APPENDIX I – TRAFFIC IMPACT REPORT

TRAFFIC IMPACT REPORT

KEC PROJECT

LAKE ROAD – KILLINGLY, CT

PREPARED BY:

F.A. HESKETH & ASSOCIATES, INC.
ENGINEERS & SURVEYORS

PREPARED FOR:

NTE CONNECTICUT, LLC

JUNE 28, 2016

Introduction

This report documents the findings of a traffic impact study for the proposed Killingly Energy Center (KEC) located at 180 & 189 Lake Road in the Town of Killingly, Connecticut. The site proposed for development is located on both sides of Lake Road immediately west of the existing Eversource transmission line corridor. The portion of the site on the north side of Lake Road is an approximately 63 acre parcel that is occupied by a single single-family home. The parcel on the south side of Lake Road is an approximately 10 acre parcel and is currently vacant. The site location is presented in Figure 1.

The proposed development is to consist of a 550 MW electric generation facility. The primary fuel source for the facility will be natural gas. For those times when there is a disruption in the flow of natural gas the plant will run on Ultra Low Sulfur Distillate (ULSD). The development will consist of approximately 40,000 s.f. of floor area. A total of 10 parking spaces are proposed for the site. Access is proposed by way of an un-signalized driveway to Lake Road.

The purpose of this study is to estimate the amount of traffic that will be generated by the KEC project and to determine its impact on the adjacent roadway network. It is anticipated that this report will accompany an application to the Connecticut Siting Council for a certificate of environmental compatibility and public need.

The proposed KEC project includes less than 100,000 s.f. of floor area and fewer than 200 parking spaces, therefore the project does not fall under the jurisdiction of the Office of the State Traffic Administration (OSTA) as a major traffic generator. Since the project does not have direct access to a state highway, and no off-site roadway improvements are required to offset the impact of the site related traffic, an encroachment permit for the Connecticut Department of Transportation (ConnDOT) District II Administration Office will not be needed.

Description of Area

The site proposed for development is located mainly on the north/west side of Lake Road a distance of approximately 1.2 miles west of Upper Maple Street and approximately .85 miles north of Route 101, Hartford Turnpike. There is a portion of the project located on the south side of Lake Road. The site is a short distance west of an existing industrial subdivision (Killingly Industrial Park) and immediately adjacent to the existing Eversource electric transmission line.

Lake Road originates at an un-signalized intersection with Route 101, Hartford Turnpike and extends in a northerly direction a distance of ½ mile where the roadway makes a sharp turn to the northeast. Lake Road continues approximately .35 miles in the northeast direction, and past the subject site before making a sharp "S" turn in the vicinity of the Eversource Electric transmission line and then continuing another 600 feet to an un-signalized "T" intersection with Forbes Road. This section of Lake Road

provides 24 feet of pavement with a single travel lane in each direction, separated by a painted double yellow centerline. The roadway has a posted speed limit of 25 miles per hour with signage indicating no trucks are allowed on this portion of the roadway.

Lake Road continues another mile in an easterly direction through the Killingly Industrial Park past an un-signalized intersection with North Shore Road to a signalized intersection with Upper Maple Street and Tracy Road. At this point the roadway takes on the name of Attawaugan Crossing Road and continues easterly interchanging with the northbound and southbound ramps of I-395 before terminating at a signalized intersection with Route 12, the Putnam Pike, and Ballouville Road. East of Forbes Road, Lake Road provides 40 feet of pavement with a single travel lane in each direction separated by a painted double yellow centerline. Additional turn lanes are provided at the signalized intersections with Upper Maple Street/Tracy Road and the I-395 NB Ramps. This section of roadway has a posted speed limit of 35 miles per hour.

The Killingly Industrial Park includes approximately 20 individual uses including seven uses that accommodate a high volume of tractor trailer traffic including the Rite Aid Distribution Center, Automatic Rolls, Frito Lay, Symbol Mattress and Unti. Access to the Killingly Industrial Park from I-395 is provided via Attawaugan Crossing Road / Lake Road via the northbound and southbound ramps at Exit No. 94.

Background Traffic Data

The Connecticut Department of Transportation maintains a continuous count program of traffic volumes on the Connecticut State highway system and many local roadways. Included in the state's database is a traffic volume count on Lake Road north of Route 101. That count was conducted during October 2013. The data indicates that Lake Road carries an average daily traffic (ADT) of 1,700 vehicles with a morning peak hour volume of 150 vehicles (7:00 a.m.) and an afternoon peak hour volume of 174 vehicles (4:00 p.m.). The ConnDOT count is presented in Table 1.

Also included in the state's database are traffic volume counts on Attawaugan Crossing Road, east of Tracy Road, and on Lake Road west of Upper Maple Street and east of Louisa Viens Drive. These counts were conducted during May 2010. The data indicates that Attawaugan Crossing Road east of Tracy Road carries an ADT of 9,200 vehicles with a morning peak hour volume of 733 vehicles (7:00 a.m.) and an afternoon peak hour volume of 927 vehicles (3:00 p.m.). The data also indicates that Lake Road west of Upper Maple Street carries an ADT of 5,500 vehicles with a morning peak hour volume of 461 vehicles (6:00 a.m.) and an afternoon peak hour volume of 618 vehicles (3:00 p.m.). The data also indicates that Lake Road east of Louisa Viens Drive carries an ADT of 3,700 vehicles with a morning peak hour volume of 319 vehicles (6:00 a.m.) and an afternoon peak hour volume of 463 vehicles (3:00 p.m.). The ConnDOT counts are presented in Tables 2, 3 and 4.

Our office arranged for the installation of an automated traffic volume counter on Lake Road at the location of the proposed KEC site driveway. The counter was in place for a 48 hour period during May 2016. The count indicates an ADT of 1,320 vehicles with a

morning peak hour of 199 vehicles (6:00 a.m.) and an afternoon peak hour volume of 209 vehicles (3:00 p.m.). The count is presented as Table 5.

In addition to the automated counts described above, manual turning movement counts were conducted during the morning (7:00 -9:00 a.m.) and afternoon (3:30 – 5:30 p.m.) commuter peak periods at the following intersections: Attawaugan Crossing Road at the I-395 NB Ramps; Attawaugan Crossing Road at the I-395 SB Ramps; Attawaugan Crossing Road / Lake Road at Upper Maple Street / Tracy Road / Frito Lay Driveway / Old Trolley Road; Lake Road at North Shore Road; and Route 101 at Lake Road. The counts were conducted on Tuesday May 24, 2016 and Wednesday May 25, 2016. Copies of these counts are provided in the appendix. Figures A and B present the Observed Traffic volumes. Figures C and D present the Existing Traffic Volumes, which presents the Observed Traffic Volumes balanced between intersections, where appropriate. The volumes were adjusted, by holding the highest observed volume, and adjusting lower volumes upward so that the volume leaving one intersection is the same volume that arrives at the adjacent intersection.

A review of the files of the Town of Killingly and the Office of the State Traffic Administration (OSTA) indicates that there is only one development that has recently been approved or is currently under consideration that should be considered as part of the background traffic. That development is a proposed expansion of the Questar Fueling Company, located on the north side of Lake Road, west of Louisa Viens Drive, within the Killingly Industrial Park. According to OSTA the development will generate fewer than 50 peak hour trips, and therefore no traffic volume data was submitted to OSTA for the development. In order to account for the traffic associated with this development, I have assumed a peak hour generation of 50 trips contributed by this development during the peak hours. The trip generation for the Questar site is presented in Figures E and F. By adding the Traffic in Figures E and F to the Existing Traffic in Figures C and D, the 2016 Background Traffic volumes, presented in Figures 2 and 3, can be determined. Figures A through F are included in the appendix.

It is anticipated that the project will be under construction from November 2017 through April 2020, with the peak construction activities occurring during March and April of 2019. In order to account for the growth in ambient traffic over that time period we have used a growth rate of 2% per year for three years, for a total of 6% to grow the background traffic volumes from 2016 to a design year of 2019. The resultant volumes represent the 2019 Background Traffic volumes and are presented in Figures 4 and 5. It is the volume in these figures that are to be used as the basis for further study.

Site Generated Traffic and Traffic Assignment

The trip generation for the proposed development was calculated utilizing the Institute of Transportation Engineers (ITE) *Trip Generation* Report. Trip generation is a standard engineering reference utilized by engineers and planners to determine the trip generation potential of a proposed development. The report provides trip generation estimates for proposed uses based on counts conducted at existing facilities throughout the country. Included in the ITE *Trip Generation* is the following land use: Land Use

Code: 170 – Utilities. *Trip Generation* presents rates based on the number of employees, as well as the s.f. of the development.

Trip generation was calculated for the proposed site with a total of 40,000 s.f. development and 30 employees. The results for each independent variable are presented in Table 6. The highest projected trip generation is a total of 32 trips during the morning peak hour and 30 trips during the afternoon peak hour. This level of trip generation will not have a significant impact on the local roadway network. Therefore, operation of KEC does not warrant additional analysis or mitigation.

Construction activity associated with the KEC project, although temporary, will involve considerably more traffic than the normal operations of the plant. The site construction is anticipated to take a total of approximately 33 months. The number of construction workers on the site will range from a low of 40 a day to a high of 350 a day at the peak. The peak level of 350 people during construction is projected to occur during the first few months of 2019. We therefore have chosen to present the trip generation for the peak construction period, for purposes of determining the maximum impact of the proposed development. Please note this impact will be limited in duration, approximately three months. It is also expected that as many as 30 truck deliveries a day will occur during the construction period. These deliveries will occur over the course of the construction day, not necessarily during the peak hour.

With a total of approximately 350 construction workers on site, the trip generation is projected to be a total of 385 trips during the morning and afternoon peak hours during the construction period. During the morning peak hour we project a total of 350 entering and 35 exiting movements. During the p.m. peak hour we project a total of 35 entering and 350 exiting movements. This generation assumes that all employees arrive at the site alone (i.e. no carpooling) and that 10% of the peak entering/exiting volume, will exit/enter the site during the peak hours. This generation is presented in Table 6 along with the ITE data.

A directional distribution of the new site generated traffic is presented in Figure 6 and reflects the distribution of construction site traffic. The distribution used shows 75% of the site traffic oriented to and from the east along Lake Road and Attawaugan Road and 25% oriented to and from the southwest along Lake Road. We have projected a majority of the construction traffic to Attawaugan Road with most of the traffic oriented to I-395. Figures 7 and 8 present the construction site generated traffic based on the directional distribution from Figure 6. By adding the site generated traffic in Figures 7 and 8 to the 2019 Background Traffic from Figures 4 and 5 the combined traffic volumes upon completion of the development can be calculated. These volumes are presented in Figures 9 and 10.

Capacity Analysis and Traffic Impact

Capacity analyses were completed for the background and combined traffic volume conditions at the following intersections: Attawaugan Crossing Road at the I-395 NB Ramps; Attawaugan Crossing Road at the I-395 SB Ramps; Attawaugan Crossing

Road and Lake Road at Upper maple Street / Tracy Road, Frito Lay Driveway and Old Trolley Road; Lake Road at North Shore Road, Route 101 at Lake Road; and Lake Road at the proposed site driveway. The analyses were completed to determine the operational condition of the intersections before and after the introduction of the KEC site traffic, thereby determining the impact of site traffic on the intersection. The methodology employed is found in the Highway Capacity Manual (HCM), published by the Transportation Research Board. This methodology results in an intersection rating in terms of "Level of Service" (LOS), which defines the amount of delay expected at the intersection. A definition of each LOS and the average vehicular delays associated with each LOS are provided in the appendix. The LOS results are presented in Table 5. A brief description of each intersection is presented here.

Attawaugan Crossing Road at the I-395 NB Ramps – This is an existing signalized intersection with Attawaugan Crossing Road oriented in the east/west direction. The I-395 NB Off Ramp approaches from the south. The I-395 NB On Ramp departs the intersection to the north. The Eastbound Attawaugan Crossing Road approach provides a dedicated left turn lane and a single through lane. The westbound Attawaugan Road approach provides a single lane. The northbound approach provides a single lane. The signal operates with an advanced eastbound phase, followed by the eastbound/westbound through movements, and then the northbound approach. The signal operates with a variable cycle length of between 40 seconds and 96 seconds, depending on the demand.

The analysis indicates that the intersection operates at an overall LOS B during peak hours under the background traffic volume conditions. With the introduction of the KEC site construction traffic the intersection will continue to operate at a LOS B during peak hours.

Attawaugan Crossing Road at the I-395 SB Ramps – This is an existing un-signalized intersection with Attawaugan Crossing Road oriented in the east/west direction. The I-395 SB Off Ramp approaches from the north. The I-395 SB On Ramp departs the intersection to the south. The eastbound and westbound Attawaugan Crossing Road approaches each provide a single lane approach. The I-395 SB approach provides a single lane approach, but is wide enough to be used as two lanes. All approaches provide a single lane approach. The I-395 SB Ramp approach operates under stop sign control.

The analysis of the background traffic volume conditions indicates that the Attawaugan Crossing Road approaches operate at a LOS A during peak hours. The I-395 SB Off Ramp will operate at a LOS C during the morning peak hour and at a LOS B during the p.m. peak hour. With the introduction of the KEC site construction traffic the Attawaugan Crossing Road approaches will continue to operate at a LOS A during peak hours. The I-395 SB off-ramp approach will operate at a LOS E during the morning peak hour, with an average vehicular delay of 39 seconds per vehicle, and at a LOS C during the p.m. peak hour.

The decrease in LOS is temporary and will occur during the peak of the construction period during the first few months of 2019. During the other months of construction, the impact would be less, and during normal operations the impact would be negligible. Therefore no improvements are proposed.

Attawaugan Crossing Road / Lake Road at Upper Maple Street / Tracy Road / Old Trolley Road and the Frito lay Driveway – There are two four way intersections located approximately 125 feet apart with a railroad crossing located between the two intersections. Attawaugan Crossing Road occupies the easterly leg of the intersection. Lake Road occupies the westerly leg of the intersection. East of the railroad crossing, Tracy Road approaches from the north with the Frito Lay driveway approaching from the south and located opposite Tracy Road. West of the railroad crossing, Upper Maple Street approaches from the south with Old Trolley Road approaching from the north and located opposite Upper Maple Street. The signal operates with four phases. The eastbound and westbound approaches move together, followed by an internal clearance interval, to allow vehicles to clear the tracks. The easterly northbound and southbound approaches move together, followed by the westerly northbound and southbound approaches.

The analysis indicates that the intersections operate at an overall LOS B during the morning and afternoon peak hours under the background traffic volume conditions. With the introduction of the KEC site construction traffic the intersections will continue to operate at a LOS B during the peak hours.

Train crossings are infrequent with two to three crossing a day. When a train is present all external intersection approaches are stopped, and the train is provided an opportunity to cross Attawaugan Crossing Road. On those occasions when a train crossing occurs during peak hours, the intersection may take two or three cycle lengths to return to normal operations, depending on the length of the time allotted to the train crossing.

Lake Road at North Shore Road – This is an existing un-signalized intersection with Lake Road oriented in the east/west direction. North Shore Road approaches from the south. All approaches provide a single lane approach. The North Shore Road approach operates under stop sign control.

The analysis indicates that the Lake Road approaches operate at a LOS A during peak hours under both the background and the combined traffic volume conditions. The North Shore Road approach operates at a LOS B during peak hours. With the introduction of the KEC site construction traffic, the North Shore Road approach will continue to operate at a LOS B during peak hours.

Route 101 (Hartford Turnpike) at Lake Road – This is an existing un-signalized intersection with Route 101oriented in the east/west direction. Lake Road approaches from the north. All approaches provide a single lane approach. The Lake Road approach operates under stop sign control.

The analysis indicates that under the background traffic volumes the Route 101 approaches will operate at a LOS A during peak hours. The Lake Road approach operates at a LOS B during the morning peak hour and at a LOS C during the p.m. peak hour. With the introduction of the KEC site construction traffic the Route 101 approaches will continue to operate at a LOS A during peak hours. The Lake Road approach will operate at a LOS C during peak hours. A LOS C is an acceptable level of service for a side street intersecting with a commuter roadway such as State Route 101.

Lake Road at proposed Site Driveway – This is a proposed intersection with the site driveway located approximately 340 feet south and west of the easterly property line. For purposes of this analysis we have assumed that Lake Road is oriented in the north/south direction. The proposed site driveway approaches Lake Road from the west. All approaches will provide a single lane. The proposed KEC driveway will operate under stop sign control.

The analysis indicates that the Lake Road approaches will operate at a LOS A during peak hours. The KEC site driveway will operate at a LOS B during the morning peak hour and at a LOS C during the afternoon peak hour.

Driveway Access

The proposed KEC site driveway to Lake Road will provide 30 feet of pavement with a single 15 foot lane for both entering and exiting traffic separated by a painted double yellow centerline. The driveway approach to Lake Road will operate under stop sign control. The driveway has been designed to accommodate a WB-62 design vehicle to allow for the delivery of fuel oil and other industrial items needed for facility operation.

The available sight distances at the proposed KEC site driveway were observed to be in excess of 500 feet looking to the south and can be made to be in excess of 500 feet to the north with the clearing of some vegetation and the removal of an existing dilapidated barn. The proposed clearing is located on property controlled by the applicant. The 500 foot sight distance meets the current ConnDOT criteria for an approach speed of 45 miles per hour. Lake Road is posted at 25 mph. Actual vehicular speeds were measure at the proposed site driveway location. The 85% speeds of 41 mph and 36 mph were measured for the northbound and southbound directions, respectively. The required sight distance for an approach speed of 41 miles per hour is 456 feet.

Delivery Access to the Site

A review of the existing roadway network was conducted to determine if the existing roadway network is capable of accommodating tractor trailer delivery vehicles, (WB-62 Design Vehicles). As indicated previously the KEC site proposed for development is located adjacent to the existing Killingly Industrial Park. The Killingly Plan of Conservation and Development and the Future Land Use Plan indicate that this area is intended for an expansion of industrial land use.

The existing industrial park includes at least seven industrial uses that currently accommodate WB-62 design vehicles. Access to the Killingly Industrial Park for I-395 traffic is provided from I-395 to Attawaugan Crossing Road. The Killingly Industrial Park and Frito Lay each operate under an OSTA Certificate as major traffic generators. As part of their review process, OSTA typically reviews the ability of tractor trailer vehicles to access the site. With these certificates in place we can therefore assume that the I-395 ramps to Attawaugan Crossing Road are properly designed to accommodate WB-62 design vehicles.

Attawaugan Crossing Road and Lake Road provide a minimum of 40 feet of pavement width between the I-395 Ramps and Forbes Road. The 40 foot pavement width is typical for an industrial roadway and is wide enough to accommodate WB-62 design vehicles.

Lake Road west of Forbes Road narrows to a width of 24 feet with a single travel lane in each direction. Lake Road, between Forbes Road and Route 101, is signed as no trucks. A review of the OSTA files indicates that there is currently no "through truck" prohibition on this section of roadway. We have been unable to confirm if the no trucks signage was implemented by any local ordinance, or if they were installed to discourage trucks from utilizing that section of roadway.

In order to allow WB-62 design vehicles to access the proposed KEC facility, a widening of Lake Road in the vicinity of the curves or an adjustment to the alignment may be necessary to bring the roadway up to industrial standard. The applicant should consult with and work in cooperation with Town Staff to provide an acceptable solution. This will include the relocation of the existing no truck signage to a point west and south of the KEC site driveway.

There is the potential for oversized vehicles to make deliveries to the site during construction. On those occasions, the deliveries will need to be coordinated with local and/or state police and potentially the Department of Transportation. The deliveries may need to be made at night and with a police escort. Nighttime deliveries will be less disruptive to local traffic. It is anticipated that fewer than ten (10) such deliveries will be made over a three month period during construction.

ULSD Delivery

The proposed power plant will operate on natural gas that is delivered to the site via a new gas lateral. On those occasions when the natural gas supply is interrupted, the power plant would operate on ULSD. Use of ULSD will be limited to not more than 720 hours (30 days) per year. KEC anticipates that it may run on ULSD once every two or three years. A ULSD storage tank will be installed at the KEC site. ULSD will be delivered to the site by tractor trailer. It will be necessary for truck deliveries to fill the tank initially prior to the start of operations. When the plant operates on ULSD there will be 2 truck deliveries per hour for the duration to replenish the storage tank. This volume of truck traffic will not have a significant impact on traffic operations on the local roadway network.

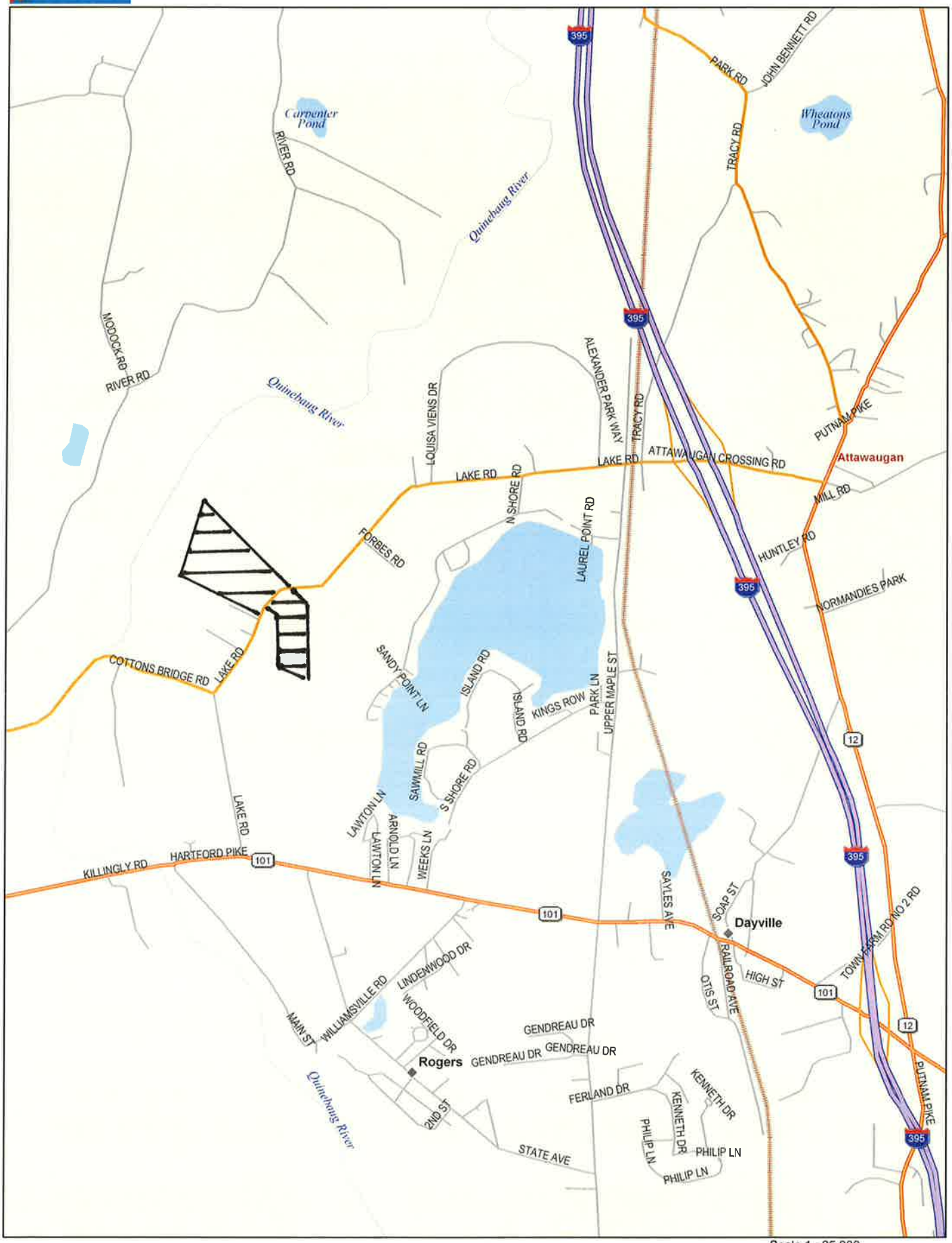
Conclusion

The proposed development is to consist of an electric power generating facility with a total of up to 30 employees during plant operations. The KEC site is projected to generate fewer than 25 peak hour trips under normal operations. The highest site related traffic will occur during the construction of the project. Construction will occur over a 33 month period with peak volumes observed over a three month period during the first few months of 2019. During the peak period of construction the KEC site is projected to generate a total of 385 peak hour trips during the morning and afternoon peak hours. KEC proposes to install a new site driveway to Lake Road. The proposed site driveway will operate under stop sign control.

Based on the analysis as summarized in this report, it is our professional opinion that the existing roadway network has sufficient excess capacity and will be capable of accommodating the traffic volumes associated with this proposed development with little or no change in the operating conditions during normal operations. During the peak period of construction the analysis indicates that acceptable levels of service will be maintained at all intersections within the study area. The intersection with the highest impact is the intersection of Attawaugan Crossing Road and the I-395 SB Off-ramp. The SB ramp will operate at a LOS E during the morning peak hour during the first few months of 2019 during the peak construction activity. Since this condition is temporary and of a short duration mitigation is not warranted nor is it proposed.

The proposed KEC site driveway is properly designed to accommodate the anticipated driveway volumes and it will operate at acceptable levels of service. The available sight distances from the proposed KEC site driveway meet current ConnDOT requirements for the 85% speed of the roadway, provided that existing vegetation on the south side of Lake Road is cleared and maintained, and provided that the existing barn on the south side of Lake Road is removed.

In order to allow WB-62 design vehicles to access the proposed KEC facility, a widening of Lake Road in the vicinity of the curves or an adjustment to the alignment may be necessary to bring the roadway up to industrial standard. The applicant should consult with and work in cooperation with Town Staff to provide an acceptable solution. This will include the relocation of the existing no truck signage to a point west and south of the KEC site driveway.



TN
MN (14.1°W)

Scale 1 : 25,000

1" = 2,083.3 ft Data Zoom 13-0

YEAR 2013

STA NO 068 0111

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

TOWN OF KILLINGLY ROUTE DIRECTION B

LAKE ROAD - NORTH OF ROUTE 101

DAY	SUN	MON	TUE	WED	THU	FRI	SAT
DATE	0	0	0	10/16/2013	10/17/2013	0	0
TYPE							
HOUR							

2013 ADT = 1700 ACF = NA

****

12A	0	0	0	0	12	0	0
01A	0	0	0	0	9	0	0
02A	0	0	0	0	3	0	0
03A	0	0	0	0	10	0	0
04A	0	0	0	0	17	0	0
05A	0	0	0	0	60	0	0
06A	0	0	0	110	0	0	0
07A	0	0	0	150	0	0	0
08A	0	0	0	95	0	0	0
09A	0	0	0	74	0	0	0
10A	0	0	0	68	0	0	0
11A	0	0	0	89	0	0	0
12P	0	0	0	89	0	0	0
01P	0	0	0	99	0	0	0
02P	0	0	0	130	0	0	0
03P	0	0	0	159	0	0	0
04P	0	0	0	174	0	0	0
05P	0	0	0	156	0	0	0
06P	0	0	0	76	0	0	0
07P	0	0	0	90	0	0	0
08P	0	0	0	97	0	0	0
09P	0	0	0	57	0	0	0
10P	0	0	0	45	0	0	0
11P	0	0	0	33	0	0	0
TOT	0	0	0	1791	111	0	0

RECORDER 014

24 HR = 1902

TABLE 1

YEAR 2010

STA NO 068 0179

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

TOWN OF KILLINGLY ROUTE DIRECTION B

ATTAWAUGAN CROSSING RD - EAST OF TRACY RD

DAY	SUN	MON	TUE	WED	THU	FRI	SAT
DATE	0	0	05/04/2010	05/05/2010	0	0	0
TYPE							
HOUR							

2010 ADT = 9200 ACF = NA

****

12A	0	0	0	229	0	0	0
01A	0	0	0	125	0	0	0
02A	0	0	0	193	0	0	0
03A	0	0	143	171	0	0	0
04A	0	0	181	0	0	0	0
05A	0	0	371	0	0	0	0
06A	0	0	619	0	0	0	0
07A	0	0	733	0	0	0	0
08A	0	0	570	0	0	0	0
09A	0	0	404	0	0	0	0
10A	0	0	440	0	0	0	0
11A	0	0	552	0	0	0	0
12P	0	0	651	0	0	0	0
01P	0	0	585	0	0	0	0
02P	0	0	644	0	0	0	0
03P	0	0	927	0	0	0	0
04P	0	0	693	0	0	0	0
05P	0	0	605	0	0	0	0
06P	0	0	414	0	0	0	0
07P	0	0	265	0	0	0	0
08P	0	0	233	0	0	0	0
09P	0	0	255	0	0	0	0
10P	0	0	194	0	0	0	0
11P	0	0	236	0	0	0	0
TOT	0	0	9715	718	0	0	0

RECORDER 019

24 HR = 10262

TABLE 2

YEAR 2010

STA NO 068 0098

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

TOWN OF KILLINGLY ROUTE DIRECTION B

LAKE ROAD - WEST OF UPPER MAPLE STREET

DAY	SUN	MON	TUE	WED	THU	FRI	SAT
DATE	0	0	05/04/2010	05/05/2010	0	0	0
TYPE							
HOUR							
	2010 ADT = 5500		ACF = NA				
	**********						
12A	0	0	0	133	0	0	0
01A	0	0	0	69	0	0	0
02A	0	0	0	120	0	0	0
03A	0	0	0	104	0	0	0
04A	0	0	112	0	0	0	0
05A	0	0	284	0	0	0	0
06A	0	0	461	0	0	0	0
07A	0	0	373	0	0	0	0
08A	0	0	286	0	0	0	0
09A	0	0	242	0	0	0	0
10A	0	0	228	0	0	0	0
11A	0	0	342	0	0	0	0
12P	0	0	464	0	0	0	0
01P	0	0	397	0	0	0	0
02P	0	0	418	0	0	0	0
03P	0	0	618	0	0	0	0
04P	0	0	381	0	0	0	0
05P	0	0	308	0	0	0	0
06P	0	0	223	0	0	0	0
07P	0	0	143	0	0	0	0
08P	0	0	98	0	0	0	0
09P	0	0	146	0	0	0	0
10P	0	0	117	0	0	0	0
11P	0	0	89	0	0	0	0
TOT	0	0	5730	426	0	0	0

RECORDER 020

24 HR = 6156

TABLE 3

YEAR 2010

STA NO 068 0121

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF POLICY AND PLANNING
PLANNING INVENTORY AND DATA

TRAFFIC RECORDER DATA

TOWN OF KILLINGLY ROUTE DIRECTION B

LAKE ROAD - EAST OF LOUISA VIENS DRIVE

DAY	SUN	MON	TUE	WED	THU	FRI	SAT
DATE	0	0	05/04/2010	05/05/2010	0	0	0
TYPE							
HOUR							

2010 ADT = 3700 ACF = NA

****

12A	0	0	0	116	0	0	0
01A	0	0	0	59	0	0	0
02A	0	0	0	96	0	0	0
03A	0	0	0	95	0	0	0
04A	0	0	85	73	0	0	0
05A	0	0	154	0	0	0	0
06A	0	0	319	0	0	0	0
07A	0	0	244	0	0	0	0
08A	0	0	194	0	0	0	0
09A	0	0	155	0	0	0	0
10A	0	0	124	0	0	0	0
11A	0	0	230	0	0	0	0
12P	0	0	264	0	0	0	0
01P	0	0	252	0	0	0	0
02P	0	0	247	0	0	0	0
03P	0	0	463	0	0	0	0
04P	0	0	255	0	0	0	0
05P	0	0	190	0	0	0	0
06P	0	0	137	0	0	0	0
07P	0	0	102	0	0	0	0
08P	0	0	74	0	0	0	0
09P	0	0	89	0	0	0	0
10P	0	0	71	0	0	0	0
11P	0	0	75	0	0	0	0
TOT	0	0	3724	439	0	0	0

RECORDER 012

24 HR = 4090

TABLE 4

F. A. Hesketh & Associates, Inc.
6 Creamery Brook
East Granby, CT 06026
Phone: (860) 653-8000

Lake Road at
Site Driveway
Killingly, CT
Job No. 16126

Date Start: 24-May-16
Date End: 26-May-16
Site Code: 16126800

TABLE 5

Untitled Vo

Start	23-May-16		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
Time	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	*	*	*	*	3	5	3	4	*	*	*	*	*	*	3	4
01:00	*	*	*	*	8	3	6	3	*	*	*	*	*	*	7	3
02:00	*	*	*	*	8	2	5	4	*	*	*	*	*	*	6	3
03:00	*	*	*	*	13	5	16	4	*	*	*	*	*	*	14	4
04:00	*	*	*	*	41	12	46	18	*	*	*	*	*	*	44	15
05:00	*	*	*	*	105	36	103	35	*	*	*	*	*	*	104	36
06:00	*	*	*	*	**135**	**64**	**113**	**61**	*	*	*	*	*	*	**124**	**62**
07:00	*	*	*	*	88	61	80	60	*	*	*	*	*	*	84	60
08:00	*	*	*	*	40	45	48	44	*	*	*	*	*	*	44	44
09:00	*	*	34	33	42	53	38	33	*	*	*	*	*	*	38	40
10:00	*	*	43	46	49	51	45	43	*	*	*	*	*	*	46	47
11:00	*	*	**56**	**47**	41	44	55	59	*	*	*	*	*	*	51	50
12:00 PM	*	*	42	51	48	74	43	53	*	*	*	*	*	*	44	59
01:00	*	*	44	81	23	114	**47**	**104**	*	*	*	*	*	*	38	100
02:00	*	*	68	91	65	114	*	*	*	*	*	*	*	*	66	102
03:00	*	*	57	**107**	**79**	**130**	*	*	*	*	*	*	*	*	68	**118**
04:00	*	*	**71**	100	74	120	*	*	*	*	*	*	*	*	**72**	110
05:00	*	*	43	66	37	49	*	*	*	*	*	*	*	*	40	58
06:00	*	*	29	40	22	37	*	*	*	*	*	*	*	*	26	38
07:00	*	*	16	35	20	39	*	*	*	*	*	*	*	*	18	37
08:00	*	*	9	23	12	31	*	*	*	*	*	*	*	*	10	27
09:00	*	*	15	20	16	19	*	*	*	*	*	*	*	*	16	20
10:00	*	*	13	14	12	20	*	*	*	*	*	*	*	*	12	17
11:00	*	*	5	16	5	13	*	*	*	*	*	*	*	*	5	14
Lane	0	0	545	770	986	1141	648	525	0	0	0	0	0	0	980	1068
Day	0		1315		2127		1173		0		0		0		2048	
AM Peak	-	-	11:00	11:00	06:00	06:00	06:00	06:00	-	-	-	-	-	-	06:00	06:00
Vol.	-	-	56	47	135	64	113	61	-	-	-	-	-	-	124	62
PM Peak	-	-	16:00	15:00	15:00	15:00	13:00	13:00	-	-	-	-	-	-	16:00	15:00
Vol.	-	-	71	107	79	130	47	104	-	-	-	-	-	-	72	118

Comb. Total	0	1315	2127	1173	0	0	0	2048

ADT ADT 1,320 AADT 1,320

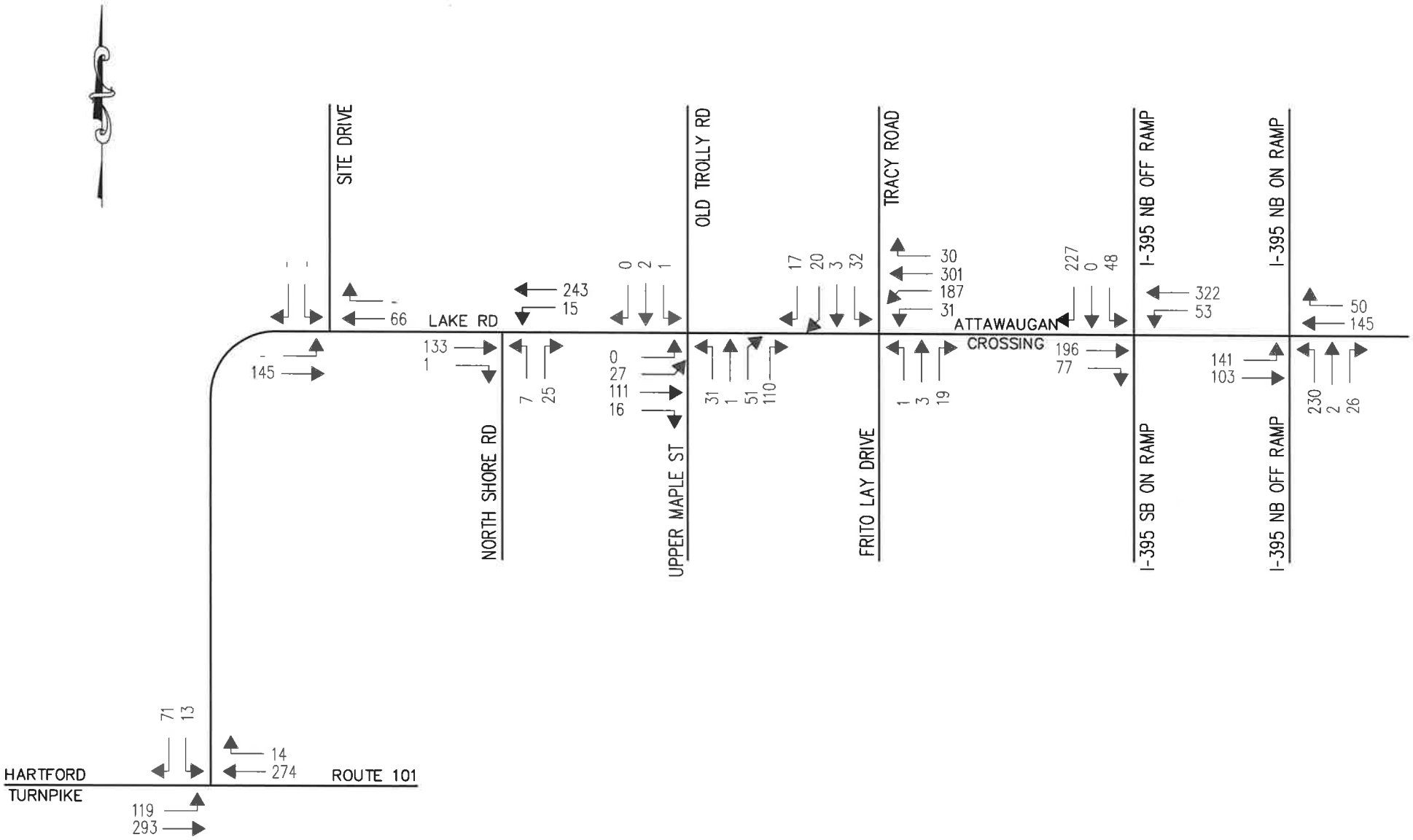


FIGURE 2 5/27/16

2016 BACKGROUND TRAFFIC
A.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC
PLANNING
ENGINEERING
DESIGN

NOT TO SCALE

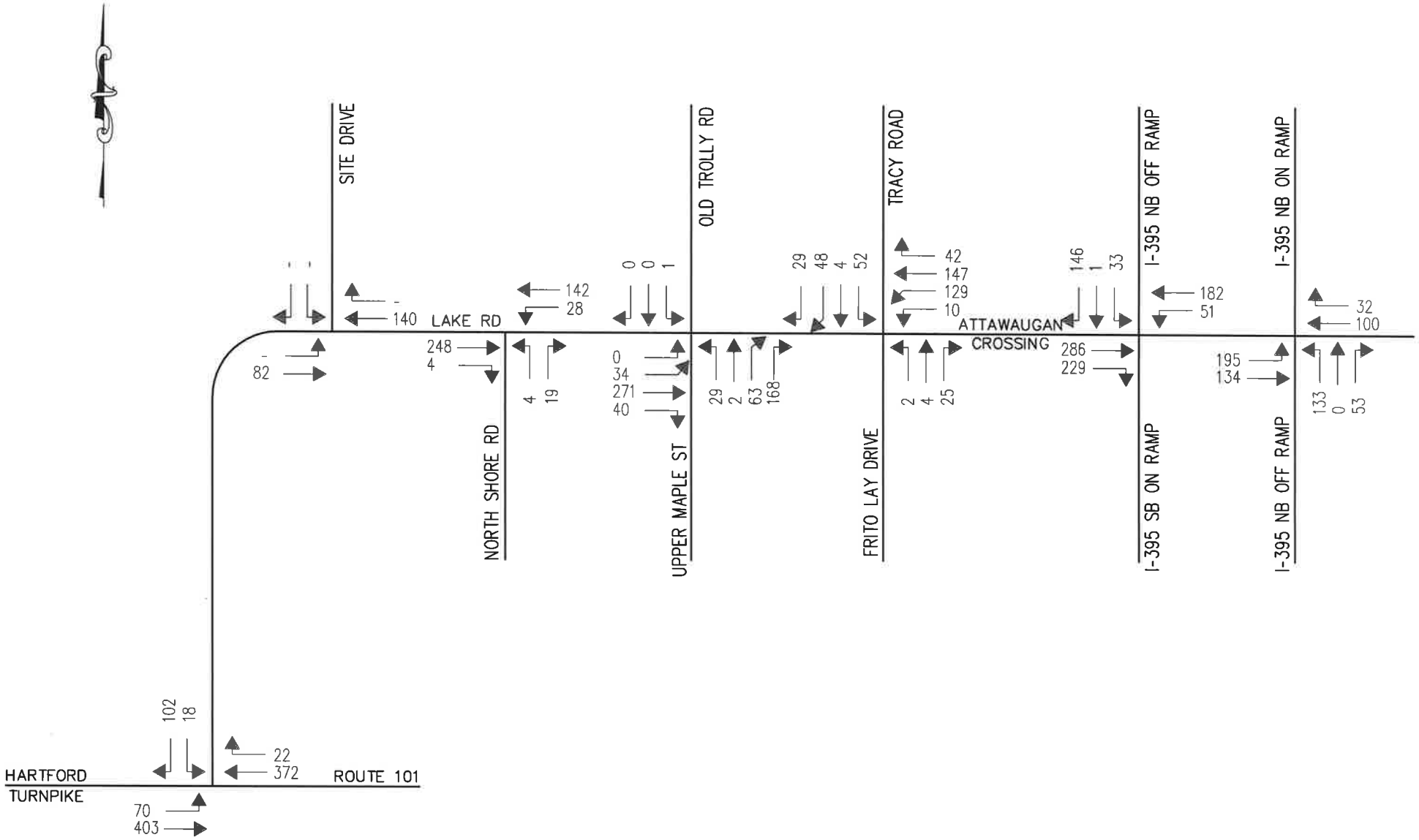


FIGURE 3 5/27/16

2016 BACKGROUND TRAFFIC
P.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

2016 BACKGROUND TRAFFIC FROM FIGURE 2 INCREASED 2% PER YEAR OR 6% TOTAL TO A DESIGN YEAR OF 2019

FIGURE 4

5/27/16

2019 BACKGROUND TRAFFIC
A.M. PEAK HOUR

NTE CONNECTICUT

180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC
PLANNING
ENGINEERING
DESIGN

NOT TO SCALE

2016 BACKGROUND TRAFFIC FROM FIGURE 3 INCREASED 2% PER YEAR OR 6% TOTAL TO A DESIGN YEAR OF 2019

FIGURE 5 5/27/16

2019 BACKGROUND TRAFFIC
P.M. PEAK HOUR

NTE CONNECTICUT

180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC
PLANNING
ENGINEERING
DESIGN

NOT TO SCALE

Table 6
Trip Generation Summary

Source	Size	Weekday Volumes ADT	AM Peak Enter	AM Peak Exit	AM Peak Total	PM Peak Enter	PM Peak Exit	PM Peak Total
Proposed Development								
Utility	30 Employees		21	2	23	4	19	23
	40,000 s.f.		16	16	32	14	16	30
Construction Traff	350 Workers		350	35	385	35	350	385

* - Assumes a vehicle occupancy rate of 1 person per vehicle, that 100% of workers arrive in one hour, and 10% depart during the same hour.

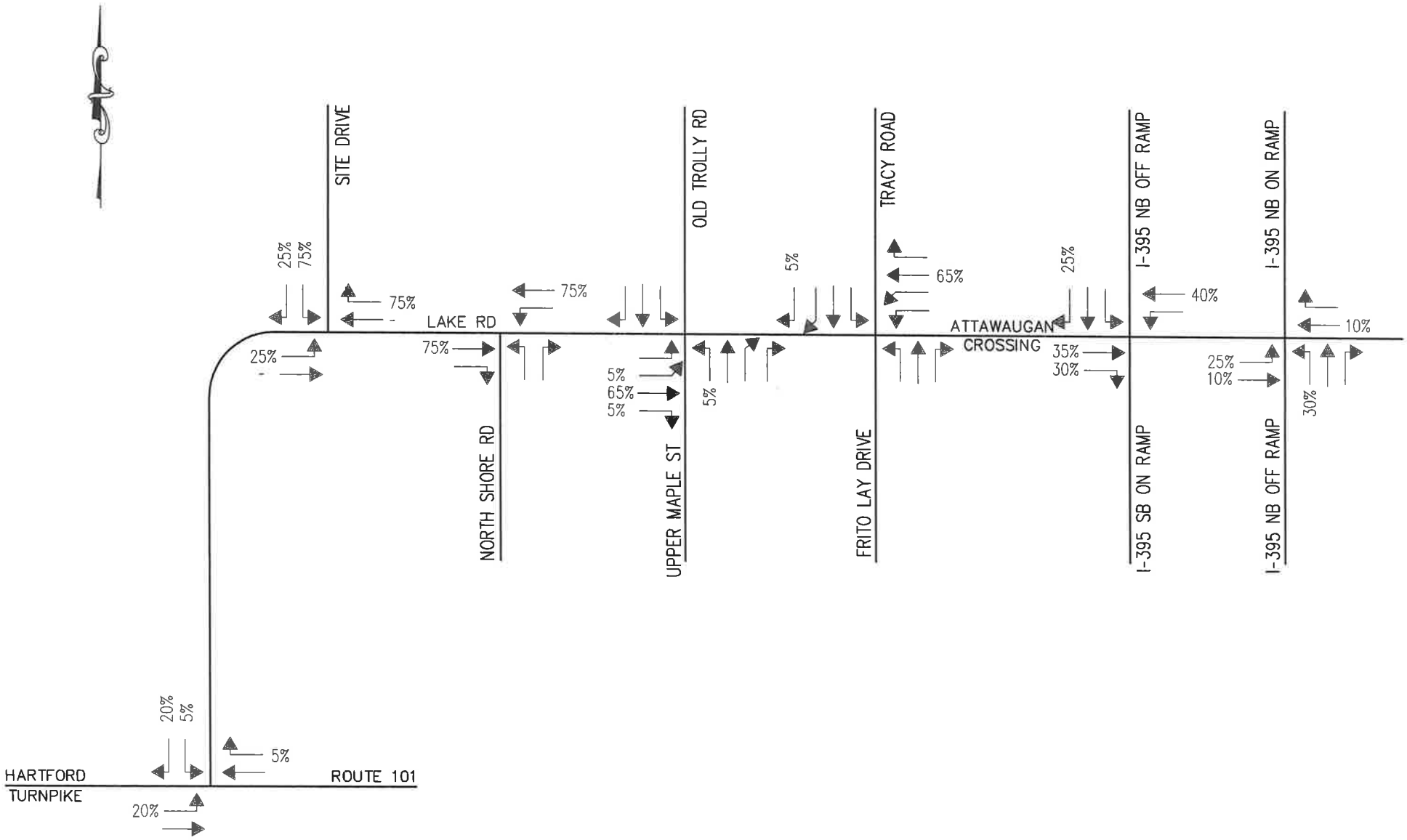


FIGURE 6 5/27/16

DIRECTIONAL DISTRIBUTION OF SITE GENERATED TRAFFIC

NTE CONNECTICUT

180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026

FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

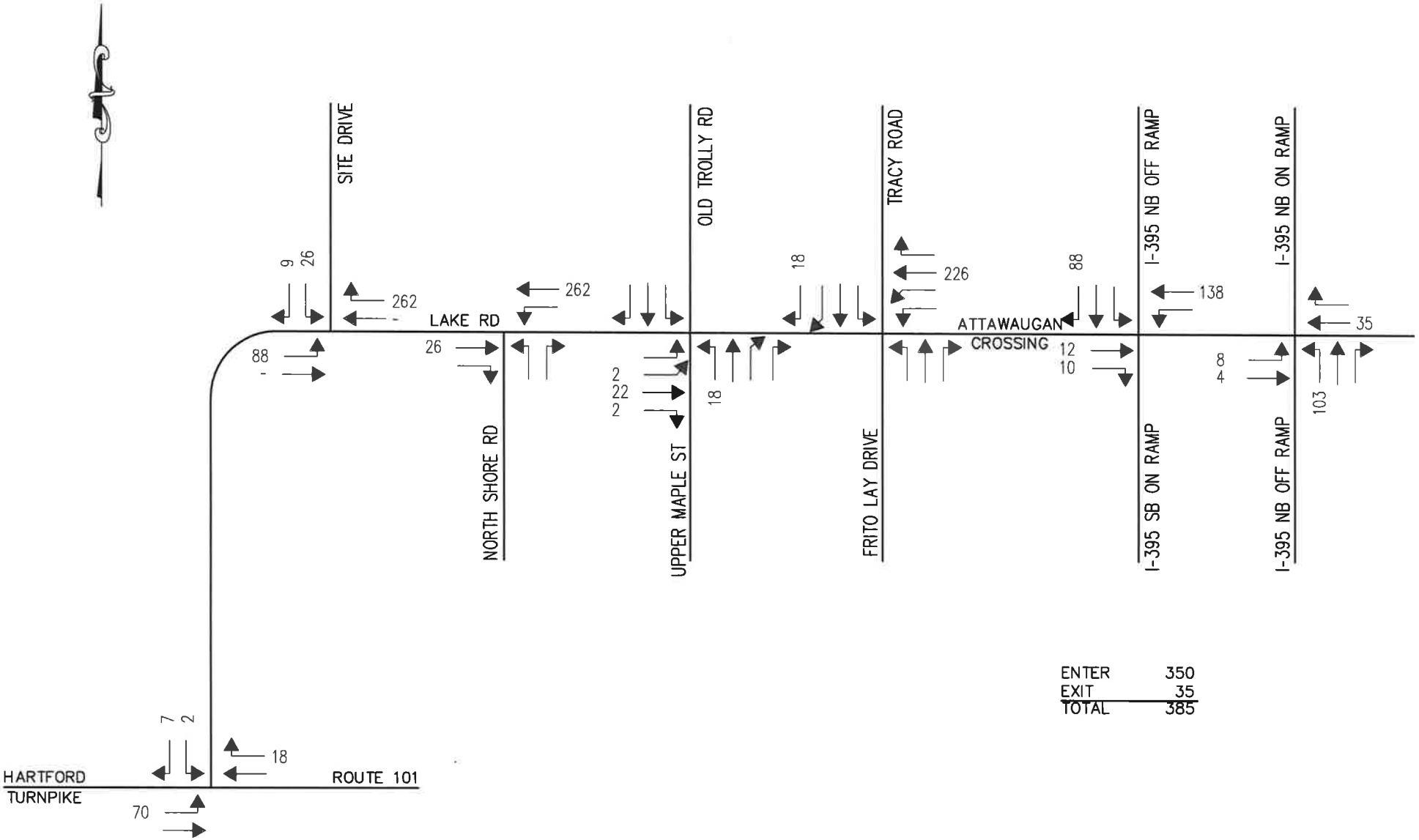


FIGURE 7 5/27/16

SITE GENERATED TRAFFIC
A.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

A.M. PEAK HOUR CONSTRUCTION TRAFFIC FROM TABLE 6 DISTRIBUTED BASED ON THE TRIP DISTRIBUTION IN FIGURE 6

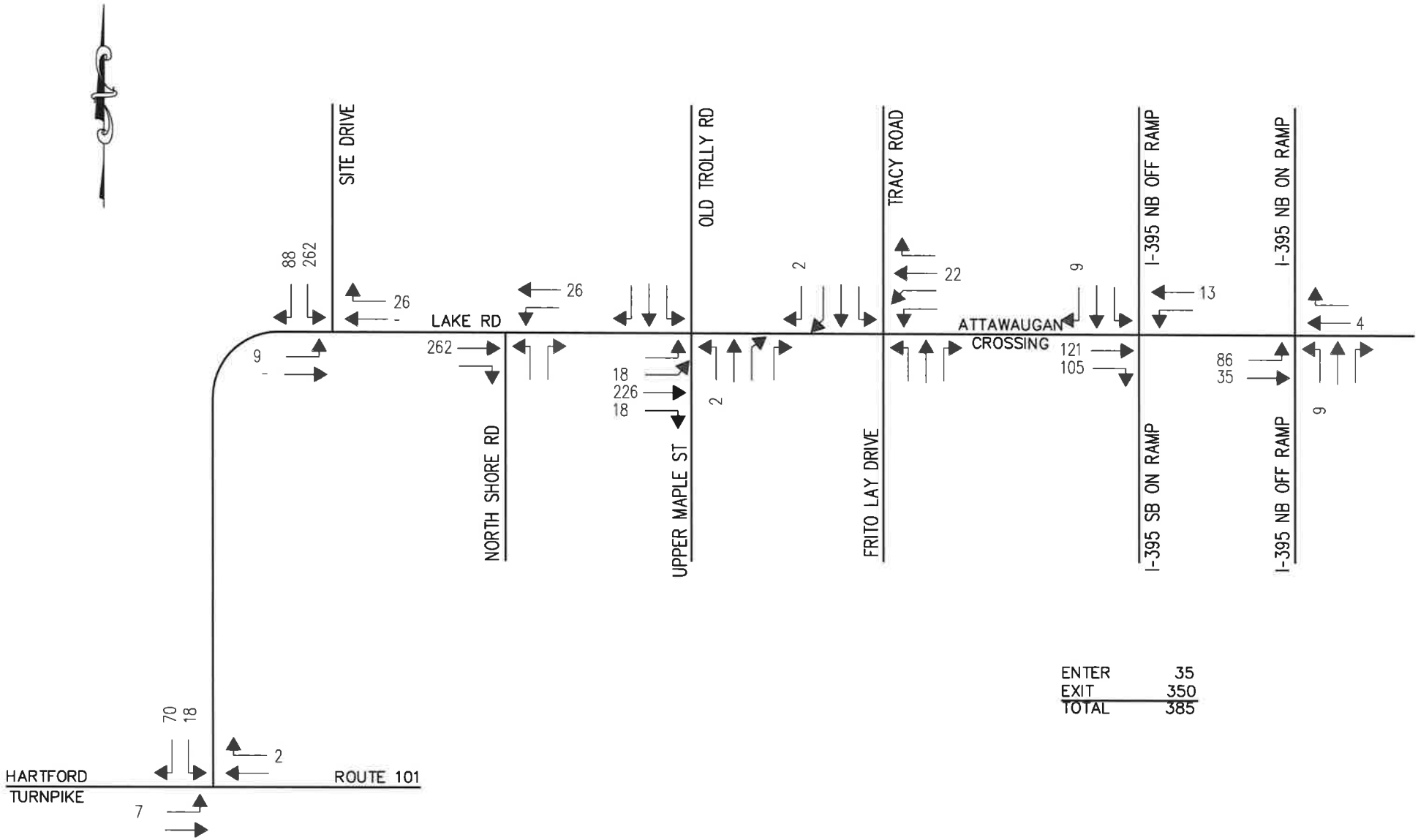


FIGURE 8 5/27/16

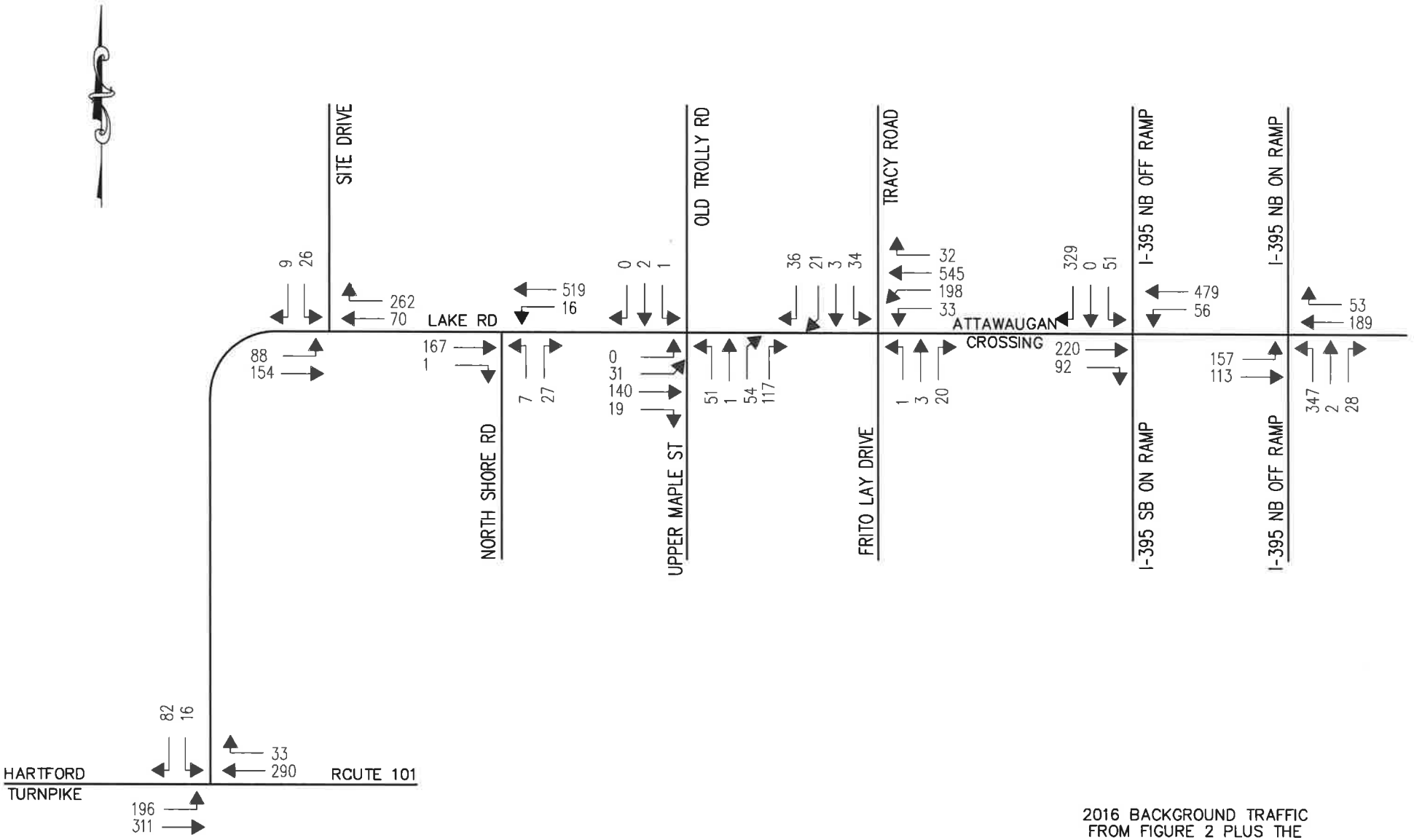
SITE GENERATED TRAFFIC
P.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

P.M. PEAK HOUR CONSTRUCTION TRAFFIC FROM TABLE 6 DISTRIBUTED BASED ON THE TRIP DISTRIBUTION IN FIGURE 6



2016 BACKGROUND TRAFFIC
FROM FIGURE 2 PLUS THE
SITE GENERATED TRAFFIC
FROM FIGURE 7

FIGURE 9 5/27/16

2019 COMBINED TRAFFIC
A.M. PEAK HOUR

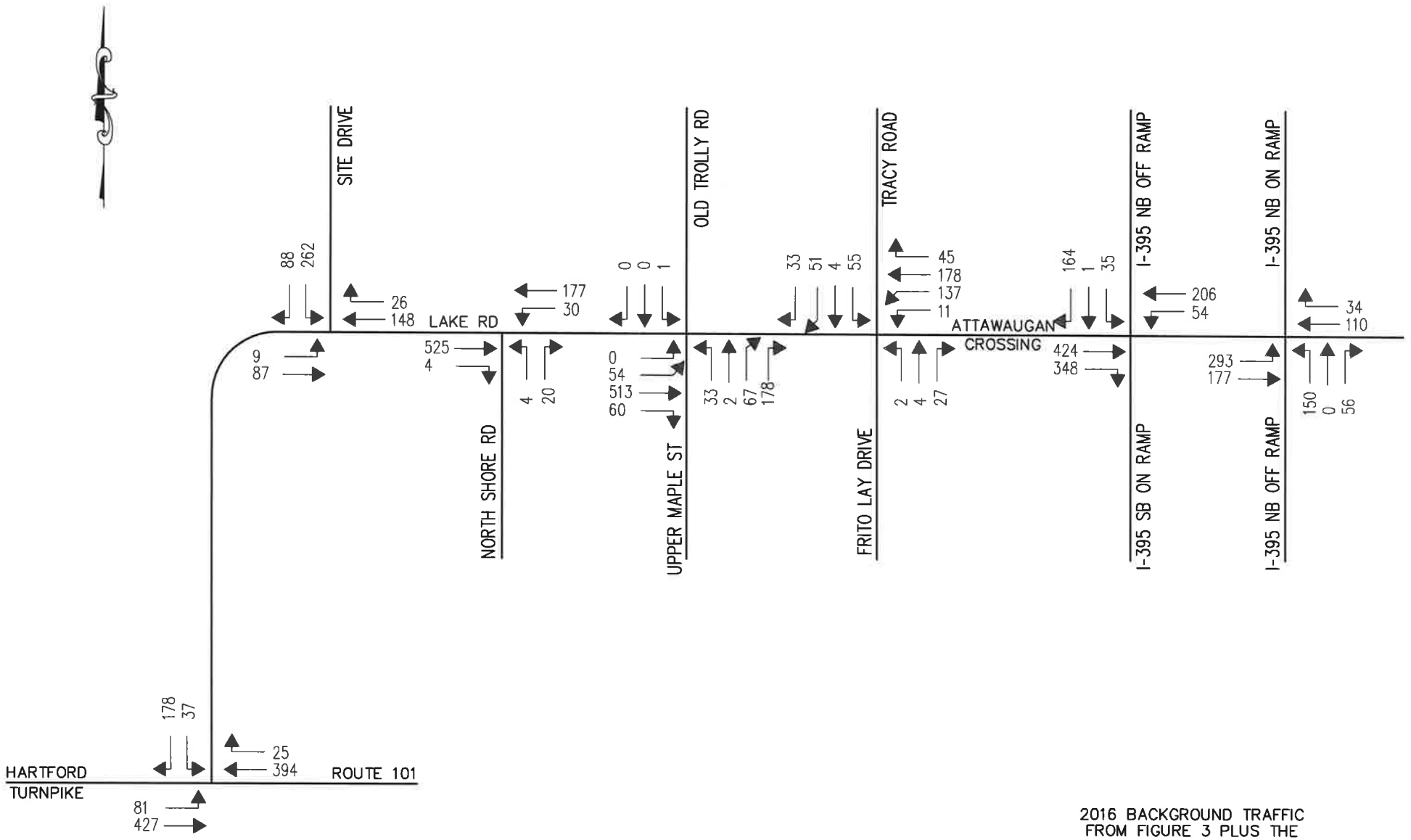
NTE CONNECTICUT

180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026

FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE



2016 BACKGROUND TRAFFIC
FROM FIGURE 3 PLUS THE
SITE GENERATED TRAFFIC
FROM FIGURE 8

FIGURE 10 5/27/16

2019 COMBINED TRAFFIC
P.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

Table # 7
Level of Service Summary
NTE Connecticut - Lake Road - Killingly, CT

Time Period	A. M. PEAK HOUR								P. M. PEAK HOUR							
	Background Traffic				Combined Traffic				Background Traffic				Combined Traffic			
	LOS	delay	v/c	Queue	LOS	delay	v/c	Queue	LOS	delay	v/c	Queue	LOS	delay	v/c	Queue
Attawaugan Crossing Road at I-395 NB Ramps																
NB	B	16.8	0.50	127	B	19.7	0.62	201	B	14.5	0.42	86	B	15.4	0.46	91
EB Left	A	7.3	0.26	49	A	9.6	0.30	68	A	7.0	0.36	57	A	8.4	0.48	84
Through	A	6.4	0.13	37	A	8.3	0.13	50	A	5.5	0.17	40	A	5.8	0.20	50
WB	B	17.1	0.45	100	C	21.0	0.51	144	B	15.7	0.36	69	B	16.0	0.37	72
Overall	B	13.4	0.50		B	16.8	0.62		B	10.6	0.42		B	11.0	0.48	
Attawaugan Crossing Road at I-395 SB Ramps																
SB	C	18.4	0.54	79	E	38.8	0.83	201	B	14.3	0.36	41	C	17.9	0.45	58
EB	A	0.0	0.18	0	A	0.0	0.19	0	A	0.0	0.36	0	A	0.0	0.52	0
WB	A	1.5	0.05	4	A	1.3	0.05	4	A	2.5	0.07	5	A	3.2	0.09	8
Attawaugan Crossing Road / Lake Road at Tracy Road / Frito Lay Driveway																
NB	B	14.4	0.10	13	B	13.6	0.10	21	B	12.8	0.13	25	B	12.5	0.13	24
SB	C	20.1	0.35	55	B	17.4	0.38	58	C	23.3	0.55	89	C	23.5	0.56	89
EB Left	A	4.8	0.24	9	A	8.3	0.36	26	A	3.6	0.24	12	A	4.1	0.28	m9
Through	A	3.0	0.24	20	A	3.2	0.26	24	A	5.4	0.52	51	B	18.2	0.76	#213
WB	C	20.6	0.59	194	C	26.6	0.75	#308	B	19.9	0.41	117	C	20.0	0.40	130
Overall	B	15.0	0.59		B	19.7	0.75		B	12.4	0.55		B	17.9	0.76	
Attawaugan Crossing Road / Lake Road at Upper Maple Street																
NB Left	C	28.5	0.13	41	C	31.4	0.22	65	C	30.0	0.12	44	C	31.4	0.12	45
Through	A	9.2	0.46	54	A	9.4	0.46	56	A	9.0	0.54	58	A	9.7	0.56	58
EB	B	14.9	0.18	52	B	16.2	0.19	63	C	21.0	0.47	126	C	27.3	0.71	245
WB Left	A	1.7	0.31	13	A	1.4	0.31	m1	A	5.1	0.39	56	B	14.1	0.58	105
Through	A	0.9	0.30	2	A	4.0	0.51	95	A	1.1	0.18	4	A	1.1	0.20	5
Overall	A	6.1	0.59		A	7.4	0.75		B	11.8	0.55		B	18.0	0.76	
Lake Road at North Shore Road																
NB	B	10.1	0.06	4	B	11.2	0.07	5	B	10.7	0.04	3	B	14.1	0.07	6
EB	A	0.0	0.10	0	A	0.0	0.12	0	A	0.0	0.19	0	A	0.0	0.38	0
WB	A	0.6	0.01	1	A	0.4	0.01	1	A	1.5	0.03	2	A	1.6	0.04	3
Route 101 at Lake Road																
SB	B	13.4	0.19	18	C	15.4	0.25	24	C	15.2	0.28	29	C	19.9	0.50	68
EB	A	3.3	0.12	10	A	4.7	0.19	18	A	2.0	0.07	6	A	2.1	0.08	6
WB	A	0.0	0.21	0	A	0.0	0.22	0	A	0.0	0.27	0	A	0.0	0.27	0
Lake Road at Site Driveway																
NB					A	3.6	0.09	7					A	0.8	0.01	1
SB					A	0.0	0.23	0					A	0.0	0.12	0
EB					B	13.4	0.09	7					C	16.8	0.58	94

6/20/2016

Appendix

Manual Turning Movement Counts

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Attawaugan Crossing Road
at I-395 NB Ramps
Killingly, CT
Job No. 16126

File Name : 395 NB AM
Site Code : 16126100
Start Date : 5/24/2016
Page No : 1

Groups Printed- Unshifted

	Attawaugan Crossing Road From East			I-395 NB Off Ramp From South				Attawaugan Crossing Road From West			
Start Time	Right	Thru	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0	1.0		1.0	1.0		
07:00 AM	15	47	62	3	0	37	40	22	36	58	160
07:15 AM	15	21	36	7	0	54	61	38	36	74	171
07:30 AM	13	33	46	8	1	54	63	24	36	60	169
07:45 AM	7	36	43	8	1	65	74	16	30	46	163
Total	50	137	187	26	2	210	238	100	138	238	663
08:00 AM	6	28	34	12	1	35	48	19	35	54	136
08:15 AM	10	17	27	10	0	20	30	11	20	31	88
08:30 AM	4	16	20	8	1	25	34	14	22	36	90
08:45 AM	4	22	26	12	0	16	28	13	21	34	88
Total	24	83	107	42	2	96	140	57	98	155	402
Grand Total	74	220	294	68	4	306	378	157	236	393	1065
Apprch %	25.2	74.8		18.0	1.1	81.0		39.9	60.1		
Total %	6.9	20.7	27.6	6.4	0.4	28.7	35.5	14.7	22.2	36.9	

	Attawaugan Crossing Road From East			I-395 NB Off Ramp From South				Attawaugan Crossing Road From West			
Start Time	Right	Thru	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:00 AM										
Volume	50	137	187	26	2	210	238	100	138	238	663
Percent	26.7	73.3		10.9	0.8	88.2		42.0	58.0		
07:15 Volume	15	21	36	7	0	54	61	38	36	74	171
Peak Factor											0.969
High Int.	07:00 AM			07:45 AM				07:15 AM			
Volume	15	47	62	8	1	65	74	38	36	74	
Peak Factor			0.754				0.804			0.804	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:00 AM			07:15 AM				07:00 AM			
Volume	50	137	187	35	3	208	246	100	138	238	
Percent	26.7	73.3		14.2	1.2	84.6		42.0	58.0		
High Int.	07:00 AM			07:45 AM				07:15 AM			
Volume	15	47	62	8	1	65	74	38	36	74	
Peak Factor			0.754				0.831			0.804	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Attawaugan Crossing Road
at I-395 SB Ramps
Killingly, CT
Job No. 16126

File Name : 395 SB AM
Site Code : 16126200
Start Date : 5/24/2016
Page No : 1

Groups Printed- Unshifted

	I-395 SB Off Ramp From North				Attawaugan Crossing Road From East			Attawaugan Crossing Road From West			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0		1.0	1.0		
07:00 AM	64	0	13	77	75	10	85	18	47	65	227
07:15 AM	37	0	18	55	59	13	72	14	57	71	198
07:30 AM	52	0	10	62	76	14	90	22	47	69	221
07:45 AM	57	0	7	64	86	16	102	18	35	53	219
Total	210	0	48	258	296	53	349	72	186	258	865
08:00 AM	40	0	5	45	55	10	65	27	45	72	182
08:15 AM	31	0	4	35	32	9	41	18	36	54	130
08:30 AM	26	0	3	29	33	13	46	16	32	48	123
08:45 AM	19	0	2	21	31	8	39	20	36	56	116
Total	116	0	14	130	151	40	191	81	149	230	551
Grand Total	326	0	62	388	447	93	540	153	335	488	1416
Apprch %	84.0	0.0	16.0		82.8	17.2		31.4	68.6		
Total %	23.0	0.0	4.4	27.4	31.6	6.6	38.1	10.8	23.7	34.5	

	I-395 SB Off Ramp From North				Attawaugan Crossing Road From East			Attawaugan Crossing Road From West			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
Intersection	07:00 AM										
Volume	210	0	48	258	296	53	349	72	186	258	865
Percent	81.4	0.0	18.6		84.8	15.2		27.9	72.1		
07:00 Volume	64	0	13	77	75	10	85	18	47	65	227
Peak Factor											0.953
High Int.	07:00 AM				07:45 AM			07:15 AM			
Volume	64	0	13	77	86	16	102	14	57	71	
Peak Factor				0.838			0.855			0.908	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1											
By Approach	07:00 AM				07:00 AM			07:15 AM			
Volume	210	0	48	258	296	53	349	81	184	265	
Percent	81.4	0.0	18.6		84.8	15.2		30.6	69.4		
High Int.	07:00 AM				07:45 AM			08:00 AM			
Volume	64	0	13	77	86	16	102	27	45	72	
Peak Factor				0.838			0.855			0.920	

JAMAR Technologies, Inc.
151 Keith Valley Road

Attawaugan Crossing Rd / Lake Rd at Upper Maple / TYracey / Frito Lay Killingly, CT
Horsham, PA 19044
Change These In PREFERENCES
Job No. 16126

File Name : Upper Maple AM
Site Code : 12126300
Start Date : 5/24/2016
Page No : 1

Groups Printed- Unshifted

	Tracey Road From North					Attawaugan Road From East					Upper Maple Street From South					Lake Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	3	10	11	0	24	7	52	75	2	136	26	10	6	1	43	5	35	6	0	46	249
07:15 AM	3	5	9	0	17	6	61	33	0	100	40	12	8	0	60	3	18	8	0	29	206
07:30 AM	7	7	7	0	21	12	65	48	0	125	24	17	8	0	49	2	26	4	0	32	227
07:45 AM	2	1	5	0	8	5	95	31	0	131	20	13	7	0	40	6	27	9	0	42	221
Total	15	23	32	0	70	30	273	187	2	492	110	52	29	1	192	16	106	27	0	149	903
08:00 AM	5	4	2	0	11	4	48	21	0	73	41	11	6	0	58	9	28	6	0	43	185
08:15 AM	1	5	1	0	7	6	37	13	0	56	23	13	2	0	38	6	27	4	0	37	138
08:30 AM	0	1	2	0	3	2	8	2	0	12	2	3	0	0	5	0	4	1	0	5	25
Grand Total	21	33	37	0	91	42	366	223	2	633	176	79	37	1	293	31	165	38	0	234	1251
Apprch %	23.1	36.3	40.7	0.0		6.6	57.8	35.2	0.3		60.1	27.0	12.6	0.3		13.2	70.5	16.2	0.0		
Total %	1.7	2.6	3.0	0.0	7.3	3.4	29.3	17.8	0.2	50.6	14.1	6.3	3.0	0.1	23.4	2.5	13.2	3.0	0.0	18.7	

	Tracey Road From North					Attawaugan Road From East					Upper Maple Street From South					Lake Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:30 AM - Peak 1 of 1																					
Intersection	07:00 AM																				
Volume	15	23	32	0	70	30	273	187	2	492	110	52	29	1	192	16	106	27	0	149	903
Percent	21.4	32.9	45.7	0.0		6.1	55.5	38.0	0.4		57.3	27.1	15.1	0.5		10.7	71.1	18.1	0.0		
07:00 Volume	3	10	11	0	24	7	52	75	2	136	26	10	6	1	43	5	35	6	0	46	249
Peak Factor																					0.907
High Int.	07:00 AM					07:00 AM					07:15 AM					07:00 AM					
Volume	3	10	11	0	24	7	52	75	2	136	40	12	8	0	60	5	35	6	0	46	
Peak Factor					0.729					0.904					0.800					0.810	

Peak Hour From 07:00 AM to 08:30 AM - Peak 1 of 1

By Approach	07:00 AM					07:00 AM					07:15 AM					07:30 AM					
Volume	15	23	32	0	70	30	273	187	2	492	125	53	29	0	207	23	108	23	0	154	
Percent	21.4	32.9	45.7	0.0		6.1	55.5	38.0	0.4		60.4	25.6	14.0	0.0		14.9	70.1	14.9	0.0		
High Int.	07:00 AM					07:00 AM					07:15 AM					08:00 AM					
Volume	3	10	11	0	24	7	52	75	2	136	40	12	8	0	60	9	28	6	0	43	
Peak Factor					0.729					0.904					0.863					0.895	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044

Attawagaun Crossing Road at
Upper Maple / Tracey / Frito Lay
Killingly, CT
Job No. 16126

Change These In PREFERENCES

File Name : Frito Lay AM
Site Code : 16126301
Start Date : 5/24/2016
Page No : 1

Groups Printed- Unshifted

	Old Trolley Road From North					Attawaugan Crossing Road From East					Frito Lay Driveway From South					Lake Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	0	0	0	0	0	0	1	7	0	8	1	0	1	0	2	0	0	0	0	0	10
07:15 AM	0	1	0	0	1	0	0	7	0	7	2	2	0	0	4	0	0	0	0	0	12
07:30 AM	0	1	0	0	1	1	0	5	0	6	10	1	1	0	12	0	0	0	0	0	19
07:45 AM	0	0	1	0	1	0	0	5	0	5	4	0	0	0	4	2	0	0	0	2	12
Total	0	2	1	0	3	1	1	24	0	26	17	3	2	0	22	2	0	0	0	2	53
08:00 AM	0	0	0	0	0	1	0	14	0	15	3	0	0	0	3	0	0	0	0	0	18
08:15 AM	0	0	1	0	1	0	0	3	0	3	3	0	0	0	3	0	0	0	0	0	7
08:30 AM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	2	2	0	4	2	1	43	0	46	23	3	2	0	28	2	0	0	0	2	80
Apprch %	0.0	50.0	50.0	0.0		4.3	2.2	93.5	0.0		82.1	10.7	7.1	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	2.5	2.5	0.0	5.0	2.5	1.3	53.8	0.0	57.5	28.8	3.8	2.5	0.0	35.0	2.5	0.0	0.0	0.0	2.5	

	Old Trolley Road From North					Attawaugan Crossing Road From East					Frito Lay Driveway From South					Lake Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:30 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	2	1	0	3	2	0	31	0	33	19	3	1	0	23	2	0	0	0	2	61
Percent	0.0	66.7	33.3	0.0		6.1	0.0	93.9	0.0		82.6	13.0	4.3	0.0		100.0	0.0	0.0	0.0		
07:30 Volume	0	1	0	0	1	1	0	5	0	6	10	1	1	0	12	0	0	0	0	0	19
Peak Factor																					0.803
High Int.	07:15 AM					08:00 AM					07:30 AM					07:45 AM					
Volume	0	1	0	0	1	1	0	14	0	15	10	1	1	0	12	2	0	0	0	2	
Peak Factor					0.750					0.550					0.479					0.250	

	Old Trolley Road From North					Attawaugan Crossing Road From East					Frito Lay Driveway From South					Lake Road From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:30 AM - Peak 1 of 1																					
By Approach	07:00 AM					07:15 AM					07:15 AM					07:00 AM					
Volume	0	2	1	0	3	2	0	31	0	33	19	3	1	0	23	2	0	0	0	2	
Percent	0.0	66.7	33.3	0.0		6.1	0.0	93.9	0.0		82.6	13.0	4.3	0.0		100.0	0.0	0.0	0.0		
High Int.	07:15 AM					08:00 AM					07:30 AM					07:45 AM					
Volume	0	1	0	0	1	1	0	14	0	15	10	1	1	0	12	2	0	0	0	2	
Peak Factor					0.750					0.550					0.479					0.250	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Lake Road at
North Shore Road
Killingly, CT
Job NO. 16126

File Name : North Shore AM
Site Code : 16126344
Start Date : 5/25/2016
Page No : 1

Groups Printed- Unshifted

	Lake Road From East			North Shore Road From South			Lake Road From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0		1.0	1.0		
07:00 AM	46	2	48	4	1	5	0	37	37	90
07:15 AM	65	2	67	4	1	5	0	27	27	99
07:30 AM	48	2	50	4	1	5	0	35	35	90
07:45 AM	79	6	85	7	2	9	1	32	33	127
Total	238	12	250	19	5	24	1	131	132	406
08:00 AM	49	5	54	10	3	13	0	29	29	96
08:15 AM	39	5	44	4	0	4	1	32	33	81
08:30 AM	33	0	33	2	0	2	1	25	26	61
08:45 AM	21	5	26	6	1	7	1	23	24	57
Total	142	15	157	22	4	26	3	109	112	295
Grand Total	380	27	407	41	9	50	4	240	244	701
Apprch %	93.4	6.6		82.0	18.0		1.6	98.4		
Total %	54.2	3.9	58.1	5.8	1.3	7.1	0.6	34.2	34.8	

	Lake Road From East			North Shore Road From South			Lake Road From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
Intersection	07:15 AM									
Volume	241	15	256	25	7	32	1	123	124	412
Percent	94.1	5.9		78.1	21.9		0.8	99.2		
07:45 Volume	79	6	85	7	2	9	1	32	33	127
Peak Factor										0.811
High Int.	07:45 AM			08:00 AM			07:30 AM			
Volume	79	6	85	10	3	13	0	35	35	
Peak Factor			0.753			0.615			0.886	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
By Approach	07:15 AM			07:15 AM			07:00 AM			
Volume	241	15	256	25	7	32	1	131	132	
Percent	94.1	5.9		78.1	21.9		0.8	99.2		
High Int.	07:45 AM			08:00 AM			07:00 AM			
Volume	79	6	85	10	3	13	0	37	37	
Peak Factor			0.753			0.615			0.892	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Route 101 (Hartford Turnpike)
at Lake Road
Killingly, CT
Job No. 16126

File Name : Route 101 AM
Site Code : 16107666
Start Date : 5/25/2016
Page No : 1

Groups Printed- Unshifted

	Lake Road From North			Route 101 From East			Route 101 From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0		1.0	1.0		
07:00 AM	9	2	11	1	43	44	79	28	107	162
07:15 AM	16	4	20	3	58	61	71	26	97	178
07:30 AM	14	3	17	7	77	84	61	28	89	190
07:45 AM	18	3	21	1	80	81	82	41	123	225
Total	57	12	69	12	258	270	293	123	416	755
08:00 AM	21	3	24	1	59	60	79	16	95	179
08:15 AM	12	2	14	2	43	45	71	22	93	152
08:30 AM	12	3	15	1	61	62	97	20	117	194
08:45 AM	9	4	13	3	68	71	76	17	93	177
Total	54	12	66	7	231	238	323	75	398	702
Grand Total	111	24	135	19	489	508	616	198	814	1457
Apprch %	82.2	17.8		3.7	96.3		75.7	24.3		
Total %	7.6	1.6	9.3	1.3	33.6	34.9	42.3	13.6	55.9	

	Lake Road From North			Route 101 From East			Route 101 From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
Intersection	07:15 AM									
Volume	69	13	82	12	274	286	293	111	404	772
Percent	84.1	15.9		4.2	95.8		72.5	27.5		
07:45 Volume	18	3	21	1	80	81	82	41	123	225
Peak Factor										0.858
High Int.	08:00 AM			07:30 AM			07:45 AM			
Volume	21	3	24	7	77	84	82	41	123	
Peak Factor			0.854			0.851			0.821	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1										
By Approach	07:15 AM			07:15 AM			07:45 AM			
Volume	69	13	82	12	274	286	329	99	428	
Percent	84.1	15.9		4.2	95.8		76.9	23.1		
High Int.	08:00 AM			07:30 AM			07:45 AM			
Volume	21	3	24	7	77	84	82	41	123	
Peak Factor			0.854			0.851			0.870	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Attawaugan Crossing Road at
I-395 NB Ramps
Killingly, CT
Job No. 16126

File Name : 395 NB PM
Site Code : 61268888
Start Date : 5/24/2016
Page No : 1

Groups Printed- Unshifted

	Attawaugan Crossing Rd From East			I-395 NB Off Ramp From South				Attawaugan Crossing Rd From West			
Start Time	Right	Thru	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0	1.0		1.0	1.0		
03:30 PM	10	28	38	14	0	31	45	34	44	78	161
03:45 PM	8	23	31	14	0	33	47	30	34	64	142
Total	18	51	69	28	0	64	92	64	78	142	303
04:00 PM	8	17	25	11	0	23	34	36	50	86	145
04:15 PM	6	31	37	14	0	16	30	30	47	77	144
04:30 PM	8	22	30	10	1	13	24	31	46	77	131
04:45 PM	8	19	27	16	0	17	33	32	23	55	115
Total	30	89	119	51	1	69	121	129	166	295	535
05:00 PM	13	25	38	20	0	10	30	32	53	85	153
05:15 PM	9	26	35	15	0	22	37	27	33	60	132
Grand Total	70	191	261	114	1	165	280	252	330	582	1123
Apprch %	26.8	73.2		40.7	0.4	58.9		43.3	56.7		
Total %	6.2	17.0	23.2	10.2	0.1	14.7	24.9	22.4	29.4	51.8	

	Attawaugan Crossing Rd From East			I-395 NB Off Ramp From South				Attawaugan Crossing Rd From West			
Start Time	Right	Thru	App. Total	Right	Thru	Left	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1											
Intersection	03:30 PM										
Volume	32	99	131	53	0	103	156	130	175	305	592
Percent	24.4	75.6		34.0	0.0	66.0		42.6	57.4		
03:30 Volume	10	28	38	14	0	31	45	34	44	78	161
Peak Factor											0.919
High Int.	03:30 PM			03:45 PM				04:00 PM			
Volume	10	28	38	14	0	33	47	36	50	86	
Peak Factor			0.862				0.830			0.887	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1											
By Approach	04:15 PM			03:30 PM				03:30 PM			
Volume	35	97	132	53	0	103	156	130	175	305	
Percent	26.5	73.5		34.0	0.0	66.0		42.6	57.4		
High Int.	05:00 PM			03:45 PM				04:00 PM			
Volume	13	25	38	14	0	33	47	36	50	86	
Peak Factor			0.868				0.830			0.887	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Attawaugan Crossing Road at
I-395 SB Ramps
Killingly, CT
Job No. 16126

File Name : 395 SB PM
Site Code : 16126222
Start Date : 5/24/2016
Page No : 1

Groups Printed- Unshifted

	I-395 SB Off Ramp From North				Attawaugan Crossing Road From East			Attawaugan Crossing Road From West			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0		1.0	1.0		
03:30 PM	45	1	8	54	44	10	54	66	68	134	242
03:45 PM	49	0	6	55	49	15	64	36	52	88	207
Total	94	1	14	109	93	25	118	102	120	222	449
04:00 PM	27	0	9	36	31	9	40	63	66	129	205
04:15 PM	23	0	8	31	32	11	43	52	72	124	198
04:30 PM	33	0	11	44	23	19	42	44	63	107	193
04:45 PM	54	0	13	67	31	8	39	31	48	79	185
Total	137	0	41	178	117	47	164	190	249	439	781
05:00 PM	33	0	7	40	23	11	34	37	64	101	175
05:15 PM	39	0	17	56	19	18	37	26	52	78	171
Grand Total	303	1	79	383	252	101	353	355	485	840	1576
Apprch %	79.1	0.3	20.6		71.4	28.6		42.3	57.7		
Total %	19.2	0.1	5.0	24.3	16.0	6.4	22.4	22.5	30.8	53.3	

	I-395 SB Off Ramp From North				Attawaugan Crossing Road From East			Attawaugan Crossing Road From West			
Start Time	Right	Thru	Left	App. Total	Thru	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1											
Intersection	03:30 PM										
Volume	144	1	31	176	156	45	201	217	258	475	852
Percent	81.8	0.6	17.6		77.6	22.4		45.7	54.3		
03:30 Volume	45	1	8	54	44	10	54	66	68	134	242
Peak Factor											0.880
High Int.	03:45 PM				03:45 PM			03:30 PM			
Volume	49	0	6	55	49	15	64	66	68	134	
Peak Factor				0.800			0.785			0.886	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1											
By Approach	04:30 PM				03:30 PM			03:30 PM			
Volume	159	0	48	207	156	45	201	217	258	475	
Percent	76.8	0.0	23.2		77.6	22.4		45.7	54.3		
High Int.	04:45 PM				03:45 PM			03:30 PM			
Volume	54	0	13	67	49	15	64	66	68	134	
Peak Factor				0.772			0.785			0.886	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Attawaugan Crossing Rd / Lake Rd
at Upper Maple St / Tracy Rd
Killingly, CT
Job No. 16126

File Name : Upper Maple PM
Site Code : 12630112
Start Date : 5/24/2016
Page No : 1

Groups Printed- Unshifted

	Tracey Road From North				Attawaugan Crossing Road From East				Upper Maple Street From South				Lake Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
03:30 PM	8	19	24	51	6	40	45	91	27	10	8	45	8	86	8	102	289
03:45 PM	9	8	6	23	9	48	35	92	37	14	9	60	7	41	4	52	227
Total	17	27	30	74	15	88	80	183	64	24	17	105	15	127	12	154	516
04:00 PM	4	14	10	28	9	21	20	50	71	24	3	98	14	62	10	86	262
04:15 PM	7	11	12	30	13	22	19	54	33	17	8	58	9	55	10	74	216
04:30 PM	5	17	20	42	3	24	35	62	25	7	5	37	17	59	9	85	226
04:45 PM	4	8	7	19	5	24	36	65	28	8	3	39	3	33	1	37	160
Total	20	50	49	119	30	91	110	231	157	56	19	232	43	209	30	282	864
05:00 PM	9	11	7	27	3	29	19	51	19	12	11	42	6	83	7	96	216
05:15 PM	4	7	4	15	2	24	27	53	17	13	4	34	4	49	7	60	162
Grand Total	50	95	90	235	50	232	236	518	257	105	51	413	68	468	56	592	1758
Apprch %	21.3	40.4	38.3		9.7	44.8	45.6		62.2	25.4	12.3		11.5	79.1	9.5		
Total %	2.8	5.4	5.1	13.4	2.8	13.2	13.4	29.5	14.6	6.0	2.9	23.5	3.9	26.6	3.2	33.7	

	Tracey Road From North				Attawaugan Crossing Road From East				Upper Maple Street From South				Lake Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																	
Intersection	03:30 PM																
Volume	28	52	52	132	37	131	119	287	168	65	28	261	38	244	32	314	994
Percent	21.2	39.4	39.4		12.9	45.6	41.5		64.4	24.9	10.7		12.1	77.7	10.2		
03:30 Volume	8	19	24	51	6	40	45	91	27	10	8	45	8	86	8	102	289
Peak Factor																	0.860
High Int.	03:30 PM				03:45 PM				04:00 PM				03:30 PM				
Volume	8	19	24	51	9	48	35	92	71	24	3	98	8	86	8	102	
Peak Factor				0.647				0.780				0.666				0.770	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																	
By Approach	03:30 PM				03:30 PM				03:30 PM				03:30 PM				
Volume	28	52	52	132	37	131	119	287	168	65	28	261	38	244	32	314	
Percent	21.2	39.4	39.4		12.9	45.6	41.5		64.4	24.9	10.7		12.1	77.7	10.2		
High Int.	03:30 PM				03:45 PM				04:00 PM				03:30 PM				
Volume	8	19	24	51	9	48	35	92	71	24	3	98	8	86	8	102	
Peak Factor				0.647				0.780				0.666				0.770	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044

Attawaugan Crossing Rd / Lake Rd
at Old Trolley Rd / Frito lay Drive Change These In PREFERENCES
Killingly, CT
Job No. 16126

File Name : Frito Lay PM
Site Code : 61263011
Start Date : 5/24/2016
Page No : 1

Groups Printed- Unshifted

	Old Trolley Road From North				Attawaugan Crossing Road From East				Frito lay Drive From South				Attawaugan Crossing Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
03:30 PM	0	0	0	0	0	1	3	4	6	2	1	9	0	0	0	0	13
03:45 PM	0	0	0	0	0	0	4	4	2	1	0	3	0	0	0	0	7
Total	0	0	0	0	0	1	7	8	8	3	1	12	0	0	0	0	20
04:00 PM	0	0	1	1	0	0	3	3	10	3	0	13	0	0	0	0	17
04:15 PM	0	0	0	0	0	0	1	1	2	1	1	4	0	0	0	0	5
04:30 PM	0	0	0	0	0	0	4	4	6	0	0	6	1	0	0	1	11
04:45 PM	0	0	0	0	0	0	2	2	7	0	1	8	0	0	0	0	10
Total	0	0	1	1	0	0	10	10	25	4	2	31	1	0	0	1	43
05:00 PM	0	0	0	0	0	0	3	3	2	0	0	2	0	0	0	0	5
05:15 PM	0	0	0	0	0	0	6	6	1	0	0	1	0	0	0	0	7
Grand Total	0	0	1	1	0	1	26	27	36	7	3	46	1	0	0	1	75
Apprch %	0.0	0.0	100.0		0.0	3.7	96.3		78.3	15.2	6.5		100.0	0.0	0.0		
Total %	0.0	0.0	1.3	1.3	0.0	1.3	34.7	36.0	48.0	9.3	4.0	61.3	1.3	0.0	0.0	1.3	

	Old Trolley Road From North				Attawaugan Crossing Road From East				Frito lay Drive From South				Attawaugan Crossing Road From West				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																	
Intersection	04:00 PM																
Volume	0	0	1	1	0	0	10	10	25	4	2	31	1	0	0	1	43
Percent	0.0	0.0	100.0		0.0	0.0	100.0		80.6	12.9	6.5		100.0	0.0	0.0		
04:00 Volume	0	0	1	1	0	0	3	3	10	3	0	13	0	0	0	0	17
Peak Factor																	0.632
High Int.	04:00 PM				04:30 PM				04:00 PM				04:30 PM				
Volume	0	0	1	1	0	0	4	4	10	3	0	13	1	0	0	1	
Peak Factor				0.250				0.625				0.596				0.250	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1																	
By Approach	03:30 PM				04:30 PM				04:00 PM				03:45 PM				
Volume	0	0	1	1	0	0	15	15	25	4	2	31	1	0	0	1	
Percent	0.0	0.0	100.0		0.0	0.0	100.0		80.6	12.9	6.5		100.0	0.0	0.0		
High Int.	04:00 PM				05:15 PM				04:00 PM				04:30 PM				
Volume	0	0	1	1	0	0	6	6	10	3	0	13	1	0	0	1	
Peak Factor				0.250				0.625				0.596				0.250	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
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Lake Road at
Nort Shore Road
Killingly, CT
Job No. 16126

File Name : North Shore PM
Site Code : 16126444
Start Date : 5/25/2016
Page No : 1

Groups Printed- Unshifted

	Lake Road From East			North Shore Road From South			Lake Road From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0		1.0	1.0		
03:30 PM	39	7	46	5	2	7	0	47	47	100
03:45 PM	49	1	50	5	0	5	1	51	52	107
Total	88	8	96	10	2	12	1	98	99	207
04:00 PM	23	7	30	4	3	7	4	65	69	106
04:15 PM	30	6	36	5	1	6	0	54	54	96
04:30 PM	28	6	34	6	2	8	1	68	69	111
04:45 PM	35	8	43	5	0	5	0	38	38	86
Total	116	27	143	20	6	26	5	225	230	399
05:00 PM	35	7	42	4	2	6	2	81	83	131
05:15 PM	34	7	41	4	0	4	1	58	59	104
Grand Total	273	49	322	38	10	48	9	462	471	841
Apprch %	84.8	15.2		79.2	20.8		1.9	98.1		
Total %	32.5	5.8	38.3	4.5	1.2	5.7	1.1	54.9	56.0	

	Lake Road From East			North Shore Road From South			Lake Road From West			
Start Time	Thru	Left	App. Total	Right	Left	App. Total	Right	Thru	App. Total	Int. Total
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1										
Intersection	04:30 PM									
Volume	132	28	160	19	4	23	4	245	249	432
Percent	82.5	17.5		82.6	17.4		1.6	98.4		
05:00 Volume	35	7	42	4	2	6	2	81	83	131
Peak Factor										0.824
High Int.	04:45 PM			04:30 PM			05:00 PM			
Volume	35	8	43	6	2	8	2	81	83	
Peak Factor			0.930			0.719			0.750	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1										
By Approach	03:30 PM			03:45 PM			04:30 PM			
Volume	141	21	162	20	6	26	4	245	249	
Percent	87.0	13.0		76.9	23.1		1.6	98.4		
High Int.	03:45 PM			04:30 PM			05:00 PM			
Volume	49	1	50	6	2	8	2	81	83	
Peak Factor			0.810			0.813			0.750	

JAMAR Technologies, Inc.
151 Keith Valley Road
Horsham, PA 19044
Change These In PREFERENCES

Route 101 (Hartford Trnpk)
at Lake Road
Killingly, CT
Job No. 16126

File Name : Route 101 PM
Site Code : 00000000
Start Date : 5/25/2016
Page No : 1

Groups Printed- Unshifted

	Lake Road From North			Route 101 From East			Route 101 From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Factor	1.0	1.0		1.0	1.0		1.0	1.0		
03:30 PM	18	9	27	5	84	89	106	15	121	237
03:45 PM	21	3	24	6	94	100	122	19	141	265
Total	39	12	51	11	178	189	228	34	262	502
04:00 PM	29	3	32	6	88	94	90	18	108	234
04:15 PM	26	1	27	4	106	110	85	16	101	238
04:30 PM	30	2	32	0	91	91	98	16	114	237
04:45 PM	30	3	33	3	75	78	94	17	111	222
Total	115	9	124	13	360	373	367	67	434	931
05:00 PM	32	5	37	4	87	91	77	17	94	222
05:15 PM	25	3	28	7	103	110	77	25	102	240
Grand Total	211	29	240	35	728	763	749	143	892	1895
Apprch %	87.9	12.1		4.6	95.4		84.0	16.0		
Total %	11.1	1.5	12.7	1.8	38.4	40.3	39.5	7.5	47.1	

	Lake Road From North			Route 101 From East			Route 101 From West			
Start Time	Right	Left	App. Total	Right	Thru	App. Total	Thru	Left	App. Total	Int. Total
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1										
Intersection	03:30 PM									
Volume	94	16	110	21	372	393	403	68	471	974
Percent	85.5	14.5		5.3	94.7		85.6	14.4		
03:45 Volume	21	3	24	6	94	100	122	19	141	265
Peak Factor										0.919
High Int.	04:00 PM			04:15 PM			03:45 PM			
Volume	29	3	32	4	106	110	122	19	141	
Peak Factor			0.859			0.893			0.835	
Peak Hour From 03:30 PM to 05:15 PM - Peak 1 of 1										
By Approach	04:30 PM			03:45 PM			03:30 PM			
Volume	117	13	130	16	379	395	403	68	471	
Percent	90.0	10.0		4.1	95.9		85.6	14.4		
High Int.	05:00 PM			04:15 PM			03:45 PM			
Volume	32	5	37	4	106	110	122	19	141	
Peak Factor			0.878			0.898			0.835	

Turning Movement Diagram

Worksheets

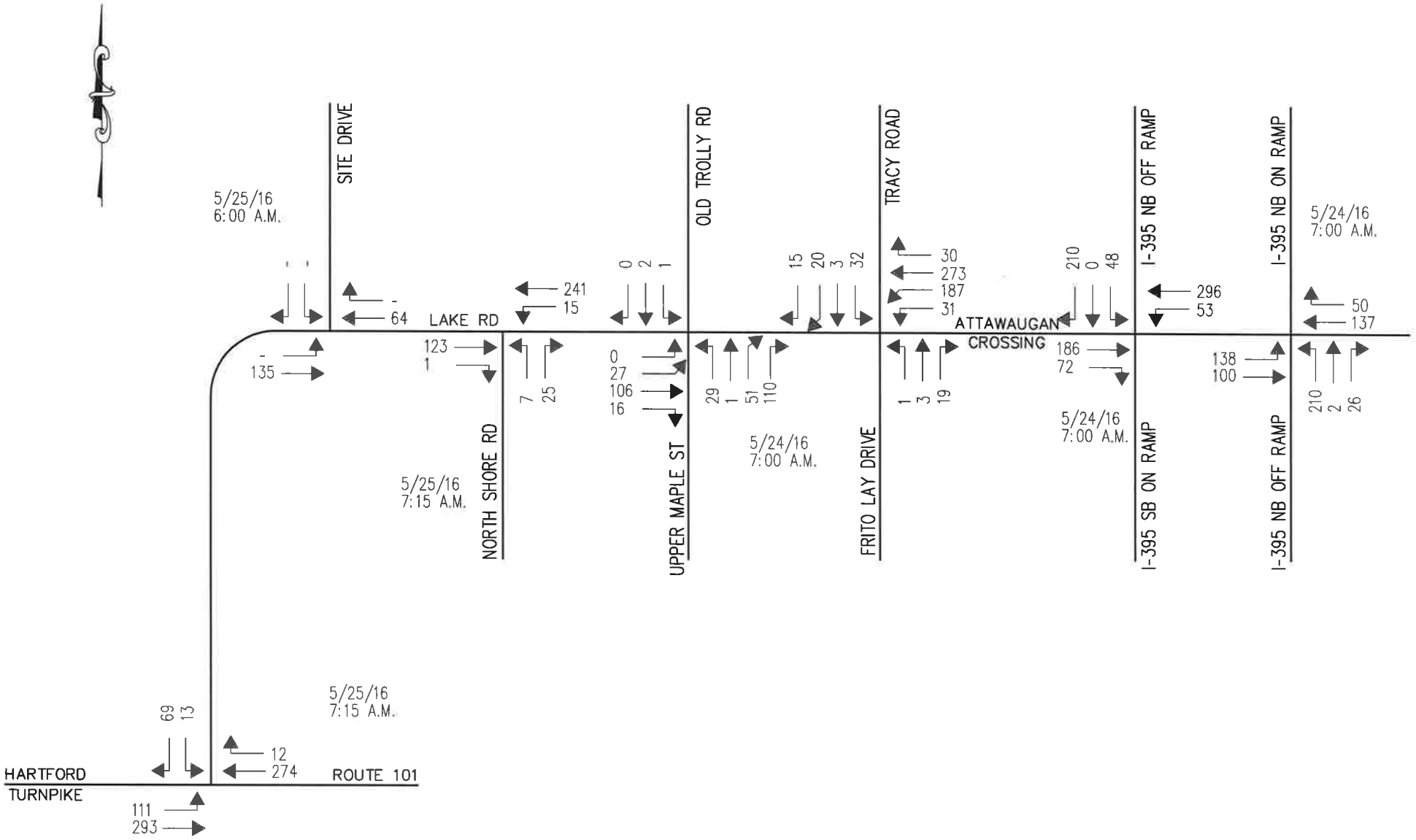


FIGURE A 5/27/16

OBSERVED TRAFFIC VOLUMES
A.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

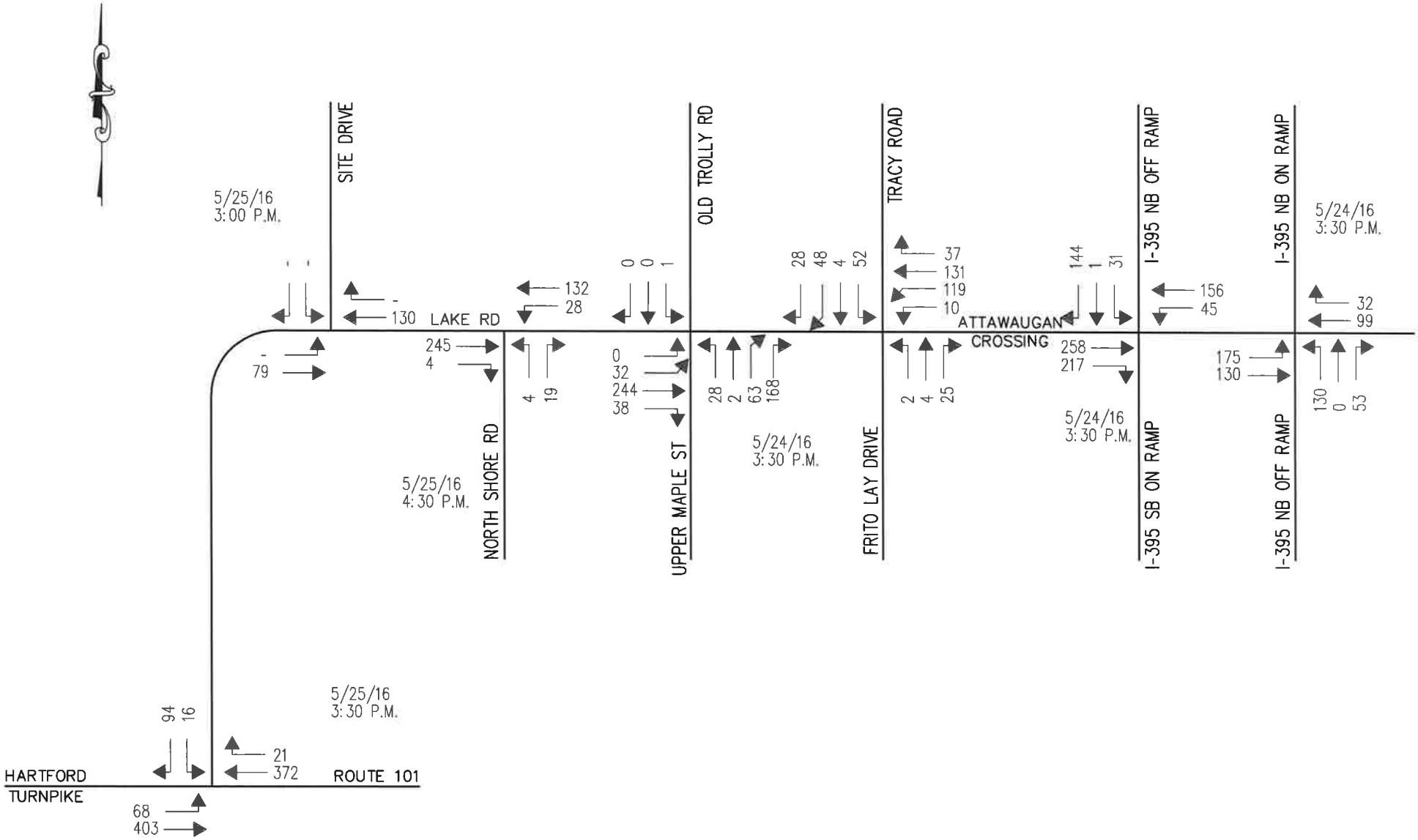


FIGURE B 5/27/16

OBSERVED TRAFFIC VOLUMES
P.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

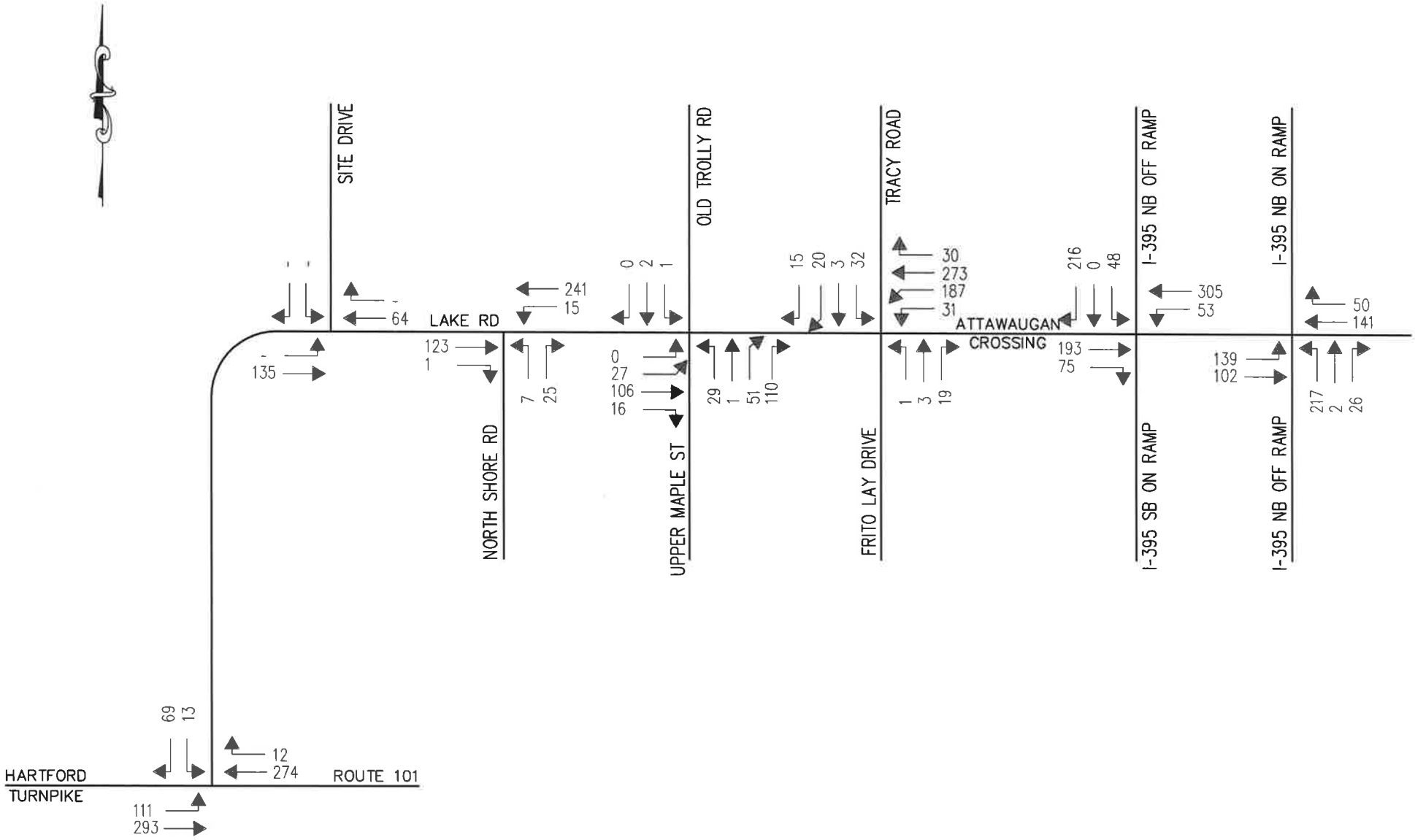


FIGURE C 5/27/16

2016 EXISTING TRAFFIC
A.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

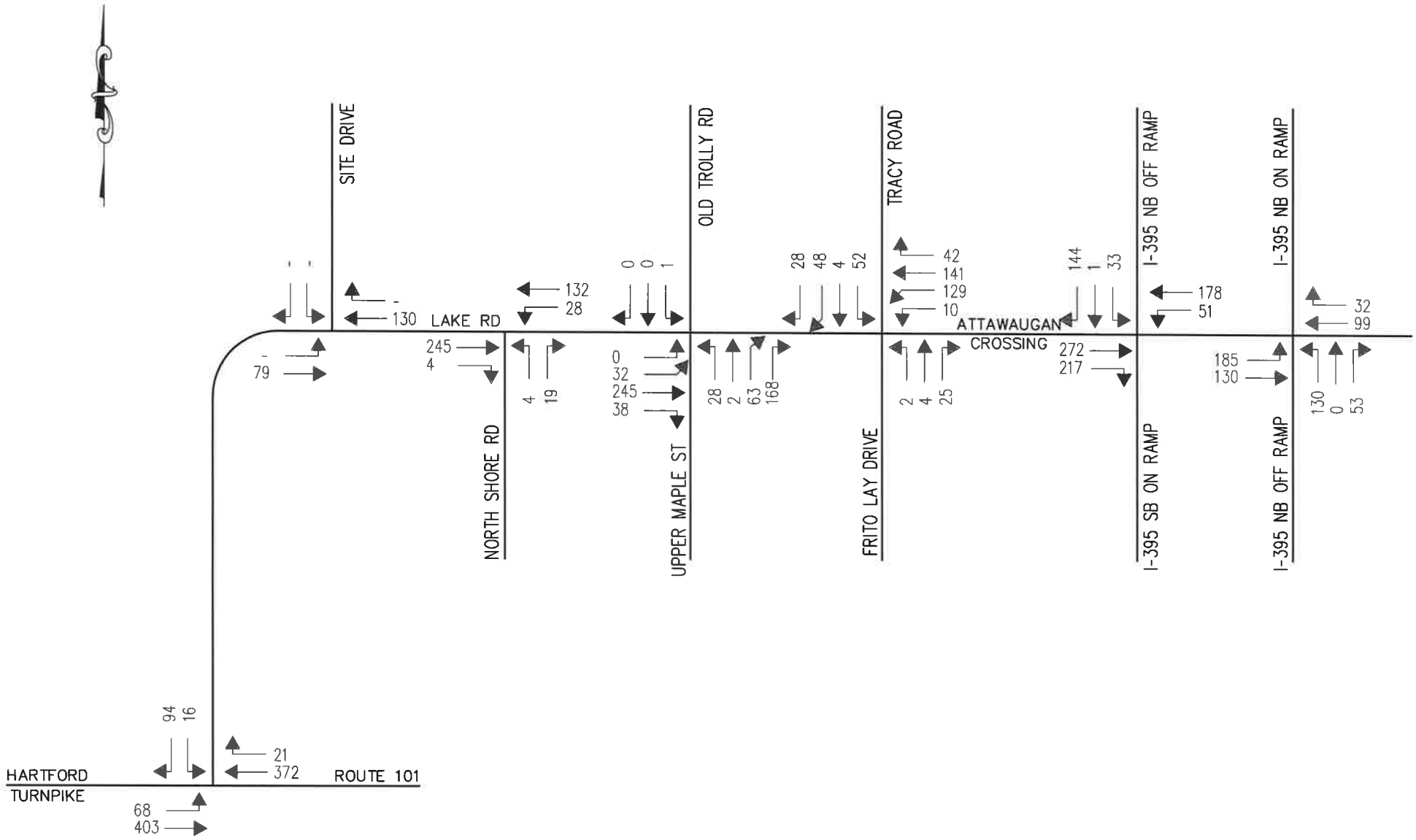


FIGURE D 5/27/16

2016 EXISTING TRAFFIC
P.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH
TRAFFIC
PLANNING
ENGINEERING
DESIGN

NOT TO SCALE

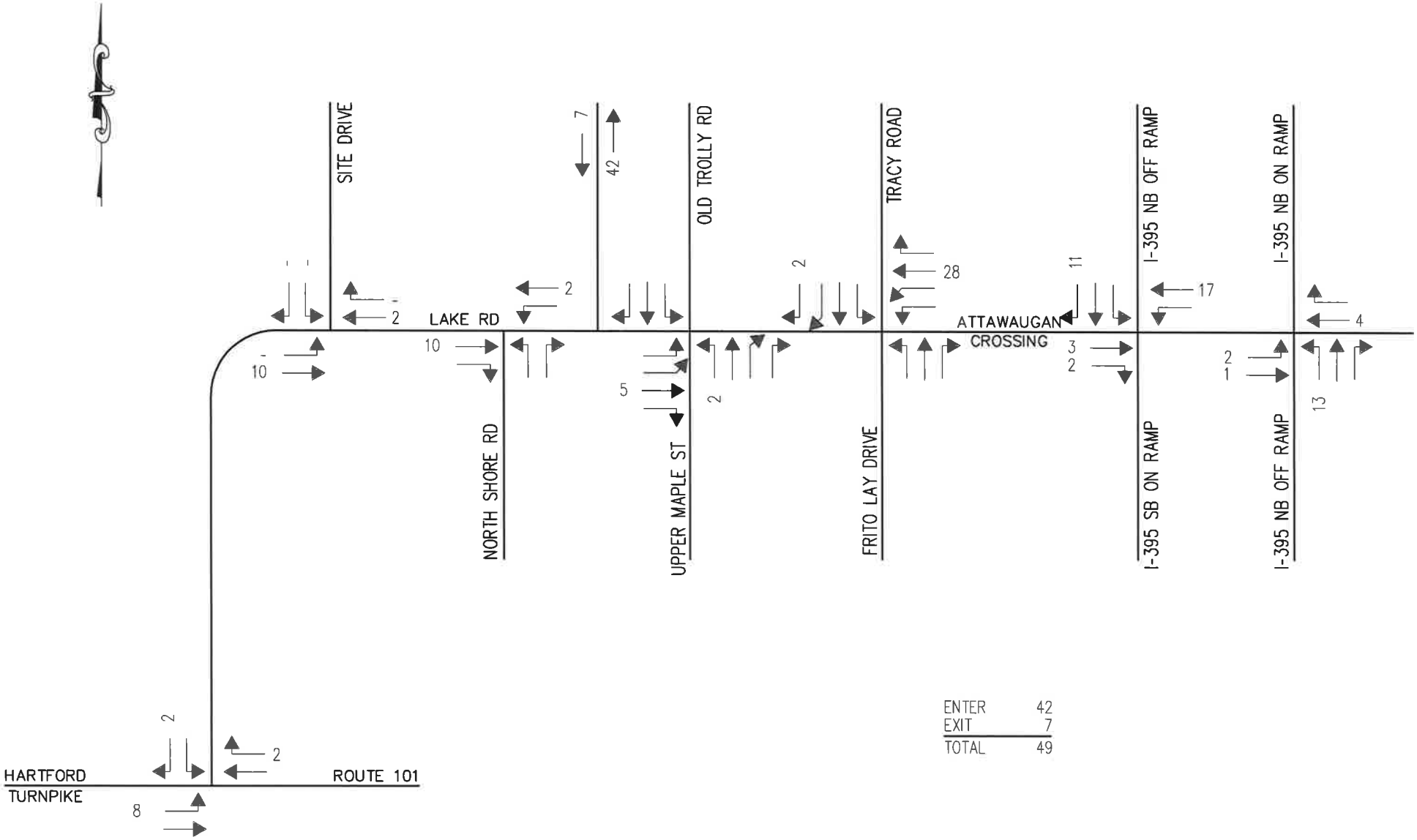


FIGURE E 5/27/16

OTHER DEVELOPMENT TRAFFIC
A.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

FIGURE F 5/27/16

OTHER DEVELOPMENT TRAFFIC
P.M. PEAK HOUR

NTE CONNECTICUT
180 & 189 LAKE ROAD
KILLINGLY, CONNECTICUT

F. A. Hesketh & Associates, Inc.
6 CREAMERY BROOK, EAST GRANBY, CT 06026
FAH TRAFFIC PLANNING ENGINEERING DESIGN

NOT TO SCALE

Trip Generation Worksheets

Detailed Land Use Data
For 63 Acres of UTIL 2
(170) Utilities

Project: New Project
Phase: Phase 1
Description:

Open Date: 6/1/2016
Analysis Date: 6/1/2016

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday AM Peak Hour of Generator	437	0	6.93				8	63	37	False		
Weekday AM Peak Hour of Adjacent Street Traffic	157	0	2.49	1.61	6.93		23	63	37	False		
Weekday PM Peak Hour of Adjacent Street Traffic	83	0	1.32				38	50	50	False		

Detailed Land Use Data
For 30 Employees of UTIL 1
(170) Utilities

Project: New Project
Phase: Phase 1
Description:

Open Date: 6/1/2016
Analysis Date: 6/1/2016

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday AM Peak Hour of Adjacent Street Traffic	23	0	0.76	0.66	0.94	0.87	298	90	10	False		
Weekday PM Peak Hour of Adjacent Street Traffic	23	0	0.76	0.54	0.91	0.88	378	15	85	False	T = 0.78(X) - 5.00	0.99

Detailed Land Use Data
For 40 Gross Floor Area 1000 SF of UTIL 3
(170) Utilities

Project: New Project
Phase: Phase 1
Description:

Open Date: 6/1/2016
Analysis Date: 6/1/2016

Day / Period	Total Trips	Pass-By Trips	Avg Rate	Min Rate	Max Rate	Std Dev	Avg Size	% Enter	% Exit	Use Eq.	Equation	R2
Weekday AM Peak Hour of Adjacent Street Traffic	32	0	0.8	0.49	3.65		69	50	50	False		
Weekday PM Peak Hour of Adjacent Street Traffic	30	0	0.76	0.4	3.5	1.23	52	45	55	False		

Construction Related Trip Generation

Scott Hesketh P.E.

From: Chris Pollak <cpollak@nteenergy.com>
Sent: Thursday, June 09, 2016 10:50 AM
To: Scott Hesketh P.E.
Cc: Chris Rega
Subject: RE: [Town of Killingly CT] Truck Prohibition on Lake Road

Scott – see below for downwardly revised construction traffic numbers:

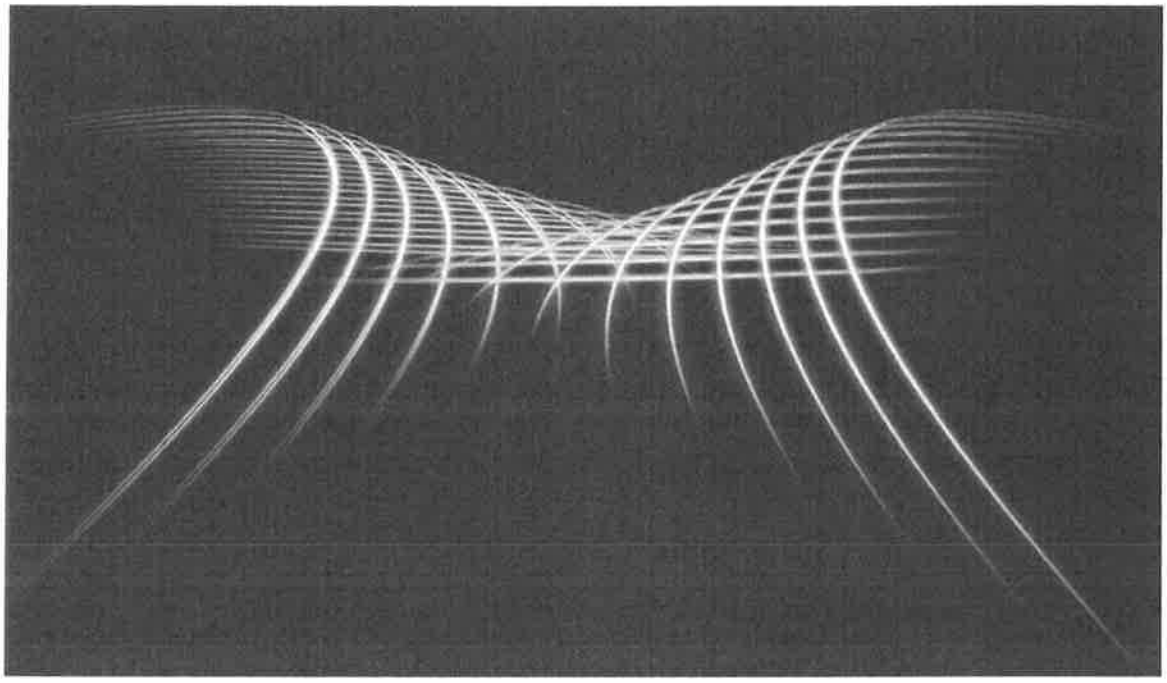
	Anticipated Construction Traffic			
	Month	**Employee Cars/Day**	**Truck Deliveries/Day**	**Total/Day**
1	17-Nov	45	10	55
2	17-Dec	65	10	75
3	18-Jan	65	15	80
4	18-Feb	85	20	105
5	18-Mar	85	25	110
6	18-Apr	110	25	135
7	18-May	130	30	160
8	18-Jun	150	30	180
9	18-Jul	210	30	240
10	18-Aug	210	30	240
11	18-Sep	230	30	260
12	18-Oct	250	25	275
13	18-Nov	280	25	305
14	18-Dec	280	25	305
15	19-Jan	300	25	325
16	19-Feb	320	25	345
17	19-Mar	350	25	375
18	19-Apr	350	25	375
19	19-May	300	25	325
20	19-Jun	300	20	320
21	19-Jul	250	20	270
22	19-Aug	210	20	230
23	19-Sep	190	20	210
24	19-Oct	170	20	190
25	19-Nov	150	15	165
26	19-Dec	110	15	125
27	20-Jan	60	15	75
28	20-Feb	60	10	70
29	20-Mar	40	10	50
30	20-Apr	40	10	50

Highway Capacity Manual

Level of Service Definitions

HCM2010

HIGHWAY CAPACITY MANUAL



VOLUME 3: INTERRUPTED FLOW

TRB TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

WASHINGTON, DC | WWW.TRB.ORG

CHAPTER 18
SIGNALIZED INTERSECTIONS

CONTENTS

18-3. The symbol Φ shown in this exhibit represents the word "phase," and the number following the symbol represents the phase number.

Exhibit 18-3 shows one way that traffic movements can be assigned to each of the eight phases. These assignments are illustrative, but they are not uncommon. Each left-turn movement is assigned to an exclusive phase. During this phase, the left-turn movement is "protected" so that it receives a green arrow indication. Each through, right-turn, and pedestrian movement combination is also assigned to an exclusive phase. The dashed arrows indicate turn movements that are served in a "permitted" manner so that the turn can be completed only after yielding the right-of-way to conflicting movements. Additional information about traffic signal controller operation is provided in Chapter 31, Signalized Intersections: Supplemental.

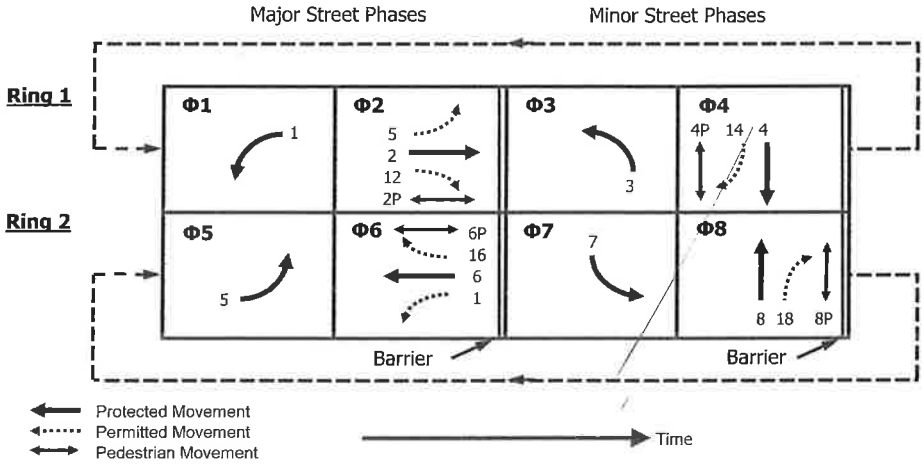


Exhibit 18-3
Dual-Ring Structure with Illustrative Movement Assignments

LOS CRITERIA

This subsection describes the LOS criteria for the automobile, pedestrian, and bicycle modes. The criteria for the automobile mode are different from those for the nonautomobile modes. Specifically, the automobile-mode criteria are based on performance measures that are field measurable and perceivable by travelers. The criteria for the nonautomobile modes are based on scores reported by travelers indicating their perception of service quality.

Automobile Mode

All uses of the word "volume" or the phrase "volume-to-capacity ratio" in this chapter refer to demand volume or demand-volume-to-capacity ratio.

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 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 surrogate 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. The following paragraphs describe each LOS.

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. Individual *cycle failures* (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

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. Many vehicles stop and individual cycle failures are noticeable.

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. Individual cycle failures are frequent.

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. Most cycles fail to clear the queue.

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).

Exhibit 18-4 lists the LOS thresholds established for the automobile mode at a signalized intersection.

Exhibit 18-4
LOS Criteria: Automobile Mode

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

Note: [a] For approach-based and intersectionwide assessments, LOS is defined solely by control delay.

Nonautomobile Modes

Historically, the HCM has used a single performance measure as the basis for defining LOS. However, research documented in Chapter 5, Quality and Level-of-Service Concepts, indicates that travelers consider a wide variety of factors in assessing the quality of service provided to them. Some of these factors can be described as performance measures (e.g., speed) and others can be described as basic descriptors of the intersection character (e.g., crosswalk width). The methodology for evaluating each mode provides a procedure for mathematically combining these factors into a score. This score is then used to determine the LOS that is provided.

Exhibit 18-5 lists the range of scores associated with each LOS for the pedestrian and bicycle travel modes. The association between score value and LOS is based on traveler perception research. Travelers were asked to rate the quality of service associated with a specific trip through a signalized intersection. The letter A was used to represent the best quality of service, and the letter F was used to represent the worst quality of service. "Best" and "worst" were left undefined, allowing respondents to identify the best and worst conditions on the basis of their traveling experience and perception of service quality.

LOS	LOS Score
A	≤2.00
B	>2.00–2.75
C	>2.75–3.50
D	>3.50–4.25
E	>4.25–5.00
F	>5.00

Exhibit 18-5
LOS Criteria: Pedestrian and Bicycle Modes

REQUIRED INPUT DATA

This subsection describes the required input data for the automobile, pedestrian, and bicycle methodologies. Default values for some of these data are provided in Section 3, Applications.

Automobile Mode

This part describes the input data needed for the automobile methodology. The data needed for fully or semiactuated signal control are listed in Exhibit 18-6. The additional data needed for coordinated-actuated control are listed in Exhibit 18-7.

The last column of Exhibit 18-6 and Exhibit 18-7 indicates whether the input data are needed for each traffic movement, a specific movement group, each signal phase, each intersection approach, or the intersection as a whole.

The data elements listed in Exhibit 18-6 and Exhibit 18-7 do not include variables that are considered to represent calibration factors (e.g., start-up lost time). Default values are provided for these factors because they typically have a relatively narrow range of reasonable values or they have a small impact on the accuracy of the performance estimates. The recommended value for each calibration factor is identified at relevant points in the presentation of the methodology.

CHAPTER 19
TWO-WAY STOP-CONTROLLED INTERSECTIONS

CONTENTS

LIST OF EXHIBITS

1. INTRODUCTION

Two-way STOP-controlled (TWSC) intersections are common in the United States. One typical configuration is a four-leg intersection, where one street—the *major street*—is uncontrolled, while the other street—the *minor street*—is controlled by STOP signs. The other typical configuration is a three-leg intersection, where the single minor-street approach (i.e., the stem of the T configuration) is controlled by a STOP sign. Minor street approaches can be public streets or private driveways. **Chapter 19, Two-Way STOP-Controlled Intersections,** presents concepts and procedures for analyzing these types of intersections. Chapter 9 provides a glossary and list of symbols, including those used for TWSC intersections.

Three-leg intersections are considered a standard type of TWSC intersection, when the stem of the T is controlled by a STOP sign.

Capacity analysis of TWSC intersections requires a clear description and understanding of the interaction between travelers on the minor, or STOP-controlled, approach with travelers on the major street. Both gap acceptance and empirical models have been developed to describe this interaction. Procedures described in this chapter rely primarily on field measurements of TWSC performance in the United States (*1*) that have been applied to a gap acceptance model developed and refined in Germany (*2*).

INTERSECTION ANALYSIS BOUNDARIES AND TRAVEL MODES

The intersection boundaries for a TWSC intersection analysis are assumed to be those of an isolated intersection (i.e., not affected by upstream or downstream intersections), with the exception of TWSC intersections that are located within 0.25 mi of a signalized intersection (for the major-street approaches). This chapter presents methodologies to assess TWSC intersections for both pedestrians and motor vehicles. A discussion of how the procedures for motor vehicles could potentially apply to an analysis of bicycle movements is also provided.

LEVEL-OF-SERVICE CRITERIA

LOS is not defined for the major-street approaches or for the overall intersection, as major-street through vehicles are assumed to experience no delay.

Level of service (LOS) for a 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 by using criteria given in Exhibit 19-1. LOS is not defined for the intersection as a whole or for major-street approaches for three primary reasons: (*a*) major-street through vehicles are assumed to experience zero delay; (*b*) the disproportionate number of major-street through vehicles at a typical TWSC intersection skews the weighted average of all movements, resulting in a very low overall average delay for all vehicles; and (*c*) the resulting low delay can mask important LOS deficiencies for minor movements. As Exhibit 19-1 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 LOS criteria for TWSC intersections are somewhat different from the criteria used in Chapter 18 for signalized intersections, primarily because user perceptions differ among transportation facility types. The expectation is that a signalized intersection is designed to carry higher traffic volumes and will

present greater delay than an unsignalized intersection. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable than they are at signals, which can reduce users' delay tolerance.

Exhibit 19-1
Level-of-Service Criteria: Automobile Mode

Control Delay (s/vehicle)	LOS by Volume-to-Capacity Ratio $v/c \leq 1.0$	$v/c > 1.0$
0–10	A	F
>10–15	B	F
>15–25	C	F
>25–35	D	F
>35–50	E	F
>50	F	F

Note: 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.

Pedestrian LOS at TWSC intersections is defined for pedestrians crossing a traffic stream not controlled by a STOP sign; it also applies to midblock pedestrian crossings. LOS criteria for pedestrians are given in Exhibit 19-2.

Exhibit 19-2
Level-of-Service Criteria: Pedestrian Mode

LOS	Control Delay (s/pedestrian)	Comments
A	0–5	Usually no conflicting traffic
B	5–10	Occasionally some delay due to conflicting traffic
C	10–20	Delay noticeable to pedestrians, but not inconveniencing
D	20–30	Delay noticeable and irritating, increased likelihood of risk taking
E	30–45	Delay approaches tolerance level, risk-taking behavior likely
F	>45	Delay exceeds tolerance level, high likelihood of pedestrian risk taking

Note: Control delay may be interpreted as s/pedestrian group if groups of pedestrians were counted as opposed to individual pedestrians.

LOS F for pedestrians occurs when there are not enough gaps of suitable size to allow waiting pedestrians to cross through traffic on the major street safely. This situation is typically evident from extremely long control delays. The method is based on a constant critical headway. In the field, however, LOS F may also appear in the form of crossing pedestrians selecting smaller-than-usual gaps. In such cases, safety could be a concern that warrants further study.

REQUIRED INPUT DATA

Analysis of a TWSC intersection requires the following data:

1. Number and configuration of lanes on each approach;
2. Percentage of heavy vehicles for each movement;
3. Either of the following:
   a. Demand flow rate for each entering vehicular movement and each pedestrian crossing movement during the peak 15 min, or
   b. Demand flow rate for each entering vehicular movement and each pedestrian crossing movement during the peak hour and a peak hour factor for the hour;
4. Special geometric factors such as
   a. Unique channelization aspects,
   b. Existence of a two-way left-turn lane or raised or striped median storage (or both),

SYNCHRO Capacity Analysis Worksheets

Background Traffic

A.M. Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø3	ø6
Lane Configurations								
Volume (vph)	147	17	219	337	33	171		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	11	11	11	11	12	12		
Storage Length (ft)		0	0		125	0		
Storage Lanes		0	1		1	1		
Taper Length (ft)		25	25		25	25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00		
Frt	0.984					0.850		
Flt Protected			0.950		0.950			
Satd. Flow (prot)	2769	0	1646	1733	1703	1524		
Flt Permitted			0.638		0.950			
Satd. Flow (perm)	2769	0	1105	1733	1703	1524		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	15					188		
Link Speed (mph)	30			30	30			
Link Distance (ft)	330			109	473			
Travel Time (s)	7.5			2.5	10.8			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91		
Heavy Vehicles (%)	24%	24%	6%	6%	6%	6%		
Adj. Flow (vph)	162	19	241	370	36	188		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	181	0	241	370	36	188		
Enter Blocked Intersection	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Left	Left	Right		
Median Width(ft)	11			11	12			
Link Offset(ft)	0			0	0			
Crosswalk Width(ft)	16			16	16			
Two way Left Turn Lane								
Headway Factor	1.04	1.04	1.04	1.04	1.00	1.00		
Turning Speed (mph)		9	15		15	9		
Number of Detectors	1		1	1	1	1		
Detector Template								
Leading Detector (ft)	50		50	50	50	50		
Trailing Detector (ft)	0		0	0	0	0		
Detector 1 Position(ft)	0		0	0	0	0		
Detector 1 Size(ft)	50		50	50	50	50		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0		
Turn Type			Perm			Perm		
Protected Phases	2			2 3 6	4		3	6
Permitted Phases			2 3 6			4		
Detector Phase	2		2 3 6	2 3 6	4	4		
Switch Phase								
Minimum Initial (s)	4.0				4.0	4.0	4.0	4.0
Minimum Split (s)	20.6				9.4	9.4	9.6	20.0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø3	ø6
Total Split (s)	34.0	0.0	72.0	72.0	18.0	18.0	29.0	9.0
Total Split (%)	37.8%	0.0%	80.0%	80.0%	20.0%	20.0%	32%	10%
Maximum Green (s)	29.4				12.6	12.6	23.4	5.0
Yellow Time (s)	3.6				3.2	3.2	3.2	3.5
All-Red Time (s)	1.0				2.2	2.2	2.4	0.5
Lost Time Adjust (s)	-0.6	0.0	-0.6	-0.6	-1.4	-1.4		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0
Recall Mode	None				None	None	None	None
Walk Time (s)	5.0							5.0
Flash Dont Walk (s)	11.0							11.0
Pedestrian Calls (#/hr)	0							0
Act Effct Green (s)	24.2		48.5	48.5	11.3	11.3		
Actuated g/C Ratio	0.36		0.71	0.71	0.17	0.17		
v/c Ratio	0.18		0.31	0.30	0.13	0.46		
Control Delay	14.9		1.5	0.8	28.5	9.2		
Queue Delay	0.0		0.3	0.2	0.0	0.0		
Total Delay	14.9		1.7	0.9	28.5	9.2		
LOS	B		A	A	C	A		
Approach Delay	14.9			1.2	12.3			
Approach LOS	B			A	B			
90th %ile Green (s)	29.4				12.6	12.6	15.3	5.0
90th %ile Term Code	Max				Max	Max	Gap	Max
70th %ile Green (s)	29.4				12.6	12.6	11.5	5.0
70th %ile Term Code	Max				Max	Max	Gap	Max
50th %ile Green (s)	26.5				9.6	9.6	8.6	5.0
50th %ile Term Code	Gap				Gap	Gap	Gap	Max
30th %ile Green (s)	20.5				8.0	8.0	6.3	5.0
30th %ile Term Code	Gap				Gap	Gap	Gap	Max
10th %ile Green (s)	13.8				6.9	6.9	6.0	5.0
10th %ile Term Code	Gap				Gap	Gap	Gap	Max
Stops (vph)	92		10	5	29	27		
Fuel Used(gal)	4		0	0	0	1		
CO Emissions (g/hr)	263		21	26	33	77		
NOx Emissions (g/hr)	51		4	5	6	15		
VOC Emissions (g/hr)	61		5	6	8	18		
Dilemma Vehicles (#)	0		0	0	0	0		
Queue Length 50th (ft)	23		1	2	13	0		
Queue Length 95th (ft)	52		13	2	41	54		
Internal Link Dist (ft)	250			29	393			
Turn Bay Length (ft)					125			
Base Capacity (vph)	1267		1021	1601	361	471		
Starvation Cap Reductn	0		329	538	0	0		
Spillback Cap Reductn	0		0	0	0	1		
Storage Cap Reductn	0		0	0	0	0		
Reduced v/c Ratio	0.14		0.35	0.35	0.10	0.40		

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 68			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 6.1		Intersection LOS: A	
Intersection Capacity Utilization 30.1%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 81.9			
70th %ile Actuated Cycle: 78.1			
50th %ile Actuated Cycle: 69.3			
30th %ile Actuated Cycle: 59.4			
10th %ile Actuated Cycle: 51.3			

Splits and Phases: 3: Lake Road & Upper Maple St.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	235	1	33	517	32	1	3	20	34	3	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.992			0.886			0.930	
Flt Protected	0.950				0.997			0.998			0.978	
Satd. Flow (prot)	1407	1481	0	0	3256	0	0	1461	0	0	1453	0
Flt Permitted	0.354				0.926			0.989			0.854	
Satd. Flow (perm)	524	1481	0	0	3024	0	0	1448	0	0	1268	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			22			43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		109			291			272			1012	
Travel Time (s)		2.5			6.6			6.2			23.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	24%	24%	2%	6%	6%	6%	15%	15%	15%	15%	15%	15%
Adj. Flow (vph)	91	258	1	36	568	35	1	3	22	37	3	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	259	0	0	639	0	0	26	0	0	83	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.04	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2 4 6			2			3			3	
Permitted Phases	2 4 6			2			3			3		
Detector Phase	2 4 6	2 4 6		2	2		3	3		3	3	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				20.6	20.6		9.6	9.6		9.6	9.6	
Total Split (s)	61.0	61.0	0.0	34.0	34.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	67.8%	67.8%	0.0%	37.8%	37.8%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%
Maximum Green (s)				29.4	29.4		23.4	23.4		23.4	23.4	

Lane Group	ø4	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	4	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	9.4	20.0
Total Split (s)	18.0	9.0
Total Split (%)	20%	10%
Maximum Green (s)	12.6	5.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)				3.6	3.6		3.2	3.2		3.2	3.2	
All-Red Time (s)				1.0	1.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	-0.6	-0.6	0.0	-0.6	-0.6	0.0	-1.6	-1.6	0.0	-1.6	-1.6	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		None	None		None	None	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
Act Effct Green (s)	48.8	48.8			24.2			10.9			10.9	
Actuated g/C Ratio	0.72	0.72			0.36			0.16			0.16	
v/c Ratio	0.24	0.24			0.59			0.10			0.35	
Control Delay	3.3	2.2			20.6			14.4			20.1	
Queue Delay	1.5	0.8			0.0			0.0			0.0	
Total Delay	4.8	3.0			20.6			14.4			20.1	
LOS	A	A			C			B			C	
Approach Delay		3.5			20.6			14.4			20.1	
Approach LOS		A			C			B			C	
90th %ile Green (s)				29.4	29.4		15.3	15.3		15.3	15.3	
90th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
70th %ile Green (s)				29.4	29.4		11.5	11.5		11.5	11.5	
70th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
50th %ile Green (s)				26.5	26.5		8.6	8.6		8.6	8.6	
50th %ile Term Code				Gap	Gap		Gap	Gap		Gap	Gap	
30th %ile Green (s)				20.5	20.5		6.3	6.3		6.3	6.3	
30th %ile Term Code				Gap	Gap		Gap	Gap		Gap	Gap	
10th %ile Green (s)				13.8	13.8		6.0	6.0		6.0	6.0	
10th %ile Term Code				Gap	Gap		Gap	Gap		Gap	Gap	
Stops (vph)	16	36			431			11			36	
Fuel Used(gal)	0	1			8			0			1	
CO Emissions (g/hr)	15	35			549			13			78	
NOx Emissions (g/hr)	3	7			107			2			15	
VOC Emissions (g/hr)	3	8			127			3			18	
Dilemma Vehicles (#)	0	0			0			0			0	
Queue Length 50th (ft)	5	14			105			2			15	
Queue Length 95th (ft)	9	20			188			22			55	
Internal Link Dist (ft)		29			211			192			932	
Turn Bay Length (ft)												
Base Capacity (vph)	387	1093			1379			562			507	
Starvation Cap Reductn	176	555			0			0			0	
Spillback Cap Reductn	0	0			3			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.43	0.48			0.46			0.05			0.16	

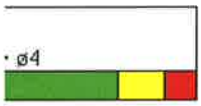
Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 68	

Lane Group	ø4	ø6
Yellow Time (s)	3.2	3.5
All-Red Time (s)	2.2	0.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		5.0
Flash Dont Walk (s)		11.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	12.6	5.0
90th %ile Term Code	Max	Max
70th %ile Green (s)	12.6	5.0
70th %ile Term Code	Max	Max
50th %ile Green (s)	9.6	5.0
50th %ile Term Code	Gap	Max
30th %ile Green (s)	8.0	5.0
30th %ile Term Code	Gap	Max
10th %ile Green (s)	6.9	5.0
10th %ile Term Code	Gap	Max
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Natural Cycle: 60	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 49.8%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 81.9	
70th %ile Actuated Cycle: 78.1	
50th %ile Actuated Cycle: 69.3	
30th %ile Actuated Cycle: 59.4	
10th %ile Actuated Cycle: 51.3	

Splits and Phases: 5: Attawaugan Crossing Rd. & Frito-Lay Dr



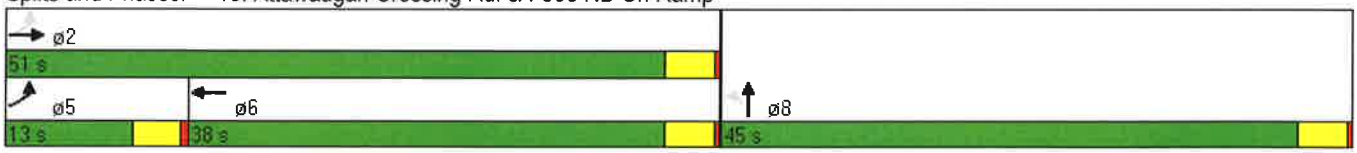
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	149	109	0	0	154	53	244	2	28	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
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					0.965			0.986				
Flt Protected	0.950							0.957				
Satd. Flow (prot)	1770	1863	0	0	1798	0	0	1758	0	0	0	0
Flt Permitted	0.443							0.957				
Satd. Flow (perm)	825	1863	0	0	1798	0	0	1758	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					20			7				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		906			1473			940			892	
Travel Time (s)		20.6			33.5			21.4			20.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	154	112	0	0	159	55	252	2	29	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	112	0	0	214	0	0	283	0	0	0	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)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	pm+pt						Perm					
Protected Phases	5	2			6			8				
Permitted Phases	2						8					
Detector Phase	5	2			6		8	8				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	20.0			20.0		20.0	20.0				
Total Split (s)	13.0	51.0	0.0	0.0	38.0	0.0	45.0	45.0	0.0	0.0	0.0	0.0
Total Split (%)	13.5%	53.1%	0.0%	0.0%	39.6%	0.0%	46.9%	46.9%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	9.0	47.0			34.0		41.0	41.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5				
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	None	None			None		Min	Min				
Walk Time (s)		5.0			5.0		5.0	5.0				
Flash Dont Walk (s)		11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)		0			0		0	0				
Act Effct Green (s)	20.1	20.1			10.7			13.3				
Actuated g/C Ratio	0.48	0.48			0.25			0.32				
v/c Ratio	0.26	0.13			0.45			0.50				
Control Delay	7.3	6.4			17.1			16.8				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	7.3	6.4			17.1			16.8				
LOS	A	A			B			B				
Approach Delay		6.9			17.1			16.8				
Approach LOS		A			B			B				
90th %ile Green (s)	9.0	28.2			15.2		18.4	18.4				
90th %ile Term Code	Max	Hold			Gap		Gap	Gap				
70th %ile Green (s)	9.0	25.1			12.1		14.5	14.5				
70th %ile Term Code	Max	Hold			Gap		Gap	Gap				
50th %ile Green (s)	9.0	23.3			10.3		12.3	12.3				
50th %ile Term Code	Max	Hold			Gap		Gap	Gap				
30th %ile Green (s)	8.2	21.0			8.8		10.5	10.5				
30th %ile Term Code	Gap	Hold			Gap		Gap	Gap				
10th %ile Green (s)	0.0	6.9			6.9		9.6	9.6				
10th %ile Term Code	Skip	Hold			Gap		Dwell	Dwell				
Stops (vph)	68	49			147			202				
Fuel Used(gal)	2	1			4			4				
CO Emissions (g/hr)	115	83			274			285				
NOx Emissions (g/hr)	22	16			53			55				
VOC Emissions (g/hr)	27	19			64			66				
Dilemma Vehicles (#)	0	0			0			0				
Queue Length 50th (ft)	17	12			41			58				
Queue Length 95th (ft)	49	37			100			127				
Internal Link Dist (ft)		826			1393			860			812	
Turn Bay Length (ft)	150											
Base Capacity (vph)	627	1807			1434			1601				
Starvation Cap Reductn	0	0			0			0				
Spillback Cap Reductn	0	0			0			0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.25	0.06			0.15			0.18				

Intersection Summary			
Area Type:	Other		
Cycle Length: 96			
Actuated Cycle Length: 42			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 44.9%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 54.6			
70th %ile Actuated Cycle: 47.6			
50th %ile Actuated Cycle: 43.6			
30th %ile Actuated Cycle: 39.5			
10th %ile Actuated Cycle: 24.5			

Splits and Phases: 15: Attawaugan Crossing Rd. & I-395 NB On Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	208	82	56	341	0	0	0	0	51	0	241
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	219	86	59	359	0	0	0	0	54	0	254
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		668			906							
pX, platoon unblocked												
vC, conflicting volume	359			305			993	739	262	739	782	359
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	359			305			993	739	262	739	782	359
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			100	100	100	83	100	63
cM capacity (veh/h)	1200			1256			136	329	777	321	311	685

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	305	418	307
Volume Left	0	59	54
Volume Right	86	0	254
cSH	1700	1256	572
Volume to Capacity	0.18	0.05	0.54
Queue Length 95th (ft)	0	4	79
Control Delay (s)	0.0	1.5	18.4
Lane LOS		A	C
Approach Delay (s)	0.0	1.5	18.4
Approach LOS			C

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	64.7%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	141	1	16	257	7	27
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	174	1	20	317	9	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			175		531	175
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			175		531	175
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	96
cM capacity (veh/h)			1401		501	869

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	175	337	42
Volume Left	0	20	9
Volume Right	1	0	33
cSH	1700	1401	755
Volume to Capacity	0.10	0.01	0.06
Queue Length 95th (ft)	0	1	4
Control Delay (s)	0.0	0.6	10.1
Lane LOS		A	B
Approach Delay (s)	0.0	0.6	10.1
Approach LOS			B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	126	311	290	15	14	75
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	147	362	337	17	16	87
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	355				1001	346
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	355				1001	346
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	88				93	87
cM capacity (veh/h)	1204				237	697

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	508	355	103
Volume Left	147	0	16
Volume Right	0	17	87
cSH	1204	1700	534
Volume to Capacity	0.12	0.21	0.19
Queue Length 95th (ft)	10	0	18
Control Delay (s)	3.3	0.0	13.4
Lane LOS	A		B
Approach Delay (s)	3.3	0.0	13.4
Approach LOS			B

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

Background Traffic

P.M. Peak Hour

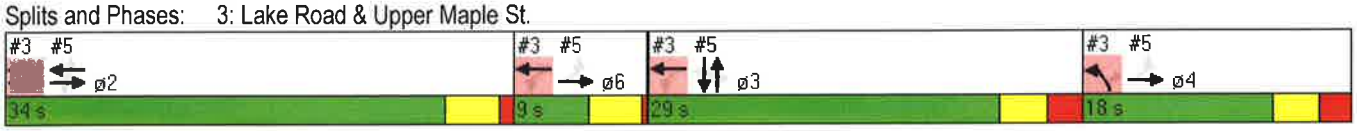
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø3	ø6
Lane Configurations								
Volume (vph)	323	42	188	189	33	245		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	11	11	11	11	12	12		
Storage Length (ft)		0	0		125	0		
Storage Lanes		0	1		1	1		
Taper Length (ft)		25	25		25	25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00		
Frt	0.983					0.850		
Flt Protected			0.950		0.950			
Satd. Flow (prot)	2766	0	1646	1733	1703	1524		
Flt Permitted			0.472		0.950			
Satd. Flow (perm)	2766	0	818	1733	1703	1524		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	17					285		
Link Speed (mph)	30			30	30			
Link Distance (ft)	330			109	473			
Travel Time (s)	7.5			2.5	10.8			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86		
Heavy Vehicles (%)	24%	24%	6%	6%	6%	6%		
Adj. Flow (vph)	376	49	219	220	38	285		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	425	0	219	220	38	285		
Enter Blocked Intersection	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Left	Left	Right		
Median Width(ft)	11			11	12			
Link Offset(ft)	0			0	0			
Crosswalk Width(ft)	16			16	16			
Two way Left Turn Lane								
Headway Factor	1.04	1.04	1.04	1.04	1.00	1.00		
Turning Speed (mph)		9	15		15	9		
Number of Detectors	1		1	1	1	1		
Detector Template								
Leading Detector (ft)	50		50	50	50	50		
Trailing Detector (ft)	0		0	0	0	0		
Detector 1 Position(ft)	0		0	0	0	0		
Detector 1 Size(ft)	50		50	50	50	50		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0		
Turn Type			Perm			Perm		
Protected Phases	2			2 3 6	4		3	6
Permitted Phases			2 3 6			4		
Detector Phase	2		2 3 6	2 3 6	4	4		
Switch Phase								
Minimum Initial (s)	4.0				4.0	4.0	4.0	4.0
Minimum Split (s)	20.6				9.4	9.4	9.6	20.0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø3	ø6
Total Split (s)	34.0	0.0	72.0	72.0	18.0	18.0	29.0	9.0
Total Split (%)	37.8%	0.0%	80.0%	80.0%	20.0%	20.0%	32%	10%
Maximum Green (s)	29.4				12.6	12.6	23.4	5.0
Yellow Time (s)	3.6				3.2	3.2	3.2	3.5
All-Red Time (s)	1.0				2.2	2.2	2.4	0.5
Lost Time Adjust (s)	-0.6	0.0	-0.6	-0.6	-1.4	-1.4		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0
Recall Mode	None				None	None	None	None
Walk Time (s)	5.0							5.0
Flash Dont Walk (s)	11.0							11.0
Pedestrian Calls (#/hr)	0							0
Act Effct Green (s)	23.1		50.0	50.0	13.8	13.8		
Actuated g/C Ratio	0.32		0.69	0.69	0.19	0.19		
v/c Ratio	0.47		0.39	0.18	0.12	0.54		
Control Delay	21.0		4.5	0.9	30.0	8.8		
Queue Delay	0.0		0.6	0.3	0.0	0.2		
Total Delay	21.0		5.1	1.1	30.0	9.0		
LOS	C		A	A	C	A		
Approach Delay	21.0			3.1	11.5			
Approach LOS	C			A	B			
90th %ile Green (s)	29.4				12.6	12.6	21.5	5.0
90th %ile Term Code	Max				Max	Max	Gap	Max
70th %ile Green (s)	29.4				12.6	12.6	14.8	5.0
70th %ile Term Code	Max				Max	Max	Gap	Max
50th %ile Green (s)	25.4				12.6	12.6	11.7	5.0
50th %ile Term Code	Gap				Max	Max	Gap	Max
30th %ile Green (s)	19.0				12.6	12.6	7.7	5.0
30th %ile Term Code	Gap				Max	Max	Gap	Max
10th %ile Green (s)	12.1				10.3	10.3	6.0	5.0
10th %ile Term Code	Gap				Gap	Gap	Gap	Max
Stops (vph)	257		52	8	29	34		
Fuel Used(gal)	9		1	0	0	2		
CO Emissions (g/hr)	636		43	17	34	107		
NOx Emissions (g/hr)	124		8	3	7	21		
VOC Emissions (g/hr)	147		10	4	8	25		
Dilemma Vehicles (#)	0		0	0	0	0		
Queue Length 50th (ft)	74		9	4	15	0		
Queue Length 95th (ft)	126		56	4	44	58		
Internal Link Dist (ft)	250			29	393			
Turn Bay Length (ft)					125			
Base Capacity (vph)	1198		701	1486	342	533		
Starvation Cap Reductn	0		214	778	0	0		
Spillback Cap Reductn	75		0	0	0	28		
Storage Cap Reductn	0		0	0	0	0		
Reduced v/c Ratio	0.38		0.45	0.31	0.11	0.56		

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 72.1			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.55			
Intersection Signal Delay: 11.8		Intersection LOS: B	
Intersection Capacity Utilization 34.0%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 88.1			
70th %ile Actuated Cycle: 81.4			
50th %ile Actuated Cycle: 74.3			
30th %ile Actuated Cycle: 63.9			
10th %ile Actuated Cycle: 53			

Splits and Phases: 3: Lake Road & Upper Maple St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	465	1	11	293	45	2	4	27	55	4	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.981			0.890			0.922	
Flt Protected	0.950				0.998			0.997			0.981	
Satd. Flow (prot)	1407	1482	0	0	3223	0	0	1466	0	0	1445	0
Flt Permitted	0.485				0.935			0.983			0.859	
Satd. Flow (perm)	718	1482	0	0	3020	0	0	1445	0	0	1265	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					19			31			76	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		109			291			272			1012	
Travel Time (s)		2.5			6.6			6.2			23.0	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	24%	24%	2%	6%	6%	6%	15%	15%	15%	15%	15%	15%
Adj. Flow (vph)	120	541	1	13	341	52	2	5	31	64	5	95
Shared Lane Traffic (%)												
Lane Group Flow (vph)	120	542	0	0	406	0	0	38	0	0	164	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.04	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2 4 6			2			3			3	
Permitted Phases	2 4 6			2			3			3		
Detector Phase	2 4 6	2 4 6		2	2		3	3		3	3	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				20.6	20.6		9.6	9.6		9.6	9.6	
Total Split (s)	61.0	61.0	0.0	34.0	34.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	67.8%	67.8%	0.0%	37.8%	37.8%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%
Maximum Green (s)				29.4	29.4		23.4	23.4		23.4	23.4	

Lane Group	ø4	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	4	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	9.4	20.0
Total Split (s)	18.0	9.0
Total Split (%)	20%	10%
Maximum Green (s)	12.6	5.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)				3.6	3.6		3.2	3.2		3.2	3.2	
All-Red Time (s)				1.0	1.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	-0.6	-0.6	0.0	-0.6	-0.6	0.0	-1.6	-1.6	0.0	-1.6	-1.6	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		None	None		None	None	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
Act Effct Green (s)	50.4	50.4			23.1			13.4			13.4	
Actuated g/C Ratio	0.70	0.70			0.32			0.19			0.19	
v/c Ratio	0.24	0.52			0.41			0.13			0.55	
Control Delay	2.6	4.8			19.9			12.8			23.3	
Queue Delay	1.0	0.5			0.0			0.0			0.0	
Total Delay	3.6	5.4			19.9			12.8			23.3	
LOS	A	A			B			B			C	
Approach Delay		5.1			19.9			12.8			23.3	
Approach LOS		A			B			B			C	
90th %ile Green (s)				29.4	29.4		21.5	21.5		21.5	21.5	
90th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
70th %ile Green (s)				29.4	29.4		14.8	14.8		14.8	14.8	
70th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
50th %ile Green (s)				25.4	25.4		11.7	11.7		11.7	11.7	
50th %ile Term Code				Gap	Gap		Gap	Gap		Gap	Gap	
30th %ile Green (s)				19.0	19.0		7.7	7.7		7.7	7.7	
30th %ile Term Code				Gap	Gap		Gap	Gap		Gap	Gap	
10th %ile Green (s)				12.1	12.1		6.0	6.0		6.0	6.0	
10th %ile Term Code				Gap	Gap		Gap	Gap		Gap	Gap	
Stops (vph)	11	148			236			13			69	
Fuel Used(gal)	0	2			5			0			2	
CO Emissions (g/hr)	14	117			317			16			151	
NOx Emissions (g/hr)	3	23			62			3			29	
VOC Emissions (g/hr)	3	27			73			4			35	
Dilemma Vehicles (#)	0	0			0			0			0	
Queue Length 50th (ft)	6	31			68			3			36	
Queue Length 95th (ft)	12	51			117			25			89	
Internal Link Dist (ft)		29			211			192			932	
Turn Bay Length (ft)												
Base Capacity (vph)	523	1079			1309			537			502	
Starvation Cap Reductn	234	213			0			0			0	
Spillback Cap Reductn	0	0			87			0			2	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.42	0.63			0.33			0.07			0.33	

Intersection Summary

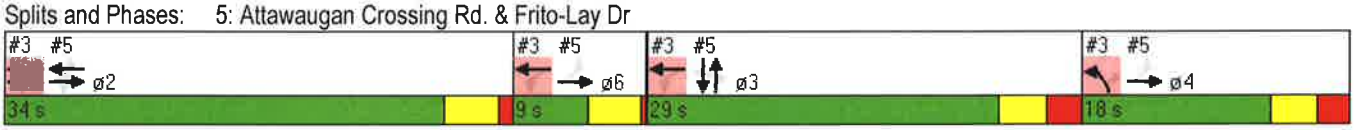
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 72.1

Lane Group	ø4	ø6
Yellow Time (s)	3.2	3.5
All-Red Time (s)	2.2	0.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		5.0
Flash Dont Walk (s)		11.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	12.6	5.0
90th %ile Term Code	Max	Max
70th %ile Green (s)	12.6	5.0
70th %ile Term Code	Max	Max
50th %ile Green (s)	12.6	5.0
50th %ile Term Code	Max	Max
30th %ile Green (s)	12.6	5.0
30th %ile Term Code	Max	Max
10th %ile Green (s)	10.3	5.0
10th %ile Term Code	Gap	Max
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Natural Cycle: 65
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.55
Intersection Signal Delay: 12.4 Intersection LOS: B
Intersection Capacity Utilization 59.3% ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 88.1
70th %ile Actuated Cycle: 81.4
50th %ile Actuated Cycle: 74.3
30th %ile Actuated Cycle: 63.9
10th %ile Actuated Cycle: 53

Splits and Phases: 5: Attawaugan Crossing Rd. & Frito-Lay Dr



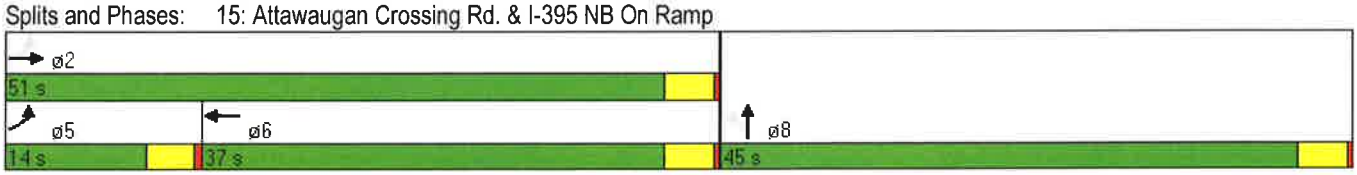
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	142	0	0	106	34	141	0	56	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
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					0.967			0.962				
Flt Protected	0.950							0.965				
Satd. Flow (prot)	1770	1863	0	0	1801	0	0	1729	0	0	0	0
Flt Permitted	0.416							0.965				
Satd. Flow (perm)	775	1863	0	0	1801	0	0	1729	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18			26				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		906			1473			940			892	
Travel Time (s)		20.6			33.5			21.4			20.3	
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
Adj. Flow (vph)	225	154	0	0	115	37	153	0	61	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	225	154	0	0	152	0	0	214	0	0	0	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)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	pm+pt						Perm					
Protected Phases	5	2			6			8				
Permitted Phases	2						8					
Detector Phase	5	2			6		8	8				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	20.0			20.0		20.0	20.0				
Total Split (s)	14.0	51.0	0.0	0.0	37.0	0.0	45.0	45.0	0.0	0.0	0.0	0.0
Total Split (%)	14.6%	53.1%	0.0%	0.0%	38.5%	0.0%	46.9%	46.9%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	10.0	47.0			33.0		41.0	41.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5				
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	None	None			None		Min	Min				
Walk Time (s)		5.0			5.0		5.0	5.0				
Flash Dont Walk (s)		11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)		0			0		0	0				
Act Effct Green (s)	19.3	19.3			8.7			11.0				
Actuated g/C Ratio	0.50	0.50			0.22			0.28				
v/c Ratio	0.36	0.17			0.36			0.42				
Control Delay	7.0	5.5			15.7			14.5				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	7.0	5.5			15.7			14.5				
LOS	A	A			B			B				
Approach Delay		6.4			15.7			14.5				
Approach LOS		A			B			B				
90th %ile Green (s)	10.0	25.7			11.7		14.1	14.1				
90th %ile Term Code	Max	Hold			Gap		Gap	Gap				
70th %ile Green (s)	10.0	23.6			9.6		11.4	11.4				
70th %ile Term Code	Max	Hold			Gap		Gap	Gap				
50th %ile Green (s)	10.0	22.4			8.4		9.9	9.9				
50th %ile Term Code	Max	Hold			Gap		Gap	Gap				
30th %ile Green (s)	9.3	20.7			7.4		8.5	8.5				
30th %ile Term Code	Gap	Hold			Gap		Gap	Gap				
10th %ile Green (s)	7.3	7.3			0.0		9.7	9.7				
10th %ile Term Code	Gap	Hold			Skip		Dwell	Dwell				
Stops (vph)	94	61			99			134				
Fuel Used(gal)	2	1			3			3				
CO Emissions (g/hr)	159	105			182			193				
NOx Emissions (g/hr)	31	20			35			38				
VOC Emissions (g/hr)	37	24			42			45				
Dilemma Vehicles (#)	0	0			0			0				
Queue Length 50th (ft)	21	14			26			36				
Queue Length 95th (ft)	57	40			69			86				
Internal Link Dist (ft)		826			1393			860			812	
Turn Bay Length (ft)	150											
Base Capacity (vph)	673	1857			1503			1665				
Starvation Cap Reductn	0	0			0			0				
Spillback Cap Reductn	0	0			0			0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.33	0.08			0.10			0.13				

Intersection Summary			
Area Type:	Other		
Cycle Length: 96			
Actuated Cycle Length: 38.7			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 40.3%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 47.8			
70th %ile Actuated Cycle: 43			
50th %ile Actuated Cycle: 40.3			
30th %ile Actuated Cycle: 37.2			
10th %ile Actuated Cycle: 25			

Splits and Phases: 15: Attawaugan Crossing Rd. & I-395 NB On Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	303	243	54	193	0	0	0	0	35	1	155
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	344	276	61	219	0	0	0	0	40	1	176
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		668			906							
pX, platoon unblocked				0.85			0.85	0.85	0.85	0.85	0.85	
vC, conflicting volume	219			620			1001	824	482	824	962	219
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	219			463			912	703	300	703	866	219
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			93			100	100	100	86	100	79
cM capacity (veh/h)	1350			931			160	287	627	284	231	820

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	620	281	217
Volume Left	0	61	40
Volume Right	276	0	176
cSH	1700	931	603
Volume to Capacity	0.36	0.07	0.36
Queue Length 95th (ft)	0	5	41
Control Delay (s)	0.0	2.5	14.3
Lane LOS		A	B
Approach Delay (s)	0.0	2.5	14.3
Approach LOS			B

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	263	4	30	151	4	20
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	321	5	37	184	5	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			326		580	323
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			326		580	323
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		99	97
cM capacity (veh/h)			1234		462	718

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	326	221	29
Volume Left	0	37	5
Volume Right	5	0	24
cSH	1700	1234	657
Volume to Capacity	0.19	0.03	0.04
Queue Length 95th (ft)	0	2	3
Control Delay (s)	0.0	1.5	10.7
Lane LOS		A	B
Approach Delay (s)	0.0	1.5	10.7
Approach LOS			B

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	37.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	74	427	394	23	19	108
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	80	464	428	25	21	117
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	453				1066	441
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	453				1066	441
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				91	81
cM capacity (veh/h)	1107				228	616

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	545	453	138
Volume Left	80	0	21
Volume Right	0	25	117
cSH	1107	1700	491
Volume to Capacity	0.07	0.27	0.28
Queue Length 95th (ft)	6	0	29
Control Delay (s)	2.0	0.0	15.2
Lane LOS	A		C
Approach Delay (s)	2.0	0.0	15.2
Approach LOS			C

Intersection Summary			
Average Delay	2.8		
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

Combined Traffic

A.M. Peak Hour

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø3	ø6
Lane Configurations								
Volume (vph)	171	19	219	582	56	171		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	11	11	11	11	12	12		
Storage Length (ft)		0	0		125	0		
Storage Lanes		0	1		1	1		
Taper Length (ft)		25	25		25	25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00		
Frt	0.985					0.850		
Flt Protected			0.950		0.950			
Satd. Flow (prot)	2772	0	1646	1733	1703	1524		
Flt Permitted			0.621		0.950			
Satd. Flow (perm)	2772	0	1076	1733	1703	1524		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	14					188		
Link Speed (mph)	30			30	30			
Link Distance (ft)	330			109	473			
Travel Time (s)	7.5			2.5	10.8			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91		
Heavy Vehicles (%)	24%	24%	6%	6%	6%	6%		
Adj. Flow (vph)	188	21	241	640	62	188		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	209	0	241	640	62	188		
Enter Blocked Intersection	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Left	Left	Right		
Median Width(ft)	11			11	12			
Link Offset(ft)	0			0	0			
Crosswalk Width(ft)	16			16	16			
Two way Left Turn Lane								
Headway Factor	1.04	1.04	1.04	1.04	1.00	1.00		
Turning Speed (mph)		9	15		15	9		
Number of Detectors	1		1	1	1	1		
Detector Template								
Leading Detector (ft)	50		50	50	50	50		
Trailing Detector (ft)	0		0	0	0	0		
Detector 1 Position(ft)	0		0	0	0	0		
Detector 1 Size(ft)	50		50	50	50	50		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0		
Turn Type			Perm			Perm		
Protected Phases	2			2 3 6	4		3	6
Permitted Phases			2 3 6			4		
Detector Phase	2		2 3 6	2 3 6	4	4		
Switch Phase								
Minimum Initial (s)	4.0				4.0	4.0	4.0	4.0
Minimum Split (s)	20.6				9.4	9.4	9.6	20.0

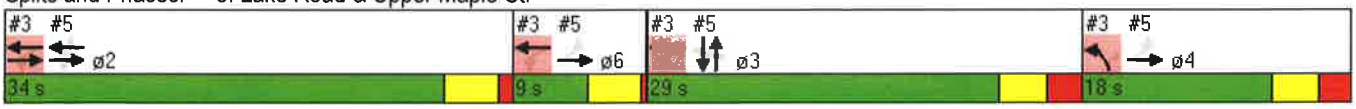
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø3	ø6
Total Split (s)	34.0	0.0	72.0	72.0	18.0	18.0	29.0	9.0
Total Split (%)	37.8%	0.0%	80.0%	80.0%	20.0%	20.0%	32%	10%
Maximum Green (s)	29.4				12.6	12.6	23.4	5.0
Yellow Time (s)	3.6				3.2	3.2	3.2	3.5
All-Red Time (s)	1.0				2.2	2.2	2.4	0.5
Lost Time Adjust (s)	-0.6	0.0	-0.6	-0.6	-1.4	-1.4		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0
Recall Mode	None				None	None	None	None
Walk Time (s)	5.0							5.0
Flash Dont Walk (s)	11.0							11.0
Pedestrian Calls (#/hr)	0							0
Act Effct Green (s)	28.9		54.9	54.9	12.3	12.3		
Actuated g/C Ratio	0.38		0.73	0.73	0.16	0.16		
v/c Ratio	0.19		0.31	0.51	0.22	0.46		
Control Delay	16.1		0.9	3.5	31.4	9.3		
Queue Delay	0.0		0.5	0.5	0.0	0.1		
Total Delay	16.2		1.4	4.0	31.4	9.4		
LOS	B		A	A	C	A		
Approach Delay	16.2			3.3	14.9			
Approach LOS	B			A	B			
90th %ile Green (s)	29.4				12.6	12.6	18.9	5.0
90th %ile Term Code	Max				Max	Max	Gap	Max
70th %ile Green (s)	29.4				12.6	12.6	13.8	5.0
70th %ile Term Code	Max				Max	Max	Gap	Max
50th %ile Green (s)	29.4				12.6	12.6	9.8	5.0
50th %ile Term Code	Max				Max	Max	Gap	Max
30th %ile Green (s)	29.4				9.6	9.6	8.3	5.0
30th %ile Term Code	Max				Gap	Gap	Gap	Max
10th %ile Green (s)	23.5				7.3	7.3	6.8	5.0
10th %ile Term Code	Gap				Gap	Gap	Gap	Max
Stops (vph)	111		4	99	47	26		
Fuel Used(gal)	4		0	1	1	1		
CO Emissions (g/hr)	308		17	101	58	77		
NOx Emissions (g/hr)	60		3	20	11	15		
VOC Emissions (g/hr)	71		4	24	13	18		
Dilemma Vehicles (#)	0		0	0	0	0		
Queue Length 50th (ft)	31		2	38	25	0		
Queue Length 95th (ft)	63		m1	95	65	56		
Internal Link Dist (ft)	250			29	393			
Turn Bay Length (ft)					125			
Base Capacity (vph)	1126		963	1551	321	440		
Starvation Cap Reductn	0		405	490	0	0		
Spillback Cap Reductn	32		0	0	0	12		
Storage Cap Reductn	0		0	0	0	0		
Reduced v/c Ratio	0.19		0.43	0.60	0.19	0.44		

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 75.3			
Natural Cycle: 65			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 7.4		Intersection LOS: A	
Intersection Capacity Utilization 40.6%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 85.5			
70th %ile Actuated Cycle: 80.4			
50th %ile Actuated Cycle: 76.4			
30th %ile Actuated Cycle: 71.9			
10th %ile Actuated Cycle: 62.2			

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Lake Road & Upper Maple St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	257	1	33	743	32	1	3	20	34	3	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.999			0.994			0.886			0.917	
Flt Protected	0.950				0.998			0.998			0.982	
Satd. Flow (prot)	1407	1481	0	0	3266	0	0	1461	0	0	1438	0
Flt Permitted	0.243				0.932			0.990			0.885	
Satd. Flow (perm)	360	1481	0	0	3050	0	0	1449	0	0	1296	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			22			63	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		109			291			272			1012	
Travel Time (s)		2.5			6.6			6.2			23.0	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	24%	24%	2%	6%	6%	6%	15%	15%	15%	15%	15%	15%
Adj. Flow (vph)	93	282	1	36	816	35	1	3	22	37	3	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	283	0	0	887	0	0	26	0	0	103	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.04	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2 4 6			2			3			3	
Permitted Phases	2 4 6			2			3			3		
Detector Phase	2 4 6	2 4 6		2	2		3	3		3	3	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				20.6	20.6		9.6	9.6		9.6	9.6	
Total Split (s)	61.0	61.0	0.0	34.0	34.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	67.8%	67.8%	0.0%	37.8%	37.8%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%
Maximum Green (s)				29.4	29.4		23.4	23.4		23.4	23.4	

Lane Group	ø4	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	4	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	9.4	20.0
Total Split (s)	18.0	9.0
Total Split (%)	20%	10%
Maximum Green (s)	12.6	5.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)				3.6	3.6		3.2	3.2		3.2	3.2	
All-Red Time (s)				1.0	1.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	-0.6	-0.6	0.0	-0.6	-0.6	0.0	-1.6	-1.6	0.0	-1.6	-1.6	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		None	None		None	None	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
Act Effct Green (s)	54.4	54.4			28.9			12.9			12.9	
Actuated g/C Ratio	0.72	0.72			0.38			0.17			0.17	
v/c Ratio	0.36	0.26			0.75			0.10			0.38	
Control Delay	7.0	2.4			26.2			13.6			17.4	
Queue Delay	1.4	0.8			0.4			0.0			0.0	
Total Delay	8.3	3.2			26.6			13.6			17.4	
LOS	A	A			C			B			B	
Approach Delay		4.5			26.6			13.6			17.4	
Approach LOS		A			C			B			B	
90th %ile Green (s)				29.4	29.4		18.9	18.9		18.9	18.9	
90th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
70th %ile Green (s)				29.4	29.4		13.8	13.8		13.8	13.8	
70th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
50th %ile Green (s)				29.4	29.4		9.8	9.8		9.8	9.8	
50th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
30th %ile Green (s)				29.4	29.4		8.3	8.3		8.3	8.3	
30th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
10th %ile Green (s)				23.5	23.5		6.8	6.8		6.8	6.8	
10th %ile Term Code				Gap	Gap		Gap	Gap		Gap	Gap	
Stops (vph)	32	45			651			10			37	
Fuel Used(gal)	0	1			12			0			1	
CO Emissions (g/hr)	26	42			846			12			89	
NOx Emissions (g/hr)	5	8			165			2			17	
VOC Emissions (g/hr)	6	10			196			3			21	
Dilemma Vehicles (#)	0	0			0			0			0	
Queue Length 50th (ft)	5	16			183			2			17	
Queue Length 95th (ft)	26	24			#308			21			58	
Internal Link Dist (ft)		29			211			192			932	
Turn Bay Length (ft)												
Base Capacity (vph)	259	1065			1233			502			477	
Starvation Cap Reductn	65	505			0			0			0	
Spillback Cap Reductn	0	0			79			0			1	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.48	0.51			0.77			0.05			0.22	

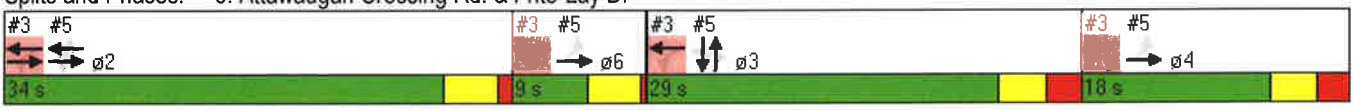
Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 75.3	

Lane Group	ø4	ø6
Yellow Time (s)	3.2	3.5
All-Red Time (s)	2.2	0.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		5.0
Flash Dont Walk (s)		11.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	12.6	5.0
90th %ile Term Code	Max	Max
70th %ile Green (s)	12.6	5.0
70th %ile Term Code	Max	Max
50th %ile Green (s)	12.6	5.0
50th %ile Term Code	Max	Max
30th %ile Green (s)	9.6	5.0
30th %ile Term Code	Gap	Max
10th %ile Green (s)	7.3	5.0
10th %ile Term Code	Gap	Max
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Natural Cycle: 65
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 19.7 Intersection LOS: B
Intersection Capacity Utilization 58.3% ICU Level of Service B
Analysis Period (min) 15
90th %ile Actuated Cycle: 85.5
70th %ile Actuated Cycle: 80.4
50th %ile Actuated Cycle: 76.4
30th %ile Actuated Cycle: 71.9
10th %ile Actuated Cycle: 62.2
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Attawaugan Crossing Rd. & Frito-Lay Dr



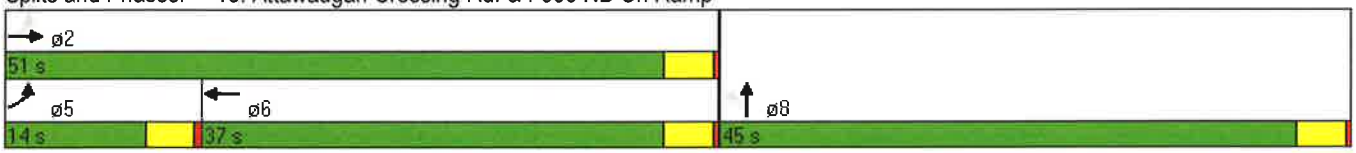
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	113	0	0	189	53	347	2	28	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
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					0.970			0.990				
Flt Protected	0.950							0.956				
Satd. Flow (prot)	1770	1863	0	0	1807	0	0	1763	0	0	0	0
Flt Permitted	0.395							0.956				
Satd. Flow (perm)	736	1863	0	0	1807	0	0	1763	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					16			5				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		906			1473			940			892	
Travel Time (s)		20.6			33.5			21.4			20.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	162	116	0	0	195	55	358	2	29	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	162	116	0	0	250	0	0	389	0	0	0	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)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	pm+pt						Perm					
Protected Phases	5	2			6			8				
Permitted Phases	2						8					
Detector Phase	5	2			6		8	8				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	20.0			20.0		20.0	20.0				
Total Split (s)	14.0	51.0	0.0	0.0	37.0	0.0	45.0	45.0	0.0	0.0	0.0	0.0
Total Split (%)	14.6%	53.1%	0.0%	0.0%	38.5%	0.0%	46.9%	46.9%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	10.0	47.0			33.0		41.0	41.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5				
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	None	None			None		Min	Min				
Walk Time (s)		5.0			5.0		5.0	5.0				
Flash Dont Walk (s)		11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)		0			0		0	0				
Act Effct Green (s)	23.0	23.0			13.0			17.4				
Actuated g/C Ratio	0.47	0.47			0.26			0.35				
v/c Ratio	0.30	0.13			0.51			0.62				
Control Delay	9.6	8.3			21.0			19.7				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	9.6	8.3			21.0			19.7				
LOS	A	A			C			B				
Approach Delay		9.1			21.0			19.7				
Approach LOS		A			C			B				
90th %ile Green (s)	10.0	33.5			19.5		26.9	26.9				
90th %ile Term Code	Max	Hold			Gap		Gap	Gap				
70th %ile Green (s)	10.0	28.8			14.8		19.9	19.9				
70th %ile Term Code	Max	Hold			Gap		Gap	Gap				
50th %ile Green (s)	10.0	26.4			12.4		16.6	16.6				
50th %ile Term Code	Max	Hold			Gap		Gap	Gap				
30th %ile Green (s)	8.8	23.0			10.2		13.6	13.6				
30th %ile Term Code	Gap	Hold			Gap		Gap	Gap				
10th %ile Green (s)	0.0	7.8			7.8		10.2	10.2				
10th %ile Term Code	Skip	Hold			Gap		Gap	Gap				
Stops (vph)	76	55			177			283				
Fuel Used(gal)	2	1			5			6				
CO Emissions (g/hr)	128	90			335			408				
NOx Emissions (g/hr)	25	18			65			79				
VOC Emissions (g/hr)	30	21			78			95				
Dilemma Vehicles (#)	0	0			0			0				
Queue Length 50th (ft)	23	16			61			97				
Queue Length 95th (ft)	68	50			144			201				
Internal Link Dist (ft)		826			1393			860			812	
Turn Bay Length (ft)	150											
Base Capacity (vph)	589	1683			1252			1427				
Starvation Cap Reductn	0	0			0			0				
Spillback Cap Reductn	0	0			0			0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.28	0.07			0.20			0.27				

Intersection Summary			
Area Type:	Other		
Cycle Length: 96			
Actuated Cycle Length: 49.3			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 16.8		Intersection LOS: B	
Intersection Capacity Utilization 52.9%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 68.4			
70th %ile Actuated Cycle: 56.7			
50th %ile Actuated Cycle: 51			
30th %ile Actuated Cycle: 44.6			
10th %ile Actuated Cycle: 26			

Splits and Phases: 15: Attawaugan Crossing Rd. & I-395 NB On Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	220	92	56	479	0	0	0	0	51	0	329
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	232	97	59	504	0	0	0	0	54	0	346
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		668			906							
pX, platoon unblocked												
vC, conflicting volume	504			328			1248	902	280	902	951	504
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	504			328			1248	902	280	902	951	504
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			100	100	100	78	100	39
cM capacity (veh/h)	1060			1231			56	264	759	249	247	568

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	328	563	400
Volume Left	0	59	54
Volume Right	97	0	346
cSH	1700	1231	485
Volume to Capacity	0.19	0.05	0.83
Queue Length 95th (ft)	0	4	201
Control Delay (s)	0.0	1.3	38.8
Lane LOS		A	E
Approach Delay (s)	0.0	1.3	38.8
Approach LOS			E

Intersection Summary			
Average Delay	12.6		
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	167	1	16	519	7	27
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	206	1	20	641	9	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			207		887	207
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			207		887	207
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		97	96
cM capacity (veh/h)			1364		310	834

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	207	660	42
Volume Left	0	20	9
Volume Right	1	0	33
cSH	1700	1364	619
Volume to Capacity	0.12	0.01	0.07
Queue Length 95th (ft)	0	1	5
Control Delay (s)	0.0	0.4	11.2
Lane LOS		A	B
Approach Delay (s)	0.0	0.4	11.2
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	196	311	290	33	16	82
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	228	362	337	38	19	95
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	376				1174	356
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	376				1174	356
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	81				89	86
cM capacity (veh/h)	1183				171	688

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	590	376	114
Volume Left	228	0	19
Volume Right	0	38	95
cSH	1183	1700	461
Volume to Capacity	0.19	0.22	0.25
Queue Length 95th (ft)	18	0	24
Control Delay (s)	4.7	0.0	15.4
Lane LOS	A		C
Approach Delay (s)	4.7	0.0	15.4
Approach LOS			C

Intersection Summary			
Average Delay	4.2		
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	26	9	88	154	70	262
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	31	11	104	181	82	308
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	625	236	391			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	625	236	391			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	99	91			
cM capacity (veh/h)	409	803	1168			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	41	285	391
Volume Left	31	104	0
Volume Right	11	0	308
cSH	468	1168	1700
Volume to Capacity	0.09	0.09	0.23
Queue Length 95th (ft)	7	7	0
Control Delay (s)	13.4	3.6	0.0
Lane LOS	B	A	
Approach Delay (s)	13.4	3.6	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

Combined Traffic

P.M. Peak Hour

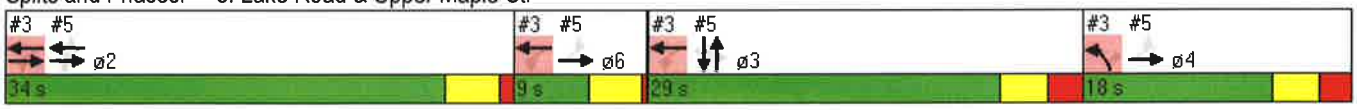
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø3	ø6
Lane Configurations								
Volume (vph)	567	60	188	211	33	245		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	11	11	11	11	12	12		
Storage Length (ft)		0	0		125	0		
Storage Lanes		0	1		1	1		
Taper Length (ft)		25	25		25	25		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00		
Frt	0.986					0.850		
Flt Protected			0.950		0.950			
Satd. Flow (prot)	2775	0	1646	1733	1703	1524		
Flt Permitted			0.306		0.950			
Satd. Flow (perm)	2775	0	530	1733	1703	1524		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	13					285		
Link Speed (mph)	30			30	30			
Link Distance (ft)	330			109	473			
Travel Time (s)	7.5			2.5	10.8			
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86		
Heavy Vehicles (%)	24%	24%	6%	6%	6%	6%		
Adj. Flow (vph)	659	70	219	245	38	285		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	729	0	219	245	38	285		
Enter Blocked Intersection	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Left	Left	Right		
Median Width(ft)	11			11	12			
Link Offset(ft)	0			0	0			
Crosswalk Width(ft)	16			16	16			
Two way Left Turn Lane								
Headway Factor	1.04	1.04	1.04	1.04	1.00	1.00		
Turning Speed (mph)		9	15		15	9		
Number of Detectors	1		1	1	1	1		
Detector Template								
Leading Detector (ft)	50		50	50	50	50		
Trailing Detector (ft)	0		0	0	0	0		
Detector 1 Position(ft)	0		0	0	0	0		
Detector 1 Size(ft)	50		50	50	50	50		
Detector 1 Type	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		
Detector 1 Channel								
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	0.0		
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0		
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0		
Turn Type			Perm			Perm		
Protected Phases	2			2 3 6	4		3	6
Permitted Phases			2 3 6			4		
Detector Phase	2		2 3 6	2 3 6	4	4		
Switch Phase								
Minimum Initial (s)	4.0				4.0	4.0	4.0	4.0
Minimum Split (s)	20.6				9.4	9.4	9.6	20.0

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø3	ø6
Total Split (s)	34.0	0.0	72.0	72.0	18.0	18.0	29.0	9.0
Total Split (%)	37.8%	0.0%	80.0%	80.0%	20.0%	20.0%	32%	10%
Maximum Green (s)	29.4				12.6	12.6	23.4	5.0
Yellow Time (s)	3.6				3.2	3.2	3.2	3.5
All-Red Time (s)	1.0				2.2	2.2	2.4	0.5
Lost Time Adjust (s)	-0.6	0.0	-0.6	-0.6	-1.4	-1.4		
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0		
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Vehicle Extension (s)	3.0				3.0	3.0	3.0	3.0
Recall Mode	None				None	None	None	None
Walk Time (s)	5.0							5.0
Flash Dont Walk (s)	11.0							11.0
Pedestrian Calls (#/hr)	0							0
Act Effct Green (s)	28.7		56.2	56.2	14.2	14.2		
Actuated g/C Ratio	0.37		0.72	0.72	0.18	0.18		
v/c Ratio	0.71		0.58	0.20	0.12	0.56		
Control Delay	26.5		12.3	0.8	31.4	9.2		
Queue Delay	0.9		1.8	0.3	0.0	0.5		
Total Delay	27.3		14.1	1.1	31.4	9.7		
LOS	C		B	A	C	A		
Approach Delay	27.3			7.3	12.2			
Approach LOS	C			A	B			
90th %ile Green (s)	29.4				12.6	12.6	23.4	5.0
90th %ile Term Code	Max				Max	Max	Max	Max
70th %ile Green (s)	29.4				12.6	12.6	15.8	5.0
70th %ile Term Code	Max				Max	Max	Gap	Max
50th %ile Green (s)	29.4				12.6	12.6	11.9	5.0
50th %ile Term Code	Max				Max	Max	Gap	Max
30th %ile Green (s)	29.4				12.6	12.6	8.1	5.0
30th %ile Term Code	Max				Max	Max	Gap	Max
10th %ile Green (s)	22.6				12.6	12.6	6.4	5.0
10th %ile Term Code	Gap				Max	Max	Gap	Max
Stops (vph)	503		93	9	29	34		
Fuel Used(gal)	17		1	0	0	2		
CO Emissions (g/hr)	1162		80	19	34	108		
NOx Emissions (g/hr)	226		16	4	7	21		
VOC Emissions (g/hr)	269		19	4	8	25		
Dilemma Vehicles (#)	0		0	0	0	0		
Queue Length 50th (ft)	150		45	4	16	0		
Queue Length 95th (ft)	245		105	5	45	58		
Internal Link Dist (ft)	250			29	393			
Turn Bay Length (ft)					125			
Base Capacity (vph)	1082		454	1484	307	509		
Starvation Cap Reductn	0		117	754	0	0		
Spillback Cap Reductn	136		0	0	0	43		
Storage Cap Reductn	0		0	0	0	0		
Reduced v/c Ratio	0.77		0.65	0.34	0.12	0.61		

Intersection Summary

Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 78.4			
Natural Cycle: 70			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 18.0		Intersection LOS: B	
Intersection Capacity Utilization 41.3%		ICU Level of Service A	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 90			
70th %ile Actuated Cycle: 82.4			
50th %ile Actuated Cycle: 78.5			
30th %ile Actuated Cycle: 74.7			
10th %ile Actuated Cycle: 66.2			

Splits and Phases: 3: Lake Road & Upper Maple St.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	121	691	1	11	315	45	2	4	27	55	4	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	12	12	12	12	12	11	12
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.982			0.890			0.921	
Flt Protected	0.950				0.998			0.997			0.981	
Satd. Flow (prot)	1407	1482	0	0	3226	0	0	1466	0	0	1443	0
Flt Permitted	0.471				0.901			0.984			0.862	
Satd. Flow (perm)	698	1482	0	0	2913	0	0	1447	0	0	1268	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18			31			79	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		109			291			272			1012	
Travel Time (s)		2.5			6.6			6.2			23.0	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	24%	24%	2%	6%	6%	6%	15%	15%	15%	15%	15%	15%
Adj. Flow (vph)	141	803	1	13	366	52	2	5	31	64	5	98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	804	0	0	431	0	0	38	0	0	167	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)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00	1.00	1.04	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2 4 6			2			3			3	
Permitted Phases	2 4 6			2			3			3		
Detector Phase	2 4 6	2 4 6		2	2		3	3		3	3	
Switch Phase												
Minimum Initial (s)				4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)				20.6	20.6		9.6	9.6		9.6	9.6	
Total Split (s)	61.0	61.0	0.0	34.0	34.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	67.8%	67.8%	0.0%	37.8%	37.8%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%
Maximum Green (s)				29.4	29.4		23.4	23.4		23.4	23.4	

Lane Group	ø4	ø6
Lane Configurations		
Volume (vph)		
Ideal Flow (vphpl)		
Lane Width (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Turn Type		
Protected Phases	4	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	4.0
Minimum Split (s)	9.4	20.0
Total Split (s)	18.0	9.0
Total Split (%)	20%	10%
Maximum Green (s)	12.6	5.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)				3.6	3.6		3.2	3.2		3.2	3.2	
All-Red Time (s)				1.0	1.0		2.4	2.4		2.4	2.4	
Lost Time Adjust (s)	-0.6	-0.6	0.0	-0.6	-0.6	0.0	-1.6	-1.6	0.0	-1.6	-1.6	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lead		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)				3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode				None	None		None	None		None	None	
Walk Time (s)				5.0	5.0							
Flash Dont Walk (s)				11.0	11.0							
Pedestrian Calls (#/hr)				0	0							
Act Effct Green (s)	56.0	56.0			28.7			14.3			14.3	
Actuated g/C Ratio	0.71	0.71			0.37			0.18			0.18	
v/c Ratio	0.28	0.76			0.40			0.13			0.56	
Control Delay	2.2	12.7			19.9			12.5			23.5	
Queue Delay	2.0	5.6			0.2			0.0			0.0	
Total Delay	4.1	18.2			20.0			12.5			23.5	
LOS	A	B			C			B			C	
Approach Delay		16.1			20.0			12.5			23.5	
Approach LOS		B			C			B			C	
90th %ile Green (s)				29.4	29.4		23.4	23.4		23.4	23.4	
90th %ile Term Code				Max	Max		Max	Max		Max	Max	
70th %ile Green (s)				29.4	29.4		15.8	15.8		15.8	15.8	
70th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
50th %ile Green (s)				29.4	29.4		11.9	11.9		11.9	11.9	
50th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
30th %ile Green (s)				29.4	29.4		8.1	8.1		8.1	8.1	
30th %ile Term Code				Max	Max		Gap	Gap		Gap	Gap	
10th %ile Green (s)				22.6	22.6		6.4	6.4		6.4	6.4	
10th %ile Term Code				Gap	Gap		Gap	Gap		Gap	Gap	
Stops (vph)	9	339			250			11			68	
Fuel Used(gal)	0	4			5			0			2	
CO Emissions (g/hr)	14	296			336			15			154	
NOx Emissions (g/hr)	3	58			65			3			30	
VOC Emissions (g/hr)	3	69			78			3			36	
Dilemma Vehicles (#)	0	0			0			0			0	
Queue Length 50th (ft)	5	158			74			3			39	
Queue Length 95th (ft)	m9	#213			130			24			89	
Internal Link Dist (ft)		29			211			192			932	
Turn Bay Length (ft)												
Base Capacity (vph)	499	1059			1138			488			462	
Starvation Cap Reductn	237	198			0			0			0	
Spillback Cap Reductn	0	0			172			0			4	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.54	0.93			0.45			0.08			0.36	

Intersection Summary

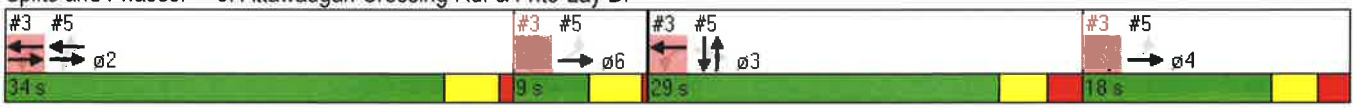
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 78.4

Lane Group	ø4	ø6
Yellow Time (s)	3.2	3.5
All-Red Time (s)	2.2	0.5
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lag	
Lead-Lag Optimize?	Yes	
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		5.0
Flash Dont Walk (s)		11.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	12.6	5.0
90th %ile Term Code	Max	Max
70th %ile Green (s)	12.6	5.0
70th %ile Term Code	Max	Max
50th %ile Green (s)	12.6	5.0
50th %ile Term Code	Max	Max
30th %ile Green (s)	12.6	5.0
30th %ile Term Code	Max	Max
10th %ile Green (s)	12.6	5.0
10th %ile Term Code	Max	Max
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Natural Cycle: 70
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 72.0% ICU Level of Service C
Analysis Period (min) 15
90th %ile Actuated Cycle: 90
70th %ile Actuated Cycle: 82.4
50th %ile Actuated Cycle: 78.5
30th %ile Actuated Cycle: 74.7
10th %ile Actuated Cycle: 66.2
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Attawaugan Crossing Rd. & Frito-Lay Dr



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	293	177	0	0	110	34	150	0	56	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
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					0.968			0.963				
Flt Protected	0.950							0.965				
Satd. Flow (prot)	1770	1863	0	0	1803	0	0	1731	0	0	0	0
Flt Permitted	0.416							0.965				
Satd. Flow (perm)	775	1863	0	0	1803	0	0	1731	0	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					18			24				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		906			1473			940			892	
Travel Time (s)		20.6			33.5			21.4			20.3	
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
Adj. Flow (vph)	318	192	0	0	120	37	163	0	61	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	318	192	0	0	157	0	0	224	0	0	0	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)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway 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
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2				
Detector Template	Left	Thru			Thru		Left	Thru				
Leading Detector (ft)	20	100			100		20	100				
Trailing Detector (ft)	0	0			0		0	0				
Detector 1 Position(ft)	0	0			0		0	0				
Detector 1 Size(ft)	20	6			6		20	6				
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex				
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0				
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0				
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	pm+pt						Perm					
Protected Phases	5	2			6			8				
Permitted Phases	2						8					
Detector Phase	5	2			6		8	8				

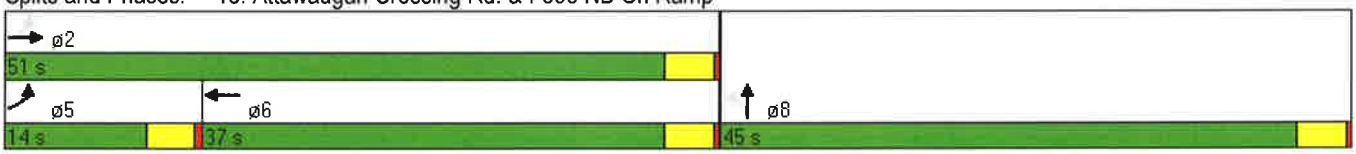
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0			4.0		4.0	4.0				
Minimum Split (s)	8.0	20.0			20.0		20.0	20.0				
Total Split (s)	14.0	51.0	0.0	0.0	37.0	0.0	45.0	45.0	0.0	0.0	0.0	0.0
Total Split (%)	14.6%	53.1%	0.0%	0.0%	38.5%	0.0%	46.9%	46.9%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)	10.0	47.0			33.0		41.0	41.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5				
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead				Lag							
Lead-Lag Optimize?	Yes				Yes							
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	None	None			None		Min	Min				
Walk Time (s)		5.0			5.0		5.0	5.0				
Flash Dont Walk (s)		11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)		0			0		0	0				
Act Effct Green (s)	20.0	20.0			8.9			10.6				
Actuated g/C Ratio	0.51	0.51			0.23			0.27				
v/c Ratio	0.48	0.20			0.37			0.46				
Control Delay	8.4	5.8			16.0			15.4				
Queue Delay	0.0	0.0			0.0			0.0				
Total Delay	8.4	5.8			16.0			15.4				
LOS	A	A			B			B				
Approach Delay		7.5			16.0			15.4				
Approach LOS		A			B			B				
90th %ile Green (s)	10.0	26.0			12.0		14.7	14.7				
90th %ile Term Code	Max	Hold			Gap		Gap	Gap				
70th %ile Green (s)	10.0	23.8			9.8		11.9	11.9				
70th %ile Term Code	Max	Hold			Gap		Gap	Gap				
50th %ile Green (s)	10.0	22.6			8.6		10.2	10.2				
50th %ile Term Code	Max	Hold			Gap		Gap	Gap				
30th %ile Green (s)	10.0	21.5			7.5		8.8	8.8				
30th %ile Term Code	Max	Hold			Gap		Gap	Gap				
10th %ile Green (s)	8.8	8.8			0.0		7.1	7.1				
10th %ile Term Code	Gap	Hold			Skip		Gap	Gap				
Stops (vph)	146	78			103			143				
Fuel Used(gal)	3	2			3			3				
CO Emissions (g/hr)	236	132			188			206				
NOx Emissions (g/hr)	46	26			37			40				
VOC Emissions (g/hr)	55	31			44			48				
Dilemma Vehicles (#)	0	0			0			0				
Queue Length 50th (ft)	33	18			27			39				
Queue Length 95th (ft)	84	50			72			91				
Internal Link Dist (ft)		826			1393			860			812	
Turn Bay Length (ft)	150											
Base Capacity (vph)	675	1850			1483			1656				
Starvation Cap Reductn	0	0			0			0				
Spillback Cap Reductn	0	0			0			0				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn	0	0			0			0				
Reduced v/c Ratio	0.47	0.10			0.11			0.14				

Intersection Summary

Area Type: Other
Cycle Length: 96
Actuated Cycle Length: 39.1
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 11.0 Intersection LOS: B
Intersection Capacity Utilization 45.8% ICU Level of Service A
Analysis Period (min) 15
90th %ile Actuated Cycle: 48.7
70th %ile Actuated Cycle: 43.7
50th %ile Actuated Cycle: 40.8
30th %ile Actuated Cycle: 38.3
10th %ile Actuated Cycle: 23.9

Splits and Phases: 15: Attawaugan Crossing Rd. & I-395 NB On Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	424	348	54	206	0	0	0	0	35	1	164
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	482	395	61	234	0	0	0	0	40	1	186
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		668			906							
pX, platoon unblocked				0.60			0.60	0.60	0.60	0.60	0.60	
vC, conflicting volume	234			877			1223	1036	680	1036	1234	234
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	234			468			1041	731	140	731	1059	234
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			91			100	100	100	79	99	77
cM capacity (veh/h)	1333			660			89	191	548	189	123	805

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	877	295	227
Volume Left	0	61	40
Volume Right	395	0	186
cSH	1700	660	504
Volume to Capacity	0.52	0.09	0.45
Queue Length 95th (ft)	0	8	58
Control Delay (s)	0.0	3.2	17.9
Lane LOS		A	C
Approach Delay (s)	0.0	3.2	17.9
Approach LOS			C

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	525	4	30	177	4	20
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	640	5	37	216	5	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			645		932	643
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			645		932	643
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		98	95
cM capacity (veh/h)			940		284	474

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	645	252	29
Volume Left	0	37	5
Volume Right	5	0	24
cSH	1700	940	426
Volume to Capacity	0.38	0.04	0.07
Queue Length 95th (ft)	0	3	6
Control Delay (s)	0.0	1.6	14.1
Lane LOS		A	B
Approach Delay (s)	0.0	1.6	14.1
Approach LOS			B

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	81	427	394	25	37	178
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	88	464	428	27	40	193
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	455				1082	442
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	455				1082	442
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				82	69
cM capacity (veh/h)	1105				222	616

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	552	455	234
Volume Left	88	0	40
Volume Right	0	27	193
cSH	1105	1700	471
Volume to Capacity	0.08	0.27	0.50
Queue Length 95th (ft)	6	0	68
Control Delay (s)	2.1	0.0	19.9
Lane LOS	A		C
Approach Delay (s)	2.1	0.0	19.9
Approach LOS			C

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	72.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	262	88	9	87	148	26
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	308	104	11	102	174	31
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	313	189	205			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	313	189	205			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	54	88	99			
cM capacity (veh/h)	674	852	1367			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	412	113	205
Volume Left	308	11	0
Volume Right	104	0	31
cSH	712	1367	1700
Volume to Capacity	0.58	0.01	0.12
Queue Length 95th (ft)	94	1	0
Control Delay (s)	16.8	0.8	0.0
Lane LOS	C	A	
Approach Delay (s)	16.8	0.8	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	9.6		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

Speed Count Data

Lake Road

F. A. Hesketh & Associates, Inc.

6 Creamery Brook
East Granby, CT 06026
Phone: (860) 653-8000

Date Start: 24-May-16
Date End: 26-May-16
Site Code: 16126800

Untitled S

Direction 1

Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	Total
05/24/																															
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00	1	0	0	0	0	0	0	0	0	2	1	3	2	7	5	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	34
10:00	1	0	0	0	0	0	0	0	2	3	2	5	5	6	8	7	1	1	0	1	1	0	0	0	0	0	0	0	0	0	43
11:00	0	0	0	0	0	0	0	0	0	2	2	4	5	8	17	6	7	3	1	1	0	0	0	0	0	0	0	0	0	0	56
12 PM	0	0	0	0	1	0	0	0	1	1	3	2	9	5	7	1	5	2	2	0	2	0	0	0	0	0	0	0	0	1	42
13:00	0	0	0	0	0	0	0	0	0	1	2	3	7	7	3	7	5	3	2	3	0	0	0	0	1	0	0	0	0	0	44
14:00	0	0	0	0	0	0	0	1	1	3	3	6	7	9	12	11	7	5	1	0	0	1	0	0	1	0	0	0	0	0	68
15:00	0	0	0	0	0	2	0	0	3	0	3	2	10	10	8	9	7	3	0	0	0	0	0	0	0	0	0	0	0	0	57
16:00	0	0	0	0	0	0	0	0	0	3	5	6	5	11	17	11	4	5	4	0	0	0	0	0	0	0	0	0	0	0	71
17:00	1	0	0	0	0	0	0	0	0	0	3	5	1	10	6	5	5	2	4	0	0	1	0	0	0	0	0	0	0	0	43
18:00	0	0	0	0	0	0	0	0	1	0	2	2	2	7	6	5	2	0	2	0	0	0	0	0	0	0	0	0	0	0	29
19:00	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	16
20:00	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	9
21:00	0	0	0	0	0	0	0	0	0	0	2	1	0	1	2	0	3	1	3	1	0	0	1	0	0	0	0	0	0	0	15
22:00	0	0	0	0	0	0	0	0	0	1	0	0	1	2	3	1	2	2	0	1	0	0	0	0	0	0	0	0	0	0	13
23:00	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	3	0	0	0	1	2	0	1	8	16	29	42	59	90	99	70	59	26	20	7	4	3	1	0	2	0	0	0	0	1	545

F. A. Hesketh & Associates, Inc.

6 Creamery Brook
East Granby, CT 06026
Phone: (860) 653-8000

Date Start: 24-May-16
Date End: 26-May-16
Site Code: 16126800

Untitled S

Direction 1

Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	Total
05/25/																															
16	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	8
02:00	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	8
03:00	0	0	0	0	0	0	0	0	1	1	0	0	0	1	2	3	2	0	1	0	1	0	1	0	0	0	0	0	0	0	13
04:00	0	0	0	0	0	0	0	0	0	0	0	2	5	2	5	8	10	5	1	1	2	0	0	0	0	0	0	0	0	0	41
05:00	1	0	0	0	0	0	0	1	0	2	1	1	11	20	21	19	21	3	2	0	2	0	0	0	0	0	0	0	0	0	105
06:00	0	0	0	0	0	0	2	2	2	1	1	3	13	21	25	27	19	13	4	2	0	0	0	0	0	0	0	0	0	0	135
07:00	0	0	1	0	0	0	0	0	0	1	6	12	8	12	13	10	11	9	3	1	0	1	0	0	0	0	0	0	0	0	88
08:00	0	0	0	1	0	0	0	1	1	2	2	5	6	4	4	10	1	1	1	0	1	0	0	0	0	0	0	0	0	0	40
09:00	1	0	0	0	0	0	0	0	1	1	5	4	4	4	6	6	5	4	1	0	0	0	0	0	0	0	0	0	0	0	42
10:00	1	0	0	0	0	0	0	0	1	0	2	4	2	9	8	8	8	2	2	2	0	0	0	0	0	0	0	0	0	0	49
11:00	2	0	0	0	0	0	0	0	0	0	0	2	2	4	2	4	3	1	1	0	0	1	1	0	1	3	2	0	3	9	41
12 PM	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	1	0	2	1	16	48
13:00	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	23
14:00	3	0	0	0	0	0	0	0	0	3	5	4	5	6	11	8	12	4	2	1	0	0	0	0	0	0	0	0	0	1	65
15:00	1	0	0	0	0	0	0	2	1	2	1	2	5	10	22	11	14	4	2	1	1	0	0	0	0	0	0	0	0	0	79
16:00	1	0	0	0	0	0	0	0	0	0	2	3	12	7	20	9	11	6	2	1	0	0	0	0	0	0	0	0	0	0	74
17:00	0	0	0	0	0	0	0	0	0	1	3	1	5	6	6	9	2	1	2	0	1	0	0	0	0	0	0	0	0	0	37
18:00	0	0	0	0	0	0	0	0	2	0	0	3	3	6	4	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	22
19:00	0	0	0	0	0	0	0	0	0	0	2	3	2	1	6	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	20
20:00	0	0	0	0	0	0	0	0	1	0	2	1	1	1	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	12
21:00	0	0	0	0	0	0	0	0	0	1	0	1	3	2	3	1	1	0	1	0	1	1	0	0	0	0	1	0	0	0	16
22:00	0	0	0	0	0	0	0	0	0	0	0	1	2	3	2	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	12
23:00	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	53	0	1	1	0	0	2	6	10	15	32	55	92	122	169	143	124	59	28	13	9	5	3	0	1	4	3	2	4	30	986

F. A. Hesketh & Associates, Inc.

6 Creamery Brook
East Granby, CT 06026
Phone: (860) 653-8000

Date Start: 24-May-16
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Site Code: 16126800

Untitled S

Direction 1

Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	Total
05/26/																															
16	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
02:00	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
03:00	0	0	0	0	0	0	0	0	0	0	1	1	1	4	3	2	3	0	0	0	0	1	0	0	0	0	0	0	0	0	16
04:00	0	0	0	0	0	0	0	0	0	0	2	1	3	9	8	7	6	3	5	0	1	1	0	0	0	0	0	0	0	0	46
05:00	1	0	0	0	0	0	0	0	0	2	0	4	3	17	24	16	17	6	9	0	2	1	1	0	0	0	0	0	0	0	103
06:00	1	0	0	0	0	0	0	0	2	0	3	3	10	17	25	28	14	6	3	0	0	1	0	0	0	0	0	0	0	0	113
07:00	0	0	0	0	0	0	0	1	1	0	5	6	12	8	17	17	5	4	2	1	0	1	0	0	0	0	0	0	0	0	80
08:00	0	0	0	0	0	1	1	0	0	1	3	4	11	13	1	6	4	3	0	0	0	0	0	0	0	0	0	0	0	0	48
09:00	0	0	0	0	3	1	0	0	0	0	0	2	6	8	4	7	3	2	2	0	0	0	0	0	0	0	0	0	0	0	38
10:00	0	0	0	0	0	0	0	0	0	3	0	2	6	13	6	8	4	2	1	0	0	0	0	0	0	0	0	0	0	0	45
11:00	1	0	0	0	0	0	0	0	2	1	3	4	7	9	7	9	4	5	2	1	0	0	0	0	0	0	0	0	0	0	55
12 PM	3	0	0	0	0	0	0	1	0	1	1	1	2	5	3	5	2	2	3	0	1	1	0	0	2	2	0	1	3	4	43
13:00	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	2	1	1	0	18	47
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	28	0	0	0	3	2	1	2	5	9	18	28	65	107	99	109	62	35	27	2	4	6	1	1	2	4	1	2	3	22	648
Gr. Total	84	0	1	1	4	4	3	9	23	40	79	125	216	319	367	322	245	122	75	22	17	14	5	1	5	8	4	4	7	53	2179

Stats

15th Percentile :	28 MPH
50th Percentile :	36 MPH
85th Percentile :	41 MPH
95th Percentile :	45 MPH
Mean Speed(Average) :	35 MPH
Number of Vehicles > 55 MPH :	81
Percent of Vehicles > 55 MPH :	3.8%

F. A. Hesketh & Associates, Inc.

6 Creamery Brook
East Granby, CT 06026
Phone: (860) 653-8000

Date Start: 24-May-16
Date End: 26-May-16
Site Code: 16126800

Untitled S

Direction 2

Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	Total
05/24/																															
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
08:00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
09:00	0	0	0	0	0	0	0	3	1	0	8	5	8	2	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	33
10:00	0	0	0	0	0	0	2	0	5	4	7	10	8	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	46
11:00	1	0	0	0	0	1	0	1	3	2	9	10	5	6	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	47
12 PM	0	0	0	0	1	0	0	0	2	6	14	11	7	6	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	51
13:00	3	0	0	0	0	0	1	6	3	7	11	14	14	13	7	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	81
14:00	1	0	0	2	1	0	4	5	7	7	10	8	18	17	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	91
15:00	0	0	0	0	0	1	1	2	6	4	14	12	29	22	10	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	107
16:00	4	0	0	0	0	1	0	0	2	6	16	26	23	11	8	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	100
17:00	2	0	1	0	0	2	1	3	4	7	11	13	8	7	4	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	66
18:00	0	0	0	0	0	0	0	0	3	1	2	10	5	9	7	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	40
19:00	0	0	0	0	0	0	0	2	3	0	9	3	7	5	1	3	0	0	0	1	0	1	0	0	0	0	0	0	0	0	35
20:00	0	0	0	0	0	0	0	0	2	3	3	5	3	3	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	23
21:00	0	0	0	0	0	0	0	0	3	2	2	3	3	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
22:00	0	0	0	0	1	0	0	0	0	2	2	4	0	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	14
23:00	0	0	0	0	0	0	0	1	1	2	3	4	2	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16
Total	11	0	1	2	3	5	9	23	45	53	121	138	140	109	67	22	13	4	1	1	0	1	0	1	0	0	0	0	0	0	770

F. A. Hesketh & Associates, Inc.

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Untitled S

Direction 2

Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	Total
05/25/																															
16	0	0	0	0	0	0	0	0	1	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
01:00	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	0	0	0	0	0	0	0	0	3	1	2	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
05:00	1	0	0	0	0	0	0	1	1	3	3	5	12	5	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	36
06:00	0	0	0	0	0	1	1	0	2	7	6	10	12	10	8	5	0	0	1	1	0	0	0	0	0	0	0	0	0	0	64
07:00	0	0	0	1	2	1	1	2	2	8	9	7	13	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
08:00	1	0	0	0	0	0	1	1	2	5	11	10	7	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
09:00	1	0	0	0	0	1	1	3	3	7	9	8	8	7	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53
10:00	0	0	0	0	0	1	0	1	6	4	6	9	9	9	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	51
11:00	3	0	0	1	0	0	1	0	1	2	5	8	6	6	5	2	1	1	1	0	1	0	0	0	0	0	0	0	0	0	44
12 PM	4	0	0	1	0	1	2	5	6	5	19	10	13	5	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	74
13:00	28	0	0	0	0	1	0	2	4	5	7	14	14	10	10	7	3	2	3	0	0	0	0	0	0	0	0	0	0	4	114
14:00	6	0	1	0	0	0	1	4	3	14	13	14	12	11	5	4	3	3	3	4	2	3	1	0	1	0	0	1	0	5	114
15:00	0	0	0	0	0	0	0	5	3	6	28	22	32	14	9	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	130
16:00	6	0	0	1	3	0	2	2	8	7	17	24	28	12	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	120
17:00	0	0	0	0	0	2	1	0	5	5	8	9	11	5	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	49
18:00	0	0	1	0	0	0	1	1	2	2	5	9	8	3	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	37
19:00	0	0	0	0	0	0	3	4	3	5	8	9	1	1	2	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	39
20:00	0	0	0	0	0	0	0	2	5	2	7	9	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31
21:00	0	0	0	0	0	0	0	1	1	1	1	5	4	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19
22:00	0	0	0	0	0	0	0	2	3	1	1	5	4	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	20
23:00	0	0	0	0	0	0	0	0	1	4	1	1	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
Total	50	0	2	4	5	8	16	36	63	96	167	194	201	129	69	41	18	9	9	5	4	3	1	0	1	0	0	1	0	9	1141

F. A. Hesketh & Associates, Inc.

6 Creamery Brook
East Granby, CT 06026
Phone: (860) 653-8000

Date Start: 24-May-16
Date End: 26-May-16
Site Code: 16126800

Untitled S

Direction 2

Start Time	1 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44	45 46	47 48	49 50	51 52	53 54	55 56	57 58	59 60	61 62	63 64	65 66	67 999	Total
05/26/																															
16	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
04:00	0	0	0	0	0	0	0	1	1	0	3	3	2	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
05:00	0	0	0	0	0	0	0	0	1	4	2	7	10	8	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	35
06:00	1	0	0	0	1	0	0	1	5	8	6	15	9	6	5	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0	61
07:00	1	0	0	0	2	0	0	0	0	5	14	17	9	5	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	60
08:00	0	0	0	0	0	0	1	1	4	8	10	11	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
09:00	2	0	0	0	0	0	2	2	3	6	9	3	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
10:00	0	0	0	0	0	0	2	4	3	6	8	4	5	5	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	43
11:00	0	0	0	0	0	1	2	1	8	6	15	9	6	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
12 PM	4	0	0	0	0	1	0	1	5	7	4	7	8	3	6	4	0	0	1	0	1	0	0	0	0	0	0	1	0	0	53
13:00	11	0	0	0	0	0	1	1	3	5	6	9	11	12	14	8	3	4	8	2	1	0	2	0	1	1	0	0	0	1	104
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	19	0	0	0	3	3	9	12	35	58	80	86	69	54	44	21	4	5	12	3	2	0	2	0	1	1	0	1	0	1	525
Gr. Total	80	0	3	6	11	16	34	71	143	207	368	418	410	292	180	84	35	18	22	9	6	4	3	1	2	1	0	2	0	10	2436

Stats

15th Percentile :	24 MPH
50th Percentile :	31 MPH
85th Percentile :	36 MPH
95th Percentile :	39 MPH
Mean Speed(Average) :	30 MPH
Number of Vehicles > 55 MPH :	15
Percent of Vehicles > 55 MPH :	0.6%