

TRAFFIC IMPACT STUDY

MONROE MANOR SUBDIVISION

LANSING, KANSAS

Prepared For:
Circle H Land Holdings, LLC

Prepared By:
Michael Hare, PE, PTOE

July 2025



7/10/2025



Table of Contents

INTRODUCTION	1
EXISTING CONDITIONS	1
PROPOSED CONDITIONS	3
ANALYSES	6
SUMMARY & RECOMMENDATIONS	8

List of Figures

Figure 1: Location Map	1
Figure 2: Proposed Site Plan	3

List of Tables

Table 1: Existing Roadway Characteristics	2
Table 2: Proposed Site Access	3
Table 3: Trip Generation	5
Table 4: Trip Distribution	5
Table 5: Level of Service Delay Thresholds	6

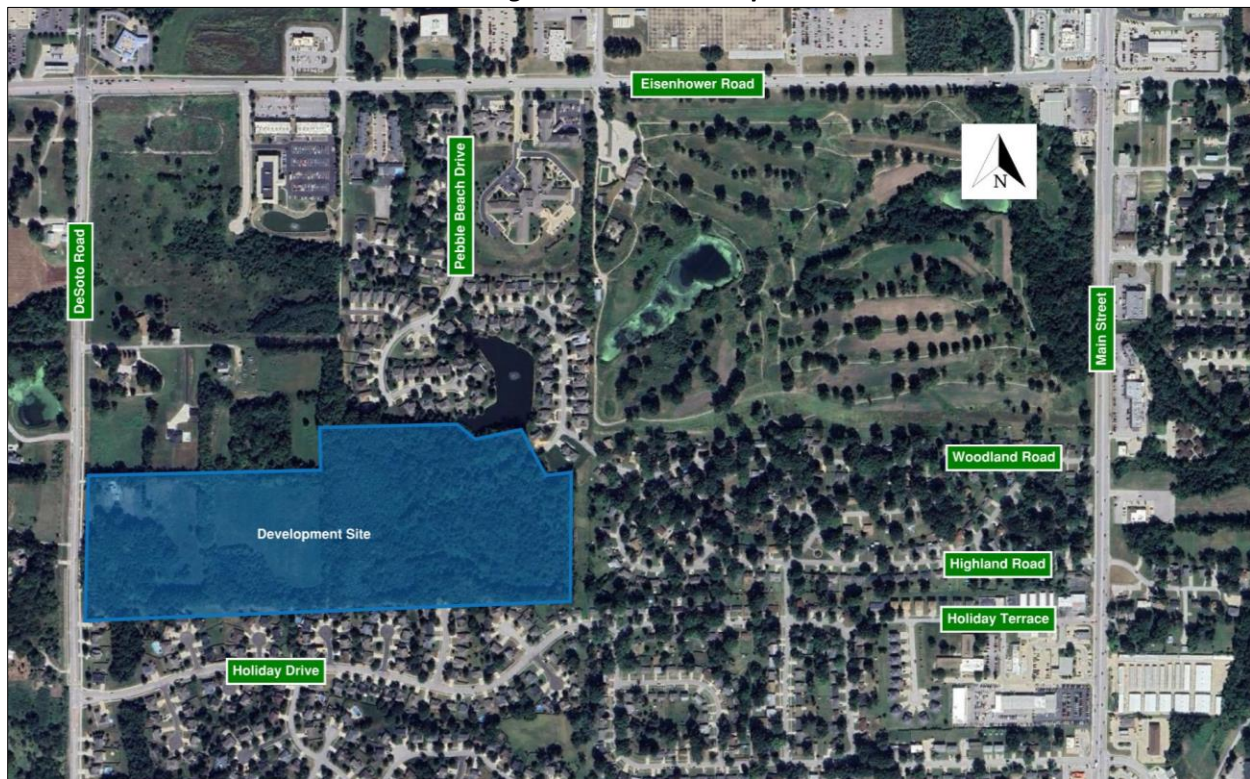
Appendices

- Appendix A – Traffic Volume and Level of Service Figures
- Appendix B – Raw Turning Movement Traffic Counts
- Appendix C – Trip Generation and Distribution
- Appendix D - Capacity Analysis Output Files
- Appendix E – Turn-Lane Warrant Analysis

INTRODUCTION

This traffic impact study has been completed for the proposed single-family residential neighborhood to be located along the east side of DeSoto Road just north of Holiday Drive in Lansing, Kansas. The location of the proposed development relative to major streets in the area is shown below on **Figure 1**. This study includes a description of the proposed development, existing and future conditions, intersection capacity analyses, and a summary of findings.

Figure 1: Location Map



Source: Google Earth

EXISTING CONDITIONS

Existing Traffic Volumes: Existing weekday turning-movement traffic-volume counts were collected at the following study intersections via video camera:

- DeSoto Road & Holiday Drive
- Eisenhower Road & Pebble Beach Drive
- Main Street & Woodland Road
- Main Street & Highland Road
- Main Street & Holiday Terrace

Peak-period counts were collected at the study intersections during the hours of 7:00 A.M. to 9:00 A.M. and 4:00 P.M. to 6:00 P.M. on Thursday, May 15, 2025. Based on the data, the AM peak hour occurs between 7:15 and 8:15 A.M. At the study intersections along DeSoto Road and

Eisenhower Road, the PM peak hour occurs between 4:30 and 5:30 P.M. The PM peak hour at the study intersections along Main Street occur between 4:00 and 5:00 P.M.. The existing AM and PM peak-hour volumes are shown in **Appendix A** on **Figure A-1**. The raw traffic counts were processed by Miovision Technologies, Inc. and can be found in **Appendix B**.

Daily traffic counts and speed data were recorded along DeSoto Road adjacent to the proposed development site on Thursday, May 15, 2025. The recorded daily traffic (ADT) on DeSoto Road was 8,650 vehicles per day (vpd): 3,246 vpd northbound and 5,404 vpd southbound. These counts are also included in **Appendix B**.

Existing Land Use: The existing property consists of mostly vacant land and one single-family residential home. Currently, the home appears to be vacant and will be removed as part of this development. On the north side of the site are some large-lot single-family homes and a residential neighborhood. To the east and south of the site are residential neighborhoods. To the west, across DeSoto Road, are some large-lot single-family homes.

Existing Roadway Network: Current roadway characteristics near the study area are summarized below in **Table 1**.

Table 1: Existing Roadway Characteristics

Roadway	Classification ¹	Section	Median Type	Posted Speed Limit
DeSoto Road	Minor Arterial	3-lane w/ curb and gutter	TWLTL	40 mph
Holiday Drive	Collector	2-lane w/ curb and gutter	Undivided	20 mph
Eisenhower Road	Minor Arterial	4-lane w/ curb and gutter	Undivided	40 mph
Pebble Beach Drive	Collector	2-lane w/ curb and gutter	Undivided	20 mph
Main Street	Major Arterial	5-lane w/ curb and gutter	TWLTL	40 mph
Woodland Road	Local	2-lane w/ curb and gutter	Undivided	20 mph
Highland Road	Local	2-lane w/ curb and gutter	Undivided	20 mph
Holiday Terrace	Local	2-lane w/ curb and gutter	Undivided	20 mph

¹ – Classification as listed on [City of Lansing Maps and Open Data Portal](#)

TWLTL – Two-way left-turn lane

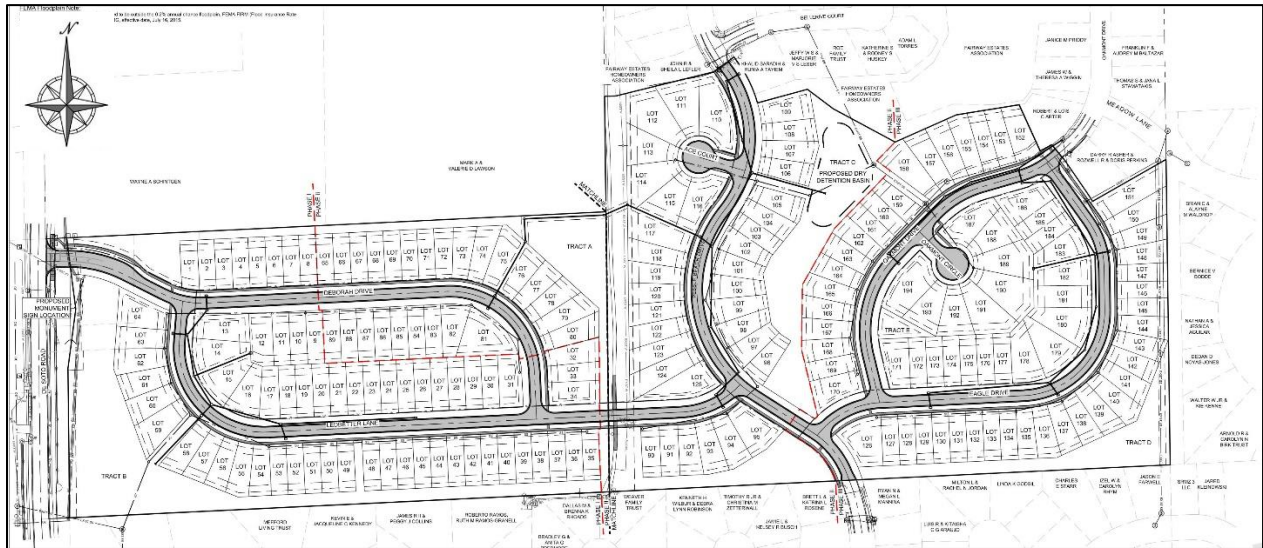
Each of the study intersections operates under stop control on the minor intersection approaches. A center two-way left-turn lane is present along DeSoto Road and Main Street. A left-turn lane is not included at the Eisenhower Road & Pebble Beach Drive intersection. No right-turn lanes are included at any of the study intersections.

A 10' multi-use path runs along the east side of DeSoto Road and a 5' sidewalk runs along the west side of DeSoto Road adjacent to the proposed development site.

PROPOSED CONDITIONS

Proposed Land Use: The proposed Monroe Manor residential development includes 194 single-family homes. A copy of the proposed site plan is included below on **Figure 2**. A full-size version is included at the end of this report.

Figure 2: Proposed Site Plan



Proposed Access Plan: One new access is proposed on the west side of the development along DeSoto Road. **Table 2** summarizes the new access location. Additionally, the development will be accessed from current street connections surrounding the proposed site. Currently, Pebble Beach Drive north of the site, Pebble Beach Drive south of the site, and Oakmont Drive all end at the property line of the proposed development. These roadways will be extended into the proposed development, and they will provide access to the new homes.

Table 2: Proposed Site Access

Access Name	Intersecting Roadway	Access Type	Access Location ¹
Site Drive	DeSoto Road	Full Access	Approx. 1,100' north of Holiday Drive

1 - Distances are taken from the center of the intersection.

The location of the Site Drive was reviewed in accordance with Leavenworth County guidelines outlined in [Resolution 2021-18, Article 41 – Access Management](#). This resolution amends articles of the 2006 Zoning and Subdivision Regulations. Based on these guidelines, minimum road spacing along an arterial is 660'. The minimum residential entrance spacing along a minor arterial is 300'. Both of these spacing requirements are to be met only along the side of the roadway that is being accessed. In addition, the minimum spacing between roadways on opposite sides of the street should be no less than 100'.

The Site Drive is on the east side of DeSoto Road, and it is located approximately 1,100' north of Holiday Drive and approximately 715' south of Kane Drive. The nearest residential entrance to the Site Drive is located approximately 720' to the south. No residential entrances are located to the north of the Site Drive. Sycamore Ridge Drive is located approximately 270' north of the Site Drive on the west side of DeSoto Road. The location of the Site Drive meets the spacing criteria outlined above.

Intersection Sight Distance: Intersection sight-distance measurements were taken in the field for the site-drive approach to DeSoto Road, which has a posted speed limit of 40 mph adjacent to the development site. However, the speed data that was collected for this project indicates that the 85th-percentile speed along this roadway is 50 mph. Based on the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* 7th Edition, the amount of sight distance that is desirable for a stop-sign controlled approach intersecting DeSoto Road, which has a 50-mph 85th-percentile speed, is 590' for a left-turning vehicle (Case B1) and 480' for a right-turning vehicle (Case B2). The results of the intersection sight distances recorded in the field are summarized below.

DeSoto Road & Site Drive

	<u>AASHTO Recommended</u>	<u>Field Measured</u>
Left-Turning Vehicle	590'	900'
Right-Turning Vehicle	480'	685'



DeSoto Road & WB Site Drive
Looking Left (S) – Right-Turn



DeSoto Road & WB Site Drive
Looking Right (N) – Left-Turn

A cursory review of the sight distance at the existing intersections along DeSoto Road, Eisenhower Road, and Main Street that will be used to access the proposed development was

also completed. This review indicated that adequate sight distance is provided in both directions at each location along these roadways except when looking to the right (east) along Eisenhower Road from Pebble Beach Drive. The crest curve to the east of Pebble Beach Drive limits the sight distance at this location. A Cross Road (W2-1) warning sign is posted for westbound traffic in advance of the Eisenhower Road & Pebble Beach Drive intersection to warn oncoming drivers of the approaching intersection.

Trip Generation: The estimated trip generation for the proposed subdivision was based upon the 11th Edition of the Institute of Transportation Engineers (ITE) *Trip Generation Manual* and is shown below in **Table 3**. Outputs from this manual are included in **Appendix C**.

Table 3: Trip Generation

Land Use	Qty	Unit	Weekday ADT (VPD)	AM Peak Hour (VPH)			PM Peak Hour (VPH)		
				TOTAL	IN	OUT	TOTAL	IN	OUT
210 – Single-Family Detached Housing	194	D.U.	1,856	136	34	102	185	117	68

Trip Distribution: The estimated trips generated by the proposed development were distributed onto the surrounding street system based on the trip distributions summarized in **Table 4**. The distributions are based primarily on existing traffic flow and engineering judgement. The detailed distributions through the study intersections are included in **Appendix C**.

Table 4: Trip Distribution

Direction To/From	Percentage
North on Main Street	20%
South on Main Street	20%
North on DeSoto Road	30%
South on DeSoto Road	15%
East on Eisenhower Rd	10%
West on Eisenhower Rd	5%
Total	100%

Existing + Site Traffic Volumes: The expected development-related traffic volumes were assigned to the existing street system based on the trip distributions discussed above and then added to the existing traffic volumes to develop the *Existing + Site* AM and PM peak-hour volumes. These volumes are shown in **Appendix A** on **Figures A-2** and **A-3**, respectively.

Future Year 2045 + Site Traffic Volumes: To account for potential traffic-volume growth at the study intersections, traffic projections were developed using an estimated 0.7% annual growth rate. This growth rate is based on traffic-volume outputs from the base year (2016) and future year (2050) Mid-America Regional Council (MARC) travel demand models (TDM). The growth rate

was applied to the existing traffic counts to develop base traffic volumes for future year 2045. These volumes were added to the site traffic to develop the *Future Year 2045 + Site* AM and PM peak-hour traffic volumes. The volumes are shown in **Appendix A** on **Figures A-4** and **A-5**, respectively.

ANALYSES

This study analyzes the traffic impacts of the proposed residential development on the surrounding roadway network for the following scenarios:

- Existing Conditions
- Existing + Site Conditions
- Future Year 2045 + Site Conditions

Intersection capacity analyses were completed using the Synchro 12 traffic analysis software package based on methodologies outlined in the Transportation Research Board's (TRB) *Highway Capacity Manual (HCM)*, 7th Edition. The operating conditions at an intersection are evaluated by the level of service (LOS) experienced by drivers, with LOS "A" representing little or no delay and LOS "F" representing excessive delays. LOS B, C, D, and E reflect incremental increases in delay per vehicle. The control delay thresholds in seconds-per-vehicle for the varying LOS for signalized and unsignalized intersections are shown below in **Table 5**.

Table 5: Level of Service Delay Thresholds

Level of Service (LOS)	Signalized Intersection Average Control Delay (sec/veh)	Unsignalized Intersection Average Control Delay (sec/veh)
A	<10	<10
B	<20	<15
C	<35	<25
D	<55	<35
E	<80	<50
F	≥80	≥50

Source: HCM 7th Edition

Queues were also evaluated as part of this study. The 95th-percentile queue, or the queue that has only a 5% chance of being exceeded during the peak hour, was used for this analysis. All capacity analysis output files are included in **Appendix D**.

Existing Conditions: The results of the *Existing* analysis scenario are shown in **Appendix A** on **Figures A-6** and **A-7** for the AM and PM peak-hour traffic volumes, respectively. As shown on the figures, most of the individual movements at the unsignalized study intersections currently operate at LOS "D" or better during the AM and PM peak hours with 95th-percentile queues of one vehicle or less. However, the eastbound movements at the Main Street & Holiday Terrace intersection currently operate at LOS "E" with 41 seconds of delay and just over a one-vehicle queue during the PM peak hour. It should be noted that the two-way left-turn lane along Main Street provides storage for vehicles making an eastbound or westbound left-turn. This reflects

vehicles making a two-stage maneuver when turning onto Main Street from Woodland Road, Highland Road, or Holiday Terrace. This type of vehicle activity was confirmed from the traffic count videos, and it is reflected in the analysis results.

Existing + Site Conditions: The results of the *Existing + Site* analysis scenario are shown in **Appendix A** on **Figures A-8** and **A-9** for the AM and PM peak-hour traffic volumes, respectively.

Turn-lane warrants were analyzed for this scenario in conjunction with KDOT's *Access Management Policy*, dated January 2013, at the study intersections using the *Existing + Site* AM and PM peak-hour traffic volumes. Based on this analysis, the following turn lanes are warranted under this scenario. The detailed results of this analysis are included in **Appendix E**.

Eisenhower Road & Pebble Beach Drive

- Westbound left-turn lane is warranted during the AM and PM peak hours. It should be noted that this turn lane is warranted under the *Existing* conditions as well. Due to existing right-of-way constraints, and the northern half of Eisenhower Road being within the City of Leavenworth city limits, a westbound left-turn lane with adequate storage cannot be easily constructed at this location. As indicated in the analysis results, the westbound movements are projected to operate acceptably without the left-turn lane. This location should be monitored in the future, and if operational or safety concerns arise, the need for a left-turn lane should be re-evaluated.

Main Street & Woodland Road

- Southbound right-turn lane is warranted during the PM peak hour. However, due to the existing topography along the west side of Main Street, including a large retaining wall, a southbound right-turn lane with adequate deceleration and storage cannot be constructed at this location. As indicated in the analysis results, the southbound movements are projected to operate acceptably without the right-turn lane.

Main Street & Holiday Terrace

- Southbound right-turn lane is warranted during the PM peak hour. However, due to the close proximity of an existing drive along Main Street north of Holiday Terrace, there is not enough space to construct a southbound right-turn lane with adequate deceleration and storage at this location. As indicated in the analysis results, the southbound movements are projected to operate acceptably without the right-turn lane.

In addition to the turn lane discussed above, the existing center two-way left-turn lane pavement markings should be removed at the DeSoto Road & Site Drive intersection. This will provide a break in the center pavement markings where vehicles will be turning to and from the Site Drive.

As shown on **Figures A-8** and **A-9**, most of the individual movements at the unsignalized study intersections are projected to operate at LOS "D" or better during the AM and PM peak hours with 95th-percentile queues of one vehicle or less. However, the eastbound movements at the Main Street & Holiday Terrace intersection are projected to operate at LOS "E" with 43 seconds of delay and a two-vehicle queue during the PM peak hour. It is not uncommon for stop-controlled movements on side-street approaches to operate at lower levels of service.

Furthermore, alternate routes are available at this location if delays and queues become unacceptable to drivers.

Future Year 2045 + Site Conditions: The results of the *Future Year 2045 + Site* analysis scenario are shown in **Appendix A** on **Figures A-10** and **A-11** for the AM and PM peak-hour traffic volumes, respectively. This analysis scenario included the westbound left-turn lane at the Eisenhower Road & Pebble Beach Drive intersection.

As shown on **Figures A-10** and **A-11**, most of the individual movements at the unsignalized study intersections are projected to operate at LOS “D” or better during the AM and PM peak hours with 95th-percentile queues of one vehicle or less. However, the following movements are projected to operate at lower levels of service during the PM peak hour:

DeSoto Road & Holiday Drive

- Westbound left-turn movement is projected to operate at LOS “E” with 36 seconds of delay and a one-vehicle queue.

Main Street & Woodland Street

- Eastbound movements are projected to operate at LOS “E” with 42 seconds of delay and a one-vehicle queue.

Main Street & Holiday Terrace

- Eastbound movements are projected to operate at LOS “F” with less than 75 seconds of delay and just over a three-vehicle queue.

No additional improvements were identified at the study intersections to mitigate the lower levels of service since the delays are less than 75 seconds and queues are relatively short at just over three vehicles or less. It is not uncommon for stop-controlled movements on side-street approaches to operate at lower levels of service. Furthermore, alternate routes are available for eastbound drivers at the Main Street & Holiday Terrace intersection if delays and queues become unacceptable.

SUMMARY & RECOMMENDATIONS

This traffic study summarizes the anticipated traffic impacts of the proposed Monroe Manor single-family residential neighborhood on the surrounding transportation system.

The results of the *Existing* analysis scenario indicate that most of the individual movements at the unsignalized study intersections currently operate acceptably during both peak hours with 95th-percentile queues of one vehicle or less. However, the eastbound movements at the Main Street & Holiday Terrace intersection currently operate at lower levels of service during the PM peak hour.

Traffic volumes at the Eisenhower Road & Pebble Beach Drive intersection satisfy warrant criteria for a westbound left-turn lane at this location under the *Existing* and *Existing + Site* conditions. However, due to existing right-of-way constraints, and the northern half of Eisenhower Road

being within the City of Leavenworth city limits, a westbound left-turn lane with adequate storage cannot be easily constructed at this location. As indicated in the analysis results, the westbound movements are projected to operate acceptably without the left-turn lane. This location should be monitored in the future, and if operational or safety concerns arise, the need for a left-turn lane should be re-evaluated.

The existing center two-way left-turn lane pavement markings should be removed at the DeSoto Road & Site Drive intersection. This will provide a break in the center pavement markings where vehicles will be turning to and from the Site Drive.

The results of the *Existing + Site* analysis scenario indicate that most of the individual movements at the unsignalized study intersections are projected to operate acceptably during both peak hours with 95th-percentile queues of one vehicle or less. However, the eastbound movements at the Main Street & Holiday Terrace intersection are projected to operate at lower levels of service during the PM peak hour with about a two-vehicle queue.

The results of the *Future Year 2045 + Site* analysis scenario indicate most of the individual movements at the unsignalized study intersections are projected to operate acceptably during both hours with 95th-percentile queues of one vehicle or less. However, some of the side-street movements are projected to operate at lower levels of service in the future. No additional improvements were included to accommodate the future traffic volumes, since the delays are less than 75 seconds and queues are relatively short at just over three vehicles or less.

We appreciate the opportunity to serve you on this very important project. Please feel free to contact us if you should have any questions.

Respectfully submitted,

Merge Midwest Engineering, LLC



Michael Hare, P.E., PTOE
Sr. Engineer



Janelle M. Clayton, P.E., PTOE
Manager / Co-Owner

- GENERAL NOTES:
1. PLAN SCALE IS 1"=100' (THIS SHEET).
 2. EXISTING AND PROPOSED TOPOGRAPHY IS AS INDICATED ON PLAN.
 3. LEGAL DESCRIPTION IS AS SHOWN ON PLAN.
 4. EXISTING AND PROPOSED ZONING IS AS SHOWN ON PLAN.
 5. PROPERTY BOUNDARY IS AS SHOWN ON PLAN.
 6. EXISTING AND PROPOSED RIGHT-OF-WAYS ARE AS SHOWN ON PLAN.
 7. APPROXIMATE LOCATION OF PROPOSED UTILITIES ARE AS SHOWN ON PLAN.
 8. PHASING IS AS SHOWN ON PLAN.
 9. GENERAL CONFIGURATION OF LOTS AS INDICATED ON PLAN.
 10. 10' LANDSCAPE EASEMENT AS SHOWN ON PLAN.
 11. ALL UTILITY EASEMENTS AS SHOWN ON PLAN.
 12. ALL PROPOSED STREETS ARE TO BE PUBLIC.
 13. CUL-DE-SAC RADIUS ARE AS SHOWN ON PLAN.
 14. TOPOGRAPHIC INFORMATION WAS PROVIDED BY SMH CONSULTANTS INC. CONTOURS ARE AT 2' INTERVALS.
 15. UTILITY EASEMENTS SHALL BE PROVIDED ALONG SIDE AND REAR LOTS AT TIME OF PLATTING AS REQUIRED. EASEMENTS SHALL BE A MINIMUM WIDTH OF 10 FEET ALONG SIDE AND REAR LOT LINES. EASEMENTS OF ADDITIONAL WIDTH SHALL BE PROVIDED TO ENCOMPASS UTILITIES AS NEEDED.
 16. ALL BUILDING LINES SHOWN ON PLAN ARE 25 FEET FROM RIGHT-OF-WAY LINE.
 17. RESIDENTIAL UNIT TYPES ARE SINGLE FAMILY.
 18. STREET NAMES SHALL BE SUBJECT TO CHANGE UNTIL FINAL PLAT RECORDING.

FEMA Floodplain Note:
Flood Plain: Flood Zone X, an area determined to be outside the 0.2% annual chance floodplain, FEMA FIRM (Flood Insurance Rate Map) Community Panel Number 20103CP143G, effective date, July 16, 2015.

SITE DATA TABLE:
EXISTING LAND USE:
R-2/R-2-P
PROPOSED ZONING:
GROSS SITE AREA:
TRACT AREA:
RIGHT-OF-WAY AREA:
LOT AREA:
PROPOSED NUMBER OF LOTS:
MINIMUM LOT SIZE:
AVERAGE LOT SIZE:
MAXIMUM LOT SIZE:
BUILDING SETBACKS:
FRONT YARD: 25 FEET
REAR YARD: 25 FEET
SIDE YARD: 5 FEET
BUILDING SETBACKS CORNER LOT:
FRONT YARD: 25 & 15 FEET
REAR YARD: 25 FEET
SIDE YARD: 5 FEET

LAND AREA LEGEND	
LOTS	27.29 ACRES
TRACTS	9.26 ACRES
RIGHT-OF-WAY	8.73 ACRES
TOTAL	45.28 ACRES

PHASE LEGEND		
PHASE NUMBER	ACREAGE	LOTS
PHASE I	14.20 ACRES	64
PHASE II	16.60 ACRES	61
PHASE III	14.48 ACRES	69
TOTAL	45.28 ACRES	194

Preliminary Plat
MONROE MANOR
Part of the SW 1/4, Section 13, Township 9 South, Range 22 East
City of Lansing, Leavenworth County, Kansas

LEGAL DESCRIPTION:

Tract 1:
The South 1/2 of the Southwest 1/4 of the Southwest 1/4 of Section 13, Township 9 South, Range 22 East of the 6th P.M., Leavenworth County, Kansas EXCEPT: A tract of land in the South Half of the Southwest Quarter of Section 13, Township 9, Range 22, East of the 6th Principal Meridian, described as follows: Beginning at a point on the West line of Section 13, said point being 662.91 feet North of the Southwest corner of said Section; thence North 87°43'00" East 208.71 feet to a point; thence South and parallel to the West line of said Section 208.71 feet to a point; thence South 87°43'00" West 208.71 feet to a point on the West line of said Section; thence North along said West line 208.71 feet to the point of beginning, Leavenworth County, Kansas, less that part taken for road purposes

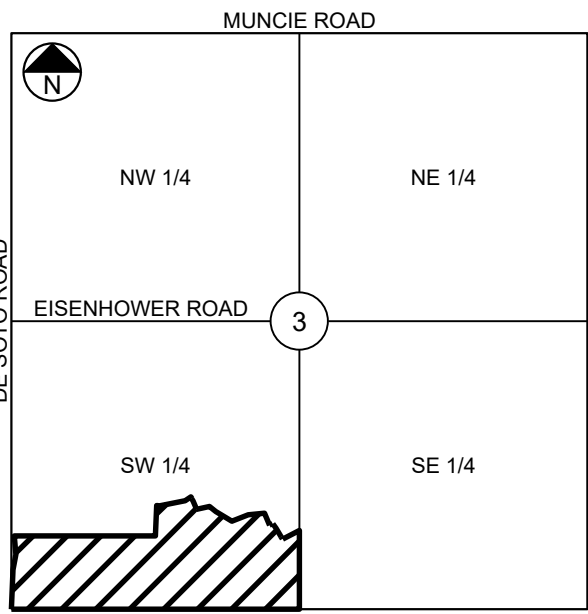
ALSO EXCEPT: A tract of land in the Northwest Quarter of the Southwest Quarter of the Southwest Quarter of Section 13, Township 9 South, Range 22 East of the 6th P.M., City of Lansing, Leavenworth County, Kansas, described as follows: Commencing at the Southwest corner of said Section 13; thence North 01°20'07" East (assumed), 394.07 feet along the West line of Section 13 to the point of beginning of this tract; thence, North 01°20'07" East 60.00 feet along said West line; thence, North 89°11'24" East 208.71 feet parallel with the North line of the South half of the Southwest Quarter of Section 13; thence, North 01°20'07" East, 208.71 feet to the North line of the South half of the Southwest Quarter of Section 13; thence North 89°11'24" East, 156.00 feet along said North line; thence South 01°20'07" West, 208.71 feet; thence, South 89°11'24" West, 364.71 feet to the point of beginning, Leavenworth County, Kansas, less that part taken or used for road purposes

Tract 2:
All the part of the East 1/2 of the Southwest 1/4 of Section 13, Township 9, Range 22 that lies South of Fairway Estates, 4th Plat, in Lansing, Leavenworth County, Kansas, subject to that part of any, in streets, roadways, highways or other public rights-of-ways.

Tract 3:
A tract of land in the South Half of the Southwest Quarter of the Southwest Quarter of Section 13, Township 9, Range 22, East of the 6th Principal Meridian, described as follows: Beginning at a point on the West line of Section 13, said point being 662.91 feet North of the Southwest corner of said Section; thence North 87°43'00" East 208.71 feet to a point; thence South and parallel to the West line of said Section 208.71 feet to a point; thence South 87°43'00" West 208.71 feet to a point on the West line of said Section; thence North along said West line 208.71 feet to the point of beginning, Leavenworth County, Kansas, less that part taken for road purposes

AND

A tract of land in the Northwest Quarter of the Southwest Quarter of the Southwest Quarter of the Southwest Quarter of Section 13, Township 9 South, Range 22 East of the 6th P.M., City of Lansing, Leavenworth County, Kansas, described as follows: Commencing at the Southwest corner of said Section 13; thence North 01°20'07" East (assumed), 394.07 feet along the West line of Section 13 to the point of beginning of this tract; thence, North 01°20'07" East 60.00 feet along said West line; thence, North 89°11'24" East 208.71 feet parallel with the North line of the South half of the Southwest Quarter of Section 13; thence, North 01°20'07" East, 208.71 feet to the North line of the South half of the Southwest Quarter of Section 13; thence North 89°11'24" East, 156.00 feet along said North line; thence South 01°20'07" West, 208.71 feet; thence, South 89°11'24" West, 364.71 feet to the point of beginning, Leavenworth County, Kansas, less that part taken or used for road purposes



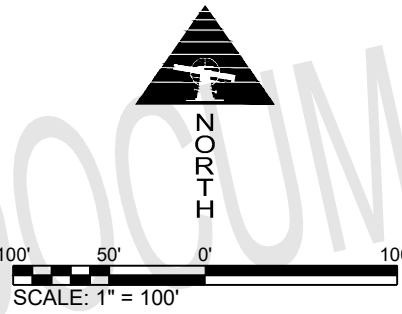
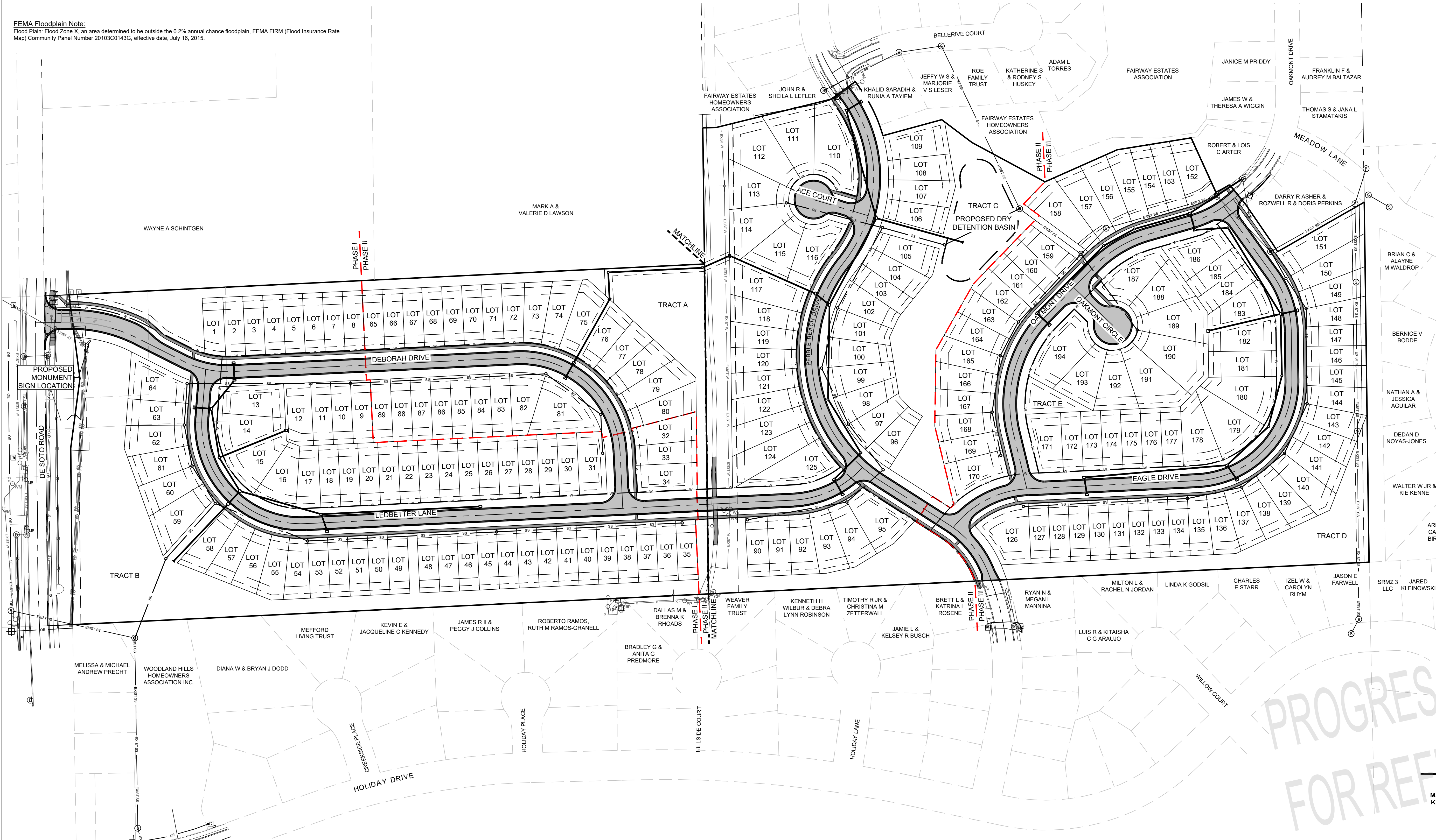
VICINITY MAP
Section 13, T09S, R22E
Leavenworth County, Kansas

SHEET INDEX:

- 1 - Overall Layout
- 2 - Subdivision Plan (West)
- 3 - Subdivision Plan (East)

OWNER/DEVELOPER:
CIRCLE H HOLDINGS, LLC
ROMAN HAEHN
5858 NAPLES DR.
FLOWER MOUND, TX 75028

ENGINEER/SURVEYOR:
SMH CONSULTANTS
5201 JOHNSON DRIVE, SUITE 405
MISSION, KS 66205



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Drawn By: JMT Project #2501-0018 TDS:101

JUNE 2025

APPENDIX A

TRAFFIC VOLUME AND LEVEL OF SERVICE FIGURES

Figure A-1: Existing Traffic Volumes

Figure A-2: Existing + Site Traffic Volumes AM Peak Hour

Figure A-3: Existing + Site Traffic Volumes PM Peak Hour

Figure A-4: Future + Site Traffic Volumes AM Peak Hour

Figure A-5: Future + Site Traffic Volumes PM Peak Hour

Figure A-6: Existing Levels of Service AM Peak Hour

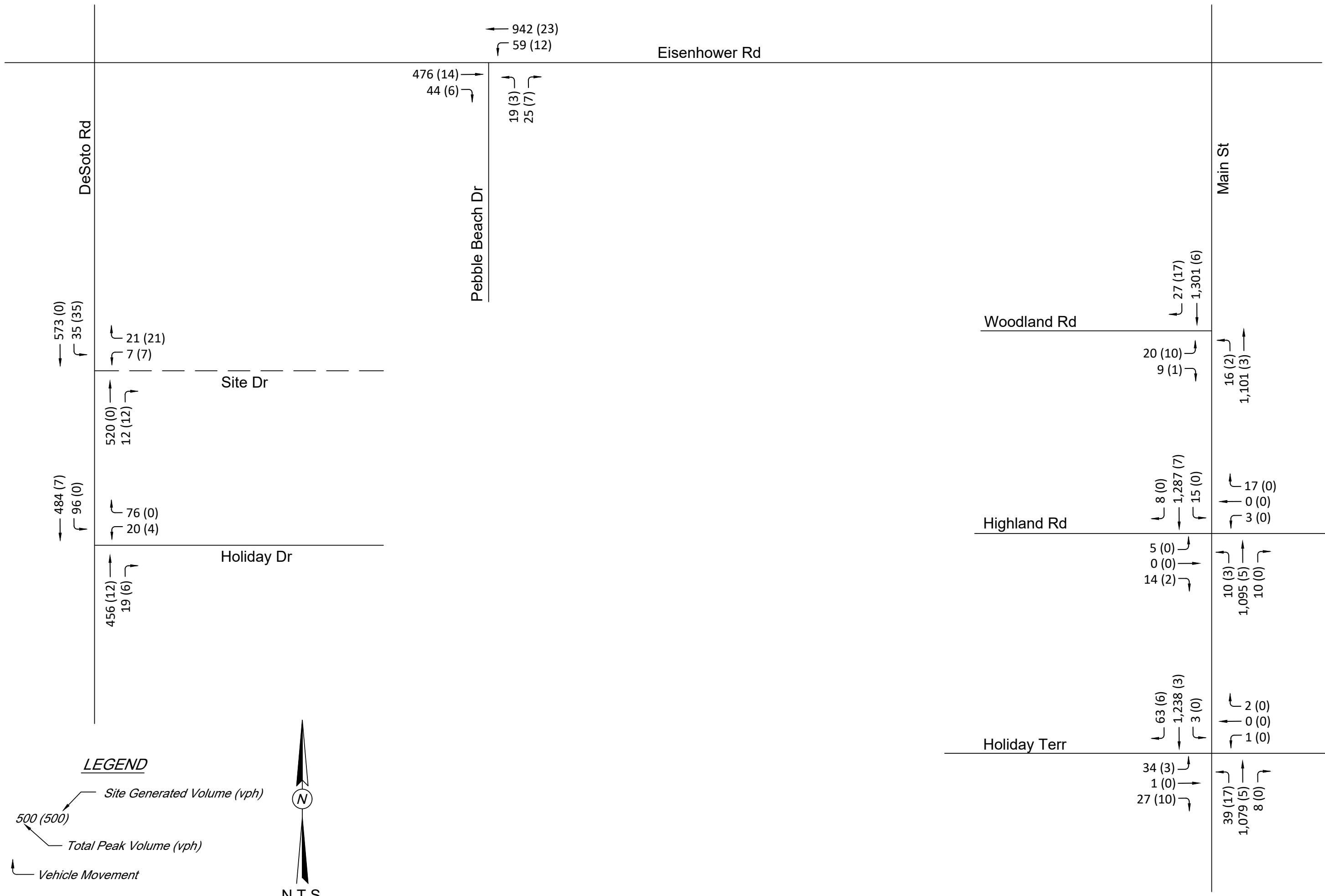
Figure A-7: Existing Levels of Service PM Peak Hour

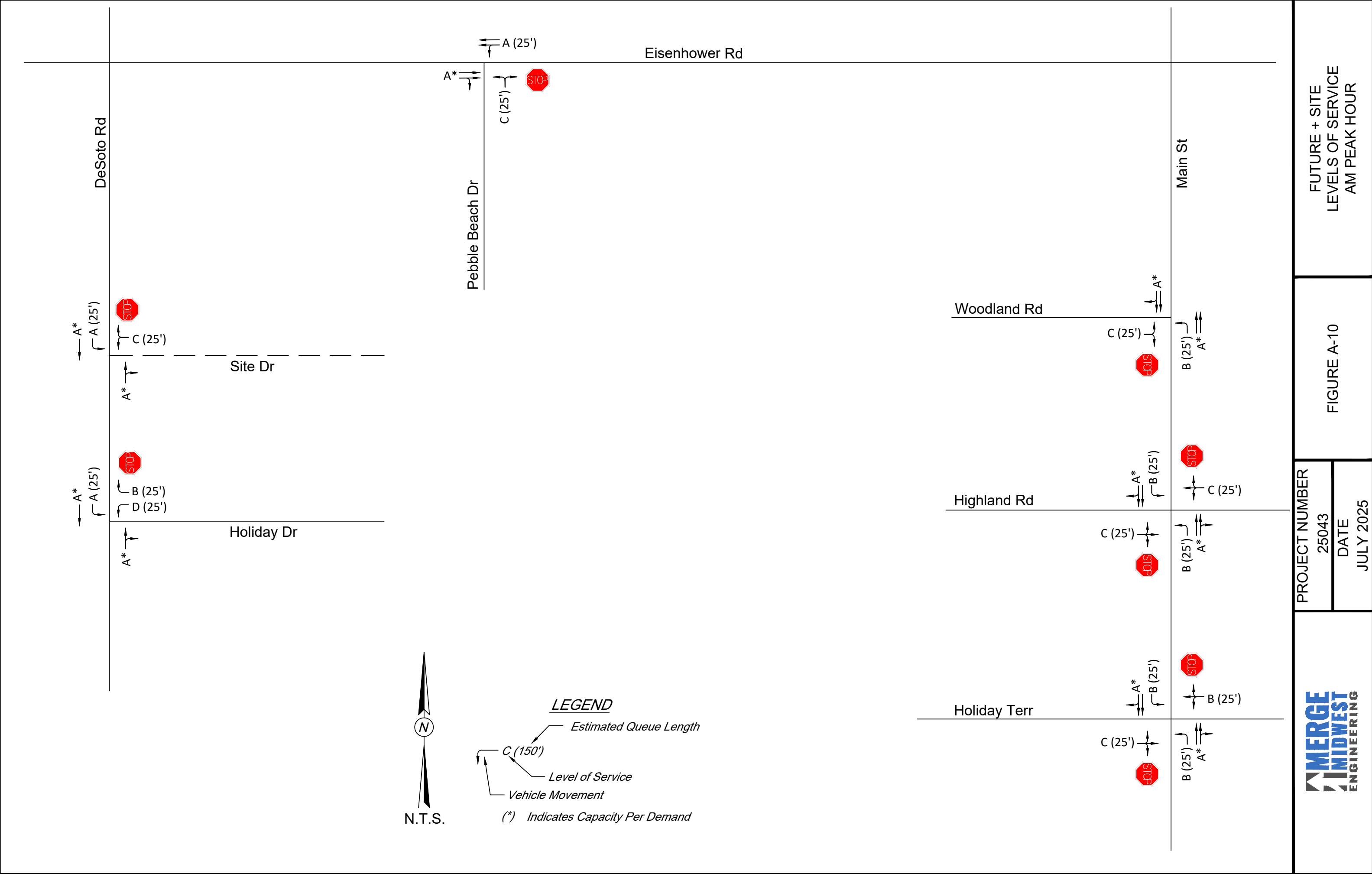
Figure A-8: Existing + Site Levels of Service AM Peak Hour

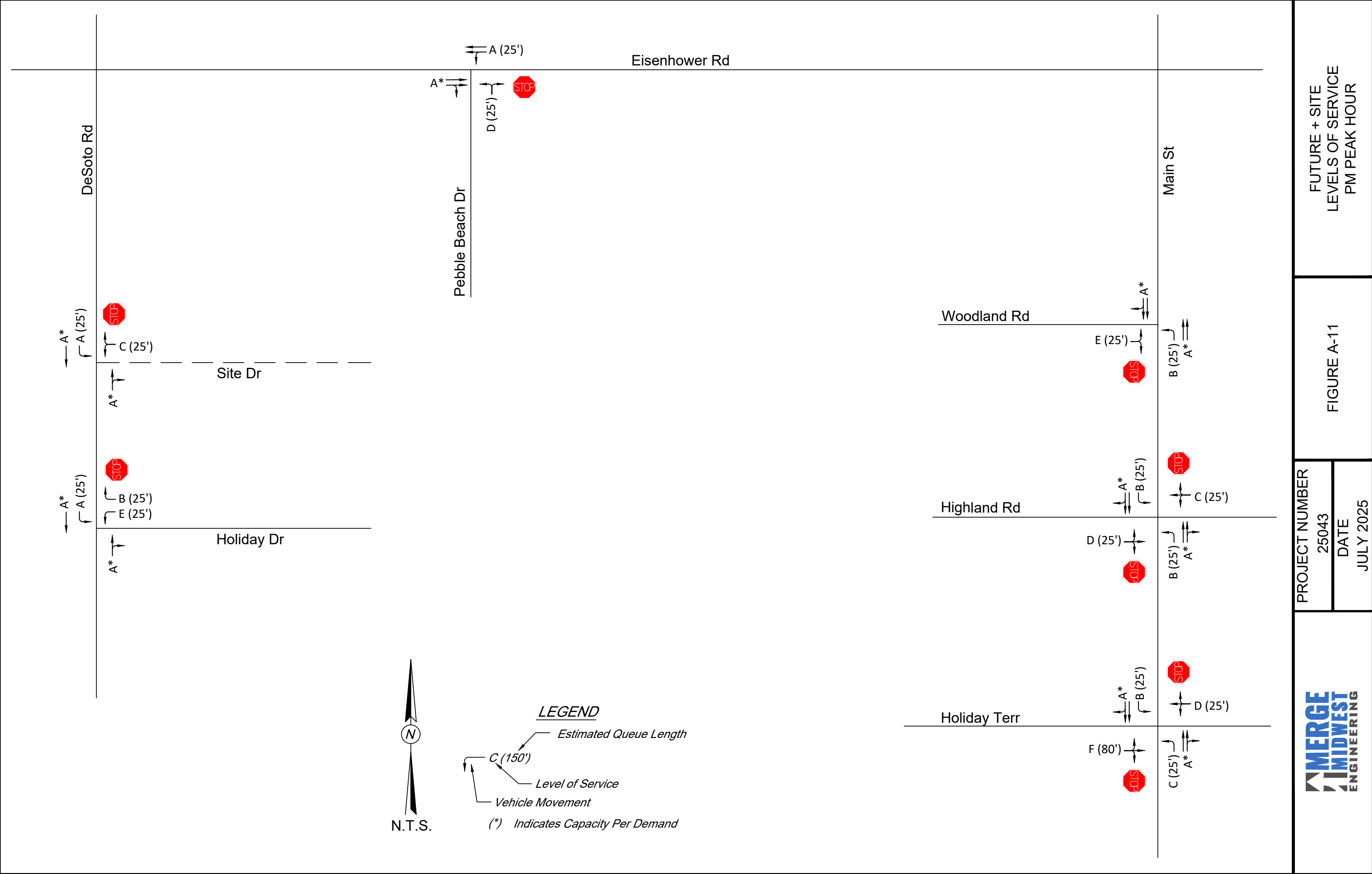
Figure A-9: Existing + Site Levels of Service PM Peak Hour

Figure A-10: Future + Site Levels of Service AM Peak Hour

Figure A-11: Future + Site Levels of Service PM Peak Hour







APPENDIX B

RAW TURNING MOVEMENT TRAFFIC COUNTS



DeSoto Road & Holiday Drive - TMC

Thu May 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297568, Location: 39.258154, -94.918798



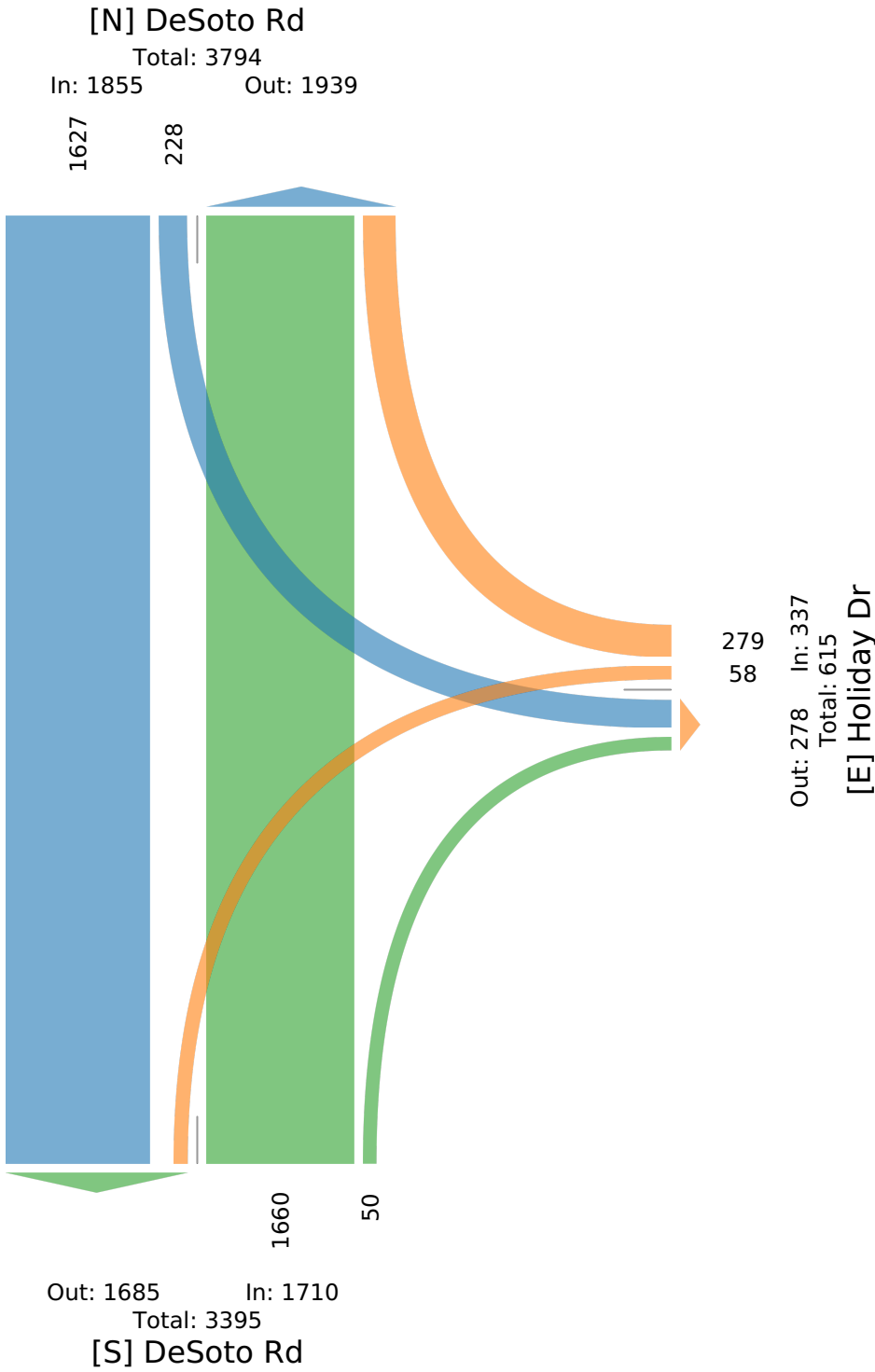
Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	DeSoto Rd Southbound				Holiday Dr Westbound				DeSoto Rd Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2025-05-15 7:00AM	73	6	0	79	22	2	0	24	1	96	0	97	200
7:15AM	115	4	0	119	22	5	0	27	4	104	0	108	254
7:30AM	124	6	0	130	19	7	0	26	1	102	0	103	259
7:45AM	126	8	0	134	16	8	0	24	8	102	0	110	268
Hourly Total	438	24	0	462	79	22	0	101	14	404	0	418	981
8:00AM	114	9	0	123	22	4	0	26	5	116	0	121	270
8:15AM	72	9	0	81	13	1	0	14	4	90	0	94	189
8:30AM	65	8	0	73	18	2	0	20	0	69	0	69	162
8:45AM	48	7	0	55	9	5	0	14	1	60	0	61	130
Hourly Total	299	33	0	332	62	12	0	74	10	335	0	345	751
4:00PM	123	20	0	143	13	2	0	15	5	129	0	134	292
4:15PM	105	19	0	124	17	2	0	19	3	118	0	121	264
4:30PM	106	23	0	129	15	3	0	18	3	111	0	114	261
4:45PM	136	27	0	163	21	3	0	24	3	104	0	107	294
Hourly Total	470	89	0	559	66	10	0	76	14	462	0	476	1111
5:00PM	124	19	0	143	20	5	0	25	5	108	0	113	281
5:15PM	111	27	0	138	20	5	0	25	2	121	0	123	286
5:30PM	98	23	0	121	13	1	0	14	1	111	0	112	247
5:45PM	87	13	0	100	19	3	0	22	4	119	0	123	245
Hourly Total	420	82	0	502	72	14	0	86	12	459	0	471	1059
Total	1627	228	0	1855	279	58	0	337	50	1660	0	1710	3902
% Approach	87.7%	12.3%	0%	-	82.8%	17.2%	0%	-	2.9%	97.1%	0%	-	-
% Total	41.7%	5.8%	0%	47.5%	7.2%	1.5%	0%	8.6%	1.3%	42.5%	0%	43.8%	-
Lights	1609	228	0	1837	277	57	0	334	46	1647	0	1693	3864
% Lights	98.9%	100%	0%	99.0%	99.3%	98.3%	0%	99.1%	92.0%	99.2%	0%	99.0%	99.0%
Articulated Trucks	2	0	0	2	0	0	0	0	0	2	0	2	4
% Articulated Trucks	0.1%	0%	0%	0.1%	0%	0%	0%	0%	0%	0.1%	0%	0.1%	0.1%
Buses and Single-Unit Trucks	16	0	0	16	2	1	0	3	4	11	0	15	34
% Buses and Single-Unit Trucks	1.0%	0%	0%	0.9%	0.7%	1.7%	0%	0.9%	8.0%	0.7%	0%	0.9%	0.9%

*L: Left, R: Right, T: Thru, U: U-Turn

DeSoto Road & Holiday Drive - TMC
Thu May 15, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1297568, Location: 39.258154, -94.918798



DeSoto Road & Holiday Drive - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297568, Location: 39.258154, -94.918798



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	DeSoto Rd Southbound				Holiday Dr Westbound				DeSoto Rd Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2025-05-15 7:15AM	115	4	0	119	22	5	0	27	4	104	0	108	254
7:30AM	124	6	0	130	19	7	0	26	1	102	0	103	259
7:45AM	126	8	0	134	16	8	0	24	8	102	0	110	268
8:00AM	114	9	0	123	22	4	0	26	5	116	0	121	270
Total	479	27	0	506	79	24	0	103	18	424	0	442	1051
% Approach	94.7%	5.3%	0%	-	76.7%	23.3%	0%	-	4.1%	95.9%	0%	-	-
% Total	45.6%	2.6%	0%	48.1%	7.5%	2.3%	0%	9.8%	1.7%	40.3%	0%	42.1%	-
PHF	0.950	0.750	-	0.944	0.898	0.750	-	0.954	0.563	0.914	-	0.913	0.973
Lights	468	27	0	495	77	24	0	101	15	420	0	435	1031
% Lights	97.7%	100%	0%	97.8%	97.5%	100%	0%	98.1%	83.3%	99.1%	0%	98.4%	98.1%
Articulated Trucks	1	0	0	1	0	0	0	0	0	1	0	1	2
% Articulated Trucks	0.2%	0%	0%	0.2%	0%	0%	0%	0%	0%	0.2%	0%	0.2%	0.2%
Buses and Single-Unit Trucks	10	0	0	10	2	0	0	2	3	3	0	6	18
% Buses and Single-Unit Trucks	2.1%	0%	0%	2.0%	2.5%	0%	0%	1.9%	16.7%	0.7%	0%	1.4%	1.7%

* L: Left, R: Right, T: Thru, U: U-Turn

DeSoto Road & Holiday Drive - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

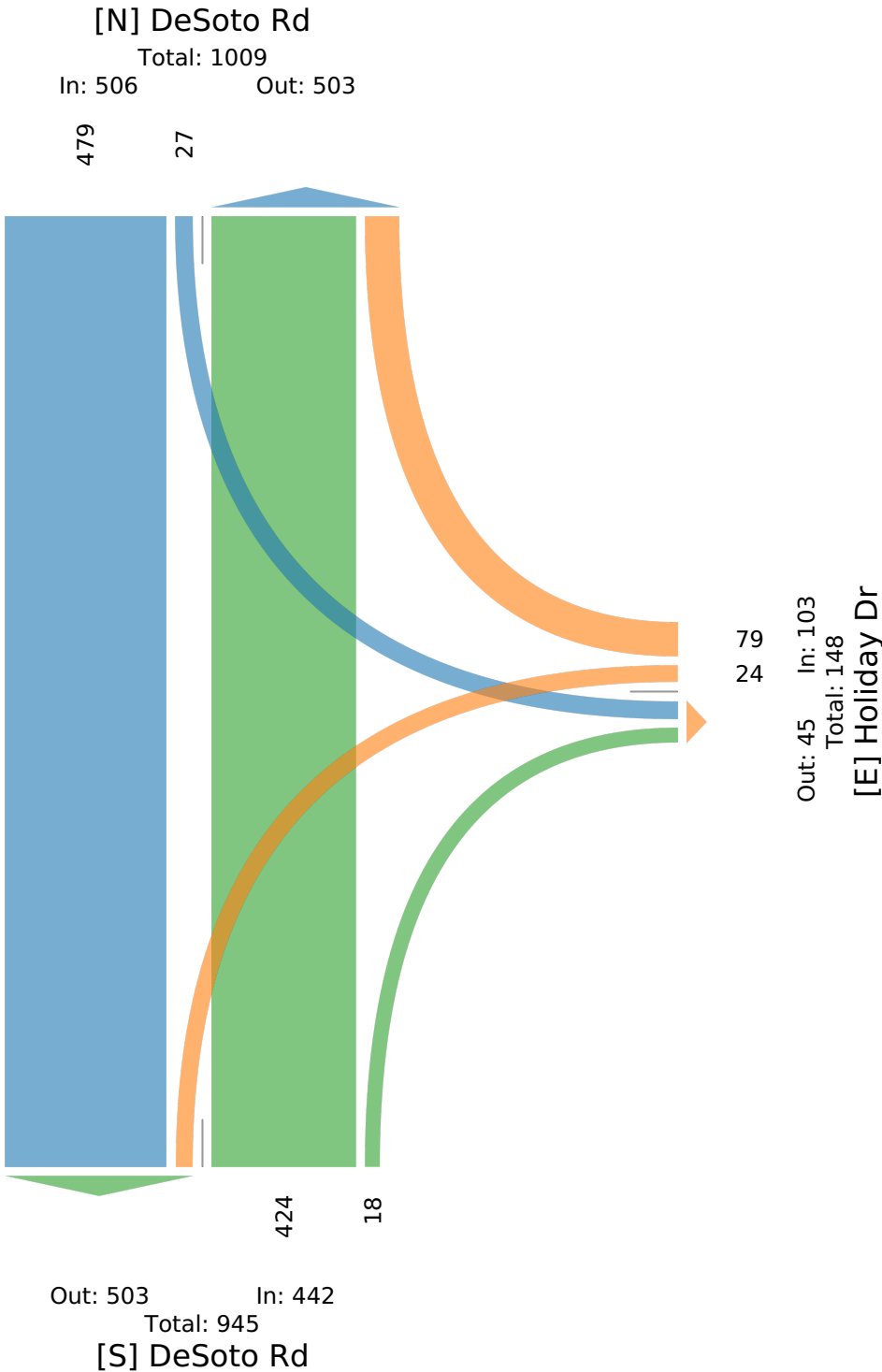
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297568, Location: 39.258154, -94.918798



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



DeSoto Road & Holiday Drive - TMC

Thu May 15, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297568, Location: 39.258154, -94.918798



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	DeSoto Rd Southbound				Holiday Dr Westbound				DeSoto Rd Northbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2025-05-15 4:30PM	106	23	0	129	15	3	0	18	3	111	0	114	261
4:45PM	136	27	0	163	21	3	0	24	3	104	0	107	294
5:00PM	124	19	0	143	20	5	0	25	5	108	0	113	281
5:15PM	111	27	0	138	20	5	0	25	2	121	0	123	286
Total	477	96	0	573	76	16	0	92	13	444	0	457	1122
% Approach	83.2%	16.8%	0%	-	82.6%	17.4%	0%	-	2.8%	97.2%	0%	-	-
% Total	42.5%	8.6%	0%	51.1%	6.8%	1.4%	0%	8.2%	1.2%	39.6%	0%	40.7%	-
PHF	0.877	0.889	-	0.879	0.905	0.800	-	0.920	0.650	0.917	-	0.929	0.954
Lights	474	96	0	570	76	16	0	92	13	440	0	453	1115
% Lights	99.4%	100%	0%	99.5%	100%	100%	0%	100%	100%	99.1%	0%	99.1%	99.4%
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Buses and Single-Unit Trucks	3	0	0	3	0	0	0	0	0	4	0	4	7
% Buses and Single-Unit Trucks	0.6%	0%	0%	0.5%	0%	0%	0%	0%	0%	0.9%	0%	0.9%	0.6%

* L: Left, R: Right, T: Thru, U: U-Turn

DeSoto Road & Holiday Drive - TMC

Thu May 15, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

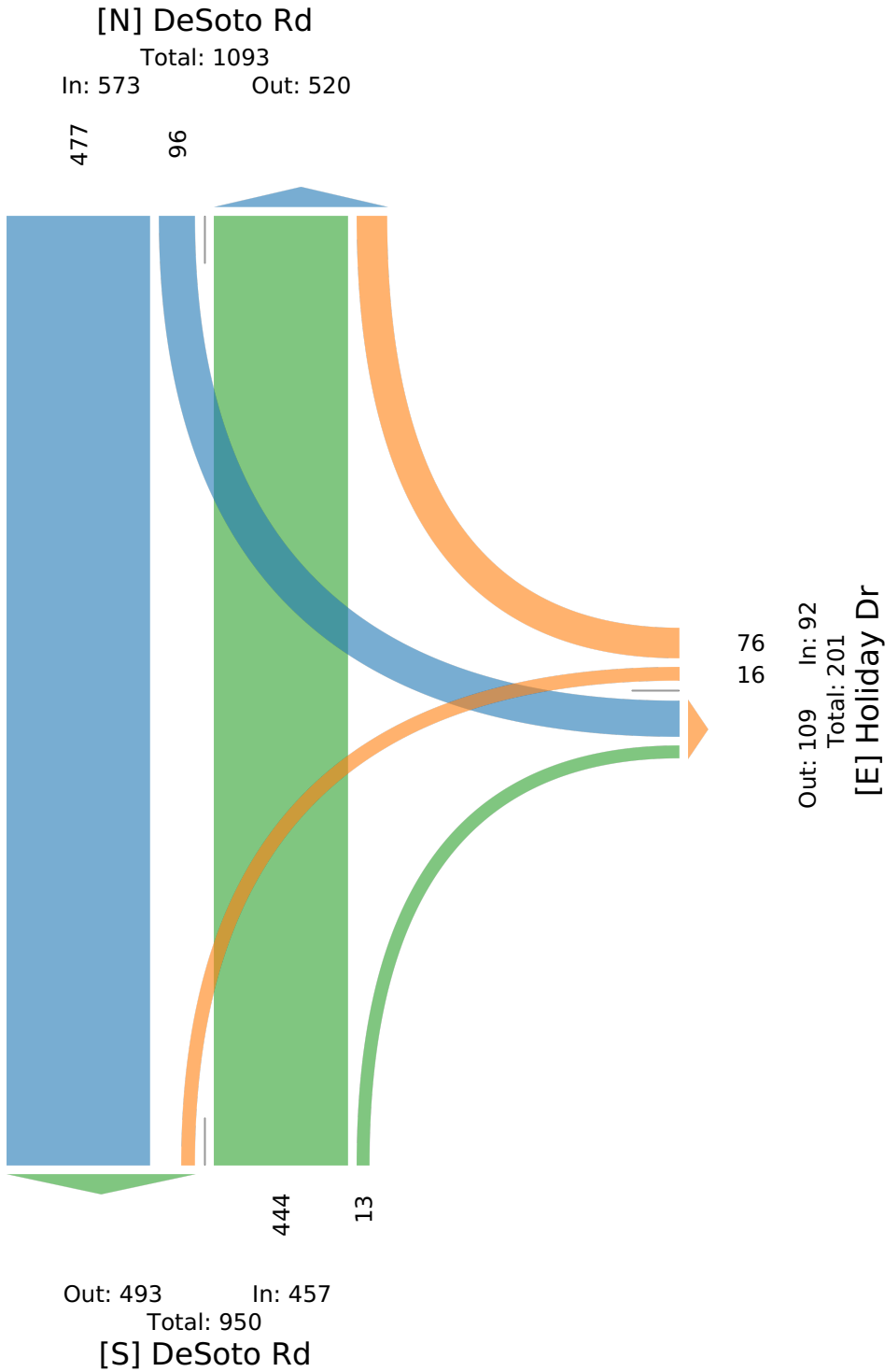
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297568, Location: 39.258154, -94.918798



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Eisenhower Road & Pebble Beach Drive - TMC

Thu May 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297569, Location: 39.266823, -94.911764



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Eisenhower Road Westbound				Pebble Beach Drive Northbound				Eisenhower Road Eastbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2025-05-15 7:00AM	58	0	0	58	1	6	0	7	8	144	0	152	217
7:15AM	86	2	0	88	3	4	0	7	2	172	0	174	269
7:30AM	72	2	1	75	9	6	0	15	3	168	0	171	261
7:45AM	86	3	0	89	8	6	0	14	1	165	0	166	269
Hourly Total	302	7	1	310	21	22	0	43	14	649	0	663	1016
8:00AM	96	2	0	98	2	3	0	5	6	165	0	171	274
8:15AM	83	3	0	86	6	2	0	8	4	141	0	145	239
8:30AM	87	2	0	89	6	9	0	15	2	109	0	111	215
8:45AM	106	2	0	108	3	5	0	8	1	123	0	124	240
Hourly Total	372	9	0	381	17	19	0	36	13	538	0	551	968
4:00PM	234	15	0	249	7	3	0	10	12	132	0	144	403
4:15PM	203	11	0	214	12	2	0	14	4	121	0	125	353
4:30PM	220	17	0	237	4	2	0	6	10	114	0	124	367
4:45PM	211	5	0	216	8	4	0	12	9	115	0	124	352
Hourly Total	868	48	0	916	31	11	0	42	35	482	0	517	1475
5:00PM	266	13	0	279	4	7	0	11	13	119	0	132	422
5:15PM	222	12	0	234	2	3	0	5	6	114	0	120	359
5:30PM	186	5	0	191	9	6	0	15	5	119	0	124	330
5:45PM	151	6	0	157	7	3	0	10	5	117	0	122	289
Hourly Total	825	36	0	861	22	19	0	41	29	469	0	498	1400
Total	2367	100	1	2468	91	71	0	162	91	2138	0	2229	4859
% Approach	95.9%	4.1%	0%	-	56.2%	43.8%	0%	-	4.1%	95.9%	0%	-	-
% Total	48.7%	2.1%	0%	50.8%	1.9%	1.5%	0%	3.3%	1.9%	44.0%	0%	45.9%	-
Lights	2318	98	1	2417	91	71	0	162	89	2096	0	2185	4764
% Lights	97.9%	98.0%	100%	97.9%	100%	100%	0%	100%	97.8%	98.0%	0%	98.0%	98.0%
Articulated Trucks	2	0	0	2	0	0	0	0	0	8	0	8	10
% Articulated Trucks	0.1%	0%	0%	0.1%	0%	0%	0%	0%	0%	0.4%	0%	0.4%	0.2%
Buses and Single-Unit Trucks	47	2	0	49	0	0	0	0	2	34	0	36	85
% Buses and Single-Unit Trucks	2.0%	2.0%	0%	2.0%	0%	0%	0%	0%	2.2%	1.6%	0%	1.6%	1.7%

*L: Left, R: Right, T: Thru, U: U-Turn

Eisenhower Road & Pebble Beach Drive - TMC

Thu May 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

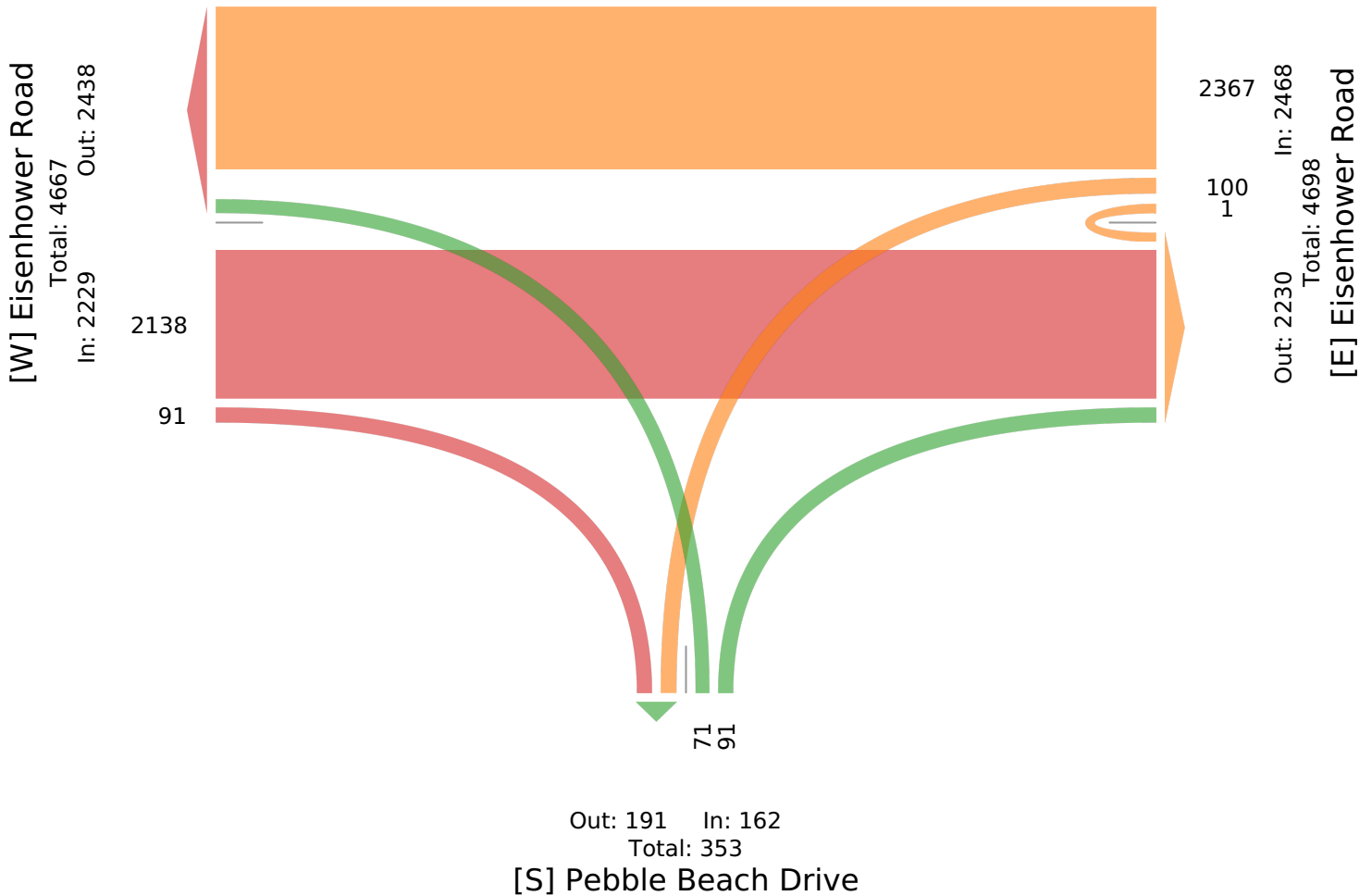
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297569, Location: 39.266823, -94.911764



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Eisenhower Road & Pebble Beach Drive - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297569, Location: 39.266823, -94.911764



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Eisenhower Road Westbound				Pebble Beach Drive Northbound				Eisenhower Road Eastbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2025-05-15 7:15AM	86	2	0	88	3	4	0	7	2	172	0	174	269
7:30AM	72	2	1	75	9	6	0	15	3	168	0	171	261
7:45AM	86	3	0	89	8	6	0	14	1	165	0	166	269
8:00AM	96	2	0	98	2	3	0	5	6	165	0	171	274
Total	340	9	1	350	22	19	0	41	12	670	0	682	1073
% Approach	97.1%	2.6%	0.3%	-	53.7%	46.3%	0%	-	1.8%	98.2%	0%	-	-
% Total	31.7%	0.8%	0.1%	32.6%	2.1%	1.8%	0%	3.8%	1.1%	62.4%	0%	63.6%	-
PHF	0.885	0.750	0.250	0.893	0.611	0.792	-	0.683	0.500	0.974	-	0.980	0.979
Lights	329	8	1	338	22	19	0	41	11	655	0	666	1045
% Lights	96.8%	88.9%	100%	96.6%	100%	100%	0%	100%	91.7%	97.8%	0%	97.7%	97.4%
Articulated Trucks	0	0	0	0	0	0	0	0	0	3	0	3	3
% Articulated Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.4%	0%	0.4%	0.3%
Buses and Single-Unit Trucks	11	1	0	12	0	0	0	0	1	12	0	13	25
% Buses and Single-Unit Trucks	3.2%	11.1%	0%	3.4%	0%	0%	0%	0%	8.3%	1.8%	0%	1.9%	2.3%

* L: Left, R: Right, T: Thru, U: U-Turn

Eisenhower Road & Pebble Beach Drive - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

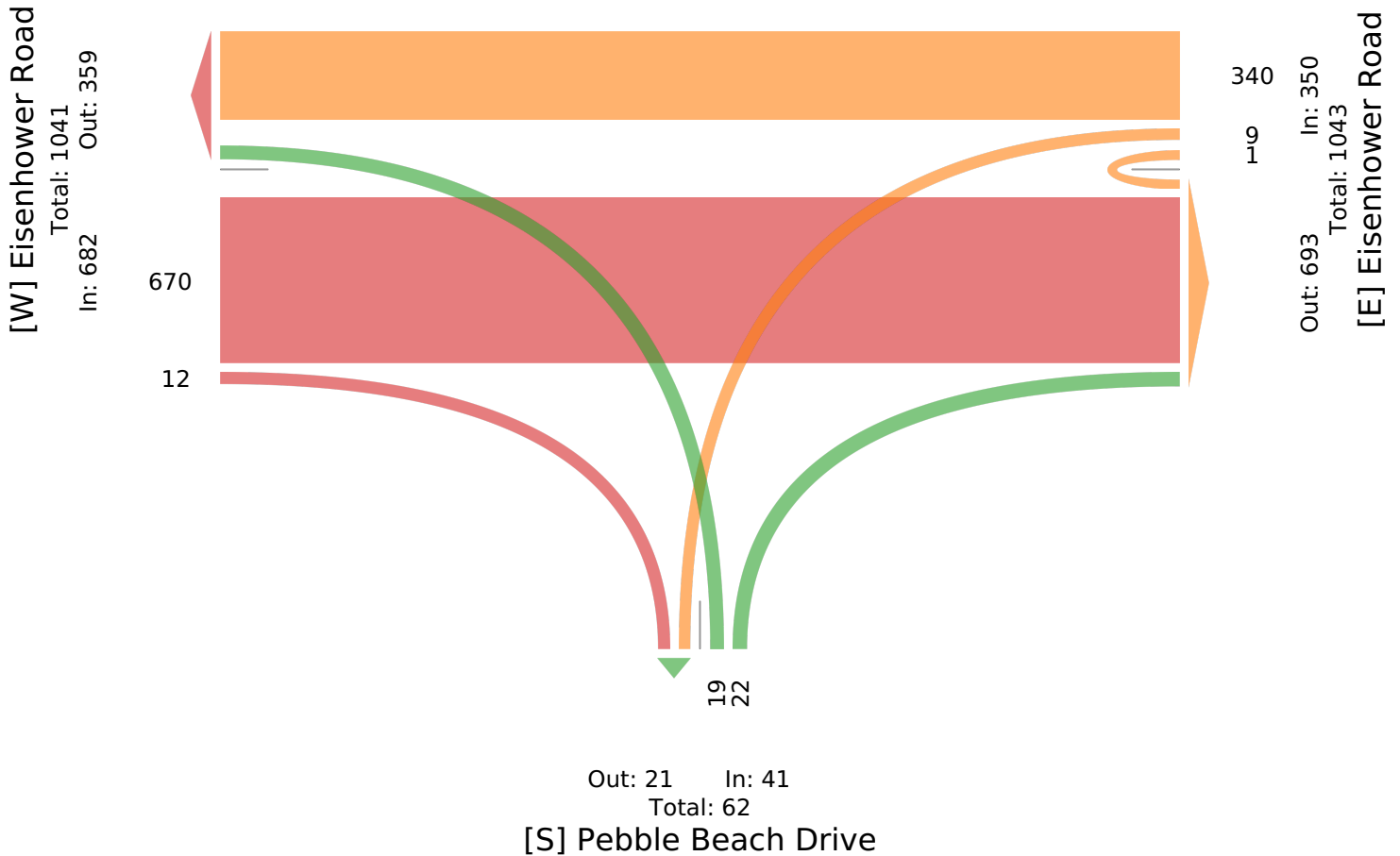
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297569, Location: 39.266823, -94.911764



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Eisenhower Road & Pebble Beach Drive - TMC

Thu May 15, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297569, Location: 39.266823, -94.911764



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Eisenhower Road Westbound				Pebble Beach Drive Northbound				Eisenhower Road Eastbound				
Time	T	L	U	App	R	L	U	App	R	T	U	App	Int
2025-05-15 4:30PM	220	17	0	237	4	2	0	6	10	114	0	124	367
4:45PM	211	5	0	216	8	4	0	12	9	115	0	124	352
5:00PM	266	13	0	279	4	7	0	11	13	119	0	132	422
5:15PM	222	12	0	234	2	3	0	5	6	114	0	120	359
Total	919	47	0	966	18	16	0	34	38	462	0	500	1500
% Approach	95.1%	4.9%	0%	-	52.9%	47.1%	0%	-	7.6%	92.4%	0%	-	-
% Total	61.3%	3.1%	0%	64.4%	1.2%	1.1%	0%	2.3%	2.5%	30.8%	0%	33.3%	-
PHF	0.864	0.691	-	0.866	0.563	0.571	-	0.708	0.731	0.971	-	0.947	0.889
Lights	911	47	0	958	18	16	0	34	38	456	0	494	1486
% Lights	99.1%	100%	0%	99.2%	100%	100%	0%	100%	100%	98.7%	0%	98.8%	99.1%
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated Trucks	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Buses and Single-Unit Trucks	8	0	0	8	0	0	0	0	0	6	0	6	14
% Buses and Single-Unit Trucks	0.9%	0%	0%	0.8%	0%	0%	0%	0%	0%	1.3%	0%	1.2%	0.9%

* L: Left, R: Right, T: Thru, U: U-Turn

Eisenhower Road & Pebble Beach Drive - TMC

Thu May 15, 2025

PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour

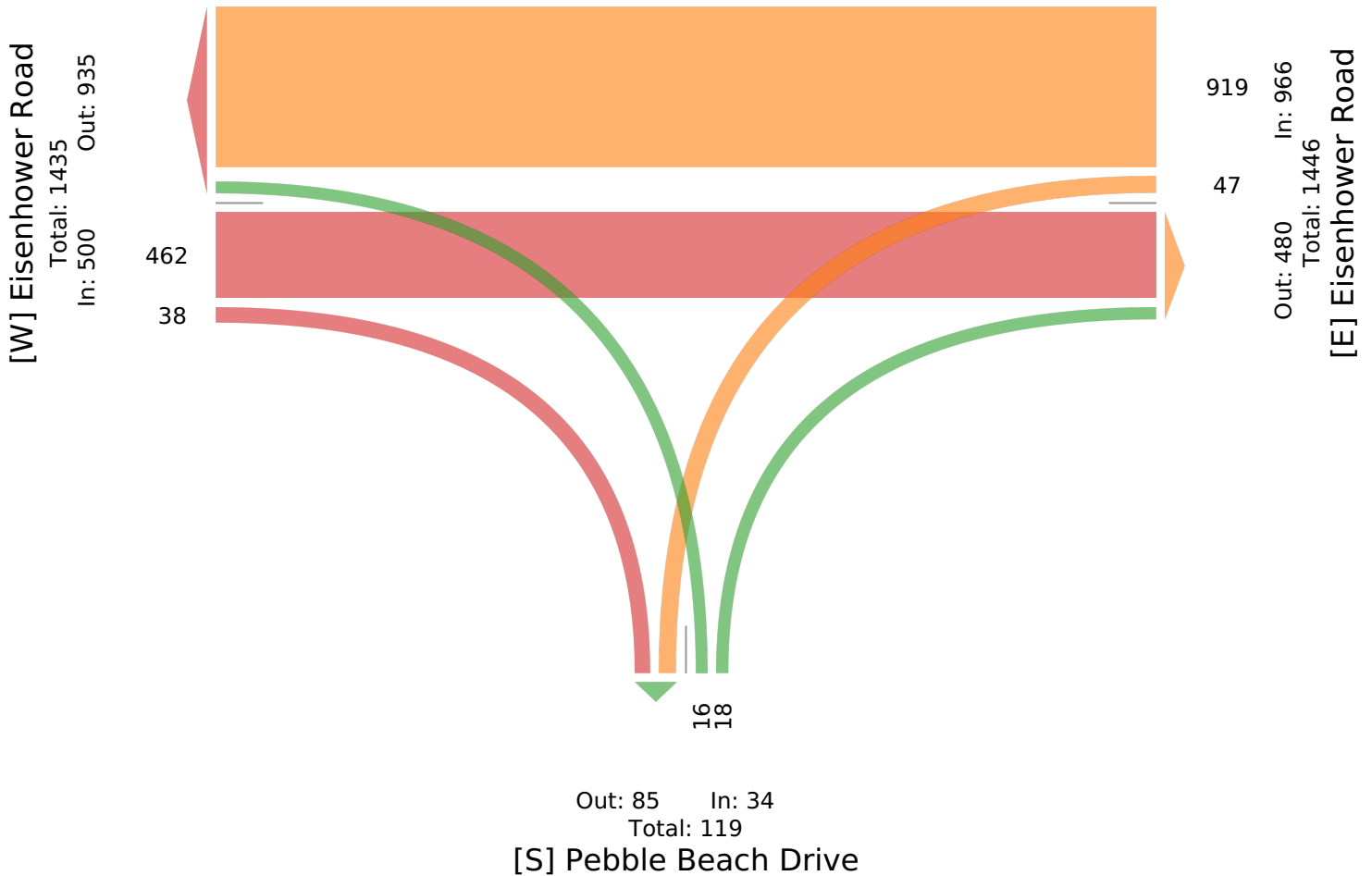
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297569, Location: 39.266823, -94.911764



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main Street & Woodland Road - TMC

Thu May 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297570, Location: 39.261546, -94.899957



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	US 73 Southbound				US 73 Northbound				Woodland Rd Eastbound				
Time	R	T	U	App	T	L	U	App	R	L	U	App	Int
2025-05-15 7:00AM	1	175	0	176	237	0	0	237	2	2	0	4	417
7:15AM	0	223	0	223	255	1	0	256	3	4	0	7	486
7:30AM	2	202	0	204	274	0	0	274	3	2	0	5	483
7:45AM	0	229	0	229	268	1	0	269	4	3	0	7	505
Hourly Total	3	829	0	832	1034	2	0	1036	12	11	0	23	1891
8:00AM	1	175	0	176	258	2	0	260	1	3	0	4	440
8:15AM	1	218	0	219	222	0	0	222	1	0	0	1	442
8:30AM	2	165	0	167	186	1	0	187	2	2	0	4	358
8:45AM	0	176	0	176	241	2	0	243	1	1	0	2	421
Hourly Total	4	734	0	738	907	5	0	912	5	6	0	11	1661
4:00PM	2	365	0	367	278	2	0	280	2	1	0	3	650
4:15PM	2	324	0	326	280	6	0	286	1	4	0	5	617
4:30PM	5	320	0	325	250	4	0	254	3	4	0	7	586
4:45PM	1	286	0	287	264	2	0	266	2	1	0	3	556
Hourly Total	10	1295	0	1305	1072	14	0	1086	8	10	0	18	2409
5:00PM	5	314	0	319	292	2	0	294	2	5	0	7	620
5:15PM	6	269	0	275	241	3	0	244	2	3	0	5	524
5:30PM	3	208	0	211	253	5	0	258	3	2	0	5	474
5:45PM	4	227	0	231	223	2	0	225	0	2	0	2	458
Hourly Total	18	1018	0	1036	1009	12	0	1021	7	12	0	19	2076
Total	35	3876	0	3911	4022	33	0	4055	32	39	0	71	8037
% Approach	0.9%	99.1%	0%	-	99.2%	0.8%	0%	-	45.1%	54.9%	0%	-	-
% Total	0.4%	48.2%	0%	48.7%	50.0%	0.4%	0%	50.5%	0.4%	0.5%	0%	0.9%	-
Lights	34	3751	0	3785	3888	32	0	3920	29	39	0	68	7773
% Lights	97.1%	96.8%	0%	96.8%	96.7%	97.0%	0%	96.7%	90.6%	100%	0%	95.8%	96.7%
Articulated Trucks	0	54	0	54	49	0	0	49	0	0	0	0	103
% Articulated Trucks	0%	1.4%	0%	1.4%	1.2%	0%	0%	1.2%	0%	0%	0%	0%	1.3%
Buses and Single-Unit Trucks	1	71	0	72	85	1	0	86	3	0	0	3	161
% Buses and Single-Unit Trucks	2.9%	1.8%	0%	1.8%	2.1%	3.0%	0%	2.1%	9.4%	0%	0%	4.2%	2.0%

*L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Woodland Road - TMC

Thu May 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

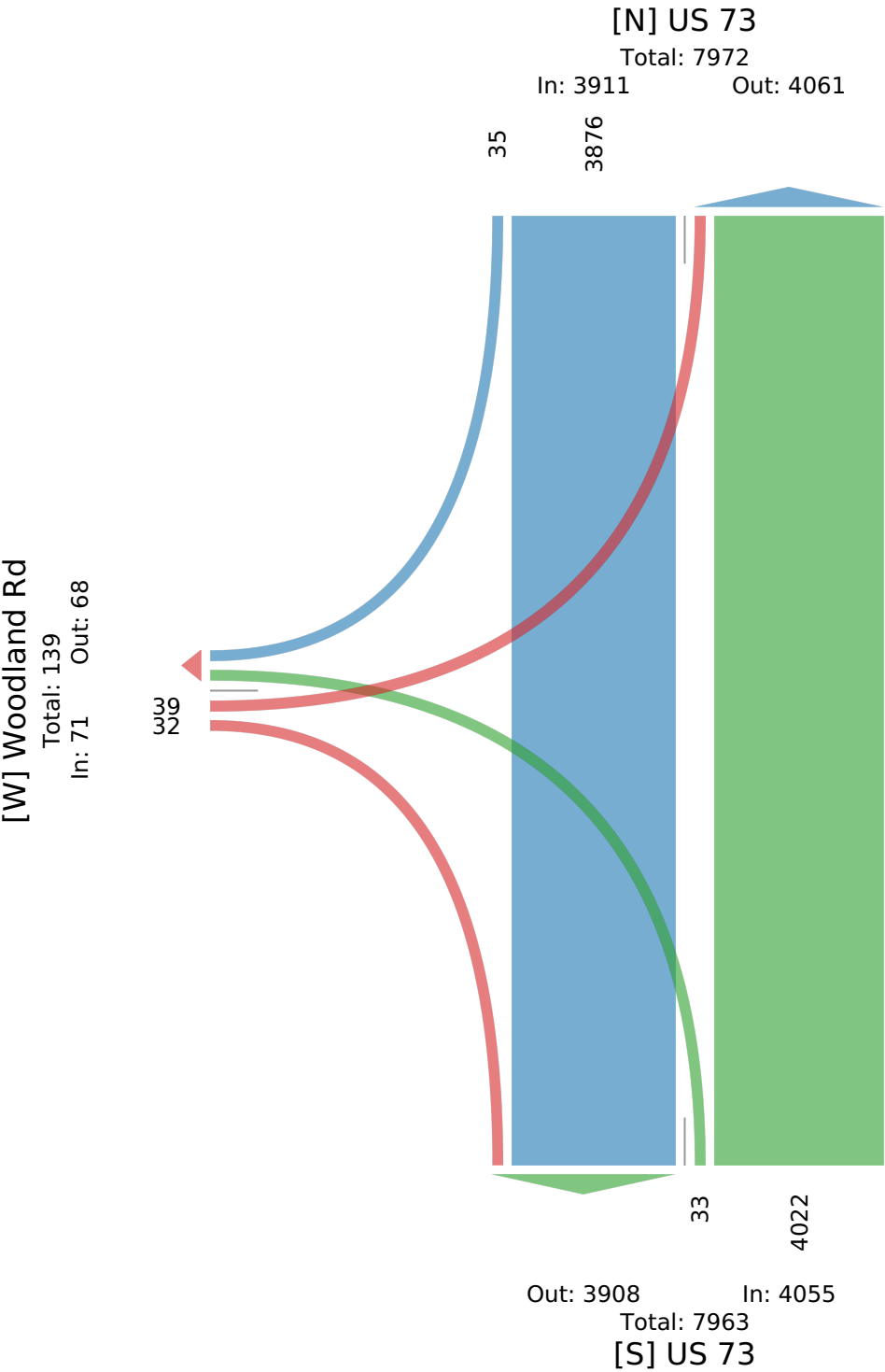
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297570, Location: 39.261546, -94.899957



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main Street & Woodland Road - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297570, Location: 39.261546, -94.899957



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	US 73 Southbound				US 73 Northbound				Woodland Rd Eastbound				
Time	R	T	U	App	T	L	U	App	R	L	U	App	Int
2025-05-15 7:15AM	0	223	0	223	255	1	0	256	3	4	0	7	486
7:30AM	2	202	0	204	274	0	0	274	3	2	0	5	483
7:45AM	0	229	0	229	268	1	0	269	4	3	0	7	505
8:00AM	1	175	0	176	258	2	0	260	1	3	0	4	440
Total	3	829	0	832	1055	4	0	1059	11	12	0	23	1914
% Approach	0.4%	99.6%	0%	-	99.6%	0.4%	0%	-	47.8%	52.2%	0%	-	-
% Total	0.2%	43.3%	0%	43.5%	55.1%	0.2%	0%	55.3%	0.6%	0.6%	0%	1.2%	-
PHF	0.375	0.905	-	0.908	0.963	0.500	-	0.966	0.688	0.750	-	0.821	0.948
Lights	3	781	0	784	1010	3	0	1013	10	12	0	22	1819
% Lights	100%	94.2%	0%	94.2%	95.7%	75.0%	0%	95.7%	90.9%	100%	0%	95.7%	95.0%
Articulated Trucks	0	20	0	20	19	0	0	19	0	0	0	0	39
% Articulated Trucks	0%	2.4%	0%	2.4%	1.8%	0%	0%	1.8%	0%	0%	0%	0%	2.0%
Buses and Single-Unit Trucks	0	28	0	28	26	1	0	27	1	0	0	1	56
% Buses and Single-Unit Trucks	0%	3.4%	0%	3.4%	2.5%	25.0%	0%	2.5%	9.1%	0%	0%	4.3%	2.9%

* L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Woodland Road - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

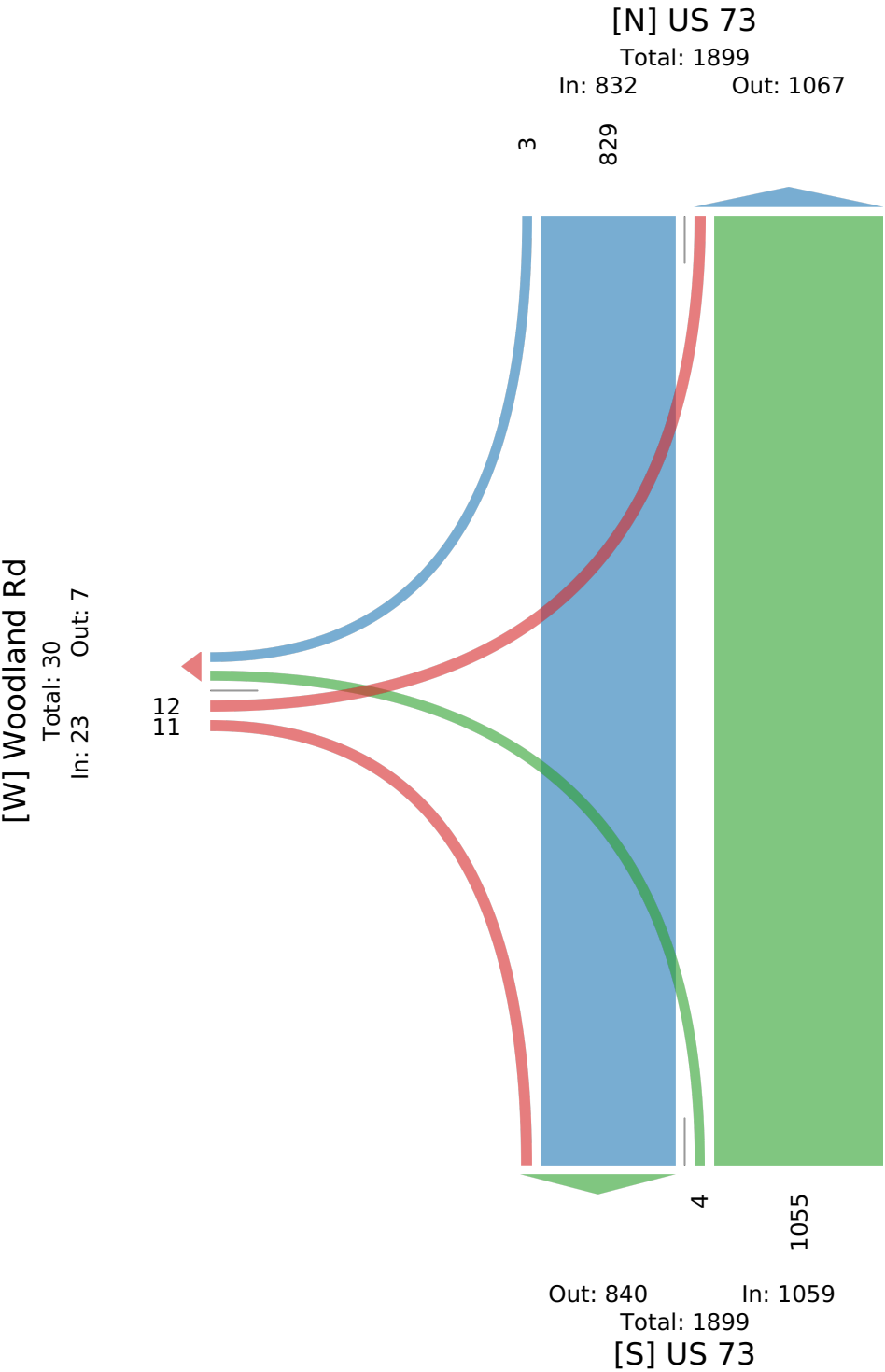
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297570, Location: 39.261546, -94.899957



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main Street & Woodland Road - TMC

Thu May 15, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297570, Location: 39.261546, -94.899957



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	US 73 Southbound				US 73 Northbound				Woodland Rd Eastbound				
Time	R	T	U	App	T	L	U	App	R	L	U	App	Int
2025-05-15 4:00PM	2	365	0	367	278	2	0	280	2	1	0	3	650
4:15PM	2	324	0	326	280	6	0	286	1	4	0	5	617
4:30PM	5	320	0	325	250	4	0	254	3	4	0	7	586
4:45PM	1	286	0	287	264	2	0	266	2	1	0	3	556
Total	10	1295	0	1305	1072	14	0	1086	8	10	0	18	2409
% Approach	0.8%	99.2%	0%	-	98.7%	1.3%	0%	-	44.4%	55.6%	0%	-	-
% Total	0.4%	53.8%	0%	54.2%	44.5%	0.6%	0%	45.1%	0.3%	0.4%	0%	0.7%	-
PHF	0.500	0.887	-	0.889	0.957	0.583	-	0.949	0.667	0.625	-	0.643	0.927
Lights	10	1270	0	1280	1049	14	0	1063	7	10	0	17	2360
% Lights	100%	98.1%	0%	98.1%	97.9%	100%	0%	97.9%	87.5%	100%	0%	94.4%	98.0%
Articulated Trucks	0	8	0	8	8	0	0	8	0	0	0	0	16
% Articulated Trucks	0%	0.6%	0%	0.6%	0.7%	0%	0%	0.7%	0%	0%	0%	0%	0.7%
Buses and Single-Unit Trucks	0	17	0	17	15	0	0	15	1	0	0	1	33
% Buses and Single-Unit Trucks	0%	1.3%	0%	1.3%	1.4%	0%	0%	1.4%	12.5%	0%	0%	5.6%	1.4%

* L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Woodland Road - TMC

Thu May 15, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

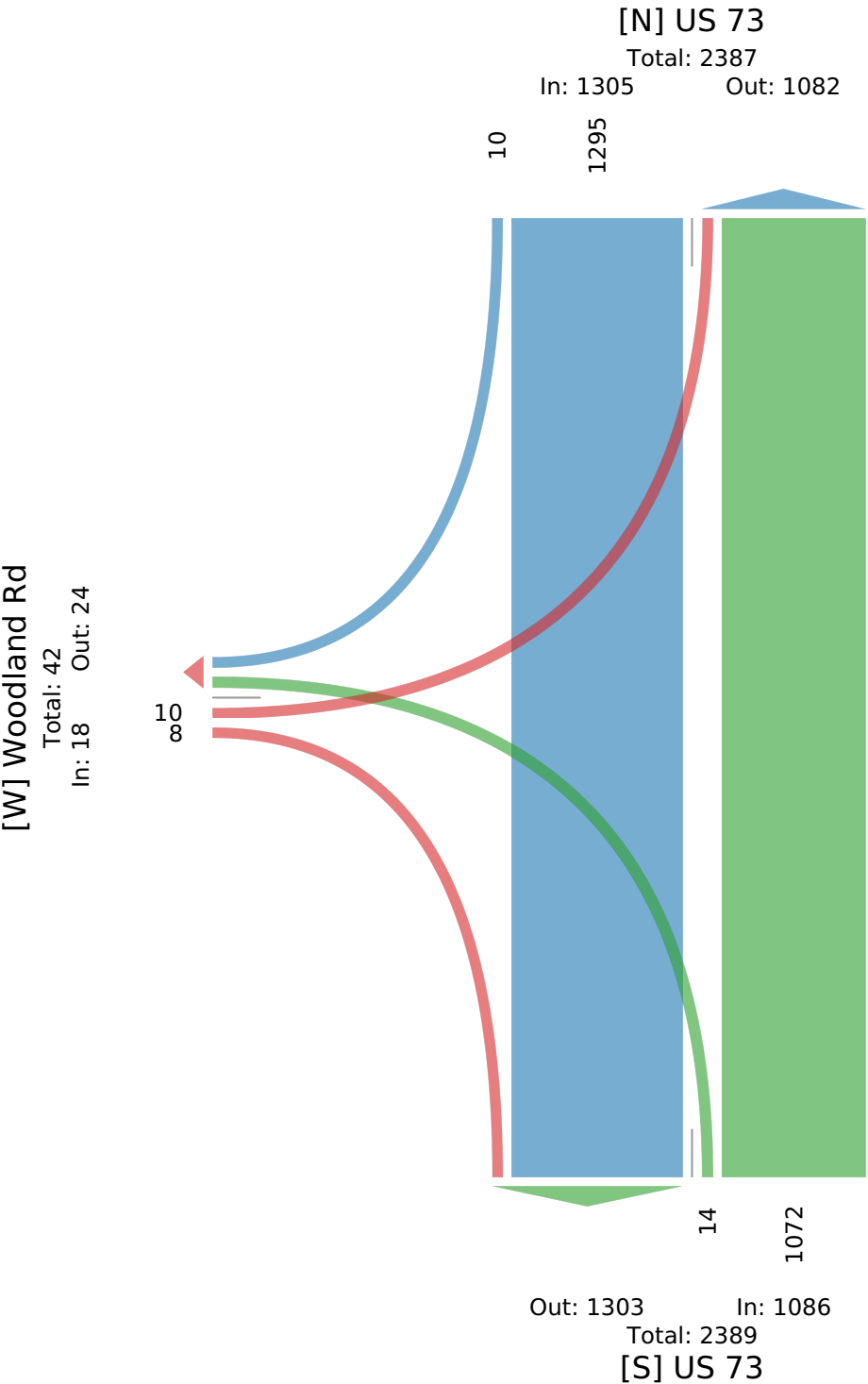
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297570, Location: 39.261546, -94.899957



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main Street & Highland Road - TMC

Thu May 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297571, Location: 39.26005, -94.899946



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main St Southbound					Highland Rd Westbound					Main St Northbound					Highland Rd Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2025-05-15 7:00AM	0	171	2	0	173	2	0	0	0	2	0	234	2	0	236	3	0	0	0	3	414
7:15AM	1	229	4	0	234	6	0	2	0	8	0	249	1	0	250	2	0	4	0	6	498
7:30AM	0	203	3	0	206	5	0	2	0	7	1	274	3	0	278	5	0	3	0	8	499
7:45AM	0	231	3	0	234	4	0	2	0	6	2	271	3	0	276	4	0	1	0	5	521
Hourly Total	1	834	12	0	847	17	0	6	0	23	3	1028	9	0	1040	14	0	8	0	22	1932
8:00AM	0	175	0	0	175	2	0	0	0	2	1	247	3	0	251	1	0	2	0	3	431
8:15AM	0	214	4	0	218	2	0	0	0	2	2	213	0	0	215	2	0	1	0	3	438
8:30AM	1	162	3	0	166	2	1	1	0	4	1	184	3	0	188	4	0	0	0	4	362
8:45AM	1	170	3	0	174	5	0	0	0	5	1	241	1	0	243	1	0	0	0	1	423
Hourly Total	2	721	10	0	733	11	1	1	0	13	5	885	7	0	897	8	0	3	0	11	1654
4:00PM	1	361	3	0	365	4	0	0	0	4	2	279	1	0	282	4	0	1	0	5	656
4:15PM	2	315	2	0	319	6	0	2	0	8	5	285	2	0	292	3	0	1	0	4	623
4:30PM	3	301	7	0	311	2	0	0	0	2	2	259	2	0	263	3	0	3	0	6	582
4:45PM	2	282	3	0	287	5	0	1	0	6	1	267	2	0	270	2	0	0	0	2	565
Hourly Total	8	1259	15	0	1282	17	0	3	0	20	10	1090	7	0	1107	12	0	5	0	17	2426
5:00PM	1	319	5	0	325	10	0	2	0	12	4	273	4	0	281	3	0	1	0	4	622
5:15PM	4	265	3	0	272	3	0	0	0	3	3	239	1	0	243	5	0	5	0	10	528
5:30PM	3	207	6	0	216	5	0	0	0	5	4	260	1	0	265	5	0	1	0	6	492
5:45PM	1	227	3	0	231	4	1	3	0	8	1	229	3	0	233	1	0	1	0	2	474
Hourly Total	9	1018	17	0	1044	22	1	5	0	28	12	1001	9	0	1022	14	0	8	0	22	2116
Total	20	3832	54	0	3906	67	2	15	0	84	30	4004	32	0	4066	48	0	24	0	72	8128
% Approach	0.5%	98.1%	1.4%	0%	-	79.8%	2.4%	17.9%	0%	-	0.7%	98.5%	0.8%	0%	-	66.7%	0%	33.3%	0%	-	-
% Total	0.2%	47.1%	0.7%	0%	48.1%	0.8%	0%	0.2%	0%	1.0%	0.4%	49.3%	0.4%	0%	50.0%	0.6%	0%	0.3%	0%	0.9%	-
Lights	20	3696	52	0	3768	64	2	15	0	81	29	3861	30	0	3920	47	0	23	0	70	7839
% Lights	100%	96.5%	96.3%	0%	96.5%	95.5%	100%	100%	0%	96.4%	96.7%	96.4%	93.8%	0%	96.4%	97.9%	0%	95.8%	0%	97.2%	96.4%
Articulated Trucks	0	49	0	0	49	0	0	0	0	0	0	57	0	0	57	0	0	0	0	0	106
% Articulated Trucks	0%	1.3%	0%	0%	1.3%	0%	0%	0%	0%	0%	0%	1.4%	0%	0%	1.4%	0%	0%	0%	0%	0%	1.3%
Buses and Single-Unit Trucks	0	87	2	0	89	3	0	0	0	3	1	86	2	0	89	1	0	1	0	2	183
% Buses and Single-Unit Trucks	0%	2.3%	3.7%	0%	2.3%	4.5%	0%	0%	0%	3.6%	3.3%	2.1%	6.3%	0%	2.2%	2.1%	0%	4.2%	0%	2.8%	2.3%

*L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Highland Road - TMC

Thu May 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

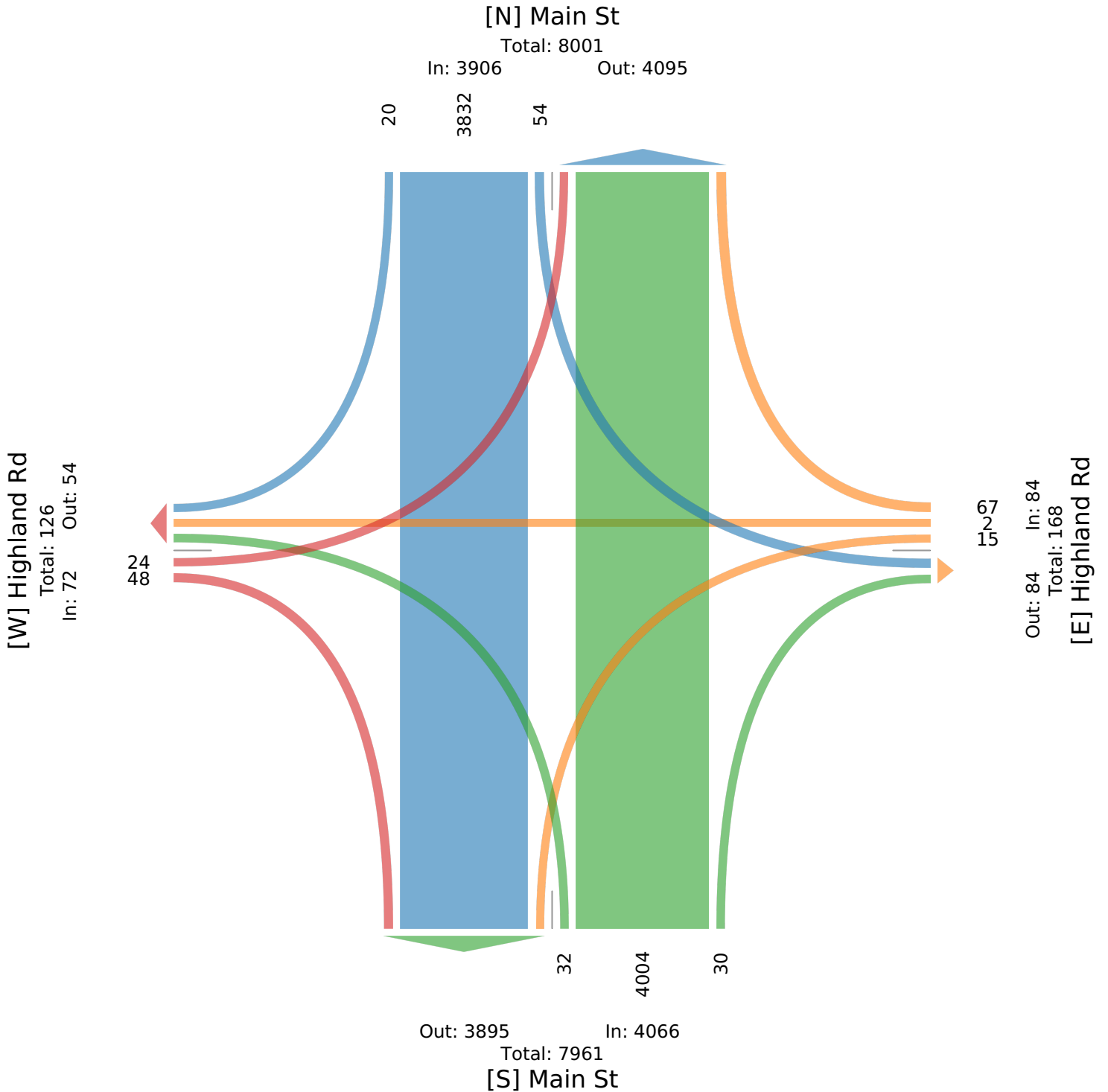
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297571, Location: 39.26005, -94.899946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main Street & Highland Road - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297571, Location: 39.26005, -94.899946



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main St Southbound					Highland Rd Westbound					Main St Northbound					Highland Rd Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2025-05-15 7:15AM	1	229	4	0	234	6	0	2	0	8	0	249	1	0	250	2	0	4	0	6	498
7:30AM	0	203	3	0	206	5	0	2	0	7	1	274	3	0	278	5	0	3	0	8	499
7:45AM	0	231	3	0	234	4	0	2	0	6	2	271	3	0	276	4	0	1	0	5	521
8:00AM	0	175	0	0	175	2	0	0	0	2	1	247	3	0	251	1	0	2	0	3	431
Total	1	838	10	0	849	17	0	6	0	23	4	1041	10	0	1055	12	0	10	0	22	1949
% Approach	0.1%	98.7%	1.2%	0%	-	73.9%	0%	26.1%	0%	-	0.4%	98.7%	0.9%	0%	-	54.5%	0%	45.5%	0%	-	-
% Total	0.1%	43.0%	0.5%	0%	43.6%	0.9%	0%	0.3%	0%	1.2%	0.2%	53.4%	0.5%	0%	54.1%	0.6%	0%	0.5%	0%	1.1%	-
PHF	0.250	0.907	0.625	-	0.907	0.708	-	0.750	-	0.719	0.500	0.950	0.833	-	0.949	0.600	-	0.625	-	0.688	0.935
Lights	1	790	10	0	801	15	0	6	0	21	3	991	9	0	1003	12	0	9	0	21	1846
% Lights	100%	94.3%	100%	0%	94.3%	88.2%	0%	100%	0%	91.3%	75.0%	95.2%	90.0%	0%	95.1%	100%	0%	90.0%	0%	95.5%	94.7%
Articulated Trucks	0	20	0	0	20	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	44
% Articulated Trucks	0%	2.4%	0%	0%	2.4%	0%	0%	0%	0%	0%	0%	2.3%	0%	0%	2.3%	0%	0%	0%	0%	0%	2.3%
Buses and Single-Unit Trucks	0	28	0	0	28	2	0	0	0	2	1	26	1	0	28	0	0	1	0	1	59
% Buses and Single-Unit Trucks	0%	3.3%	0%	0%	3.3%	11.8%	0%	0%	0%	8.7%	25.0%	2.5%	10.0%	0%	2.7%	0%	0%	10.0%	0%	4.5%	3.0%

* L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Highland Road - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

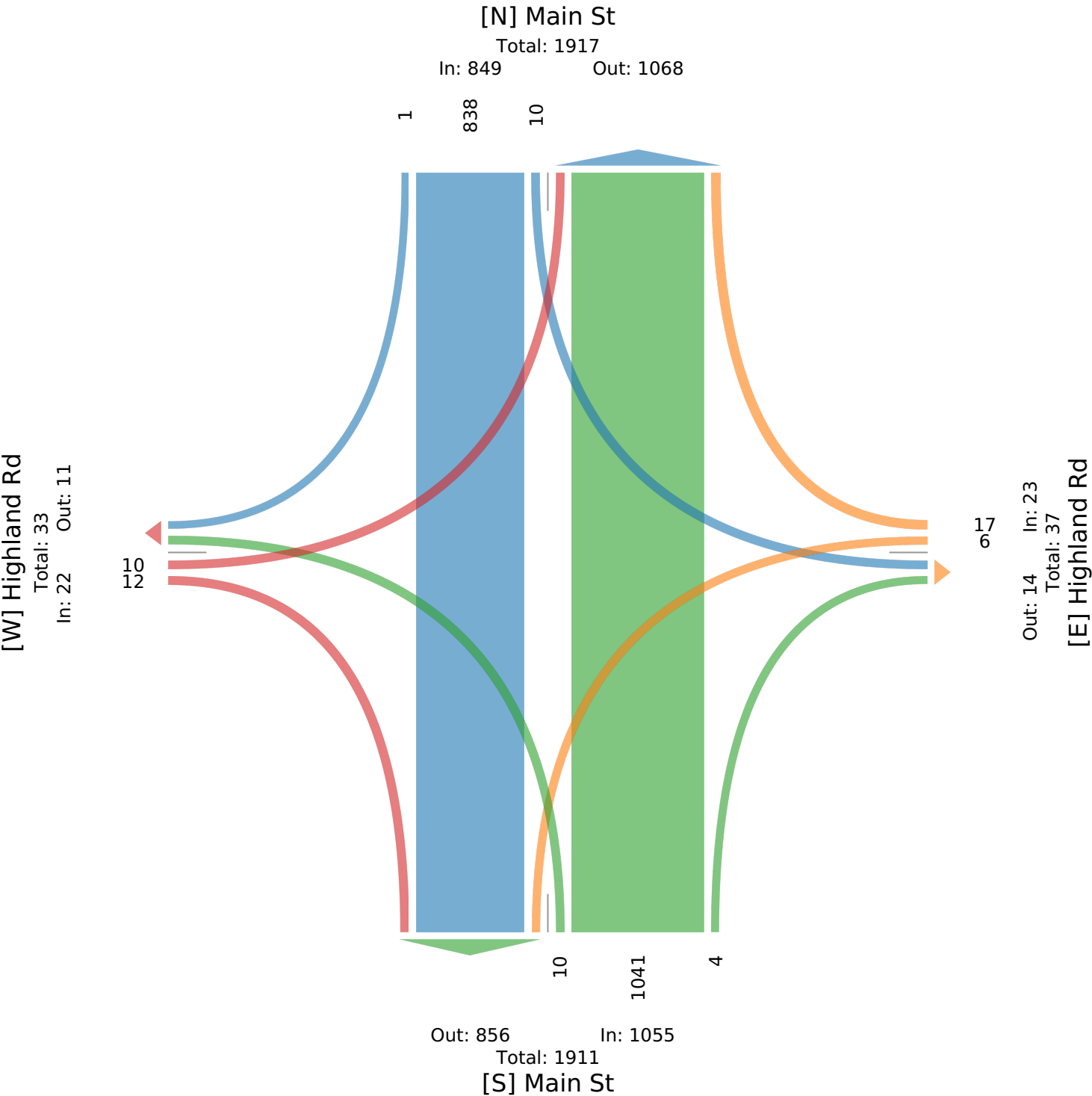
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297571, Location: 39.26005, -94.899946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main Street & Highland Road - TMC

Thu May 15, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297571, Location: 39.26005, -94.899946



Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main St Southbound					Highland Rd Westbound					Main St Northbound					Highland Rd Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2025-05-15 4:00PM	1	361	3	0	365	4	0	0	0	4	2	279	1	0	282	4	0	1	0	5	656
4:15PM	2	315	2	0	319	6	0	2	0	8	5	285	2	0	292	3	0	1	0	4	623
4:30PM	3	301	7	0	311	2	0	0	0	2	2	259	2	0	263	3	0	3	0	6	582
4:45PM	2	282	3	0	287	5	0	1	0	6	1	267	2	0	270	2	0	0	0	2	565
Total	8	1259	15	0	1282	17	0	3	0	20	10	1090	7	0	1107	12	0	5	0	17	2426
% Approach	0.6%	98.2%	1.2%	0%	-	85.0%	0%	15.0%	0%	-	0.9%	98.5%	0.6%	0%	-	70.6%	0%	29.4%	0%	-	-
% Total	0.3%	51.9%	0.6%	0%	52.8%	0.7%	0%	0.1%	0%	0.8%	0.4%	44.9%	0.3%	0%	45.6%	0.5%	0%	0.2%	0%	0.7%	-
PHF	0.667	0.872	0.536	-	0.878	0.708	-	0.375	-	0.625	0.500	0.956	0.875	-	0.948	0.750	-	0.417	-	0.708	0.925
Lights	8	1234	15	0	1257	17	0	3	0	20	10	1065	7	0	1082	12	0	5	0	17	2376
% Lights	100%	98.0%	100%	0%	98.0%	100%	0%	100%	0%	100%	100%	97.7%	100%	0%	97.7%	100%	0%	100%	0%	100%	97.9%
Articulated Trucks	0	6	0	0	6	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	15
% Articulated Trucks	0%	0.5%	0%	0%	0.5%	0%	0%	0%	0%	0%	0%	0.8%	0%	0%	0.8%	0%	0%	0%	0%	0%	0.6%
Buses and Single-Unit Trucks	0	19	0	0	19	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	35
% Buses and Single-Unit Trucks	0%	1.5%	0%	0%	1.5%	0%	0%	0%	0%	0%	0%	1.5%	0%	0%	1.4%	0%	0%	0%	0%	0%	1.4%

* L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Highland Road - TMC

Thu May 15, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

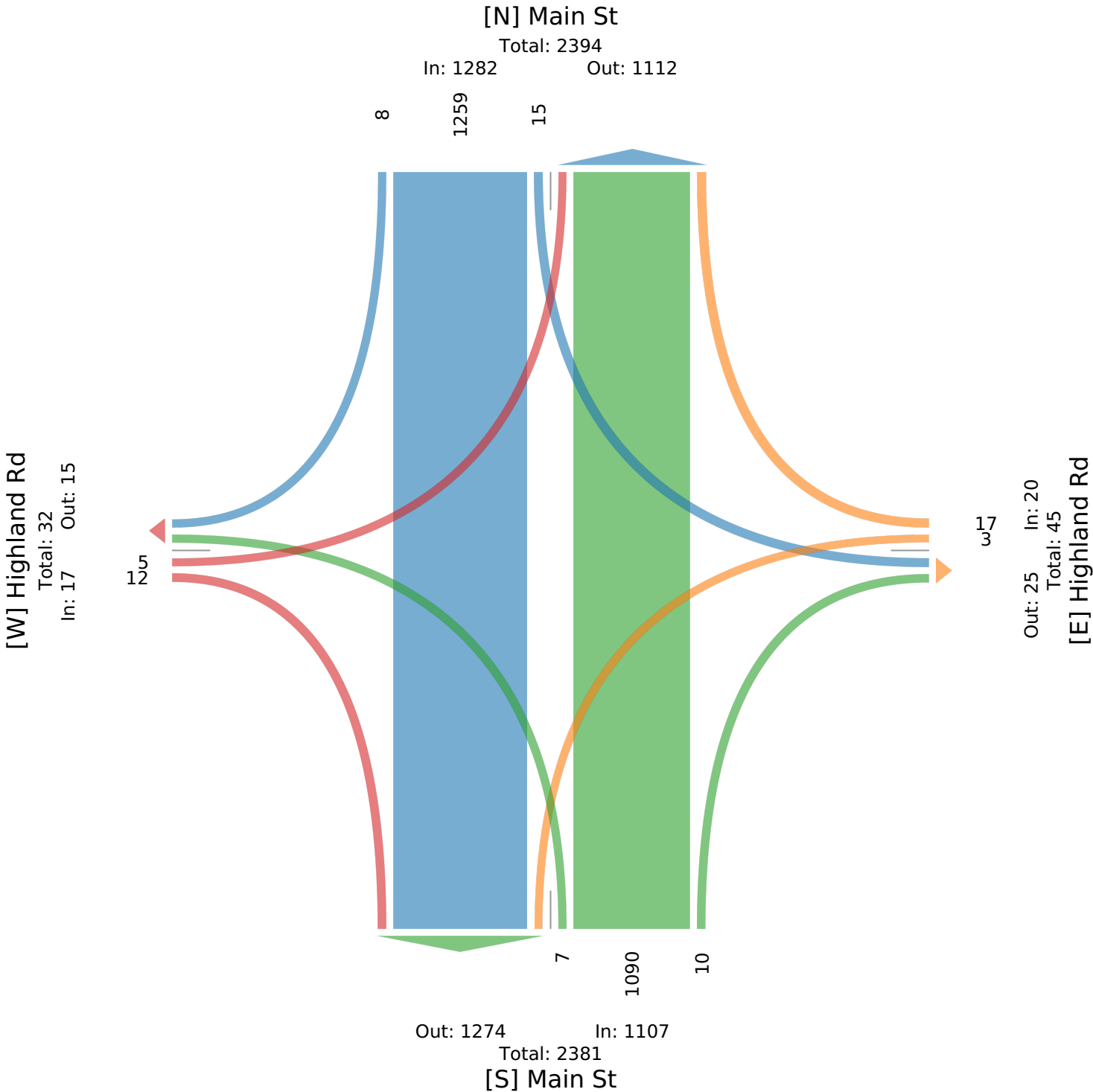
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297571, Location: 39.26005, -94.899946



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main Street & Holiday Terrace - TMC

Thu May 15, 2025

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297572, Location: 39.259235, -94.899978



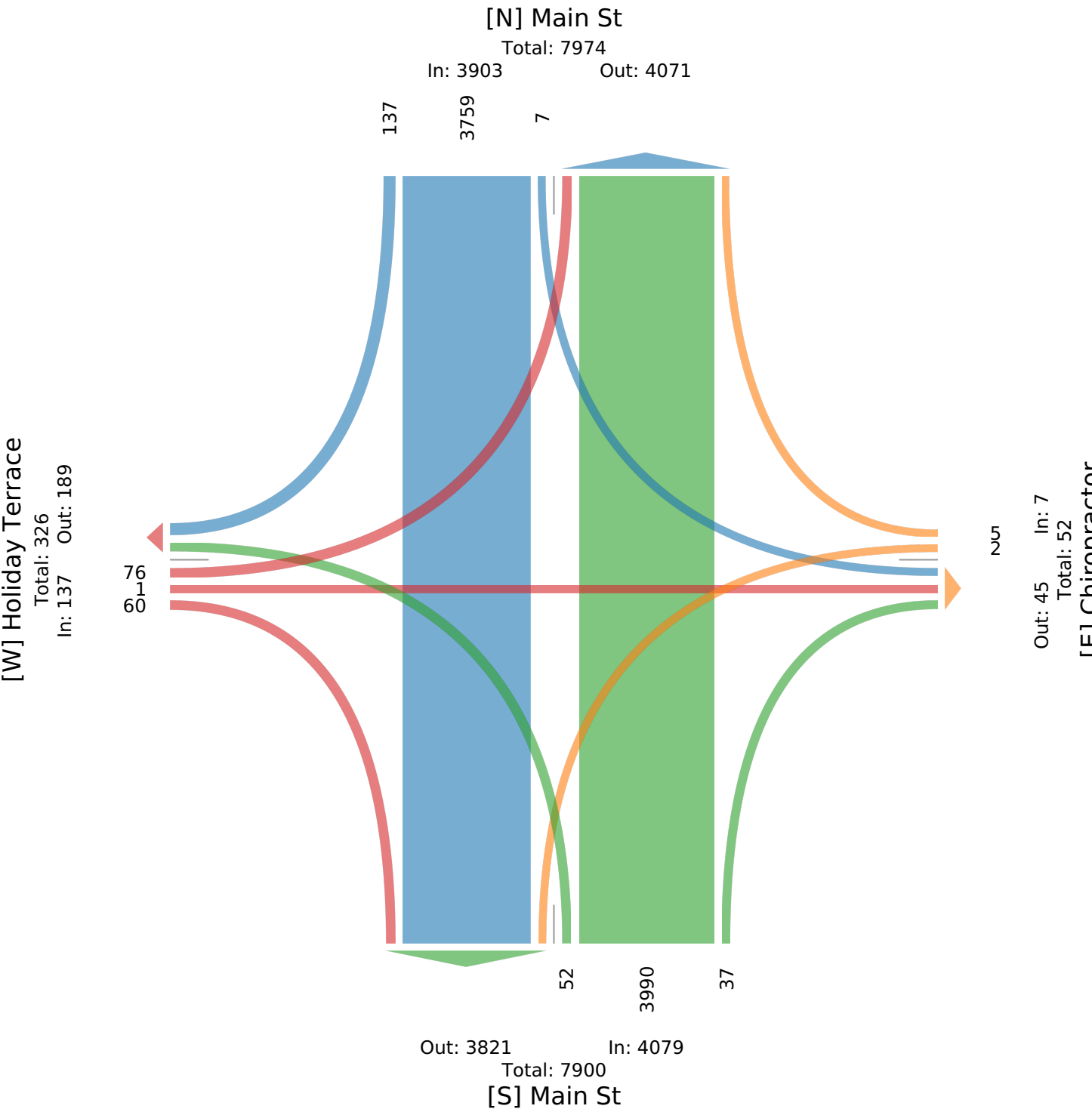
Provided by: Gewalt Hamilton Associates Inc.

625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main St Southbound					Chiropractor Westbound					Main St Northbound					Holiday Terrace Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2025-05-15 7:00AM	2	173	0	0	175	0	0	0	0	0	3	238	0	0	241	1	0	0	0	1	417
7:15AM	2	229	0	0	231	1	0	0	0	1	4	244	3	0	251	4	0	4	0	8	491
7:30AM	4	203	1	0	208	0	0	0	0	0	3	280	1	0	284	2	0	2	0	4	496
7:45AM	6	229	0	0	235	0	0	0	0	0	6	261	2	0	269	4	0	2	0	6	510
Hourly Total	14	834	1	0	849	1	0	0	0	1	16	1023	6	0	1045	11	0	8	0	19	1914
8:00AM	8	168	0	0	176	0	0	0	0	0	5	259	1	0	265	2	0	2	0	4	445
8:15AM	7	210	0	0	217	0	0	0	0	0	2	214	0	0	216	3	0	1	0	4	437
8:30AM	5	160	0	0	165	0	0	0	0	0	0	183	4	0	187	0	0	2	0	2	354
8:45AM	5	162	0	0	167	1	0	0	0	1	3	237	1	0	241	2	0	7	0	9	418
Hourly Total	25	700	0	0	725	1	0	0	0	1	10	893	6	0	909	7	0	12	0	19	1654
4:00PM	16	351	0	0	367	1	0	0	0	1	2	274	6	0	282	5	0	2	0	7	657
4:15PM	14	307	0	0	321	0	0	0	0	0	1	282	4	0	287	3	1	11	0	15	623
4:30PM	18	290	1	0	309	0	0	0	0	0	3	251	6	0	260	3	0	8	0	11	580
4:45PM	9	278	2	0	289	1	0	1	0	2	2	256	6	0	264	6	0	10	0	16	571
Hourly Total	57	1226	3	0	1286	2	0	1	0	3	8	1063	22	0	1093	17	1	31	0	49	2431
5:00PM	20	303	1	0	324	0	0	0	0	0	0	285	5	0	290	9	0	5	0	14	628
5:15PM	6	266	1	0	273	1	0	0	0	1	0	233	5	0	238	3	0	8	0	11	523
5:30PM	8	206	0	0	214	0	0	0	0	0	3	261	6	0	270	8	0	6	0	14	498
5:45PM	7	224	1	0	232	0	0	1	0	1	0	232	2	0	234	5	0	6	0	11	478
Hourly Total	41	999	3	0	1043	1	0	1	0	2	3	1011	18	0	1032	25	0	25	0	50	2127
Total	137	3759	7	0	3903	5	0	2	0	7	37	3990	52	0	4079	60	1	76	0	137	8126
% Approach	3.5%	96.3%	0.2%	0%	-	71.4%	0%	28.6%	0%	-	0.9%	97.8%	1.3%	0%	-	43.8%	0.7%	55.5%	0%	-	-
% Total	1.7%	46.3%	0.1%	0%	48.0%	0.1%	0%	0%	0%	0.1%	0.5%	49.1%	0.6%	0%	50.2%	0.7%	0%	0.9%	0%	1.7%	-
Lights	136	3627	7	0	3770	5	0	2	0	7	36	3846	49	0	3931	57	1	75	0	133	7841
% Lights	99.3%	96.5%	100%	0%	96.6%	100%	0%	100%	0%	100%	97.3%	96.4%	94.2%	0%	96.4%	95.0%	100%	98.7%	0%	97.1%	96.5%
Articulated Trucks	0	52	0	0	52	0	0	0	0	0	1	57	0	0	58	0	0	0	0	0	110
% Articulated Trucks	0%	1.4%	0%	0%	1.3%	0%	0%	0%	0%	0%	2.7%	1.4%	0%	0%	1.4%	0%	0%	0%	0%	0%	1.4%
Buses and Single-Unit Trucks	1	80	0	0	81	0	0	0	0	0	0	87	3	0	90	3	0	1	0	4	175
% Buses and Single-Unit Trucks	0.7%	2.1%	0%	0%	2.1%	0%	0%	0%	0%	0%	0%	2.2%	5.8%	0%	2.2%	5.0%	0%	1.3%	0%	2.9%	2.2%

*L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Holiday Terrace - TMC
Thu May 15, 2025
Full Length (7 AM-9 AM, 4 PM-6 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1297572, Location: 39.259235, -94.899978



Main Street & Holiday Terrace - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297572, Location: 39.259235, -94.899978



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main St Southbound					Chiropractor Westbound					Main St Northbound					Holiday Terrace Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2025-05-15 7:15AM	2	229	0	0	231	1	0	0	0	1	4	244	3	0	251	4	0	4	0	8	491
7:30AM	4	203	1	0	208	0	0	0	0	0	3	280	1	0	284	2	0	2	0	4	496
7:45AM	6	229	0	0	235	0	0	0	0	0	6	261	2	0	269	4	0	2	0	6	510
8:00AM	8	168	0	0	176	0	0	0	0	0	5	259	1	0	265	2	0	2	0	4	445
Total	20	829	1	0	850	1	0	0	0	1	18	1044	7	0	1069	12	0	10	0	22	1942
% Approach	2.4%	97.5%	0.1%	0%	-	100%	0%	0%	0%	-	1.7%	97.7%	0.7%	0%	-	54.5%	0%	45.5%	0%	-	-
% Total	1.0%	42.7%	0.1%	0%	43.8%	0.1%	0%	0%	0%	0.1%	0.9%	53.8%	0.4%	0%	55.0%	0.6%	0%	0.5%	0%	1.1%	-
PHF	0.625	0.905	0.250	-	0.904	0.250	-	-	-	0.250	0.750	0.932	0.583	-	0.941	0.750	-	0.625	-	0.688	0.952
Lights	20	779	1	0	800	1	0	0	0	1	17	995	5	0	1017	10	0	10	0	20	1838
% Lights	100%	94.0%	100%	0%	94.1%	100%	0%	0%	0%	100%	94.4%	95.3%	71.4%	0%	95.1%	83.3%	0%	100%	0%	90.9%	94.6%
Articulated Trucks	0	20	0	0	20	0	0	0	0	0	1	23	0	0	24	0	0	0	0	0	44
% Articulated Trucks	0%	2.4%	0%	0%	2.4%	0%	0%	0%	0%	0%	5.6%	2.2%	0%	0%	2.2%	0%	0%	0%	0%	0%	2.3%
Buses and Single-Unit Trucks	0	30	0	0	30	0	0	0	0	0	0	26	2	0	28	2	0	0	0	2	60
% Buses and Single-Unit Trucks	0%	3.6%	0%	0%	3.5%	0%	0%	0%	0%	0%	0%	2.5%	28.6%	0%	2.6%	16.7%	0%	0%	0%	9.1%	3.1%

* L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Holiday Terrace - TMC

Thu May 15, 2025

AM Peak (7:15 AM - 8:15 AM)

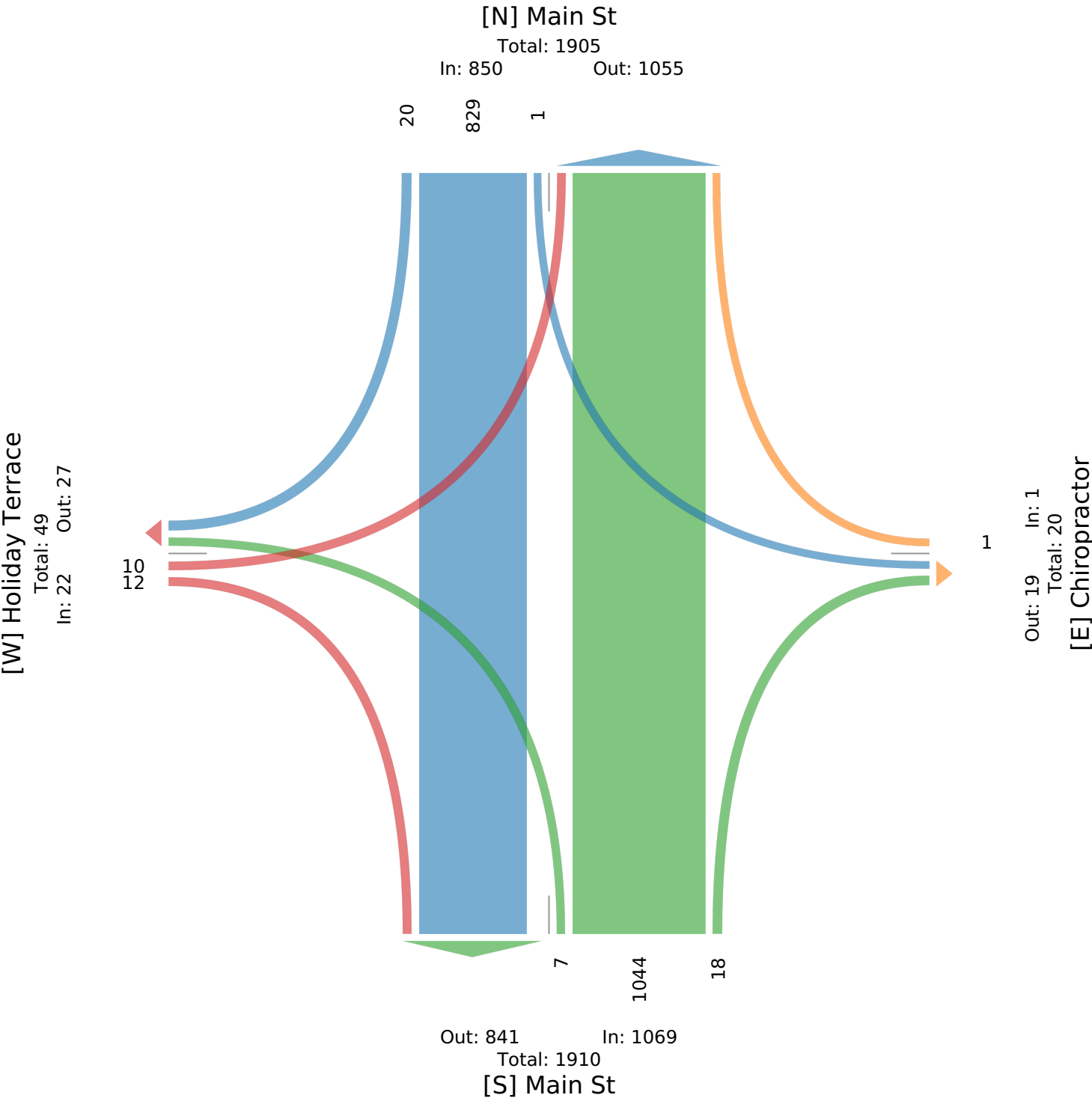
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297572, Location: 39.259235, -94.899978



Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



Main Street & Holiday Terrace - TMC

Thu May 15, 2025

PM Peak (4 PM - 5 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)

All Movements

ID: 1297572, Location: 39.259235, -94.899978

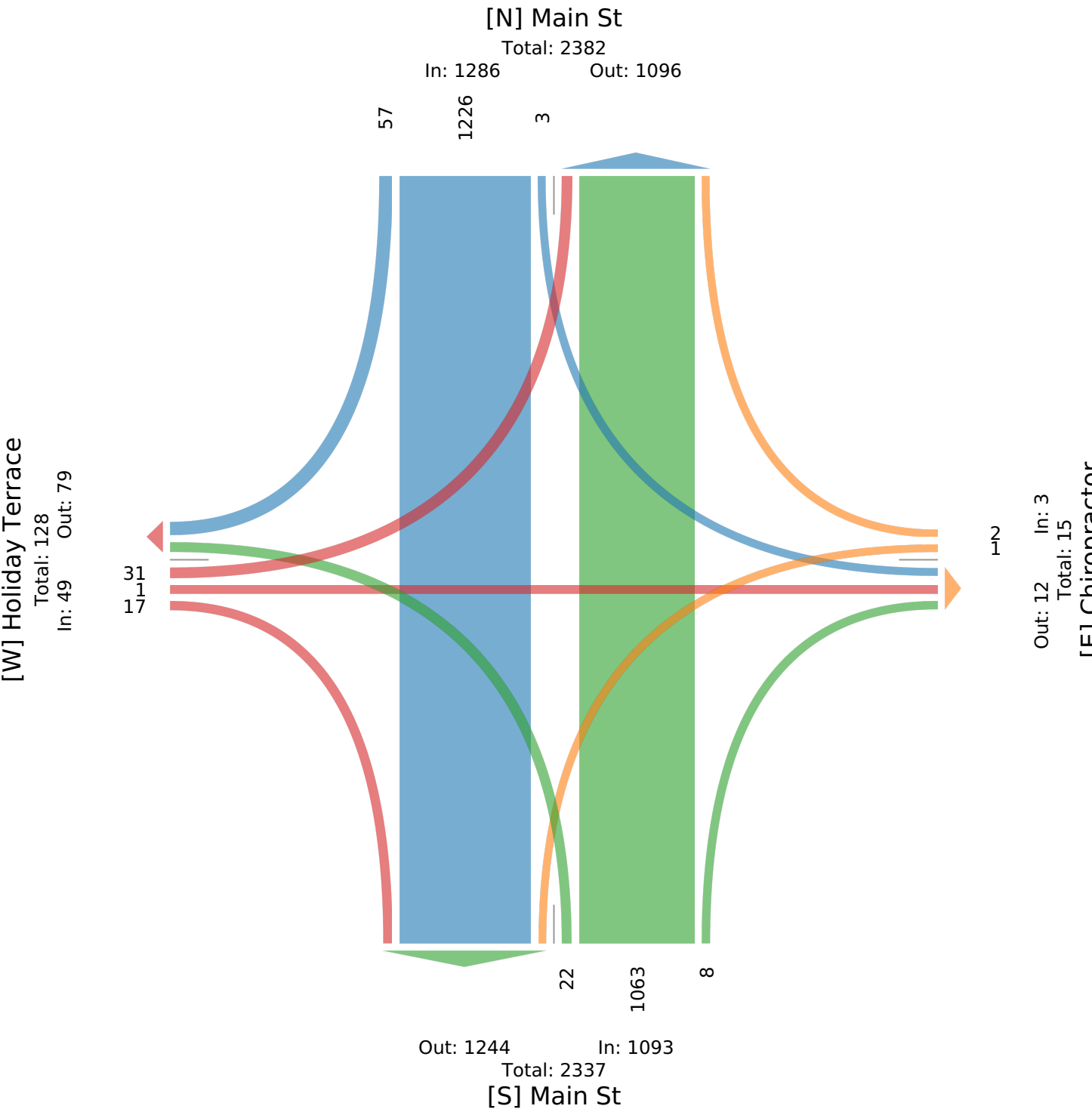


Provided by: Gewalt Hamilton Associates Inc.
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Main St Southbound					Chiropractor Westbound					Main St Northbound					Holiday Terrace Eastbound					
Time	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	R	T	L	U	App	Int
2025-05-15 4:00PM	16	351	0	0	367	1	0	0	0	1	2	274	6	0	282	5	0	2	0	7	657
4:15PM	14	307	0	0	321	0	0	0	0	0	1	282	4	0	287	3	1	11	0	15	623
4:30PM	18	290	1	0	309	0	0	0	0	0	3	251	6	0	260	3	0	8	0	11	580
4:45PM	9	278	2	0	289	1	0	1	0	2	2	256	6	0	264	6	0	10	0	16	571
Total	57	1226	3	0	1286	2	0	1	0	3	8	1063	22	0	1093	17	1	31	0	49	2431
% Approach	4.4%	95.3%	0.2%	0%	-	66.7%	0%	33.3%	0%	-	0.7%	97.3%	2.0%	0%	-	34.7%	2.0%	63.3%	0%	-	-
% Total	2.3%	50.4%	0.1%	0%	52.9%	0.1%	0%	0%	0%	0.1%	0.3%	43.7%	0.9%	0%	45.0%	0.7%	0%	1.3%	0%	2.0%	-
PHF	0.792	0.873	0.375	-	0.876	0.500	-	0.250	-	0.375	0.667	0.942	0.917	-	0.952	0.708	0.250	0.705	-	0.766	0.925
Lights	57	1201	3	0	1261	2	0	1	0	3	8	1036	22	0	1066	17	1	31	0	49	2379
% Lights	100%	98.0%	100%	0%	98.1%	100%	0%	100%	0%	100%	100%	97.5%	100%	0%	97.5%	100%	100%	100%	0%	100%	97.9%
Articulated Trucks	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	16
% Articulated Trucks	0%	0.7%	0%	0%	0.6%	0%	0%	0%	0%	0%	0%	0.8%	0%	0%	0.7%	0%	0%	0%	0%	0%	0.7%
Buses and Single-Unit Trucks	0	17	0	0	17	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	36
% Buses and Single-Unit Trucks	0%	1.4%	0%	0%	1.3%	0%	0%	0%	0%	0%	0%	1.8%	0%	0%	1.7%	0%	0%	0%	0%	0%	1.5%

* L: Left, R: Right, T: Thru, U: U-Turn

Main Street & Holiday Terrace - TMC
Thu May 15, 2025
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 1297572, Location: 39.259235, -94.899978





Traffic Data Report - Speed

Study Name: 6 - Desoto 24-hr ADT with Speed

Location: 6 - Desoto 24-hr ADT with Speed

Coordinates: 39.260592, -94.918836

Site Code:

Start Date: 05/15/2025

Classification Summary		
Classification	Count	Mean Speed (mph)
Motorcycles	28	47
Cars	6803	46
Pickup Trucks	1629	46
Buses	26	45
Single Unit Trucks	74	44
Vans	88	45
Articulated Trucks	2	37
Other Vehicles	0	0
Total	8650	46

Speed Summary (mph)	
15th Percentile Speed	42
50th Percentile Speed	46
85th Percentile Speed	50
95th Percentile Speed	53
Mean Speed	46
Min Speed	4
Max Speed	101

Direction	Northbound
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Traffic Count by Speed: Daily Total																
Date	Speed (mph)															
	0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	> 70	Total
05/15/2025	1	3	3	5	3	9	36	478	1620	922	146	19	1	0	0	3246
05/16/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Study Total	1	3	3	5	3	9	36	478	1620	922	146	19	1	0	0	3246

[illegible]

03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	6	10	1	0	0	0	0	17
Hourly Total	0	0	0	0	0	0	0	0	6	10	1	0	0	0	0	17
06:00	0	0	0	0	0	0	0	1	6	4	0	0	0	0	0	11
06:15	0	0	0	0	0	0	0	6	15	5	0	0	0	0	0	26
06:30	0	0	0	0	0	0	0	2	26	19	4	0	0	0	0	51
06:45	0	0	0	0	0	0	0	2	29	18	3	0	0	0	0	52
Hourly Total	0	0	0	0	0	0	0	11	76	46	7	0	0	0	0	140
07:00	0	0	0	0	0	0	0	9	40	23	2	1	0	0	0	75
07:15	0	0	0	0	0	0	1	11	43	23	3	1	0	0	0	82
07:30	1	3	2	5	1	2	1	11	37	19	3	0	0	0	0	85
07:45	0	0	0	0	0	0	0	5	47	17	3	0	0	0	0	72
Hourly Total	1	3	2	5	1	2	2	36	167	82	11	2	0	0	0	314
08:00	0	0	0	0	0	0	0	15	41	17	4	0	0	0	0	77
08:15	0	0	0	0	0	1	0	19	30	14	4	0	0	0	0	68
08:30	0	0	0	0	0	0	1	9	31	17	2	0	0	0	0	60
08:45	0	0	0	0	0	0	0	10	29	10	2	0	0	0	0	51
Hourly Total	0	0	0	0	0	1	1	53	131	58	12	0	0	0	0	256
09:00	0	0	0	0	0	0	0	1	24	12	3	2	1	0	0	43

09:15	0	0	0	0	0	0	2	5	19	11	1	0	0	0	0	38
09:30	0	0	0	0	1	0	1	5	17	18	1	0	0	0	0	43
09:45	0	0	0	0	0	0	0	6	24	9	4	0	0	0	0	43
Hourly Total	0	0	0	0	1	0	3	17	84	50	9	2	1	0	0	167
10:00	0	0	0	0	0	0	0	10	20	6	0	0	0	0	0	36
10:15	0	0	0	0	0	0	0	6	22	11	2	0	0	0	0	41
10:30	0	0	0	0	0	0	3	14	15	6	0	0	0	0	0	38
10:45	0	0	0	0	0	0	0	8	23	11	0	1	0	0	0	43
Hourly Total	0	0	0	0	0	0	3	38	80	34	2	1	0	0	0	158
11:00	0	0	0	0	0	0	1	8	25	12	1	1	0	0	0	48
11:15	0	0	0	0	0	0	1	8	25	11	5	0	0	0	0	50
11:30	0	0	0	0	0	0	1	11	31	13	5	0	0	0	0	61
11:45	0	0	0	0	0	1	3	6	32	10	2	0	0	0	0	54
Hourly Total	0	0	0	0	0	1	6	33	113	46	13	1	0	0	0	213
12:00	0	0	0	0	0	0	0	6	19	10	3	0	0	0	0	38
12:15	0	0	0	0	0	0	1	14	19	17	0	0	0	0	0	51
12:30	0	0	0	0	0	1	2	8	15	12	5	0	0	0	0	43
12:45	0	0	0	0	0	0	0	6	27	9	1	1	0	0	0	44
Hourly Total	0	0	0	0	0	1	3	34	80	48	9	1	0	0	0	176
13:00	0	0	0	0	0	0	1	12	19	13	0	0	0	0	0	45
13:15	0	0	0	0	0	0	1	15	21	6	4	0	0	0	0	47
13:30	0	0	0	0	0	0	0	4	18	10	1	1	0	0	0	34
13:45	0	0	0	0	0	0	0	3	19	13	4	1	0	0	0	40
Hourly Total	0	0	0	0	0	0	2	34	77	42	9	2	0	0	0	166
14:00	0	0	0	0	0	1	3	10	15	16	0	0	0	0	0	45
14:15	0	0	0	0	0	0	0	6	17	16	1	0	0	0	0	40
14:30	0	0	0	0	0	0	0	6	30	11	2	1	0	0	0	50
14:45	0	0	0	0	0	0	0	6	22	15	6	1	0	0	0	50
Hourly Total	0	0	0	0	0	1	3	28	84	58	9	2	0	0	0	185

15:00	0	0	0	0	0	0	1	5	29	12	8	0	0	0	0	55
15:15	0	0	0	0	0	0	0	6	33	23	5	1	0	0	0	68
15:30	0	0	0	0	0	0	1	17	54	28	1	0	0	0	0	101
15:45	0	0	0	0	0	0	0	23	33	22	3	1	0	0	0	82
Hourly Total	0	0	0	0	0	0	2	51	149	85	17	2	0	0	0	306
16:00	0	0	1	0	1	3	1	11	36	26	3	0	0	0	0	82
16:15	0	0	0	0	0	0	1	11	44	29	1	1	0	0	0	87
16:30	0	0	0	0	0	0	0	10	36	23	6	1	0	0	0	76
16:45	0	0	0	0	0	0	1	11	40	30	3	0	0	0	0	85
Hourly Total	0	0	1	0	1	3	3	43	156	108	13	2	0	0	0	330
17:00	0	0	0	0	0	0	0	4	30	32	8	0	0	0	0	74
17:15	0	0	0	0	0	0	1	16	48	20	0	1	0	0	0	86
17:30	0	0	0	0	0	0	0	6	44	22	2	0	0	0	0	74
17:45	0	0	0	0	0	0	0	6	46	32	4	2	0	0	0	90
Hourly Total	0	0	0	0	0	0	1	32	168	106	14	3	0	0	0	324
18:00	0	0	0	0	0	0	0	11	32	19	1	0	0	0	0	63
18:15	0	0	0	0	0	0	1	10	38	17	2	0	0	0	0	68
18:30	0	0	0	0	0	0	2	10	31	20	2	0	0	0	0	65
18:45	0	0	0	0	0	0	0	5	21	15	4	0	0	0	0	45
Hourly Total	0	0	0	0	0	0	3	36	122	71	9	0	0	0	0	241
19:00	0	0	0	0	0	0	1	2	22	14	3	1	0	0	0	43
19:15	0	0	0	0	0	0	1	3	16	15	1	0	0	0	0	36
19:30	0	0	0	0	0	0	0	2	19	11	1	0	0	0	0	33
19:45	0	0	0	0	0	0	0	8	12	14	2	0	0	0	0	36
Hourly Total	0	0	0	0	0	0	2	15	69	54	7	1	0	0	0	148
20:00	0	0	0	0	0	0	0	8	16	12	1	0	0	0	0	37
20:15	0	0	0	0	0	0	1	2	31	5	2	0	0	0	0	41
20:30	0	0	0	0	0	0	1	5	11	5	1	0	0	0	0	23
20:45	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	4

Hourly Total	0	0	0	0	0	0	2	17	58	24	4	0	0	0	0	105
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Study Total	1	3	3	5	3	9	36	478	1620	922	146	19	1	0	0	3246

Direction	Southbound
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Traffic Count by Speed: Daily Total																
Date	Speed (mph)															
	0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	> 70	Total
05/15/2025	0	0	0	1	8	7	18	266	1780	2491	715	102	9	3	4	5404
05/16/2025	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Study Total	0	0	0	1	8	7	18	266	1780	2491	715	102	9	3	4	5404

Traffic Count by Speed: 15 minute bins																
Date: 05/15/2025	Speed (mph)															
Time	0-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	> 70	Total
00:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
00:15	0	0	0	0	0	0	0	1	1	0	2	1	0	0	0	5
00:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
00:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Hourly Total	0	0	0	0	1	0	0	1	4	0	2	1	0	0	0	9
01:00	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	4
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	1	0	1	1	1	0	0	1	5
02:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
02:15	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	3
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Hourly Total	0	0	0	0	0	0	0	2	1	1	1	1	0	0	0	6
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1

03:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
03:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Hourly Total	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
04:00	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4
04:15	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0	5
04:30	0	0	0	0	0	0	0	3	4	0	1	0	0	0	0	8
04:45	0	0	0	0	0	0	0	0	4	2	1	0	0	0	0	7
Hourly Total	0	0	0	0	0	0	0	3	12	4	4	1	0	0	0	24
05:00	0	0	0	0	0	0	0	0	0	3	1	1	0	0	0	5
05:15	0	0	0	0	0	0	0	0	3	8	1	3	0	0	0	15
05:30	0	0	0	0	0	0	0	4	9	13	6	0	0	0	0	32
05:45	0	0	0	0	0	0	0	1	8	12	5	1	0	0	0	27
Hourly Total	0	0	0	0	0	0	0	5	20	36	13	5	0	0	0	79
06:00	0	0	0	0	0	0	0	0	11	20	9	0	0	0	0	40
06:15	0	0	0	0	0	0	0	0	13	29	13	0	0	0	0	55
06:30	0	0	0	0	6	2	2	1	8	23	8	0	0	0	0	50
06:45	0	0	0	0	0	0	0	1	18	40	8	2	0	0	0	69
Hourly Total	0	0	0	0	6	2	2	2	50	112	38	2	0	0	0	214
07:00	0	0	0	0	0	0	0	0	22	36	17	4	1	0	0	80
07:15	0	0	0	0	0	1	1	2	32	65	19	1	0	0	0	121
07:30	0	0	0	0	0	0	1	13	38	56	16	2	1	1	0	128
07:45	0	0	0	0	0	0	0	3	41	68	20	2	0	0	0	134
Hourly Total	0	0	0	0	0	1	2	18	133	225	72	9	2	1	0	463
08:00	0	0	0	0	0	0	1	7	43	54	16	1	0	0	0	122
08:15	0	0	0	0	0	0	1	1	34	34	9	1	0	0	0	80
08:30	0	0	0	0	0	0	0	2	26	39	4	2	0	0	0	73
08:45	0	0	0	0	0	0	0	0	16	27	10	2	0	0	0	55
Hourly Total	0	0	0	0	0	0	2	10	119	154	39	6	0	0	0	330
09:00	0	0	0	0	0	0	0	3	13	28	11	1	0	0	0	56

09:15	0	0	0	0	0	0	0	3	16	29	13	2	0	0	0	63
09:30	0	0	0	0	0	0	0	2	13	14	16	1	0	0	0	46
09:45	0	0	0	0	0	0	0	2	13	32	9	2	0	0	0	58
Hourly Total	0	0	0	0	0	0	0	10	55	103	49	6	0	0	0	223
10:00	0	0	0	0	0	0	0	2	15	29	8	3	0	0	0	57
10:15	0	0	0	0	0	0	0	2	15	28	7	1	0	0	0	53
10:30	0	0	0	0	0	0	0	1	15	20	14	0	0	0	0	50
10:45	0	0	0	0	0	1	0	6	27	22	6	2	0	0	0	64
Hourly Total	0	0	0	0	0	1	0	11	72	99	35	6	0	0	0	224
11:00	0	0	0	0	0	0	0	4	23	28	9	1	0	0	0	65
11:15	0	0	0	0	0	0	0	0	19	39	7	1	0	0	0	66
11:30	0	0	0	0	0	0	0	8	25	44	13	2	0	0	0	92
11:45	0	0	0	0	0	0	0	8	20	34	5	1	0	0	0	68
Hourly Total	0	0	0	0	0	0	0	20	87	145	34	5	0	0	0	291
12:00	0	0	0	0	0	0	1	3	38	35	10	0	0	0	0	87
12:15	0	0	0	0	0	0	0	4	21	36	17	0	1	0	0	79
12:30	0	0	0	0	0	1	1	5	23	47	6	2	0	0	0	85
12:45	0	0	0	0	0	0	0	2	25	29	9	0	0	0	0	65
Hourly Total	0	0	0	0	0	1	2	14	107	147	42	2	1	0	0	316
13:00	0	0	0	1	1	0	1	7	38	24	2	1	0	0	0	75
13:15	0	0	0	0	0	0	0	9	40	26	4	0	0	0	0	79
13:30	0	0	0	0	0	0	1	14	35	24	1	0	0	0	0	75
13:45	0	0	0	0	0	0	0	5	16	36	8	3	2	0	0	70
Hourly Total	0	0	0	1	1	0	2	35	129	110	15	4	2	0	0	299
14:00	0	0	0	0	0	0	0	1	17	43	6	1	0	0	0	68
14:15	0	0	0	0	0	0	0	1	20	38	15	3	0	0	0	77
14:30	0	0	0	0	0	0	0	3	36	42	12	1	0	0	0	94
14:45	0	0	0	0	0	0	0	5	50	44	21	2	0	0	0	122
Hourly Total	0	0	0	0	0	0	0	10	123	167	54	7	0	0	0	361

15:00	0	0	0	0	0	0	0	2	33	46	19	2	0	0	0	102
15:15	0	0	0	0	0	0	1	12	36	65	11	1	0	0	0	126
15:30	0	0	0	0	0	0	0	5	43	57	15	0	0	1	0	121
15:45	0	0	0	0	0	0	0	2	57	66	11	2	0	0	0	138
Hourly Total	0	0	0	0	0	0	1	21	169	234	56	5	0	1	0	487
16:00	0	0	0	0	0	0	1	14	46	70	13	1	0	0	0	145
16:15	0	0	0	0	0	0	3	10	39	51	19	1	0	0	0	123
16:30	0	0	0	0	0	0	0	2	41	64	22	5	0	0	0	134
16:45	0	0	0	0	0	0	0	9	55	75	16	4	1	0	0	160
Hourly Total	0	0	0	0	0	0	4	35	181	260	70	11	1	0	0	562
17:00	0	0	0	0	0	0	0	1	52	75	11	0	0	0	1	140
17:15	0	0	0	0	0	0	0	4	42	74	15	1	1	0	0	137
17:30	0	0	0	0	0	0	0	5	45	67	4	2	0	0	0	123
17:45	0	0	0	0	0	0	0	5	27	46	20	3	0	0	0	101
Hourly Total	0	0	0	0	0	0	0	15	166	262	50	6	1	0	1	501
18:00	0	0	0	0	0	0	0	3	19	65	14	1	0	0	0	102
18:15	0	0	0	0	0	0	0	1	19	58	11	4	0	0	0	93
18:30	0	0	0	0	0	0	0	1	28	40	11	3	0	0	0	83
18:45	0	0	0	0	0	1	0	7	27	26	6	4	0	0	0	71
Hourly Total	0	0	0	0	0	1	0	12	93	189	42	12	0	0	0	349
19:00	0	0	0	0	0	0	0	0	36	30	8	3	2	0	0	79
19:15	0	0	0	0	0	0	1	2	21	23	8	2	0	0	0	57
19:30	0	0	0	0	0	0	0	4	20	23	7	0	0	0	0	54
19:45	0	0	0	0	0	0	0	5	19	23	10	0	0	0	0	57
Hourly Total	0	0	0	0	0	0	1	11	96	99	33	5	2	0	0	247
20:00	0	0	0	0	0	0	0	2	21	27	15	0	0	0	0	65
20:15	0	0	0	0	0	0	0	0	18	24	13	2	0	0	0	57
20:30	0	0	0	0	0	0	0	6	30	20	3	1	0	0	0	60
20:45	0	0	0	0	0	0	0	5	12	16	4	1	0	1	0	39

Hourly Total	0	0	0	0	0	0	0	13	81	87	35	4	0	1	0	221
21:00	0	0	0	0	0	0	0	4	19	8	4	0	0	0	1	36
21:15	0	0	0	0	0	0	0	1	18	17	4	0	0	0	1	41
21:30	0	0	0	0	0	0	0	0	11	8	2	1	0	0	0	22
21:45	0	0	0	0	0	0	1	1	10	8	1	0	0	0	0	21
Hourly Total	0	0	0	0	0	0	1	6	58	41	11	1	0	0	2	120
22:00	0	0	0	0	0	0	0	2	8	4	4	1	0	0	0	19
22:15	0	0	0	0	0	0	0	3	6	3	3	0	0	0	0	15
22:30	0	0	0	0	0	0	0	0	1	2	2	0	0	0	0	5
22:45	0	0	0	0	0	1	1	2	1	2	3	0	0	0	0	10
Hourly Total	0	0	0	0	0	1	1	7	16	11	12	1	0	0	0	49
23:00	0	0	0	0	0	0	0	3	2	1	2	0	0	0	0	8
23:15	0	0	0	0	0	0	0	1	2	1	1	1	0	0	0	6
23:30	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	4
23:45	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	3
Hourly Total	0	0	0	0	0	0	0	4	6	3	7	1	0	0	0	21
Study Total	0	0	0	1	8	7	18	266	1780	2491	715	102	9	3	4	5404

APPENDIX C

TRIP GENERATION AND DISTRIBUTION



Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban

Number of Studies: 192

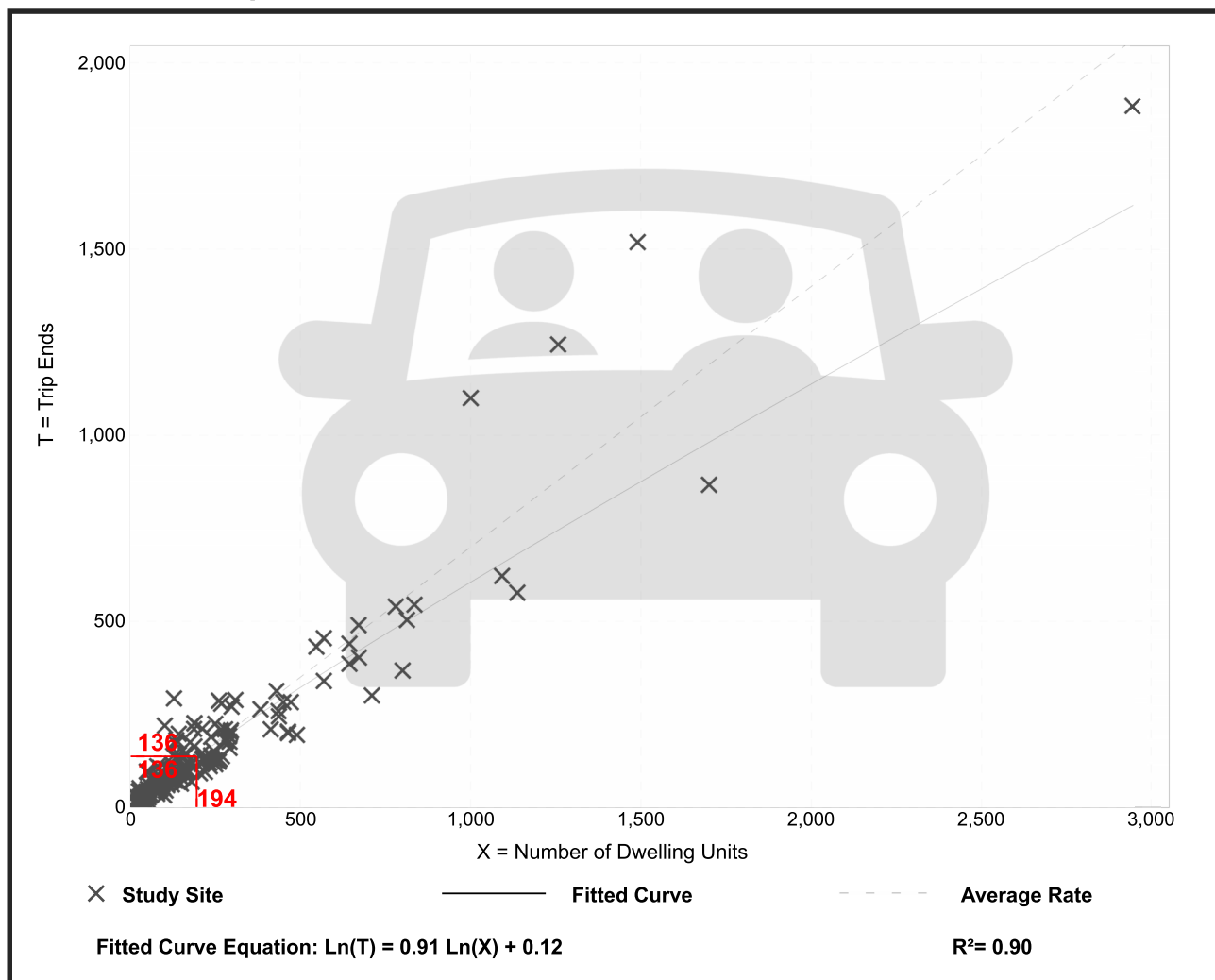
Avg. Num. of Dwelling Units: 226

Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



Calculated Trip Ends:

Average Rate: 136 (Total), 34 (Entry), 102 (Exit)

Fitted Curve: 136 (Total), 34 (Entry), 102 (Exit)

Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban

Number of Studies: 208

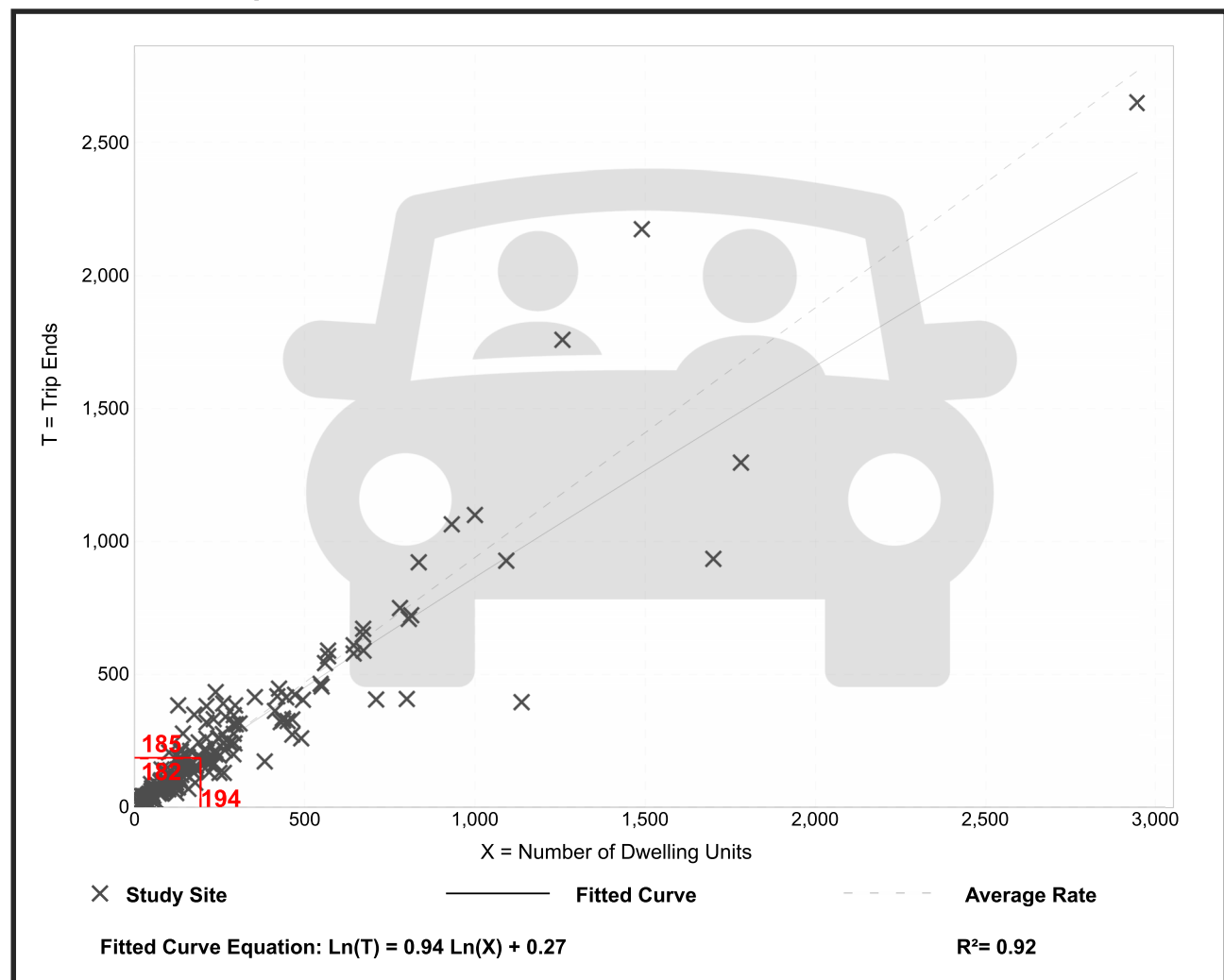
Avg. Num. of Dwelling Units: 248

Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

Data Plot and Equation



Calculated Trip Ends:

Average Rate: 182 (Total), 115 (Entry), 67 (Exit)

Fitted Curve: 185 (Total), 117 (Entry), 68 (Exit)

Single-Family Detached Housing (210)

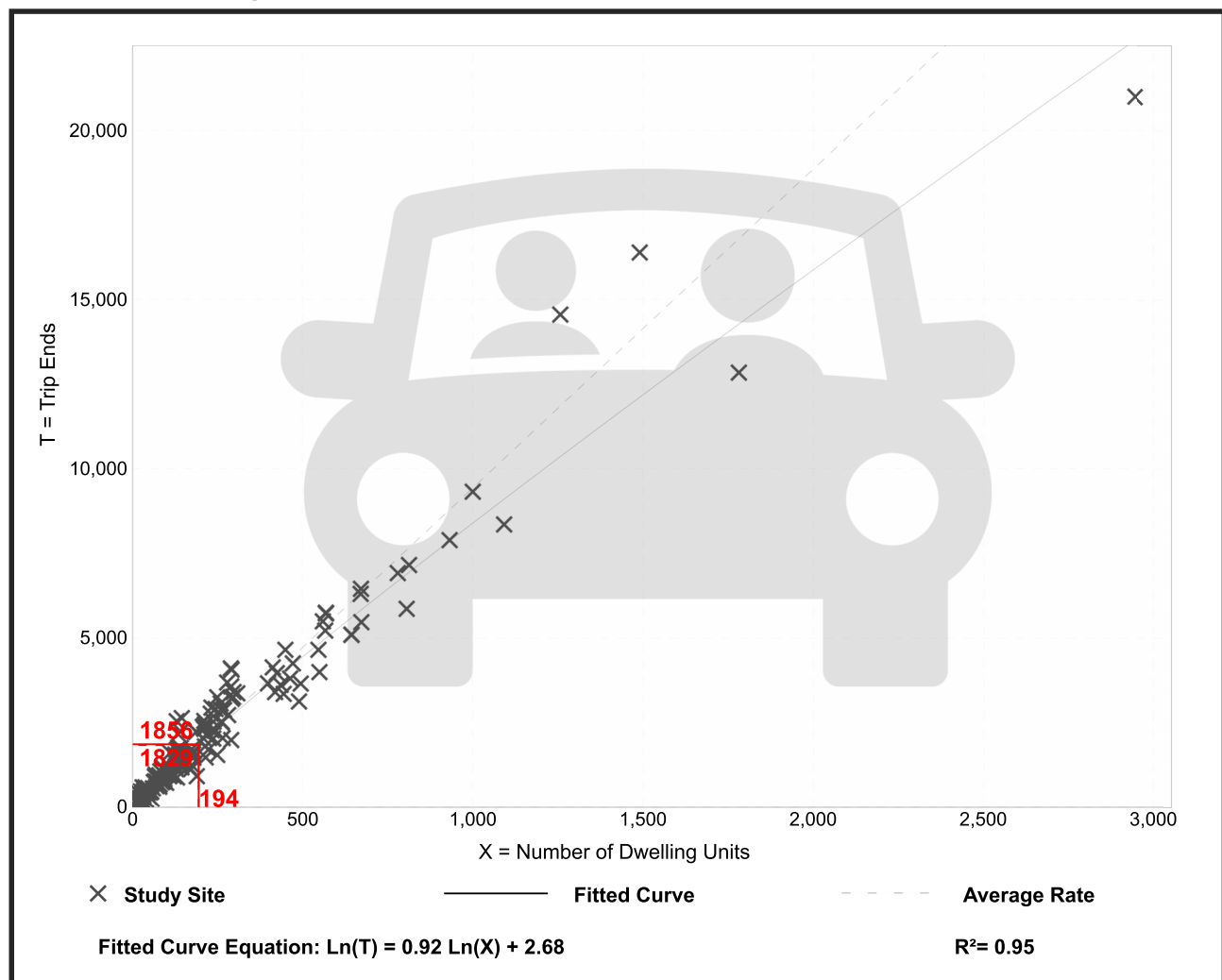
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



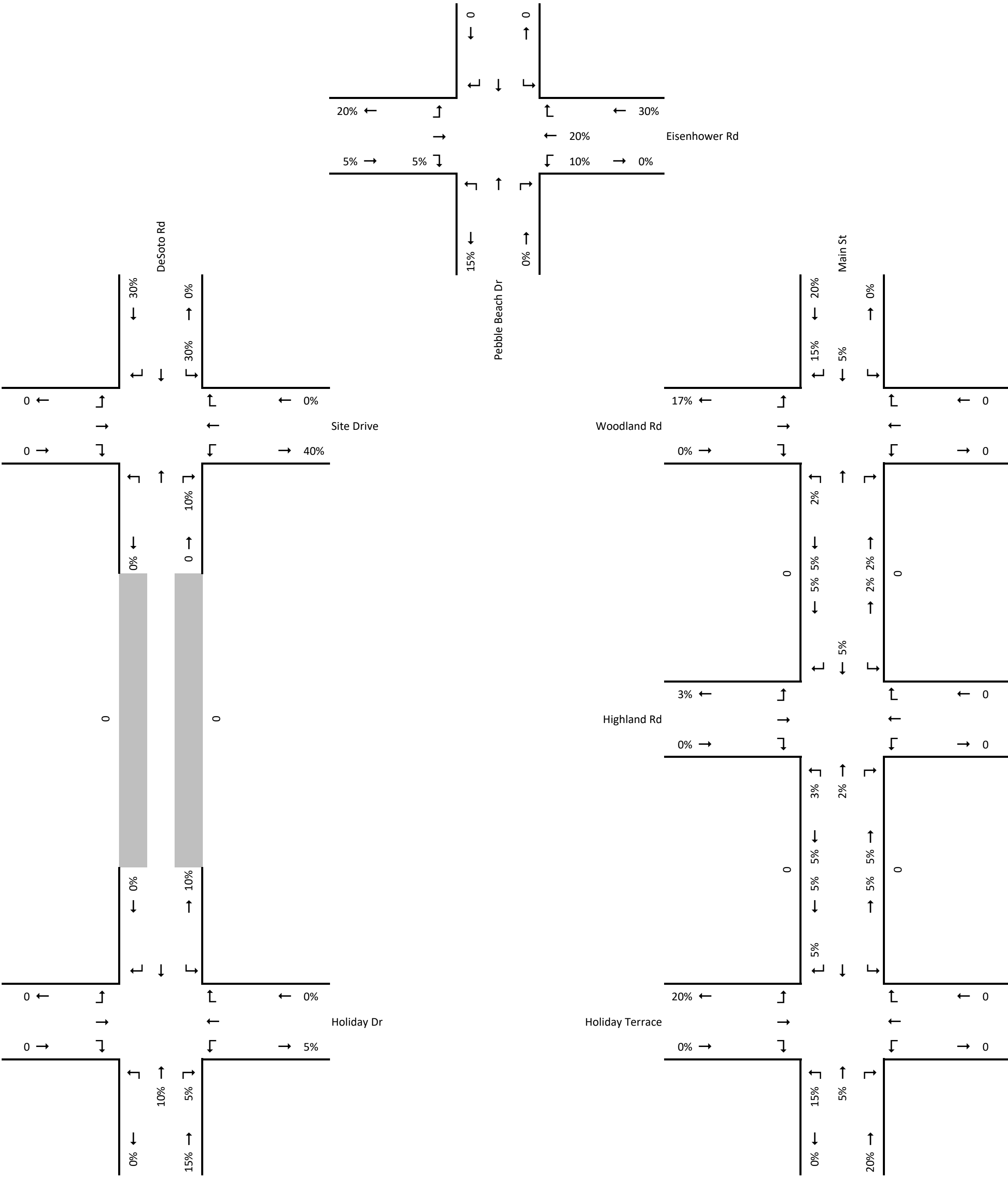
Calculated Trip Ends:

Average Rate: 1829 (Total), 915 (Entry), 914 (Exit)

Fitted Curve: 1856 (Total), 928 (Entry), 928 (Exit)

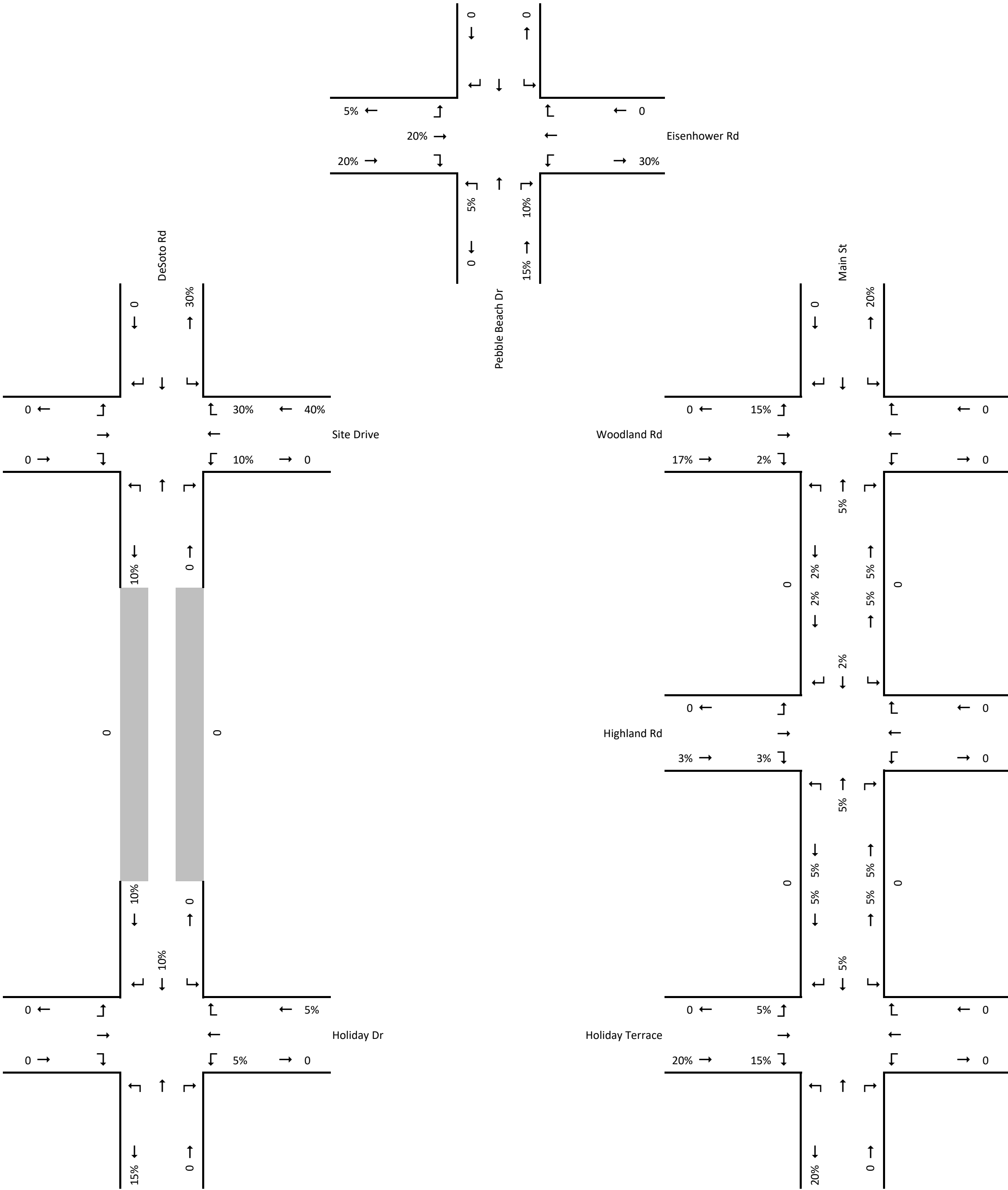
Monroe Manor
Lansing, Kansas

Trip Distribution
Inbound



Monroe Manor
Lansing, Kansas

Trip Distribution
Outbound



APPENDIX D

CAPACITY ANALYSIS OUTPUT FILES



Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	79	424	18	27	479
Future Vol, veh/h	24	79	424	18	27	479
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	50	-	-	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	3	2	17	2	2
Mvmt Flow	25	81	437	19	28	494

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	996	446	0	0	456	0
Stage 1	446	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Critical Hdwy	6.42	6.23	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.327	-	-	2.218	-
Pot Cap-1 Maneuver	271	610	-	-	1105	-
Stage 1	645	-	-	-	-	-
Stage 2	578	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	264	610	-	-	1105	-
Mov Cap-2 Maneuver	264	-	-	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	564	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	13.73	0	0.45
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	264 610	1105	-
HCM Lane V/C Ratio	-	-	0.094 0.134	0.025	-
HCM Ctrl Dly (s/v)	-	-	20 11.8	8.3	-
HCM Lane LOS	-	-	C B	A	-
HCM 95th %tile Q(veh)	-	-	0.3 0.5	0.1	-

HCM 7th TWSC
3: Pebble Beach Dr & Eisenhower Rd

Monroe Manor TIS
Existing Conditions AM Peak Hour

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	670	12	9	340	19	22
Future Vol, veh/h	670	12	9	340	19	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	8	11	3	2	2
Mvmt Flow	684	12	9	347	19	22
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	696	0	882	348
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	192	-
Critical Hdwy	-	-	4.32	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.31	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	838	-	286	648
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	822	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	838	-	282	648
Mov Cap-2 Maneuver	-	-	-	-	282	-
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	812	-
Approach	EB		WB		NB	
HCM Ctrl Dly, s/v	0		0.35		14.91	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	405	-	-	93	-	
HCM Lane V/C Ratio	0.103	-	-	0.011	-	
HCM Ctrl Dly (s/v)	14.9	-	-	9.3	0.1	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.3	-	-	0	-	

HCM 7th TWSC
4: Main St & Woodland St

Monroe Manor TIS
Existing Conditions AM Peak Hour

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	12	11	4	1064	838	3
Future Vol, veh/h	12	11	4	1064	838	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	9	25	4	6	2
Mvmt Flow	13	12	4	1120	882	3
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1452	443	885	0	-	0
Stage 1	884	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Critical Hdwy	6.84	7.08	4.6	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.39	2.45	-	-	-
Pot Cap-1 Maneuver	121	544	631	-	-	-
Stage 1	364	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	121	544	631	-	-	-
Mov Cap-2 Maneuver	249	-	-	-	-	-
Stage 1	362	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	16.55	0.04		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	631	-	336	-	-	
HCM Lane V/C Ratio	0.007	-	0.072	-	-	
HCM Ctrl Dly (s/v)	10.7	-	16.6	-	-	
HCM Lane LOS	B	-	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.2	-	-	

HCM 7th TWSC
5: Main St & Highland Rd

Monroe Manor TIS
Existing Conditions AM Peak Hour

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	10	0	12	6	0	17	10	1041	4	10	838	1
Future Vol, veh/h	10	0	12	6	0	17	10	1041	4	10	838	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	10	2	2	2	2	12	10	5	25	2	6	2
Mvmt Flow	11	0	13	6	0	18	11	1107	4	11	891	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1488	2046	446	1598	2045	556	893	0	0	1112	0	0
Stage 1	913	913	-	1131	1131	-	-	-	-	-	-	-
Stage 2	575	1133	-	467	914	-	-	-	-	-	-	-
Critical Hdwy	7.7	6.54	6.94	7.54	6.54	7.14	4.3	-	-	4.14	-	-
Critical Hdwy Stg 1	6.7	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.6	4.02	3.32	3.52	4.02	3.42	2.3	-	-	2.22	-	-
Pot Cap-1 Maneuver	80	55	560	71	55	450	707	-	-	624	-	-
Stage 1	279	350	-	217	277	-	-	-	-	-	-	-
Stage 2	451	276	-	545	350	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	74	54	560	67	54	450	707	-	-	624	-	-
Mov Cap-2 Maneuver	183	160	-	162	161	-	-	-	-	-	-	-
Stage 1	274	344	-	213	273	-	-	-	-	-	-	-
Stage 2	426	272	-	524	344	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	18.56		17.73		0.1		0.13	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	707	-	-	289	307	624	-	-
HCM Lane V/C Ratio	0.015	-	-	0.081	0.08	0.017	-	-
HCM Ctrl Dly (s/v)	10.2	-	-	18.6	17.7	10.9	-	-
HCM Lane LOS	B	-	-	C	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0.1	-	-

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	10	0	12	0	0	1	7	1044	18	1	835	20
Future Vol, veh/h	10	0	12	0	0	1	7	1044	18	1	835	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	17	2	2	2	29	5	6	2	6	2
Mvmt Flow	11	0	13	0	0	1	7	1099	19	1	879	21

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1456	2024	450	1565	2025	559	900	0	0	1118	0	0
Stage 1	892	892	-	1123	1123	-	-	-	-	-	-	-
Stage 2	564	1133	-	442	902	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	7.24	7.54	6.54	6.94	4.68	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.47	3.52	4.02	3.32	2.49	-	-	2.22	-	-
Pot Cap-1 Maneuver	91	57	517	75	57	472	603	-	-	621	-	-
Stage 1	303	359	-	219	279	-	-	-	-	-	-	-
Stage 2	477	276	-	565	355	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	89	56	517	72	56	472	603	-	-	621	-	-
Mov Cap-2 Maneuver	206	166	-	167	165	-	-	-	-	-	-	-
Stage 1	303	358	-	216	276	-	-	-	-	-	-	-
Stage 2	471	273	-	550	354	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	17.68		12.64		0.07		0.01	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	603	-	-	307	472	621	-	-
HCM Lane V/C Ratio	0.012	-	-	0.075	0.002	0.002	-	-
HCM Ctrl Dly (s/v)	11	-	-	17.7	12.6	10.8	-	-
HCM Lane LOS	B	-	-	C	B	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	76	444	13	96	477
Future Vol, veh/h	16	76	444	13	96	477
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	50	-	-	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	80	467	14	101	502

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1178	474	0	0	481	0
Stage 1	474	-	-	-	-	-
Stage 2	704	-	-	-	-	-
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	211	590	-	-	1081	-
Stage 1	626	-	-	-	-	-
Stage 2	490	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	191	590	-	-	1081	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	626	-	-	-	-	-
Stage 2	444	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.42	0	1.45
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	191	590	1081
HCM Lane V/C Ratio	-	-	0.088	0.136	0.093
HCM Ctrl Dly (s/v)	-	-	25.7	12.1	8.7
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.5	0.3

HCM 7th TWSC
3: Pebble Beach Dr & Eisenhower Rd

Monroe Manor TIS
Existing Conditions PM Peak Hour

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Vol, veh/h	462	38	47	919	16	18
Future Vol, veh/h	462	38	47	919	16	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	519	43	53	1033	18	20

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	562	0	1162	281
Stage 1	-	-	-	-	540	-
Stage 2	-	-	-	-	622	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1006	-	188	716
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1006	-	174	716
Mov Cap-2 Maneuver	-	-	-	-	174	-
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	461	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.98	19.25
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	291	-	-	175	-
HCM Lane V/C Ratio	0.131	-	-	0.053	-
HCM Ctrl Dly (s/v)	19.3	-	-	8.8	0.6
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

HCM 7th TWSC
4: Main St & Woodland St

Monroe Manor TIS
Existing Conditions PM Peak Hour

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	8	14	1098	1295	10
Future Vol, veh/h	10	8	14	1098	1295	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	11	9	15	1181	1392	11
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2018	702	1403	0	-	0
Stage 1	1398	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Critical Hdwy	6.84	7.16	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.43	2.22	-	-	-
Pot Cap-1 Maneuver	51	357	483	-	-	-
Stage 1	194	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	49	357	483	-	-	-
Mov Cap-2 Maneuver	142	-	-	-	-	-
Stage 1	188	-	-	-	-	-
Stage 2	499	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	25.65	0.16		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	483	-	194	-	-	
HCM Lane V/C Ratio	0.031	-	0.1	-	-	
HCM Ctrl Dly (s/v)	12.7	-	25.6	-	-	
HCM Lane LOS	B	-	D	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-	

HCM 7th TWSC
5: Main St & Highland Rd

Monroe Manor TIS
Existing Conditions PM Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	5	0	12	3	0	17	7	1090	10	15	1280	8
Future Vol, veh/h	5	0	12	3	0	17	7	1090	10	15	1280	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	13	3	0	18	8	1172	11	16	1376	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2014	2611	692	1913	2610	591	1385	0	0	1183	0	0
Stage 1	1413	1413	-	1192	1192	-	-	-	-	-	-	-
Stage 2	601	1198	-	720	1417	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	34	24	386	41	24	450	490	-	-	586	-	-
Stage 1	145	202	-	199	259	-	-	-	-	-	-	-
Stage 2	454	257	-	385	201	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	32	23	386	38	23	450	490	-	-	586	-	-
Mov Cap-2 Maneuver	106	109	-	131	109	-	-	-	-	-	-	-
Stage 1	141	197	-	195	255	-	-	-	-	-	-	-
Stage 2	429	253	-	362	196	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	23.04		16.7		0.08		0.13	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	490	-	-	218 329	586	-	-
HCM Lane V/C Ratio	0.015	-	-	0.084 0.065	0.028	-	-
HCM Ctrl Dly (s/v)	12.5	-	-	23 16.7	11.3	-	-
HCM Lane LOS	B	-	-	C C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3 0.2	0.1	-	-

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	31	1	17	1	0	2	22	1074	8	3	1235	57
Future Vol, veh/h	31	1	17	1	0	2	22	1074	8	3	1235	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	33	1	18	1	0	2	24	1155	9	3	1328	61

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1990	2576	695	1877	2602	582	1389	0	0	1163	0	0
Stage 1	1365	1365	-	1206	1206	-	-	-	-	-	-	-
Stage 2	625	1211	-	671	1396	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	36	25	385	44	24	456	489	-	-	596	-	-
Stage 1	155	214	-	195	255	-	-	-	-	-	-	-
Stage 2	439	253	-	412	206	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	34	24	385	39	23	456	489	-	-	596	-	-
Mov Cap-2 Maneuver	114	113	-	128	105	-	-	-	-	-	-	-
Stage 1	154	212	-	185	242	-	-	-	-	-	-	-
Stage 2	416	241	-	389	205	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	41.03		19.85		0.25		0.03	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	489	-	-	151 246	596	-	-
HCM Lane V/C Ratio	0.048	-	-	0.348 0.013	0.005	-	-
HCM Ctrl Dly (s/v)	12.7	-	-	41 19.8	11.1	-	-
HCM Lane LOS	B	-	-	E C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.4 0	0	-	-

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	79	427	20	27	489
Future Vol, veh/h	29	79	427	20	27	489
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	50	-	-	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	3	2	17	2	2
Mvmt Flow	30	81	440	21	28	504

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1010	451	0	0	461	0
Stage 1	451	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Critical Hdwy	6.42	6.23	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.327	-	-	2.218	-
Pot Cap-1 Maneuver	266	607	-	-	1100	-
Stage 1	642	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	259	607	-	-	1100	-
Mov Cap-2 Maneuver	259	-	-	-	-	-
Stage 1	642	-	-	-	-	-
Stage 2	557	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.23	0	0.44
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	259 607	1100	-
HCM Lane V/C Ratio	-	-	0.115 0.134	0.025	-
HCM Ctrl Dly (s/v)	-	-	20.7 11.9	8.4	-
HCM Lane LOS	-	-	C B	A	-
HCM 95th %tile Q(veh)	-	-	0.4 0.5	0.1	-

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	32	503	3	10	506
Future Vol, veh/h	10	32	503	3	10	506
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	33	519	3	10	522

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1062	520	0	0	522
Stage 1	520	-	-	-	-
Stage 2	542	-	-	-	-
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	247	556	-	-	1045
Stage 1	597	-	-	-	-
Stage 2	583	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	245	556	-	-	1045
Mov Cap-2 Maneuver	245	-	-	-	-
Stage 1	597	-	-	-	-
Stage 2	577	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	14.38	0	0.16
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	427	1045
HCM Lane V/C Ratio	-	-	0.101	0.01
HCM Ctrl Dly (s/v)	-	-	14.4	8.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection

Int Delay, s/veh 0.9

Movement EBT EBR WBL WBT NBL NBRLane Configurations 

Traffic Vol, veh/h 690 14 12 347 24 32

Future Vol, veh/h 690 14 12 347 24 32

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Free Free Free Free Stop Stop

RT Channelized - None - None - None

Storage Length - - - - 0 -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 98 98 98 98 98 98

Heavy Vehicles, % 2 8 11 3 2 2

Mvmt Flow 704 14 12 354 24 33

Major/Minor Major1 Major2 Minor1

Conflicting Flow All 0 0 718 0 913 359

Stage 1 - - - - 711 -

Stage 2 - - - - 202 -

Critical Hdwy - - 4.32 - 6.84 6.94

Critical Hdwy Stg 1 - - - - 5.84 -

Critical Hdwy Stg 2 - - - - 5.84 -

Follow-up Hdwy - - 2.31 - 3.52 3.32

Pot Cap-1 Maneuver - - 821 - 273 637

Stage 1 - - - - 448 -

Stage 2 - - - - 813 -

Platoon blocked, % - - - - -

Mov Cap-1 Maneuver - - 821 - 268 637

Mov Cap-2 Maneuver - - - - 268 -

Stage 1 - - - - 448 -

Stage 2 - - - - 799 -

Approach EB WB NB

HCM Ctrl Dly, s/v 0 0.46 15.46

HCM LOS C

Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT

Capacity (veh/h) 401 - - 120 -

HCM Lane V/C Ratio 0.142 - - 0.015 -

HCM Ctrl Dly (s/v) 15.5 - - 9.4 0.1

HCM Lane LOS C - - A A

HCM 95th %tile Q(veh) 0.5 - - 0 -

HCM 7th TWSC
4: Main St & Woodland St

Monroe Manor TIS
Existing+Site Conditions AM Peak Hour

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	27	13	5	1069	840	8
Future Vol, veh/h	27	13	5	1069	840	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	9	25	4	6	2
Mvmt Flow	28	14	5	1125	884	8
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1462	446	893	0	-	0
Stage 1	888	-	-	-	-	-
Stage 2	573	-	-	-	-	-
Critical Hdwy	6.84	7.08	4.6	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.39	2.45	-	-	-
Pot Cap-1 Maneuver	120	541	627	-	-	-
Stage 1	362	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	119	541	627	-	-	-
Mov Cap-2 Maneuver	246	-	-	-	-	-
Stage 1	359	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Approach	EB		NB		SB	
HCM Ctrl Dly, s/v	18.98		0.05		0	
HCM LOS	C					
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	SBT	SBR
Capacity (veh/h)	627		-	299	-	-
HCM Lane V/C Ratio	0.008		-	0.141	-	-
HCM Ctrl Dly (s/v)	10.8		-	19	-	-
HCM Lane LOS	B		-	C	-	-
HCM 95th %tile Q(veh)	0		-	0.5	-	-

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	10	0	15	6	0	17	11	1047	4	10	842	1
Future Vol, veh/h	10	0	15	6	0	17	11	1047	4	10	842	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	10	2	2	2	2	12	10	5	25	2	6	2
Mvmt Flow	11	0	16	6	0	18	12	1114	4	11	896	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1498	2059	448	1609	2057	559	897	0	0	1118	0	0
Stage 1	918	918	-	1139	1139	-	-	-	-	-	-	-
Stage 2	580	1141	-	469	918	-	-	-	-	-	-	-
Critical Hdwy	7.7	6.54	6.94	7.54	6.54	7.14	4.3	-	-	4.14	-	-
Critical Hdwy Stg 1	6.7	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.6	4.02	3.32	3.52	4.02	3.42	2.3	-	-	2.22	-	-
Pot Cap-1 Maneuver	78	54	558	70	54	448	704	-	-	620	-	-
Stage 1	277	349	-	214	274	-	-	-	-	-	-	-
Stage 2	448	274	-	544	349	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	73	53	558	66	53	448	704	-	-	620	-	-
Mov Cap-2 Maneuver	181	158	-	159	159	-	-	-	-	-	-	-
Stage 1	272	343	-	210	270	-	-	-	-	-	-	-
Stage 2	422	269	-	519	343	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	17.96		17.86		0.11		0.13	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	704	-	-	304	304	620	-
HCM Lane V/C Ratio	0.017	-	-	0.087	0.08	0.017	-
HCM Ctrl Dly (s/v)	10.2	-	-	18	17.9	10.9	-
HCM Lane LOS	B	-	-	C	C	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.3	0.1	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	15	0	27	0	0	1	12	1046	18	1	840	22
Future Vol, veh/h	15	0	27	0	0	1	12	1046	18	1	840	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	17	2	2	2	29	5	6	2	6	2
Mvmt Flow	16	0	28	0	0	1	13	1101	19	1	884	23

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1474	2043	454	1580	2045	560	907	0	0	1120	0	0
Stage 1	898	898	-	1136	1136	-	-	-	-	-	-	-
Stage 2	576	1145	-	444	909	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	7.24	7.54	6.54	6.94	4.68	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.47	3.52	4.02	3.32	2.49	-	-	2.22	-	-
Pot Cap-1 Maneuver	88	56	514	73	55	472	598	-	-	619	-	-
Stage 1	301	356	-	215	275	-	-	-	-	-	-	-
Stage 2	470	272	-	563	352	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	86	54	514	68	54	472	598	-	-	619	-	-
Mov Cap-2 Maneuver	203	163	-	161	161	-	-	-	-	-	-	-
Stage 1	300	356	-	211	269	-	-	-	-	-	-	-
Stage 2	459	267	-	531	351	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	17.51		12.65		0.12		0.01	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	598	-	-	332 472	619	-	-
HCM Lane V/C Ratio	0.021	-	-	0.133 0.002	0.002	-	-
HCM Ctrl Dly (s/v)	11.1	-	-	17.5 12.6	10.8	-	-
HCM Lane LOS	B	-	-	C B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5 0	0	-	-

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	76	456	19	96	484
Future Vol, veh/h	20	76	456	19	96	484
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	50	-	-	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	80	480	20	101	509

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1202	490	0	0	500	0
Stage 1	490	-	-	-	-	-
Stage 2	712	-	-	-	-	-
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	204	578	-	-	1064	-
Stage 1	616	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	185	578	-	-	1064	-
Mov Cap-2 Maneuver	185	-	-	-	-	-
Stage 1	616	-	-	-	-	-
Stage 2	440	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.3	0	1.45
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	185	578	1064
HCM Lane V/C Ratio	-	-	0.114	0.138	0.095
HCM Ctrl Dly (s/v)	-	-	27	12.2	8.7
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	0.4	0.5	0.3

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	21	520	12	35	573
Future Vol, veh/h	7	21	520	12	35	573
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	22	547	13	37	603

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1231	554	0	0	560
Stage 1	554	-	-	-	-
Stage 2	677	-	-	-	-
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	196	532	-	-	1011
Stage 1	576	-	-	-	-
Stage 2	505	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	189	532	-	-	1011
Mov Cap-2 Maneuver	189	-	-	-	-
Stage 1	576	-	-	-	-
Stage 2	486	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	15.7	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	366	1011
HCM Lane V/C Ratio	-	-	0.081	0.036
HCM Ctrl Dly (s/v)	-	-	15.7	8.7
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection

Int Delay, s/veh 1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	476	44	59	942	19	25
Future Vol, veh/h	476	44	59	942	19	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	535	49	66	1058	21	28

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	584	0	1221
Stage 1	-	-	-	-	560
Stage 2	-	-	-	-	662
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	986	-	172
Stage 1	-	-	-	-	536
Stage 2	-	-	-	-	475
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	986	-	156
Mov Cap-2 Maneuver	-	-	-	-	156
Stage 1	-	-	-	-	536
Stage 2	-	-	-	-	430

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.23	20.64
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	279	-	-	212	-
HCM Lane V/C Ratio	0.177	-	-	0.067	-
HCM Ctrl Dly (s/v)	20.6	-	-	8.9	0.8
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	9	16	1101	1301	27
Future Vol, veh/h	20	9	16	1101	1301	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	22	10	17	1184	1399	29

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2040	714	1428	0	-	0
Stage 1	1413	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Critical Hdwy	6.84	7.16	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.43	2.22	-	-	-
Pot Cap-1 Maneuver	49	350	472	-	-	-
Stage 1	191	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	47	350	472	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	184	-	-	-	-	-
Stage 2	495	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	30.79	0.18	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	472	-	170	-	-
HCM Lane V/C Ratio	0.036	-	0.183	-	-
HCM Ctrl Dly (s/v)	12.9	-	30.8	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

HCM 7th TWSC
5: Main St & Highland Rd

Monroe Manor TIS
Existing+Site Conditions PM Peak Hour

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	5	0	14	3	0	17	10	1095	10	15	1287	8
Future Vol, veh/h	5	0	14	3	0	17	10	1095	10	15	1287	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	0	15	3	0	18	11	1177	11	16	1384	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2031	2630	696	1928	2629	594	1392	0	0	1188	0	0
Stage 1	1420	1420	-	1204	1204	-	-	-	-	-	-	-
Stage 2	610	1210	-	724	1425	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	33	23	384	40	23	448	487	-	-	583	-	-
Stage 1	143	201	-	195	255	-	-	-	-	-	-	-
Stage 2	448	254	-	383	200	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	31	22	384	37	22	448	487	-	-	583	-	-
Mov Cap-2 Maneuver	105	107	-	127	106	-	-	-	-	-	-	-
Stage 1	139	195	-	191	250	-	-	-	-	-	-	-
Stage 2	420	248	-	358	194	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	22.53		16.85		0.11		0.13	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	487	-	-	226 325	583	-	-
HCM Lane V/C Ratio	0.022	-	-	0.091 0.066	0.028	-	-
HCM Ctrl Dly (s/v)	12.6	-	-	22.5 16.8	11.3	-	-
HCM Lane LOS	B	-	-	C C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3 0.2	0.1	-	-

HCM 7th TWSC
6: Main St & Holiday Ter

Monroe Manor TIS
Existing+Site Conditions PM Peak Hour

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	34	1	27	1	0	2	39	1079	8	3	1238	63
Future Vol, veh/h	34	1	27	1	0	2	39	1079	8	3	1238	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	37	1	29	1	0	2	42	1160	9	3	1331	68

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2035	2624	699	1921	2654	584	1399	0	0	1169	0	0
Stage 1	1372	1372	-	1248	1248	-	-	-	-	-	-	-
Stage 2	664	1253	-	673	1405	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 33	24	382	41	23	455	484	-	-	593	-	-
Stage 1	154	212	-	183	243	-	-	-	-	-	-	-
Stage 2	416	242	-	411	204	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 30	21	382	34	20	455	484	-	-	593	-	-
Mov Cap-2 Maneuver	110	108	-	115	94	-	-	-	-	-	-	-
Stage 1	153	211	-	167	222	-	-	-	-	-	-	-
Stage 2	378	221	-	376	203	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	42.89		20.91		0.45		0.03	
HCM LOS	E		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	484	-	-	159 229	593	-	-
HCM Lane V/C Ratio	0.087	-	-	0.418 0.014	0.005	-	-
HCM Ctrl Dly (s/v)	13.1	-	-	42.9 20.9	11.1	-	-
HCM Lane LOS	B	-	-	E C	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	1.9 0	0	-	-

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

Intersection						
Int Delay, s/veh	1.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	91	491	23	31	562
Future Vol, veh/h	33	91	491	23	31	562
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	50	-	-	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	3	2	17	2	2
Mvmt Flow	34	94	506	24	32	579

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1161	518	0	0	530	0
Stage 1	518	-	-	-	-	-
Stage 2	643	-	-	-	-	-
Critical Hdwy	6.42	6.23	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.327	-	-	2.218	-
Pot Cap-1 Maneuver	216	556	-	-	1037	-
Stage 1	598	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	209	556	-	-	1037	-
Mov Cap-2 Maneuver	209	-	-	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	507	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	16.18	0	0.45
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	- 209 556 1037	-	-
HCM Lane V/C Ratio	-	- 0.163 0.169 0.031	-	-
HCM Ctrl Dly (s/v)	-	- 25.5 12.8 8.6	-	-
HCM Lane LOS	-	- D B A	-	-
HCM 95th %tile Q(veh)	-	- 0.6 0.6 0.1	-	-

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	32	579	3	10	583
Future Vol, veh/h	10	32	579	3	10	583
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	33	597	3	10	601
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1220	598	0	0	600	0
Stage 1	598	-	-	-	-	-
Stage 2	622	-	-	-	-	-
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	199	502	-	-	977	-
Stage 1	549	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	197	502	-	-	977	-
Mov Cap-2 Maneuver	197	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	530	-	-	-	-	-
Approach	WB	NB		SB		
HCM Ctrl Dly, s/v	16.13	0		0.15		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	367	977	-	
HCM Lane V/C Ratio	-	-	0.118	0.011	-	
HCM Ctrl Dly (s/v)	-	-	16.1	8.7	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	0.4	0	-	

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	792	16	13	399	27	35
Future Vol, veh/h	792	16	13	399	27	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	8	11	3	2	2
Mvmt Flow	808	16	13	407	28	36

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	824	0	1046	412
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	230	-
Critical Hdwy	-	-	4.32	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.31	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	746	-	224	589
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	786	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	746	-	219	589
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	395	-
Stage 2	-	-	-	-	771	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.49	18.01
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	340	-	-	114	-
HCM Lane V/C Ratio	0.186	-	-	0.018	-
HCM Ctrl Dly (s/v)	18	-	-	9.9	0.2
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-

HCM 7th TWSC
4: Main St & Woodland St

Monroe Manor TIS
Future+Site Conditions AM Peak Hour

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	15	6	1231	967	8
Future Vol, veh/h	29	15	6	1231	967	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	9	25	4	6	2
Mvmt Flow	31	16	6	1296	1018	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1683	513	1026	0	-	0
Stage 1	1022	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Critical Hdwy	6.84	7.08	4.6	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.39	2.45	-	-	-
Pot Cap-1 Maneuver	85	488	550	-	-	-
Stage 1	308	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	84	488	550	-	-	-
Mov Cap-2 Maneuver	206	-	-	-	-	-
Stage 1	305	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Approach	EB	NB		SB		
HCM Ctrl Dly, s/v	22.13	0.06		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	550	-	256	-	-	
HCM Lane V/C Ratio	0.011	-	0.181	-	-	
HCM Ctrl Dly (s/v)	11.6	-	22.1	-	-	
HCM Lane LOS	B	-	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.6	-	-	

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	12	0	17	7	0	20	13	1205	5	12	969	1
Future Vol, veh/h	12	0	17	7	0	20	13	1205	5	12	969	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	10	2	2	2	2	12	10	5	25	2	6	2
Mvmt Flow	13	0	18	7	0	21	14	1282	5	13	1031	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1726	2372	516	1853	2370	644	1032	0	0	1287	0	0
Stage 1	1057	1057	-	1312	1312	-	-	-	-	-	-	-
Stage 2	669	1315	-	541	1057	-	-	-	-	-	-	-
Critical Hdwy	7.7	6.54	6.94	7.54	6.54	7.14	4.3	-	-	4.14	-	-
Critical Hdwy Stg 1	6.7	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.6	4.02	3.32	3.52	4.02	3.42	2.3	-	-	2.22	-	-
Pot Cap-1 Maneuver	52	34	504	46	34	393	623	-	-	535	-	-
Stage 1	227	300	-	167	227	-	-	-	-	-	-	-
Stage 2	395	226	-	493	300	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	47	33	504	42	33	393	623	-	-	535	-	-
Mov Cap-2 Maneuver	144	125	-	124	127	-	-	-	-	-	-	-
Stage 1	221	293	-	164	221	-	-	-	-	-	-	-
Stage 2	365	221	-	464	293	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	21.56		21.17		0.12		0.15	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	623	-	-	248	251	535	-
HCM Lane V/C Ratio	0.022	-	-	0.124	0.114	0.024	-
HCM Ctrl Dly (s/v)	10.9	-	-	21.6	21.2	11.9	-
HCM Lane LOS	B	-	-	C	C	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.4	0.1	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	17	0	29	0	0	1	13	1205	21	1	967	25
Future Vol, veh/h	17	0	29	0	0	1	13	1205	21	1	967	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	17	2	2	2	29	5	6	2	6	2
Mvmt Flow	18	0	31	0	0	1	14	1268	22	1	1018	26

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1695	2351	522	1818	2353	645	1044	0	0	1291	0	0
Stage 1	1033	1033	-	1307	1307	-	-	-	-	-	-	-
Stage 2	662	1318	-	511	1046	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	7.24	7.54	6.54	6.94	4.68	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.47	3.52	4.02	3.32	2.49	-	-	2.22	-	-
Pot Cap-1 Maneuver	60	35	462	49	35	415	522	-	-	533	-	-
Stage 1	249	308	-	169	228	-	-	-	-	-	-	-
Stage 2	418	225	-	514	303	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	58	34	462	44	34	415	522	-	-	533	-	-
Mov Cap-2 Maneuver	165	132	-	126	130	-	-	-	-	-	-	-
Stage 1	248	307	-	164	222	-	-	-	-	-	-	-
Stage 2	406	219	-	479	303	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	20.69		13.7		0.13		0.01	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	522	-	-	278	415	533	-
HCM Lane V/C Ratio	0.026	-	-	0.174	0.003	0.002	-
HCM Ctrl Dly (s/v)	12.1	-	-	20.7	13.7	11.8	-
HCM Lane LOS	B	-	-	C	B	B	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0	0	-

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	88	523	21	111	556
Future Vol, veh/h	22	88	523	21	111	556
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	50	-	-	175	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	93	551	22	117	585
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1381	562	0	0	573	0
Stage 1	562	-	-	-	-	-
Stage 2	819	-	-	-	-	-
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	159	527	-	-	1000	-
Stage 1	571	-	-	-	-	-
Stage 2	433	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	140	527	-	-	1000	-
Mov Cap-2 Maneuver	140	-	-	-	-	-
Stage 1	571	-	-	-	-	-
Stage 2	383	-	-	-	-	-
Approach	WB	NB	SB			
HCM Ctrl Dly, s/v	17.76	0	1.51			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT		
Capacity (veh/h)	-	- 140 527 1000	-	-		
HCM Lane V/C Ratio	-	- 0.165 0.176 0.117	-	-		
HCM Ctrl Dly (s/v)	-	- 35.6 13.3 9.1	-	-		
HCM Lane LOS	-	- E B A	-	-		
HCM 95th %tile Q(veh)	-	- 0.6 0.6 0.4	-	-		

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	21	599	12	35	660
Future Vol, veh/h	7	21	599	12	35	660
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	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	22	631	13	37	695

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1405	637	0	0	643
Stage 1	637	-	-	-	-
Stage 2	768	-	-	-	-
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	154	477	-	-	942
Stage 1	527	-	-	-	-
Stage 2	458	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	148	477	-	-	942
Mov Cap-2 Maneuver	148	-	-	-	-
Stage 1	527	-	-	-	-
Stage 2	440	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	18.01	0	0.45
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	306	942
HCM Lane V/C Ratio	-	-	0.096	0.039
HCM Ctrl Dly (s/v)	-	-	18	9
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑	
Traffic Vol, veh/h	546	50	66	1081	21	28
Future Vol, veh/h	546	50	66	1081	21	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	613	56	74	1215	24	31

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	670	0	1397
Stage 1	-	-	-	-	642
Stage 2	-	-	-	-	756
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	916	-	132
Stage 1	-	-	-	-	486
Stage 2	-	-	-	-	425
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	916	-	116
Mov Cap-2 Maneuver	-	-	-	-	116
Stage 1	-	-	-	-	486
Stage 2	-	-	-	-	373

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	1.48	26.87
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	219	-	-	207	-
HCM Lane V/C Ratio	0.251	-	-	0.081	-
HCM Ctrl Dly (s/v)	26.9	-	-	9.3	1
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1	-	-	0.3	-

HCM 7th TWSC
4: Main St & Woodland St

Monroe Manor TIS
Future+Site Conditions PM Peak Hour

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	22	10	18	1268	1497	29
Future Vol, veh/h	22	10	18	1268	1497	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	13	2	2	2	2
Mvmt Flow	24	11	19	1363	1610	31

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2346	820	1641	0	-	0
Stage 1	1625	-	-	-	-	-
Stage 2	720	-	-	-	-	-
Critical Hdwy	6.84	7.16	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.43	2.22	-	-	-
Pot Cap-1 Maneuver	30	296	391	-	-	-
Stage 1	146	-	-	-	-	-
Stage 2	443	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	29	296	391	-	-	-
Mov Cap-2 Maneuver	106	-	-	-	-	-
Stage 1	139	-	-	-	-	-
Stage 2	443	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	41.52	0.21	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	391	-	132	-	-
HCM Lane V/C Ratio	0.05	-	0.26	-	-
HCM Ctrl Dly (s/v)	14.7	-	41.5	-	-
HCM Lane LOS	B	-	E	-	-
HCM 95th %tile Q(veh)	0.2	-	1	-	-

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Vol, veh/h	6	0	16	3	0	20	11	1260	12	17	1481	9
Future Vol, veh/h	6	0	16	3	0	20	11	1260	12	17	1481	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	0	17	3	0	22	12	1355	13	18	1592	10

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2335	3025	801	2218	3024	684	1602	0	0	1368	0	0
Stage 1	1634	1634	-	1385	1385	-	-	-	-	-	-	-
Stage 2	701	1391	-	833	1639	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	20	13	327	24	13	391	404	-	-	498	-	-
Stage 1	105	158	-	151	209	-	-	-	-	-	-	-
Stage 2	395	207	-	329	157	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	17	12	327	21	12	391	404	-	-	498	-	-
Mov Cap-2 Maneuver	77	81	-	97	81	-	-	-	-	-	-	-
Stage 1	101	152	-	146	203	-	-	-	-	-	-	-
Stage 2	363	201	-	301	151	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	29.03		19.07		0.12		0.14	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	404	-	-	173 281	498	-	-
HCM Lane V/C Ratio	0.029	-	-	0.136 0.088	0.037	-	-
HCM Ctrl Dly (s/v)	14.2	-	-	29 19.1	12.5	-	-
HCM Lane LOS	B	-	-	D C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5 0.3	0.1	-	-

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	39	1	30	1	0	2	42	1242	9	3	1425	72
Future Vol, veh/h	39	1	30	1	0	2	42	1242	9	3	1425	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	1	32	1	0	2	45	1335	10	3	1532	77

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2335	3013	805	2204	3047	673	1610	0	0	1345	0	0
Stage 1	1577	1577	-	1431	1431	-	-	-	-	-	-	-
Stage 2	758	1435	-	773	1616	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	~ 20	13	326	25	12	398	402	-	-	508	-	-
Stage 1	114	168	-	141	198	-	-	-	-	-	-	-
Stage 2	365	197	-	358	161	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 17	12	326	19	11	398	402	-	-	508	-	-
Mov Cap-2 Maneuver	82	83	-	86	68	-	-	-	-	-	-	-
Stage 1	114	167	-	125	176	-	-	-	-	-	-	-
Stage 2	323	175	-	318	160	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	74.29		25.36		0.49		0.02	
HCM LOS	F		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	402	-	-	121 180	508	-	-
HCM Lane V/C Ratio	0.112	-	-	0.621 0.018	0.006	-	-
HCM Ctrl Dly (s/v)	15.1	-	-	74.3 25.4	12.1	-	-
HCM Lane LOS	C	-	-	F D	B	-	-
HCM 95th %tile Q(veh)	0.4	-	-	3.2 0.1	0	-	-

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

APPENDIX E

TURN LANE WARRANTS



DeSoto Road & Holiday Drive - 40 MPH

NB Right-Turn Lane

Volume Scenario	Major Road Volume	Right-Turn Volume	Lane Warranted?
AM Ex + Site	447	20	NO
PM Ex + Site	475	19	NO
AM Fut + Site	514	23	NO
PM Fut + Site	544	21	NO

DeSoto Road & Site Drive - 40 MPH
--

NB Right-Turn Lane

Volume Scenario	Major Road Volume	Right-Turn Volume	Lane Warranted?
AM Ex + Site	506	3	NO
PM Ex + Site	520	12	NO
AM Fut + Site	582	3	NO
PM Fut + Site	611	12	NO

Eisenhower Road & Pebble Beach Drive - 40 MPH
--

WB Left-Turn Lane

Volume Scenario	Advancing Volume	Opposing Volume	Left Turn Volume	Lane Warranted?
AM Ex	349	682	9	YES
PM Ex	966	500	47	YES
AM Ex + Site	359	704	12	YES
PM Ex + Site	1001	520	59	YES
AM Fut + Site	412	808	13	YES
PM Fut + Site	1147	596	66	YES

EB Right-Turn Lane

Volume Scenario	Major Road Volume	Right-Turn Volume	Lane Warranted?
AM Ex + Site	704	14	NO
PM Ex + Site	520	44	NO
AM Fut + Site	792	16	NO
PM Fut + Site	546	50	NO

Main Street & Woodland Road - 40 MPH

SB Right-Turn Lane

Volume Scenario	Major Road Volume	Right-Turn Volume	Lane Warranted?
AM Ex + Site	848	8	NO
PM Ex + Site	1328	27	YES
AM Fut + Site	975	8	NO
PM Fut + Site	1526	29	YES

Main Street & Holiday Terrace - 40 MPH

SB Right-Turn Lane

Volume Scenario	Major Road Volume	Right-Turn Volume	Lane Warranted?
AM Ex + Site	863	22	NO
PM Ex + Site	1304	63	YES
AM Fut + Site	993	25	NO
PM Fut + Site	1500	72	YES