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Traffic Impact Study

Beacon Views

City of Beacon, Dutchess County, New York

August 16, 2019
Revised March 26, 2020

Prepared For

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APPENDICES

I. INTRODUCTION

This report has been updated to reflect the reduction in the number of dwelling units from 42 to 40 and to also include additional analyses in response to the City's traffic consultant and other comments received from the Planning Board and the public. This report now includes a complete evaluation of two access alternatives as described in more detail below.

A. PROJECT DESCRIPTION AND LOCATION

(Figure No. 1)

This report has been prepared to evaluate the potential traffic impacts associated with the proposed Beacon Views project, a 40 unit townhome development (the "Project"), which is proposed to be developed on the vacant property located northeast of Delavan Avenue, northwest of Desoto Avenue, and north of Conklin Street in the City of Beacon, Dutchess County, New York. The Project is proposed to be served with the provision of a full access connection to 25 Townsend Street via the public road and the provision of an appropriate emergency access to be constructed as part of that development to Hastings Drive conforming with the City specifications in anticipation of potential future dedication to the City of Beacon. Also, since the Applicant does not control the timing of the construction of 25 Townsend Street, a separate analysis was completed with a future access to the extension of Hastings Drive, which in turn connects to Delavan Avenue with an emergency access connection to the 25 Townsend Street property located to the north of the Project. Each of these scenarios are evaluated herein.

A Design Year of 2022 has been utilized in completing the traffic analysis in order to evaluate future traffic conditions associated with this proposed development.

B. SCOPE OF STUDY

This study has been prepared to identify current and future traffic operating conditions on the surrounding roadway network and to assess the potential traffic impacts of the proposed Project.

All available traffic count data for the study area intersections were obtained from previous reports prepared by our office. These data were supplemented with new traffic counts collected by representatives of Maser Consulting, P.A. These data were also compared to count data obtained from the New York State Department of Transportation (NYSDOT). Together these data were utilized to establish the Year 2019 Existing Traffic Volumes representing existing traffic conditions in the vicinity of the site.

The Year 2019 Existing Traffic Volumes were then projected to the 2022 Design Year to take into account background traffic growth. In addition, traffic for other specific potential or approved developments in the area were estimated and then added to the Projected Traffic Volumes to obtain the Year 2022 No-Build Traffic Volumes.

Estimates were then made of the potential traffic that the proposed development would generate during each of the peak hours (see Section III-C for further discussion). The resulting site generated traffic volumes were then added to the roadway system and combined with the Year 2022 No-Build Traffic Volumes resulting in the Year 2022 Build Traffic Volumes.

The Existing, No-Build and Build Traffic Volumes were then compared to roadway capacities based on the procedures from the Highway Capacity Manual to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were made where necessary to serve the existing and/or future traffic volumes.

II. EXISTING ROADWAY AND TRAFFIC DESCRIPTIONS

A. DESCRIPTION OF EXISTING ROADWAYS

As shown on Figure No. 1 and as previously discussed, the proposed Project will be accessed from Townsend Street via a right-of-way through the pending 25 Townsend Street Subdivision and/or a connection to Delavan Avenue via Hastings Drive, which is an access connection to be located approximately 700 feet northwest of Fishkill Avenue (NYS Route 52). The following is a brief description of the roadways located within the study area. In addition, Section III-F provides a further description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service and any recommended improvements for each of the study area intersections. Appendix "C" contains copies of the capacity analyses which indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. NYS Route 52 (Fishkill Avenue)

   NYS Route 52 (Fishkill Avenue) is classified as an Urban Minor Arterial roadway in the study area under New York State Department of Transportation (NYSDOT) jurisdiction. The roadway generally traverses in a northeasterly direction throughout Southern Dutchess County. In the vicinity of the site the roadway provides regional access to I-84 and the downtown Beacon Main Street area. The roadway generally consists of a two-lane cross-section in the immediate area of the project site with additional auxiliary lanes provided at various intersections. The posted speed limit is 30 mph in the City of Beacon.

2. Delavan Avenue

   Delavan Avenue is a two-lane local roadway that generally traverses in an east/west direction. The roadway begins at a stop sign controlled "T" intersection with NYS Route 52 (Fishkill Avenue) and terminates as a cul-de-sac and/or dead end. It provides access to approximately 29 homes and Salem Tabernacle Church. There are sidewalks along each side of the roadway. Delavan Avenue also provides access to two local roadways: 1) Arquilla Drive (Beacon Volunteer Ambulance Corps), and 2) Hastings Drive (Wingate at Beacon and Highland Meadows Senior Residence). The Beacon Views Development is proposed to be accessed via a new roadway connection from the Hastings Drive extension, which in turn connects to Delavan Avenue. The roadway does not have a posted speed limit.

3. Townsend Street

Townsend Street is a two-lane City Street that originates at a "T" intersection with Fishkill Avenue. The roadway is currently unstriped and serves both commercial and residential uses and currently terminates at the 25 Townsend Street property and is planned to be extended as part of that project to connect to the Beacon Views site. It also intersects with De Soto Avenue and Mead Avenue.

B. YEAR 2019 EXISTING TRAFFIC VOLUMES

(Figures No. 2. and 3)

Manual traffic counts were collected by representatives of Maser Consulting, P.A. on Tuesday, August 6, 2019 for the AM and PM Peak Hours to determine the existing traffic volume conditions at the study area intersections. These traffic counts were then compared to traffic volume data from previous traffic studies and counts along Fishkill Avenue including the 25 Townsend Street project. These also included those counts conducted by our office during January 2019. The counts were also compared to traffic volume data available from the New York State Department of Transportation (NYSDOT) for the NYS Route 52 Corridor. Based on this information, the Year 2019 Existing Traffic Volumes were established for the Weekday Peak AM and Weekday Peak PM Hours at the following study area intersections.

- NYS Route 52 (Fishkill Avenue) and Delavan Avenue
- Delavan Avenue and Hastings Drive
- Fishkill Avenue and Townsend Street

Based upon a review of the traffic counts, the peak hours were generally identified as follows:

- Weekday Peak AM Hour 7:45 AM – 8:45 AM
- Weekday Peak PM Hour 5:00 PM – 6:00 PM

The resulting Year 2019 Existing Traffic Volumes are shown on Figures No. 2 and 3 for the Weekday Peak AM Hour and Weekday Peak PM Hour, respectively.

C. ACCIDENT DATA

Accident data was requested from the New York State Department of Transportation (NYSDOT) for the intersection of Route 52 and Delavan Avenue and is contained in Appendix E.

III. EVALUATION OF FUTURE TRAFFIC CONDITIONS

A. YEAR 2022 NO-BUILD TRAFFIC VOLUMES

(Figure No. 4 through 9)

The Year 2019 Existing Traffic Volumes were increased by a growth factor of 2% per year to account for general background growth resulting in the Year 2022 Projected Traffic Volumes which are shown on Figures No. 4 and 5 for each of the Peak Hours. In addition, traffic from other specific potential developments in the area, including the 511 Fishkill multi-use commercial development and the 25 Townsend Street project, were identified. The resulting traffic volumes associated with these other developments are shown on Figures No. 6 and 7 for each of the peak hours. These volumes were added to the 2022 Projected Traffic Volumes resulting in the Year 2022 No-Build Traffic Volumes which are shown on Figures No. 8 and 9 for the Weekday Peak AM and Weekday Peak PM Hours, respectively.

B. SITE GENERATED TRAFFIC VOLUMES

(Table No. 1)

Estimates of the amount of traffic to be generated by the proposed residential development project during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 10th Edition, 2017, based on Land Use Category – 220 Multi-family Housing (Low Rise). Table No. 1 summarizes the trip generation rates and corresponding site generated traffic volumes for the Weekday Peak AM and Weekday Peak PM Hours.

C. ARRIVAL/DEPARTURE DISTRIBUTION

(Figures No. 10 and 11; 10A and 11A)

It was necessary to establish arrival and departure distributions to assign the site generated traffic volumes to the surrounding roadway network. Based on a review of the Existing Traffic Volumes and the expected travel patterns on the surrounding roadway network, the distributions were identified. The anticipated arrival and departure distributions are shown on Figures No. 10 and 11, respectively. Figures No. 10 and 11 show the distributions for the access scenario using 25 Townsend Street as the full access while Figures No. 10A and 11A show the distributions with full access via Hastings Drive.

D. 2022 BUILD CONDITIONS TRAFFIC VOLUMES

(Figures No. 12 through 15; 12A through 15A)

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes for each of the study area intersections are shown on Figures No. 12 and 13 for each of the peak hours, respectively. The site generated traffic volumes were then added to the Year 2022 No-Build Traffic Volumes to obtain the Year 2022 Build Traffic Volumes. The resulting Year 2022 Build Traffic Volumes are shown on Figures No. 14 and 15 for the Weekday Peak AM and Weekday Peak PM Hours, respectively. Figures No. 12A through 15A shown the corresponding figures with the full access via Hastings Drive.

E. DESCRIPTION OF ANALYSIS PROCEDURES

It was necessary to perform capacity analyses in order to determine existing and future traffic operating conditions at the study area intersections. The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the *Highway Capacity Manual, 6th Edition*. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix "C" of this report.

F. RESULTS OF ANALYSIS

(Table No. 2 and 2A)

Capacity analyses which take into consideration appropriate truck percentages, pedestrian activity, roadway grades and other factors were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below are a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service as well as any recommended improvements.

Tables No. 2 and 2A summarizes the results of the capacity analysis for the 2019 Existing, 2022 No-Build and 2022 Build Conditions for the two access scenarios. Appendix "C" contains copies of the capacity analysis which also indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. NYS Route 52 (Fishkill Avenue) and Delavan Avenue

   NYS Route 52 (Fishkill Avenue) and Delavan Avenue intersect at a stop sign controlled "T" intersection. The Delavan Avenue approach consists of two-lanes with a painted stop bar and crosswalk. The NYS Route 52 (Fishkill Avenue) approaches each consist of one lane with a double yellow center line and white shoulder edge line.

   Capacity analysis was conducted for this intersection utilizing the 2019 Existing Traffic Volumes. The analysis results indicate that the (Delavan Avenue) side road approach intersection is currently operating at a Level of Service "D" during the AM and PM Peak Hours. It should be noted that Fishkill Avenue operates at a Level of Service "A" during these time periods. Observations of this intersection were also completed on Sunday mornings to evaluate conditions when the Salem Tabernacle Church is holding services. During this time, there is a significant increase in on-street parking and pedestrian and traffic flows before and after services.

   The capacity analysis was recomputed using the 2022 No-Build and Build Traffic volumes. Striping improvements on the Delavan Avenue approach, including centerline and stop bar, are recommended regardless of this project. The intersection is expected to experience Levels of Service "C" or better during the AM Peak Hour and a Level of Service "E" or better during the PM Peak Hours under future conditions.

   It should be noted that it is not unusual for an unsignalized intersection to experience a Level of Service "E" during peak hours for traffic exiting the side road. It should also be noted that there are some gaps in traffic along Fishkill Avenue that are created by traffic signals located to the north and south of this location that allow side road traffic to be processed at intervening street locations. Thus, while under the Hastings Drive access scenario, there will be some additional vehicle trips generated by this project on Delavan Avenue, no significant impacts on traffic flow is expected based on the analysis contained herein.

2. Delavan Avenue and Hastings Drive
   Hastings Drive intersects Delavan Avenue at a "T" shaped intersection by a "Stop" sign. The levels of service were analyzed using the Existing, No-Build and Build scenarios and will have a Level of Service "A" for all conditions.

   Hastings Drive, which currently serves the St. Francis Hospital property as well as Wingate at Beacon and Highland Meadow Senior Apartments, has the capacity to accommodate the additional traffic from the Beacon Views project without significantly impacting the operation along this circular drive. Based on our review of the existing and future traffic volumes with the anticipated peak hour generation for Beacon Views development, the site access drive connection to this circular drive is also expected to operate at a Level of Service "A" during peak hours (see attached capacity analysis.

3. Fishkill Avenue and Townsend Street
   Townsend Street intersects with Fishkill Avenue at a "T" intersection. This intersection currently operates at a Level of Service "C" or better during peak periods.

   The analysis indicates that under future Build conditions with the additional traffic generated by the Beacon Views development Levels of Service "C" or better will be maintained during peak periods. It is recommended that regardless of the project, centerline striping be added on Townsend Street together with a "Stop" sign. These improvements will be coordinated with the City.

IV. OTHER CONSIDERATIONS AND RECOMMENDATIONS

In addition to the improvements outlined above, the following items should also be noted and coordinated on the final site plans.

a) Signing will be installed in advance of the emergency access gate to identify for drivers the driveway and parking area turnaround. The treatment on the emergency gate will include appropriate reflectors and signing to make drivers aware of it.

b) The final treatment of the sidewalks will be dependent on the wetland area. The provision of sidewalk on at least one side will be included. The addition of a sidewalk on the other side of the road for minimal activity would increase impervious, possibly additional wetland impacts, and an alternate configuration is being provided.

c) The site plans have been updated to indicate the sight distances for entering and exiting vehicles.

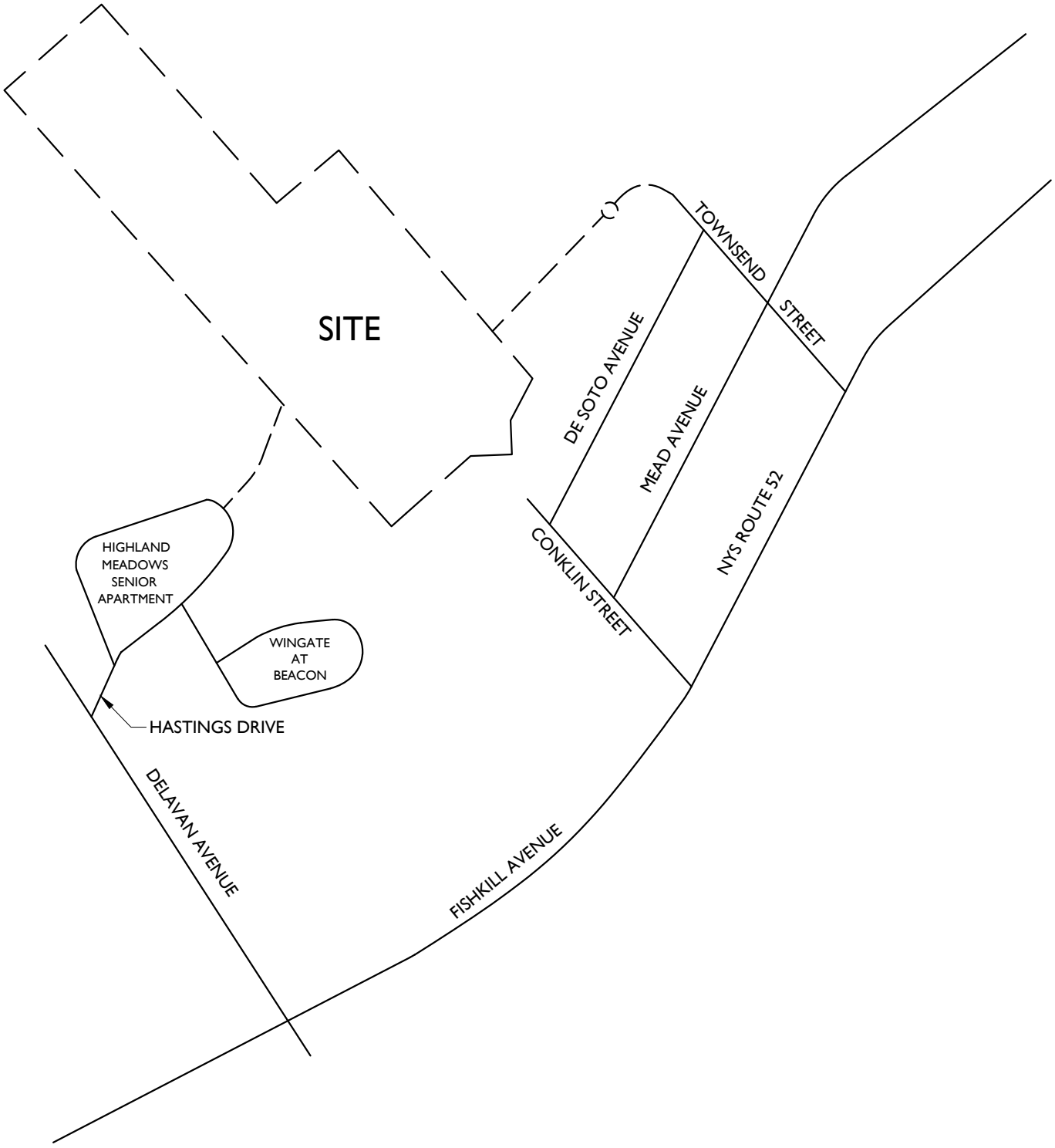
V. SUMMARY AND CONCLUSION

Based on the analyses summarized above under either access scenario, similar Levels of Service and delays will be experienced at the area intersections under the future No-Build and future Build Conditions. Thus, the Beacon Views development traffic is not expected to cause any significant impact in overall traffic operations.

BEACON VIEWS

APPENDIX A

FIGURES



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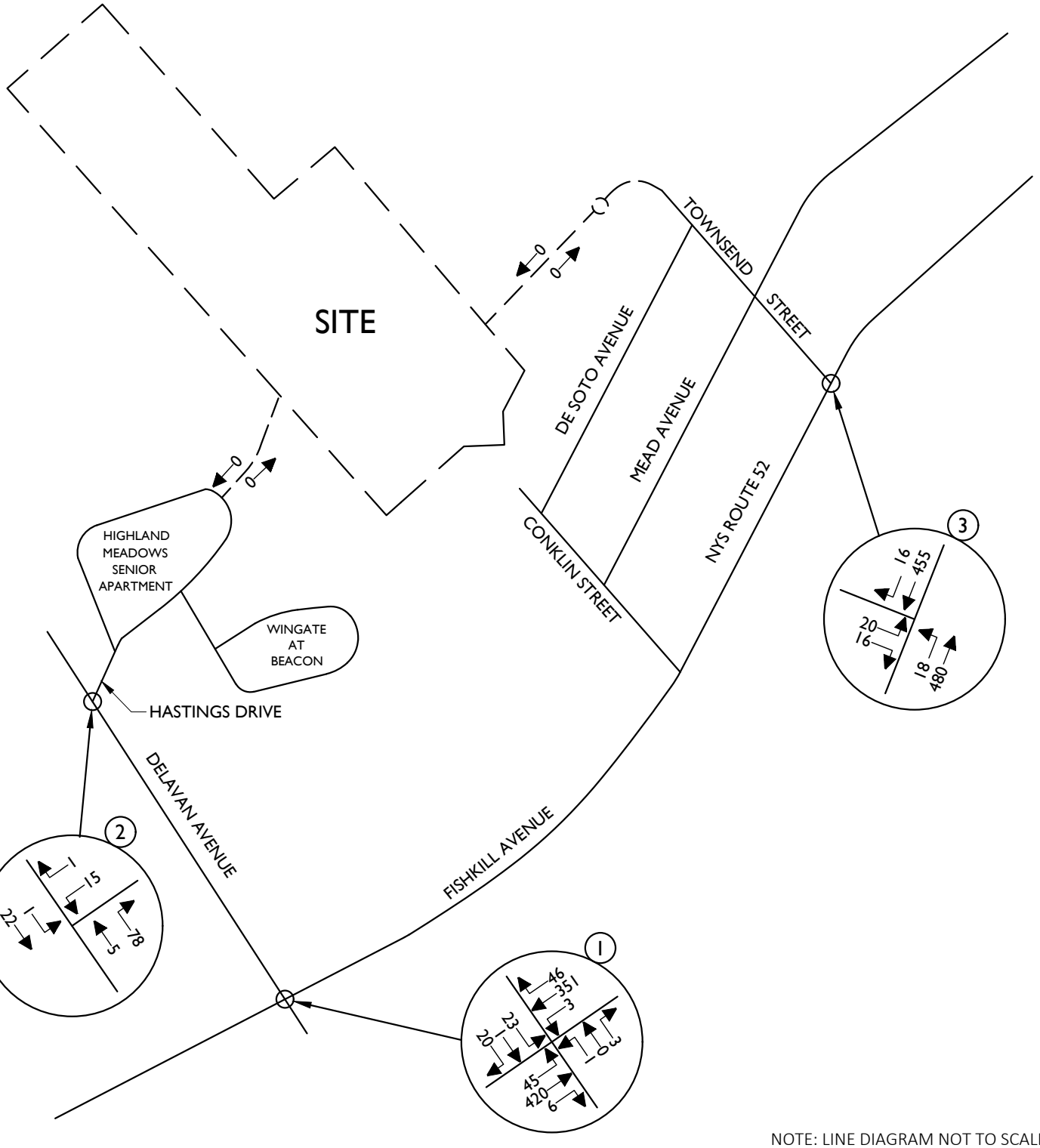

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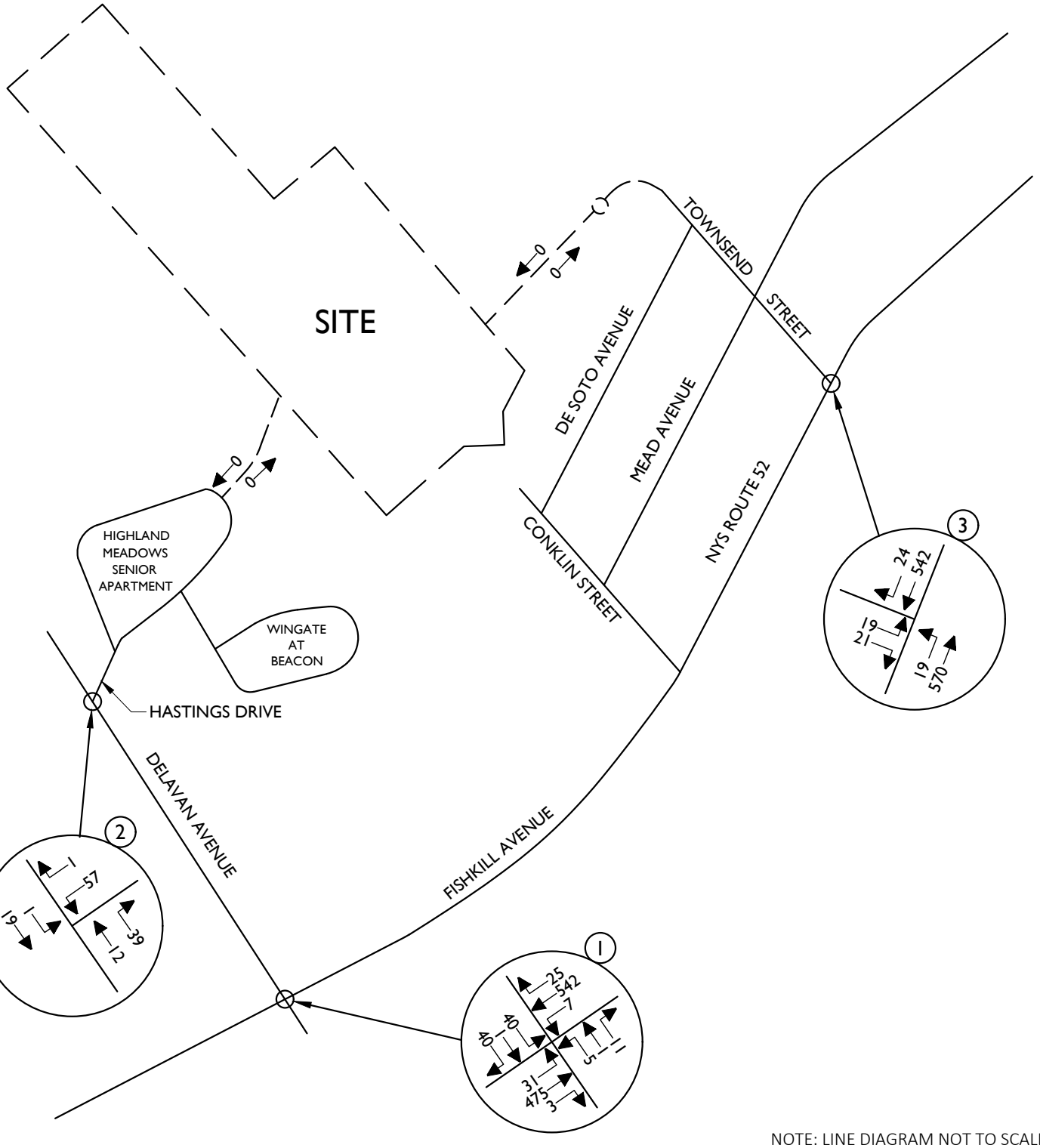

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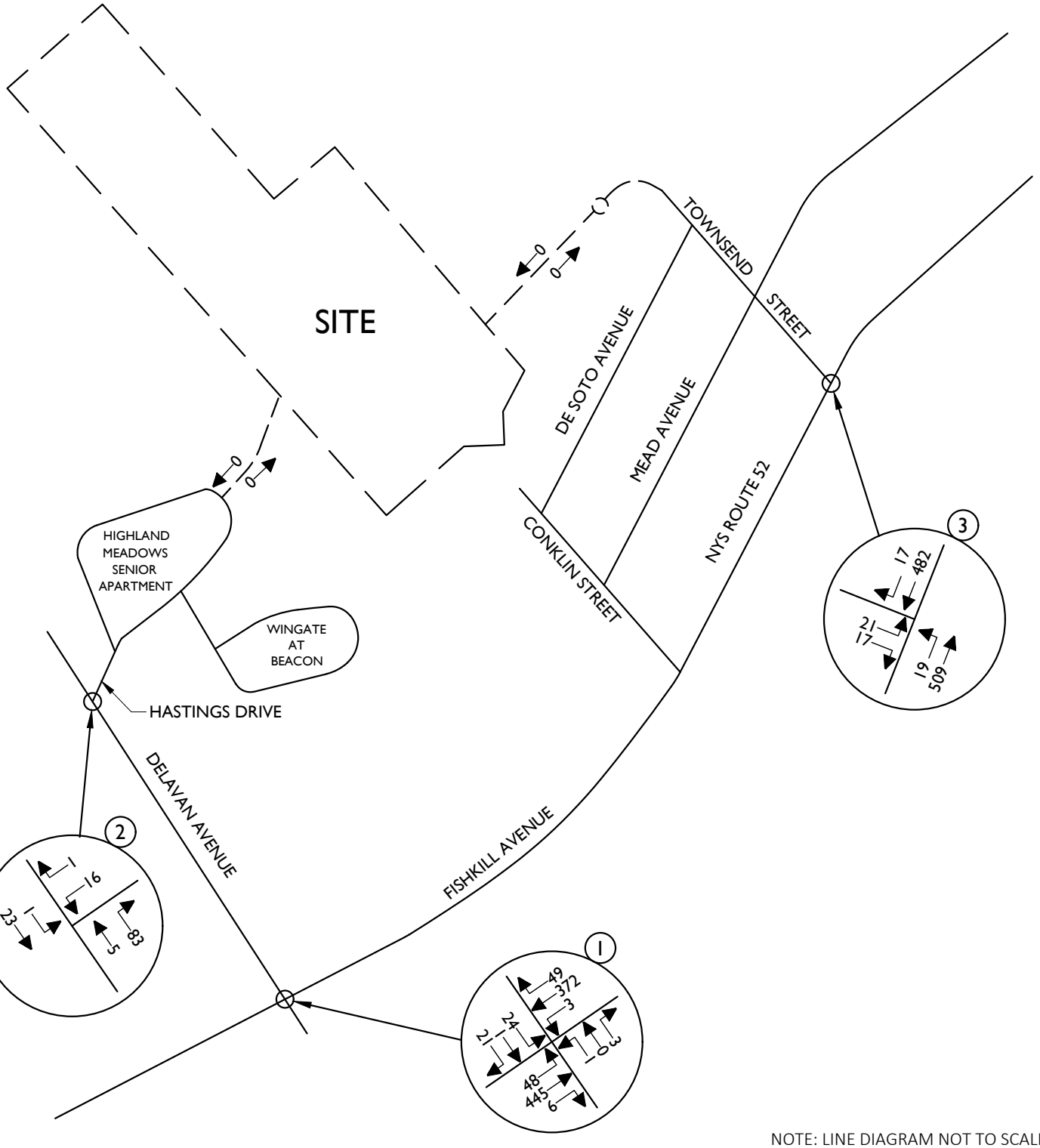

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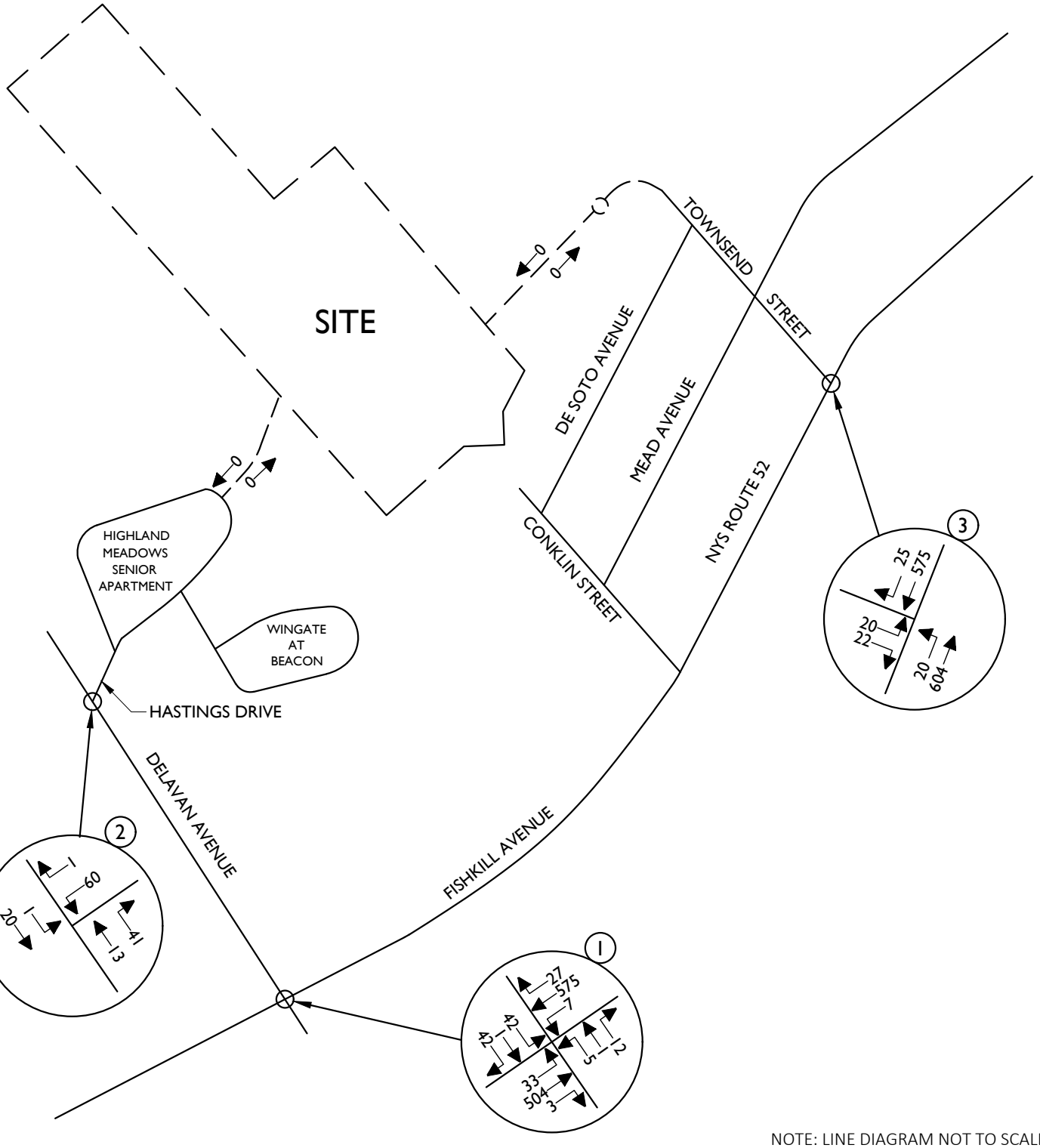

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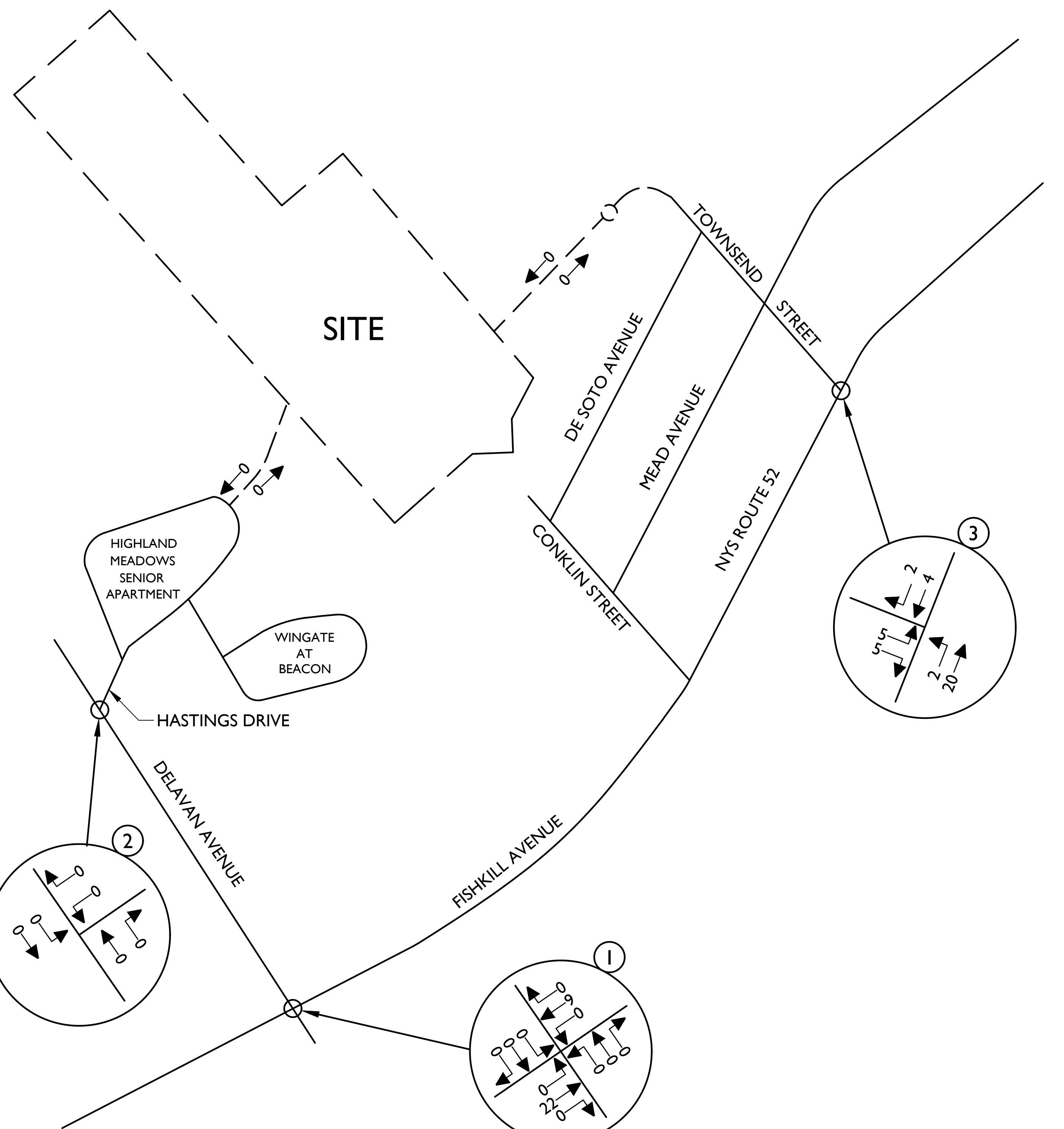

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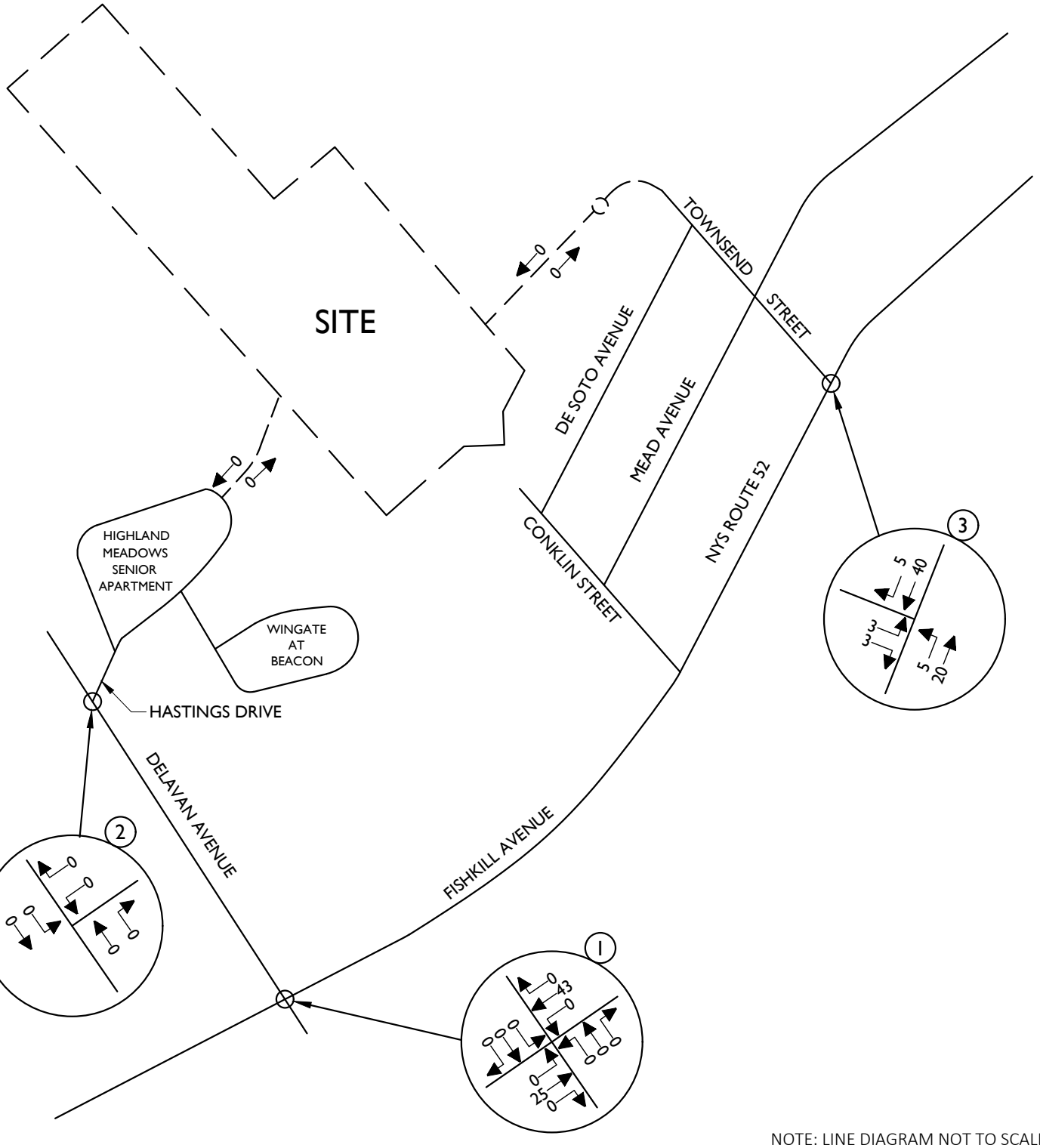

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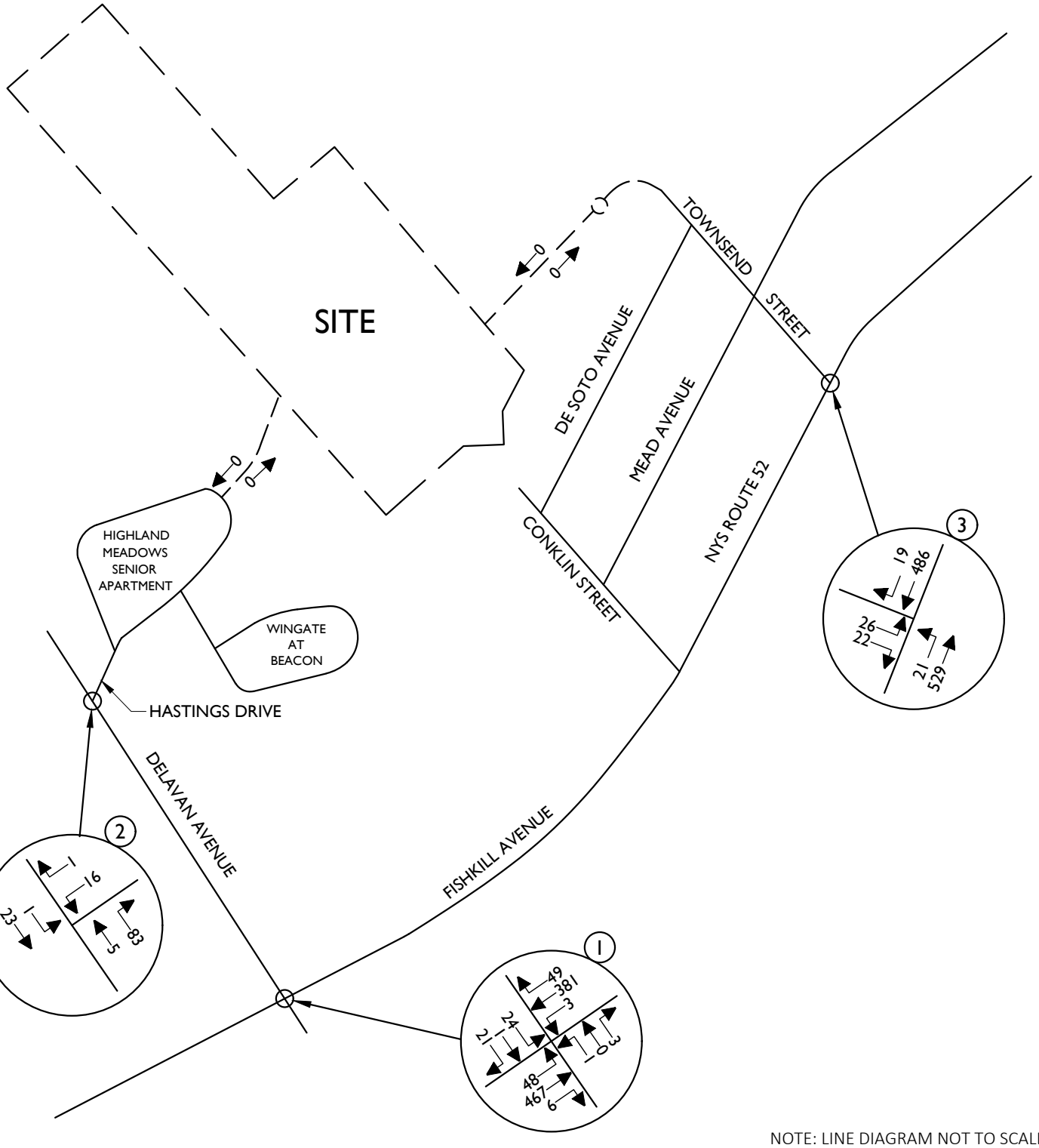
AS SHOWN	03/24/20	R.H.	P.J.G.

PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

SHEET TITLE:
OTHER DEVELOPMENT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR

SHEET NUMBER:
7

2075A_Beacon Views\Reports\Traffic\Figures\Figures\200324RH_figures.dwg\7 By: RHILARIO



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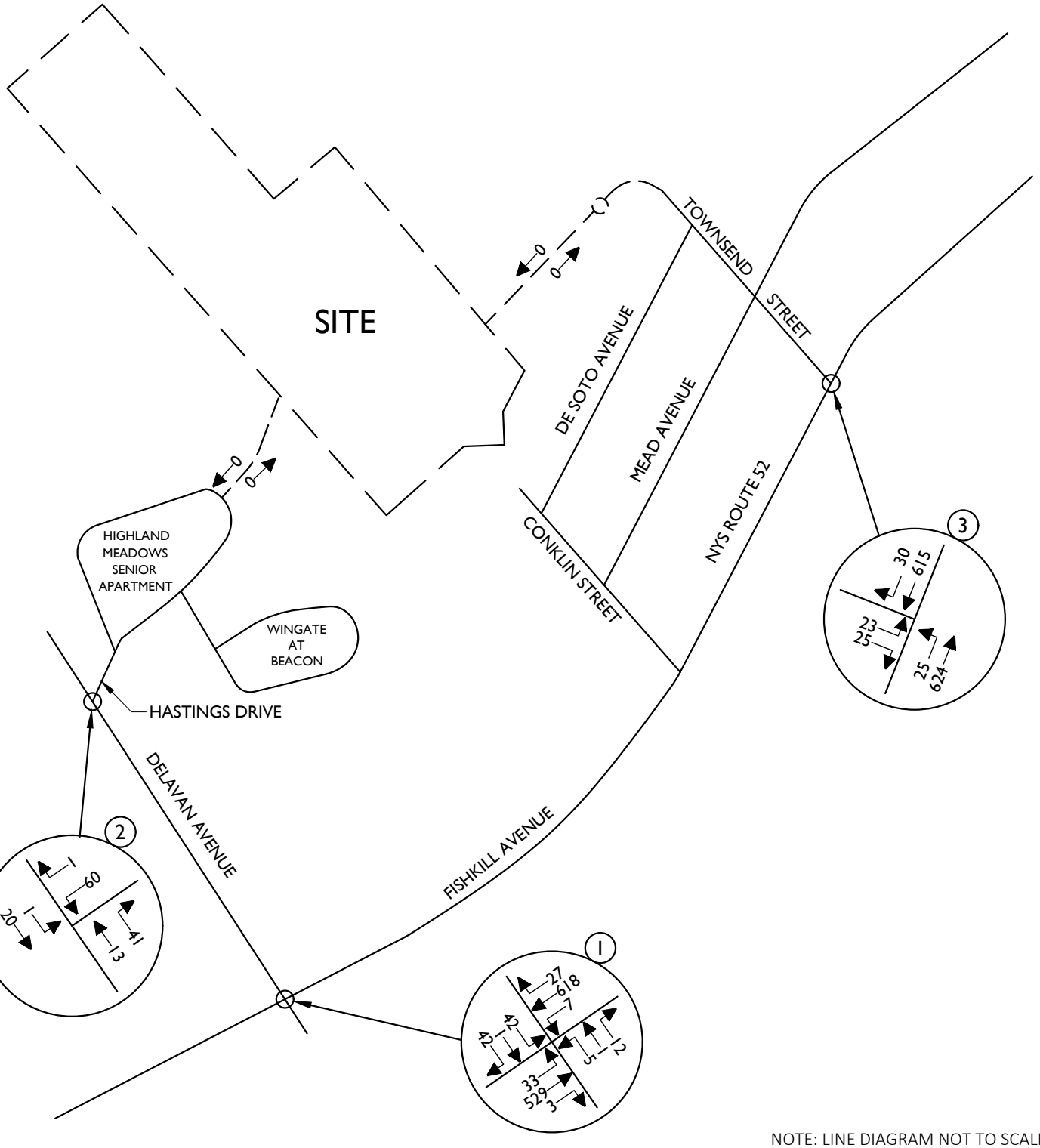
PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

SHEET TITLE:
2022 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
8

2075A_Beacon Views\Reports\Traffic\Figures\Figures\200324RH_figures.dwg\8 By: RHILARIO



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PROJECT NUMBER:	DRAWING NAME:
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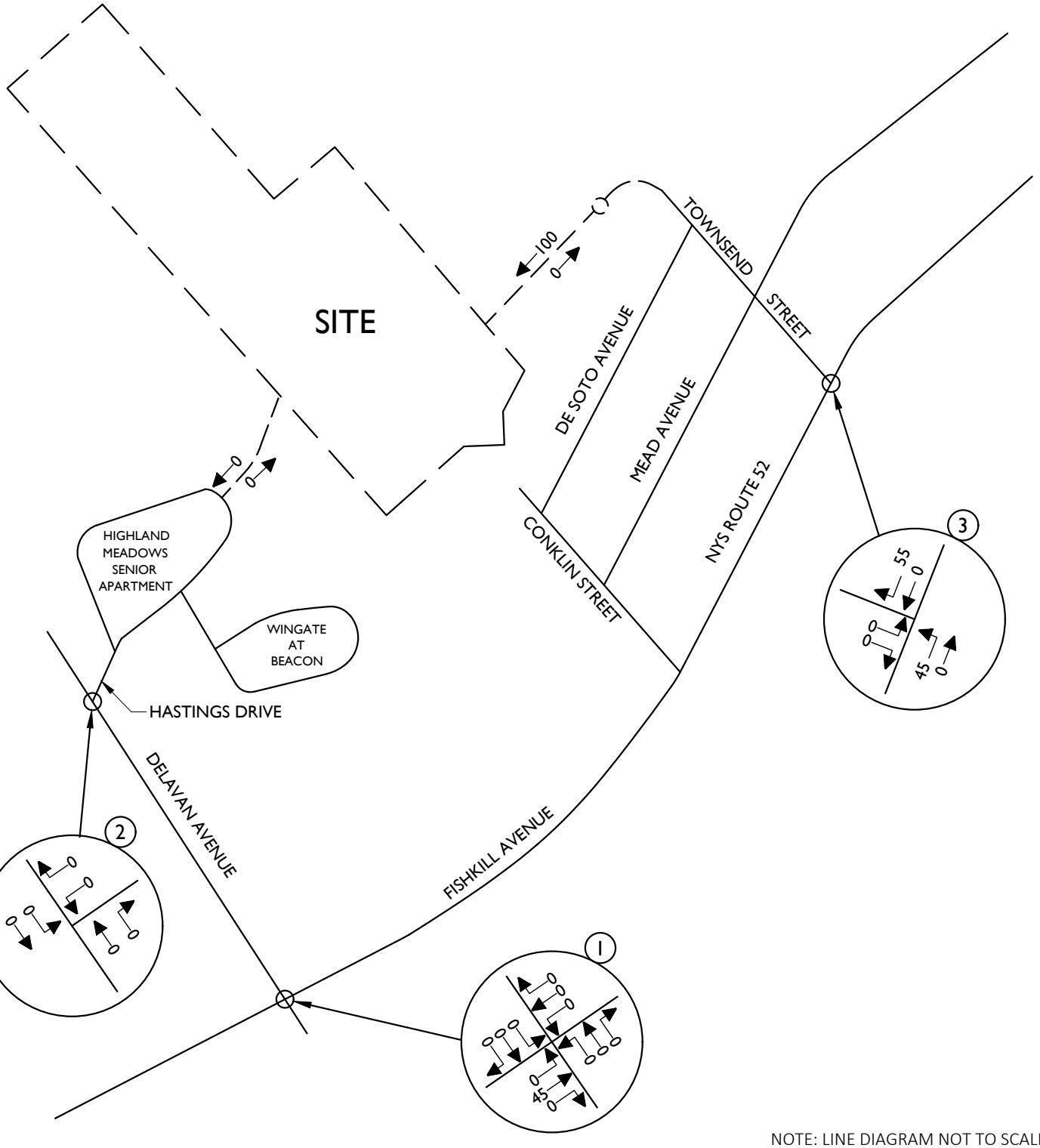
SHEET TITLE:
2022 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
9

2075A_Beacon Views\Reports\Traffic\Figures\Figures\200324RH_figures.dwg\9 By: RHILARIO



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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE:
ARRIVAL DISTRIBUTION
(ALL VALUES ARE EXPRESSED AS %)
(TOWNSEND STREET ACCESS)

SHEET NUMBER:
10

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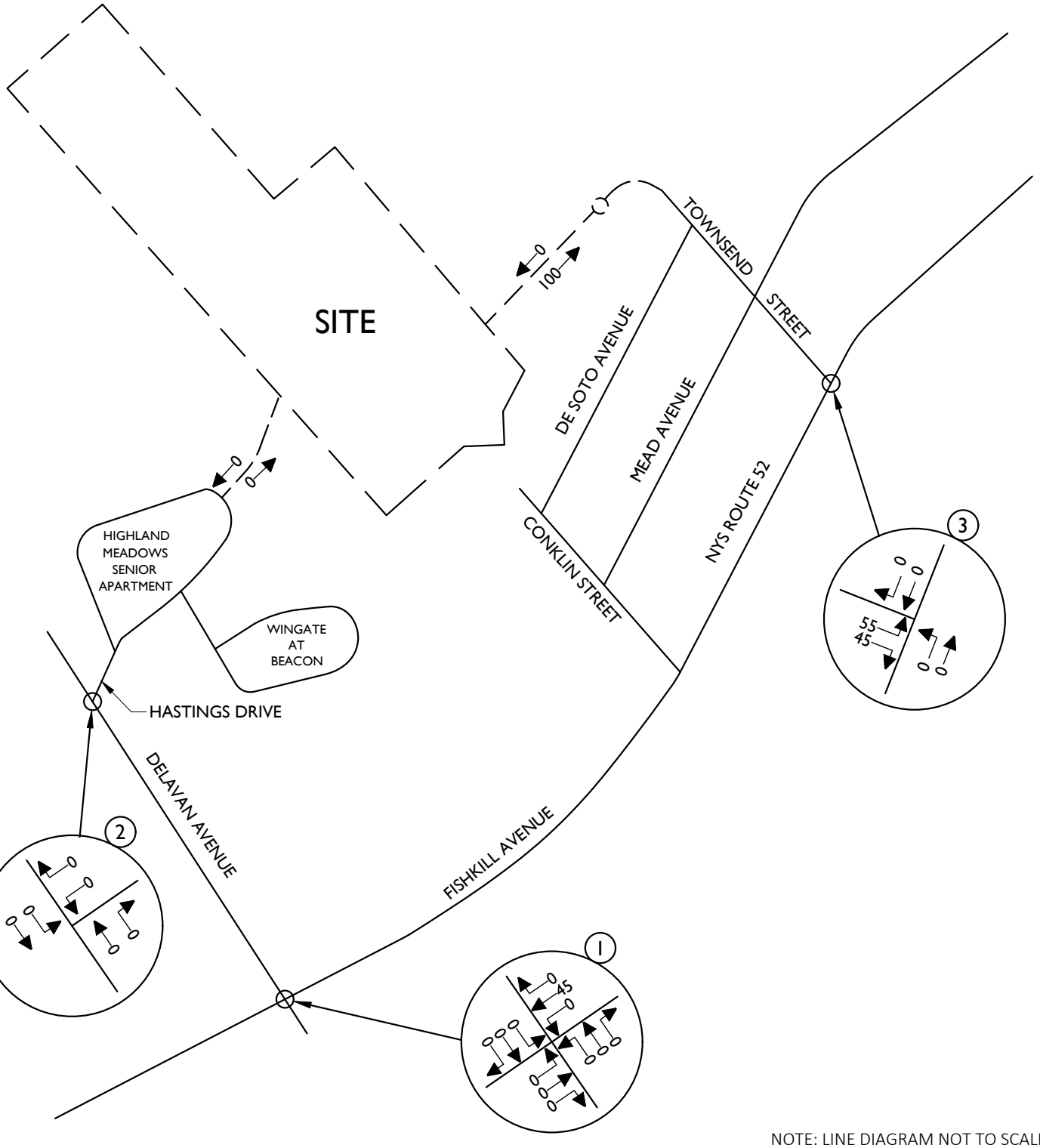

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PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

SHEET TITLE:
DEPARTURE DISTRIBUTION
(ALL VALUES ARE EXPRESSED AS %)
(TOWNSEND STREET ACCESS)

SHEET NUMBER:
11

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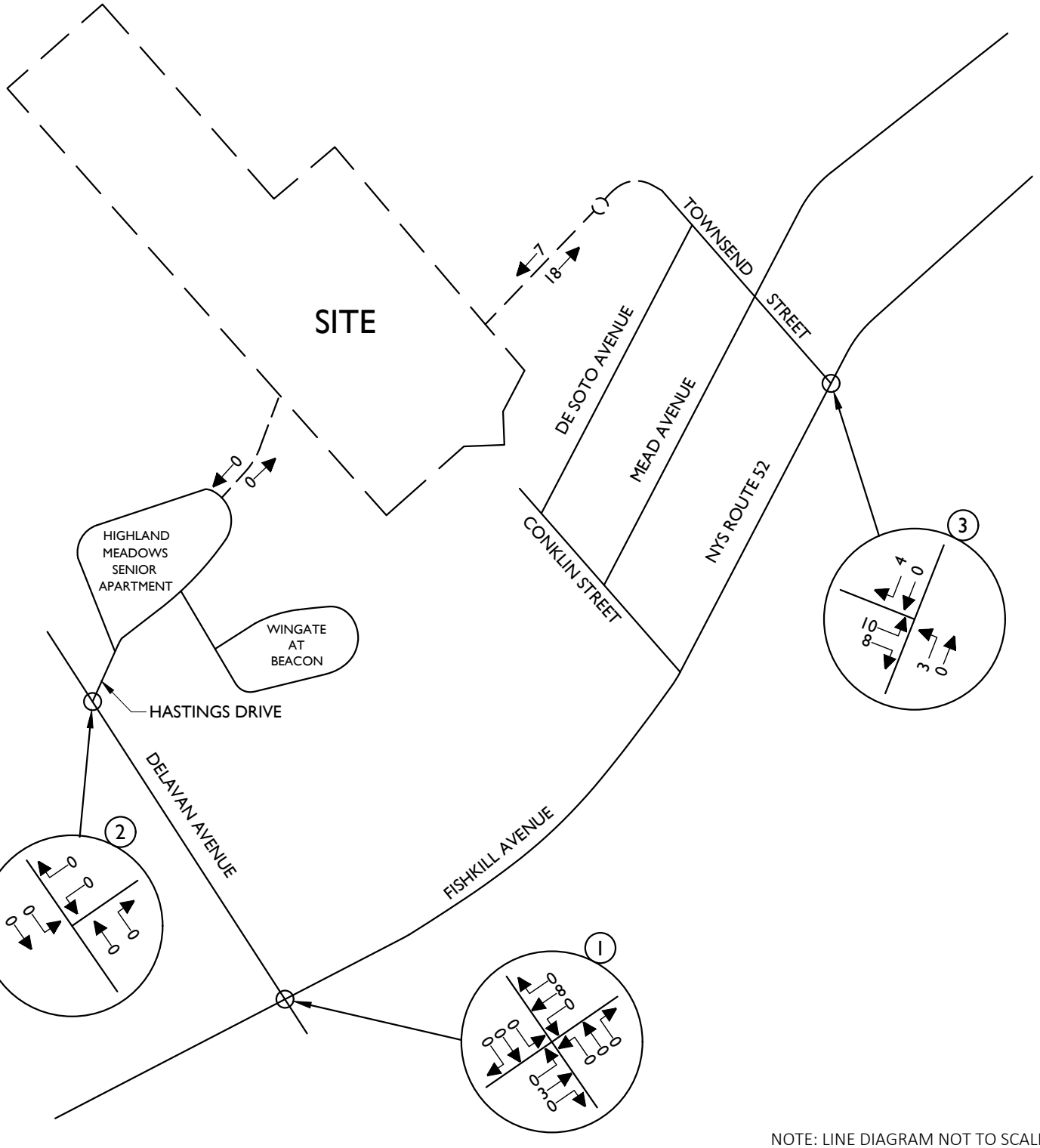

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PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(TOWNSEND STREET ACCESS)

SHEET NUMBER:
12

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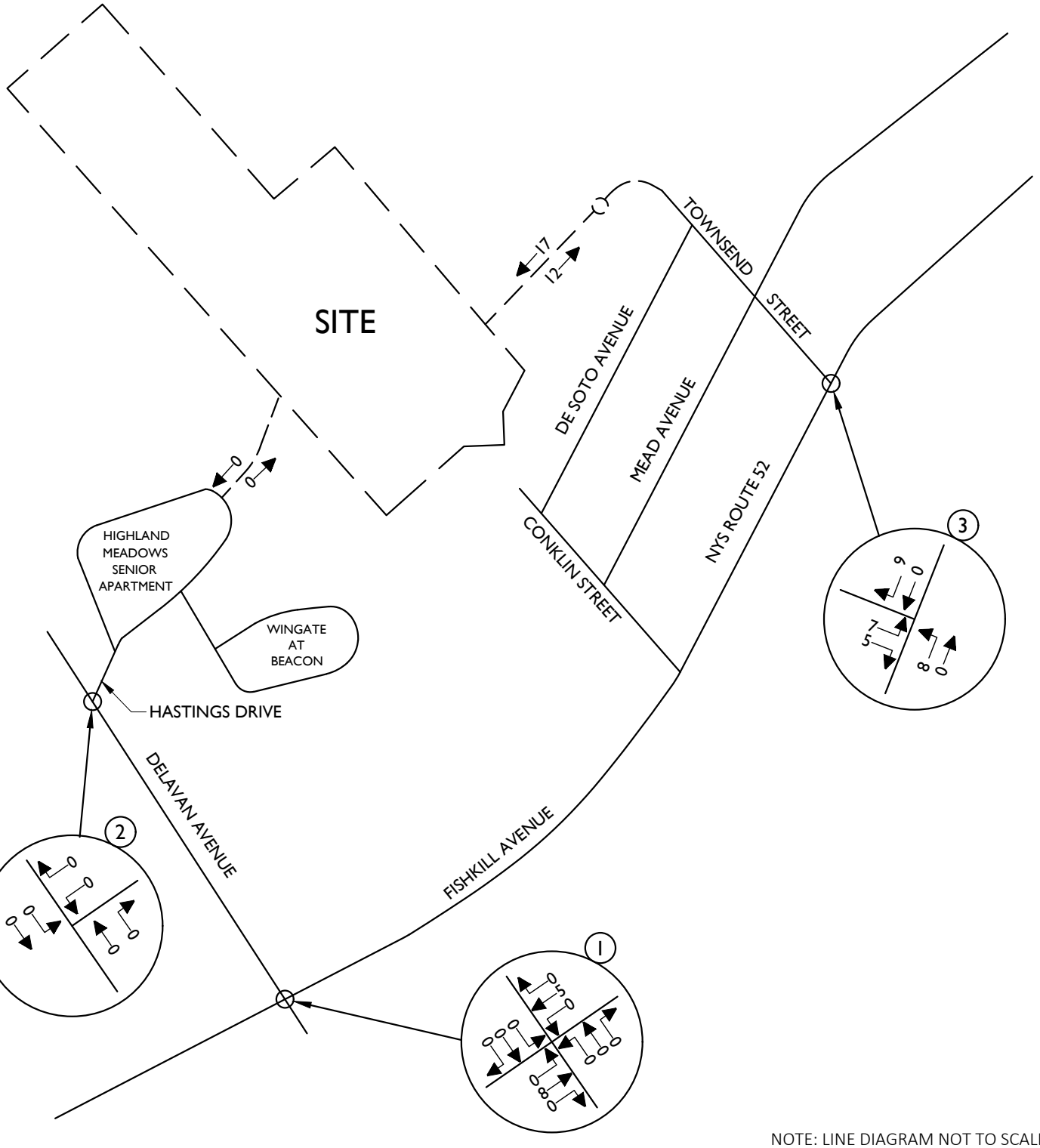

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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR
(TOWNSEND STREET ACCESS)

SHEET NUMBER:
13

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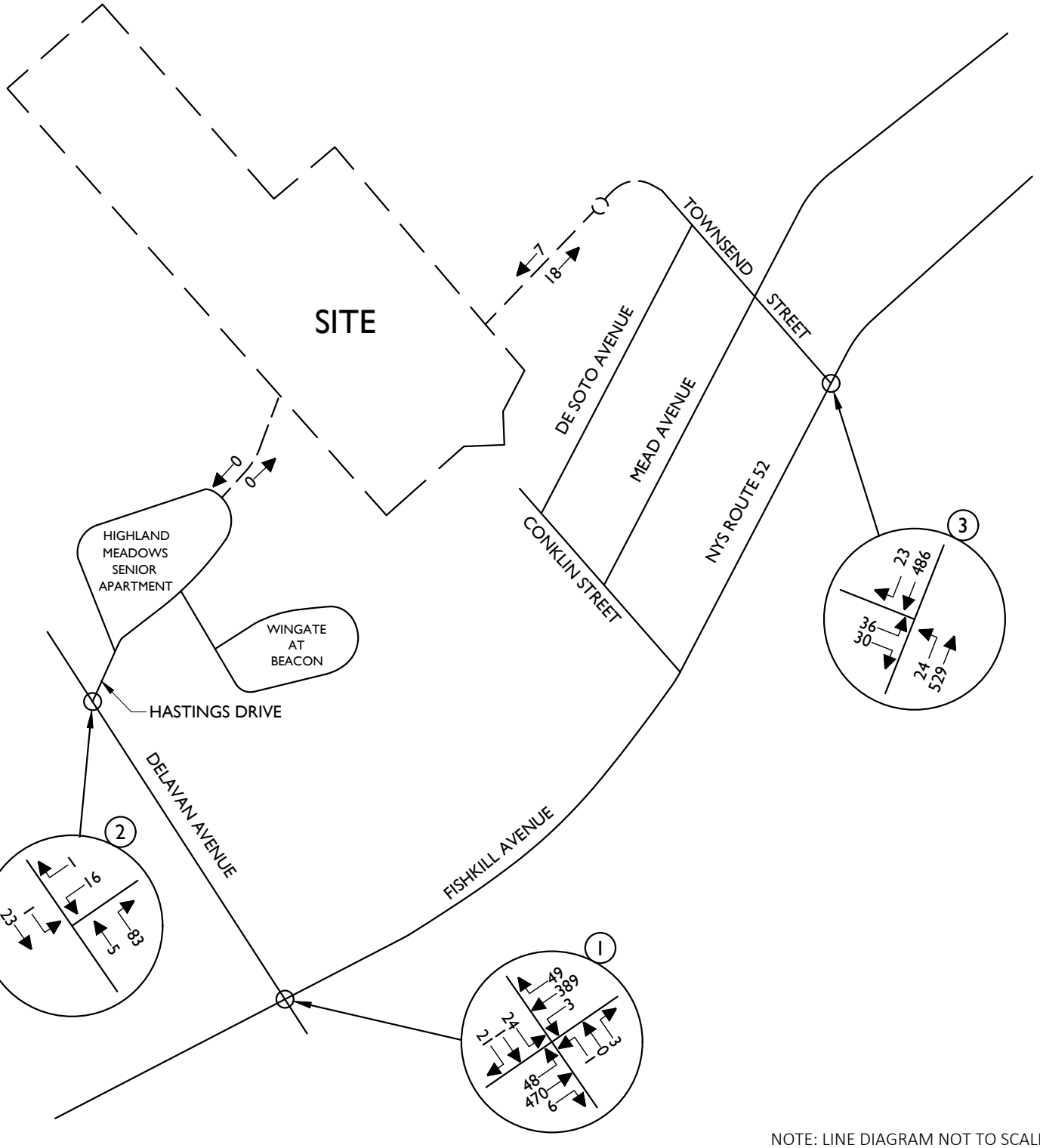

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PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

SHEET TITLE:
2022 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(TOWNSEND STREET ACCESS)

SHEET NUMBER:
14

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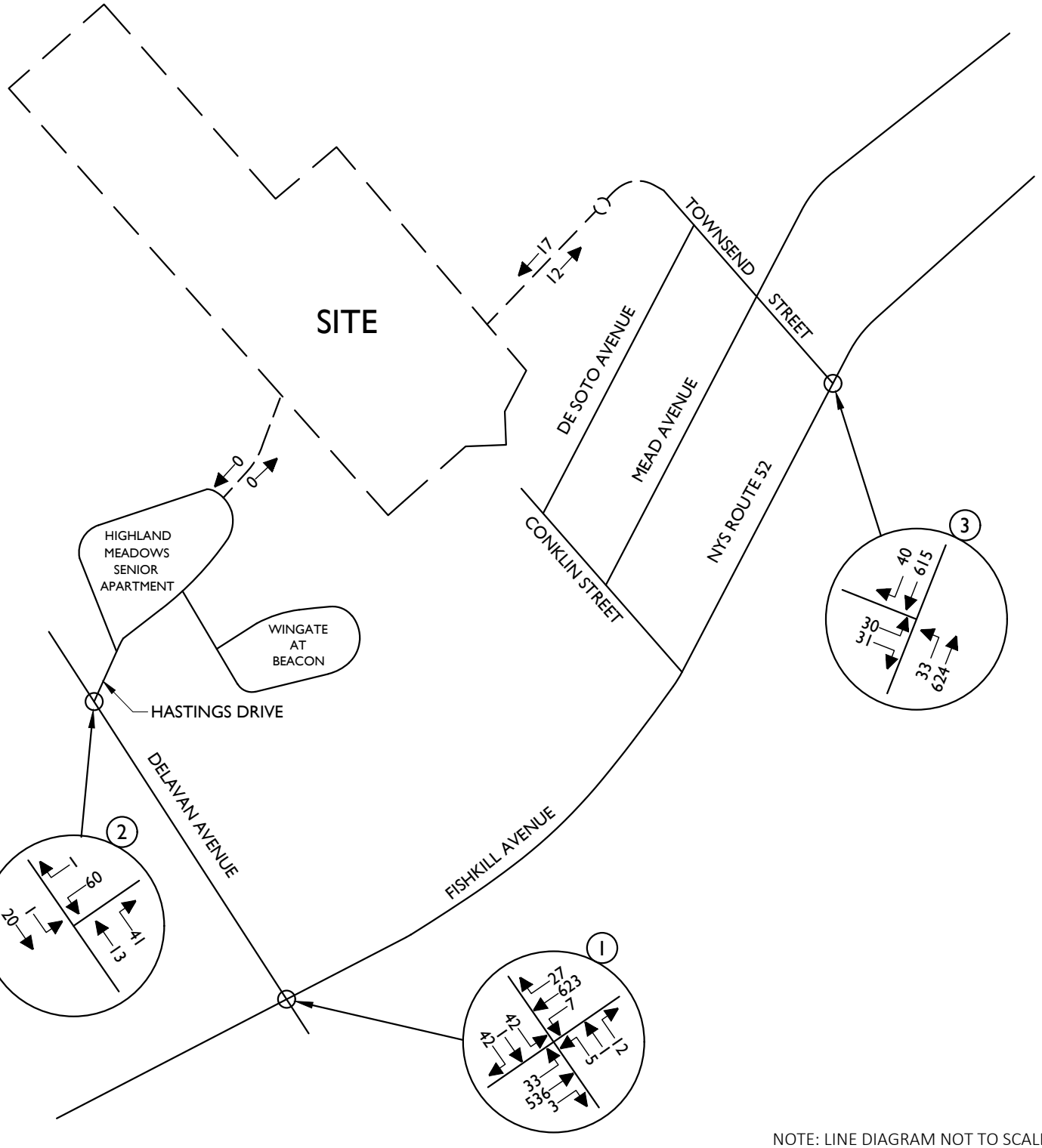

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PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

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WEEKDAY PEAK PM HOUR
(TOWNSEND STREET ACCESS)

SHEET NUMBER:
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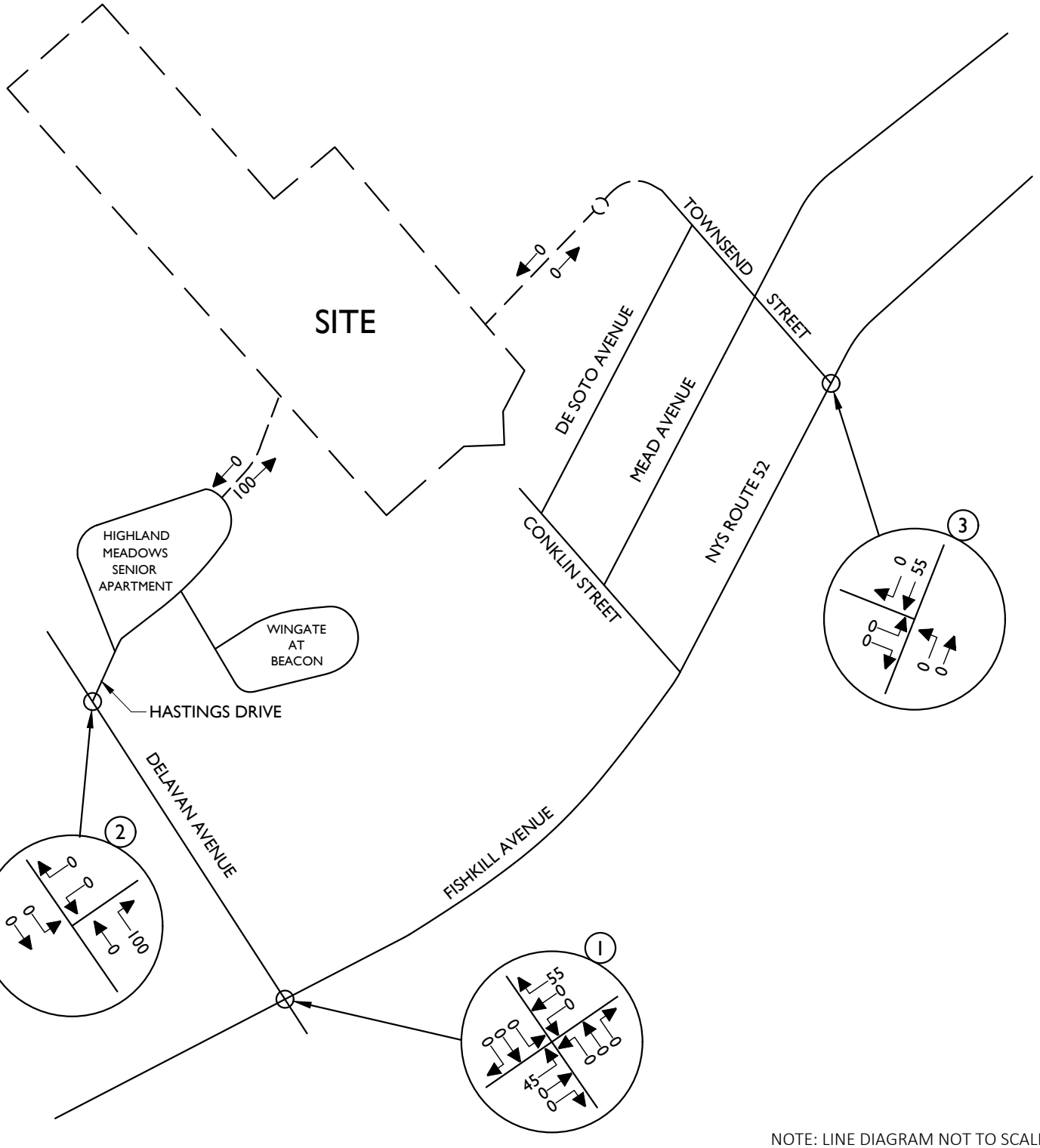

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SHEET TITLE:
ARRIVAL DISTRIBUTION
(ALL VALUES ARE EXPRESSED AS %)
(HASTINGS DRIVE ACCESS)

SHEET NUMBER:
10A

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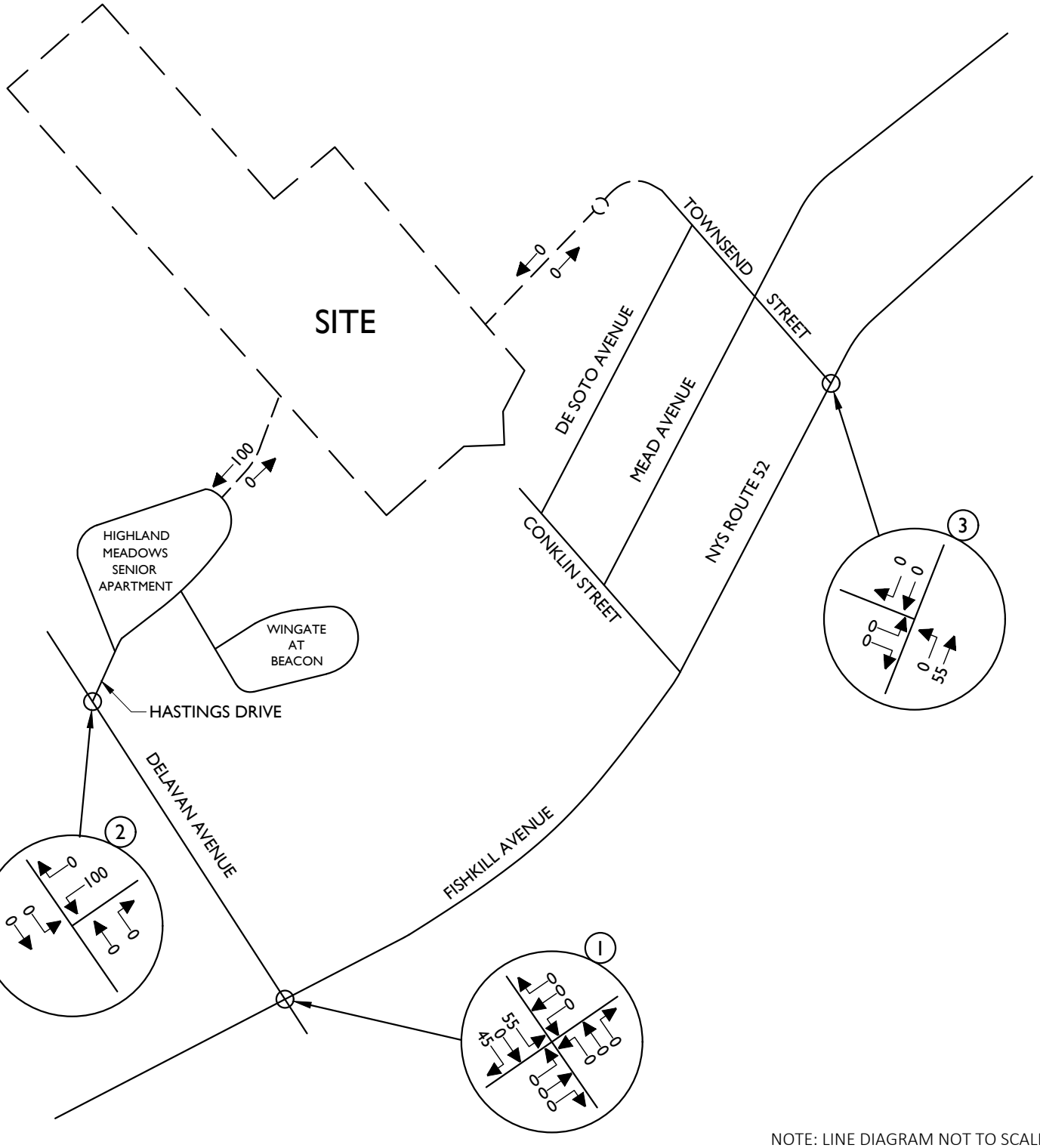

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PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

SHEET TITLE:
DEPARTURE DISTRIBUTION
(ALL VALUES ARE EXPRESSED AS %)
(HASTINGS DRIVE ACCESS)

SHEET NUMBER:
11A

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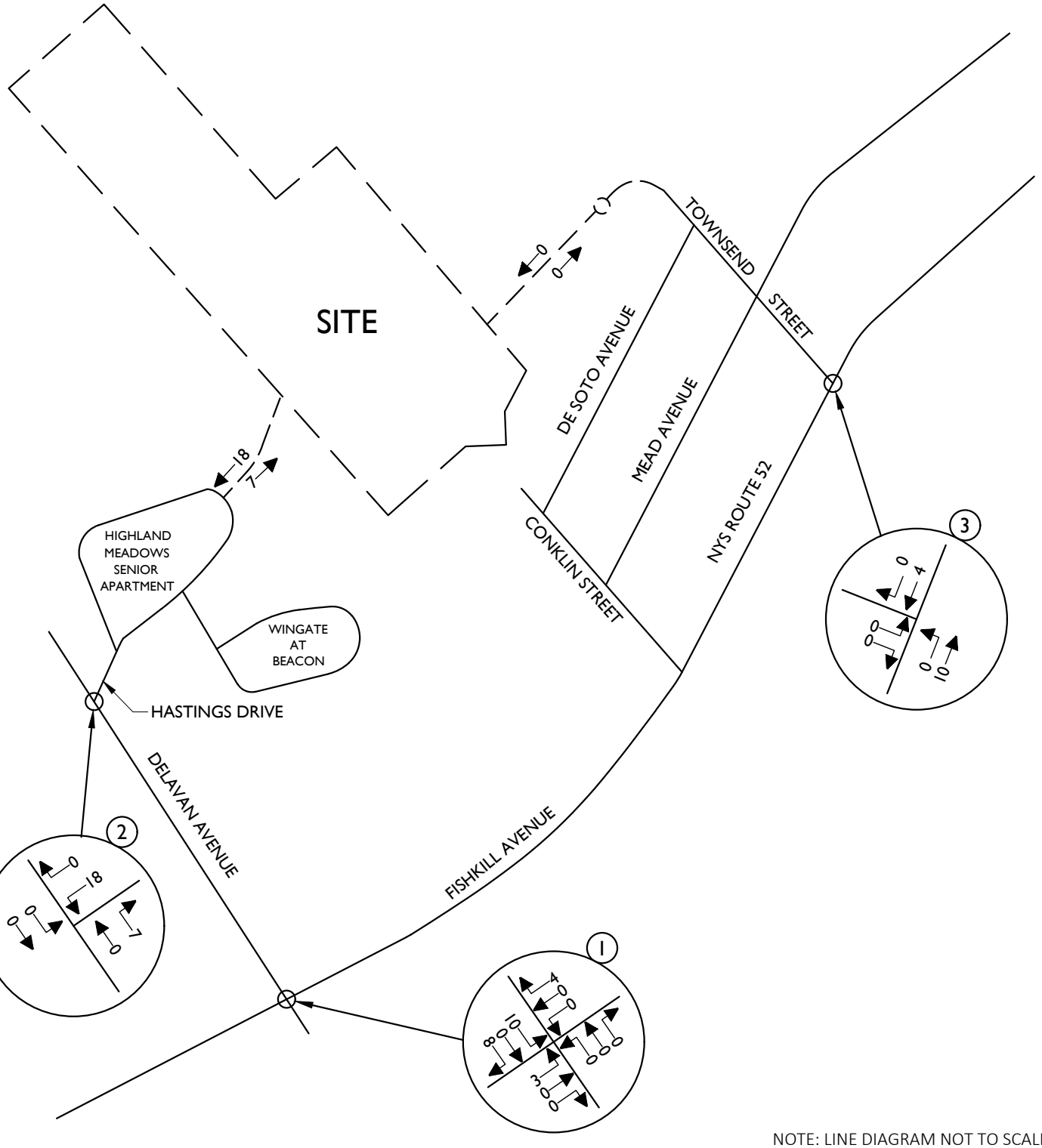

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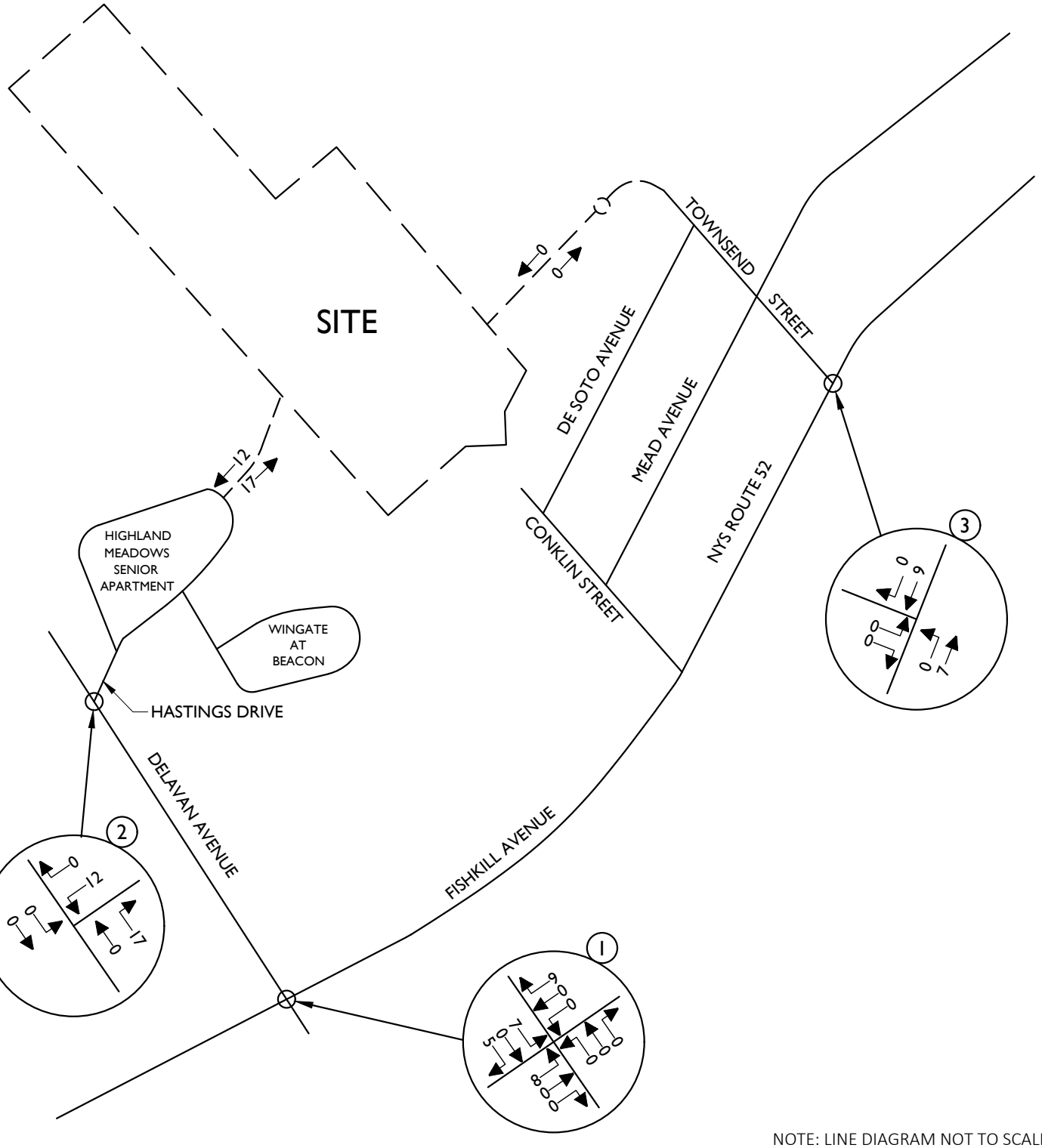
AS SHOWN	03/24/20	R.H.	P.J.G.

PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(HASTINGS DRIVE ACCESS)

SHEET NUMBER:
12A

2075A_Beacon Views\Reports\Traffic\Figures\Figures\200324RH_figures.dwg\12A By: RHILARIO



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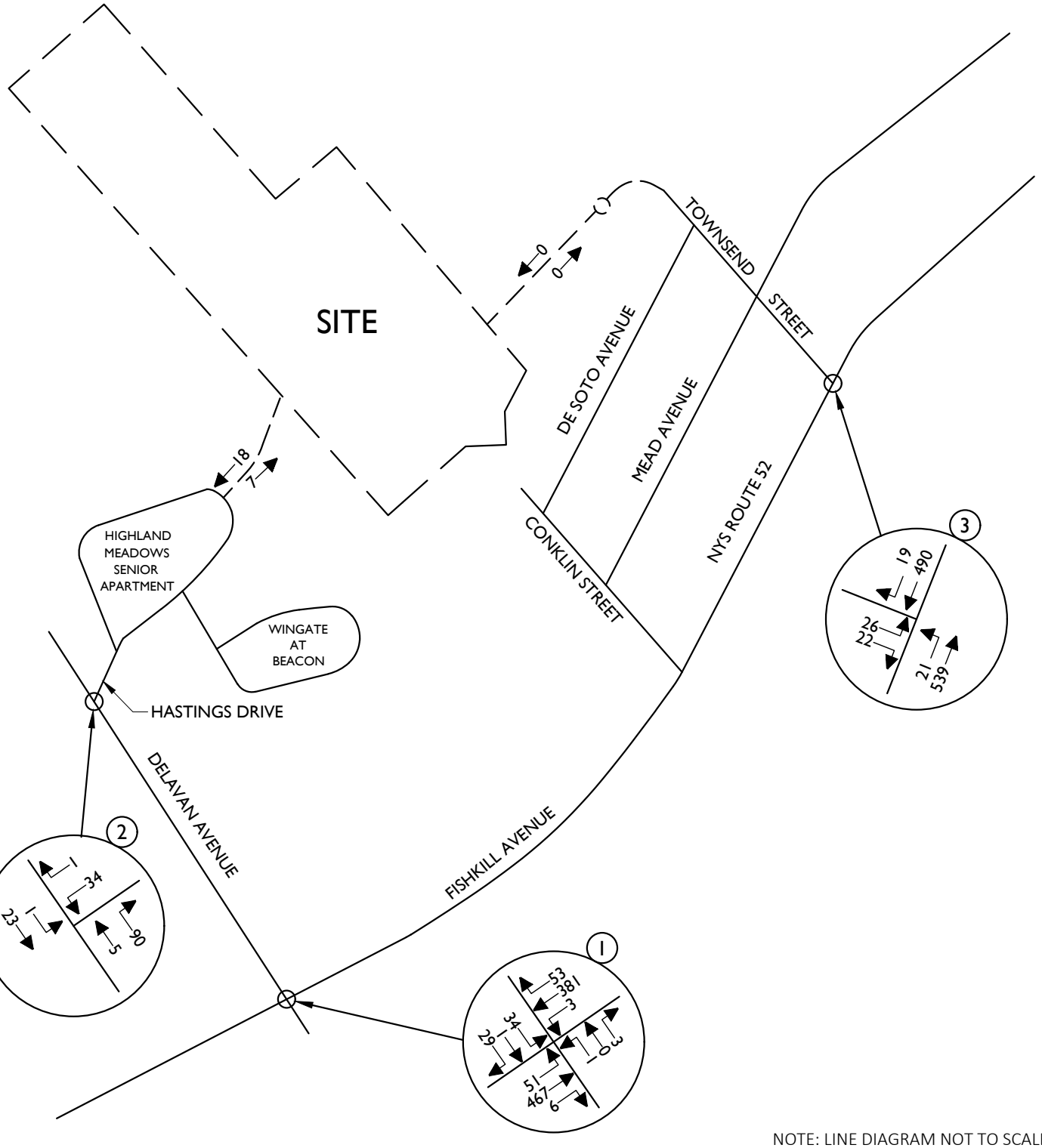

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PROJECT NUMBER:	DRAWING NAME:
19002075A	200324RH_FIGURES

SHEET TITLE:
2022 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(HASTINGS DRIVE ACCESS)

SHEET NUMBER:
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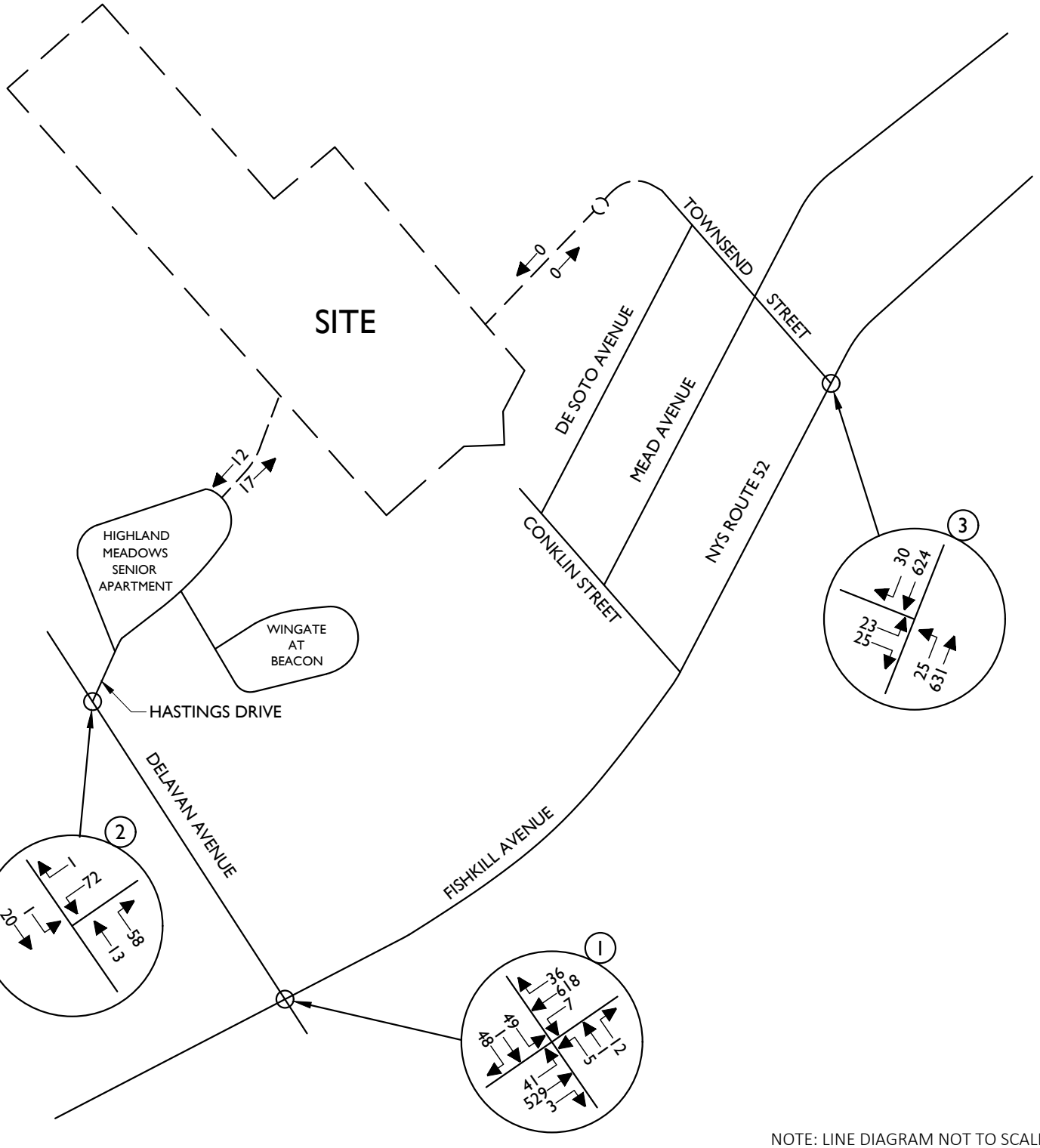

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WEEKDAY PEAK PM HOUR
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SHEET NUMBER:
15A

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BEACON VIEWS

APPENDIX B

TABLES

TABLE NO. 1

HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

BEACON VIEWS CITY OF BEACON, NEW YORK	ENTRY		EXIT	
	HTGR[1]	VOLUME	HTGR[1]	VOLUME
TOWNHOUSES (40 DWELLING UNITS)				
PEAK AM HOUR	0.17	7	0.43	18
PEAK PM HOUR	0.41	17	0.28	12

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 10TH EDITION, 2017. ITE LAND USE CODE - 220 - MULTIFAMILY HOUSING (LOW-RISE)

TABLE NO. 2 - AM Peak Hour

LEVEL OF SERVICE SUMMARY TABLE

				2019 EXISTING			2022 NO-BUILD			TOWNSEND STREET ACCESS 2022 BUILD			CHANGE IN DELAY NO-BUILD TO BUILD
			AM	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	
1	NYS ROUTE 52 & DELAVAN AVENUE/ MAVIS DRIVEWAY	**UNSIGNALIZED**											
	NYS ROUTE 52	EB	LTR	0.05	A	8.4	0.05	A	8.5	0.05	A	8.6	0.1
	NYS ROUTE 52	WB	LTR	0.00	A	8.3	0.00	A	8.5	0.00	A	8.5	0.0
	MAVIS DRIVEWAY	NB	LTR	0.01	B	13.8	0.01	B	14.8	0.01	B	14.9	0.1
	DELAVAN AVENUE	SB	LTR	0.15	C	17.8	0.17	C	19.8	0.18	C	20.2	0.4
2	DELAVAN AVENUE & HASTINGS DRIVE	**UNSIGNALIZED**											
	HASTINGS DRIVE	WB	LR	0.02	A	9.0	0.02	A	9.1	0.02	A	9.1	0.0
	DELAVAN AVENUE	SB	L	0.00	A	7.5	0.00	A	7.5	0.00	A	7.5	0.0
3	NYS ROUTE 52 & TOWNSEND STREET	**UNSIGNALIZED**											
	TOWNSEND STREET	EB	LR	0.10	C	15.7	0.15	C	17.4	0.21	C	18.5	1.1
	NYS ROUTE 52	NB	LT	0.02	A	8.4	0.02	A	8.5	0.02	A	8.6	0.1

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

TABLE NO. 2 -PM Peak Hour

LEVEL OF SERVICE SUMMARY TABLE

				2019 EXISTING			2022 NO-BUILD			TOWNSEND STREET ACCESS 2022 BUILD			CHANGE IN DELAY NO-BUILD TO BUILD
			PM	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	
1	NYS ROUTE 52 & DELAVAN AVENUE/ MAVIS DRIVEWAY	**UNSIGNALIZED**											
	NYS ROUTE 52	EB	LTR	0.04	A	8.9	0.04	A	9.2	0.04	A	9.3	0.1
	NYS ROUTE 52	WB	LTR	0.01	A	8.5	0.01	A	8.6	0.01	A	8.7	0.1
	MAVIS DRIVEWAY	NB	LTR	0.07	C	18.5	0.08	C	21.2	0.08	C	21.5	0.3
	DELAVAN AVENUE	SB	LTR	0.35	D	26.9	0.45	E	36.5	0.46	E	37.6	1.1
2	DELAVAN AVENUE & HASTINGS DRIVE	**UNSIGNALIZED**											
	HASTINGS DRIVE	WB	LR	0.08	A	9.2	0.09	A	9.3	0.09	A	9.3	0.0
	DELAVAN AVENUE	SB	L	0.00	A	7.4	0.00	A	7.4	0.00	A	7.4	0.0
3	NYS ROUTE 52 & TOWNSEND STREET	**UNSIGNALIZED**											
	TOWNSEND STREET	EB	LR	0.13	C	17.9	0.19	C	21.3	0.25	C	23.5	2.2
	NYS ROUTE 52	NB	LT	0.02	A	8.7	0.03	A	9.0	0.04	A	9.1	0.1

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

TABLE NO. 2A - AM Peak Hour

LEVEL OF SERVICE SUMMARY TABLE

				2019 EXISTING			2022 NO-BUILD			HASTINGS DRIVE ACCESS 2022 BUILD			CHANGE IN DELAY NO-BUILD TO BUILD
			AM	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	
1	NYS ROUTE 52 & DELAVAN AVENUE/ MAVIS DRIVEWAY	**UNSIGNALIZED**											
	NYS ROUTE 52	EB	LTR	0.05	A	8.4	0.05	A	8.5	0.05	A	8.6	0.1
	NYS ROUTE 52	WB	LTR	0.00	A	8.3	0.00	A	8.5	0.00	A	8.5	0.0
	MAVIS DRIVEWAY	NB	LTR	0.01	B	13.8	0.01	B	14.8	0.01	C	15.0	0.2
	DELAVAN AVENUE	SB	LTR	0.15	C	17.8	0.17	C	19.8	0.25	C	21.6	1.8
2	DELAVAN AVENUE & HASTINGS DRIVE	**UNSIGNALIZED**											
	HASTINGS DRIVE	WB	LR	0.02	A	9.0	0.02	A	9.1	0.05	A	9.2	0.1
	DELAVAN AVENUE	SB	L	0.00	A	7.5	0.00	A	7.5	0.00	A	7.5	0.0
3	NYS ROUTE 52 & TOWNSEND STREET	**UNSIGNALIZED**											
	TOWNSEND STREET	EB	LR	0.10	C	15.7	0.15	C	17.4	0.21	C	18.5	1.1
	NYS ROUTE 52	NB	LT	0.02	A	8.4	0.02	A	8.5	0.02	A	8.6	0.1

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

TABLE NO. 2A - PM Peak Hour

LEVEL OF SERVICE SUMMARY TABLE

				2019 EXISTING			2022 NO-BUILD			HASTINGS DRIVE ACCESS 2022 BUILD			CHANGE IN DELAY NO-BUILD TO BUILD
			PM	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	
1	NYS ROUTE 52 & DELAVAN AVENUE/ MAVIS DRIVEWAY	**UNSIGNALIZED**											
	NYS ROUTE 52	EB	LTR	0.04	A	8.9	0.04	A	9.2	0.05	A	9.3	0.1
	NYS ROUTE 52	WB	LTR	0.01	A	8.5	0.01	A	8.6	0.01	A	8.6	0.0
	MAVIS DRIVEWAY	NB	LTR	0.07	C	18.5	0.08	C	21.2	0.09	C	22.0	0.8
	DELAVAN AVENUE	SB	LTR	0.35	D	26.9	0.45	E	36.5	0.54	E	43.3	6.8
2	DELAVAN AVENUE & HASTINGS DRIVE	**UNSIGNALIZED**											
	HASTINGS DRIVE	WB	LR	0.08	A	9.2	0.09	A	9.3	0.1	A	9.4	0.1
	DELAVAN AVENUE	SB	L	0.00	A	7.4	0.00	A	7.4	0.00	A	7.4	0.0
3	NYS ROUTE 52 & TOWNSEND STREET	**UNSIGNALIZED**											
	TOWNSEND STREET	EB	LR	0.13	C	17.9	0.19	C	21.3	0.19	C	21.7	0.4
	NYS ROUTE 52	NB	LT	0.02	A	8.7	0.03	A	9.0	0.03	A	9.1	0.1

NOTES:

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

BEACON VIEWS

APPENDIX C

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE STANDARDS

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.

LOS C describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.

LOS D describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.

LOS E describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.

LOS F describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 19-8

	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

For approach-based and intersection wide assessments, LOS is defined solely by control delay.

LEVEL OF SERVICE CRITERIA
FOR TWO-WAY STOP-CONTROLLED (TWSC) UNSIGNALIZED INTERSECTIONS

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 20-2

	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

LEVEL OF SERVICE CRITERIA
FOR ALL-WAY STOP-CONTROLLED (AWSC) UNSIGNALIZED INTERSECTIONS

The Levels of Service (LOS) for all-way stop-controlled (AWSC) intersections are given in Exhibit 21-8. As the exhibit notes, LOS F is assigned if the volume-to-capacity (v/c) ratio of a lane exceeds 1.0, regardless of the control delay. For assessment of LOS at the approach and intersection levels, LOS is based solely on control delay.

The Level of Service Criteria for AWSC unsignalized intersections are given in Exhibit 21-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 21-8

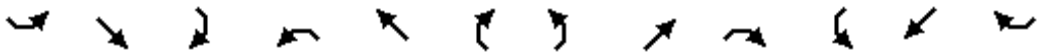
	LOS by Volume-to-Capacity Ratio	
Control Delay (s/veh)	**v/c ≤1.0**	**v/c >1.0**
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

For approaches and intersection wide assessment, LOS is defined solely by control delay.

BEACON VIEWS

APPENDIX D

CAPACITY ANALYSIS



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	23	1	20	1	0	3	45	420	6	3	351	46
Future Volume (vph)	23	1	20	1	0	3	45	420	6	3	351	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	16	16	16	16	12	12	12	12	12	12
Grade (%)		-2%			-1%			0%			-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.939			0.899			0.998			0.984	
Flt Protected		0.974			0.988			0.995				
Satd. Flow (prot)	0	1672	0	0	1884	0	0	1813	0	0	1808	0
Flt Permitted		0.974			0.988			0.995				
Satd. Flow (perm)	0	1672	0	0	1884	0	0	1813	0	0	1808	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		724			126			581			1007	
Travel Time (s)		16.5			2.9			13.2			22.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	5%	4%	2%	2%	5%	5%
Parking (#/hr)			0									
Adj. Flow (vph)	26	1	22	1	0	3	50	467	7	3	390	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	0	0	4	0	0	524	0	0	444	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.84	0.99	0.84	0.84	0.84	0.84	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	23	1	20	1	0	3	45	420	6	3	351	46
Future Vol, veh/h	23	1	20	1	0	3	45	420	6	3	351	46
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	0	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	2	2	2	5	4	2	2	5	5
Mvmt Flow	26	1	22	1	0	3	50	467	7	3	390	51

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	994	996	416	1004	1018	471	441	0	0	474	0	0
Stage 1	422	422	-	571	571	-	-	-	-	-	-	-
Stage 2	572	574	-	433	447	-	-	-	-	-	-	-
Critical Hdwy	6.75	6.15	6.05	6.92	6.32	6.12	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	247	270	645	233	251	601	1103	-	-	1088	-	-
Stage 1	633	611	-	522	521	-	-	-	-	-	-	-
Stage 2	533	531	-	616	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	233	252	645	213	234	601	1103	-	-	1088	-	-
Mov Cap-2 Maneuver	233	252	-	213	234	-	-	-	-	-	-	-
Stage 1	594	609	-	490	489	-	-	-	-	-	-	-
Stage 2	497	498	-	591	586	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	17.8	13.8	0.8	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1103	-	-	413	329	1088	-	-
HCM Lane V/C Ratio	0.045	-	-	0.011	0.149	0.003	-	-
HCM Control Delay (s)	8.4	0	-	13.8	17.8	8.3	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.5	0	-	-

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1	22	5	78	15	1
Future Volume (vph)	1	22	5	78	15	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	6%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.873		0.993	
Flt Protected		0.998			0.955	
Satd. Flow (prot)	0	1642	1532	0	1716	0
Flt Permitted		0.998			0.955	
Satd. Flow (perm)	0	1642	1532	0	1716	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		382	724		221	
Travel Time (s)		8.7	16.5		5.0	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%
Parking (#/hr)		0		0		
Adj. Flow (vph)	1	29	6	101	19	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	30	107	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	1.13	1.04	1.04	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	22	5	78	15	1
Future Vol, veh/h	1	22	5	78	15	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	6	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	29	6	101	19	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	107	0	-	0	88	57
Stage 1	-	-	-	-	57	-
Stage 2	-	-	-	-	31	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1465	-	-	-	906	1001
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	984	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1465	-	-	-	905	1001
Mov Cap-2 Maneuver	-	-	-	-	905	-
Stage 1	-	-	-	-	957	-
Stage 2	-	-	-	-	984	-

Approach	SE	NW	SW
HCM Control Delay, s	8.3	0	9
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1465	-	910
HCM Lane V/C Ratio	-	-	0.001	-	0.023
HCM Control Delay (s)	-	-	7.5	0	9
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	18	480	455	16	20	16
Future Volume (vph)	18	480	455	16	20	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		1%	-1%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.940	
Flt Protected		0.998			0.973	
Satd. Flow (prot)	0	1850	1863	0	1721	0
Flt Permitted		0.998			0.973	
Satd. Flow (perm)	0	1850	1863	0	1721	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		302	299		386	
Travel Time (s)		6.9	6.8		8.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	19	500	474	17	21	17
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	519	491	0	38	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.7

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	18	480	455	16	20	16
Future Vol, veh/h	18	480	455	16	20	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	1	-1	-	-2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	500	474	17	21	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	491	0	-	0	1021	483
Stage 1	-	-	-	-	483	-
Stage 2	-	-	-	-	538	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1072	-	-	-	293	599
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	621	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1072	-	-	-	286	599
Mov Cap-2 Maneuver	-	-	-	-	286	-
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	621	-

Approach	NB	SB	SE
HCM Control Delay, s	0.3	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1072	-	373	-	-
HCM Lane V/C Ratio	0.017	-	0.101	-	-
HCM Control Delay (s)	8.4	0	15.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	40	1	40	5	1	11	31	475	3	7	542	25
Future Volume (vph)	40	1	40	5	1	11	31	475	3	7	542	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	16	16	16	16	12	12	12	12	12	12
Grade (%)		-2%			-1%			0%			-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.933			0.910			0.999			0.994	
Flt Protected		0.976			0.986			0.997			0.999	
Satd. Flow (prot)	0	1664	0	0	1904	0	0	1852	0	0	1875	0
Flt Permitted		0.976			0.986			0.997			0.999	
Satd. Flow (perm)	0	1664	0	0	1904	0	0	1852	0	0	1875	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		724			126			581			1007	
Travel Time (s)		16.5			2.9			13.2			22.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	5%	2%	2%	2%	2%	5%
Parking (#/hr)			0									
Adj. Flow (vph)	43	1	43	5	1	12	34	516	3	8	589	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	87	0	0	18	0	0	553	0	0	624	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.84	0.99	0.84	0.84	0.84	0.84	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	40	1	40	5	1	11	31	475	3	7	542	25
Future Vol, veh/h	40	1	40	5	1	11	31	475	3	7	542	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	0	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	2	2	2	5	2	2	2	2	5
Mvmt Flow	43	1	43	5	1	12	34	516	3	8	589	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1211	1206	603	1227	1218	518	616	0	0	519	0	0
Stage 1	619	619	-	586	586	-	-	-	-	-	-	-
Stage 2	592	587	-	641	632	-	-	-	-	-	-	-
Critical Hdwy	6.75	6.15	6.05	6.92	6.32	6.12	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	180	207	510	166	193	566	949	-	-	1047	-	-
Stage 1	505	509	-	513	513	-	-	-	-	-	-	-
Stage 2	521	525	-	480	491	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	167	194	510	144	181	566	949	-	-	1047	-	-
Mov Cap-2 Maneuver	167	194	-	144	181	-	-	-	-	-	-	-
Stage 1	480	503	-	487	487	-	-	-	-	-	-	-
Stage 2	483	499	-	433	485	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	26.9	18.5	0.5	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	949	-	-	285	251	1047	-	-
HCM Lane V/C Ratio	0.036	-	-	0.065	0.351	0.007	-	-
HCM Control Delay (s)	8.9	0	-	18.5	26.9	8.5	0	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.5	0	-	-

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1	19	12	39	57	1
Future Volume (vph)	1	19	12	39	57	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	6%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.897		0.998	
Flt Protected		0.998			0.953	
Satd. Flow (prot)	0	1642	1574	0	1721	0
Flt Permitted		0.998			0.953	
Satd. Flow (perm)	0	1642	1574	0	1721	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		382	724		221	
Travel Time (s)		8.7	16.5		5.0	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%
Parking (#/hr)		0		0		
Adj. Flow (vph)	1	25	16	51	74	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	26	67	0	75	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	1.13	1.04	1.04	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	19	12	39	57	1
Future Vol, veh/h	1	19	12	39	57	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	6	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	25	16	51	74	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	67	0	-	0	69	42
Stage 1	-	-	-	-	42	-
Stage 2	-	-	-	-	27	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1516	-	-	-	928	1020
Stage 1	-	-	-	-	973	-
Stage 2	-	-	-	-	988	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1516	-	-	-	927	1020
Mov Cap-2 Maneuver	-	-	-	-	927	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	988	-

Approach	SE	NW	SW
HCM Control Delay, s	0.4	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1516	-	928
HCM Lane V/C Ratio	-	-	0.001	-	0.081
HCM Control Delay (s)	-	-	7.4	0	9.2
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.3

Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	19	570	542	24	19	21
Future Volume (vph)	19	570	542	24	19	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		1%	-1%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.929	
Flt Protected		0.998			0.977	
Satd. Flow (prot)	0	1850	1861	0	1708	0
Flt Permitted		0.998			0.977	
Satd. Flow (perm)	0	1850	1861	0	1708	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		443	381		638	
Travel Time (s)		10.1	8.7		14.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	20	594	565	25	20	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	614	590	0	42	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.7

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	19	570	542	24	19	21
Future Vol, veh/h	19	570	542	24	19	21
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, %	-	1	-1	-	-2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	594	565	25	20	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	590	0	-	0	1212	578
Stage 1	-	-	-	-	578	-
Stage 2	-	-	-	-	634	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	985	-	-	-	230	532
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	567	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	985	-	-	-	223	532
Mov Cap-2 Maneuver	-	-	-	-	223	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	567	-

Approach	NB	SB	SE
HCM Control Delay, s	0.3	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	985	-	321	-	-
HCM Lane V/C Ratio	0.02	-	0.13	-	-
HCM Control Delay (s)	8.7	0	17.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	24	1	21	1	0	3	48	467	6	3	381	49
Future Volume (vph)	24	1	21	1	0	3	48	467	6	3	381	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	16	16	16	16	12	12	12	12	12	12
Grade (%)		-2%			-1%			0%			-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.939			0.899			0.998			0.985	
Flt Protected		0.974			0.988			0.995				
Satd. Flow (prot)	0	1672	0	0	1884	0	0	1813	0	0	1809	0
Flt Permitted		0.974			0.988			0.995				
Satd. Flow (perm)	0	1672	0	0	1884	0	0	1813	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		724			126			581			1007	
Travel Time (s)		16.5			2.9			13.2			22.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	5%	4%	2%	2%	5%	5%
Parking (#/hr)			0									
Adj. Flow (vph)	27	1	23	1	0	3	53	519	7	3	423	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	51	0	0	4	0	0	579	0	0	480	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.84	0.99	0.84	0.84	0.84	0.84	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	1	21	1	0	3	48	467	6	3	381	49
Future Vol, veh/h	24	1	21	1	0	3	48	467	6	3	381	49
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	0	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	2	2	2	5	4	2	2	5	5
Mvmt Flow	27	1	23	1	0	3	53	519	7	3	423	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1086	1088	450	1097	1112	523	477	0	0	526	0	0
Stage 1	456	456	-	629	629	-	-	-	-	-	-	-
Stage 2	630	632	-	468	483	-	-	-	-	-	-	-
Critical Hdwy	6.75	6.15	6.05	6.92	6.32	6.12	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	216	240	618	202	222	562	1070	-	-	1041	-	-
Stage 1	608	592	-	487	492	-	-	-	-	-	-	-
Stage 2	498	503	-	591	568	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	222	618	183	206	562	1070	-	-	1041	-	-
Mov Cap-2 Maneuver	203	222	-	183	206	-	-	-	-	-	-	-
Stage 1	565	590	-	453	458	-	-	-	-	-	-	-
Stage 2	460	468	-	565	566	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	19.8	14.8	0.8	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1070	-	-	370	294	1041	-	-
HCM Lane V/C Ratio	0.05	-	-	0.012	0.174	0.003	-	-
HCM Control Delay (s)	8.5	0	-	14.8	19.8	8.5	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	0.6	0	-	-

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1	23	5	83	16	1
Future Volume (vph)	1	23	5	83	16	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	6%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.872		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1642	1531	0	1716	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1642	1531	0	1716	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		382	724		221	
Travel Time (s)		8.7	16.5		5.0	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%
Parking (#/hr)		0		0		
Adj. Flow (vph)	1	30	6	108	21	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	31	114	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	1.13	1.04	1.04	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	23	5	83	16	1
Future Vol, veh/h	1	23	5	83	16	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	6	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	30	6	108	21	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	114	0	-	0	92	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1457	-	-	-	901	997
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	983	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1457	-	-	-	900	997
Mov Cap-2 Maneuver	-	-	-	-	900	-
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	983	-

Approach	SE	NW	SW
HCM Control Delay, s	0.3	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1457	-	905
HCM Lane V/C Ratio	-	-	0.001	-	0.024
HCM Control Delay (s)	-	-	7.5	0	9.1
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	21	529	486	19	26	22
Future Volume (vph)	21	529	486	19	26	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		1%	-1%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.938	
Flt Protected		0.998			0.974	
Satd. Flow (prot)	0	1850	1863	0	1719	0
Flt Permitted		0.998			0.974	
Satd. Flow (perm)	0	1850	1863	0	1719	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		302	299		386	
Travel Time (s)		6.9	6.8		8.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	22	551	506	20	27	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	573	526	0	50	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	21	529	486	19	26	22
Future Vol, veh/h	21	529	486	19	26	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, %	-	1	-1	-	-2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	551	506	20	27	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	526	0	-	0	1111	516
Stage 1	-	-	-	-	516	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1041	-	-	-	262	575
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	589	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1041	-	-	-	254	575
Mov Cap-2 Maneuver	-	-	-	-	254	-
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	589	-

Approach	NB	SB	SE
HCM Control Delay, s	0.3	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1041	-	341	-	-
HCM Lane V/C Ratio	0.021	-	0.147	-	-
HCM Control Delay (s)	8.5	0	17.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	42	1	42	5	1	12	33	529	3	7	618	27
Future Volume (vph)	42	1	42	5	1	12	33	529	3	7	618	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	16	16	16	16	12	12	12	12	12	12
Grade (%)		-2%			-1%			0%			-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.933			0.908			0.999			0.994	
Flt Protected		0.976			0.987			0.997			0.999	
Satd. Flow (prot)	0	1664	0	0	1901	0	0	1852	0	0	1875	0
Flt Permitted		0.976			0.987			0.997			0.999	
Satd. Flow (perm)	0	1664	0	0	1901	0	0	1852	0	0	1875	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		724			126			581			1007	
Travel Time (s)		16.5			2.9			13.2			22.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	5%	2%	2%	2%	2%	5%
Parking (#/hr)			0									
Adj. Flow (vph)	46	1	46	5	1	13	36	575	3	8	672	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	19	0	0	614	0	0	709	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.84	0.99	0.84	0.84	0.84	0.84	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	2.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	1	42	5	1	12	33	529	3	7	618	27
Future Vol, veh/h	42	1	42	5	1	12	33	529	3	7	618	27
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	0	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	2	2	2	5	2	2	2	2	5
Mvmt Flow	46	1	46	5	1	13	36	575	3	8	672	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1359	1353	687	1375	1366	577	701	0	0	578	0	0
Stage 1	703	703	-	649	649	-	-	-	-	-	-	-
Stage 2	656	650	-	726	717	-	-	-	-	-	-	-
Critical Hdwy	6.75	6.15	6.05	6.92	6.32	6.12	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	144	172	459	132	159	525	882	-	-	996	-	-
Stage 1	458	471	-	475	483	-	-	-	-	-	-	-
Stage 2	483	495	-	433	451	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	132	160	459	112	148	525	882	-	-	996	-	-
Mov Cap-2 Maneuver	132	160	-	112	148	-	-	-	-	-	-	-
Stage 1	431	465	-	447	454	-	-	-	-	-	-	-
Stage 2	442	465	-	384	445	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	36.5	21.2	0.5	0.1
HCM LOS	E	C		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	882	-	-	242	204	996	-	-
HCM Lane V/C Ratio	0.041	-	-	0.081	0.453	0.008	-	-
HCM Control Delay (s)	9.3	0	-	21.2	36.5	8.6	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	2.2	0	-	-

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1	20	13	41	60	1
Future Volume (vph)	1	20	13	41	60	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	6%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.898		0.998	
Flt Protected		0.998			0.953	
Satd. Flow (prot)	0	1642	1576	0	1721	0
Flt Permitted		0.998			0.953	
Satd. Flow (perm)	0	1642	1576	0	1721	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		382	724		221	
Travel Time (s)		8.7	16.5		5.0	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%
Parking (#/hr)		0		0		
Adj. Flow (vph)	1	26	17	53	78	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	70	0	79	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	1.13	1.04	1.04	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	20	13	41	60	1
Future Vol, veh/h	1	20	13	41	60	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	6	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	26	17	53	78	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	72	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1512	-	-	-	925	1018
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	987	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1512	-	-	-	924	1018
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	987	-

Approach	SE	NW	SW
HCM Control Delay, s	0.4	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1512	-	925
HCM Lane V/C Ratio	-	-	0.001	-	0.086
HCM Control Delay (s)	-	-	7.4	0	9.3
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.3

Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	25	624	615	30	23	25
Future Volume (vph)	25	624	615	30	23	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		1%	-1%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.930	
Flt Protected		0.998			0.977	
Satd. Flow (prot)	0	1850	1861	0	1709	0
Flt Permitted		0.998			0.977	
Satd. Flow (perm)	0	1850	1861	0	1709	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		443	381		638	
Travel Time (s)		10.1	8.7		14.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	26	650	641	31	24	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	676	672	0	50	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	NBR	SBT	SBR	SEL	SER
Lane Configurations							
Traffic Vol, veh/h	25	624		615	30	23	25
Future Vol, veh/h	25	624		615	30	23	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, %	-	1		-1	-	-2	-
Peak Hour Factor	96	96		96	96	96	96
Heavy Vehicles, %	2	2		2	2	2	2
Mvmt Flow	26	650		641	31	24	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	672	0	-	0	1359	657
Stage 1	-	-	-	-	657	-
Stage 2	-	-	-	-	702	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	919	-	-	-	191	482
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	531	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	919	-	-	-	183	482
Mov Cap-2 Maneuver	-	-	-	-	183	-
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	531	-

Approach	NB	SB	SE
HCM Control Delay, s	0.3	0	21.3
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	NBR	SELn1	SBT	SBR
Capacity (veh/h)	919	-	-	270	-	-
HCM Lane V/C Ratio	0.028	-	-	0.185	-	-
HCM Control Delay (s)	9	0	-	21.3	-	-
HCM Lane LOS	A	A	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	-	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	24	1	21	1	0	3	48	470	6	3	389	49
Future Volume (vph)	24	1	21	1	0	3	48	470	6	3	389	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	16	16	16	16	12	12	12	12	12	12
Grade (%)		-2%			-1%			0%			-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.939			0.899			0.998			0.985	
Flt Protected		0.974			0.988			0.995				
Satd. Flow (prot)	0	1672	0	0	1884	0	0	1813	0	0	1809	0
Flt Permitted		0.974			0.988			0.995				
Satd. Flow (perm)	0	1672	0	0	1884	0	0	1813	0	0	1809	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		724			126			581			1007	
Travel Time (s)		16.5			2.9			13.2			22.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	5%	4%	2%	2%	5%	5%
Parking (#/hr)			0									
Adj. Flow (vph)	27	1	23	1	0	3	53	522	7	3	432	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	51	0	0	4	0	0	582	0	0	489	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.84	0.99	0.84	0.84	0.84	0.84	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.4

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Vol, veh/h	24	1	21	1	0	3	48	470	6	3	389	49
Future Vol, veh/h	24	1	21	1	0	3	48	470	6	3	389	49
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	0	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	2	2	2	5	4	2	2	5	5
Mvmt Flow	27	1	23	1	0	3	53	522	7	3	432	54

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1098	1100	459	1109	1124	526	486	0	0	529	0	0
Stage 1	465	465	-	632	632	-	-	-	-	-	-	-
Stage 2	633	635	-	477	492	-	-	-	-	-	-	-
Critical Hdwy	6.75	6.15	6.05	6.92	6.32	6.12	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	212	237	611	199	219	560	1062	-	-	1038	-	-
Stage 1	602	588	-	485	491	-	-	-	-	-	-	-
Stage 2	497	502	-	584	563	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	219	611	180	203	560	1062	-	-	1038	-	-
Mov Cap-2 Maneuver	199	219	-	180	203	-	-	-	-	-	-	-
Stage 1	559	586	-	451	456	-	-	-	-	-	-	-
Stage 2	459	466	-	558	561	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	20.2	14.9	0.8	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1062	-	-	367	288	1038	-	-
HCM Lane V/C Ratio	0.05	-	-	0.012	0.177	0.003	-	-
HCM Control Delay (s)	8.6	0	-	14.9	20.2	8.5	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	0.6	0	-	-

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1	23	5	83	16	1
Future Volume (vph)	1	23	5	83	16	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	6%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.872		0.994	
Flt Protected		0.998			0.954	
Satd. Flow (prot)	0	1642	1531	0	1716	0
Flt Permitted		0.998			0.954	
Satd. Flow (perm)	0	1642	1531	0	1716	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		382	724		221	
Travel Time (s)		8.7	16.5		5.0	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%
Parking (#/hr)		0		0		
Adj. Flow (vph)	1	30	6	108	21	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	31	114	0	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	1.13	1.04	1.04	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	23	5	83	16	1
Future Vol, veh/h	1	23	5	83	16	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	6	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	30	6	108	21	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	114	0	-	0	92	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1457	-	-	-	901	997
Stage 1	-	-	-	-	955	-
Stage 2	-	-	-	-	983	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1457	-	-	-	900	997
Mov Cap-2 Maneuver	-	-	-	-	900	-
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	983	-

Approach	SE	NW	SW
HCM Control Delay, s	8.3	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1457	-	905
HCM Lane V/C Ratio	-	-	0.001	-	0.024
HCM Control Delay (s)	-	-	7.5	0	9.1
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.1

Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	24	529	486	23	36	30
Future Volume (vph)	24	529	486	23	36	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		1%	-1%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.939	
Flt Protected		0.998			0.973	
Satd. Flow (prot)	0	1850	1861	0	1719	0
Flt Permitted		0.998			0.973	
Satd. Flow (perm)	0	1850	1861	0	1719	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		302	299		386	
Travel Time (s)		6.9	6.8		8.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	25	551	506	24	38	31
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	576	530	0	69	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	24	529	486	23	36	30
Future Vol, veh/h	24	529	486	23	36	30
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, %	-	1	-1	-	-2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	551	506	24	38	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	530	0	-	0	1119	518
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	601	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1037	-	-	-	259	574
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	585	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1037	-	-	-	250	574
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	585	-

Approach	NB	SB	SE
HCM Control Delay, s	0.4	0	18.5
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1037	-	336	-	-
HCM Lane V/C Ratio	0.024	-	0.205	-	-
HCM Control Delay (s)	8.6	0	18.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	42	1	42	5	1	12	33	536	3	7	623	27
Future Volume (vph)	42	1	42	5	1	12	33	536	3	7	623	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	16	16	16	16	12	12	12	12	12	12
Grade (%)		-2%			-1%			0%			-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.933			0.908			0.999			0.995	
Flt Protected		0.976			0.987			0.997			0.999	
Satd. Flow (prot)	0	1664	0	0	1901	0	0	1852	0	0	1877	0
Flt Permitted		0.976			0.987			0.997			0.999	
Satd. Flow (perm)	0	1664	0	0	1901	0	0	1852	0	0	1877	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		724			126			581			1007	
Travel Time (s)		16.5			2.9			13.2			22.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	5%	2%	2%	2%	2%	5%
Parking (#/hr)			0									
Adj. Flow (vph)	46	1	46	5	1	13	36	583	3	8	677	29
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	93	0	0	19	0	0	622	0	0	714	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.84	0.99	0.84	0.84	0.84	0.84	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	42	1	42	5	1	12	33	536	3	7	623	27
Future Vol, veh/h	42	1	42	5	1	12	33	536	3	7	623	27
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	0	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	2	2	2	5	2	2	2	2	5
Mvmt Flow	46	1	46	5	1	13	36	583	3	8	677	29

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1372	1366	692	1388	1379	585	706	0	0	586	0	0
Stage 1	708	708	-	657	657	-	-	-	-	-	-	-
Stage 2	664	658	-	731	722	-	-	-	-	-	-	-
Critical Hdwy	6.75	6.15	6.05	6.92	6.32	6.12	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	141	169	456	130	156	519	878	-	-	989	-	-
Stage 1	455	469	-	471	479	-	-	-	-	-	-	-
Stage 2	479	491	-	430	449	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	129	157	456	110	145	519	878	-	-	989	-	-
Mov Cap-2 Maneuver	129	157	-	110	145	-	-	-	-	-	-	-
Stage 1	427	463	-	442	450	-	-	-	-	-	-	-
Stage 2	437	461	-	381	443	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	37.6	21.5	0.5	0.1
HCM LOS	E	C		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	878	-	-	238	200	989	-	-
HCM Lane V/C Ratio	0.041	-	-	0.082	0.462	0.008	-	-
HCM Control Delay (s)	9.3	0	-	21.5	37.6	8.7	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	2.2	0	-	-

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1	20	13	41	60	1
Future Volume (vph)	1	20	13	41	60	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	6%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.898		0.998	
Flt Protected		0.998			0.953	
Satd. Flow (prot)	0	1642	1576	0	1721	0
Flt Permitted		0.998			0.953	
Satd. Flow (perm)	0	1642	1576	0	1721	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		382	724		221	
Travel Time (s)		8.7	16.5		5.0	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%
Parking (#/hr)		0		0		
Adj. Flow (vph)	1	26	17	53	78	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	70	0	79	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	1.13	1.04	1.04	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	20	13	41	60	1
Future Vol, veh/h	1	20	13	41	60	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	6	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	26	17	53	78	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	70	0	-	0	72	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1512	-	-	-	925	1018
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	987	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1512	-	-	-	924	1018
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	987	-

Approach	SE	NW	SW
HCM Control Delay, s	0.4	0	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1512	-	925
HCM Lane V/C Ratio	-	-	0.001	-	0.086
HCM Control Delay (s)	-	-	7.4	0	9.3
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.3

Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	33	624	615	40	30	31
Future Volume (vph)	33	624	615	40	30	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		1%	-1%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.992		0.931	
Flt Protected		0.998			0.976	
Satd. Flow (prot)	0	1850	1857	0	1710	0
Flt Permitted		0.998			0.976	
Satd. Flow (perm)	0	1850	1857	0	1710	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		443	381		638	
Travel Time (s)		10.1	8.7		14.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	34	650	641	42	31	32
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	684	683	0	63	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	33	624	615	40	30	31
Future Vol, veh/h	33	624	615	40	30	31
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, %	-	1	-1	-	-2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	650	641	42	31	32

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	683	0	-	0	1380	662
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	718	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	910	-	-	-	185	479
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	523	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	910	-	-	-	174	479
Mov Cap-2 Maneuver	-	-	-	-	174	-
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	523	-

Approach	NB	SB	SE
HCM Control Delay, s	0.5	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	910	-	257	-	-
HCM Lane V/C Ratio	0.038	-	0.247	-	-
HCM Control Delay (s)	9.1	0	23.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	34	1	29	1	0	3	51	467	6	3	381	53
Future Volume (vph)	34	1	29	1	0	3	51	467	6	3	381	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	16	16	16	16	12	12	12	12	12	12
Grade (%)		-2%			-1%			0%			-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.939			0.899			0.998			0.984	
Flt Protected		0.974			0.988			0.995				
Satd. Flow (prot)	0	1672	0	0	1884	0	0	1813	0	0	1808	0
Flt Permitted		0.974			0.988			0.995				
Satd. Flow (perm)	0	1672	0	0	1884	0	0	1813	0	0	1808	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		724			126			581			1007	
Travel Time (s)		16.5			2.9			13.2			22.9	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	5%	4%	2%	2%	5%	5%
Parking (#/hr)			0									
Adj. Flow (vph)	38	1	32	1	0	3	57	519	7	3	423	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	71	0	0	4	0	0	583	0	0	485	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.84	0.99	0.84	0.84	0.84	0.84	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.9

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	34	1	29	1	0	3	51	467	6	3	381	53
Future Vol, veh/h	34	1	29	1	0	3	51	467	6	3	381	53
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	0	-	-	-3	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	5	5	5	2	2	2	5	4	2	2	5	5
Mvmt Flow	38	1	32	1	0	3	57	519	7	3	423	59

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1097	1099	453	1112	1125	523	482	0	0	526	0	0
Stage 1	459	459	-	637	637	-	-	-	-	-	-	-
Stage 2	638	640	-	475	488	-	-	-	-	-	-	-
Critical Hdwy	6.75	6.15	6.05	6.92	6.32	6.12	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	212	237	616	198	218	562	1065	-	-	1041	-	-
Stage 1	606	591	-	482	488	-	-	-	-	-	-	-
Stage 2	494	500	-	586	565	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	198	218	616	176	201	562	1065	-	-	1041	-	-
Mov Cap-2 Maneuver	198	218	-	176	201	-	-	-	-	-	-	-
Stage 1	560	589	-	445	451	-	-	-	-	-	-	-
Stage 2	454	462	-	552	563	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	21.6	15	0.8	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1065	-	-	363	287	1041	-	-
HCM Lane V/C Ratio	0.053	-	-	0.012	0.248	0.003	-	-
HCM Control Delay (s)	8.6	0	-	15	21.6	8.5	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	1	0	-	-

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1	23	5	90	34	1
Future Volume (vph)	1	23	5	90	34	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	6%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.872		0.997	
Flt Protected		0.998			0.953	
Satd. Flow (prot)	0	1642	1531	0	1719	0
Flt Permitted		0.998			0.953	
Satd. Flow (perm)	0	1642	1531	0	1719	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		382	724		221	
Travel Time (s)		8.7	16.5		5.0	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%
Parking (#/hr)		0		0		
Adj. Flow (vph)	1	30	6	117	44	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	31	123	0	45	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	1.13	1.04	1.04	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.1

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	23	5	90	34	1
Future Vol, veh/h	1	23	5	90	34	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	6	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	30	6	117	44	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	123	0	-	0	97	65
Stage 1	-	-	-	-	65	-
Stage 2	-	-	-	-	32	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1446	-	-	-	895	991
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	983	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1446	-	-	-	894	991
Mov Cap-2 Maneuver	-	-	-	-	894	-
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	983	-

Approach	SE	NW	SW
HCM Control Delay, s	8.3	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1446	-	897
HCM Lane V/C Ratio	-	-	0.001	-	0.051
HCM Control Delay (s)	-	-	7.5	0	9.2
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.2

Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	21	539	490	19	26	22
Future Volume (vph)	21	539	490	19	26	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		1%	-1%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.995		0.938	
Flt Protected		0.998			0.974	
Satd. Flow (prot)	0	1850	1863	0	1719	0
Flt Permitted		0.998			0.974	
Satd. Flow (perm)	0	1850	1863	0	1719	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		302	299		386	
Travel Time (s)		6.9	6.8		8.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	22	561	510	20	27	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	583	530	0	50	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	21	539	490	19	26	22
Future Vol, veh/h	21	539	490	19	26	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, %	-	1	-1	-	-2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	561	510	20	27	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	530	0	-	0	1125	520
Stage 1	-	-	-	-	520	-
Stage 2	-	-	-	-	605	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1037	-	-	-	257	572
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	583	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1037	-	-	-	249	572
Mov Cap-2 Maneuver	-	-	-	-	249	-
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	583	-

Approach	NB	SB	SE
HCM Control Delay, s	0.3	0	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	1037	-	336	-	-
HCM Lane V/C Ratio	0.021	-	0.149	-	-
HCM Control Delay (s)	8.5	0	17.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	49	1	48	5	1	12	41	529	3	7	618	36
Future Volume (vph)	49	1	48	5	1	12	41	529	3	7	618	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	16	16	16	16	12	12	12	12	12	12
Grade (%)		-2%			-1%			0%			-3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.934			0.908			0.999			0.993	
Flt Protected		0.976			0.987			0.996			0.999	
Satd. Flow (prot)	0	1666	0	0	1901	0	0	1850	0	0	1873	0
Flt Permitted		0.976			0.987			0.996			0.999	
Satd. Flow (perm)	0	1666	0	0	1901	0	0	1850	0	0	1873	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		724			126			581			1007	
Travel Time (s)		16.5			2.9			13.2			22.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	5%	5%	5%	2%	2%	2%	5%	2%	2%	2%	2%	5%
Parking (#/hr)			0									
Adj. Flow (vph)	53	1	52	5	1	13	45	575	3	8	672	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	106	0	0	19	0	0	623	0	0	719	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	0.84	0.99	0.84	0.84	0.84	0.84	1.00	1.00	1.00	0.98	0.98	0.98
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	3.8

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	49	1	48	5	1	12	41	529	3	7	618	36
Future Vol, veh/h	49	1	48	5	1	12	41	529	3	7	618	36
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	-1	-	-	0	-	-	-3	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	5	5	5	2	2	2	5	2	2	2	2	5
Mvmt Flow	53	1	52	5	1	13	45	575	3	8	672	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1382	1376	692	1401	1394	577	711	0	0	578	0	0
Stage 1	708	708	-	667	667	-	-	-	-	-	-	-
Stage 2	674	668	-	734	727	-	-	-	-	-	-	-
Critical Hdwy	6.75	6.15	6.05	6.92	6.32	6.12	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.75	5.15	-	5.92	5.32	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	139	167	456	127	153	525	875	-	-	996	-	-
Stage 1	455	469	-	465	474	-	-	-	-	-	-	-
Stage 2	474	487	-	429	447	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	126	152	456	104	140	525	875	-	-	996	-	-
Mov Cap-2 Maneuver	126	152	-	104	140	-	-	-	-	-	-	-
Stage 1	420	463	-	430	438	-	-	-	-	-	-	-
Stage 2	426	450	-	374	441	-	-	-	-	-	-	-

Approach	SE	NW	NE	SW
HCM Control Delay, s	43.3	22	0.7	0.1
HCM LOS	E	C		

Minor Lane/Major Mvmt	NEL	NET	NER	NWLn1	SELn1	SWL	SWT	SWR
Capacity (veh/h)	875	-	-	231	196	996	-	-
HCM Lane V/C Ratio	0.051	-	-	0.085	0.543	0.008	-	-
HCM Control Delay (s)	9.3	0	-	22	43.3	8.6	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	2.8	0	-	-

Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	1	20	13	58	72	1
Future Volume (vph)	1	20	13	58	72	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		-2%	6%		0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.890		0.999	
Flt Protected		0.998			0.953	
Satd. Flow (prot)	0	1642	1562	0	1723	0
Flt Permitted		0.998			0.953	
Satd. Flow (perm)	0	1642	1562	0	1723	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		382	724		221	
Travel Time (s)		8.7	16.5		5.0	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles (%)	5%	5%	5%	5%	5%	5%
Parking (#/hr)		0		0		
Adj. Flow (vph)	1	26	17	75	94	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	27	92	0	95	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	0.99	1.13	1.04	1.04	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.2

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Vol, veh/h	1	20	13	58	72	1
Future Vol, veh/h	1	20	13	58	72	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-2	6	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	5	5	5	5	5	5
Mvmt Flow	1	26	17	75	94	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	92	0	-	0	83	55
Stage 1	-	-	-	-	55	-
Stage 2	-	-	-	-	28	-
Critical Hdwy	4.15	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.245	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1484	-	-	-	911	1003
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	987	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1484	-	-	-	910	1003
Mov Cap-2 Maneuver	-	-	-	-	910	-
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	987	-

Approach	SE	NW	SW
HCM Control Delay, s	0.4	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NWT	NWR	SEL	SET	SWLn1
Capacity (veh/h)	-	-	1484	-	911
HCM Lane V/C Ratio	-	-	0.001	-	0.104
HCM Control Delay (s)	-	-	7.4	0	9.4
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	-	0.3

Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	25	631	624	30	23	25
Future Volume (vph)	25	631	624	30	23	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)		1%	-1%		-2%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.994		0.930	
Flt Protected		0.998			0.977	
Satd. Flow (prot)	0	1850	1861	0	1709	0
Flt Permitted		0.998			0.977	
Satd. Flow (perm)	0	1850	1861	0	1709	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		443	381		638	
Travel Time (s)		10.1	8.7		14.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	26	657	650	31	24	26
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	683	681	0	50	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.01	1.01	0.99	0.99	0.99	0.99
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.9

Movement	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	25	631	624	30	23	25
Future Vol, veh/h	25	631	624	30	23	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, %	-	1	-1	-	-2	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	657	650	31	24	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	681	0	-	0	1375	666
Stage 1	-	-	-	-	666	-
Stage 2	-	-	-	-	709	-
Critical Hdwy	4.12	-	-	-	6.02	6.02
Critical Hdwy Stg 1	-	-	-	-	5.02	-
Critical Hdwy Stg 2	-	-	-	-	5.02	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	912	-	-	-	187	477
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	528	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	912	-	-	-	179	477
Mov Cap-2 Maneuver	-	-	-	-	179	-
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	528	-

Approach	NB	SB	SE
HCM Control Delay, s	0.3	0	21.7
HCM LOS			C

Minor Lane/Major Mvmt	NBL	NBT	SELn1	SBT	SBR
Capacity (veh/h)	912	-	265	-	-
HCM Lane V/C Ratio	0.029	-	0.189	-	-
HCM Control Delay (s)	9.1	0	21.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

BEACON VIEWS

APPENDIX E

ACCIDENT DATA

NYSDOT QRA ACCIDENT CONTRIBUTING FACTOR

Print Date 8/9/2019 **Print Time** 12:00:34PM

Query Number/Name	Query Type	Query SubType	Accident Date Range
48250 16319	AttributeQuery	None	1/1/2016 12:00:00AM To 12/31/2018 12:00:00AM

Case Number	Case Year	Vehicle Sequence Number	Apparent Sequence Number	Apparent Factor
36188119	2016	1	1	REACTION TO OTHER UNINVOLVED VEHICL
36188119	2016	1	2	PASSING OR LANE USAGE IMPROPERLY
36191132	2016	1	1	NOT APPLICABLE
36191132	2016	1	2	NOT APPLICABLE
36191132	2016	2	1	FOLLOWING TOO CLOSELY
36191132	2016	2	2	NOT APPLICABLE
36255944	2016	1	1	ANIMAL'S ACTION
36255944	2016	1	2	NOT APPLICABLE
36337513	2016	1	1	FAILURE TO YIELD RIGHT OF WAY
36337513	2016	1	2	NOT APPLICABLE
36337513	2016	2	1	NOT APPLICABLE
36337513	2016	2	2	NOT APPLICABLE
36397654	2016	1	1	DRIVER INATTENTION
36397654	2016	1	2	NOT APPLICABLE
36397654	2016	2	1	DRIVER INATTENTION
36397654	2016	2	2	NOT APPLICABLE
36479184	2016	1	1	REACTION TO OTHER UNINVOLVED VEHICL
36479184	2016	1	2	NOT APPLICABLE
36617073	2017	1	1	GLARE
36617073	2017	1	2	UNSAFE SPEED
36617073	2017	2	1	NOT APPLICABLE
36617073	2017	2	2	NOT APPLICABLE
36807232	2017	1	1	BRAKES DEFECTIVE
36807232	2017	1	2	NOT APPLICABLE
36824933	2017	1	1	UNSAFE SPEED

Query Number/Name	Query Type	Query SubType	Accident Date Range
48250 16319	AttributeQuery	None	1/1/2016 12:00:00AM To 12/31/2018 12:00:00AM

Case Number	Case Year	Vehicle Sequence Number	Apparent Sequence Number	Apparent Factor
36824933	2017	1	2	PASSING OR LANE USAGE IMPROPERLY
37143228	2018	1	1	FAILURE TO YIELD RIGHT OF WAY
37143228	2018	1	2	NOT APPLICABLE
37143228	2018	2	1	NOT APPLICABLE
37143228	2018	2	2	NOT APPLICABLE
37255152	2018	1	1	DRIVER INATTENTION
37255152	2018	1	2	NOT APPLICABLE
37530301	2018	1	1	OTHER (VEHICLE)
37530301	2018	1	2	NOT APPLICABLE
37567406	2018	1	1	ILLNESS
37567406	2018	1	2	NOT APPLICABLE

NYSDOT QRA ACCIDENT SEVERITY SUMMARY

Print Date 8/9/2019 **Print Time** 11:59:55AM

Query Number/Name	Query Type	Query Sub Type	Accident Date Range
48250 16319	AttributeQuery	None	1/1/2016 12:00:00AM To 12/31/2018 12:00:00AM

Case Year	Injury	Fatality	Property Damage	Non-Reportables	Totals
2016	1	0	4	1	6
2017	1	0	2	0	3
2018	1	0	2	1	4
Grand Total:	3	0	8	2	

Region 8 County 2 PIL, SDL, and PII Report
Ascending Route Sequence for HAL Year 2016

Route 52

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HAL Year	Time Period			PIL Accidents	PIL LOC	SDL Accidents	SDL LOC	PII LOC	HAL Created
2016	01-JAN-2015	thru	31-DEC-2016	Linear&Intersection	99.9	Linear&Intersection	90.9	99.9	29-MAR-2017

HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Highway/Int Char. Int Cntl	Int Config	--- Number of Accidents --- Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2016	52	52 82042038	52 82042041		.4	SDL	15239	4.456	68			0	9	16	7	18	25	5.61	3.39	9.40	2.49
2016	52	52 82042040	52 82042044		.5	PIL	15239	5.57	68			0	13	44	25	32	57	10.23	5.86	37.50	5.35
2016	52	52 82042043	52 82042046		.4	SDL	15239	4.456	68			0	8	37	26	19	45	10.10	3.39	29.40	4.27
2016	52	52 82042045	52 82042047		.3	PIL	15239	3.342	68			0	9	32	21	20	41	12.27	6.51	29.30	6.75
2016	52	52 82042046	52 82042050		.5	SDL	16504	6.032	68			0	11	32	19	24	43	7.13	3.42	21.89	3.44
2016	52	52 82042060	52 82042066		.7	SDL	13591	6.955	68			0	13	29	5	37	42	6.04	3.43	17.66	2.34
2016	52	52 82042086	52 82042089		.4	SDL	9713	2.84	68			0	7	3	9	1	10	3.52	3.32	0.06	0.03
2016	52	52 82042092	52 82042096		.5	SDL	8819	3.223	68			0	4	7	8	3	11	3.41	3.34	-0.28	-0.06
2016	52	52 82042114	52 82042120		.7	SDL	12481	6.387	68			0	12	15	7	20	27	4.23	3.42	4.65	0.85
2016	52	52 82042162	52 82042166		.5	SDL	5314	1.942	70			0	2	6	1	7	8	4.12	4.05	-0.37	-0.06
2016	52	52 82042177	52 82042179		.3	SDL	5314	1.165	68			0	3	3	0	6	6	5.15	3.07	1.92	0.91
2016	52	52 82042186	52 82042190		.5	SDL	6076	2.221	68			0	5	4	7	2	9	4.05	3.27	1.23	0.39
2016	52	84I82021008	84I82021010		.3	PIL	68612	15.05	22			0	11	89	0	100	100	6.65	2.07	81.64	9.39
2016	52	84I82021011	84I82021012		.2	SDL	56017	8.19	14			0	2	11	0	13	13	1.59	1.12	3.34	0.74

SPECIFIED: MAXIMUM ANALYSIS LENGTH 3 REFERENCE MARKERS, STEP BY 1, ADJACENT PILS AND SDLS ARE LINKED.
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Ascending Route Sequence for HAL Year 2017

Route 52

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HAL Year	Time Period			PIL Accidents	PIL LOC	SDL Accidents	SDL LOC	PII LOC	HAL Created
2017	01-JAN-2016	thru	31-DEC-2017	Linear&Intersection	99.9	Linear&Intersection	90.9	99.9	11-APR-2018

HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Highway/Int Char. Type (Clsf Cde)	Int Cntl	Int Config	--- Number of Accidents --- Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2017	52	52 82042039	52 82042042		.4	SDL	15151	4.43	68			0	6	30	11	25	36	8.13	3.41	20.41	2.84
2017	52	52 82042041	52 82042044		.4	PIL	15151	4.43	68			0	9	43	23	29	52	11.74	6.16	36.41	5.22
2017	52	52 82042043		11	1.0	PII	16666	12.18	81	3	3	0	1	13	14	0	14	1.15	.51	11.81	3.55
2017	52	52 82042043	52 82042046		.4	SDL	15151	4.43	68			0	8	32	23	17	40	9.03	3.41	24.41	3.94
2017	52	52 82042045	52 82042047		.3	PIL	15151	3.323	68			0	7	28	18	17	35	10.53	6.55	23.30	5.01
2017	52	52 82042046	52 82042049		.4	SDL	16098	4.707	68			0	7	27	15	19	34	7.22	3.41	17.43	2.88
2017	52	52 82042062	52 82042066		.5	SDL	15344	5.608	68			0	8	29	0	37	37	6.60	3.43	17.26	2.37
2017	52	52 82042066	52 82042068		.3	SDL	11452	2.511	68			0	3	6	7	2	9	3.58	3.32	0.16	0.05
2017	52	52 82042068	52 82042070		.3	SDL	11452	2.511	68			0	4	7	7	4	11	4.38	3.32	2.16	0.78
2017	52	52 82042086	52 82042090		.5	SDL	10616	3.88	68			0	8	7	14	1	15	3.87	3.39	1.34	0.41
2017	52	52 82042088		87	1.0	PII	14292	10.45	88	1	2	0	8	6	14	0	14	1.34	1.21	8.25	13.69
2017	52	52 82042092	52 82042096		.5	SDL	8669	3.169	68			0	5	8	6	7	13	4.10	3.36	1.85	0.42
2017	52	52 82042100	52 82042101		.3	SDL	8669	1.901	68			0	1	6	6	1	7	3.68	3.26	0.31	0.05
2017	52	52 82042114	52 82042119		.6	SDL	13399	5.877	68			0	12	14	6	20	26	4.42	3.43	5.31	1.18
2017	52	52 82042141	52 82042144		.4	SDL	4292	1.255	68			0	1	5	2	4	6	4.78	3.12	1.58	0.22
2017	52	52 82042177	52 82042179		.3	SDL	5421	1.189	68			0	2	4	0	6	6	5.05	3.1	1.81	0.60
2017	52	52 82042179	52 82042181		.3	SDL	5421	1.189	68			0	3	4	2	5	7	5.89	3.1	2.81	1.17
2017	52	84I82021008	84I82021008		.1	SDL	73181	5.35	22			0	3	16	0	19	19	3.55	1.2	12.10	5.66

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Region 8 County 2 PIL, SDL, and PII Report
Ascending Route Sequence for HAL Year 2017

Route 52

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									Highway/Int Char.			--- Number of Accidents ---									
HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Int Cntl	Int Config	Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2017	52	84I82021011	84I82021012		.2	SDL	56017	8.19	14			0	2	15	3	14	17	2.08	1.11	7.42	1.39

SPECIFIED: MAXIMUM ANALYSIS LENGTH 3 REFERENCE MARKERS, STEP BY 1, ADJACENT PILS AND SDLS ARE LINKED.
INTERSECTION ACCIDENTS ARE INCLUDED.

Region 8 County 2 PIL, SDL, and PII Report
Ascending Route Sequence for HAL Year 2018

Route 52

Under 23 USC §409, this report and its analysis and data are privileged against being introduced into evidence, disclosed in pretrial discovery, or used for any other purpose in civil litigation. NYSDOT and the State of New York do not waive such privilege by disclosing this report under the NYS Freedom of Information Law (FOIL), or to USDOT and FHWA under 23 USC §148.

HAL Year	Time Period			PIL Accidents	PIL LOC	SDL Accidents	SDL LOC	PII LOC	HAL Created
2018	01-JAN-2017	thru	31-DEC-2018	Linear&Intersection	99.9	Linear&Intersection	90.9	99.9	05-APR-2019

										Highway/Int Char.		--- Number of Accidents ---									
HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Int Cntl	Int Config	Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2018	52	52 82042039	52 82042042		.4	SDL	15429	4.505	68			0	4	21	9	16	25	5.55	3.43	9.05	1.31
2018	52	52 82042041	52 82042044		.4	PIL	15429	4.505	68			0	7	39	22	24	46	10.21	6.17	30.05	4.18
2018	52	52 82042043		11	1.0	PII	16972	12.39	81	3	3	0	1	15	16	0	16	1.29	.51	13.77	4.04
2018	52	52 82042043	52 82042049		.7	SDL	15806	8.077	68			0	9	50	31	28	59	7.30	3.48	30.41	2.42
2018	52	52 82042062	52 82042064		.3	SDL	16748	3.668	68			0	5	22	0	27	27	7.36	3.4	14.02	3.04
2018	52	52 82042063	52 82042065		.3	PIL	16748	3.668	68			0	6	29	0	35	35	9.54	6.44	22.02	4.49
2018	52	52 82042064	52 82042070		.7	SDL	12775	6.528	68			0	8	32	8	32	40	6.13	3.46	16.89	1.67
2018	52	52 82042074	52 82042076		.3	SDL	11186	2.45	68			0	3	7	8	2	10	4.08	3.34	1.33	0.43
2018	52	52 82042076	52 82042078		.3	SDL	11186	2.45	68			0	3	7	8	2	10	4.08	3.34	1.33	0.43
2018	52	52 82042086	52 82042090		.5	SDL	10679	3.898	68			0	7	9	16	0	16	4.10	3.41	2.20	0.60
2018	52	52 82042088		87	1.0	PII	12397	9.05	88	1	2	0	7	9	16	0	16	1.77	1.24	11.11	14.78
2018	52	52 82042092	52 82042094		.3	SDL	8649	1.894	68			0	1	6	2	5	7	3.70	3.28	0.30	0.05
2018	52	52 82042096	52 82042098		.3	SDL	8649	1.894	68			0	1	6	5	2	7	3.70	3.28	0.30	0.05
2018	52	52 82042098	52 82042100		.3	SDL	8649	1.894	68			0	1	6	5	2	7	3.70	3.28	0.30	0.05
2018	52	52 82042100	52 82042102		.4	SDL	8649	2.526	68			0	1	8	7	2	9	3.56	3.34	0.06	0.01
2018	52	52 82042107	52 82042109		.3	SDL	10343	2.265	68			0	4	4	3	5	8	3.53	3.32	-0.02	-0.01
2018	52	52 82042114	52 82042120		.7	SDL	12597	6.437	68			0	9	20	3	26	29	4.51	3.46	6.21	0.89
2018	52	52 82042128	52 82042131		.4	SDL	6957	2.031	68			0	2	5	4	3	7	3.45	3.29	-0.19	-0.04

SPECIFIED: MAXIMUM ANALYSIS LENGTH 3 REFERENCE MARKERS, STEP BY 1, ADJACENT PILS AND SDLS ARE LINKED.
INTERSECTION ACCIDENTS ARE INCLUDED.

Region 8 County 2 PIL, SDL, and PII Report
Ascending Route Sequence for HAL Year 2018

Route 52

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									Highway/Int Char.			--- Number of Accidents ---								
HAL Year	Route	Begins at Reference Marker	Ends at Reference Marker	Int#	Seg Lgth	Hal Typ	Avg AADT	Exposure MVM or MEV	Type (Clsf Cde)	Int Cntl	Int Config	Fat	Inj	Pdo	Int	Not At Int	Total Accd	Accd Per Exposure	UCL	Reduct Index	Severe Weight Rank
2018	52	52 82042141	52 82042145		.5	SDL	4500	1.643	68			0	2	8	2	8	10	6.09	3.24	4.18	0.58
2018	52	52 82042177	52 82042181		.5	SDL	5397	1.97	68			0	4	9	3	10	13	6.60	3.29	6.03	1.20
2018	52	52 82042181	52 82042183		.3	SDL	5397	1.182	68			0	2	4	3	3	6	5.08	3.12	1.82	0.65
2018	52	84I82021005	84I82021007		.3	SDL	75673	16.57	18			0	9	24	0	33	33	1.99	1.52	7.31	1.84
2018	52	84I82021006	84I82021008		.3	PIL	75410	16.52	18			0	13	34	0	47	47	2.85	2.47	21.40	5.46
2018	52	84I82021011	84I82021012		.2	SDL	50242	7.335	14			0	5	21	4	22	26	3.54	1.17	16.90	4.76

SPECIFIED: MAXIMUM ANALYSIS LENGTH 3 REFERENCE MARKERS, STEP BY 1, ADJACENT PILS AND SDLS ARE LINKED.
INTERSECTION ACCIDENTS ARE INCLUDED.

Accident Location Information System(ALIS)

Date: 8/9/2019
11:55:27 AM

Accident Verbal Description

16319_VDR

Date in this report covers the period - 1/1/2016-12/31/2018

Complete Accident data from NYSDMV is only available thru 2/28/2019 12:00:00 AM

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
AT INTERSECTION WITH DELAVAN AVE
4/28/2016 Thu 00:52 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36188119**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: BEACON CITY PD Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3219 State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, REACTION TO OTHER UNINVOLVED VEHICL

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AV
4/28/2016 Thu 16:16 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36191132**
Accident Class: PROPERTY DAMAGE Police Agency: BEACON CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3582 State of Registration: NY
Num of Occupants: 2 Driver's Age: 78 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4330 State of Registration: NY
Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: Y
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
23 Meters West of DELAVAN AVE
6/14/2016 Tue 08:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36255944**
Accident Class: PROPERTY DAMAGE Police Agency: BEACON CITY PD Num of Veh: 1

Type Of Accident: COLLISION WITH GUIDE RAIL | Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER | Weather: CLEAR
Road Surface Condition: DRY | Road Char.: CURVE AND LEVEL | Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP | Registered Weight: 3351 | State of Registration: NY
Num of Occupants: 1 | Driver's Age: 59 | Sex: M | Citation Issued: N
Direction of Travel: NORTH-EAST | Public Property Damage: OTHER | School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ANIMAL'S ACTION, NOT APPLICABLE

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
AT INTERSECTION WITH DELAVAN AVE

8/2/2016 Tue 18:23 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | **Case: 2016-36337513**
Accident Class: PROPERTY DAMAGE | Police Agency: BEACON CITY PD | Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE | Traffic Control: NO PASSING ZONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | Weather: CLEAR
Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP | Registered Weight: 2870 | State of Registration: NY
Num of Occupants: 1 | Driver's Age: 54 | Sex: F | Citation Issued: N
Direction of Travel: SOUTH-WEST | Public Property Damage: OTHER | School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP | Registered Weight: | State of Registration: MA
Num of Occupants: 1 | Driver's Age: 60 | Sex: F | Citation Issued: N
Direction of Travel: SOUTH-EAST | Public Property Damage: OTHER | School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
AT INTERSECTION WITH DELAVAN AVE

9/18/2016 Sun 10:50 AM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | **Case: 2016-36397654**
Accident Class: PROPERTY DAMAGE | Police Agency: BEACON CITY PD | Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE | Traffic Control: STOP SIGN
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | Weather: CLEAR
Road Surface Condition: DRY | Road Char.: CURVE AND LEVEL | Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP | Registered Weight: 2852 | State of Registration: NY
Num of Occupants: 1 | Driver's Age: 20 | Sex: F | Citation Issued: N
Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 2687 State of Registration: NY
Num of Occupants: 3 Driver's Age: 67 Sex: M Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
AT INTERSECTION WITH DELAVAN AVE
11/13/2016 Sun 12:58 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36479184**
Accident Class: NON-REPORTABLE Police Agency: BEACON CITY PD Num of Veh: 1
Type Of Accident: COLLISION WITH OTHER FIXED OBJECT Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 75 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
15 Meters East of DELAVAN AVE
2/23/2017 Thu 16:03 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2017-36617073**
Accident Class: INJURY Police Agency: BEACON CITY PD Num of Veh: 1
Type Of Accident: COLLISION WITH BICYCLIST Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: PED/BICYCLIST NOT AT INTERSECTION Action of Ped/Bicycle: ALONG HIGHWAY WITH TRAFFIC

Veh :1 CAR/VAN/PICKUP Registered Weight: 0 State of Registration: NY
Num of Occupants: 1 Driver's Age: 76 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: GLARE, UNSAFE SPEED

Veh :2 BICYCLE Registered Weight: State of Registration: -3
Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
18 Meters East of DELAVAN AVE
6/24/2017 Sat 19:48 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36807232**

Accident Class: PROPERTY DAMAGE | Police Agency: BEACON CITY PD | Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE | Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER | Weather: CLEAR
Road Surface Condition: DRY | Road Char.: STRAIGHT AND LEVEL | Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP | Registered Weight: 4085 | State of Registration: NY
Num of Occupants: 3 | Driver's Age: 47 | Sex: F | Citation Issued: N
Direction of Travel: WEST | Public Property Damage: OTHER | School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: BRAKES DEFECTIVE, NOT APPLICABLE

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
AT INTERSECTION WITH DELAVAN AVE

7/21/2017 Fri 21:27 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | **Case: 2017-36824933**
Accident Class: PROPERTY DAMAGE | Police Agency: BEACON CITY PD | Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE | Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER | Weather: CLOUDY
Road Surface Condition: DRY | Road Char.: CURVE AND LEVEL | Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP | Registered Weight: 3041 | State of Registration: NY
Num of Occupants: 1 | Driver's Age: 19 | Sex: M | Citation Issued: Y
Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, UNSAFE SPEED

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
AT INTERSECTION WITH DELAVAN AVE

2/9/2018 Fri 18:02 PM | Persons Killed: 0 | Persons Injured: 0 | Extent of Injuries: | **Case: 2018-37143228**
Accident Class: PROPERTY DAMAGE | Police Agency: BEACON CITY PD | Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE | Traffic Control: STOP SIGN
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) | Weather: SNOW
Road Surface Condition: WET | Road Char.: STRAIGHT AND LEVEL | Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE | Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP | Registered Weight: 3279 | State of Registration: NY
Num of Occupants: 1 | Driver's Age: 61 | Sex: F | Citation Issued: N
Direction of Travel: EAST | Public Property Damage: OTHER | School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP | Registered Weight: | State of Registration: NY
Num of Occupants: 1 | Driver's Age: 26 | Sex: M | Citation Issued: N
Direction of Travel: SOUTH | Public Property Damage: OTHER | School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
AT INTERSECTION WITH DELAVAN AVE
4/26/2018 Thu 06:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37255152**
Accident Class: PROPERTY DAMAGE Police Agency: BEACON CITY PD Num of Veh: 1
Type Of Accident: COLLISION WITH OTHER Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2549 State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
15 Meters East of DELAVAN AVE
10/14/2018 Sun 21:50 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37530301**
Accident Class: NON-REPORTABLE Police Agency: BEACON CITY PD Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: M Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, OTHER (VEHICLE)

County: Dutchess Muni: Beacon(C) Ref. Marker: Street: FISHKILL AVE
AT INTERSECTION WITH DELAVAN AVE
11/4/2018 Sun 16:37 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: A **Case: 2018-37567406**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: BEACON CITY PD Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NO PASSING ZONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3316 State of Registration: NY
Num of Occupants: 1 Driver's Age: 64 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: ILLNESS, NOT APPLICABLE