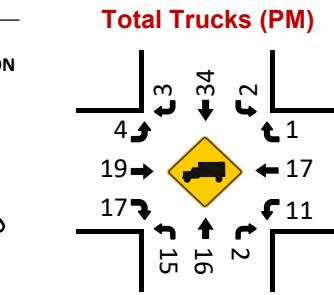
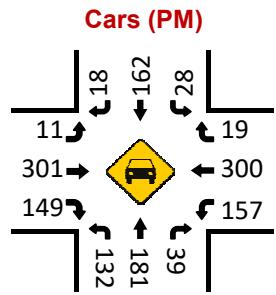
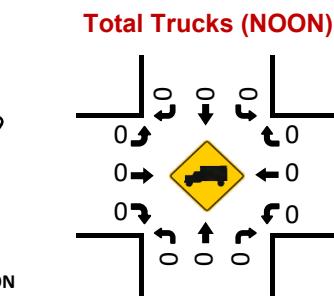
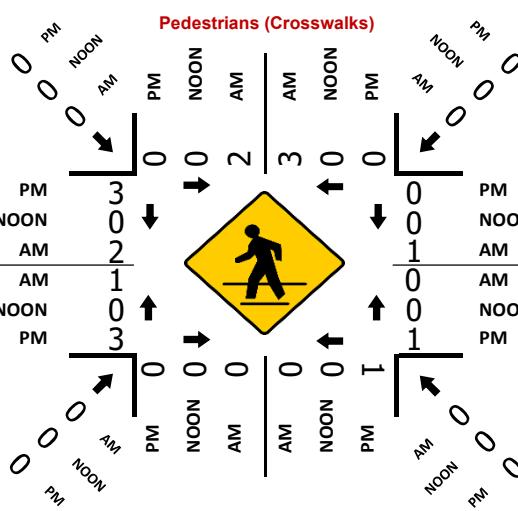
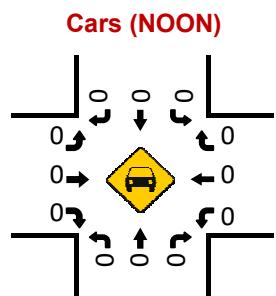
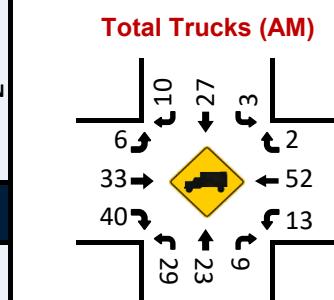
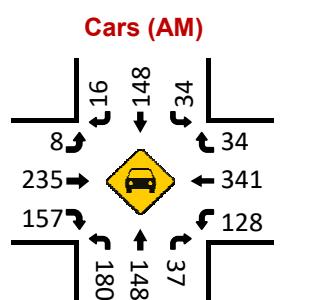
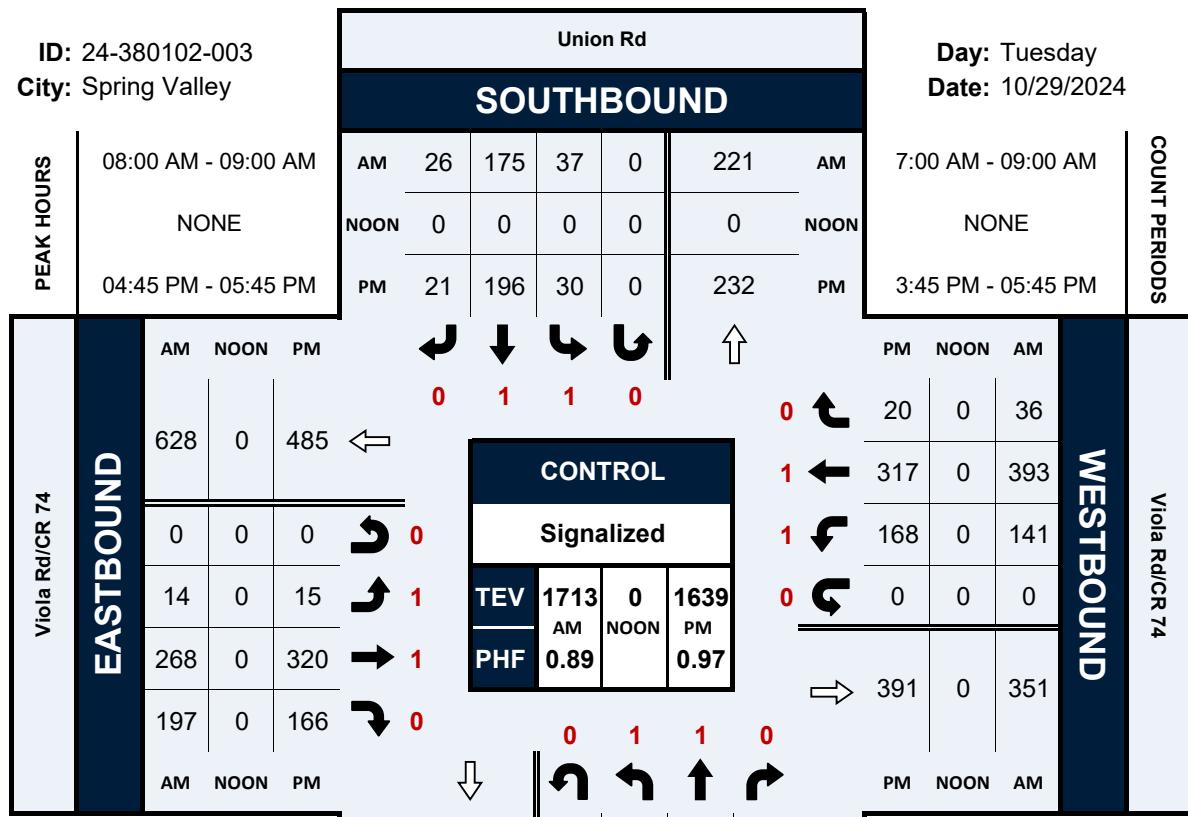
NS/EW Streets:	Union Rd		Union Rd		Viola Rd/CR 74		Viola Rd/CR 74		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	0	1
7:30 AM	0	2	0	0	0	0	0	0	2
7:45 AM	0	1	0	0	0	0	0	0	1
8:00 AM	0	1	0	0	0	0	0	0	1
8:15 AM	0	1	0	0	0	0	0	1	2
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	2	1	0	0	0	1	1	1	6
TOTAL VOLUMES :	EB 2	WB 7	EB 0	WB 0	NB 0	SB 1	NB 1	SB 2	TOTAL 13
APPROACH %'s :	22.22%	77.78%			0.00%	100.00%	33.33%	66.67%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	2	3	0		0		1		9
PEAK HR FACTOR :	0.250	0.750	0.417		0.250		0.250		0.375

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:45 PM	0	1	0	0	0	0	0	2	
4:00 PM	1	0	1	0	0	0	1	0	3
4:15 PM	0	0	0	0	0	0	1	0	1
4:30 PM	2	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	2	2
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	1	0	0	1	0	2
5:30 PM	0	0	0	0	1	0	2	1	4
TOTAL VOLUMES :	EB 3	WB 1	EB 1	WB 1	NB 1	SB 0	NB 5	SB 5	TOTAL 17
APPROACH %'s :	75.00%	25.00%	50.00%	50.00%	100.00%	0.00%	50.00%	50.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0.250		0.250		0.250		8
PEAK HR FACTOR :	0.250		0.375		0.500		0.375		0.500

Union Rd & Viola Rd/CR 74**Peak Hour Turning Movement Count**

ID: 24-380102-003
City: Spring Valley

Day: Tuesday
Date: 10/29/2024



National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd & Brockton Rd
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-004
Date: 10/29/2024

Data - Total

NS/EW Streets:	Union Rd				Union Rd				Brockton Rd				Brockton Rd				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	28	0	0	0	23	17	0	13	0	1	0	0	0	0	0	82
7:15 AM	1	18	0	0	0	34	28	0	8	0	0	0	0	0	0	0	89
7:30 AM	1	37	0	0	0	33	45	0	17	0	0	0	0	0	0	0	133
7:45 AM	2	53	0	1	0	37	41	0	22	0	0	0	0	0	0	0	156
8:00 AM	1	51	0	0	0	43	25	0	21	0	0	0	0	0	0	0	141
8:15 AM	3	46	0	0	0	53	27	0	26	0	1	0	0	0	0	0	156
8:30 AM	2	49	0	0	0	49	16	0	26	0	0	0	0	0	0	0	142
8:45 AM	0	41	0	0	0	50	19	0	30	0	1	0	0	0	0	0	141
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	10	323	0	1	0	322	218	0	163	0	3	0	0	0	0	0	1040
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	8	199	0	1	0	182	109	0	95	0	1	0	0	0	0	0	595
PEAK HR FACTOR :	0.667	0.939	0.000	0.250		0.000	0.858	0.665	0.000	0.913	0.000	0.250	0.000	0.000	0.000	0.000	0.954
								0.909				0.889					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
3:45 PM	0	58	0	0	0	45	15	0	15	0	1	0	0	0	0	0	134
4:00 PM	0	51	0	0	0	55	18	0	15	0	0	0	0	0	0	0	139
4:15 PM	0	50	0	0	0	52	14	0	8	0	0	0	0	0	0	0	124
4:30 PM	1	34	0	0	0	54	12	0	7	0	0	0	0	0	0	0	108
4:45 PM	0	55	0	0	0	60	14	0	4	0	0	0	0	0	0	0	133
5:00 PM	0	46	0	0	0	61	9	0	10	0	0	0	0	0	0	0	126
5:15 PM	0	45	0	0	0	60	18	0	5	0	0	0	0	0	0	0	128
5:30 PM	0	56	0	0	0	47	10	0	18	0	1	0	0	0	0	0	132
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	1	395	0	0	0	434	110	0	82	0	2	0	0	0	0	0	1024
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	202	0	0	0	228	51	0	37	0	1	0	0	0	0	0	519
PEAK HR FACTOR :	0.000	0.902	0.000	0.000		0.000	0.934	0.708	0.000	0.514	0.000	0.250	0.000	0.000	0.000	0.000	0.976
								0.894				0.500					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Brockton Rd
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-004
Date: 10/29/2024

Data - Cars

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU		
3:45 PM	0	55	0	0	0	35	12	0	14	0	1	0	0	0	0	0	117	
4:00 PM	0	46	0	0	0	48	16	0	10	0	0	0	0	0	0	0	120	
4:15 PM	0	40	0	0	0	46	12	0	7	0	0	0	0	0	0	0	105	
4:30 PM	1	28	0	0	0	46	9	0	5	0	0	0	0	0	0	0	89	
4:45 PM	0	51	0	0	0	48	13	0	2	0	0	0	0	0	0	0	114	
5:00 PM	0	45	0	0	0	47	7	0	10	0	0	0	0	0	0	0	109	
5:15 PM	0	40	0	0	0	53	16	0	5	0	0	0	0	0	0	0	114	
5:30 PM	0	48	0	0	0	43	9	0	17	0	1	0	0	0	0	0	118	
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 886	
	1 0.28%	353 99.72%	0 0.00%	0 0.00%	0 0.00%	366 79.57%	94 20.43%	0 0.00%	70 97.22%	0 0.00%	2 2.78%	0 0.00%	0 0	0 0.000	0 0.000	0 0.000		
PEAK HR : 04:45 PM - 05:45 PM																TOTAL 455		
PEAK HR VOL :		0 0.000	184 0.902	0 0.000	0 0.000	0 0.901	45 0.703	0 0.000	34 0.500	0 0.000	1 0.250	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0.964	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Brockton Rd
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-004
Date: 10/29/2024

Data - HT

NS/EW Streets:	Union Rd				Union Rd				Brockton Rd				Brockton Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	3	1	0	1	0	0	0	0	0	0	0	6
7:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3
8:00 AM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
8:15 AM	0	3	0	0	0	0	1	0	1	0	0	0	0	0	0	0	5
8:30 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3
8:45 AM	0	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	4
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	12	0	0	0	9	4	0	4	0	0	0	0	0	0	0	29
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	10	0	0	0	2	2	0	3	0	0	0	0	0	0	0	17
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.000	0.500	0.500	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.708

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Brockton Rd
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-004
Date: 10/29/2024

Data - Bikes

NS/EW Streets:	Union Rd				Union Rd				Brockton Rd				Brockton Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	0.00%	100.00%	0.00%	0.00%													
PEAK HR :				07:45 AM - 08:45 AM												TOTAL	
PEAK HR VOL :				0				0.000				0				0	
PEAK HR FACTOR :				0.000				0.000				0.000				0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Brockton Rd

Project ID: 24-380102-004

City: Spring Valley

Date: 10/29/2024

Data - Pedestrians (Crosswalks)

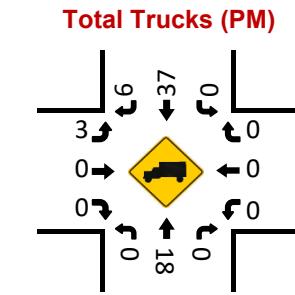
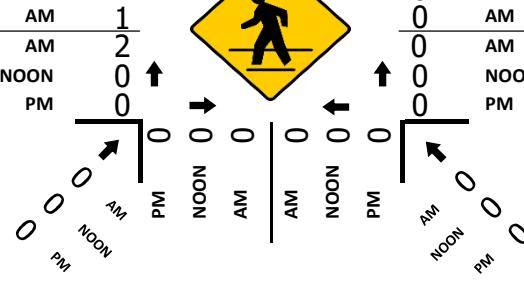
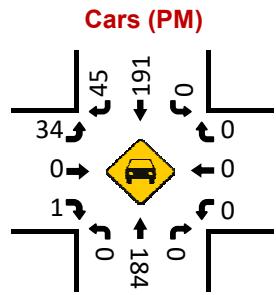
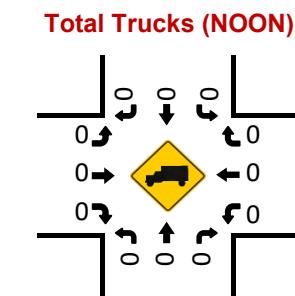
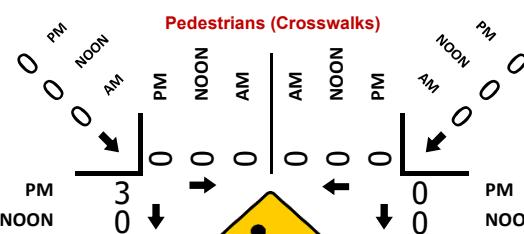
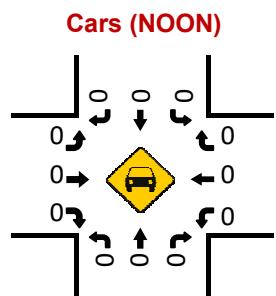
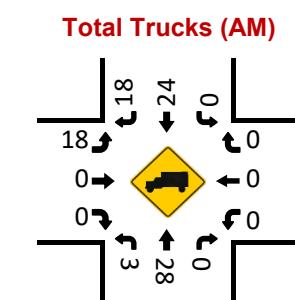
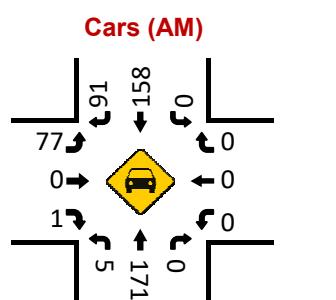
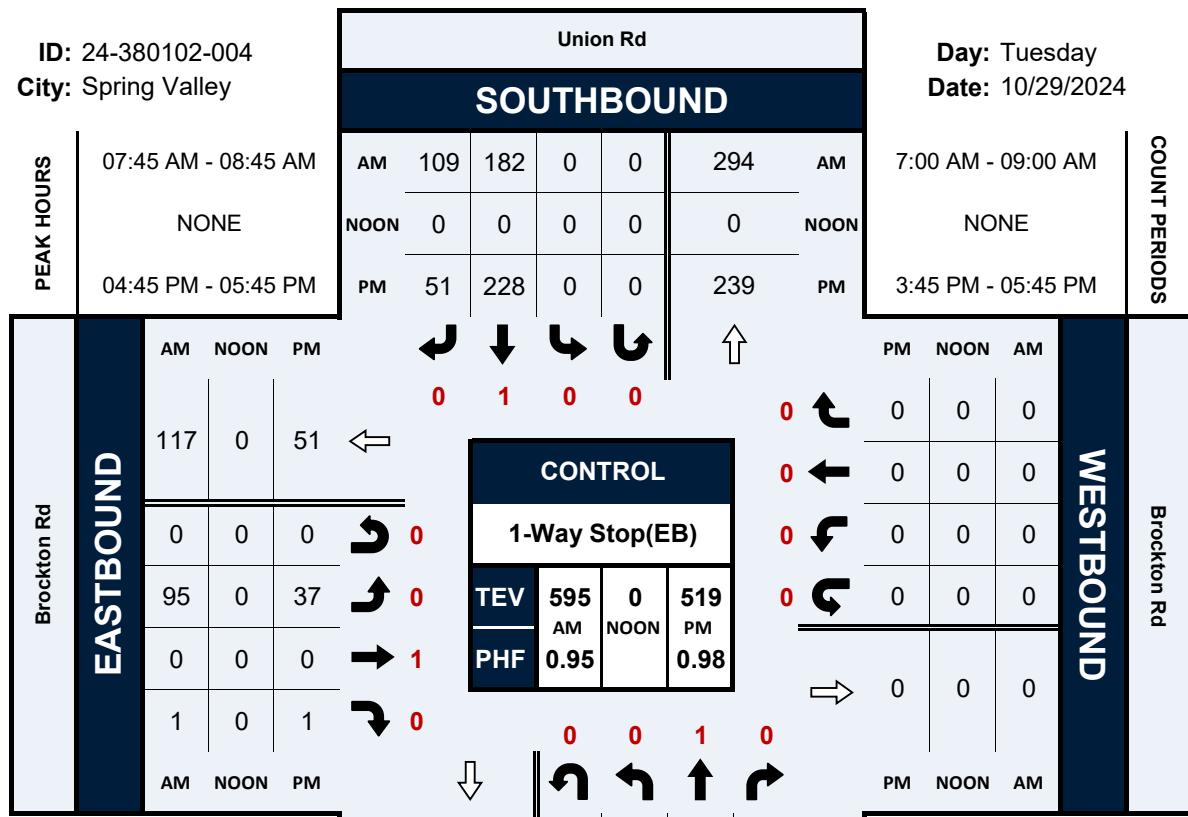
NS/EW Streets:	Union Rd		Union Rd		Brockton Rd		Brockton Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0	1
7:30 AM	0	0	0	0	0	0	2	1	3
7:45 AM	0	0	0	0	0	0	2	1	3
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 0	WB 0	EB 0	WB 0	NB 0	SB 0	NB 5	SB 2	TOTAL 7
APPROACH %'s :							71.43%	28.57%	
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	2	1	TOTAL 3
PEAK HR FACTOR :							0.250	0.250	0.250

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	
3:45 PM	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	1	1
TOTAL VOLUMES :	EB 0	WB 0	EB 0	WB 0	NB 0	SB 0	NB 0	SB 3	TOTAL 3
APPROACH %'s :							0.00%	100.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	3	TOTAL 3
PEAK HR FACTOR :							0.750	0.750	0.750

Union Rd & Brockton Rd**Peak Hour Turning Movement Count**

ID: 24-380102-004
City: Spring Valley

Day: Tuesday
Date: 10/29/2024



National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd & Ivy Ln
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-005
Date: 10/29/2024

Data - Total

NS/EW Streets:	Union Rd				Union Rd				Ivy Ln				Ivy Ln				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	4 NL	41 NT	0 NR	0 NU	0 SL	44 ST	6 SR	0 SU	3 EL	0 ET	2 ER	0 EU	0 WL	0 WT	0 WR	0 WU	100
7:15 AM	2 NL	23 NT	0 NR	0 NU	0 SL	58 ST	13 SR	0 SU	1 EL	0 ET	2 ER	0 EU	0 WL	0 WT	0 WR	0 WU	99
7:30 AM	6 NL	53 NT	0 NR	0 NU	0 SL	73 ST	13 SR	0 SU	8 EL	0 ET	3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	156
7:45 AM	7 NL	79 NT	0 NR	0 NU	0 SL	70 ST	5 SR	0 SU	8 EL	0 ET	3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	172
8:00 AM	10 NL	67 NT	0 NR	0 NU	0 SL	62 ST	7 SR	0 SU	9 EL	0 ET	3 ER	0 EU	0 WL	0 WT	0 WR	0 WU	158
8:15 AM	7 NL	64 NT	0 NR	0 NU	0 SL	68 ST	4 SR	0 SU	5 EL	0 ET	12 ER	0 EU	0 WL	0 WT	0 WR	0 WU	160
8:30 AM	8 NL	74 NT	0 NR	0 NU	0 SL	53 ST	17 SR	0 SU	9 EL	0 ET	10 ER	0 EU	0 WL	0 WT	0 WR	0 WU	171
8:45 AM	3 NL	69 NT	0 NR	0 NU	0 SL	59 ST	16 SR	0 SU	13 EL	0 ET	10 ER	0 EU	0 WL	0 WT	0 WR	0 WU	170
TOTAL VOLUMES :	NL 47	NT 470	NR 0	NU 0	SL 0	ST 487	SR 81	SU 0	EL 56	ET 0	ER 45	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 1186
APPROACH %'s :	9.09%	90.91%	0.00%	0.00%	0.00%	85.74%	14.26%	0.00%	55.45%	0.00%	44.55%	0.00%					
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	32	284	0	0					31	0	28	0	0	0	0	0	661
PEAK HR FACTOR :	0.800	0.899	0.000	0.000	0.000	0.904	0.485	0.000	0.861	0.000	0.583	0.000	0.000	0.000	0.000	0.961	
						0.919		0.953				0.776					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
3:45 PM	0 NL	70 NT	0 NR	0 NU	0 SL	60 ST	5 SR	0 SU	9 EL	0 ET	2 ER	0 EU	0 WL	0 WT	0 WR	0 WU	146
4:00 PM	2 NL	66 NT	0 NR	0 NU	0 SL	70 ST	5 SR	0 SU	13 EL	0 ET	5 ER	0 EU	0 WL	0 WT	0 WR	0 WU	161
4:15 PM	2 NL	54 NT	0 NR	0 NU	0 SL	55 ST	11 SR	0 SU	14 EL	0 ET	9 ER	0 EU	0 WL	0 WT	0 WR	0 WU	145
4:30 PM	1 NL	43 NT	0 NR	0 NU	0 SL	62 ST	4 SR	0 SU	11 EL	0 ET	7 ER	0 EU	0 WL	0 WT	0 WR	0 WU	128
4:45 PM	0 NL	56 NT	0 NR	0 NU	0 SL	73 ST	6 SR	0 SU	6 EL	0 ET	2 ER	0 EU	0 WL	0 WT	0 WR	0 WU	143
5:00 PM	5 NL	56 NT	0 NR	0 NU	0 SL	67 ST	7 SR	0 SU	2 EL	0 ET	6 ER	0 EU	0 WL	0 WT	0 WR	0 WU	143
5:15 PM	4 NL	42 NT	0 NR	0 NU	0 SL	70 ST	4 SR	0 SU	4 EL	0 ET	11 ER	0 EU	0 WL	0 WT	0 WR	0 WU	135
5:30 PM	4 NL	58 NT	0 NR	0 NU	0 SL	70 ST	8 SR	0 SU	10 EL	0 ET	14 ER	0 EU	0 WL	0 WT	0 WR	0 WU	164
TOTAL VOLUMES :	NL 18	NT 445	NR 0	NU 0	SL 0	ST 527	SR 50	SU 0	EL 69	ET 0	ER 56	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 1165
APPROACH %'s :	3.89%	96.11%	0.00%	0.00%	0.00%	91.33%	8.67%	0.00%	55.20%	0.00%	44.80%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	13	212	0	0					0	280	25	0	22	0	33	0	585
PEAK HR FACTOR :	0.650	0.914	0.000	0.000	0.000	0.959	0.781	0.000	0.550	0.000	0.589	0.000	0.000	0.000	0.000	0.892	
						0.907		0.965				0.573					

National Data & Surveying Services
Intersection Turning Movement Count

Location: Union Rd & Ivy Ln
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-005
Date: 10/29/2024

Data - Cars

NS/EW Streets:	Union Rd				Union Rd				Ivy Ln				Ivy Ln				TOTAL
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	4	27	0	0	0	38	3	0	2	0	2	0	0	0	0	0	76
7:15 AM	2	12	0	0	0	48	13	0	0	0	1	0	0	0	0	0	76
7:30 AM	5	44	0	0	0	66	13	0	8	0	3	0	0	0	0	0	139
7:45 AM	7	70	0	0	0	63	5	0	8	0	3	0	0	0	0	0	156
8:00 AM	9	52	0	0	0	54	5	0	5	0	1	0	0	0	0	0	126
8:15 AM	6	54	0	0	0	52	1	0	3	0	11	0	0	0	0	0	127
8:30 AM	6	65	0	0	0	48	15	0	9	0	7	0	0	0	0	0	150
8:45 AM	2	64	0	0	0	49	15	0	12	0	9	0	0	0	0	0	151
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	41	388	0	0	0	418	70	0	47	0	37	0	0	0	0	0	1001
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	28	241	0	0	0	217	26	0	25	0	22	0	0	0	0	0	559
PEAK HR FACTOR :	0.778	0.861	0.000	0.000		0.000	0.861	0.433	0.000	0.694	0.000	0.500	0.000	0.000	0.000	0.000	0.896
								0.893				0.734					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	TOTAL
3:45 PM	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
4:00 PM	0	65	0	0	0	49	2	0	8	0	2	0	0	0	0	0	126
4:15 PM	2	58	0	0	0	62	5	0	8	0	5	0	0	0	0	0	140
4:30 PM	1	44	0	0	0	51	7	0	12	0	6	0	0	0	0	0	121
4:45 PM	1	35	0	0	0	53	3	0	7	0	5	0	0	0	0	0	104
5:00 PM	0	50	0	0	0	61	5	0	4	0	1	0	0	0	0	0	121
5:15 PM	5	55	0	0	0	51	7	0	2	0	6	0	0	0	0	0	126
5:30 PM	4	38	0	0	0	63	3	0	3	0	10	0	0	0	0	0	121
																	149
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	16	396	0	0	0	456	39	0	52	0	49	0	0	0	0	0	1008
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	12	194	0	0	0	241	22	0	17	0	31	0	0	0	0	0	517
PEAK HR FACTOR :	0.600	0.882	0.000	0.000		0.000	0.913	0.786	0.000	0.531	0.000	0.554	0.000	0.000	0.000	0.000	0.867
								0.901				0.545					

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Ivy Ln
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-005
Date: 10/29/2024

Data - HT

NS/EW Streets:	Union Rd				Union Rd				Ivy Ln				Ivy Ln				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
8:15 AM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
8:30 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	16	0	0	0	11	1	0	0	0	0	0	0	0	0	0	28
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	14	0	0	0	4	0	0	0	0	0	0	0	0	0	0	18
PEAK HR FACTOR :	0.000	0.700	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
3:45 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	3
4:00 PM	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0	0	4
4:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	1	0	0	0	2	1	0	0	0	1	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	6	0	0	0	10	2	0	1	0	2	0	0	0	0	0	21
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	1	0	0	0.000	0.583	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	10
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.250	0.667	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.500	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Ivy Ln
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-005
Date: 10/29/2024

Data - Buses

NS/EW Streets:	Union Rd				Union Rd				Ivy Ln				Ivy Ln				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	0	14	0	0	0	6	2	0	1	0	0	0	0	0	0	0	23
7:15 AM	0	10	0	0	0	8	0	0	1	0	1	0	0	0	0	0	20
7:30 AM	1	9	0	0	0	5	0	0	0	0	0	0	0	0	0	0	15
7:45 AM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13
8:00 AM	1	10	0	0	0	7	2	0	4	0	2	0	0	0	0	0	26
8:15 AM	1	6	0	0	0	15	3	0	2	0	1	0	0	0	0	0	28
8:30 AM	2	6	0	0	0	4	2	0	0	0	3	0	0	0	0	0	17
8:45 AM	1	4	0	0	0	7	1	0	1	0	1	0	0	0	0	0	15
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	6	66	0	0	0	58	10	0	9	0	8	0	0	0	0	0	157
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	4	29	0	0	0	32	7	0	6	0	6	0	0	0	0	0	84
PEAK HR FACTOR :	0.500	0.725	0.000	0.000	0.000	0.533	0.583	0.000	0.375	0.000	0.500	0.000	0.000	0.000	0.000	0.750	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
3:45 PM	0	4	0	0	0	10	2	0	1	0	0	0	0	0	0	0	17
4:00 PM	0	6	0	0	0	7	0	0	4	0	0	0	0	0	0	0	17
4:15 PM	1	8	0	0	0	4	4	0	2	0	2	0	0	0	0	0	21
4:30 PM	0	8	0	0	0	8	1	0	4	0	2	0	0	0	0	0	23
4:45 PM	0	6	0	0	0	9	1	0	2	0	1	0	0	0	0	0	19
5:00 PM	0	1	0	0	0	14	0	0	0	0	0	0	0	0	0	0	15
5:15 PM	0	3	0	0	0	5	0	0	1	0	0	0	0	0	0	0	9
5:30 PM	1	7	0	0	0	4	1	0	2	0	0	0	0	0	0	0	15
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	2	43	0	0	0	61	9	0	16	0	5	0	0	0	0	0	136
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	1	17	0	0	0	32	2	0	5	0	1	0	0	0	0	0	58
PEAK HR FACTOR :	0.250	0.607	0.000	0.000	0.000	0.571	0.500	0.000	0.625	0.000	0.250	0.000	0.000	0.000	0.000	0.763	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Ivy Ln
City: Spring Valley
Control: 1-Way Stop(EB)

Project ID: 24-380102-005
Date: 10/29/2024

Data - Bikes

National Data & Surveying Services

Intersection Turning Movement Count

Location: Union Rd & Ivy Ln

Project ID: 24-380102-005

City: Spring Valley

Date: 10/29/2024

Data - Pedestrians (Crosswalks)

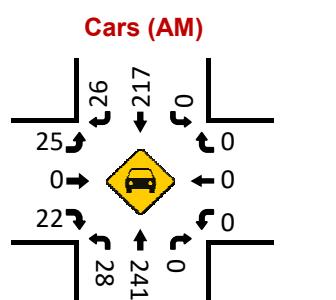
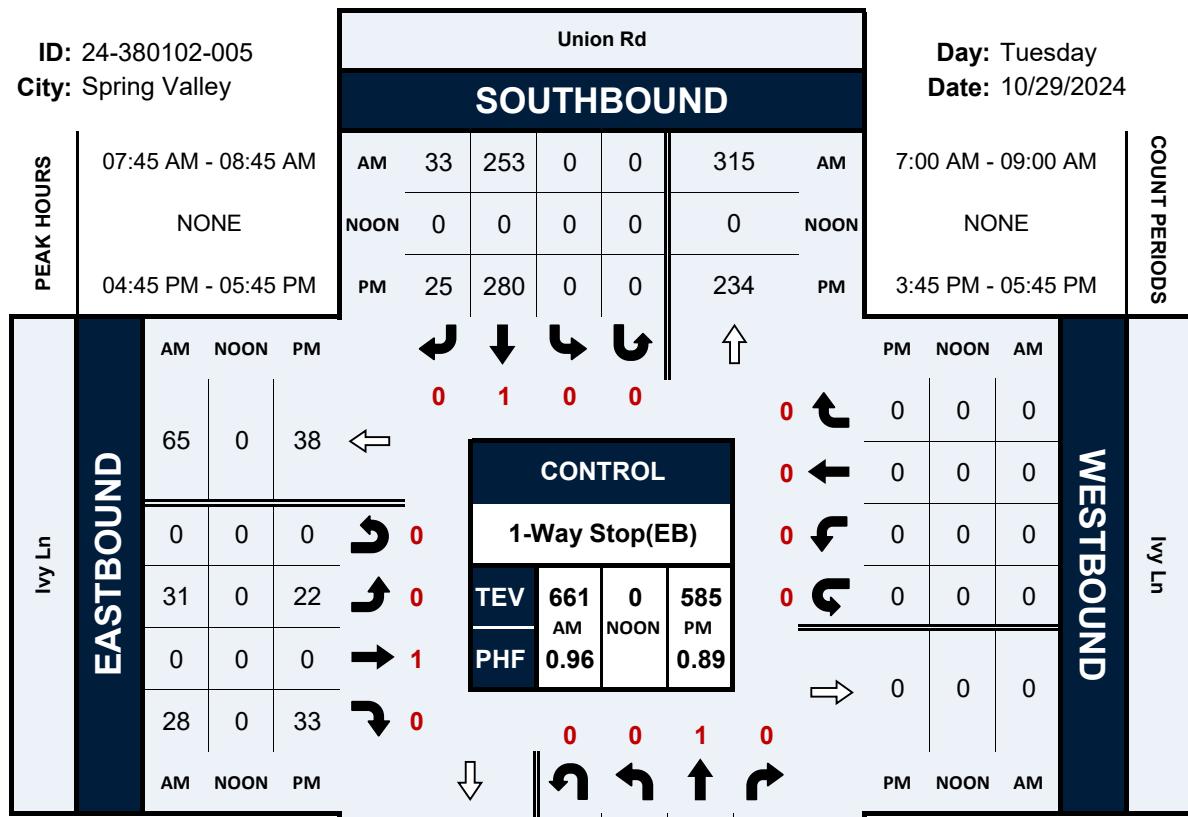
NS/EW Streets:	Union Rd		Union Rd		Ivy Ln		Ivy Ln		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	2	0	0	1	1	4
8:00 AM	0	0	1	0	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	1	0	1
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB 0	WB 0	EB 1 33.33%	WB 2 66.67%	NB 0	SB 0	NB 4 80.00%	SB 1 20.00%	TOTAL 8
PEAK HR :	07:45 AM - 08:45 AM								TOTAL
PEAK HR VOL :	0	0	1	2	0	0	4	1	8
PEAK HR FACTOR :			0.250 0.375	0.250			1.000 0.625	0.250 0.625	0.500

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:45 PM	0	0	0	0	0	0	1	0	1
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	1
5:30 PM	0	0	0	0	0	0	0	2	2
TOTAL VOLUMES :	EB 0	WB 0	EB 0	WB 0	NB 0	SB 0	NB 1 20.00%	SB 4 80.00%	TOTAL 5
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	4 0.500	4 0.500
PEAK HR FACTOR :									0.500

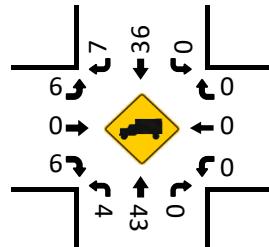
Union Rd & Ivy Ln**Peak Hour Turning Movement Count**

ID: 24-380102-005
City: Spring Valley

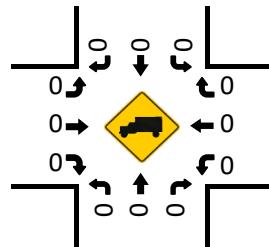
Day: Tuesday
Date: 10/29/2024



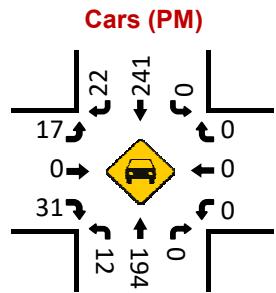
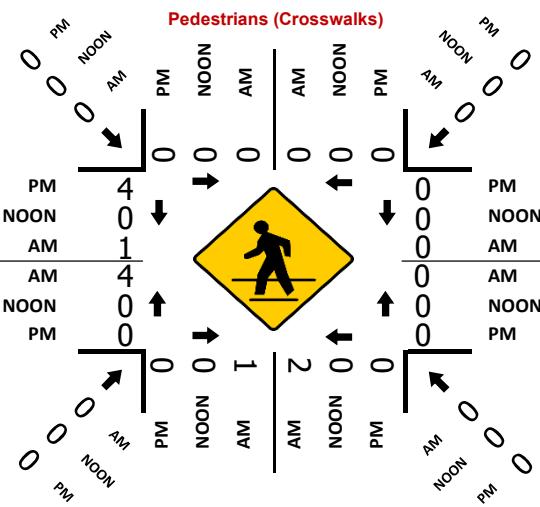
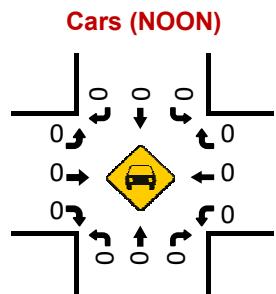
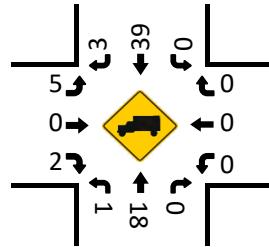
Total Trucks (AM)



Total Trucks (NOON)



Total Trucks (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pennington Way & Union Rd/New Hempstead Rd/CR 80

City: Spring Valley

Control: 1-Way Stop(SB)

Project ID: 24-380102-006

Date: 10/29/2024

Data - Total

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL			
	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU				
3:45 PM	0	0	0	0	4	0	10	0	12	106	0	0	0	147	7	0	286			
4:00 PM	0	0	0	0	4	0	14	0	12	108	0	0	0	138	2	0	278			
4:15 PM	0	0	0	0	4	0	12	0	12	104	0	0	0	133	2	0	267			
4:30 PM	0	0	0	0	3	0	5	0	6	107	0	0	0	105	2	0	228			
4:45 PM	0	0	0	0	3	0	10	0	9	103	0	0	0	116	8	0	249			
5:00 PM	0	0	0	0	3	0	10	0	13	87	0	0	0	135	6	0	254			
5:15 PM	0	0	0	0	3	0	6	0	8	83	0	0	0	118	2	0	220			
5:30 PM	0	0	0	0	1	0	6	0	12	98	0	0	0	114	4	0	235			
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 2017			
	0	0	0	0	25	0	73	0	84	796	0	0	0	1006	33	0				
PEAK HR :				03:45 PM - 04:45 PM				25.51% 0.00% 74.49% 0.00%				9.55% 90.45% 0.00% 0.00%	0.00% 96.82% 3.18% 0.00%					TOTAL 1059		
PEAK HR VOL :				0	0	0	0	0.938	15	0	41	0	42	425	0	0	0	0.926		
PEAK HR FACTOR :				0.000	0.000	0.000	0.000	0.778	0.000	0.932	0.000	0.000	0.875	0.984	0.000	0.000	0.000	0.464	0.000	0.870

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pennington Way & Union Rd/New Hempstead Rd/CR 80

City: Spring Valley

Control: 1-Way Stop(SB)

Project ID: 24-380102-006

Date: 10/29/2024

Data - Cars

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU			
3:45 PM	0	0	0	0	4	0	9	0	10	103	0	0	0	132	5	0	263		
4:00 PM	0	0	0	0	3	0	13	0	10	97	0	0	0	123	2	0	248		
4:15 PM	0	0	0	0	3	0	8	0	9	98	0	0	0	121	2	0	241		
4:30 PM	0	0	0	0	1	0	4	0	6	95	0	0	0	103	1	0	210		
4:45 PM	0	0	0	0	2	0	9	0	9	89	0	0	0	101	7	0	217		
5:00 PM	0	0	0	0	3	0	10	0	12	81	0	0	0	122	6	0	234		
5:15 PM	0	0	0	0	3	0	4	0	8	80	0	0	0	113	2	0	210		
5:30 PM	0	0	0	0	0	0	6	0	12	88	0	0	0	110	4	0	220		
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 1843		
	0	0	0	0	19	0	63	0	76	731	0	0	0	925	29	0			
PEAK HR :				03:45 PM - 04:45 PM				23.17% 0.00% 76.83% 0.00%				9.42% 90.58% 0.00% 0.00%				0.00% 96.96% 3.04% 0.00%		TOTAL 962	
PEAK HR VOL :				0 0 0 0				11 0 34 0				35 393 0 0				0 479 10 0		0.914	
PEAK HR FACTOR :				0.000 0.000 0.000 0.000				0.688 0.000 0.654 0.000				0.875 0.954 0.000 0.000				0.000 0.907 0.500 0.000		0.892	
								0.703				0.947							

National Data & Surveying Services
Intersection Turning Movement Count

Location: Pennington Way & Union Rd/New Hempstead Rd/CR 80

City: Spring Valley

Control: 1-Way Stop(SB)

Project ID: 24-380102-006

Date: 10/29/2024

Data - HT

NS/EW Streets:	Pennington Way				Pennington Way				Union Rd/New Hempstead Rd/CR 80				Union Rd/New Hempstead Rd/CR 80				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0	0	11
7:15 AM	0	0	0	0	0	0	1	0	0	3	0	0	0	3	0	0	7
7:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	6
7:45 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	8
8:00 AM	0	0	0	0	1	0	1	0	0	7	0	0	0	8	0	0	17
8:15 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9
8:30 AM	0	0	0	0	0	0	0	0	0	10	0	0	0	7	0	0	17
8:45 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	10	0	0	14
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	1	0	2	0	0	40	0	0	0	46	0	0	89
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	1	0	0	25	0	0	0	30	0	0	57
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.625	0.000	0.000	0.000	0.750	0.000	0.750	0.838
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
4:00 PM	0	0	0	0	0	0	1	0	0	3	0	0	0	4	0	0	8
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	5
4:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
4:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0	0	9
5:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	6	0	0	8
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0	0	6
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	0	0	0	0	0	0	1	0	0	15	0	0	0	30	0	0	46
PEAK HR :	03:45 PM - 04:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	6	0	0	0	14	0	0	21
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.500	0.000	0.000	0.000	0.875	0.000	0.875	0.656

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pennington Way & Union Rd/New Hempstead Rd/CR 80

City: Spring Valley

Control: 1-Way Stop(SB)

Project ID: 24-380102-006

Date: 10/29/2024

Data - Buses

NS/EW Streets:		Pennington Way				Pennington Way				Union Rd/New Hempstead Rd/CR 80				Union Rd/New Hempstead Rd/CR 80				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU			
7:00 AM	0	0	0	0	2	0	1	0	1	5	0	0	0	6	4	0	19	
7:15 AM	0	0	0	0	2	0	0	0	0	10	0	0	0	13	2	0	27	
7:30 AM	0	0	0	0	1	0	0	0	1	10	0	0	0	5	1	0	18	
7:45 AM	0	0	0	0	1	0	2	0	0	4	0	0	0	9	3	0	19	
8:00 AM	0	0	0	0	2	0	2	0	3	5	0	0	0	5	3	0	20	
8:15 AM	0	0	0	0	3	0	3	0	1	5	0	0	0	12	1	0	25	
8:30 AM	0	0	0	0	1	0	0	0	1	7	0	0	0	9	0	0	18	
8:45 AM	0	0	0	0	2	0	0	0	0	13	0	0	0	7	0	0	22	
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
	0	0	0	0	14	0	8	0	7	59	0	0	0	66	14	0	168	
PEAK HR :	08:00 AM - 09:00 AM				63.64%	0.00%	36.36%	0.00%	10.61%	89.39%	0.00%	0.00%	0.00%	82.50%	17.50%	0.00%	TOTAL	
PEAK HR VOL :	0	0	0	0	8	0	5	0	5	30	0	0	0	33	4	0	85	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.667	0.000	0.417	0.000	0.417	0.577	0.000	0.000	0.000	0.688	0.333	0.000	0.850	
					0.542					0.673					0.712			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL			
	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU				
3:45 PM	0	0	0	0	0	0	1	0	2	3	0	0	0	11	2	0	19			
4:00 PM	0	0	0	0	1	0	0	0	2	8	0	0	0	11	0	0	22			
4:15 PM	0	0	0	0	1	0	4	0	3	5	0	0	0	8	0	0	21			
4:30 PM	0	0	0	0	2	0	1	0	0	10	0	0	0	0	1	0	14			
4:45 PM	0	0	0	0	1	0	1	0	0	10	0	0	0	10	1	0	23			
5:00 PM	0	0	0	0	0	0	0	0	1	4	0	0	0	7	0	0	12			
5:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	4	0	0	8			
5:30 PM	0	0	0	0	1	0	0	0	0	8	0	0	0	0	0	0	9			
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 128			
	0	0	0	0	6	0	9	0	8	50	0	0	0	51	4	0				
PEAK HR :				03:45 PM - 04:45 PM				40.00% 0.00% 60.00% 0.00%				13.79% 86.21% 0.00% 0.00%	0.00% 92.73% 7.27% 0.00%	TOTAL 76						
PEAK HR VOL :				0	0	0	0	0.500	0.000	0.375	0.000	0.583	0.650	0.000	0.000	0.682	0.375	0.000		
PEAK HR FACTOR :				0.000	0.000	0.000	0.000	0.500	0.825				0.000	0.635			0.864			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pennington Way & Union Rd/New Hempstead Rd/CR 80
City: Spring Valley
Control: 1-Way Stop(SB)

Project ID: 24-380102-006
Date: 10/29/2024

Data - Bikes

NS/EW Streets:		Pennington Way				Pennington Way				Union Rd/New Hempstead Rd/CR 80				Union Rd/New Hempstead Rd/CR 80					
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU		
7:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:00 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:15 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:30 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8:45 AM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL VOLUMES : APPROACH %'s :		NL 0	NT 0	NR 0	NU 0	SL 0	ST 0	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 0	
PEAK HR :		08:00 AM - 09:00 AM																TOTAL 0	
PEAK HR VOL :		0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	TOTAL 0	
PEAK HR FACTOR :																			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL		
	0 NL	0 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU			
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1		
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1		
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
TOTAL VOLUMES : APPROACH %'s :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL 3		
	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0			
PEAK HR : 03:45 PM - 04:45 PM				100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	TOTAL 1	
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	TOTAL 0.250	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	TOTAL 0.250	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Pennington Way & Union Rd/New Hempstead Rd/CR 80

Project ID: 24-380102-006

City: Spring Valley

Date: 10/29/2024

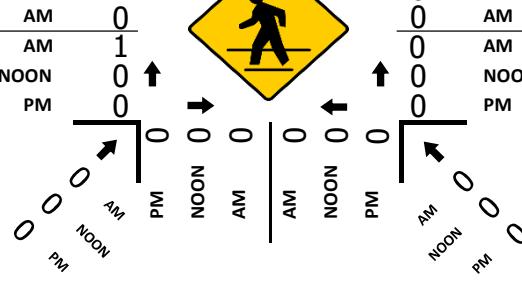
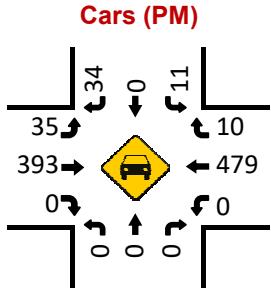
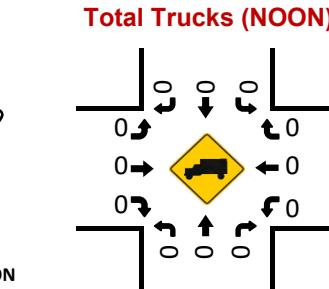
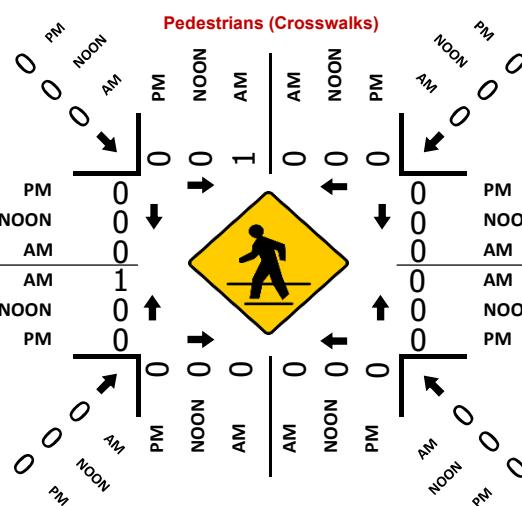
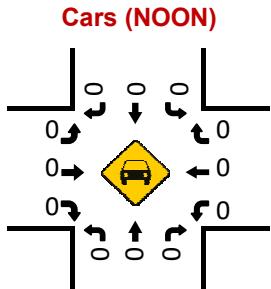
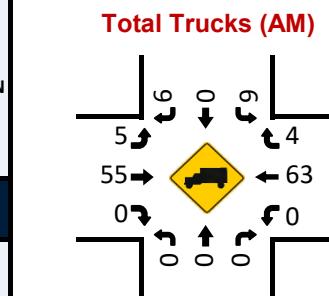
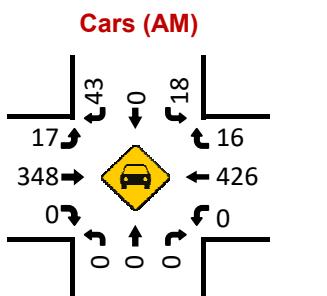
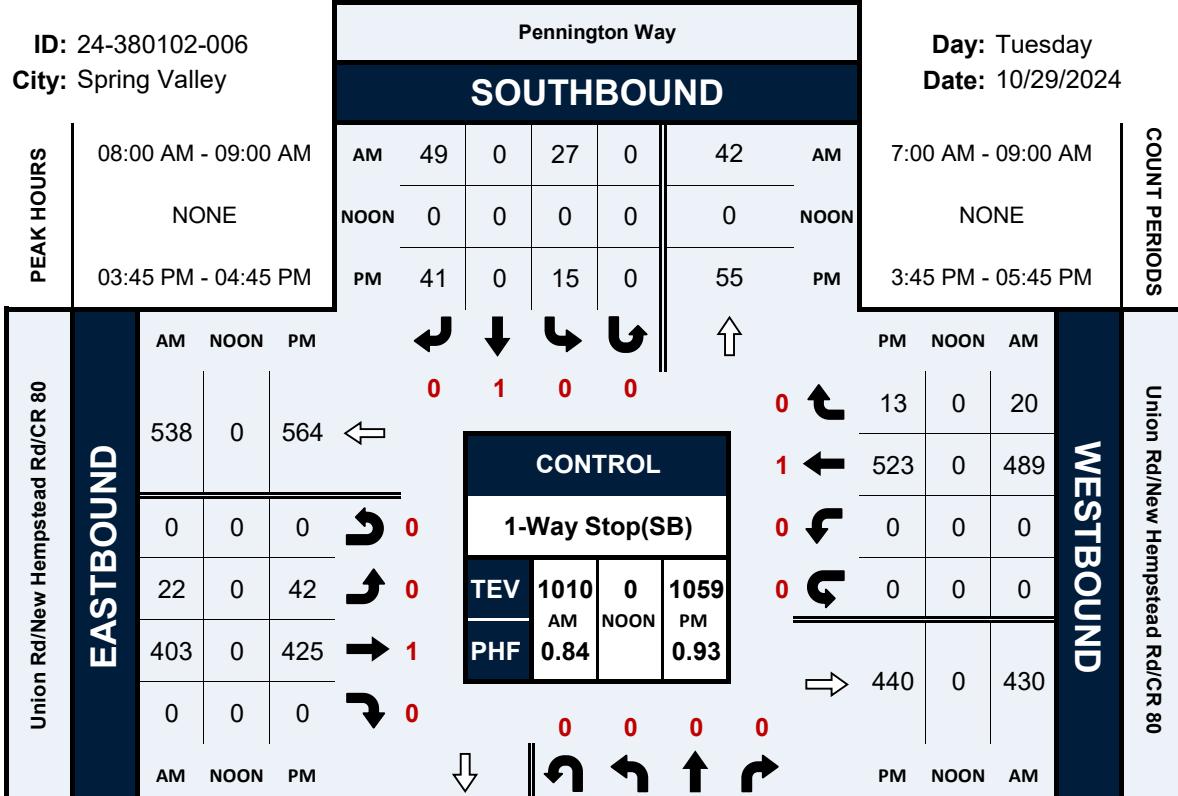
Data - Pedestrians (Crosswalks)

NS/EW Streets:	Pennington Way		Pennington Way		Union Rd/New Hempstead Rd/CR 80		Union Rd/New Hempstead Rd/CR 80		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	1	0	2
TOTAL VOLUMES :	EB 1	WB 0	EB 0	WB 0	NB 0	SB 0	NB 1	SB 0	TOTAL 2
APPROACH %'s :	100.00% 0.00%						100.00% 0.00%		
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	1	0	0		0		1		TOTAL 2
PEAK HR FACTOR :	0.250	0.250					0.250		0.250

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
3:45 PM	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	1
TOTAL VOLUMES :	EB 0	WB 0	EB 0	WB 0	NB 0	SB 0	NB 1	SB 0	TOTAL 1
APPROACH %'s :	100.00% 0.00%								
PEAK HR :	03:45 PM - 04:45 PM								TOTAL
PEAK HR VOL :	0	0	0		0		0		TOTAL 0
PEAK HR FACTOR :									

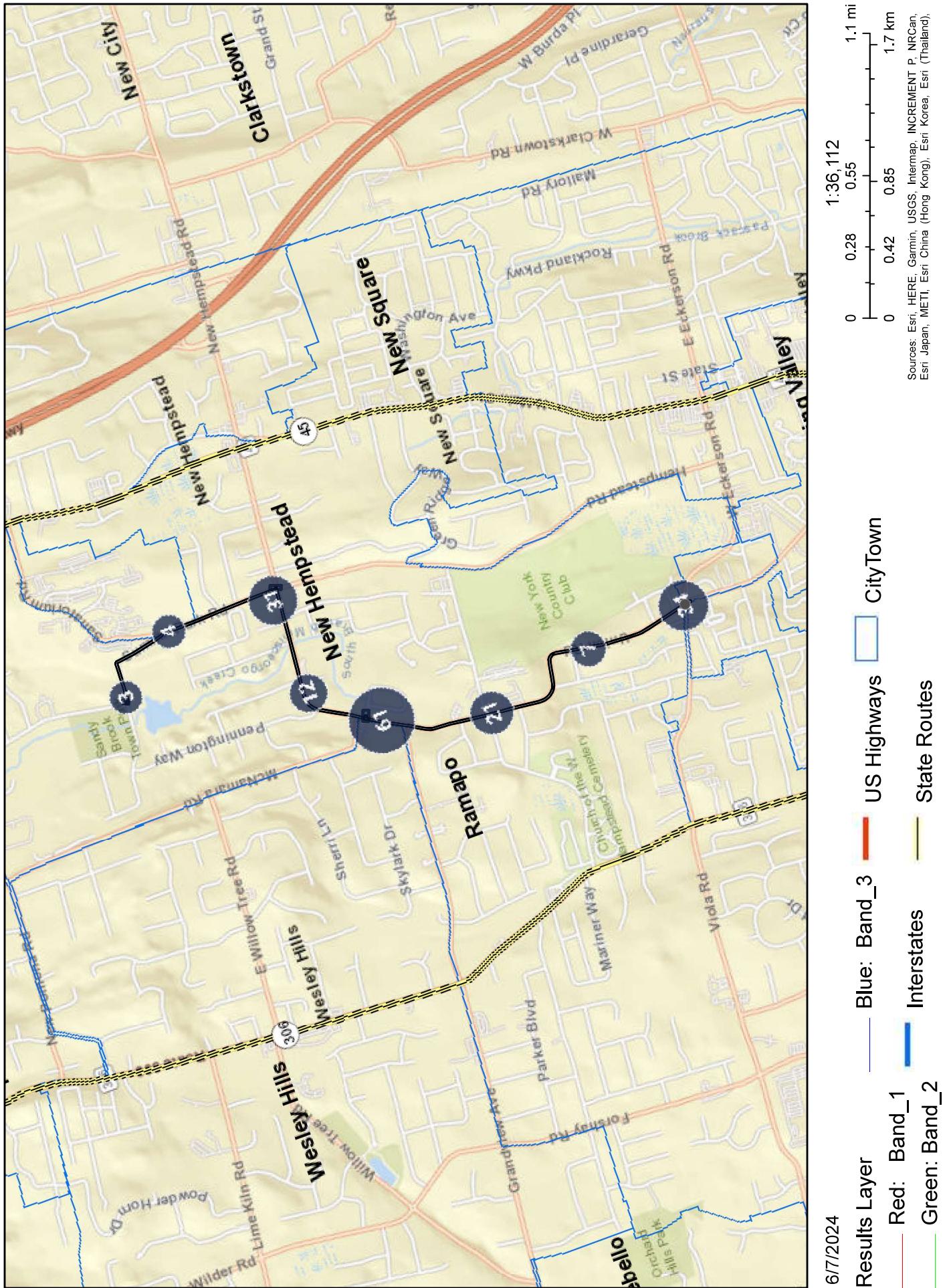
Pennington Way & Union Rd/New Hempstead Rd/CR 80**Peak Hour Turning Movement Count**

ID: 24-380102-006
City: Spring Valley



APPENDIX F
SUMMARIZED CRASH DATA

R003078 MAP



CRASH NUMBER	CASE NUMBER	CASE YEAR	ACCD DATE	ACCD TIME	ON STREET	CLOSEST CROSS STREET	INTERSECTION INDICATOR	ACCIDENT TYPE	COLLISION TYPE	SEVERITY	NUMBER OF INJURIES	NUMBER OF SERIOUS INJURIES	NUMBER OF FATALITIES	NUMBER OF VEHICLES
1	38690489	2021	2021-01-01T00:00:00	4:25 AM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH GUIDE RAIL	OTHER	PROPERTY DAMAGE	0	0	0	1
2	38785651	2021	2021-03-15T00:00:00	4:11 PM	UNION RD	JONATHAN PL	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
3	38716437	2021	2021-02-05T00:00:00	8:43 AM	PENNINGTON WAY	NEW HEMPSTEAD RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	3
4	38886018	2021	2021-06-06T00:00:00	1:13 PM	UNION RD	Michael St	Not an intersection crash	COLLISION WITH SIGN POST	OTHER	PROPERTY DAMAGE	0	0	0	1
5	38719682	2021	2021-02-01T00:00:00	7:30 PM	UNION RD	VIOLA RD	INTERSECTION-RELATED	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	1	0	0	2
6	39825188	2023	2023-05-10T00:00:00	6:53 PM	UNION ROAD	JONATHAN PLACE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
7	38722894	2021	2021-02-03T00:00:00	9:16 AM	UNION RD	PATRICIA LN	INTERSECTION-RELATED	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
8	39542020	2022	2022-09-25T00:00:00	8:15 PM	UNION ROAD	Michael St	AT-INTERSECTION	COLL. W/LIGHT SUPPORT/UTILITY POLE	OTHER	PROPERTY DAMAGE	0	0	0	1
9	38724276	2021	2021-01-31T00:00:00	10:35 PM	GRANDVIEW AVE	UNION RD	AT-INTERSECTION	COLLISION WITH GUIDE RAIL	OTHER	PROPERTY DAMAGE	0	0	0	1
10	39969989	2023	2023-08-30T00:00:00	9:18 AM	UNION ROAD	MICHAEL STREET	Not an intersection crash	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
11	38734802	2021	2021-01-18T00:00:00	8:44 AM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
12	39409226	2022	2022-06-14T00:00:00	5:51 PM	UNION ROAD	NAOMI LANE	Not an intersection crash	COLLISION WITH BICYCLIST	OTHER	PROPERTY DAMAGE	0	0	0	2
13	38737725	2021	2021-01-12T00:00:00	9:05 AM	NEW HEMPSTEAD	PENNINGTON WAY	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
14	39698159	2023	2023-01-19T00:00:00	11:02 AM	UNION ROAD	NAOMI LANE	Not an intersection crash	COLLISION WITH MOTOR VEHICLE	UNKNOWN	PROPERTY DAMAGE	0	0	0	2
15	38758178	2021	2021-02-07T00:00:00	11:30 AM	BRICK CHURCH RD	Union Rd	INTERSECTION-RELATED	COLLISION WITH OTHER FIXED OBJECT	OTHER	PROPERTY DAMAGE	0	0	0	1
16	38776452	2021	2021-03-11T00:00:00	6:50 PM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
17	38783104	2021	2021-03-09T00:00:00	8:00 PM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
18	38789012	2021	2021-03-15T00:00:00	2:20 AM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
19	38793422	2021	2021-03-23T00:00:00	10:18 AM	SANDY BROOK DR	SUMMIT PARK RD	INTERSECTION-RELATED	COLL. W/LIGHT SUPPORT/UTILITY POLE	OTHER	PROPERTY DAMAGE	0	0	0	1
20	38799239	2021	2021-03-31T00:00:00	4:37 PM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	INJURY	2	0	0	2
21	38801351	2021	2021-03-31T00:00:00	2:40 PM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	INJURY	1	0	0	2
22	38812882	2021	2021-02-04T00:00:00	5:26 PM	NEW HEMPSTEAD	BRIDLE RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	UNKNOWN	INJURY	1	0	0	2
23	38822437	2021	2021-04-19T00:00:00	6:00 PM	NEW HEMPSTEAD	SUMMIT PARK RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
24	38832800	2021	2021-04-24T00:00:00	8:30 PM	SUMMIT PARK RD	SANATORIUM RD	Not an intersection crash	COLLISION WITH ANIMAL	OTHER	PROPERTY DAMAGE	0	0	0	1
25	38877026	2021	2021-05-29T00:00:00	12:36 AM	UNION RD	IVY LN	INTERSECTION-RELATED	COLL. W/LIGHT SUPPORT/UTILITY POLE	OTHER	INJURY	3	1	0	1
26	38887180	2021	2021-06-10T00:00:00	6:25 PM	NEW HEMPSTEAD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	PROPERTY DAMAGE	0	0	0	2
27	38892296	2021	2021-06-10T00:00:00	1:29 PM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
28	38897732	2021	2021-06-13T00:00:00	9:41 AM	BRIDLE RD	NEW HEMPSTEAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	INJURY	1	0	0	2
29	38899757	2021	2021-06-17T00:00:00	3:53 PM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	1	0	0	2
30	38907207	2021	2021-06-25T00:00:00	10:49 AM	UNION RD	PATRICIA LN	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	INJURY	2	0	0	2
31	38921969	2021	2021-06-23T00:00:00	3:23 PM	UNION RD	VIOLA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
32	38927632	2021	2021-07-06T00:00:00	4:51 PM	NEW HEMPSTEAD	GRANDVIEW AVE	INTERSECTION-RELATED	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
33	38927633	2021	2021-07-06T00:00:00	4:00 PM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	INJURY	1	0	0	2
34	38927642	2021	2021-06-30T00:00:00	2:26 PM	SUMMIT PARK RD	Driveway	Not an intersection crash	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	1	0	0	2
35	38945849	2021	2021-07-20T00:00:00	5:28 PM	NEW HEMPSTEAD	HEMPSTEAD RD	AT-INTERSECTION	COLLISION WITH CULVERT/HEADWALL	OTHER	INJURY	1	0	0	1
36	38945857	2021	2021-07-12T00:00:00	11:35 AM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	INJURY	1	0	0	2
37	38949070	2021	2021-07-16T00:00:00	5:57 PM	SUMMIT PARK RD	SANATORIUM RD	INTERSECTION-RELATED	COLLISION WITH FENCE	OTHER	PROPERTY DAMAGE	0	0	0	1
38	38970366	2021	2021-08-10T00:00:00	12:00 PM	NEW HEMPSTEAD	HEMPSTEAD RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	3	0	0	2
39	38973560	2021	2021-08-05T00:00:00	10:41 PM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (WITH OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
40	38973613	2021	2021-08-12T00:00:00	6:13 PM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
41	38973623	2021	2021-08-01T00:00:00	10:12 AM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
42	38973663	2021	2021-07-30T00:00:00	7:50 AM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
43	38982867	2021	2021-08-22T00:00:00	1:27 PM	UNION RD	VIOLA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
44	38989428	2021	2021-08-26T00:00:00	10:29 AM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
45	38991145	2021	2021-08-27T00:00:00	1:23 PM	NEW HEMPSTEAD	HEMPSTEAD RD	AT-INTERSECTION	NOT ENTERED	NOT ENTERED	PROPERTY DAMAGE	0	0	0	2
46	38997672	2021	2021-08-31T00:00:00	4:19 PM	UNION RD	BRICK CHURCH RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
47	38997807	2021	2021-08-26T00:00:00	3:15 PM	OAKWOOD TER	SUMMIT PARK RD	INTERSECTION-RELATED	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
48	39002773	2021	2021-09-01T00:00:00	4:27 PM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
49	39002774	2021	2021-09-01T00:00:00	8:25 PM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
50	39027062	2021	2021-09-23T00:00:00	11:25 AM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLL						

59	39108180	2021	2021-11-17T00:00:00	8:59 PM	NEW HEMPSTEAD	MCNAMARA RD	INTERSECTION-RELATED	COLLISION WITH ANIMAL	OTHER	PROPERTY DAMAGE	0	0	0	1
60	39115885	2021	2021-11-23T00:00:00	9:15 AM	BRICK CHURCH RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	HEAD ON	PROPERTY DAMAGE	0	0	0	2
61	39119821	2021	2021-11-15T00:00:00	2:25 PM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
62	39126930	2021	2021-11-30T00:00:00	7:35 PM	UNION RD	BRICK CHURCH RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
63	39140502	2021	2021-12-06T00:00:00	6:00 PM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
64	39154030	2021	2021-12-12T00:00:00	10:51 AM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	UNKNOWN	INJURY	1	0	0	2
65	39160141	2021	2021-12-17T00:00:00	1:30 PM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	INJURY	1	0	0	2
66	39166487	2021	2021-11-05T00:00:00	12:00 AM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (WITH OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
67	39172296	2021	2021-12-30T00:00:00	3:13 PM	NEW HEMPSTEAD	Bridle Rd	INTERSECTION-RELATED	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	1	0	0	2
68	39172942	2021	2021-12-27T00:00:00	2:55 PM	UNION RD	VIOLA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
69	39172948	2021	2021-12-19T00:00:00	5:00 PM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	INJURY	3	0	0	2
70	39173996	2022	2022-01-01T00:00:00	6:51 PM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH GUIDE RAIL	OTHER	PROPERTY DAMAGE	0	0	0	1
71	39182988	2022	2022-01-07T00:00:00	1:10 AM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH GUIDE RAIL	OTHER	PROPERTY DAMAGE	0	0	0	2
72	39189954	2022	2022-01-12T00:00:00	8:04 PM	UNION RD	VIOLA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
73	39193504	2022	2022-01-13T00:00:00	7:52 AM	GRANDVIEW AVE	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
74	39194469	2022	2022-01-14T00:00:00	1:04 PM	NEW HEMPSTEAD	ELLINGTON WAY	Not an intersection crash	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (WITH OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
75	39204991	2022	2022-01-17T00:00:00	9:00 PM	MCNAMARA RD	NEW HEMPSTEAD RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
76	39213864	2022	2022-01-31T00:00:00	2:51 PM	NEW HEMPSTEAD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
77	39222486	2022	2022-01-16T00:00:00	10:00 PM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH GUIDE RAIL	OTHER	PROPERTY DAMAGE	0	0	0	1
78	39227101	2022	2022-02-09T00:00:00	10:49 AM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
79	39228813	2022	2022-02-08T00:00:00	8:00 AM	NEW HEMPSTEAD	HEMPSTEAD RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
80	39230015	2022	2022-02-13T00:00:00	9:08 AM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
81	39236286	2022	2022-02-13T00:00:00	9:50 AM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
82	39237606	2022	2022-01-22T00:00:00	2:15 PM	NEW HEMPSTEAD	SUMMIT PARK RD	AT-INTERSECTION	COLLISION WITH CURBING	OTHER	PROPERTY DAMAGE	0	0	0	1
83	39238535	2022	2022-02-18T00:00:00	3:36 PM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	INJURY	1	0	0	2
84	39279431	2022	2022-03-21T00:00:00	10:40 AM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
85	39286901	2022	2022-03-28T00:00:00	7:46 PM	UNION RD	BRICK CHURCH RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	INJURY	1	0	0	2
86	39288507	2022	2022-03-29T00:00:00	8:56 AM	NEW HEMPSTEAD	Bridle Rd	INTERSECTION-RELATED	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
87	39290518	2022	2022-03-27T00:00:00	10:44 PM	NEW HEMPSTEAD	ELLINGTON WAY	AT-INTERSECTION	COLLISION WITH CULVERT/HEADWALL	OTHER	PROPERTY DAMAGE	0	0	0	1
88	39298963	2022	2022-04-05T00:00:00	9:22 AM	UNION RD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
89	39306067	2022	2022-04-10T00:00:00	7:39 PM	UNION RD	Ivy Ln	Not an intersection crash	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
90	39312165	2022	2022-04-13T00:00:00	1:56 PM	NEW HEMPSTEAD	MCNAMARA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	INJURY	1	0	0	2
91	39317140	2022	2022-04-01T00:00:00	2:45 PM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
92	39343516	2022	2022-05-11T00:00:00	10:23 AM	UNION RD	VIOLA RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
93	39352770	2022	2022-05-19T00:00:00	10:43 AM	NEW HEMPSTEAD	HEMPSTEAD RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
94	39357917	2022	2022-05-16T00:00:00	2:40 PM	UNION RD	BRICK CHURCH RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
95	39378871	2022	2022-06-05T00:00:00	2:24 AM	VIOLA RD	UNION RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	INJURY	2	0	0	2
96	39387881	2022	2022-06-14T00:00:00	10:15 AM	UNION RD	GRANDVIEW AVE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
97	39408278	2022	2022-06-29T00:00:00	1:18 PM	NEW HEMPSTEAD	SUMMIT PARK RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
98	39408285	2022	2022-06-27T00:00:00	9:51 AM	NEW HEMPSTEAD	BRIDLE RD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	3
99	39432301	2022	2022-07-19T00:00:00	7:24 PM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	INJURY	1	0	0	2
100	39444637	2022	2022-07-26T00:00:00	7:29 PM	BRIDLE ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	1	0	0	2
101	39463840	2022	2022-07-21T00:00:00	2:51 PM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
102	39489333	2022	2022-08-24T00:00:00	11:45 AM	HEMPSTEAD ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
103	39489480	2022	2022-08-25T00:00:00	5:48 PM	NEW HEMPSTEAD ROAD		AT-INTERSECTION	COLLISION WITH CURBING	OTHER	PROPERTY DAMAGE	0	0	0	1
104	39496807	2022	2022-08-28T00:00:00	7:30 PM	UNION ROAD		AT-INTERSECTION	COLL. W/LIGHT SUPPORT/UTILITY POLE	OTHER	INJURY	1	0	0	1
105	39513502	2022	2022-09-15T00:00:00	2:45 PM	UNION ROAD	Brick Church Road	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
106	39516108	2022	2022-09-20T00:00:00	7:49 AM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
107	39525035	2022	2022-09-21T00:00:00	2:53 PM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
108	39526373	2022	2022-09-28T00:00:00	9:11 AM	HEMPSTEAD ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
109	39535694	2022	2022-10-04T00:00:00	1:45 PM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
110	39540698													

120	39613518	2022	2022-11-30T00:00:00	10:35 AM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
121	39616048	2022	2022-12-01T00:00:00	12:00 AM	UNION ROAD		AT-INTERSECTION	COLLISION WITH OTHER FIXED OBJECT	OTHER	PROPERTY DAMAGE	0	0	0	1
122	39634342	2022	2022-12-08T00:00:00	7:41 AM	UNION ROAD	GRANDVIEW AVENUE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	INJURY	1	0	0	2
123	39634438	2022	2022-12-07T00:00:00	2:50 PM	UNION ROAD	NEW HEMPSTEAD ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	PROPERTY DAMAGE	0	0	0	2
124	39645968	2022	2022-12-21T00:00:00	6:36 PM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
125	39652116	2022	2022-12-22T00:00:00	2:45 PM	UNION ROAD	PATRICIA LANE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
126	39659881	2022	2022-12-28T00:00:00	9:13 AM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
127	39671273	2022	2022-12-20T00:00:00	2:00 PM	UNION ROAD		AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	1	0	0	2
128	39693334	2023	2023-01-26T00:00:00	10:55 AM	UNION ROAD		Not an intersection crash	COLLISION WITH TREE	OTHER	PROPERTY DAMAGE	0	0	0	1
129	39704048	2023	2023-01-30T00:00:00	7:45 PM			AT-INTERSECTION	COLLISION WITH SIGN POST	OTHER	PROPERTY DAMAGE	0	0	0	1
130	39707306	2023	2023-02-01T00:00:00	10:24 AM	UNION ROAD	VIOLA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
131	39722419	2023	2023-02-10T00:00:00	11:15 AM	NEW HEMPSTEAD	PENNINGTON WAY	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	0	0	0	2
132	39736991	2023	2023-02-27T00:00:00	7:58 AM	VIOLA ROAD	UNION ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	4
133	39737029	2023	2023-03-01T00:00:00	8:59 AM	UNION ROAD	BRICK CHURCH ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (WITH OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
134	39747491	2023	2023-02-28T00:00:00	2:40 AM	UNION ROAD	GRANDVIEW AVENUE	AT-INTERSECTION	COLL. W/LIGHT SUPPORT/UTILITY POLE	OTHER	PROPERTY DAMAGE	0	0	0	1
135	39755715	2023	2023-03-14T00:00:00	9:06 AM	NEW HEMPSTEAD	PENNINGTON WAY	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
136	39757378	2023	2023-03-16T00:00:00	9:16 PM	UNION ROAD	MCNAMARA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
137	39759903	2023	2023-03-17T00:00:00	11:35 AM	UNION ROAD	BRICK CHURCH ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
138	39801464	2023	2023-04-20T00:00:00	10:57 AM	UNION ROAD	VIOLA ROAD	INTERSECTION-RELATED	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
139	39826491	2023	2023-05-01T00:00:00	2:36 PM	UNION ROAD	GRANDVIEW AVENUE	Not an intersection crash	COLL. W/LIGHT SUPPORT/UTILITY POLE	OTHER	PROPERTY DAMAGE	0	0	0	1
140	39831263	2023	2023-05-08T00:00:00	10:49 PM	UNION ROAD	VIOLA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OVERTAKING	PROPERTY DAMAGE	0	0	0	2
141	39834965	2023	2023-04-24T00:00:00	7:30 AM	UNION ROAD	GRANDVIEW AVENUE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
142	39838251	2023	2023-05-16T00:00:00	8:38 AM	UNION ROAD	GRANDVIEW AVENUE	AT-INTERSECTION	COLLISION WITH GUIDE RAIL	OTHER	INJURY	0	0	0	1
143	39841417	2023	2023-05-22T00:00:00	8:25 AM	UNION ROAD	GRANDVIEW AVENUE	Not an intersection crash	COLLISION WITH MOTOR VEHICLE	LEFT TURN (WITH OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
144	39855513	2023	2023-05-30T00:00:00	7:41 PM	HEMPSTEAD ROAD	SUMMIT PARK ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
145	39878767	2023	2023-06-12T00:00:00	11:51 PM	UNION ROAD	VIOLA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	PROPERTY DAMAGE	0	0	0	2
146	39895501	2023	2023-07-03T00:00:00	3:05 PM	DRIVEWAY	SUMMIT PARK ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	PROPERTY DAMAGE	0	0	0	2
147	39899637	2023	2023-07-08T00:00:00	5:01 AM	UNION ROAD	VIOLA ROAD	AT-INTERSECTION	COLLISION WITH FENCE	OTHER	PROPERTY DAMAGE	0	0	0	1
148	39915619	2023	2023-07-21T00:00:00	7:48 AM	UNION ROAD	BRICK CHURCH ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
149	39940664	2023	2023-08-07T00:00:00	7:58 AM	HEMPSTEAD ROAD	NEW HEMPSTEAD ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
150	39944321	2022	2022-08-24T00:00:00	9:03 PM	UNION ROAD	GRANDVIEW AVENUE	Not an intersection crash	COLL. W/EARTH ELE./ROCK CUT/DITCH	OTHER	INJURY	1	0	0	1
151	39954803	2023	2023-08-16T00:00:00	6:00 PM	UNION ROAD	GRANDVIEW AVENUE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
152	39965396	2023	2023-08-10T00:00:00	5:46 PM	UNION ROAD	VIOLA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
153	39987142	2023	2023-09-08T00:00:00	9:20 AM	UNION ROAD	IVY LANE	AT-INTERSECTION	COLLISION WITH PEDESTRIAN	OTHER	INJURY	1	0	0	1
154	39991042	2023	2023-09-16T00:00:00	6:35 PM	SUMMIT PARK ROAD	DRIVEWAY	Not an intersection crash	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	PROPERTY DAMAGE	0	0	0	2
155	39994150	2023	2023-09-19T00:00:00	8:25 AM	NEW HEMPSTEAD	ELLINGTON WAY	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (WITH OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
156	40005844	2023	2023-09-20T00:00:00	6:54 PM	HEMPSTEAD ROAD	NEW HEMPSTEAD ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	SIDESWIPE	PROPERTY DAMAGE	0	0	0	2
157	40007789	2023	2023-09-24T00:00:00	11:02 AM	NEW HEMPSTEAD	PENNINGTON WAY	AT-INTERSECTION	COLLISION WITH SIGN POST	OTHER	PROPERTY DAMAGE	0	0	0	1
158	40020930	2023	2023-10-06T00:00:00	7:19 PM	SUMMIT PARK ROAD	RODMAN PLACE	Not an intersection crash	COLL. W/LIGHT SUPPORT/UTILITY POLE	OTHER	PROPERTY DAMAGE	0	0	0	1
159	40023658	2023	2023-10-05T00:00:00	1:47 PM	UNION ROAD	MCNAMARA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
160	40025689	2023	2023-10-09T00:00:00	3:08 PM	HEMPSTEAD ROAD	NEW HEMPSTEAD ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
161	40045846	2023	2023-10-21T00:00:00	4:12 PM	NEW HEMPSTEAD	FLAMINGO LANE	INTERSECTION-RELATED	COLL. W/LIGHT SUPPORT/UTILITY POLE	OTHER	PROPERTY DAMAGE	0	0	0	1
162	40046564	2023	2023-10-23T00:00:00	5:18 PM	UNION ROAD	GRANDVIEW AVENUE	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	INJURY	1	0	0	2
163	40064120	2023	2023-10-31T00:00:00	6:10 PM	NEW HEMPSTEAD	UNION ROAD	AT-INTERSECTION	COLLISION WITH ANIMAL	OTHER	PROPERTY DAMAGE	0	0	0	1
164	40069724	2023	2023-11-09T00:00:00	8:08 PM	UNION ROAD	VIOLA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	OTHER	PROPERTY DAMAGE	0	0	0	2
165	40092586	2023	2023-11-25T00:00:00	2:57 PM	UNION ROAD	GRANDVIEW AVENUE	AT-INTERSECTION	COLLISION WITH OTHER FIXED OBJECT	OTHER	PROPERTY DAMAGE	0	0	0	1
166	40098160	2023	2023-11-21T00:00:00	7:22 PM	UNION ROAD	VIOLA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	INJURY	1	0	0	2
167	40101897	2023	2023-12-01T00:00:00	12:25 PM	UNION ROAD	BRICK CHURCH ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	RIGHT ANGLE	PROPERTY DAMAGE	0	0	0	2
168	40106889	2023	2023-12-04T00:00:00	8:47 AM	UNION ROAD	MCNAMARA ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	REAR END	PROPERTY DAMAGE	0	0	0	2
169	40125654	2023	2023-12-06T00:00:00	5:12 PM	HEMPSTEAD ROAD	NEW HEMPSTEAD ROAD	AT-INTERSECTION	COLLISION WITH MOTOR VEHICLE	LEFT TURN (AGAINST OTHER CAR)	PROPERTY DAMAGE	0	0	0	2
170	40130735	2023	2023-11-29T00:00:00	9:00 AM	SUMMIT PARK ROAD	SANITORIUM ROAD	AT-INTERSECTION	COLLISION WITH MOTOR V						

TABLE F1
ACCIDENT SUMMARY ANALYSIS
UNION ROAD TOWNHOMES - NEW HEMPSTEAD, ROCKLAND COUNTY, NEW YORK

LEGS/ LANES	CONTROL	STREET/INTERSECTION	ACCIDENTS		VOLUMES		RATE	
			TOTAL	YEARLY	AM/PM AVG. ⁽¹⁾	DAILY YEARLY ⁽²⁾	STATE AVG. ⁽³⁾	ACTUAL
URBAN 4 LEGGED INTERSECTION (SIGN 4 & > LANES)								
4	Unsignalized	Sandy Brook Drive & Summit Park Road	1	0.33	185	1,845	673,425	0.49
4	Unsignalized	Union Road & Brick Church Road	13	4.33	1,193	11,930	4,354,450	1.00
URBAN 4 LEGGED INTERSECTION (SIGNAL 1-4 LANES)								
4	Signalized	Summit Park Road & New Hempstead Road	4	1.33	1,237	12,370	4,515,050	0.30
URBAN 4 LEGGED INTERSECTION (SIGNAL W/ LEFT TURN 5 & > LANES)								
4	Signalized	Viola Road & Union Road	28	9.33	1,611	16,110	5,880,150	1.59
URBAN 3 LEGGED INTERSECTION (SIGN 1-3 LANES)								
3	Unsignalized	Brockton Road & Union Road	0	0.00	545	5,450	1,989,250	0.00
3	Unsignalized	Ivy Lane & Union Road	1	0.33	613	6,130	2,237,450	0.15
3	Unsignalized	Pennington Way & New Hempstead Road	6	2.00	1,008	10,075	3,677,375	0.54
3	Unsignalized	New Hempstead Road / Union Road & McNamara Road	17	5.67	1,237	12,365	4,513,225	1.26
3	Unsignalized	Union Road & Grandview Avenue	21	7.00	1,285	12,850	4,690,250	1.49

NOTES

(1) Average of Peak AM and Peak PM Hour traffic volumes

(2) Daily Traffic Volumes = Average AM/PM Volumes x 10

(3) Yearly Traffic Volumes = Daily Traffic Volumes x 365

(4) State average rate based on accident data from 1/1/2019 to 12/31/2020 (the latest available data)

(5) Actual Accident Rate is higher than State Average

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