MULRYAN ENGINEERING, P.C.

TRAFFIC ENGINEERING REPORT:

FEBRUARY 13, 2020
Project No. M18-019
45 Lumber Road
Roslyn, New York 11577

PROJECT SUMMARY

Applicant:	45 Lumber Rd. LLC
Zoning:	WMU – Waterfront Mixed-Use District
Previous Land Use:	Verizon Truck Depot
Proposed Land Use:	Residential Apartment Building (33 units)
Location:	45 Lumber Road
Tax Map:	Section 6, Block 53, Lot 1031
Site Area:	1.39 Acres (60,618 sf)
Existing Building Size:	5,722 square feet (1 Story)
Proposed Building Size:	89,714 square feet (4 Stories)
Required Parking:	66 Parking Space
Proposed Parking:	67 Parking Spaces
Source:	Project summary based on information shown on the site plan prepared by: Northcoast Civil Land Surveying & Civil Engineering 23 Spring Street Oyster Bay, New York 11771

INTRODUCTION

Our office has conducted a traffic and parking study of the existing/proposed development of the subject property located at 45 Lumber Road, in the Village of Roslyn. The property is zoned WMU – Waterfront Mixed Use. The property is 60,618 square feet in size. The site is fully developed with Verizon Truck Depot (currently vacant) and associated parking.

The applicant is seeking to improve the site with a residential apartment building and associated parking. The building will be 4 stories and provide 33 two-bedroom apartment units.

In accordance with the Village of Roslyn zoning requirements, the proposed building requires 66 parking spaces. The proposed improvements will provide 67 parking spaces for the 33 apartment units.

PUBLIC TRANSIT

The area is served by the Long Island Railroad and Nassau Inter-County Express (NICE) bus service. The site is located within a mile of the Roslyn train station. Bus service surrounding the site includes the N23 and N27 routes.

SITE ACCESS

The Nassau County Tax Map shows a 38.22' width at the northern terminus of Lumber Road. The subject property extends approximately halfway along this end of the right-of-way. The other half of the right-of-way is bordered by the Independent Metal Strap property (34 Lumber Road). The Roslyn Hotel property (1221 Old Northern Boulevard) intersects at the corner of the right-of-way. A fourth property the Waterfront at Roslyn (55 Lumber Road) is located to the north of the subject site with no direct access to Lumber Road.

It appears that these properties share cross-access easements/agreements allowing access to and from Lumber Road. Access to the subject site will remain on private property. Access to Lumber Road will be located within the easement area.

ROADWAY NETWORK

Lumber Road is a dead-end roadway starting at Old Northern Boulevard and terminating at the site frontage (as described above). Lumber Road provides one northbound and one southbound lane. Lumber Road provides the sole access to serval properties including a municipal parking lot. Lumber Road runs parallel to the Hempstead Harbor Creek.

ACCIDENT ANALYSIS

Motor vehicle accident history reports pertaining to the study intersection were obtained from the New York State Department of Transportation. The reports document motor vehicle accidents that took place at the study intersections. The New York State Department of Transportation reports span a 36-month period beginning April 2015 and ending March 2018. A summary and detailed description of the accident history is provided in Tables No. 1 and 2, attached hereto.

Over the three-year period, a total of 8 accidents occurred at or in proximity to the intersection of Old Northern Boulevard and Lumber Road. On average, approximately 2.67 accidents occur per year in this area. During the same three-year period it is estimated that 12.2 million vehicles drove through this intersection. This equates to one accident for every 1.5 million vehicles that travel through the intersection.

The following provides an overview of the accident types:

Accident Type	No. of Accidents	Percentage
Left Turn	1	12.5%
Other	1	12.5%
Overtaking	1	12.5%
Rear End	2	25.0%
Right Angle	3	37.5%

Accident Severity	No. of Accidents	Percentage
Non-Reportable	4	50.0%
Property Damage Only	4	50.0%

ACCIDENT MITIGATION

No fatalities or serious injury were reported. All eight accidents were either non-reportable or involved property damage only. The low overall number of accidents over the three-year period does not appear to show a specific accident trend in the area surrounding the subject site.

The intersection does not experience a high number of serious motor vehicle accidents, as demonstrated by the State accident data. Observations of traffic flow at the intersection during peak hours does however indicate deficiencies which negatively impact vehicle movements to and from Lumber Road.

Our office prepared two alternative mitigation plans for the intersection of Old Northern Boulevard and Lumber Road. Any improvements at this intersection will require the review and approval of the Nassau County Department of Public Works, as Old Northern Boulevard is under the County's jurisdiction.

MITIGATION - CONCEPT A

Concept A realigns the southernmost section of Lumber Road to intersection Old Northern Boulevard at a 90-degree angle.

Vehicle turning left from Old Northern Boulevard tend to crossover southbound lanes when entering onto Lumber Road. The re-alignment of the intersection is intended to reduce/eliminate this condition.

The design would eliminate 4 angled parking spaces on Lumber Road which are in close proximity to the intersection. One additional parking space would be removed on the south side of Old Northern Boulevard, just west of the entrance driveway to the municipal parking lot.

The intersection re-alignment of Lumber Road is accomplished, in part, by the use of bulbouts on the northeast and northwest corners. A third bulbout is shown on the southeast corner. The bulbouts are joined via pedestrian crosswalks. The Bulbout design allow southbound vehicles greater visibility to the west. The design also reduces travel distance for pedestrians crossing the intersection. The Old Northern Boulevard crossing is aligned with the Village Parking Lot on the south side of the roadway.

MITIGATION - CONCEPT B

Concept B introduces a stiped island on the northwest corner of the intersection. The island is aligned with a proposed bulbout on the northeast corner of the intersection. The intent of this island is to define the westbound travel lane. The island also allows southbound motorist the ability to approach Old Northern Boulevard with greater visibility to the west within a defined southbound lane.

Vehicle turning left from Old Northern Boulevard tend to crossover southbound lanes when entering onto Lumber Road. The proposed pavement markings are intended to reduce/eliminate this condition.

The design would eliminate 4 angled parking spaces on Lumber Road which are in close proximity to the intersection. One additional parking space would be removed on the south side of Old Northern Boulevard, just west of the entrance driveway to the municipal parking lot.

Bulbouts are proposed on the northeast and southeast corners. The bulbouts are joined via pedestrian crosswalks. The design also reduces travel distance for pedestrians crossing Old Northern Boulevard. The Old Northern Boulevard crossing is aligned with the Village Parking Lot on the south side of the roadway.

PARKING GENERATION

The parking generation of the site was calculated using the standard calculations compiled by the Institute of Transportation Engineers (ITE) in the 5th Edition Parking Generation, 2019. This is often referred to as the Parking Generation Manual and is considered the industry standard for traffic engineering studies.

The residential apartment units are estimated to generate approximately 45 parked vehicles. This peak parking demand will occur in the overnight hours. The estimated parking demand includes residents and guest.

According to the Census Bureau's Population Estimates Program 84.5% of owner occupied households in the Village of Roslyn have 2 or fewer vehicles and 45.5% have no more than 1 vehicle. Vehicle ownership is a primary component of residential parking demand.

The proposed project supplies ample parking to accommodate the anticipated demand based on the ITE and Census data. The project meets and exceeds the parking requirements set forth in the Village Code.

TRIP GENERATION

The subject site will generate a certain number of vehicle trips throughout the day. The volume of trips generated by the proposed development was calculated using the standard calculations compiled by the Institute of Transportation Engineers (ITE) in the 10th Edition Trip Generation, 2017. This is often referred to as the Trip Generation Manual and is considered the industry standard for traffic engineering studies.

The trip generation of the proposed development was calculated using the ITE Land Use Code 221. The independent variable used in the calculation is the number of "number of units". This land use codes represent Mid-Rise Apartments.

The proposed site has the potential to generate a maximum of 15 peak hour trips (including entering and exiting trips). The proposed development has the potential to significantly decrease the number of vehicles generated by the subject site (if the site were to be re-occupied under existing conditions). The redevelopment will also decrease the potential amount of commercial truck traffic generated by the site. The trip generation calculations are provided in Table No. 3.

TRIP DISTRIBUTION

Trips generated by the development of the subject site are distributed throughout the roadway network and assigned to the study intersections. The percent distribution is applied to the trip generation to establish the number of trips assigned to specific turning movements at each of the study intersections. One hundred percent of the trip generation is distributed and assigned to the site access.

A portion of the total trip generation is distributed and assigned to each of the other study intersections. The volume of trips assigned to each intersection is based on the percentage of vehicles that are anticipated to use these intersections while traveling to and from the site. The distribution is based on the existing traffic patterns on the roadway network.

EXISTING TRAFFIC VOLUMES

Turning movement counts were collected on Thursday, June 28th and Saturday June 30th of 2018. The counts were collected during the morning, afternoon and evening peak hours at the study intersections. Turning movement counts were collected during the typical peak times of the proposed site and surrounding roadway network.

Our office has previously collected turning movement counts at the intersection Old Northern Boulevard and Lumber Road. Turning movement counts collected in 2013 and 2015 are provide for reference. The turning movement volumes are shown on Table No. 4 through 11, attached hereto.

Turning movement counts were collected using Miovision Scout Video Collection Units and/or Electronic Jamar Traffic Data Collectors. The results of these traffic counts were analyzed to determine the distinct hour during each of the time periods surveyed when traffic experiences its highest level referred to as the "peak hour." The peak hour volume is used in our analysis to model the critical demand during each time period.

ADJUSTED TRAFFIC VOLUME FLOW RATE

The Highway Capacity Analysis uses the adjusted flow rate based on the peak hour volume and the peak hour factor at each location. The peak hour volume is divided by the peak hour factor to produce the critical 15-minute demand projected over the entire one-hour period. The results of this analysis provide the level of service experienced during the busiest 15-minute period within the peak hour.

AMBIENT TRAFFIC GROWTH

The volume of traffic using the roadway network changes each year based on population growth and development. An ambient growth rate is used to determine the future base traffic volumes. The ambient growth rate takes into account developments that will increase the volume of traffic at the study intersections prior to the completion of this project.

The existing traffic volumes at the study intersections were increased by a growth rate factor of 1.00 % compounded yearly. This rate was applied based on conversations with the Nassau County Department of Public Works Traffic Engineering Department. The growth rate is applied to the existing volumes to generate the ambient no build traffic volumes.

For the purposes of this analysis, the future no build and build conditions are anticipated to occur within the next two years.

FUTURE NO BUILD AND BUILD TRAFFIC

Our office met with the Roslyn Building Department to discuss project (other than the proposed application) that are currently under construction and/or projects that are planned to be completed within the next two years.

The Building Department identified Phase II of the Roslyn Landing project and an additional 5 studio units currently under construction within the 17 Lumber Road site. Trip generation and distribution studies were conducted at the sole entrance to the completed Phase I of the Roslyn Landing project.

Traffic attributed to these projects has been added to the ambient traffic volumes to estimate the future no build traffic volumes. These are the anticipated roadway volumes if no changes are made to the subject site. The future build traffic volumes include the trip generation of the proposed development.

LEVEL OF SERVICE ANALYSIS:

The Level of Service Analysis prepared for the study intersections was conducted using Synchro. Syncro is a computer software program released by Trafficware, LLC. The software is based on the Highway Capacity Manual. The Highway Capacity Manual (HCM), developed by the Transportation Research Board (TRB), contains procedures for analyzing signalized and unsignalized intersections and is considered an appropriate analysis tool by most municipalities. Level of service ranges from A to F, based in part on the following criteria:

	Signalized Intersections Average Delay (seconds/veh)	Stop Controlled Intersections Average Delay (seconds/veh)
LOS A	≤ 10	≤ 10
LOS B	>10 – 20	>10 – 15
LOS C	>20 – 35	>15 – 25
LOS D	>35 – 55	>25 – 35
LOS E	>55 – 80	>35 – 50
LOS F	>80	>50

Municipalities and agencies on Long Island do not have standardized policies or definitions of significant impact. There is also no industry wide standard for the definition of a significant impact. It is generally accepted that deterioration in levels of service (LOS) within the clearly acceptable range (LOS A through LOS C) is not considered significant. Information to support these statements is provided in the City Environmental Quality Review Technical Manual, March 2014 edition. The City Environmental Quality Review Technical Manual provides the following information relating to the determination of significant impact:

Section 411. Signalized Intersections: Determination of significant impacts for signalized intersections is summarized as follows: If a lane group under the With-Action *(or "Build")* condition is within LOS A, B or C, or marginally acceptable LOS D (average control delay less than or equal to 45.0 seconds/veh), the impact is not considered significant.

Section 412. Unsignalized Intersections: For unsignalized intersections the same criteria as for signalized intersections would apply. For the minor street to trigger a significant impact, 90 PCEs must be identified in the future With-Action conditions in any peak hour. *(Please note, a marginally acceptable LOS D for an unsignalized intersection would have an average control delay less than or equal to 30.0 seconds/veh).*

TRAFFIC IMPACTS

The study intersection will operate at acceptable levels of service upon completion of this project. The highway capacity analysis of the study intersection shows that the development of this property will have no significant impact to the level of service on the surrounding roadway network.

MITIGATION MEASURES

The highway capacity analysis indicates that off-site mitigation measures are not warranted at this time.

The proposed site is anticipated to generate approximately 1 trip every 4 minutes during hours of peak activity. Nassau County traffic signals typically complete between 40 and 60 cycles per hour (cycle length 60 to 90 seconds). The nearest traffic signals are located at the intersection of Old Northern Boulevard at E. Broadway (to the east) and W. Shore Road/Main Street (to the west). The volume of traffic generated by the site at either traffic signal will be less than one vehicle every 3 cycles on average.

DEVELOPMENT INCENTIVE BONUSES

The Village Comprehensive Plan, July 1996, discusses vacant properties along the east side of Hempstead Harbor Creek describing them as "ripe for development". The properties what are now the Horizon at Roslyn (61 Bryant Avenue), Atria on Roslyn Harbor (100 Landing Road) and Roslyn Landing (1407 Old Northern Boulevard). These properties were formally industrial uses and are now residential.

A similar transition has recently occurred on the west side of Hempstead Harbor Creek. The former Lumber Yard located at 17 Lumber Road has been transformed into a residential property with retail stores on the ground floor. This project also included a promenade along the waterfront.

The applicant is seeking to convert the former Verizon Truck Depot into a residential development. As part of this project the applicant is reviewing potential improvements in order to receive development incentive bonuses, as outlined in the following sections of the Village Code:

§ 470-20 – WD-O Waterfront Development Overlay District
C. – Development Incentive Bonuses

(6) The Board of Trustees, following a public hearing, may provide incentive bonuses in accordance with the schedule below in exchange for the applicant providing one or more of the following facilities or amenities:

(a) Public pedestrian and/or vehicular access to the waterfront and to water-dependent uses.

(d) Pedestrian linkages between contiguous uses or between the waterfront and downtown.

(f) Road improvements, on-street parking, pathway pavers, street trees, sidewalk extensions in parking lanes to slow vehicular traffic, and other elements which make roads more pedestrian friendly.

(j) Provision of road and/or traffic signalization and control improvements upon those public streets which may be impacted by the project or development.

[1]CONCLUSIONS:

The Village's Comprehensive Plan was prepared over 20 years ago. In 2016, the Village prepared a Village Parking and Traffic Study. These studies outline traffic issues along Old Northern Boulevard which have not yet been resolved.

Our analysis indicates that the site provides ample parking to accommodate the anticipated peak demand. The volume of traffic generated by the proposed development is not anticipated to impact the level of service of the surrounding roadway network.

Although not warranted by the trip generation of the subject site; NCDPW ROW Plans Concept A and B are provided for the Village's review and consideration. As stated, any improvements at the intersection of Old Northern Boulevard and Lumber Road will require the review and approval of the Nassau County Department of Public Works.

In our professional opinion, the granting of this application will not have an adverse impact on the surrounding roadway network. If you have any questions or require additional information please feel free to contact our office.

Sincerely,
MULRYAN ENGINEERING, P.C.

Sean P. Mulryan

Sean P. Mulryan, P.E.
President

[1] It is a violation of New York State Education Law Section 7209.2 for any person, unless acting under the direction of a licensed professional engineer, to alter these documents in any way. If altered, the altering engineer shall affix to these documents his seal and the notation "altered by" followed by his signature and the date of such alteration, and a specific description of the alteration.

Accident Summary Sheet

Table No. 1

Location:	Old Northern Blvd at Lumber Rd	City:	Village of Roslyn
Period Covered:	04/2015 - 3/2018	County:	Nassau
Date:	07-2018		

	Time of Day			Weather	
	#	%		#	%
0600-1000	0	0	Clear	4	50
1000-1600	4	50	Cloudy	4	50
1600-1900	3	38	Rain/Snow	0	0
1900-2400	1	13	Sleet/Hall/Freezing Rain	0	0
2400-0600	0	0	Fog/Smog/Smoke	0	0
Uknown	0	0	Other/Unknown	0	0
Total	8	100.00%	Total	8	100.00%

	Light Condition			Time of Year	
	#	%		#	%
Daylight	7	88	Winter (Dec-Feb)	4	50
Dawn	0	0	Spring (Mar-May)	2	25
Dusk	0	0	Summer (Jun-Aug)	2	25
Dark Lighted	1	13	Fall (Sep-Nov)	0	0
Dark Unlighted	0	0	Total	8	100.00%
Unknown	0	0			
Total	8	100.00%			

	Accident Type			Roadway Characteristics	
	#	%		#	%
Overtaking	1	13	Straight & Level	6	75
Rear End	2	25	Straight & Grade	2	25
Right Angle	3	38	Straight & Hillcrest	0	0
Left Turn	1	13	Curve & Level	0	0
Sideswipe	0	0	Curve & Grade	0	0
Run Off Road	0	0	Curve & Hillcrest	0	0
Fixed Object	0	0	Unknown	0	0
Pedestrian	0	0	Total	8	100.00%
Bicycle	0	0			
Animal	0	0			
Right Turn	0	0			
Head On	0	0			
Other	1	13			
Total	8	100.00%			

	Accident Severity			Roadway Surface Condition	
	#	%		#	%
Fatal	0	0	Dry	8	100
Serious Injury	0	0	Wet	0	0
Other Injury	0	0	Muddy	0	0
Prop damage Only	8	100	Snow/Ice	0	0
Unknown	0	0	Slush	0	0
Total	8	100.00%	Unknown	0	0
			Total	8	100.00%

TE 213 (9/79)

DETAILS OF ACCIDENT HISTORY FOR LOCATION

Table No. 2

M18-019	OLD NORTHERN BOULEVARD AT INTERSECTION WITH LUMBER ROAD	NASSAU COUNTY VILLAGE OF ROSLYN 07-2018

NO. OF MONTHS	LIGHT CONDITIONS (LC)	ROADWAY CHARACTER (RC)	ROADWAY SURFACE CONDITION (RSC)	WEATHER (WEA)
Begin Date: 04-2015 End Date: 03-2018	1. Daylight 2. Dawn 3. Dusk 4. Dark Road Lighted 5. Dark Road Unlighted	1. Straight & Level 2. Straight & Grade 3. Straight at Hillcrest 4. Curve & Level 5. Curve & Grade 6. Curve at Hillcrest	1. Dry 2. Wet 3. Muddy 4. Snow/Ice 5. Slush 10. Other	1. Clear 2. Cloudy 3. Rain 4. Snow 5. Sleet/Hail/Freezing Rain 6. Fog/Smog/Smoke 10. Other

NO	CASE	DATE	TIME	# OF VEH	SEV	LC	RC	RSC	WEA	CONTRIB FACTORS	REF MKR	ACC TYPE	DESCRIPTION
1	36414449	10/7/2016	11:40	2	NR	1	1	1	1	07, YY		LEFT TURN (AGAINST OTHER CAR)	VEHICLE 1 AND VEHICLE 2 WERE IN A COLLISION. BOTH VEHICLES REMOVED FROM SCENE BY OPERATORS.
2	37160445	2/26/2018	16:01	2	PDO	1	1	1	2	03, YY		RIGHT ANGLE	VEHICLES 1 AND 2 WERE IN COLLISION. BOTH VEHICLES REMOVED BY OPERATORS.
3	36777817	6/23/2017	16:30	2	NR	1	1	1	1	07, YY		RIGHT ANGLE	DRIVER VEHILCLE 2 STATES WHILE TRAVELING STRAIGHT ON OLD NORTHERN BLVD SHE WAS IN A COLLISION WITH VEHICLE 1 WHO WAS ENTERING THE ROADWAY FROM THE PARKING LOT. BOTH VEHICLES REMOVED BY OPERATORS.
4	35909596	10/5/2015	15:45	2	NR	1	2	1	1	09, YY		REAR END	VEH. 1 AND VEH. 2 WERE IN A COLLISION. BOTH VEHICLES WERE REMOVED FROM SCENE BY OPERATORS. OP. VEH. 1 STATES HE WAS BEHIND VEH. 2 WHEN VEH. 2 STOPPED ABRUPTLY IN THE ROADWAY AND HE COULD NOT STOP IN TIME AND VEH. 1 STRUCK VEH. 2 OP. VEH. 2 STATES HE WAS STOPPED IN TRAFFIC DUE TO A VEHICLE IN FRONT OF VEH. 2 ATTEMPTING TO MAKE A LEFT TURN WHEN VEH. 1 STRUCK VEH. 2
5	36921407	10/6/2017	10:08	2	NR	1	1	1	2	09, YY		REAR END	VEHICLES 1 AND 2 WERE IN COLLISION. BOTH VEHICLES LEFT PARKED AT SCENE.
6	36157572	4/2/2016	20:20	3	PDO	4	2	1	2	13, 19, YY		OTHER	MV #1 WAS IN A COLLISION MV#2. MV#2 WAS THEN IN A COLLISION WITH MV#3. DRIVER OF MV#1 STATED HE MADE THE TURN GOING TOO FAST AND COLLIDED WITH MV#2. DRIVER OF MV#1 IS AN EMPLOYEE OF PARKING SYSTEMS(A VALET SERVICE), 28 4TH STREET VALLEY STREAM NY 11581, AND WAS ATTEMPTING TO PARK THE VEHICLE.
7	36628453	3/3/2017	17:33	2	PDO	1	1	1	2	04, 20, YY		OVERTAKING	VEHICLE 1 STRUCK VEHICLE 2. BOTH VEHICLES REMOVED BY OPERATORS. ROSLYN VILLAGE NOTIFIED OF DAMAGE. DRIVER 1 THOUGHT THAT SHE WAS IN REVERSE , VEHICLE WAS IN DRIVE AND STRUCK VEHICLE 2 , JUMPED THE CURB , STRUCK LIGHT POLE , CROSSED OVER A BUST STREET AND JUMPED ANOTHER CURB. DRIVER REVIEW IS STRONGLY RECOMMENDED.

TE 213 (9/79)

DETAILS OF ACCIDENT HISTORY FOR LOCATION

Table No. 2

M18-019	**OLD NORTHERN BOULEVARD** **AT INTERSECTION WITH LUMBER ROAD**	**NASSAU COUNTY** **VILLAGE OF ROSLYN** **07-2018**

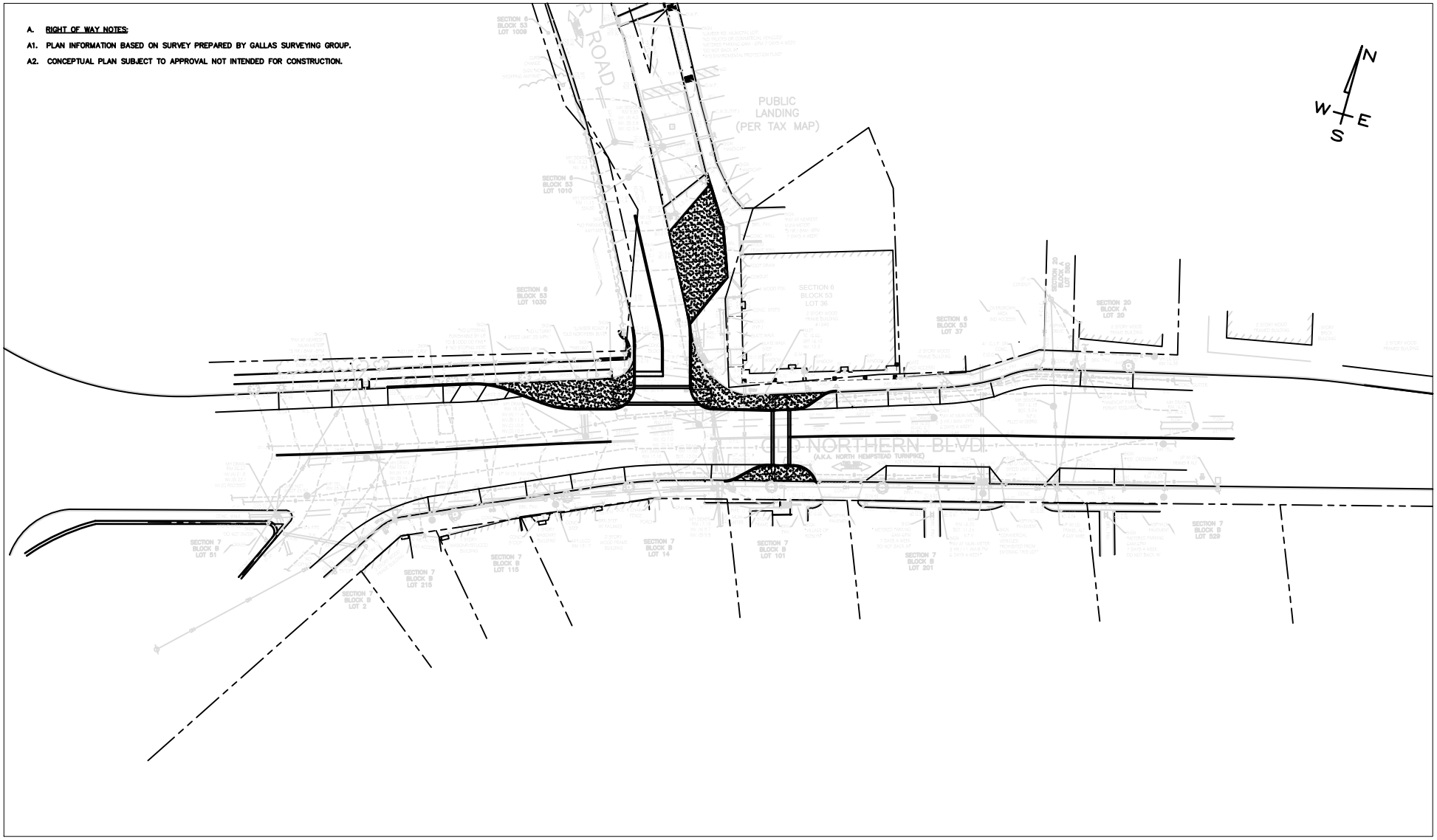
NO. OF MONTHS	LIGHT CONDITIONS (LC)	ROADWAY CHARACTER (RC)	ROADWAY SURFACE CONDITION (RSC)	WEATHER (WEA)
Begin Date: 04-2015 End Date: 03-2018	1. Daylight 2. Dawn 3. Dusk 4. Dark Road Lighted 5. Dark Road Unlighted	1. Straight & Level 2. Straight & Grade 3. Straight at Hillcrest 4. Curve & Level 5. Curve & Grade 6. Curve at Hillcrest	1. Dry 2. Wet 3. Muddy 4. Snow/Ice 5. Slush 10. Other	1. Clear 2. Cloudy 3. Rain 4. Snow 5. Sleet/Hail/Freezing Rain 6. Fog/Smog/Smoke 10. Other

NO	CASE	DATE	TIME	# OF VEH	SEV	LC	RC	RSC	WEA	CONTRIB FACTORS	REF MKR	ACC TYPE	DESCRIPTION
8	36259438	6/17/2016	14:00	2	PDO	1	1	1	1	07, 18, YY		RIGHT ANGLE	VEHICLES 1 AND 2 WERE IN COLLISION. BOTH VEHICLES REMOVED BY OPERATORS. DRIVER 1 WAS NOT AT SCENE BUT DID LEAVE ALL REQUIRED INFO.

A. RIGHT OF WAY NOTES:

A1. PLAN INFORMATION BASED ON SURVEY PREPARED BY GALLAS SURVEYING GROUP.

A2. CONCEPTUAL PLAN SUBJECT TO APPROVAL NOT INTENDED FOR CONSTRUCTION.



1.0" 0.5" 0 1.0" 2.0" 3.0"

GRAPHIC SCALE 1:20

NCDPW ROW PLANS
CONCEPT A
LUMBER ROAD AT OLD NORTHERN BOULEVARD
VILLAGE OF ROSLYN
NASSAU COUNTY, NEW YORK

No.	REVISION	DATE
1	MINOR REVISIONS	11-05-18

SUBJECT TO APPROVAL NOT FOR CONSTRUCTION

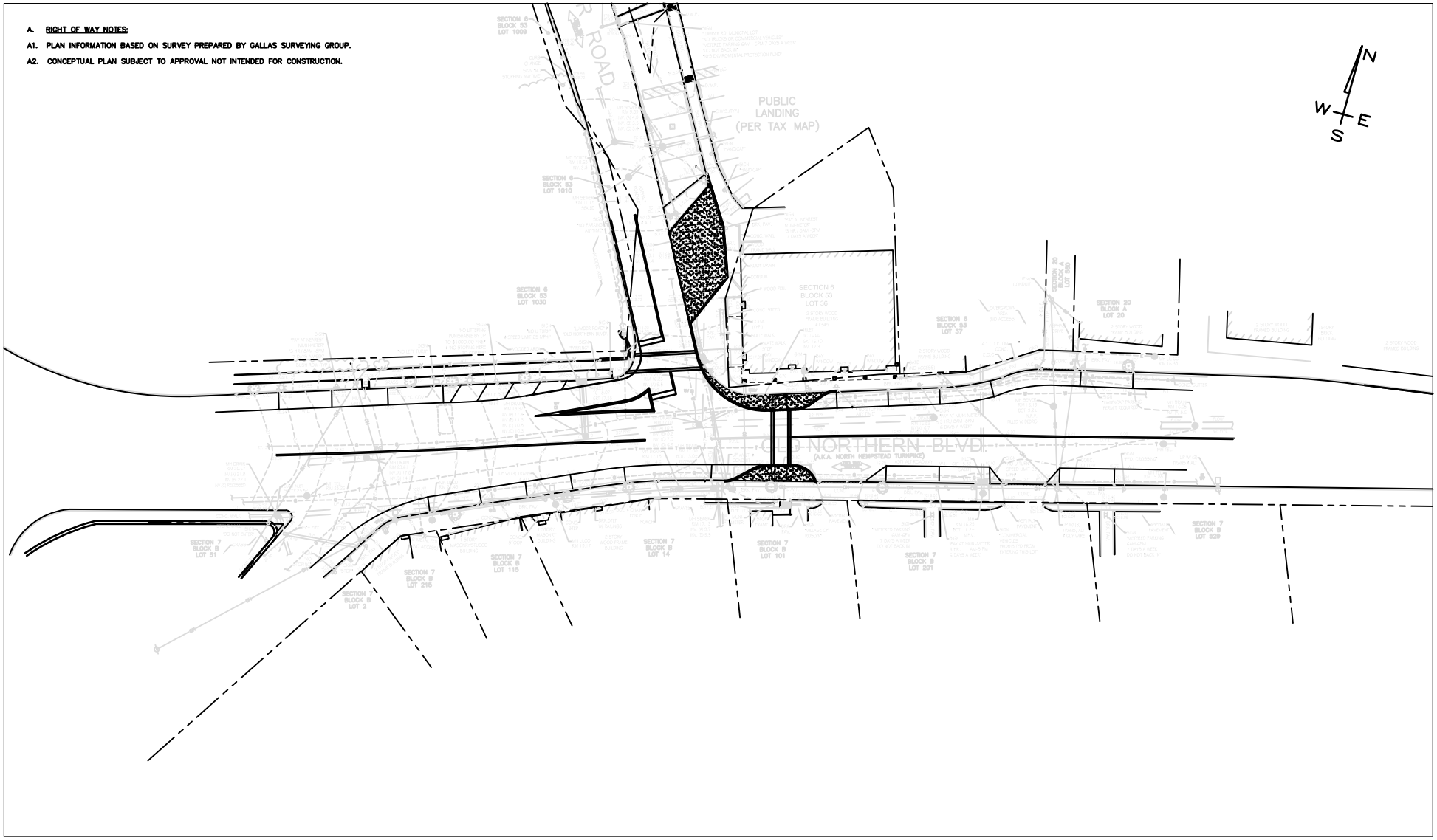
MULRYAN ENGINEERING, P.C.
1225 FRANKLIN AVENUE, SUITE 325 • GARDEN CITY, NEW YORK 11530
TEL: (516) 616-0083 • FAX: (516) 616-0086 • WWW.MULRYANENG.COM

PROJECT No. M18-019
DATE: 10-23-2018
SHEET No. NCDPW.001

A. RIGHT OF WAY NOTES:

A1. PLAN INFORMATION BASED ON SURVEY PREPARED BY GALLAS SURVEYING GROUP.

A2. CONCEPTUAL PLAN SUBJECT TO APPROVAL NOT INTENDED FOR CONSTRUCTION.



1.0" 0.5" 0 1.0" 2.0" 3.0"

GRAPHIC SCALE 1:20

NCDPW ROW PLANS
CONCEPT B
LUMBER ROAD AT OLD NORTHERN BOULEVARD
VILLAGE OF ROSLYN
NASSAU COUNTY, NEW YORK

No.	REVISION	DATE
1	MINOR REVISIONS	11-05-18

SUBJECT TO APPROVAL NOT FOR CONSTRUCTION

MULRYAN ENGINEERING, P.C.
1225 FRANKLIN AVENUE, SUITE 325 • GARDEN CITY, NEW YORK 11530
TEL: (516) 616-0083 • FAX: (516) 616-0086 • WWW.MULRYANENG.COM

PROJECT No. M18-019
DATE: 10-23-2018
SHEET No. NCDPW.002

Mulryan Engineering, P.C. **Table No. 3**

Hamlet: Village of Roslyn
Project No. M18-019

Trip Generation Calculations

Proposed Development

Land Use Code: 221
Land Use Description: Mid-Rise Apartments
Independent Variable: Number of Units
Variable: 33
Source: Institute of Transportation Engineers, Trip Generation, 10th Edition 2017

	Directional Distribution	Rate	Standard Deviation	Adjustment Factor	Driveway Volume
7-9 AM Peak Hour Enter	26%	0.09	0.00	1.00	3
7-9 AM Peak Hour Exit	74%	0.27	0.00	1.00	9
7-9 AM Peak Hour Total	100%	0.36	0.19	1.00	12
AM Peak Hour Enter	27%	0.09	0.00	1.00	3
AM Peak Hour Exit	73%	0.23	0.00	1.00	8
AM Peak Hour Total	100%	0.32	0.17	1.00	11
PM Peak Hour Enter	60%	0.25	0.00	1.00	8
PM Peak Hour Exit	40%	0.16	0.00	1.00	5
PM Peak Hour Total	100%	0.41	0.22	1.00	14
4-6 PM Peak Hour Enter	61%	0.27	0.00	1.00	9
4-6 PM Peak Hour Exit	39%	0.17	0.00	1.00	6
4-6 PM Peak Hour Total	100%	0.44	0.19	1.00	15
Saturday Peak Hour Enter	49%	0.22	0.00	1.00	7
Saturday Peak Hour Exit	51%	0.22	0.00	1.00	7
Saturday Peak Hour Total	100%	0.44	0.08	1.00	15

Mulryan Engineering, P.C. **Table No. 4**

Hamlet: Village of Roslyn
Project No. M18-019

Turning Movement Counts
Thursday, June 28, 2018

Lumber Road at Old Northern Boulevard		Southbound				Westbound				Northbound				Eastbound				Vehicle
		U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
AM Turning Movement Counts	7:00 AM	0	6	0	3	0	2	44	0	0	0	0	0	0	0	62	11	128
	7:15 AM	0	4	0	3	0	0	75	0	0	0	0	0	0	0	69	5	156
	7:30 AM	0	3	0	1	0	1	103	0	0	0	0	0	0	0	60	9	177
	7:45 AM	0	4	0	2	0	3	89	0	0	0	0	0	0	0	88	13	199
	8:00 AM	0	4	0	5	0	3	84	0	0	0	0	0	0	0	60	4	160
	8:15 AM	0	5	0	4	0	4	106	0	0	0	0	0	0	0	73	10	202
	8:30 AM	0	5	0	4	0	8	112	0	0	0	0	0	0	0	86	8	223
	8:45 AM	0	9	0	1	0	8	125	0	0	0	0	0	0	0	80	16	239
7:00 AM to	8:00 AM	0	17	0	9	0	6	311	0	0	0	0	0	0	0	279	38	660
7:15 AM to	8:15 AM	0	15	0	11	0	7	351	0	0	0	0	0	0	0	277	31	692
7:30 AM to	8:30 AM	0	16	0	12	0	11	382	0	0	0	0	0	0	0	281	36	738
7:45 AM to	8:45 AM	0	18	0	15	0	18	391	0	0	0	0	0	0	0	307	35	784
8:00 AM to	9:00 AM	0	23	0	14	0	23	427	0	0	0	0	0	0	0	299	38	824
Midday Turning Movement Counts	12:00 PM	0	19	0	8	0	6	86	0	0	0	0	0	0	0	147	18	284
	12:15 PM	0	20	0	10	0	10	85	0	0	0	0	0	0	0	154	20	299
	12:30 PM	0	26	0	6	0	6	92	0	0	0	0	0	0	0	165	26	321
	12:45 PM	0	15	0	12	0	3	112	0	0	0	0	0	0	0	164	18	324
	1:00 PM	0	18	0	13	0	13	116	0	0	0	0	0	0	0	138	12	310
	1:15 PM	0	16	0	7	0	8	109	0	0	0	0	0	0	0	127	12	279
	1:30 PM	0	13	0	12	0	6	87	0	0	0	0	0	0	0	110	10	238
	1:45 PM	0	16	0	7	0	6	95	0	0	0	0	0	0	0	147	10	281
12:00 PM to	1:00 PM	0	80	0	36	0	25	375	0	0	0	0	0	0	0	630	82	1228
12:15 PM to	1:15 PM	0	79	0	41	0	32	405	0	0	0	0	0	0	0	621	76	1254
12:30 PM to	1:30 PM	0	75	0	38	0	30	429	0	0	0	0	0	0	0	594	68	1234
12:45 PM to	1:45 PM	0	62	0	44	0	30	424	0	0	0	0	0	0	0	539	52	1151
1:00 PM to	2:00 PM	0	63	0	39	0	33	407	0	0	0	0	0	0	0	522	44	1108
PM Turning Movement Counts	3:00 PM	0	15	0	8	0	6	79	0	0	0	0	0	0	0	142	7	257
	3:15 PM	0	8	0	6	0	5	88	0	0	0	0	0	0	0	131	9	247
	3:30 PM	0	14	0	8	0	5	67	0	0	0	0	0	0	0	138	7	239
	3:45 PM	0	19	0	7	0	6	70	0	0	0	0	0	0	0	149	11	262
	4:00 PM	0	19	0	5	0	4	92	0	0	0	0	0	0	0	167	17	304
	4:15 PM	0	12	0	8	0	7	86	0	0	0	0	0	0	0	157	12	282
	4:30 PM	0	11	0	6	0	4	69	0	0	0	0	0	0	0	157	17	264
	4:45 PM	0	14	0	2	0	0	82	0	0	0	0	0	0	0	153	13	264
	5:00 PM	0	21	0	4	0	5	65	0	0	0	0	0	0	0	154	11	260
	5:15 PM	0	16	0	11	0	6	74	0	0	0	0	0	0	0	129	19	255
	5:30 PM	0	12	0	12	0	4	63	0	0	0	0	0	0	0	127	9	227
	5:45 PM	0	12	0	3	0	1	70	0	0	0	0	0	0	0	107	17	210
	6:00 PM	0	17	0	17	0	7	76	0	0	0	0	0	0	0	137	6	260
	6:15 PM	0	9	0	6	0	0	67	0	0	0	0	0	0	0	118	8	208
	6:30 PM	0	10	0	5	0	6	66	0	0	0	0	0	0	0	129	7	223
	6:45 PM	0	10	0	4	0	6	76	0	0	0	0	0	0	0	135	14	245
	7:00 PM	0	8	0	2	0	1	66	0	0	0	0	0	0	0	116	17	210
	7:15 PM	0	9	0	5	0	5	51	0	0	0	0	0	0	0	127	12	209
	7:30 PM	0	13	0	7	0	4	42	0	0	0	0	0	0	0	102	20	188
	7:45 PM	0	10	0	5	0	5	53	0	0	0	0	0	0	0	115	25	213
3:00 PM to	4:00 PM	0	56	0	29	0	22	304	0	0	0	0	0	0	0	560	34	1005
3:15 PM to	4:15 PM	0	60	0	26	0	20	317	0	0	0	0	0	0	0	585	44	1052
3:30 PM to	4:30 PM	0	64	0	28	0	22	315	0	0	0	0	0	0	0	611	47	1087
3:45 PM to	4:45 PM	0	61	0	26	0	21	317	0	0	0	0	0	0	0	630	57	1112
4:00 PM to	5:00 PM	0	56	0	21	0	15	329	0	0	0	0	0	0	0	634	59	1114
4:15 PM to	5:15 PM	0	58	0	20	0	16	302	0	0	0	0	0	0	0	621	53	1070
4:30 PM to	5:30 PM	0	62	0	23	0	15	290	0	0	0	0	0	0	0	593	60	1043
4:45 PM to	5:45 PM	0	63	0	29	0	15	284	0	0	0	0	0	0	0	563	52	1006
5:00 PM to	6:00 PM	0	61	0	30	0	16	272	0	0	0	0	0	0	0	517	56	952
5:15 PM to	6:15 PM	0	57	0	43	0	18	283	0	0	0	0	0	0	0	500	51	952
5:30 PM to	6:30 PM	0	50	0	38	0	12	276	0	0	0	0	0	0	0	489	40	905
5:45 PM to	6:45 PM	0	48	0	31	0	14	279	0	0	0	0	0	0	0	491	38	901
6:00 PM to	7:00 PM	0	46	0	32	0	19	285	0	0	0	0	0	0	0	519	35	936
6:15 PM to	7:15 PM	0	37	0	17	0	13	275	0	0	0	0	0	0	0	498	46	886
6:30 PM to	7:30 PM	0	37	0	16	0	18	259	0	0	0	0	0	0	0	507	50	887
6:45 PM to	7:45 PM	0	40	0	18	0	16	235	0	0	0	0	0	0	0	480	63	852
7:00 PM to	8:00 PM	0	40	0	19	0	15	212	0	0	0	0	0	0	0	460	74	820
Peak Hour	**PHF**	**Start Time**																
AM	0.862	8:00 AM	0	23	0	14	0	23	427	0	0	0	0	0	0	0	299	38	824
Midday	0.968	12:15 PM	0	79	0	41	0	32	405	0	0	0	0	0	0	0	621	76	1254
PM	0.916	4:00 PM	0	56	0	21	0	15	329	0	0	0	0	0	0	0	634	59	1114

Mulryan Engineering, P.C. **Table No. 5**

Hamlet: Village of Roslyn
Project No. M18-019

Turning Movement Counts
Saturday, June 30, 2018

Lumber Road at Old Northern Boulevard		Southbound				Westbound				Northbound				Eastbound				Vehicle
		U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
Sat Turning Movement Counts	12:00 PM	0	13	0	4	0	3	54	0	0	0	0	0	0	0	115	12	201
	12:15 PM	0	15	0	6	0	4	65	0	0	0	0	0	0	0	126	12	228
	12:30 PM	0	17	0	7	0	6	68	0	0	0	0	0	0	0	134	14	246
	12:45 PM	0	11	0	6	0	5	64	0	0	0	0	0	0	0	141	7	234
	1:00 PM	0	10	0	4	0	5	50	0	0	0	0	0	0	0	121	10	200
	1:15 PM	0	16	0	4	0	6	59	0	0	0	0	0	0	0	125	15	225
	1:30 PM	0	14	0	9	0	5	65	0	0	0	0	0	0	0	104	10	207
	1:45 PM	0	13	0	7	0	3	63	0	0	0	0	0	0	0	86	12	184
	2:00 PM	0	14	0	3	0	4	72	0	0	0	0	0	0	0	116	13	222
	2:15 PM	0	15	0	7	0	1	66	0	0	0	0	0	0	0	116	12	217
	2:30 PM	0	12	0	5	0	5	61	0	0	0	0	0	0	0	95	9	187
	2:45 PM	0	7	0	5	0	6	57	0	0	0	0	0	0	0	107	16	198
12:00 PM to	1:00 PM	0	56	0	23	0	18	251	0	0	0	0	0	0	0	516	45	909
12:15 PM to	1:15 PM	0	53	0	23	0	20	247	0	0	0	0	0	0	0	522	43	908
12:30 PM to	1:30 PM	0	54	0	21	0	22	241	0	0	0	0	0	0	0	521	46	905
12:45 PM to	1:45 PM	0	51	0	23	0	21	238	0	0	0	0	0	0	0	491	42	866
1:00 PM to	2:00 PM	0	53	0	24	0	19	237	0	0	0	0	0	0	0	436	47	816
1:15 PM to	2:15 PM	0	57	0	23	0	18	259	0	0	0	0	0	0	0	431	50	838
1:30 PM to	2:30 PM	0	56	0	26	0	13	266	0	0	0	0	0	0	0	422	47	830
1:45 PM to	2:45 PM	0	54	0	22	0	13	262	0	0	0	0	0	0	0	413	46	810
2:00 PM to	3:00 PM	0	48	0	20	0	16	256	0	0	0	0	0	0	0	434	50	824
Peak Hour	**PHF**	**Start Time**																
Sat	0.924	12:00 PM	0	56	0	23	0	18	251	0	0	0	0	0	0	0	516	45	909

Mulryan Engineering, P.C. **Table No. 6**

Hamlet: Village of Roslyn
Project No. M15-002

Turning Movement Counts
Wednesday, January 21, 2015 **Saturday, January 31, 2015**

Old Northern Boulevard at Lumber Road		Southbound				Westbound				Northbound				Eastbound				Vehicle
		U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
AM Turning Movement Counts	7:00 AM	0	4	0	2	0	6	55	0	0	0	0	0	0	0	59	13	139
	7:15 AM	0	5	0	2	0	1	80	0	0	0	0	0	0	0	85	6	179
	7:30 AM	0	5	0	2	0	2	103	0	0	0	0	0	0	0	100	10	222
	7:45 AM	0	2	0	3	0	5	111	0	0	0	0	0	0	0	110	10	241
	8:00 AM	0	4	0	2	0	2	101	0	0	0	0	0	0	0	101	15	225
	8:15 AM	0	4	0	1	0	3	137	0	0	0	0	0	0	0	107	12	264
	8:30 AM	0	9	0	3	0	4	129	0	0	0	0	0	0	0	110	9	264
	8:45 AM	0	2	0	6	0	4	125	0	0	0	0	0	0	0	113	13	263
7:00 AM to	8:00 AM	0	16	0	9	0	14	349	0	0	0	0	0	0	0	354	39	781
7:15 AM to	8:15 AM	0	16	0	9	0	10	395	0	0	0	0	0	0	0	396	41	867
7:30 AM to	8:30 AM	0	15	0	8	0	12	452	0	0	0	0	0	0	0	418	47	952
7:45 AM to	8:45 AM	0	19	0	9	0	14	478	0	0	0	0	0	0	0	428	46	994
8:00 AM to	9:00 AM	0	19	0	12	0	13	492	0	0	0	0	0	0	0	431	49	1016
Midday Turning Movement Counts	12:00 PM	0	15	0	8	0	9	88	0	0	0	0	0	0	0	149	13	282
	12:15 PM	0	8	0	5	0	4	77	0	0	0	0	0	0	0	115	15	224
	12:30 PM	0	9	0	6	0	4	86	0	0	0	0	0	0	0	138	11	254
	12:45 PM	0	17	0	8	0	10	106	0	0	0	0	0	0	0	152	14	307
	1:00 PM	0	19	0	10	0	5	79	0	0	0	0	0	0	0	165	12	290
	1:15 PM	0	14	0	7	0	8	75	0	0	0	0	0	0	0	120	8	232
	1:30 PM	0	11	0	8	0	3	104	0	0	0	0	0	0	0	118	9	253
	1:45 PM	0	14	0	3	0	8	108	0	0	0	0	0	0	0	139	12	284
12:00 PM to	1:00 PM	0	49	0	27	0	27	357	0	0	0	0	0	0	0	554	53	1067
12:15 PM to	1:15 PM	0	53	0	29	0	23	348	0	0	0	0	0	0	0	570	52	1075
12:30 PM to	1:30 PM	0	59	0	31	0	27	346	0	0	0	0	0	0	0	575	45	1083
12:45 PM to	1:45 PM	0	61	0	33	0	26	364	0	0	0	0	0	0	0	555	43	1082
1:00 PM to	2:00 PM	0	58	0	28	0	24	366	0	0	0	0	0	0	0	542	41	1059
PM Turning Movement Counts	4:00 PM	0	10	0	4	0	7	64	0	0	0	0	0	0	0	148	11	244
	4:15 PM	0	4	0	9	0	7	69	0	0	0	0	0	0	0	142	19	250
	4:30 PM	0	20	0	13	0	3	60	0	0	0	0	0	0	0	162	13	271
	4:45 PM	0	10	0	3	0	3	63	0	0	0	0	0	0	0	166	11	256
	5:00 PM	0	23	0	10	0	5	59	0	0	0	0	0	0	0	177	7	281
	5:15 PM	0	11	0	11	0	3	59	0	0	0	0	0	0	0	142	10	236
	5:30 PM	0	16	0	14	0	2	50	0	0	0	0	0	0	0	162	3	247
	5:45 PM	0	10	0	7	0	5	67	0	0	0	0	0	0	0	135	9	233
4:00 PM to	5:00 PM	0	44	0	29	0	20	256	0	0	0	0	0	0	0	618	54	1021
4:15 PM to	5:15 PM	0	57	0	35	0	18	251	0	0	0	0	0	0	0	647	50	1058
4:30 PM to	5:30 PM	0	64	0	37	0	14	241	0	0	0	0	0	0	0	647	41	1044
4:45 PM to	5:45 PM	0	60	0	38	0	13	231	0	0	0	0	0	0	0	647	31	1020
5:00 PM to	6:00 PM	0	60	0	42	0	15	235	0	0	0	0	0	0	0	616	29	997
Saturday Turning Movement Counts	12:00 PM	0	12	0	7	0	4	73	0	0	0	0	0	0	0	119	12	227
	12:15 PM	0	10	0	8	0	5	68	0	0	0	0	0	0	0	128	10	229
	12:30 PM	0	12	0	4	0	4	80	0	0	0	0	0	0	0	112	6	218
	12:45 PM	0	21	0	4	0	14	70	0	0	0	0	0	0	0	160	21	290
	1:00 PM	0	16	0	8	0	5	67	0	0	0	0	0	0	0	135	18	249
	1:15 PM	0	11	0	5	0	7	57	0	0	0	0	0	0	0	128	9	217
	1:30 PM	0	13	0	6	0	5	81	0	0	0	0	0	0	0	138	9	252
	1:45 PM	0	9	0	4	0	10	71	0	0	0	0	0	0	0	112	18	224
12:00 PM to	1:00 PM	0	55	0	23	0	27	291	0	0	0	0	0	0	0	519	49	964
12:15 PM to	1:15 PM	0	59	0	24	0	28	285	0	0	0	0	0	0	0	535	55	986
12:30 PM to	1:30 PM	0	60	0	21	0	30	274	0	0	0	0	0	0	0	535	54	974
12:45 PM to	1:45 PM	0	61	0	23	0	31	275	0	0	0	0	0	0	0	561	57	1008
1:00 PM to	2:00 PM	0	49	0	23	0	27	276	0	0	0	0	0	0	0	513	54	942
Peak Hour	**PHF**	**Start Time**																
AM	0.962	8:00 AM	0	19	0	12	0	13	492	0	0	0	0	0	0	0	431	49	1016
Midday	0.882	12:30 PM	0	59	0	31	0	27	346	0	0	0	0	0	0	0	575	45	1083
PM	0.941	4:15 PM	0	57	0	35	0	18	251	0	0	0	0	0	0	0	647	50	1058
Saturday	0.869	12:45 PM	0	61	0	23	0	31	275	0	0	0	0	0	0	0	561	57	1008

Mulryan Engineering, P.C. **Table No. 7**

Hamlet: Village of Roslyn
Project No. M18-019

Turning Movement Counts
Wednesday, July 24, 2013 **Saturday, July 20, 2013**

Lumber Road and Old Northern Boulevard			Southbound				Westbound				Northbound				Eastbound				Vehicle
			U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
AM Turning Movement Counts		7:00 AM	0	4	0	0	0	4	48	0	0	0	0	0	0	0	66	6	128
		7:15 AM	0	3	0	1	0	4	75	0	0	0	0	0	0	0	81	8	172
		7:30 AM	0	5	0	1	0	2	107	0	0	0	0	0	0	0	101	14	230
		7:45 AM	0	6	0	3	0	6	126	0	0	0	0	0	0	0	111	23	275
		8:00 AM	0	9	0	4	0	3	94	0	0	0	0	0	0	0	100	14	224
		8:15 AM	0	15	0	4	0	10	120	0	0	0	0	0	0	0	115	26	290
		8:30 AM	0	13	0	3	0	4	109	0	0	0	0	0	0	0	111	11	251
		8:45 AM	0	8	0	10	0	8	97	0	0	0	0	0	0	0	134	20	277
7:00 AM	to	8:00 AM	0	18	0	5	0	16	356	0	0	0	0	0	0	0	359	51	805
7:15 AM	to	8:15 AM	0	23	0	9	0	15	402	0	0	0	0	0	0	0	393	59	901
7:30 AM	to	8:30 AM	0	35	0	12	0	21	447	0	0	0	0	0	0	0	427	77	1019
7:45 AM	to	8:45 AM	0	43	0	14	0	23	449	0	0	0	0	0	0	0	437	74	1040
8:00 AM	to	9:00 AM	0	45	0	21	0	25	420	0	0	0	0	0	0	0	460	71	1042
Midday Turning Movement Counts		12:00 PM	0	15	0	7	0	10	92	0	0	0	0	0	0	0	168	20	312
		12:15 PM	0	11	0	10	0	11	98	0	0	0	0	0	0	0	150	21	301
		12:30 PM	0	37	0	10	0	8	80	0	0	0	0	0	0	0	169	26	330
		12:45 PM	0	12	0	13	0	15	89	0	0	0	0	0	0	0	172	12	313
		1:00 PM	0	22	0	9	0	11	90	0	0	0	0	0	0	0	187	12	331
		1:15 PM	0	20	0	8	0	5	109	0	0	0	0	0	0	0	150	16	308
		1:30 PM	0	11	0	4	0	13	104	0	0	0	0	0	0	0	152	23	307
		1:45 PM	0	20	0	9	0	5	110	0	0	0	0	0	0	0	149	16	309
12:00 PM	to	1:00 PM	0	75	0	40	0	44	359	0	0	0	0	0	0	0	659	79	1256
12:15 PM	to	1:15 PM	0	82	0	42	0	45	357	0	0	0	0	0	0	0	678	71	1275
12:30 PM	to	1:30 PM	0	91	0	40	0	39	368	0	0	0	0	0	0	0	678	66	1282
12:45 PM	to	1:45 PM	0	65	0	34	0	44	392	0	0	0	0	0	0	0	661	63	1259
1:00 PM	to	2:00 PM	0	73	0	30	0	34	413	0	0	0	0	0	0	0	638	67	1255
PM Turning Movement Counts		4:00 PM	0	15	0	5	0	7	98	0	0	0	0	0	0	0	155	9	289
		4:15 PM	0	10	0	4	0	7	84	0	0	0	0	0	0	0	158	16	279
		4:30 PM	0	11	0	6	0	1	84	0	0	0	0	0	0	0	165	8	275
		4:45 PM	0	5	0	0	0	3	53	0	0	0	0	0	0	0	105	6	172
		5:00 PM	0	16	0	10	0	6	82	0	0	0	0	0	0	0	181	12	307
		5:15 PM	0	8	0	4	0	3	65	0	0	0	0	0	0	0	112	10	202
		5:30 PM	0	11	0	3	0	5	74	0	0	0	0	0	0	0	159	8	260
		5:45 PM	0	15	0	4	0	5	71	0	0	0	0	0	0	0	152	13	260
4:00 PM	to	5:00 PM	0	41	0	15	0	18	319	0	0	0	0	0	0	0	583	39	1015
4:15 PM	to	5:15 PM	0	42	0	20	0	17	303	0	0	0	0	0	0	0	609	42	1033
4:30 PM	to	5:30 PM	0	40	0	20	0	13	284	0	0	0	0	0	0	0	563	36	956
4:45 PM	to	5:45 PM	0	40	0	17	0	17	274	0	0	0	0	0	0	0	557	36	941
5:00 PM	to	6:00 PM	0	50	0	21	0	19	292	0	0	0	0	0	0	0	604	43	1029
Saturday Turning Movement Counts		12:00 PM	0	18	0	9	0	7	68	0	0	1	0	0	0	2	132	4	241
		12:15 PM	0	16	0	7	0	5	62	0	0	0	0	0	0	1	141	16	248
		12:30 PM	0	14	0	6	0	5	84	0	0	0	0	0	0	0	113	10	232
		12:45 PM	0	7	0	3	0	5	55	0	0	0	0	0	0	0	128	10	208
		1:00 PM	0	9	0	6	0	1	67	0	0	0	0	0	0	0	131	7	221
		1:15 PM	0	5	0	4	0	1	62	0	0	0	0	0	0	1	124	9	206
		1:30 PM	0	13	0	7	0	6	67	0	0	0	0	0	0	0	147	11	251
		1:45 PM	0	12	0	4	0	5	60	0	0	0	0	0	0	1	102	15	199
12:00 PM	to	1:00 PM	0	55	0	25	0	22	269	0	0	1	0	0	0	3	514	40	929
12:15 PM	to	1:15 PM	0	46	0	22	0	16	268	0	0	0	0	0	0	1	513	43	909
12:30 PM	to	1:30 PM	0	35	0	19	0	12	268	0	0	0	0	0	0	1	496	36	867
12:45 PM	to	1:45 PM	0	34	0	20	0	13	251	0	0	0	0	0	0	1	530	37	886
1:00 PM	to	2:00 PM	0	39	0	21	0	13	256	0	0	0	0	0	0	2	504	42	877
Peak Hour	**PHF**	**Start Time**																	
AM	0.898	8:00 AM	0	45	0	21	0	25	420	0	0	0	0	0	0	0	460	71	1042
Midday	0.968	12:30 PM	0	91	0	40	0	39	368	0	0	0	0	0	0	0	678	66	1282
PM	0.841	4:15 PM	0	42	0	20	0	17	303	0	0	0	0	0	0	0	609	42	1033
Saturday	0.936	12:00 PM	0	55	0	25	0	22	269	0	0	1	0	0	0	3	514	40	929

Mulryan Engineering, P.C. **Table No. 8**

Hamlet: Village of Roslyn
Project No. M18-019

Turning Movement Counts
Thursday, June 28, 2018

Mill Creek South at Old Northern Boulevard			Southbound				Westbound				Northbound				Eastbound				Vehicle
			U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
AM Turning Movement Counts		7:00 AM	0	0	0	0	0	0	44	0	0	0	0	0	0	0	55	1	100
		7:15 AM	0	1	0	0	0	0	72	0	0	0	0	0	0	0	69	0	142
		7:30 AM	0	0	0	0	0	0	98	0	0	0	0	0	0	0	63	0	161
		7:45 AM	0	0	0	0	0	0	91	0	0	0	0	0	0	0	85	2	178
		8:00 AM	0	0	0	0	0	0	84	0	0	0	0	0	0	0	57	1	142
		8:15 AM	0	1	0	2	0	3	110	0	0	0	0	0	0	0	76	2	194
		8:30 AM	0	2	0	0	0	1	119	0	0	0	0	0	0	0	91	2	215
		8:45 AM	0	1	0	1	0	0	127	0	0	0	0	0	0	0	80	1	210
7:00 AM	to	8:00 AM	0	1	0	0	0	0	305	0	0	0	0	0	0	0	272	3	581
7:15 AM	to	8:15 AM	0	1	0	0	0	0	345	0	0	0	0	0	0	0	274	3	623
7:30 AM	to	8:30 AM	0	1	0	2	0	3	383	0	0	0	0	0	0	0	281	5	675
7:45 AM	to	8:45 AM	0	3	0	2	0	4	404	0	0	0	0	0	0	0	309	7	729
8:00 AM	to	9:00 AM	0	4	0	3	0	4	440	0	0	0	0	0	0	0	304	6	761
Midday Turning Movement Counts		12:00 PM	0	7	0	3	0	3	85	0	0	0	0	0	0	0	130	6	234
		12:15 PM	0	5	0	2	0	2	78	0	0	0	0	0	0	0	151	1	239
		12:30 PM	0	4	0	3	0	0	93	0	0	0	0	0	0	0	152	5	257
		12:45 PM	0	5	0	1	0	0	110	0	0	0	0	0	0	0	158	1	275
		1:00 PM	0	3	0	0	0	0	122	0	0	0	0	0	0	0	145	4	274
		1:15 PM	0	3	0	3	0	2	105	0	0	0	0	0	0	0	138	0	251
		1:30 PM	0	0	0	1	0	1	91	0	0	0	0	0	0	0	123	1	217
		1:45 PM	0	5	0	1	0	2	93	0	0	0	0	0	0	0	146	4	251
12:00 PM	to	1:00 PM	0	21	0	9	0	5	366	0	0	0	0	0	0	0	591	13	1005
12:15 PM	to	1:15 PM	0	17	0	6	0	2	403	0	0	0	0	0	0	0	606	11	1045
12:30 PM	to	1:30 PM	0	15	0	7	0	2	430	0	0	0	0	0	0	0	593	10	1057
12:45 PM	to	1:45 PM	0	11	0	5	0	3	428	0	0	0	0	0	0	0	564	6	1017
1:00 PM	to	2:00 PM	0	11	0	5	0	5	411	0	0	0	0	0	0	0	552	9	993
PM Turning Movement Counts		3:00 PM	0	1	0	1	0	0	80	0	0	0	0	0	0	0	150	4	236
		3:15 PM	0	2	0	3	0	4	86	0	0	0	0	0	0	0	127	5	227
		3:30 PM	0	2	0	2	0	3	70	0	0	0	0	0	0	0	142	2	221
		3:45 PM	0	1	0	4	0	1	77	0	0	0	0	0	0	0	153	6	242
		4:00 PM	0	5	0	4	0	2	85	0	0	0	0	0	0	0	161	0	257
		4:15 PM	0	0	0	3	0	1	94	0	0	0	0	0	0	0	179	0	277
		4:30 PM	0	2	0	1	0	0	67	0	0	0	0	0	0	0	157	3	230
		4:45 PM	0	1	0	0	0	0	84	0	0	0	0	0	0	0	161	2	248
		5:00 PM	0	1	0	2	0	3	65	0	0	0	0	0	0	0	148	1	220
		5:15 PM	0	0	0	1	0	1	78	0	0	0	0	0	0	0	143	2	225
		5:30 PM	0	4	0	1	0	1	62	0	0	0	0	0	0	0	136	1	205
		5:45 PM	0	1	0	1	0	2	68	0	0	0	0	0	0	0	110	0	182
		6:00 PM	0	2	0	4	0	0	78	0	0	0	0	0	0	0	153	2	239
		6:15 PM	0	0	0	1	0	0	67	0	0	0	0	0	0	0	126	0	194
		6:30 PM	0	2	0	1	0	0	68	0	0	0	0	0	0	0	133	0	204
		6:45 PM	0	1	0	0	0	1	79	0	0	0	0	0	0	0	133	1	215
		7:00 PM	0	1	0	0	0	0	60	0	0	0	0	0	0	0	112	0	173
		7:15 PM	0	1	0	0	0	1	65	0	0	0	0	0	0	0	131	1	199
		7:30 PM	0	0	0	3	0	1	52	0	0	0	0	0	0	0	98	1	155
		7:45 PM	0	1	0	0	0	1	56	0	0	0	0	0	0	0	109	3	170
3:00 PM	to	4:00 PM	0	6	0	10	0	8	313	0	0	0	0	0	0	0	572	17	926
3:15 PM	to	4:15 PM	0	10	0	13	0	10	318	0	0	0	0	0	0	0	583	13	947
3:30 PM	to	4:30 PM	0	8	0	13	0	7	326	0	0	0	0	0	0	0	635	8	997
3:45 PM	to	4:45 PM	0	8	0	12	0	4	323	0	0	0	0	0	0	0	650	9	1006
4:00 PM	to	5:00 PM	0	8	0	8	0	3	330	0	0	0	0	0	0	0	658	5	1012
4:15 PM	to	5:15 PM	0	4	0	6	0	4	310	0	0	0	0	0	0	0	645	6	975
4:30 PM	to	5:30 PM	0	4	0	4	0	4	294	0	0	0	0	0	0	0	609	8	923
4:45 PM	to	5:45 PM	0	6	0	4	0	5	289	0	0	0	0	0	0	0	588	6	898
5:00 PM	to	6:00 PM	0	6	0	5	0	7	273	0	0	0	0	0	0	0	537	4	832
5:15 PM	to	6:15 PM	0	7	0	7	0	4	286	0	0	0	0	0	0	0	542	5	851
5:30 PM	to	6:30 PM	0	7	0	7	0	3	275	0	0	0	0	0	0	0	525	3	820
5:45 PM	to	6:45 PM	0	5	0	7	0	2	281	0	0	0	0	0	0	0	522	2	819
6:00 PM	to	7:00 PM	0	5	0	6	0	1	292	0	0	0	0	0	0	0	545	3	852
6:15 PM	to	7:15 PM	0	4	0	2	0	1	274	0	0	0	0	0	0	0	504	1	786
6:30 PM	to	7:30 PM	0	5	0	1	0	2	272	0	0	0	0	0	0	0	509	2	791
6:45 PM	to	7:45 PM	0	3	0	3	0	3	256	0	0	0	0	0	0	0	474	3	742
7:00 PM	to	8:00 PM	0	3	0	3	0	3	233	0	0	0	0	0	0	0	450	5	697
Peak Hour	**PHF**	**Start Time**																	
AM	0.885	8:00 AM	0	4	0	3	0	4	440	0	0	0	0	0	0	0	304	6	761
Midday	0.961	12:30 PM	0	15	0	7	0	2	430	0	0	0	0	0	0	0	593	10	1057
PM	0.913	4:00 PM	0	8	0	8	0	3	330	0	0	0	0	0	0	0	658	5	1012

Mulryan Engineering, P.C. **Table No. 9**

Hamlet: Village of Roslyn
Project No. M18-019

Turning Movement Counts
Saturday, June 30, 2018

Mill Creek South at Old Northern Boulevard			Southbound				Westbound				Northbound				Eastbound				Vehicle
			U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
Sat Turning Movement Counts		12:00 PM	0	5	0	5	0	1	54	0	0	0	0	0	0	0	115	2	182
		12:15 PM	0	1	0	2	0	4	70	0	0	0	0	0	0	0	135	1	213
		12:30 PM	0	1	0	2	0	0	72	0	0	0	0	0	0	0	137	1	213
		12:45 PM	0	2	0	3	0	3	58	0	0	0	0	0	0	0	144	1	211
		1:00 PM	0	0	0	2	0	0	54	0	0	0	0	0	0	0	119	1	176
		1:15 PM	0	4	0	1	0	0	59	0	0	0	0	0	0	0	119	4	187
		1:30 PM	0	1	0	2	0	1	63	0	0	0	0	0	0	0	104	2	173
		1:45 PM	0	1	0	1	0	2	65	0	0	0	0	0	0	0	85	0	154
		2:00 PM	0	5	0	2	0	0	70	0	0	0	0	0	0	0	118	1	196
		2:15 PM	0	1	0	0	0	1	66	0	0	0	0	0	0	0	121	1	190
		2:30 PM	0	3	0	1	0	2	60	0	0	0	0	0	0	0	99	3	168
		2:45 PM	0	1	0	1	0	1	61	0	0	0	0	0	0	0	99	0	163
12:00 PM	to	1:00 PM	0	9	0	12	0	8	254	0	0	0	0	0	0	0	531	5	819
12:15 PM	to	1:15 PM	0	4	0	9	0	7	254	0	0	0	0	0	0	0	535	4	813
12:30 PM	to	1:30 PM	0	7	0	8	0	3	243	0	0	0	0	0	0	0	519	7	787
12:45 PM	to	1:45 PM	0	7	0	8	0	4	234	0	0	0	0	0	0	0	486	8	747
1:00 PM	to	2:00 PM	0	6	0	6	0	3	241	0	0	0	0	0	0	0	427	7	690
1:15 PM	to	2:15 PM	0	11	0	6	0	3	257	0	0	0	0	0	0	0	426	7	710
1:30 PM	to	2:30 PM	0	8	0	5	0	4	264	0	0	0	0	0	0	0	428	4	713
1:45 PM	to	2:45 PM	0	10	0	4	0	5	261	0	0	0	0	0	0	0	423	5	708
2:00 PM	to	3:00 PM	0	10	0	4	0	4	257	0	0	0	0	0	0	0	437	5	717
Peak Hour	**PHF**	**Start Time**																	
Sat	0.961	12:00 PM	0	9	0	12	0	8	254	0	0	0	0	0	0	0	531	5	819

Mulryan Engineering, P.C. **Table No. 10**

Hamlet: Village of Roslyn
Project No. M18-019

Turning Movement Counts
Thursday, June 28, 2018

ROW entrance under Viaduct at East Shore Road			Southbound				Westbound				Northbound				Eastbound				Vehicle
			U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
AM Turning Movement Counts		7:00 AM	0	0	83	0	0	0	0	0	0	2	191	0	0	0	0	0	276
		7:15 AM	0	0	120	0	0	0	0	0	0	0	277	0	0	0	0	0	397
		7:30 AM	0	0	133	0	0	1	0	4	0	0	324	0	0	0	0	0	462
		7:45 AM	0	0	127	0	0	0	0	2	0	0	392	0	0	0	0	0	521
		8:00 AM	0	1	157	0	0	0	0	0	0	0	409	0	0	2	0	0	569
		8:15 AM	0	0	162	0	0	0	0	1	0	2	424	0	0	0	0	0	589
		8:30 AM	0	0	186	0	0	0	0	0	0	2	461	0	0	0	0	0	649
		8:45 AM	0	0	191	0	0	0	0	0	0	2	554	0	0	0	0	0	747
7:00 AM	to	8:00 AM	0	0	463	0	0	1	0	6	0	2	1184	0	0	0	0	0	1656
7:15 AM	to	8:15 AM	0	1	537	0	0	1	0	6	0	0	1402	0	0	2	0	0	1949
7:30 AM	to	8:30 AM	0	1	579	0	0	1	0	7	0	2	1549	0	0	2	0	0	2141
7:45 AM	to	8:45 AM	0	1	632	0	0	0	0	3	0	4	1686	0	0	2	0	0	2328
8:00 AM	to	9:00 AM	0	1	696	0	0	0	0	1	0	6	1848	0	0	2	0	0	2554
Midday Turning Movement Counts		12:00 PM	0	0	314	0	0	0	0	1	0	0	181	0	0	0	0	0	496
		12:15 PM	0	0	225	0	0	0	0	0	0	1	190	0	0	0	0	0	416
		12:30 PM	0	0	262	0	0	0	0	0	0	2	191	0	0	0	0	0	455
		12:45 PM	0	0	209	0	0	0	0	3	0	2	241	1	0	0	0	0	456
		1:00 PM	0	0	217	0	0	1	0	1	0	0	230	0	0	0	0	0	449
		1:15 PM	0	0	209	0	0	0	0	0	0	0	219	0	0	0	0	0	428
		1:30 PM	0	0	184	0	0	0	0	0	0	0	181	0	0	0	0	0	365
		1:45 PM	0	0	191	0	0	0	0	2	0	0	212	0	0	0	0	0	405
12:00 PM	to	1:00 PM	0	0	1010	0	0	0	0	7	0	5	803	1	0	0	0	0	1826
12:15 PM	to	1:15 PM	0	0	913	0	0	1	0	4	0	5	852	1	0	0	0	0	1776
12:30 PM	to	1:30 PM	0	0	897	0	0	1	0	4	0	4	881	1	0	0	0	0	1788
12:45 PM	to	1:45 PM	0	0	819	0	0	1	0	4	0	2	871	1	0	0	0	0	1698
1:00 PM	to	2:00 PM	0	0	801	0	0	1	0	3	0	0	842	0	0	0	0	0	1647
PM Turning Movement Counts		3:00 PM	0	0	274	0	0	0	0	1	0	0	160	0	0	1	0	0	436
		3:15 PM	0	0	218	0	0	0	0	0	0	1	166	0	0	0	0	0	385
		3:30 PM	0	0	317	0	0	1	0	11	0	0	145	0	0	0	0	0	474
		3:45 PM	0	0	254	0	0	0	0	1	0	0	174	0	0	0	0	0	429
		4:00 PM	0	0	359	0	0	0	0	0	0	0	171	0	0	0	0	0	530
		4:15 PM	0	0	298	0	0	0	0	0	0	0	193	0	0	0	0	0	491
		4:30 PM	0	0	385	0	0	0	0	0	0	0	164	1	0	0	0	0	550
		4:45 PM	0	0	369	0	0	0	0	0	0	0	152	0	0	0	0	0	521
		5:00 PM	0	0	586	0	0	0	0	0	0	0	167	0	0	0	0	0	753
		5:15 PM	0	0	379	0	0	0	0	0	0	0	177	0	0	0	0	0	556
		5:30 PM	0	0	388	0	0	0	0	0	0	0	164	1	0	0	0	0	553
		5:45 PM	0	0	324	0	0	0	0	0	0	0	167	0	0	0	0	0	491
		6:00 PM	0	0	494	0	0	0	0	0	0	0	178	0	0	0	0	0	672
		6:15 PM	0	0	289	0	0	0	0	0	0	0	141	0	0	0	0	0	430
		6:30 PM	0	0	200	0	0	0	0	0	0	0	146	0	0	0	0	0	346
		6:45 PM	0	0	210	0	0	0	0	0	0	0	151	0	0	0	0	0	361
		7:00 PM	0	0	199	0	0	0	0	0	0	0	126	0	0	0	0	0	325
		7:15 PM	0	0	154	0	0	0	0	0	0	0	108	0	0	0	0	0	262
		7:30 PM	0	0	135	0	0	0	0	0	0	0	89	0	0	1	0	0	225
		7:45 PM	0	0	124	0	0	0	0	0	0	0	107	0	0	0	0	0	231
3:00 PM	to	4:00 PM	0	0	1063	0	0	1	0	13	0	1	645	0	0	1	0	0	1724
3:15 PM	to	4:15 PM	0	0	1148	0	0	1	0	12	0	1	656	0	0	0	0	0	1818
3:30 PM	to	4:30 PM	0	0	1228	0	0	1	0	12	0	0	683	0	0	0	0	0	1924
3:45 PM	to	4:45 PM	0	0	1296	0	0	0	0	1	0	0	702	1	0	0	0	0	2000
4:00 PM	to	5:00 PM	0	0	1411	0	0	0	0	0	0	0	680	1	0	0	0	0	2092
4:15 PM	to	5:15 PM	0	0	1638	0	0	0	0	0	0	0	676	1	0	0	0	0	2315
4:30 PM	to	5:30 PM	0	0	1719	0	0	0	0	0	0	0	660	1	0	0	0	0	2380
4:45 PM	to	5:45 PM	0	0	1722	0	0	0	0	0	0	0	660	1	0	0	0	0	2383
5:00 PM	to	6:00 PM	0	0	1677	0	0	0	0	0	0	0	675	1	0	0	0	0	2353
5:15 PM	to	6:15 PM	0	0	1585	0	0	0	0	0	0	0	686	1	0	0	0	0	2272
5:30 PM	to	6:30 PM	0	0	1495	0	0	0	0	0	0	0	650	1	0	0	0	0	2146
5:45 PM	to	6:45 PM	0	0	1307	0	0	0	0	0	0	0	632	0	0	0	0	0	1939
6:00 PM	to	7:00 PM	0	0	1193	0	0	0	0	0	0	0	616	0	0	0	0	0	1809
6:15 PM	to	7:15 PM	0	0	898	0	0	0	0	0	0	0	564	0	0	0	0	0	1462
6:30 PM	to	7:30 PM	0	0	763	0	0	0	0	0	0	0	531	0	0	0	0	0	1294
6:45 PM	to	7:45 PM	0	0	698	0	0	0	0	0	0	0	474	0	0	1	0	0	1173
7:00 PM	to	8:00 PM	0	0	612	0	0	0	0	0	0	0	430	0	0	1	0	0	1043
Peak Hour	**PHF**	**Start Time**																	
AM	0.855	8:00 AM	0	1	696	0	0	0	0	1	0	6	1848	0	0	2	0	0	2554
Midday	0.919	12:00 PM	0	0	1010	0	0	0	0	7	0	5	803	1	0	0	0	0	1826
PM	0.791	4:45 PM	0	0	1722	0	0	0	0	0	0	0	660	1	0	0	0	0	2383

Mulryan Engineering, P.C. **Table No. 11**

Hamlet: Village of Roslyn
Project No. M18-019

Turning Movement Counts
Saturday, June 30, 2018

Mill Creek South at Old Northern Boulevard		Southbound				Westbound				Northbound				Eastbound				Vehicle
		U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
Sat Turning Movement Counts	12:00 PM	0	0	177	0	0	0	0	0	0	0	142	0	0	0	0	0	319
	12:15 PM	0	0	153	0	0	0	0	0	0	0	133	0	0	0	0	0	286
	12:30 PM	0	0	134	0	0	0	0	1	0	0	133	0	0	0	0	0	268
	12:45 PM	0	0	160	0	0	0	0	0	0	0	98	1	0	0	0	0	259
	1:00 PM	0	0	125	0	0	0	0	1	0	0	122	0	0	0	0	0	248
	1:15 PM	0	0	159	0	0	0	0	0	0	0	126	0	0	0	0	0	285
	1:30 PM	0	0	154	0	0	0	0	0	0	0	124	0	0	0	0	0	278
	1:45 PM	0	0	167	0	0	0	0	0	0	0	118	1	0	0	0	0	286
	2:00 PM	0	0	155	0	0	0	0	0	0	0	157	0	0	0	0	0	312
	2:15 PM	0	0	145	0	0	0	0	2	0	0	130	0	0	0	0	1	278
	2:30 PM	0	0	130	0	0	0	0	0	0	0	114	0	0	0	0	0	244
	2:45 PM	0	1	146	0	0	0	0	0	0	0	103	0	0	0	0	0	250
12:00 PM to	1:00 PM	0	0	624	0	0	0	0	1	0	0	506	1	0	0	0	0	1132
12:15 PM to	1:15 PM	0	0	572	0	0	0	0	2	0	0	486	1	0	0	0	0	1061
12:30 PM to	1:30 PM	0	0	578	0	0	0	0	2	0	0	479	1	0	0	0	0	1060
12:45 PM to	1:45 PM	0	0	598	0	0	0	0	1	0	0	470	1	0	0	0	0	1070
1:00 PM to	2:00 PM	0	0	605	0	0	0	0	1	0	0	490	1	0	0	0	0	1097
1:15 PM to	2:15 PM	0	0	635	0	0	0	0	0	0	0	525	1	0	0	0	0	1161
1:30 PM to	2:30 PM	0	0	621	0	0	0	0	2	0	0	529	1	0	0	0	1	1154
1:45 PM to	2:45 PM	0	0	597	0	0	0	0	2	0	0	519	1	0	0	0	1	1120
2:00 PM to	3:00 PM	0	1	576	0	0	0	0	2	0	0	504	0	0	0	0	1	1084
Peak Hour	**PHF**	**Start Time**																
Sat	0.930	1:15 PM	0	0	635	0	0	0	0	0	0	0	525	1	0	0	0	0	1161

Mulryan Engineering, P.C. **Table No. 12**

Hamlet: Village of Roslyn
Project No. M18-019

Trip Generation Calculations

Proposed Development

Land Use Description: Roslyn Landing Phase I
Independent Variable: Number of Units
Variable: 28
Source: * Turing Movement Counts

	Directional Distribution	Rate	Standard Deviation	Adjustment Factor	Driveway Volume
7-9 AM Peak Hour Enter	69%	0.32	0.00	1.00	9
7-9 AM Peak Hour Exit	31%	0.14	0.00	1.00	4
7-9 AM Peak Hour Total	100%	0.46	0.00	1.00	13
12-2 PM Peak Hour Enter	38%	0.21	0.00	1.00	6
12-2 PM Peak Hour Exit	63%	0.36	0.00	1.00	10
12-2 PM Peak Hour Total	100%	0.57	0.00	1.00	16
3-8 PM Peak Hour Enter	29%	0.07	0.00	1.00	2
3-8 PM Peak Hour Exit	71%	0.18	0.00	1.00	5
3-8 PM Peak Hour Total	100%	0.25	0.00	1.00	7
Saturday Peak Hour Enter	22%	0.07	0.00	1.00	2
Saturday Peak Hour Exit	78%	0.25	0.00	1.00	7
Saturday Peak Hour Total	100%	0.32	0.00	1.00	9

* Turning movements were collected at the intersection of Old Northern Boulverad and Mill Creek South. This intersection also provides access to the The Junior League of Long Island Thrift Shop located at 1395 Old Northern Boulevard. The turning movement counts also include vehicles that enter the roadway and make u-turns. The trip generation numbers represented vehilces entering and exiting the residential development during the peak hour of the intersection.

Estimated Trip Generation of Phase II (50 units)

7-9 AM Peak Hour Enter	69%	0.32	0.00	1.00	16
7-9 AM Peak Hour Exit	31%	0.14	0.00	1.00	7
7-9 AM Peak Hour Total	100%	0.46	0.00	1.00	23
12-2 PM Peak Hour Enter	38%	0.21	0.00	1.00	11
12-2 PM Peak Hour Exit	63%	0.36	0.00	1.00	18
12-2 PM Peak Hour Total	100%	0.57	0.00	1.00	29
3-8 PM Peak Hour Enter	29%	0.07	0.00	1.00	4
3-8 PM Peak Hour Exit	71%	0.18	0.00	1.00	9
3-8 PM Peak Hour Total	100%	0.25	0.00	1.00	13
Saturday Peak Hour Enter	22%	0.07	0.00	1.00	4
Saturday Peak Hour Exit	78%	0.25	0.00	1.00	13
Saturday Peak Hour Total	100%	0.32	0.00	1.00	16

Mulryan Engineering, P.C. **Table No. 13**

Hamlet: Village of Roslyn
Project No. M18-019

17 Lumber Road
ITE Trip Generation Data

	AM	MID	PM	Sat
Enter	**1**	**1**	**1**	**1**
Exit	**1**	**1**	**1**	**1**
Total	2	2	2	2

Lumber Road at Old Northern Boulevard		Southbound				Westbound				Northbound				Eastbound				
		U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
Distribution	Entering						**50%**										**50%**	100%
	Exiting		**50%**		**50%**													100%
Site Generated Volume	AM	---	0.5	---	0.5	---	0.5	---	---	---	---	---	---	---	---	---	0.5	2
Other Planned Projects	Midday	---	0.5	---	0.5	---	0.5	---	---	---	---	---	---	---	---	---	0.5	2
5 Studio Units	PM	---	0.5	---	0.5	---	0.5	---	---	---	---	---	---	---	---	---	0.5	2
	SAT	---	0.5	---	0.5	---	0.5	---	---	---	---	---	---	---	---	---	0.5	2

Roslyn Landing Phase II
Site Specific Trip Generation Data

	AM	MID	PM	Sat
Enter	**16**	**11**	**4**	**4**
Exit	**7**	**18**	**9**	**13**
Total	23	29	13	17

Lumber Road at Old Northern Boulevard		Southbound				Westbound				Northbound				Eastbound				
		U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
Distribution	Entering															**50%**		50%
	Exiting							**50%**										50%
Site Generated Volume	AM	---	---	---	---	---	---	3.5	---	---	---	---	---	---	---	8.0	---	12
Other Planned Projects	Midday	---	---	---	---	---	---	9.0	---	---	---	---	---	---	---	5.5	---	15
Roslyn Landing Phase II	PM	---	---	---	---	---	---	4.5	---	---	---	---	---	---	---	2.0	---	7
50 Units	SAT	---	---	---	---	---	---	6.5	---	---	---	---	---	---	---	2.0	---	9

Growth Factor: 1.00%
No. of Years: 2
Growth Rate: 1.020

Proposed Project
ITE Trip Generation Data

	AM	MID	PM	Sat
Enter	**3**	**7**	**7**	**6**
Exit	**7**	**4**	**5**	**6**
Total	10	11	12	12

Lumber Road at Old Northern Boulevard		Southbound				Westbound				Northbound				Eastbound				
		U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	U-Turn	Right	Through	Left	Total
Distribution	Entering						**50%**										**50%**	100%
	Exiting		**50%**		**50%**													100%
Site Generated Volume	AM	---	3.5	---	3.5	---	1.5	---	---	---	---	---	---	---	---	---	1.5	10
	Midday	---	2.0	---	2.0	---	3.5	---	---	---	---	---	---	---	---	---	3.5	11
	PM	---	2.5	---	2.5	---	3.5	---	---	---	---	---	---	---	---	---	3.5	12
	SAT	---	3.0	---	3.0	---	3.0	---	---	---	---	---	---	---	---	---	3.0	12
Existing AM Peak Hour	8:00 AM	0	23	0	14	0	23	427	0	0	0	0	0	0	0	299	38	824
Existing PM Peak Hour	12:15 PM	0	79	0	41	0	32	405	0	0	0	0	0	0	0	621	76	1254
Existing Midday Peak Hour	4:00 PM	0	56	0	21	0	15	329	0	0	0	0	0	0	0	634	59	1114
Existing Sat Peak Hour	12:00 PM	0	56	0	23	0	18	251	0	0	0	0	0	0	0	516	45	909
AM Adjusted Flow Rate	0.862	---	27	0	16	---	27	495	0	---	0	0	0	---	0	347	44	956
Midday Adjusted Flow Rate	0.968	---	82	0	42	---	33	419	0	---	0	0	0	---	0	642	79	1296
PM Adjusted Flow Rate	0.916	---	61	0	23	---	16	359	0	---	0	0	0	---	0	692	64	1216
Sat Adjusted Flow Rate	0.924	---	61	0	25	---	19	272	0	---	0	0	0	---	0	559	49	984
Ambient No Build AM	1.020	---	27	0	17	---	27	505	0	---	0	0	0	---	0	354	45	975
Ambient No Build Midday	1.020	---	83	0	43	---	34	427	0	---	0	0	0	---	0	655	80	1322
Ambient No Build PM	1.020	---	62	0	23	---	17	366	0	---	0	0	0	---	0	706	66	1240
Ambient No Build Sat	1.020	---	62	0	25	---	20	277	0	---	0	0	0	---	0	570	50	1004
No Build AM Peak Hour		---	28	0	17	---	28	509	0	---	0	0	0	---	0	362	45	989
No Build Midday Peak Hour		---	84	0	44	---	34	436	0	---	0	0	0	---	0	660	81	1338
No Build PM Peak Hour		---	63	0	24	---	17	371	0	---	0	0	0	---	0	708	66	1249
No Build Sat Peak Hour		---	62	0	26	---	20	284	0	---	0	0	0	---	0	572	50	1014
Build AM Peak Hour		---	31	0	21	---	29	509	0	---	0	0	0	---	0	362	47	999
Build Midday Peak Hour		---	86	0	46	---	38	436	0	---	0	0	0	---	0	660	84	1349
Build PM Peak Hour		---	65	0	26	---	21	371	0	---	0	0	0	---	0	708	70	1261
Build Sat Peak Hour		---	65	0	29	---	23	284	0	---	0	0	0	---	0	572	53	1026

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	347	495	27	16	27
Future Vol, veh/h	44	347	495	27	16	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	347	495	27	16	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	522	0	-	0	944	509
Stage 1	-	-	-	-	509	-
Stage 2	-	-	-	-	435	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1044	-	-	-	291	564
Stage 1	-	-	-	-	604	-
Stage 2	-	-	-	-	653	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1044	-	-	-	276	564
Mov Cap-2 Maneuver	-	-	-	-	276	-
Stage 1	-	-	-	-	573	-
Stage 2	-	-	-	-	653	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	14.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1044	-	-	-	406
HCM Lane V/C Ratio	0.042	-	-	-	0.106
HCM Control Delay (s)	8.6	0	-	-	14.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	362	509	28	17	28
Future Vol, veh/h	45	362	509	28	17	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	362	509	28	17	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	537	0	-	0	975	523
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	452	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1031	-	-	-	279	554
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	641	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1031	-	-	-	264	554
Mov Cap-2 Maneuver	-	-	-	-	264	-
Stage 1	-	-	-	-	562	-
Stage 2	-	-	-	-	641	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1031	-	-	-	392
HCM Lane V/C Ratio	0.044	-	-	-	0.115
HCM Control Delay (s)	8.7	0	-	-	15.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	362	509	29	21	31
Future Vol, veh/h	47	362	509	29	21	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	362	509	29	21	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	538	0	-	0	980	524
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	456	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1030	-	-	-	277	553
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	638	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1030	-	-	-	261	553
Mov Cap-2 Maneuver	-	-	-	-	261	-
Stage 1	-	-	-	-	560	-
Stage 2	-	-	-	-	638	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1030	-	-	-	381
HCM Lane V/C Ratio	0.046	-	-	-	0.136
HCM Control Delay (s)	8.7	0	-	-	15.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	79	642	419	33	42	82
Future Vol, veh/h	79	642	419	33	42	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	79	642	419	33	42	82

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	452	0	-	0	1236	436
Stage 1	-	-	-	-	436	-
Stage 2	-	-	-	-	800	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1109	-	-	-	195	620
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	442	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1109	-	-	-	173	620
Mov Cap-2 Maneuver	-	-	-	-	173	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	442	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	22.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1109	-	-	-	331
HCM Lane V/C Ratio	0.071	-	-	-	0.375
HCM Control Delay (s)	8.5	0	-	-	22.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.7

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	81	660	436	34	44	84
Future Vol, veh/h	81	660	436	34	44	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	81	660	436	34	44	84

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	470	0	-	0	1275	453
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	822	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1092	-	-	-	184	607
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	432	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1092	-	-	-	162	607
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	432	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	24.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1092	-	-	-	312
HCM Lane V/C Ratio	0.074	-	-	-	0.41
HCM Control Delay (s)	8.6	0	-	-	24.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	1.9

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	660	436	38	46	86
Future Vol, veh/h	84	660	436	38	46	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	660	436	38	46	86

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	474	0	-	0	1283	455
Stage 1	-	-	-	-	455	-
Stage 2	-	-	-	-	828	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1088	-	-	-	182	605
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	429	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1088	-	-	-	160	605
Mov Cap-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	429	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	25.3
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1088	-	-	-	307
HCM Lane V/C Ratio	0.077	-	-	-	0.43
HCM Control Delay (s)	8.6	0	-	-	25.3
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	2.1

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	692	359	16	23	61
Future Vol, veh/h	64	692	359	16	23	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	692	359	16	23	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	375	0	-	0	1187	367
Stage 1	-	-	-	-	367	-
Stage 2	-	-	-	-	820	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1183	-	-	-	208	678
Stage 1	-	-	-	-	701	-
Stage 2	-	-	-	-	433	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1183	-	-	-	190	678
Mov Cap-2 Maneuver	-	-	-	-	190	-
Stage 1	-	-	-	-	639	-
Stage 2	-	-	-	-	433	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1183	-	-	-	398
HCM Lane V/C Ratio	0.054	-	-	-	0.211
HCM Control Delay (s)	8.2	0	-	-	16.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.8

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	66	708	371	17	24	63
Future Vol, veh/h	66	708	371	17	24	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	708	371	17	24	63

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	388	0	-	0	1220	380
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	840	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1170	-	-	-	199	667
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	424	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1170	-	-	-	180	667
Mov Cap-2 Maneuver	-	-	-	-	180	-
Stage 1	-	-	-	-	627	-
Stage 2	-	-	-	-	424	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1170	-	-	-	382
HCM Lane V/C Ratio	0.056	-	-	-	0.228
HCM Control Delay (s)	8.3	0	-	-	17.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	708	371	21	26	65
Future Vol, veh/h	70	708	371	21	26	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	70	708	371	21	26	65

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	392	0	-	0	1230	382
Stage 1	-	-	-	-	382	-
Stage 2	-	-	-	-	848	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1167	-	-	-	196	665
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	420	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1167	-	-	-	177	665
Mov Cap-2 Maneuver	-	-	-	-	177	-
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	420	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	17.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1167	-	-	-	372
HCM Lane V/C Ratio	0.06	-	-	-	0.245
HCM Control Delay (s)	8.3	0	-	-	17.8
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.9

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	49	559	272	19	25	61
Future Vol, veh/h	49	559	272	19	25	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	559	272	19	25	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	291	0	-	0	939	282
Stage 1	-	-	-	-	282	-
Stage 2	-	-	-	-	657	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1271	-	-	-	293	757
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	516	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1271	-	-	-	277	757
Mov Cap-2 Maneuver	-	-	-	-	277	-
Stage 1	-	-	-	-	723	-
Stage 2	-	-	-	-	516	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1271	-	-	-	503
HCM Lane V/C Ratio	0.039	-	-	-	0.171
HCM Control Delay (s)	7.9	0	-	-	13.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	572	284	20	26	62
Future Vol, veh/h	50	572	284	20	26	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	572	284	20	26	62

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	304	0	-	0	966	294
Stage 1	-	-	-	-	294	-
Stage 2	-	-	-	-	672	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1257	-	-	-	282	745
Stage 1	-	-	-	-	756	-
Stage 2	-	-	-	-	508	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1257	-	-	-	266	745
Mov Cap-2 Maneuver	-	-	-	-	266	-
Stage 1	-	-	-	-	712	-
Stage 2	-	-	-	-	508	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1257	-	-	-	486
HCM Lane V/C Ratio	0.04	-	-	-	0.181
HCM Control Delay (s)	8	0	-	-	14
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	53	572	284	23	29	65
Future Vol, veh/h	53	572	284	23	29	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	572	284	23	29	65

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	307	0	-	0	974	296
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1254	-	-	-	279	743
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	504	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1254	-	-	-	262	743
Mov Cap-2 Maneuver	-	-	-	-	262	-
Stage 1	-	-	-	-	708	-
Stage 2	-	-	-	-	504	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1254	-	-	-	474
HCM Lane V/C Ratio	0.042	-	-	-	0.198
HCM Control Delay (s)	8	0	-	-	14.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7